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### Version control:

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<td>Scott Walker</td>
<td>Jeff Bush/ Nicky Western</td>
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The Upper Hunter Bicycle Plan (the Plan), sets Council’s direction and framework to establish a bicycle friendly environment over the next 10 years. The Plan’s long term vision for a connected network of on- and off-road bicycle routes that connects key destinations, also identifies a range of cycling infrastructure requirements (e.g. cycle lanes, parking, etc), and behavioural requirements (e.g. education and promotional activities) necessary to deliver the Plan’s vision.

In practical terms the Plan seeks to:
- identify the current and projected cycling needs of Upper Hunter Shire residents and visitors,
- identify Council’s role in the planning and delivery of services through its cycling infrastructure,
- to guide the sustainable development of a connected on-and off-road bicycle network throughout the Shire’s four main towns, including:
  - Scone
  - Aberdeen
  - Merriwa
  - Murrurundi
- identify facilities and infrastructure necessary to support and encourage the use of the bicycle network,
- connect the four main town’s key destinations with a safe bicycle network,
- provide an environment in which people feel confident and safe to walk and cycle,
- provide a culture within the Shire where formed on-road bicycle and shared pathways are included as an equal consideration in the planning and design of all form of development, and
- encourage and promote cycle tourism within the Shire.

The Upper Hunter Shire prides itself as being the ‘clean and green’ Shire within the Upper Hunter Valley. Its quality, rural lifestyle is one of outdoor recreation with numerous parks, sportsgrounds and natural areas offering endless opportunities.

This Plan will contribute to and enhance Council’s strategic vision and actions to achieve sustained and desired economic growth, lifestyle and tourist-based activities that continue to make the Shire a place envied and sought after for its natural beauty and social, economic and community based resources.

The adjacent figure outlines the over-arching strategic framework in which the Plan sits.

![Figure 1. Council’s strategic framework](image-url)
Council’s role

Council has an in-depth knowledge of its individual communities and can influence positive outcomes through its role as a strategic and land use planning authority; a provider and manager of facilities and services; a community leader and as an employer at a local level. As the tier of government closest to the local community, Council leadership on open space can complement the role of other government agencies and non-government organisations. Council’s role in achieving progress towards this Plan includes:

**Core business**
Council decision making, planning and service delivery has a direct impact on achieving progress towards community outcomes e.g. well-planned growth and strong local governance.

**Partnerships**
Council has a key role in partnering with other agencies in achieving progress towards community outcomes e.g. healthy natural environment, quality recreation and cultural opportunities.

**Advocacy**
Council’s role is to advocate and lobby on behalf of local communities in achieving progress towards community outcomes e.g. funding.

Council’s Community Strategic Plan 2013+ outlines the aspirations and objectives of Council and its residents and sets the course for Council over the coming years. Operations and decisions are guided by four key focus areas; social, economic, environmental and civic leadership. It is through these areas Council can plan for and maximise the quality of life for its residents. Through the Community Strategic Plan 2013+ Council aims to ‘provide and maintain a cycleway/footpath network that will contribute to the accessibility, safety and amenity of streets in Council’s towns and villages’.

It is important that the vision and goals of this Plan support the vision and desired outcomes of the Community Strategic Plan 2013+.

**Vision**

A good quality, connected bicycle network plays an important role in a community’s quality of life. It has the potential to encourage one to improve their health, increase social cohesion, promote environmental awareness and appreciation; and attract economic opportunities to the Shire. The following vision sets the desired scene for the Upper Hunter’s bicycle network. It reflects the community’s aspirations (reflective of the information in the strategic plan) and Council’s corporate vision. The Plan’s vision aims to:

“Create a safe, attractive and accessible bicycle network that improves the community’s connections with key destinations and each other and encourages residents of all ages to use their bicycle for everyday transport, improve their health and explore the quality rural lifestyle of the Upper Hunter.”

**Goals**

There are five key goals that form the basis of this Plan, each with numerous actions that contribute to the goals achievement. The five key goals, which are fundamental to achieving Council’s vision, include:

- **GOAL 1** - every street is a bicycle friendly street
- **GOAL 2** - the cycling environment is safe and secure and encourages residents to cycle without fear of accidents and injury
- **GOAL 3** - cycling is integrated into Council’s transport planning processes
- **GOAL 4** - secure and convenient end-of-trip infrastructure is available at key destinations
- **GOAL 5** - increased awareness of bicycle tourism opportunities
Process
Methodology

The methodology used in the development of this Plan has been broken down into five stages. Figure 2 shows the sequential development of the strategic framework and detailed analysis of Upper Hunter Shire’s four main towns (Scone, Aberdeen, Merriwa and Murrurundi) bicycle network. The information gathered and generated throughout this process provides the various outputs required for this Plan. The stages are:

- **stage 1: background research**
  - document review
  - trends analysis (demographic, participation and industry)

- **stage 2: existing network audit**
  - site inspections

- **stage 3: community engagement**
  - Mayor and Councillors
  - Council officers
  - primary school children
  - community survey (online, telephone and hard copy)
  - additional stakeholders

- **stage 4: draft preparation**
  - draft bicycle plan
  - presentation of draft to Council

- **stage 5: finalisation of Study**
  - presentation to Council and finalisation

Figure 2. Methodology used for the development of this Plan
**Document review**

A number of background documents were reviewed in the development of this Plan. The documents have been divided between strategic and land use planning and bicycle planning literature. Each document has been categorised based on its most applicable sphere of influence: State or Regional influence, Local Government Area (LGA) or a specific area within the Shire.

**Strategic and land-use planning**

<table>
<thead>
<tr>
<th>State/Regional</th>
<th>Council</th>
<th>Area/site specific</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Hunter Regional Plan 2013-2023</td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ Upper Hunter Strategic Regional Land Use Plan 2012</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Bicycle planning**

<table>
<thead>
<tr>
<th>National/State/Regional</th>
<th>Council</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Australian Cycling Participation (Results of the 2013 National Cycling Participation Survey) 2011-2016</td>
<td>☐ Parks Asset Management Plan 2011</td>
</tr>
<tr>
<td>☐ NSW Bike Plan 2010</td>
<td>☐ Community Land Generic Plan of Management - Sportsgrounds</td>
</tr>
<tr>
<td>☐ NSW Bicycle Guidelines 2005</td>
<td>☐ Open Space and Recreation Needs Study 2014 (Draft)</td>
</tr>
<tr>
<td>☐ NSW Department of Transport, Roads and Maritime Services, Scone - Kelly Street Level Crossing - Options assessment and feasibility report 2014</td>
<td></td>
</tr>
</tbody>
</table>
Influences on cycling in the Upper Hunter

Influence of community profile

Social profile

The way in which a community uses the surrounding open space and participates in recreation and sport activities is largely influenced by age. Understanding the spatial and demographic variations in communities, such as concentrations of older residents or youth, is fundamental to responding to, and planning for the future provision of recreation and sports facilities and programs.

With an average age of 39 years, the Upper Hunter residents are relatively young compared to surrounding councils (Gloucester, Dungog, Liverpool Plains and Tamworth). However, consistent with State trends, the community is ageing.

As a population ages, the demand for passive and informal recreation activities increases. Access to playing fields and formal sport opportunities are not as important, with older people generally seeking quality walking/cycling paths to participate in low impact physical activities.

The Upper Hunter still prides itself as being a great destination to live with many lifestyle benefits for families. Just over two thirds (69.8%) of the households in the community are ‘family households’, of which 56.6% have children.

Approximately 19.6% of the Upper Hunter community is school aged (5 to 19 years old). Of those aged between 5 and 19 years, 75.2% live in one of the four main towns (Scone, Aberdeen, Murrurundi and Merriwa). Assuming the majority of primary school aged children attend the local primary school, there is tremendous scope for increased cycling within these towns.

Currently, up to 20% of trips within Australia are less than 5km. In 2011, the main method of transport to work by the Upper Hunter community was the car, accounting for 86.1% of all trips. Scone, the largest town in the Shire, is approximately 5km wide and relatively flat. An ideal distance and environment to promote and encourage cycling as the preferred method of transport for short trips (5km).

Compared to the rest of the Shire, Murrurundi has a relatively high proportion of residents without access to a motor vehicle (11.2%). Improving access to safe and quality walking/cycling paths within areas like Murrurundi can help prevent social isolation and create a greater sense of personal independence.

A snapshot!

<table>
<thead>
<tr>
<th>Total population</th>
<th>13,822</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age group</td>
<td></td>
</tr>
<tr>
<td>0-4 years</td>
<td>7.0%</td>
</tr>
<tr>
<td>5-14 years</td>
<td>13.7%</td>
</tr>
<tr>
<td>15-19 years</td>
<td>5.9%</td>
</tr>
<tr>
<td>20-24 years</td>
<td>5.8%</td>
</tr>
<tr>
<td>25-34 years</td>
<td>12.2%</td>
</tr>
<tr>
<td>35-44 years</td>
<td>13.0%</td>
</tr>
<tr>
<td>45-54 years</td>
<td>13.8%</td>
</tr>
<tr>
<td>55-64 years</td>
<td>12.5%</td>
</tr>
<tr>
<td>65 year and over</td>
<td>16.1%</td>
</tr>
<tr>
<td>Median age</td>
<td>39</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Household composition</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Family household</td>
<td>69.8%</td>
</tr>
<tr>
<td>Lone household</td>
<td>27.2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Method of transport to work (one method)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Car (driver or passenger)</td>
<td>86.1%</td>
</tr>
<tr>
<td>Walked only</td>
<td>8.4%</td>
</tr>
<tr>
<td>Bus</td>
<td>0.4%</td>
</tr>
<tr>
<td>Bicycle</td>
<td>0.4%</td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>People without access to a motor vehicle</td>
<td>6.4%</td>
</tr>
<tr>
<td>People requiring assistance with daily activities</td>
<td>4.4%</td>
</tr>
</tbody>
</table>
Population growth

Minimal growth is expected in the Upper Hunter Shire over the next ten years (less than 1.0%\(^1\)). However, the Shire is recognised as a preferred residential location for workers employed in surrounding councils due to its proximity to the mining regions and its lifestyle benefits. There are several factors that may influence this growth, the major one being coal mine development around Muswellbrook with the resultant demand for housing in Aberdeen and Scone.

There are other sources of population growth evident within the Shire, the major being migration of workers and their families to the region, ‘tree changers’ looking for a more relaxed lifestyle and net positive birth rate\(^2\).

Although growth in the Shire is minimal, it is expected that the proportion of people looking for flexible, low cost recreation, such as cycling, will increase.

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\(^1\) Upper Hunter Shire 2011: Economic Development and Tourism Strategic Plan 2010
Type of cyclist

Cycling is a type of physical activity that can be enjoyed by all ages and abilities. The reason why one chooses to cycle varies among riders, and as such, cyclists have been categorised into eight different types, as summarised in Table 1.

Each group has their own riding characteristics and requirements. Identifying the different types of cyclists, council’s are able to plan their cycle network accordingly and ensure the network meets the needs of more than one type of cyclist.

Table 1. Types of cyclists and their characteristics

<table>
<thead>
<tr>
<th>Type of cyclist</th>
<th>Rider characteristics</th>
<th>Riding environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-cyclists and potential cyclists</td>
<td>Do not currently ride, have potential to with effective encouragement</td>
<td>Generally would begin with off-road paths, footpaths (where permitted) or very low volume residential streets</td>
</tr>
<tr>
<td>Primary school children</td>
<td>Cognitive skills not developed, little knowledge of road rules, require supervision</td>
<td>Off-road path, footpath (where permitted) or very low volume residential street</td>
</tr>
<tr>
<td>Secondary school children</td>
<td>Skill varies, developing confidence</td>
<td>Generally use on-road facilities or off-road paths where available</td>
</tr>
<tr>
<td>Recreation</td>
<td>Experience, age, skills vary greatly</td>
<td>Desire off-road paths and quiet streets, avoid heavily trafficked routes, more experienced will prefer to use road system for long journeys</td>
</tr>
<tr>
<td>Commuter</td>
<td>Vary in ages, skill and fitness, some highly skilled and able to handle a variety of traffic conditions</td>
<td>Some prefer paths or low-stress roads, willing to take longer to get to destination, others want quick trips regardless of traffic conditions, primarily require space to ride and smooth riding surface for speed maintenance</td>
</tr>
<tr>
<td>Utility</td>
<td>Ride for specific purpose (shopping), short length trips, routes unpredictable</td>
<td>Not on highly trafficked roads, needs include comprehensive, low-stress routes with appropriate end-of-trip facilities</td>
</tr>
<tr>
<td>Touring</td>
<td>Long distance journeys, maybe heavily equipped, some travelling in groups</td>
<td>Often route is similar to that of other tourists</td>
</tr>
<tr>
<td>Sporting</td>
<td>Often in groups, two abreast occupying left lane, needs similar to commuters</td>
<td>Travel long distances in training on arterials, may include challenging terrain in outer urban or rural areas, generally do not use off-road routes because of high speed and conflict with other users</td>
</tr>
<tr>
<td>Mountain Biking</td>
<td>Recreational riders seeking adventure</td>
<td>Prefer a natural setting, generally non-urban areas such as National Parks</td>
</tr>
</tbody>
</table>
Participation trends

Understanding participation trends at a national and state level can provide councils with a general overview of how and what types of activities people are choosing to participate in, which can assist in the future planning of programs and facilities.

The National Cycle Strategy aims to double Australia’s participation rates in cycling between 2011 and 2016. To measure this performance, a biennial National Cycling Participation Survey is conducted.

Between 2011 and 2013, cycling participation rates did not change at a state level, however, a statistically significant decrease in participation rates was observed in regional NSW.2

<table>
<thead>
<tr>
<th>Frequency of participation</th>
<th>Regional NSW</th>
<th>Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ride more frequently</td>
<td>14.8%</td>
<td>19.7%</td>
</tr>
<tr>
<td>Ride the same</td>
<td>45.3%</td>
<td>51.4%</td>
</tr>
<tr>
<td>Ride less frequently</td>
<td>39.9%</td>
<td>28.9%</td>
</tr>
</tbody>
</table>

Despite people riding less frequently, the percentage of cyclists in regional NSW that were new to cycling or have started to cycle again, after a break of 12 months or more, was significantly higher than the Australian average.

Figure 3: Cycling participation rates in regional NSW by frequency of participation between 2011 and 2013

2 Any where in NSW, excluding the Sydney metropolitan area

3 Austroads 2013, Australian Cycling Participation 2013
Participation by gender and age

Consistent with national trends, males in regional NSW are more likely to cycle than females (Figure 4).

Trends also show that cycling participation rates are much higher among the youth and than decrease as people get older (Figure 4). Considering the sport is low impact, in theory, participation rates should increase in those aged over 50 years who tend to look for low impact physical activities.

Cycling is low impact on one’s joints and therefore is a great form of exercise for all ages and fitness levels

Children’s participation rates in cycling have varied between 2006 and 2012. A significant decrease was observed between 2006 and 2009, however, results in 2012 indicate that these participation rates are on the rise again, for both males and females.

Bicycle ownership

The average NSW household has 1.38 working bicycles, slightly lower than the Australian average (1.5). However, just under half (48.8\%) of NSW households do not have access to a working bicycle, the highest percentage in Australia.

Table 3. Number of working bicycles per household

<table>
<thead>
<tr>
<th>Number of bicycles per household</th>
<th>Regional NSW</th>
<th>NSW</th>
<th>Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>none</td>
<td>48%</td>
<td>49%</td>
<td>45%</td>
</tr>
<tr>
<td>one</td>
<td>14%</td>
<td>15%</td>
<td>17%</td>
</tr>
<tr>
<td>two</td>
<td>13%</td>
<td>14%</td>
<td>15%</td>
</tr>
<tr>
<td>three or more</td>
<td>25%</td>
<td>22%</td>
<td>23%</td>
</tr>
</tbody>
</table>

Cycling is low impact on one’s joints and therefore is a great form of exercise for all ages and fitness levels

Figure 4. The figure shows participation rates for regional NSW by gender between 2011 and 2013 and the 2013 participation rates for regional NSW and Australia by age cohort

---

4 ABS Children’s Participation in Cultural and Leisure Activities 2012
Participation barriers

Understanding why people choose not to cycle for recreation or transportation purposes helps councils and other organisations to develop strategies and programs to eliminate and overcome the perceived barriers. Participation barriers towards cycling can be divided into three types of barriers:

- emotional,
- physical, and
- practical.

Emotional barriers

Perception of safety

A variety of studies have been conducted by the Department of Roads and Maritime Services and education institutions to identify and understand cycling participation barriers. While there are a number of reasons why people prefer other modes of transport over the bicycle, the main barrier to cycling in Australia, is the perception that our roads are too dangerous and unsafe for cyclists.

Although many local councils have started to incorporate bicycle network infrastructure along their roads and footpaths, riders still feel vulnerable on the road. Both cyclists and non-cyclists reported that:

- bike lanes don’t provide the level of security they are designed to,
- many motorists don’t notice or respect bike lanes,
- cyclists are vulnerable to parked cars opening doors, and
- many people are unsure about, or don’t understand the rules and regulations regarding cycling on footpaths.

Parent’s perception of cycling as an unsafe mode of transport has also affected the number of children that cycle to school. The presence of bike lanes and footpaths had little influence on whether or not the children were allowed to ride. While the majority of parents were aware that their children were allowed to cycle on the footpaths, the possible danger of their children crossing the road, some of which may or may not be busy, was an over arching concern. Many did not trust that their children have sufficient road skills or the confidence to be able to handle busy traffic situations.

In rural areas similar to the Upper Hunter Shire, the streets around the main towns are often wide enough to allow for safe cycling. However, outside of these towns, many rural cyclists have to cycle on highways where speed limits exceed 100km per hour. Many rural cyclists reported that they often have to ride on the gravel road verge to avoid cars and trucks that won’t/choose not to, go around them.

Cycling safety statistics

- cycling trauma is relatively low, accounting for 4% of injuries and fatalities on NSW roads
  - it is acknowledged that many bicycle riders who are injured do not report their crashes to the police
- almost half of fatalities that occur on the road are within a 60km per hour or greater speed limit zone
  - one third of these occurred on motorways or state highways
- the majority of fatalities occurred at mid block locations on two way undivided roads
- 60% of injuries occurred at intersections
- injuries occurred on roads with a speed limit of 50km per hour or less
- injuries and fatalities are more prevalent during two time periods (6am to 10am and 2pm to 6pm)
- almost half of injuries and fatalities involve another vehicle turning across the path of the bicycle rider
- young people under 17 years of age have the highest rate of non-helmet usage among injuries

Upper Hunter Shire

- between 2008 and 2012 : 3 pedal cyclists were either injured or killed (1 killed)

Source: RMS 2014, Interactive Crash Statistics
**Negative image of cyclists**

There is no debating that there is an ongoing battle between cyclists, particularly road cyclists, and motor vehicle drivers about who has the right to the road. Many motor vehicle drivers, some of which are recreation or commuter cyclists themselves, believe that cars and cyclists don’t mix on the road, especially during peak traffic times.

This lack of respect for cyclists and fear of abuse/confrontation from motor vehicle drivers is a growing participation barrier for both non-cyclists and cyclists interested in using the road as a faster route to their destination.

**Boredom, lack of motivation**

Some non-cyclists find cycling boring or feel that there is nothing interesting to look at or worth cycling to in their area. This is especially true for recreation cyclists. Rural cyclists often reported that they would cycle more if they lived in a city like Melbourne or Sydney, where there are numerous places of interest to visit and a variety of routes to key destinations, unlike rural towns, where the number of destinations and routes are limited.

While many acknowledge that cycling with a friend or group is a great way of overcoming the boredom and making the activity more of a social event, concerns about safety and the fear of motor vehicle drivers’ attitudes towards cyclists that ride abreast are also hard to overcome.

---

**Physical barriers**

**Infrastructure**

The lack of, or poorly designed cycling infrastructure is a common participation barrier for cyclists and non-cyclists. As safety is the most significant barrier, well connected, quality off-road cycle paths provide recreation and casual riders and families with a ‘safe’ place to ride, while separating them from the road and motor vehicles.

In already built up areas, it is often too difficult for councils to provide off-road cycle paths. As an alternative, many designate a section of the road as a ‘bike lane’. While bike lanes are seen to assist in alleviating safety concerns on roads, anecdotal evidence suggests that they do not provide the level of security they were designed to. In addition, bike lanes, particularly in Australia, are not considered best practice and design in regards to cycling infrastructure and can often create unsafe environments for cyclists. Examples include:

- bike lanes often end at intersections, particularly at round-abouts, posing problems for cyclists and motorists, and
- complex traffic interchanges, bridges with no hard shoulders on them, and awkward lane changes all pose additional difficulties for cyclists, both in terms of them knowing where to position their bikes on the road and the threat to their personal safety.

Infrastructure such as night lighting, benches, water bubblers and distance indicators are simple supportive embellishments that can make a ride more comfortable and enjoyable for cyclists.

**Time**

Time is a key determinant in choosing whether to cycle or drive to a destination. Many people feel they lack the time to cycle to their destination (most likely work), then cool down and shower, especially if they have children.

**Weather**

Weather is a common reason why people choose not to cycle, especially to work. Despite the long hours of daylight during the summer months, the high temperatures make it too uncomfortable for many to ride and the time required for them to cool down once they reach their destination is too long.

In the colder months of the year, weather is considered less of a barrier to cycling, however, the shorter daylight hours raised safety concerns among cyclists and non-cyclists.

---

5 Victorian Department of Transport (Walking and Cycling Branch) 2009, Encouraging Walking and Cycling: Focus Group (Final Report)
Practical barriers

Convenience

The journey to and from work for many people often involves a number of stops at different destinations. The convenience of the private motor vehicle is hard to overlook when choosing between the car or bicycle as the preferred mode of transportation for a trip. Many people feel that the bicycle restricts their ability to change plans/destinations, and carry goods such as groceries.

Even those that cycled regularly for recreation or fitness, admitted that they preferred to drive to work, especially if they had children. The car also allowed them to travel to work in comfort, without having to worry about the climate, wearing a helmet, change of clothes and the availability of showers and other end-of-trip facilities.

End-of-trip facilities

It has only been in the last couple of years that councils around Australia have started to rewrite or develop policies to ensure end-of-trip facilities are installed in new major developments or additions to existing developments. Major developments include commercial office buildings, shopping centres, tertiary education facilities and hospitals. Unless one works in these new major developments, many workplaces don’t have comfortable end-of-trip facilities, such as showers, changing areas, lockers and/or secure bicycle storage areas.

The absence of these types of facilities, especially private showers and change areas, is a common reason for people, especially women, choosing not to cycle to work or other destinations.
Upper Hunter participation trends

Participation in cycling

A recent community survey, undertaken as part of the Open Space and Recreation Needs Study 2014, identified cycling (24%) as the third most common physical activity participated in by the local community. Walking (48%) and swimming (29%) were the two most common physical activities at a Shire level. Residents that lived in Murrurundi were the most likely to cycle, with 51% of respondents participating in the activity.

Figure 5. Upper Hunter Shire and main towns participation rates in cycling

Males were more likely to participate in cycling than females. Cycling was also identified as a common physical activity for those aged 18 years and under. A summary of the percentage of respondents participating in cycling, via gender and age cohort, is presented in Table 4.

Table 4. Cycling as the most common physical activity by gender and age cohort

<table>
<thead>
<tr>
<th>Age cohort</th>
<th>Females</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 18 years</td>
<td>ranked 2nd (69.6%)</td>
<td>ranked 5th (50.0%)</td>
</tr>
<tr>
<td>18 to 34 years</td>
<td>ranked 11th (23.3%)</td>
<td>did not participate</td>
</tr>
<tr>
<td>35 to 49 years</td>
<td>ranked 8th (24.5%)</td>
<td>ranked 5th (26.3%)</td>
</tr>
<tr>
<td>50 to 64 years</td>
<td>ranked 9th (8.3%)</td>
<td>ranked 8th (6.7%)</td>
</tr>
<tr>
<td>65 years and over</td>
<td>ranked 12th (4.1%)</td>
<td>ranked 3rd (22.2%)</td>
</tr>
<tr>
<td>Total</td>
<td>ranked =4th (21.5%)</td>
<td>ranked =2nd (29.2%)</td>
</tr>
</tbody>
</table>
Bicycle ownership

Bicycle ownership in the Upper Hunter Shire is much higher than both the regional NSW and NSW averages. Just under two thirds (63.8%) of those surveyed had two or more bicycles in their household.

Only 23.5% of the respondents across the Shire did not have access to a working bicycle within their household, significantly lower than the state (48%) and national (45%) average.

Table 5. Household bicycle ownership in the Upper Hunter Shire and four main towns and rural areas

<table>
<thead>
<tr>
<th>Number of bicycles per household</th>
<th>Shire</th>
<th>Scone</th>
<th>Aberdeen</th>
<th>Merriwa</th>
<th>Murrurundi</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>23.5%</td>
<td>22.8%</td>
<td>25.0%</td>
<td>25.5%</td>
<td>29.0%</td>
<td>16.9%</td>
</tr>
<tr>
<td>One</td>
<td>12.7%</td>
<td>10.6%</td>
<td>13.5%</td>
<td>19.1%</td>
<td>11.3%</td>
<td>15.3%</td>
</tr>
<tr>
<td>Two or more</td>
<td>63.8%</td>
<td>66.7%</td>
<td>61.5%</td>
<td>55.3%</td>
<td>59.7%</td>
<td>67.8%</td>
</tr>
</tbody>
</table>

Survey respondents were asked to identify the users of the bicycles within each household. The distribution of bicycle usage was relatively even between children, teenager and adults (Figure 6).

Figure 6. Users of household bicycles in the Upper Hunter Shire

The main household users varied across the four main towns and rural area. Adults were more likely to use the household bicycle in Scone, Aberdeen and rural areas, compared to teenagers in Merriwa and children in Murrurundi (Table 6).

Table 6. Users of household bicycles in the Shire’s four main towns and rural areas

<table>
<thead>
<tr>
<th>User</th>
<th>Scone</th>
<th>Aberdeen</th>
<th>Merriwa</th>
<th>Murrurundi</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child</td>
<td>30.1%</td>
<td>28.1%</td>
<td>31.0%</td>
<td>40.7%</td>
<td>32.9%</td>
</tr>
<tr>
<td>Teenager</td>
<td>27.0%</td>
<td>29.7%</td>
<td>32.8%</td>
<td>26.7%</td>
<td>24.7%</td>
</tr>
<tr>
<td>Adult</td>
<td>33.2%</td>
<td>37.5%</td>
<td>27.6%</td>
<td>27.9%</td>
<td>36.5%</td>
</tr>
<tr>
<td>Older adult</td>
<td>9.8%</td>
<td>4.7%</td>
<td>8.6%</td>
<td>4.7%</td>
<td>5.9%</td>
</tr>
</tbody>
</table>

Shaded areas highlight the most common user of household bicycles.
Reasons to cycle

Respondents were given four main reasons one chooses to cycle based on background research and trends, these include:
- fitness,
- recreation,
- transport, and
- commute to work.

Recreation was the most common response across the Shire, each main town and rural area (Figure 7).

Figure 7. Most common reasons one chooses to cycle in the Upper Hunter Shire

Fitness was the second most consistent reason across the four main towns and rural areas. Interestingly, those living in Murrurundi were the most likely to cycle for transportation reasons at 26.6%. A summary of respondents reasons to cycle is presented in Table 7.

<table>
<thead>
<tr>
<th>Reason</th>
<th>Scone</th>
<th>Aberdeen</th>
<th>Merriwa</th>
<th>Murrurundi</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fitness</td>
<td>29.6%</td>
<td>38.3%</td>
<td>36.4%</td>
<td>33.0%</td>
<td>33.9%</td>
</tr>
<tr>
<td>Recreation</td>
<td>53.8%</td>
<td>53.2%</td>
<td>45.5%</td>
<td>36.2%</td>
<td>50.0%</td>
</tr>
<tr>
<td>Transport</td>
<td>12.9%</td>
<td>6.4%</td>
<td>15.9%</td>
<td>26.6%</td>
<td>12.9%</td>
</tr>
<tr>
<td>Commute</td>
<td>3.8%</td>
<td>2.1%</td>
<td>2.3%</td>
<td>4.3%</td>
<td>3.2%</td>
</tr>
</tbody>
</table>

Reasons not to cycle

To gain an understanding of why people within the Upper Hunter Shire choose not to cycle, respondents were asked to identify what discourages them from cycling.

The most common reason discouraging people from cycling within the Upper Hunter Shire was the lack or absence of bicycle paths (29.8%). Interestingly, the Open Space and Recreation Needs Study (2014) identified the need for new/upgraded cycle and walking paths as a future priority for Council.

No interest in cycling was the second most common response, at 24.7%. A summary of the other common reasons is presented in Figure 8.

Figure 8. Most common reasons that discourage respondents in the Upper Hunter Shire from cycling.

Consistent with the Shire trends, the lack or absence of bicycle paths was the most common reason for three of the main towns. No interest was the most common response for Murrurundi and Rural area respondents. It was no surprise that safety concerns were higher in Scone considering it is the central business district of the Shire. Interestingly however, just under 20% of Merriwa respondents did not cycle because of safety concerns. A summary of the reasons discouraging people from cycling at a township level is presented in Table 8.
Table 8. Reasons that discourage people from cycling at a township level

<table>
<thead>
<tr>
<th>Reason</th>
<th>Scone</th>
<th>Aberdeen</th>
<th>Merriwa</th>
<th>Murrurundi</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial cost of buying a bicycle</td>
<td>2.7%</td>
<td>0.0%</td>
<td>8.7%</td>
<td>3.4%</td>
<td>7.8%</td>
</tr>
<tr>
<td>Unable to take small children</td>
<td>13.7%</td>
<td>20.0%</td>
<td>6.5%</td>
<td>11.9%</td>
<td>15.5%</td>
</tr>
<tr>
<td>Difficulties in carrying goods</td>
<td>10.3%</td>
<td>11.5%</td>
<td>6.5%</td>
<td>10.1%</td>
<td>10.0%</td>
</tr>
<tr>
<td>No interest</td>
<td>17.8%</td>
<td>25.7%</td>
<td>26.1%</td>
<td>33.9%</td>
<td>28.9%</td>
</tr>
<tr>
<td>Safety concerns</td>
<td>24.0%</td>
<td>11.4%</td>
<td>19.6%</td>
<td>11.9%</td>
<td>12.2%</td>
</tr>
<tr>
<td>No bicycle paths</td>
<td>31.5%</td>
<td>31.4%</td>
<td>32.6%</td>
<td>28.8%</td>
<td>25.6%</td>
</tr>
</tbody>
</table>

The lack of bicycle paths around the Shire was more of a concern for females, with 35.0% identifying it as a main deterrent from cycling, compared to 25.9% of males. However, more males were discouraged due to safety concerns than females.

Except for those aged 50 years and above, the third most common reason among age cohorts is safety, a trend also observed at a State and National level. Combined with the lack of bicycle paths, it is evident that half of the respondents are not confident that they won’t be hurt/injured cycling around the Shire. The reasons that discourage respondents from cycling by gender and age cohort is shown below in Table 9.

Table 9. Reasons that discourage people from cycling by gender and age cohort

<table>
<thead>
<tr>
<th>Reason</th>
<th>Male</th>
<th>Female</th>
<th>Under 18</th>
<th>18 to 34</th>
<th>35 to 49</th>
<th>50 to 64</th>
<th>65 plus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial cost of buying a bicycle</td>
<td>6.5%</td>
<td>3.7%</td>
<td>9.1%</td>
<td>2.0%</td>
<td>2.1%</td>
<td>3.6%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Unable to take small children</td>
<td>12.2%</td>
<td>13.8%</td>
<td>6.1%</td>
<td>11.7%</td>
<td>12.4%</td>
<td>20.0%</td>
<td>27.4%</td>
</tr>
<tr>
<td>Difficulties in carrying goods</td>
<td>12.2%</td>
<td>8.1%</td>
<td>12.1%</td>
<td>11.8%</td>
<td>9.4%</td>
<td>7.3%</td>
<td>3.9%</td>
</tr>
<tr>
<td>No interest</td>
<td>24.5%</td>
<td>25.6%</td>
<td>25.0%</td>
<td>15.7%</td>
<td>21.9%</td>
<td>29.1%</td>
<td>37.3%</td>
</tr>
<tr>
<td>Safety concerns</td>
<td>18.7%</td>
<td>13.8%</td>
<td>18.2%</td>
<td>15.7%</td>
<td>18.8%</td>
<td>9.1%</td>
<td>9.8%</td>
</tr>
<tr>
<td>No bicycle paths</td>
<td>25.9%</td>
<td>35.0%</td>
<td>29.5%</td>
<td>43.1%</td>
<td>35.4%</td>
<td>30.9%</td>
<td>19.6%</td>
</tr>
</tbody>
</table>

Ways to overcome barriers

Respondents that completed the community survey for the Open Space and Recreation Needs Study (2014) were asked to identify options and/or changes to the current delivery of activities that would help/allow them to play/participate in their desired recreation, exercise and/or physical activity.

The most common response at a Shire level was ‘more/better facilities locally’ (42.0%). The responses most relevant to encouraging cycling within the community are listed below:

- improved safety on footpaths and roads (ranked fourth - 34.4%),
- better connectivity of footpaths (ranked sixth - 30.5%),
- walking/cyclist circuit (ranked eighth - 28.2%),
- signage (ranked twelfth - 15.3%), and
- more end of trip facilities, such as showers, bicycle storage, etc. (ranked fourteenth - 14.5%).

Disconnected footpath, Park Street Scone
Cycling is a convenient, cheap and environmentally friendly form of transportation that can be incorporated into one’s daily physical activity requirements. As a low impact activity that can be enjoyed by people of all ages, from young children to older adults, it offers a wealth of benefits to the community and individuals.

### Physical health benefits

Physical activity is a major modifiable risk factor in the reduction of mortality and morbidity resulting from many chronic diseases, as such, it is recognised as an important component of public health and well-being.

The prevalence of overweight and obesity is increasing. Rates in adults aged 18 years and over rose to 62.8% in 2011-12 from 61.2% in 2007-08. A similar trend was observed in children aged between 5 to 17 years. Adults living in regional and remote areas of Australia are more likely to be overweight or obese (69.5%) compared with adults living in major cities (60.2%).

Regular physical activity can reduce overweight and obesity rates, furthermore, it can reduce the risk of cardiovascular disease, type 2 diabetes and some forms of cancer. There is also considerable evidence that physical activity can improve one’s mental wellbeing.

**Physical activity that is incorporated into one’s daily routine, is more likely to be maintained than other recreation activities**

Changing the current travel behaviours of residents within the Upper Hunter Shire and encouraging them to cycle to work, provides them the opportunity to undertake regular exercise while continuing with their day to day business, without cutting into family or leisure time.

It is not only the adults in the Shire that will benefit from this. Getting children out of the car and using active transport is believed to be the single most effective way to improve physical activity rates and reduce obesity in children.

In an ageing community, promoting low impact physical activity such as cycling has specific benefits for older adults. Cycling can improve one’s mobility, flexibility and functional ability, develop stronger bones, reduce the risk of osteoporosis and symptoms of osteoarthritis and reduce the risk of falling and fracturing bones.

### Social benefits

As a fun activity that can be participated in by all ages, cycling offers a range of social benefits to a community. While it is often difficult to measure the social benefits of physical activity/cycling, some of the consistent benefits of participation include:

- increased social cohesion,
- improved social/community networks and social capital, and
- improved family and community connectedness.

In addition to the above benefits, there is some evidence that participation in physical activity/cycling also provides social benefits specific to children and older adults.

Cycling ensures healthy growth and development in children. Further, it also allows children to:

- develop communication, interpersonal, leadership and co-operation skills,
- create friendships,
- learn how to deal with winning and losing,
- improve concentration at school,
- reduce other unhealthy behaviours (tobacco smoking, drug use), and
- build social skills among children.

Cycling provides social benefits specific to children and older adults.

Cycling offers the opportunity to meet new people with a common interest. Its low impact nature makes it a popular physical activity among older adults. As such, cycling offers specific social benefits to older adults, these include:

- increased social contact, and
- prolonged, independent living.

---

Economic benefits

The main area of research into the economic benefits of physical activity/cycling often relates to the cost savings associated with participation and the flow-on effects on the public health system. In 2008 Medibank Private estimated the cost of physical inactivity to the Australian economy at $13.8 billion.7

The other body of evidence relating to the economic benefits of physical activity examines the cost-effectiveness of physical activity interventions. There is strong evidence suggesting that investment in infrastructure supported by education programs that highlight the ease and benefits of cycling and encourage behavioural changes are an effective, and importantly, cost-effective way of reducing chronic disease when compared to pharmaceutical interventions or no intervention.

Cycling also offers economic benefits to the individual. A cost effective form of transportation, it is estimated that the costs of operating and maintaining a bicycle are 5% of the total costs of operation and maintaining a motor vehicle.8 This, in addition to the fact that bicycle parking is often free and the rising costs of fuel, cycling can/will result in reductions in household expenditure.

Operating and maintaining a bicycle costs 5% of the total costs of operating and maintaining a motor vehicle

In addition to the research on the economic benefits of physical activity as a result of improved health, there are also other avenues that cycling can provide economic benefit to a community.

Cycling can be a source of increased tourism trips. Long distance cycle routes, mountain bike tracks, networks and paths, as well as cycling events, can all encourage tourism.

Other possible economic benefits of cycling include:

- creation of employment in the sport and recreation industries, and
- support for local business when pedestrian activity is improved through creation of spaces and places that encourage cycling.

Cycling can be a source of increased tourism trips

Environmental benefits

Switching from the motor vehicle to a bicycle can improve the quality of the surrounding environment. The benefits from this are further passed on to the community and the individual.

Motor vehicles account for approximately half of the greenhouse gas emissions produced by an average household. As climate change continues to be a pressing issue around the world, cycling is one way a household can significantly reduce its contribution to the pollution that causes climate change.

Short, stop-start trips create higher levels of emissions. Apart from the residents that live out in the rural areas of the Shire, it can be assumed that a large proportion of daily motor vehicle trips in the towns (Scone, Aberdeen, Murrurundi and Meeriwa) are around 5km, short trips. Many of these trips could easily be ridden by bicycle.

The Upper Hunter Shire prides itself for providing a quality rural lifestyle to its residents. The rural lifestyle is one of outdoor recreational and work based activities. Clean air and green hills are attributes residents have identified as typical of the area. Motor vehicles are major producers of air pollutants which are harmful to the environment and adversely affect the yield of some crops. Furthermore, they contribute to health issues such as chronic disease and respiratory ailments.

The Shire’s recent population growth has brought challenges such as increased traffic flows to the towns. Currently, approximately 20% of trips in Australia are less than 5km. People tend to overestimate travel times by bicycle. Trips to popular destination areas, such as schools and shops, are often quicker by bicycle as they avoid the high numbers of traffic on the road and there is no need to look for parking.

An environment that promotes and supports active transport improves the overall amenity of the neighbourhood and main streets as areas not typically devoted to roads and parking spaces. Through appropriate infrastructure, the sense of security and comfort of a journey can be enhanced for a cyclist.

20% of motor vehicle trips in Australia are less than 5km, a distance the average person can easily cycle

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7 Medibank Private 2008, The cost of physical inactivity  
9 Cycling Promotion Fund and Bicycle Federation of Australia 2007, Environmental benefits of cycling  
10 Upper Hunter Shire Council 2011, Economic Development and Tourism Strategic Plan  
Upper Hunter’s existing cycling environment

Types of bicycle facilities

There are many different types of bicycle facilities, on- and off-road, that are used and can be incorporated into the Shire’s existing cycling environment. While there can be many variations of these types of facilities, the most relevant to the cycling environment of Scone, Aberdeen, Merriwa and Murrurundi are summarised in Table 10. The descriptions have been adopted from sections 5 and 6 of the NSW Bicycle Guidelines and Austroads - Part 14.

Table 10. Different types of bicycle facilities

<table>
<thead>
<tr>
<th>Location</th>
<th>Type</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
</table>
| On-road within road reserve | Mixed traffic         | Mixed traffic streets are the most common type of areas where cyclists ride, particularly recreation cyclists. There are no designated bicycle areas and cyclists and motorists share the road. Two types of mixed traffic environments:  
  □ wide cross section roads - provide for comfortable sharing between motor vehicles and cyclists, and  
  □ narrow cross section roads - are generally low speed, low traffic volume roads that don’t allow cars to safely pass cyclists |         |
|                         | Bicycle lane            | Bicycle lanes provide visually separated operating space for the exclusive use of riders on roads. They are used to define bicycle routes where the prevailing road speed and traffic volume requires a degree of separation.  
  Characterised by two unbroken thick white L5 lane lines. Green pavement may be used to increase visibility. |         |
|                         | Bicycle shoulder lane   | More flexible than a bicycle lane, bicycle shoulder lanes provide a more visually separated space for riders on roads. Unlike bicycle lanes, they are primarily intended for use in tight situations on local roads within urban areas where there is often a heavy demand for kerb side parking.  
  Bicycle shoulder lanes are also common on high speed roads such as motorways and State Highways.  
  Characterised by one unbroken thick white L5 lane line defining the road shoulder and a dashed white line separating bicycle traffic from parked cars. Green pavement may be used to increase visibility. |         |
<table>
<thead>
<tr>
<th>Location</th>
<th>Type</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off-road within road reserve</td>
<td>One- or two-way off-road bicycle path</td>
<td>Paths are physically separated from the road. They are used as either one-way or two-way paths to define bicycle routes where the prevailing road speed and traffic volume requires physical separation. They require more land than on-road lanes.</td>
<td></td>
</tr>
<tr>
<td>Shared paths</td>
<td>Similar to one- or two-way off-road bicycle paths, however, the path also provides an off-road corridor for pedestrians. The paths are physically separated from the road. They are used as either one-way or two-way paths to define bicycle and pedestrian routes where the prevailing road speed and traffic volume requires physical separation. They require more land than on-road lanes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bicycle paths</td>
<td>A separated bicycle path no longer part of the road reserve. Similar to roads, they should be marked with a centreline to separate two-way flows and to permit safe operation of the path. Signage should be erected to regulate the type of users.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Offroad outside of the road reserve | Shared paths                          | Similar to bicycle paths but the path is shared between pedestrians and cyclists. To ensure safe operation of the path, four key behavioural messages must be consistent along the path to advise and educate pedestrians and riders:  
- keep left when using the path,  
- warn other path users on approach and overtaking,  
- move off the path when stopped, and  
- walkers control your dogs. |         |
Scone

Existing cycling environment

Scone is the Shire’s largest urban centre with a population of 5,478 as of the 2011 Census. With a footpath network of approximately 8.3km and a 3.1km dedicated bicycle path connecting the western side of town to the east via Liverpool Street, some pockets of Scone have no or limited access to off-road cycling infrastructure (footpath and/or bicycle path) (refer to Map 1).

Kelly Street (New England Highway) is well serviced by the existing footpath network, however, these paths rarely extend past the neighbouring streets. The only other off-road cycling infrastructure is the Scone bicycle path, which extends from Satur Road, along Liverpool Street, across Kelly Street to Council’s main administration building, where it turns into a footpath. There are some footpaths that disperse off the bicycle path to key destinations, but many of these paths end abruptly and without warning.

The current volume of traffic along Kelly Street means that many cyclists are forced to ride on the footpath where they feel safer. Unfortunately, the busy pedestrian traffic coming in and out of the shops along Kelly Street, causes conflict between riders and pedestrians.

The wide road reserves in many of the residential streets create a safe cycling environment where motor vehicles and cyclists can safely share the road. However, along some of these residential streets are key destinations such as Scone Park and the subsequent increased volume of traffic generated by these key destinations are making the streets unsafe for some cyclists, particularly children. In many cases, the existing footpaths coming off the Scone bicycle path just need to be extended.

The lack of directional and distance signage around Scone also makes it harder for those not confident on a bicycle to navigate around the town. Through appropriate signage, riders are made aware of the safest route and distance to the town’s key destinations.
Table 11. Scone’s existing cycling environment

Scone’s existing cycling environment

Liverpool Street

Liverpool Street connects the eastern and western sides of Scone. Access to Scone Public School, Scone Grammar School, Bill Rose Sports Complex, White Park, Council’s main administration building and Scone’s main retail and business precinct is provided off Liverpool Street. The town’s main train level crossing is also located along the street.

Currently Liverpool Street is one of two streets in Scone with a dedicated bicycle path (the path continues along Satur Road for approximately 900m).

The bicycle path is on the southern side of Liverpool Street and extends from Satur Road to Park Street. A footpath on the northern side of Liverpool Street is not available (from the east) until Scone Public School on the corner of Liverpool and Hill Street (photo S03). The footpath then continues west across town to Stafford Street.

While Liverpool Street is wide enough to accommodate off-road cycling, many residents feel that the volume of traffic along the street, particularly during school pick-up and drop-off times, makes it unsafe for cycling, especially for children.

<table>
<thead>
<tr>
<th>S01 - facing east down Liverpool Street</th>
<th>S02 - facing south-west, towards Hill Street</th>
<th>S03 - facing west, Hill Street on the right</th>
</tr>
</thead>
</table>

Footpaths around Scone Public School

If approaching the school from the west, one can cycle along the bicycle path, however, it is on the opposite side of the road to the school and children are required to cross the busy Liverpool Street. Despite the presence of a crossing guard, many parents feel the road is too busy for their children to cross safely.

Children can safely access the school from the east along the pedestrian footpath on the northern side of Liverpool Street, however, due to the pedestrian traffic along these footpaths, cycling can often be problematic and conflict between users may result in injuries. Children are also not permitted to ride on the footpath if they are older than twelve years old (NSW road rules).

A footpath does exist along Hill Street, but it only extends to the school boundary (S05 & S06). It was identified during consultation that many students visit Scone Skate Park (Scone Park) after school, but there is currently no footpath or off-road bicycle path to Scone Park.

| S04 - facing east down Liverpool Street with Scone Public School on the left | S05 - facing north up Hill Street with Scone Public School on the right | S06 - facing south down Hill Street showing the absence of a footpath |
Scone’s existing cycling environment

**Hill Street (towards Kingdon Street)**

The southern end of Hill Street provides direct access to Scone Grammar School and White Park. While the majority of students catch the bus to school, a 1.2m pedestrian path down the western side of the street allows for safe off-road cycling. However, it is illegal for anyone over twelve years to cycle on a footpath.

The wide street would easily accommodate an on-road bicycle lane, however, the constant flow of traffic around school drop-off and pick-up, and the requirement for cars to reverse angle park along the street, creates a potentially unsafe cycling environment, particularly for those lacking in bicycle skills and confidence.

Scone Grammar School students regularly use Bill Rose Sports Complex for physical education and sports training. There is currently no footpath or designated off-road bicycle lane to provide safe pedestrian and/or cycling access to the Complex.

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**Corner of St Aubins and Hill Street**

Located on the corner of St Aubins and Hill Street is Scone Park, a local sporting park regularly used by the community and Scone Public School. Despite its popularity, access to the park via an off- or on-road bicycle path or footpath is nonexistent. Although St Aubins Street is wide, the grass road verges mean that cyclists and motor vehicles have to share the narrow road, making it difficult and unsafe for cyclists. The lack of formalised parking around Scone Park can also cause confusion and reduce the line-of-sight between cyclists and motor vehicle drivers.
Scone’s existing cycling environment

Scone Bicycle Path

The Scone Bicycle Path is the only shared pedestrian and cyclists path in Scone. Extending from Council’s main administration building on the corner of Liverpool and Main Street, the Path heads west along Liverpool Street (southern side) and up to the corner of Satur Road and Seaward Avenue (photo S19), just over 3km.

The Path is in relatively good condition, however, the informative signage along the Path needs to be more prominent and include information such as key destination areas, distance marking and road safety reminders for both cyclists and pedestrians. It was identified during community consultation and site audits that the Path is regularly used by the community, both cyclists and pedestrians. Despite its popularity, the Path does not create a walking/cycling circuit and lacks connections to a number of key destinations such as:

- Bill Rose Sports Complex
- Scone Park
- Scone High School
- Scone TAFE Campus
- Scone Train Station
- Scone & District War Memorial Swimming Pool
- Scone Youth Centre

S12 - level train crossing on Liverpool Street

S13 - Bicycle Path heading east towards Kelly Street

S14 - Bicycle Path heading west towards Satur Road, directional signage

S15, S16 and S17 - A crossing is provided for users wishing to continue along Morse Street, though the path ends once it reaches Morse Street. However, observations show that many cyclists prefer to continue along the dirt path (photo S16) instead of going under the bridge in photo (S17)
Scone’s existing cycling environment

S18 - Bike Path goes under the bridge and is now on the northern side of Liverpool Street

S19 - corner of Satur Road and Seaward Avenue, end of the Bike Path

Kelly Street and Elizabeth Park

Kelly Street (New England Highway) is the main retail and business precinct of Scone and the Upper Hunter Shire. Currently two lanes each way, the future design of the street will be determined by the development of the Scone Bypass. Safe cycling along the street is only along the paved pathway, used primarily by pedestrians and shop owners. The high volume of heavy vehicles (approximately 1,200 a day (Roads and Maritime 2014)) and the potential hazard of car doors opening due to parallel parking requirements makes the street highly undesirable for many cyclists, particularly children.

There are limited safe crossing opportunities along the street (such as the lights at Liverpool Street).
| S23 - paved pathway extends north towards Elizabeth Park and the Visitor Information Centre |
| S24 - shared pedestrian path through Elizabeth Park, links around to the Scone Youth Centre |
| S25 - facing south along Guernsey Street, end of the shared pathway that extends round from Elizabeth Park |

**Corner of Liverpool and Park Street**

Although the Scone Bicycle Path finishes at Council’s main administration building, a footpath continues onto Park Street. There is also a footpath on the opposite side (northern side) of Liverpool Street that extends down to Stafford Street.

**S27 - facing south down Park Street towards Scone High School, footpath left hand side, despite connecting footpath on the other side (off Liverpool Street). The street is wide enough however, to allow cyclist’s to safely travel to their destination, particularly as many of them would most likely be high school students**

**S28 - kerb and footpath do not connect**
Map 1. Scone’s existing cycle network
Opportunities for Scone’s cycling environment

Improved off-road connectivity to key destinations

Scone Park (including skate park and basketball stadium):
- ensure that school children can safely access Scone Park via Hill Street by extending the existing footpath,
- provide a safe off-road route to Scone Park that connects with the west side of town and that is more direct and quicker than heading south to Liverpool Street, and
- connections between Scone Park, the Scone and Districts War Memorial Swimming Pool, Scone Youth Centre and Kelly Street need to be formalised by an off-road path.

Bill Rose Sports Complex:
- potential to extend the existing bike path down to Bill Rose Sports Complex and connect it to the informal circuit around the Complex,
- formalise the informal shared circuit around the Complex so that cyclists can safely ride (currently gravel with pot holes), and
- off-road connection between Bill Rose Sports Complex and Scone Grammar School, this link could further be connected to the bike path along Liverpool Street.

Scone TAFE Campus:
- extend the existing bike path further west along Satur Road to the Scone TAFE Campus.

Increased signage around the network
- many of the residential streets provide safe cycling environments. To enhance the sense of security and safety, warning and guidance signs can be erected to alert motorists and riders of changed conditions, potentially hazardous paths or road conditions. An alternative to building footpaths on every street, and
- many key destinations are not located on Kelly or Liverpool Street. The use of directional signage can direct and guide riders along the safest route to the destination.

Improved bicycle parking at key destinations
- installation of bicycle racks that are secure at destinations like Bill Rose Sports Complex, Scone Park and along Kelly Street.

Improve transition between the road, kerb and footpath
- many of the transition points between the road and footpaths needs to be improved and connected.

Kelly Street

As part of the New England Highway, Kelly Street is currently a two lane, dual carriageway. However, the development of the Scone Bypass means that the majority of traffic will be diverted around Scone.

As the volume of traffic will significantly decrease, it is assumed that there will be little demand for two lanes of traffic each way. There is opportunity to redesign Kelly Street into a more bicycle and pedestrian friendly area, by separating motorists, cyclists and pedestrians.

Figure 9 is an example of how the layout of Kelly Street may look if it were redesigned to be more pedestrian and bicycle friendly. The total separation of bicycles from motor vehicles means that cyclists no longer have to be concerned about vehicles pulling in and out of car parks and opening doors across their path. Separating pedestrians and cyclists also creates a safe environment on the sidewalk, and shop owners don’t have to be concerned about cyclists injuring their customers.

Figure 9. Option for the future of Kelly Street
Source: RTA 2005, NSW Bicycle Guidelines
Aberdeen

Existing cycling environment

Aberdeen has approximately 2.13km of footpaths. The network is mainly situated on the western side of MacQueen Street, except for the section between Graeme and Hall Street (refer to Map 2).

There are currently no dedicated on- or off-road bicycle paths around the town, however, the redevelopment of the Fitzgerald Bridge will include a shared path over the bridge linking to Riverside Park.

The is a lack of connectivity to the town’s key destination areas, including:

- Jefferson Park,
- St Andrews Reserve,
- St Joseph’s High School, and
- Aberdeen Public School.

A detailed summary of Aberdeen’s existing cycle network is provided in Table 12 and shown spatially in Map 2 (page 31).

Table 12. Aberdeen’s existing cycle network

<table>
<thead>
<tr>
<th>Aberdeen’s existing cycling environment</th>
<th>MacQueen Street (New England Highway)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The wide road reserve creates enough space to allow on-road cycling, however, there is currently no signage or dedicated bicycle lane. The presence of designated footpaths start at Perth Street, however, it is only on one side of the road. The section of MacQueen Street between Graeme and Moray Streets is the only part of the road with a footpath on both sides. As a result, there is no off-road connection (on the western side) between Dangar and Taylor Park, including Jefferson Park.</td>
<td></td>
</tr>
</tbody>
</table>

A01 - facing north, wide road verges on MacQueen Street allow on-road cycling

A02 - on the corner of MacQueen and Eldon Street facing south down MacQueen Street

A03 - facing north up MacQueen Street, footpaths are on both sides of the street from here until Moray Street

A04 - facing south from Taylor Park, safe cycling and pedestrian access is minimal

A05 - Fitzgerald Bridge facing south towards Aberdeen. The new bridge is used solely for vehicle traffic, while the former eastern bridge is designated for pedestrian and off-road cycle use only, providing a connecting path into Aberdeen - Photo source: RMS 2005, Fitzgerald Bridge and road approaches, Road Approaches.
Aberdeen’s existing cycling environment

Segenhoe Street (local school zone)

There are two local schools in Aberdeen, Aberdeen Public School and St. Joseph’s High School, located next to each other on Segenhoe Street. There is an existing footpath along the sidewalk in front of the two schools, however, this is the only section of Segenhoe Street with a footpath and it is only on one side of the road.

The main access to the schools are via Segenhoe Street (north and south), Graeme and Bedford Streets, none of which have a footpath, a dedicated bicycle lane or signs informing drivers that cyclists may ride here.

A06 - facing north up Segenhoe Street, one of the main routes to the schools off MacQueen Street. Absence of footpaths on both sides of the street

A07 - the only section of footpath along Segenhoe Street. It stretches along the street between Graeme and Bedford Streets. A standard sized footpath, it does not cater for the safe shared use of cyclists and pedestrians

A08 - facing north up Segenhoe Street, St Joseph’s High School on the right, no footpath

A09 - Segenhoe Street during school hours. The street is too busy for safe on-road cyclists, particularly primary school aged children

A10 - Graeme Street, a popular route to the schools, especially as it is one of the few roads that goes over the railway line linking the east and west sides of town

A11 - Eldon Street, also a popular route to local schools. Absence of footpaths
Map 2. Aberdeen’s existing cycle network
Opportunities for Aberdeen’s cycling environment

Improve off-road connectivity to key destinations

Jefferson Park:
- opportunity to extend the existing footpath on MacQueen Street to Riverside Park, developing a safe, off-road path linking Dangar Park, Taylor Park and Jefferson Park,
- activate the Hunter River by developing an off-road shared path around Jefferson Park with potential to continue the path along the river down to St Andrews Reserve and up Segenhoe Street, creating a recreation circuit, approximately 3km in length, and
- opportunity to provide a cycle training circuit adjacent to the proposed skate park at Jefferson Sports Grounds (utilising the former tennis courts), to provide a safe, off-road venue for cyclists to develop their skills.

Schools:
- create safe off-road links between the two schools and MacQueen Street. In other streets warning signs can be used to alert motorists to school children riding in the area.

Increased signage around the network
- installation of warning and guidance signs along some residential streets, such as Eldon Street, to warn motorists that cyclists (and pedestrians) cross here,
- warning signs between Gordon and Perth Street as there is currently no footpath along this section of MacQueen Street. The wide road reserve makes it relatively safe to ride on the road, however, motorists need to be aware that they share the road with cyclists throughout town, and
- installation of direction and distance signage at key intersections and destinations.

Improved bicycle parking at key destinations
- installation of bicycle racks that are secure at destinations like Jefferson Park.
Merriwa

Existing cycling environment

Merriwa offers a safe cycling environment for its residents. Many feel that the streets are wide enough to safely share the road with motor vehicles. Despite the safe cycling environment, there is not a large commuter cyclist culture in the town. Consultation identified that only one student currently rides to school, on a very rare occasion. The majority of children catch the local bus to school. There is however, a growing recreation/road cycling culture developing.

The town’s current footpath network is approximately 3.73km long, with an additional 650m of dedicated bicycle path behind Rotary Park and Merriwa Caravan Park (refer to Map 3). The network connects the majority of key destinations with each other, however, the current route to Merriwa Oval from Merriwa Central School has no dedicated crossing area.

Key destinations in the area include:
- shops and cafes along Bettington Street,
- Merriwa Central School,
- Merriwa Skate Park,
- Merriwa Oval,
- Merriwa Olympic Pool,
- Council’s administration building, which is also the library and customer service centre, and
- Merriwa Visitor Information Centre.

A detailed summary of Merriwa’s existing cycle network is provided in Table 13 and shown spatially in Map 3 (page 35).

Table 13. Merriwa’s existing cycle network

<table>
<thead>
<tr>
<th>Merriwa’s existing cycling environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merriwa Bicycle Path</td>
</tr>
</tbody>
</table>

One of the Shire’s three dedicated bicycle paths, the Merriwa Bicycle Path is approximately 0.66km in length, starting at the Merriwa Showgrounds, it goes under the Bettington Street Bridge and follows the Merriwa River behind Rotary Park and the Merriwa Caravan Park, to a little picnic area with tables and views of the Merriwa River.

ME01 - bicycle path running behind the Merriwa Caravan Park

ME02 - path ends abruptly at the picnic area

ME03 - views of the Merriwa River
Bicycle Plan

Merriwa’s existing cycling environment

Bow Street (local school zone)

Merriwa Central School has two campuses, the junior school is located on the corner of Bow and Mackenzie Street, the senior school is also located on Bow Street between Langley and Hayes Streets. Both campuses are well serviced with footpaths, particularly the junior campus. The school regularly uses Merriwa Olympic Pool and Merriwa Oval for physical education and school carnivals. The surrounding footpath network provides safe routes to these facilities, as well as the town centre (Bettington Street).

ME04 - facing east up Mackenzie Street
ME05 - footpath along Mackenzie Street providing a safe pedestrian environment
ME06 - facing west towards Bow Street

Bettington Street (Golden Highway)

The main street of Merriwa is well serviced with footpaths. Along the southern side of Bettington Street, the footpath extends from Dutton Street (main entrance to town from the west) to Brisbane Street, while the footpath on the northern side provides safe pedestrian access between Bow and Marquet Streets. While there are numerous pedestrian crossings along Bettington Street, one is missing after Brisbane Street, linking the main footpath network (southern side of the street) with Merriwa Oval.

It was identified during inspections that cycling on the main section of Bettington Street, between Bow and Vennacher Streets, is prohibited with signs identifying the area as ‘no cycling’. The only alternative is to ride on the street, which is constantly busy with passing traffic and motor vehicles pulling in and out of the reverse angled car parks.

ME07 - wide street, with reverse angled parking can reduce visibility of cyclists
ME08 - wide footpaths down the main section of Bettington Street, however, sign indicates that cyclists are not allowed on the sidewalk.
ME09 - intersection at Bettington and Brisbane Streets. There is no safe pedestrian crossing to link the two footpaths together

Table 13 cont.
Map 3. Merriwa’s existing cycle network
Opportunities for Merriwa’s cycling environment

Due to Merriwa’s extensive footpath network and wide residential streets, there is no need for additional footpaths around the town. However, a footpath could be added down Brisbane Street connecting it to Bettington Street. This is a popular route for school children travelling to Merriwa Oval and Merriwa Skate Park.

The focus for Merriwa is to encourage more people to cycle. The town’s flat topography and minimal traffic on local streets make it a great place for recreation cycling. There is a potential to develop a cycle loop around Merriwa, by joining the existing Merriwa Bicycle Path (otherwise known as the Merriwa River Walk), and the existing Mackenzie Street footpath (refer to Map 3). This loop would create a safe, off-road cycleway that provides connections to local schools, sports fields, the showground and hospital.

As road cycling is becoming more popular in the area, a bicycle shoulder lane could be applied down Bettington Street, with warning signs as vehicles leave town, alerting motorists to the likely presence of cyclists.

Council could also encourage the town’s cafes to become more bicycle friendly, by providing bicycle racks.
Murrurundi

Existing cycling environment

Murrurundi is most likely the Shire’s safest town for cycling. It is the only one of the four main towns with footpaths down both sides of the main street and also has an on-road bicycle shoulder lane. Consultation identified that both adults and children felt safe riding around town, even in the residential streets where there are no footpaths. Haydon Street, however, brought up a number of safety concerns. Parents and children both agreed that the narrow width of the street and lack of footpaths made it difficult and unsafe to share the street with passing motor vehicles.

The existing footpath network of approximately 2.6km, plus an additional 700m of off-road bicycle path, safely connects all the town’s key destinations (refer to Map 4).

The town is also a popular destination for road cyclists.

A detailed summary of Murrurundi’s existing cycle network is provided in Table 14 and shown spatially in Map 4.

Table 14. Murrurundi’s existing cycle and footpath network

<table>
<thead>
<tr>
<th>Murrurundi’s existing cycling environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mayne Street (New England Highway)</td>
</tr>
<tr>
<td>The main street through Murrurundi, Mayne Street is well supplied with footpaths and on-road cycle lanes (marked).</td>
</tr>
<tr>
<td>MU01 - wide road verges that allow for on-road cycle lanes</td>
</tr>
<tr>
<td>MU02 - footpaths on both sides of Mayne Street</td>
</tr>
<tr>
<td>MU03 - marked on-road cycle lane, in addition to footpaths, create a safe cycling environment in Murrurundi</td>
</tr>
</tbody>
</table>
Murrurundi's existing cycling environment

**Murrurundi Public School (Mayne Street)**
Located on Mayne Street, the school is well serviced with footpaths and on-road cycle lanes from both directions. A pedestrian crossing right in front of the school also enhances the feeling of safety among children and parents.

<table>
<thead>
<tr>
<th>MU04 - facing south down Mayne Street, Murrurundi Public School on the left</th>
<th>MU05 - safe pedestrian/cyclist crossing in front of the school</th>
</tr>
</thead>
</table>

**Haydon Street**
Haydon Street was identified during consultation as an unsafe cycling environment. There are no footpaths on either side of the street and motorists regularly disregard the speed limits.

| MU06 - Haydon Street, no footpaths and narrow road creates an unsafe environment for cyclists and pedestrians |   |
Map 4. Murrurundi’s existing cycle network
Opportunities for Murrurundi’s cycling environment

Murrurundi is already considered a bicycle friendly town, this is supported by the high number of children that currently cycle and feel safe riding to school. However, some minor improvements could be made to the network, these include:

- a dedicated off-road bicycle path or footpath down Haydon Street, a common route to school and shops for those that live on the western side of Mayne Street,
- signage along Mayne Street as it turns back into the New England Highway to alert motorists to the presence of cyclists, and
- a popular destination for cyclists and tourists, Paradise Park is located at the end of Paradise Road. The road is narrow and windy making it difficult for motorists to see cyclists. To widening the road would be too costly, an alternative is to erect warning signs along the road to alert motorists to the presence of cyclists.
Popular rural road cycle routes

The relatively flat topography of the Upper Hunter Shire makes the region a popular place for long distance on-road cycling.

Table 15 identifies a number of popular routes around the Shire. All of the routes are along sealed roads and allow the riders to experience the quality rural lifestyle that the Upper Hunter is renowned for.

Table 15. Rural on-road routes around the Upper Hunter Shire

<table>
<thead>
<tr>
<th>Route</th>
<th>Type</th>
<th>Distance in kilometres (approximate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scone to Moonan Flat</td>
<td>Return</td>
<td>113.85km</td>
</tr>
<tr>
<td>Scone to Merriwa Return</td>
<td></td>
<td>128.00km</td>
</tr>
<tr>
<td>Scone to Upper Rouchel Return</td>
<td></td>
<td>88.00km</td>
</tr>
<tr>
<td>Stud Farm Loop</td>
<td>Loop</td>
<td>55.00km</td>
</tr>
<tr>
<td>Lake Glenbawn Loop</td>
<td>Loop</td>
<td>35.00km</td>
</tr>
</tbody>
</table>

Despite being popular routes that are known to both cyclists and motorists, consultation identified a number of key issues affecting the safety of cyclists. While all agreed that the routes did not require a dedicated off-road bicycle path, many felt that something needed to be done, especially if Council wants to promote bicycle tourism around the Shire.

Issues identified include:

- a lack of respect for cyclists along the highways, many drivers refuse to go around or don’t leave enough space when overtaking,
- motor vehicles don’t slow down when approaching or overtaking cyclists,
- cyclists sometimes have to ride on the gravel road verge if there is not enough space,
- unless the cyclist is local to the area, the lack of directional signage along the routes can be a deterrent, and
- there are no dedicated maps highlighting the routes. The routes are normally advertised via word-of-mouth or MapMyRide.

Opportunities for regional cycling

As stated above, cyclists indicated that they did not require a dedicated off-road bicycle path. Instead, suggestions of improvements were more focused around warning signage and included:

- more warning signs to alert motorists of the presence of cyclists,
- more billboards that promote a safe passing distance,
- directional and distance signage for cyclists,
- bicycle shoulder lanes around town entrances, and
- pamphlets at cycle shops, cafes and tourist information centres that educate cyclists about the safety and appropriate behaviour when riding on rural roads.

Regional recreational cycling opportunities exist for mountain biking at:

- Scone Mountain National Park, and
- Private lands at Noblet Road, Scone (Mountain Bike Track).
Implementation plan

Underlying principles

The Plan builds upon the Shire’s existing bicycle and footpath network and addresses the key issues and aspirations identified by the community. Austroads has developed a set of principles to guide the provision of and assist Council to achieve a direct, safe and comfortable bicycle network that is well used by the Upper Hunter community.

Table 16: Principles of bicycle network provision as per Section 3.1 of the NSW Bicycle Guidelines (Austroads Guide to Traffic Engineering Practice, Part 14 - Bicycle and Australian Standard AS1742.9.)

<table>
<thead>
<tr>
<th>Principle</th>
<th>How it applies to the Upper Hunter Shire</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coherence</strong></td>
<td>The bicycle network should form a coherent unit by linking key destinations with local residential streets. The network should be continuous and be very clear to the user where the route leads. Intersections should seek to provide a clear path for bicycle riders as well as pedestrians. The quality of the network should also be consistent throughout the length of the route regardless of the path being on- or off-road. Routes should be easy to find from local streets.</td>
</tr>
</tbody>
</table>
| | Except for Scone, the key destinations in the three other main towns are located along the main street, or just off it. As such, a dedicated bicycle path (on- or off-road) is only required down the main street of each town:  
- Aberdeen - MacQueen Street,  
- Merriwa - Bettington Street, and  
- Murrurundi - Mayne Street  
Although many of the local residential streets in these towns don’t have footpaths, their wide road reserves allow for safe on-road cycling. In these towns a well designed and coherent network should ensure that cyclists coming off the local streets can easily and safely access the main bicycle path. Dedicated crossings for cyclists in these towns is not necessary, however, signage to make motorists aware that the intersection is a popular crossing destination for cyclists should be provided as an alternative.  
The key destinations around Scone are dispersed, though the majority are located on the western side of the railway line. Currently, Scone Public School, Scone Grammar School and Kelly Street are the only destinations connected by a dedicated bike path. Future network considerations should look at connecting the other key destinations into Scone’s current bicycle network by bicycle shoulder lanes, footpaths or simply warning and guidance signage in the residential streets. |
| **Directness** | The network should be as direct as safely practicable. Long detours should be avoided, however, this should always be balanced against the problems of topography. Delays due to prolonged crossing times of major barriers should be avoided and the aim of the design of the route should be to ensure that riders are able to maintain a safe, comfortable and consistent operating speed throughout the length of the route. |
| | The topography of the Shire and the four main towns is relatively flat, an ideal environment for cycling.  
There are minimal obstacles throughout the towns. Scone is the only one in which cyclists and pedestrians are required to cross the railway line, however, safe off-road crossings are already in place.  
There is a need to develop direct cycleway routes in new residential or rural residential areas, as well as connect to the existing cycleway network e.g. Moobi Road, Bunnan Road and Satur Road.  
While not seen as an obstacle to all, the fact that the main street in all the towns is part of either the New England or Golden Highway, may influence one’s choice of route. |
### Safety

A well designed bicycle network improves and enhances the road safety of riders, pedestrians and motorists. Intersections should be designed to explicitly include bicycles as well as other categories of road users. Special intersection designs that include a path for cyclists are an important element of an integrated network. Mid-block treatments need to provide safe and easy major roadway crossings for riders.

A major safety concern for many parents, cyclists and non-cyclists, is based around the fact that the main street in each town is a section of either the New England Highway or the Golden Highway, where large numbers of heavy traffic pass through daily.

The NSW Road Laws state that children over the age of twelve are not allowed to ride on the footpath. It was identified during consultation that the majority of students that cycle to school were of primary school age (under twelve), thus legally allowed to ride on footpaths.

While the ideal situation along these main streets would be to develop a bicycle path where cyclists and motorists are separated by a dividing strip, it would require a lot of money to redesign and construct the road to accommodate this. Instead, a marked on-road bicycle shoulder lane and appropriate warning and guidance signs should be provided to alert motorists that cyclists use the road.

### Attractiveness

Enjoyable cycling requires attractively designed and located facilities. Bicycle network infrastructure should be fitted into the surrounding environment so that the enjoyment of the experience is enhanced. Clear well-placed signposting should indicate key destinations, while centre lines and edge lines should indicate the transport intent of the off-road sections of routes. Bicycle routes should also feel safe and offer good personal security. The community prefers well-lit pathway and open-to-view routes rather than dark and dingy alleyways.

The Shire’s rural environment and surrounding mountains creates an attractive backdrop to the four towns and rural areas. The variety of stud farms and vineyards throughout the Shire have the ability to add to one’s cycling experience, whether they be recreation, road or tourists cyclists.

There is potential to further promote and highlight these features of the Shire via clear and well-placed signposting.

### Comfort

The bicycle network needs to be easy to use for all types of riders. A smooth well maintained riding surface is essential both for comfort and operating safety. Depending on the volume of other traffic (motor vehicles or pedestrians), some level of separation is often needed. Clearly marked bicycle facilities that allocate operating space to bicycle users are the most appropriate types of facilities on all but low traffic volume and low speed roads. Effective intersection treatment is a critical factor in providing safe and comfortable crossings of major arterial roads.

Many of the bicycle networks in the four towns is a combination of on- and off-road paths, as such, the design and maintenance of these paths needs to ensure that cyclists (and pedestrians) have smooth and safe transitions between the two types of pathways.

Site inspections showed that many of these transition points required the rider to travel across three different types of surfaces (concrete, gravel and bitumen). Other concerns are drainage gates, gutters and the unequal edge of paths.

Gravel paths, like the one at Bill Rose Complex, while cheap to construct, can often become slippery and after rain, water ponds develop, erode and leave dangerous ruts and grooves. The level of usage of this path should be investigated and then formalised.

Source: Roads and Traffic Authority (RTA) 2005, NSW Bicycle Guidelines
Goals

There are five key goals that form the basis of this Plan, each with numerous actions that contribute to the achievement of the Plan’s and Council’s vision. The successful undertaking of the actions outlined in this Implementation Plan will require strong leadership, appropriate resourcing and a commitment from Council.

Priorities are assigned for each action.
- High - as soon as resources allow
- Medium - the next 2 to 5 years
- Low - 5 years plus

A planned bicycle network is critical to ensure that facilities for cyclists and pedestrians are constructed connecting key destinations.

The current bicycle network is a mix of footpaths and on-road facilities. Scone is the only town to have an off-road bicycle path that connects key destinations.

The rural nature of the four main towns in the Upper Hunter Shire does not require every street to have a footpath. The wide road reserves in many of the local residential streets makes them a safe environment for many types of cyclists, including children and adults. Awareness and guidance signage could be used throughout these streets, as an alternative to footpaths or shared bicycle paths, to raise awareness among motorists and direct cyclists to safe crossing areas. As such, the focus should be on providing off-road connections to and from key destinations frequented by the youth and families, who may not have the confidence or road skills to safely navigate between destinations, particularly if a section of the route is along a main/busy street.

The following actions will help in the continuing provision of the Upper Hunter’s cycling environment.

<table>
<thead>
<tr>
<th>Ref</th>
<th>Locality</th>
<th>Action</th>
<th>Rationale</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Scone (off-road)</td>
<td>Extend the existing footpath on Hill Street up to Susan Street (identified in the CSP)</td>
<td>There is currently no off-road path connecting Scone Public School with Scone Park</td>
<td>High</td>
</tr>
<tr>
<td>1.2</td>
<td>Scone (off-road)</td>
<td>Construct a new footpath along Susan Street from Aberdeen Street (not identified in the CSP)</td>
<td>The path will provide a safe off-road connection for those coming from the northern side of town. The path will also link up with the existing path in front of the Scone and District War Memorial Swimming Pool, that continues around to Kelly Street/Elizabeth Park</td>
<td>Medium</td>
</tr>
<tr>
<td>1.3</td>
<td>Scone (off-road)</td>
<td>Extend the footpath in front of Scone Grammar School on Hill Street west along Kingdon Street towards Bill Rose Sports Complex (not identified in the CSP)</td>
<td>School regularly uses the facility for physical education and sports training. There is currently no dedicated off-road path on this route</td>
<td>High</td>
</tr>
<tr>
<td>Ref</td>
<td>Locality</td>
<td>Action</td>
<td>Rationale</td>
<td>Priority</td>
</tr>
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<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>1.4</td>
<td>Scone (off-road)</td>
<td>Extend the existing bike path down Wingen Street to Kingdon Street. The Bike Path will end at Bill Rose Sports Complex and continue on as a footpath (not identified in the CSP)</td>
<td>Cyclists will be able to ride to Bill Rose Sports Complex without having to go along Liverpool Street. Riders will be able to connect to the off-road bicycle path around Bill Rose Sports Complex</td>
<td>Medium</td>
</tr>
<tr>
<td>1.5</td>
<td>Scone (off-road)</td>
<td>Develop a sealed shared-use path around Bill Rose Sports Complex</td>
<td>To provide a safe, off-road loop for pedestrians and cyclists for recreation and exercise</td>
<td>Medium</td>
</tr>
<tr>
<td>1.6</td>
<td>Scone (off-road)</td>
<td>Extend the existing footpath on Gundy Road to Bhima Drive (identified in the CSP)</td>
<td>Gundy Road is frequented by heavy traffic. Extending the footpath to the end of the residential development creates a safe environment for the less confident rider</td>
<td>Medium</td>
</tr>
<tr>
<td>1.7</td>
<td>Scone (on-road)</td>
<td>Formalise the presence of cyclists along Susan and Barton Streets by allocating a bicycle should lane on each side of the street</td>
<td>The shoulder lane is more flexible than a bike lane and allows cars still to park within the road reserve. The number of cyclists currently up the streets does not warrant the need for an off-road path (footpath)</td>
<td>High</td>
</tr>
<tr>
<td>1.8</td>
<td>Scone (off-road)</td>
<td>Extend the existing cycleways on Bunnan and Moobi Roads and install relevant cyclist and road safety signage</td>
<td>To provide cyclists access to the TAFE, and further into Scone</td>
<td>Medium</td>
</tr>
<tr>
<td>1.9</td>
<td>Scone</td>
<td>In the re-development of Kelly Street as part of the Scone bypass, investigate the development of a single lane, two-way street, that would create enough space to completely segregate motor vehicles, cyclists and pedestrians</td>
<td>Cyclists currently either ride on the road with heavy traffic or on the footpath regularly used by shop fronts and pedestrians. Total separation would reduce the risk of injury and accident for all</td>
<td>Medium</td>
</tr>
<tr>
<td>1.10</td>
<td>Aberdeen (off-road)</td>
<td>Construct a cycle safety training circuit at Jefferson Sports Grounds as part of the re-development of the disused tennis courts</td>
<td>The track will provide a safe, off-road facility for cyclists to develop their skills and confidence. The track will enhance Jefferson Sports Grounds as a destination</td>
<td>Medium</td>
</tr>
<tr>
<td>1.11</td>
<td>Aberdeen (off-road)</td>
<td>Extend the existing footpath on the western side of MacQueen Street north to Jefferson Park and Riverside Park, this will also connect Dangar and Taylor Parks</td>
<td>Currently no off-road connections (without having to cross the road) to the most frequented and used open space in Aberdeen. The path will also create a safe route from the local schools to the park</td>
<td>High</td>
</tr>
<tr>
<td>1.12</td>
<td>Aberdeen (off-road)</td>
<td>Extend footpath on Segenhoe Street north towards MacQueen Street and south to St Andrews Street</td>
<td>Provide safe off-road pedestrian and cycle access to the two local schools. Streets around schools can become very dangerous during peak drop-off and pick-up times</td>
<td>Medium</td>
</tr>
<tr>
<td>1.13</td>
<td>Aberdeen (off-road)</td>
<td>Construct a new footpath or bike path down Graeme Street, starting at Campbell Street and continuing across the railway line to Segenhoe Street</td>
<td>Lack of off-road paths on the eastern side of MacQueen Street. Graeme Street is one of two streets that connects the east and west sides of Aberdeen and provides a direct link to the local schools and MacQueen Street</td>
<td>Low</td>
</tr>
<tr>
<td>Ref</td>
<td>Locality</td>
<td>Action</td>
<td>Rationale</td>
<td>Priority</td>
</tr>
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</tr>
<tr>
<td>1.14</td>
<td>Aberdeen (off-road)</td>
<td>Investigate the development of an off-road shared path around Jefferson Park, with the potential to link to St Andrews Reserve.</td>
<td>The town is lacking a circuit were recreation cyclists and families can ride off the road, safely together.</td>
<td>High</td>
</tr>
<tr>
<td>1.15</td>
<td>Aberdeen (on-road)</td>
<td>Formalise the presence of cyclists along the south entrance to town by allocating a bicycle shoulder lane on each side of MacQueen Street, between Gordon and Perth Streets. Possibility of extension of the bicycle shoulder through town to the Fitzgerald Bridge.</td>
<td>The shoulder lane is more flexible than a bike lane and allows cars still to park within the road reserve.</td>
<td>High</td>
</tr>
<tr>
<td>1.16</td>
<td>Merriwa (off-road)</td>
<td>Construct a connecting footpath down the western side of Brisbane Street, between Mackenzie and Bettington Streets.</td>
<td>It is a popular route for Merriwa Central School who regularly use Merriwa Oval. The footpath down Brisbane Street means that students can avoid the busy and heavy traffic along Bettington Street and minimise crossings.</td>
<td>Low</td>
</tr>
<tr>
<td>1.17</td>
<td>Merriwa (on-road)</td>
<td>Formalise the presence of cyclists along Bettington Street by allocating a bicycle shoulder lane on each side of the street, between Dutton Street and Hacketts Road.</td>
<td>The shoulder lane is more flexible than a bike lane and allows cars still to park within the road reserve. The lane will also alert motorists that cyclists regularly use the road.</td>
<td>High</td>
</tr>
<tr>
<td>1.18</td>
<td>Merriwa (off-road)</td>
<td>Investigate the development of a Merriwa Cycle Loop utilising the existing pathway on Mackenzie Street and the Merriwa Bicycle Path.</td>
<td>To provide a safe off-road cycling loop that provides connections to local schools, sports fields, the showground and the hospital.</td>
<td>Low</td>
</tr>
<tr>
<td>1.19</td>
<td>Murrurundi (off-road)</td>
<td>Construct a footpath down Haydon Street, between Adelaide and Murrulla Streets.</td>
<td>The street can become very busy as it is the main connecting street to the western side of town. A popular route for children riding to school, the street is too narrow to safely share the road with motorists.</td>
<td>Medium</td>
</tr>
<tr>
<td>1.20</td>
<td>Murrurundi (off-road)</td>
<td>Extend the footpath from the bridge on Murrulla Street in both directions to Haydon and Mayne Streets.</td>
<td>A popular route for children riding to school, the street is too narrow to safely share the road with motorists.</td>
<td>Low</td>
</tr>
</tbody>
</table>
Unsafe environments, whether actual or perceived, are a major disincentive to cycling within the Upper Hunter, particularly in Scone. In many instances the community felt that the presence of off-road bicycle paths and footpaths did not reduce their safety concerns, especially regarding their children, as many still had to cross the street and share the road with motorists.

Infrastructure on its own can not create a ‘safe’ cycling environment. The community, pedestrians, cyclists and motor vehicle drivers, all need to be educated about road safety and appropriate behaviours when engaging each other. It can not be assumed that the sole responsibility of safety is on the motor vehicle driver. Cyclists also need to be considerate to other road users and respect road rules.

Education requires the coordination of different government agencies, whom currently run their own form of road safety awareness programs. By inviting these users and 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.

Table 18. Actions for Goal 2

<table>
<thead>
<tr>
<th>Ref</th>
<th>Action</th>
<th>Responsibility</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Develop bicycle safety partnerships with government and non-government organisations and use their resources and experience to encourage, educate and promote bicycle safety to the community. Organisations include: Department of Transport for NSW, Bicycle NSW, Amy Gillett Foundation, NSW Department of Education and Communities, and Insurance companies, police, health care professionals, bicycle shops and any other organisation invested in bicycle safety</td>
<td>Community Services, Corporate Services</td>
<td>High</td>
</tr>
<tr>
<td>2.2</td>
<td>Develop partnerships with a local sports store or cycling group to educate riders about bike maintenance</td>
<td>Corporate Services</td>
<td>Medium</td>
</tr>
<tr>
<td>2.3</td>
<td>Significant promotion of road and bicycle safety through all levels of Council and other stakeholders</td>
<td>Internal Council and stakeholders</td>
<td>High</td>
</tr>
<tr>
<td>2.4</td>
<td>Continue to sponsor cycling programs and events, such as ‘Bike Week’, ‘Ride2School’, ‘Ride2Work’ and ‘She Rides’.</td>
<td>Corporate Services</td>
<td>High</td>
</tr>
<tr>
<td>2.5</td>
<td>Use non-slip line marking on road that are on-road bike routes</td>
<td>Civil Assets</td>
<td>Low</td>
</tr>
<tr>
<td>2.6</td>
<td>Install warning and directional signs for pedestrians and cyclists on key destination and recreation routes and at key destinations to improve network legibility</td>
<td>Corporate Services, Civil Assets</td>
<td>Medium</td>
</tr>
<tr>
<td>Ref</td>
<td>Action</td>
<td>Responsibility</td>
<td>Priority</td>
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</tr>
<tr>
<td>2.7</td>
<td>Install warning and Highway guidance signs for cyclists and motorists on the main routes out of towns</td>
<td>Corporate Services, Civil Assets</td>
<td>Low</td>
</tr>
<tr>
<td>2.8</td>
<td>Install warning, motorway and freeway guidance signs for cyclists and motorists along popular rural cycling routes</td>
<td>Corporate Services, Civil Assets</td>
<td>Medium</td>
</tr>
<tr>
<td>2.9</td>
<td>Develop a bike and footpath reporting system, designed specifically for cyclists and pedestrians of all ages</td>
<td>Corporate Services, Civil Assets</td>
<td>High</td>
</tr>
<tr>
<td>2.10</td>
<td>Ensure Council-owned footpaths and bikeways are well maintained. Make inspections a priority if they are reported as a safety hazard</td>
<td>Civil Assets</td>
<td>High</td>
</tr>
<tr>
<td>2.11</td>
<td>Investigate the feasibility and cost to light a selected high-use, off-road bike path according to Australian Standards AS/NZs1158.3.1:1999, investigate the use of solar lighting</td>
<td>Corporate Services, Civil Assets</td>
<td>Low</td>
</tr>
<tr>
<td>2.12</td>
<td>Provide maps (hard copies and online), with information on circuits around the towns and rural routes. Include distances, travel times (depending on fitness) and things to be aware of along the route (eg. cattle, heavy vehicles etc.)</td>
<td>Corporate Services, Economic Development and Tourism</td>
<td>High</td>
</tr>
<tr>
<td>2.13</td>
<td>Improve user comfort, actual and perceived safety along the off-road bike paths by:</td>
<td>Corporate Services, Civil Assets, Economic Development and Tourism</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>✑ installing Shared Pathway Rules signs along high-use pathways,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>✑ promoting the code of behaviour for shared pathways on Council’s website and other published material, e.g. bike maps, and</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>✑ constructing pathway widths in accordance with AUSTROADS Guide to Traffic Engineering Practice Part 14 Bicycles.</td>
<td></td>
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</tr>
</tbody>
</table>
There is a need for an integrated approach to transport and land use planning. Urban forms which support cycling will reduce dependence on motor vehicles and lead to more active, healthy communities. Cycling and pedestrian mobility must be considered in the early planning stages for any new developments and major projects such as the Scone Bypass and Kelly Street.

Road traffic and non-motorised transport should be considered as one system for any transport planning. Whether the planning be focused around kerb and guttering, local, rural or regional roads or footpaths, considerations need to ensure the new developments or upgrades contribute to a more cycle-friendly environment.

Adopting an integrated approach provides best value for money.

<table>
<thead>
<tr>
<th>Ref</th>
<th>Action</th>
<th>Responsibility</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Coordinate cyclist networks in transport infrastructure projects, including new roads and road upgrades</td>
<td>Corporate Services, Civil Assets, Engineering Operations</td>
<td>High</td>
</tr>
<tr>
<td>3.2</td>
<td>Investigate reduced road speeds in busy pedestrian and cyclist environments, such as the main streets through Scone, Aberdeen, Merriwa and Murrurundi, and near key destination areas (schools, libraries, and open spaces)</td>
<td>Corporate Services, Civil Assets, Engineering Operations</td>
<td>Medium</td>
</tr>
<tr>
<td>3.3</td>
<td>Support training courses for Council staff involved in road planning, engineering, development assessment, maintenance and design to increase awareness and understanding of needs and standards for cyclists and pedestrians</td>
<td>Corporate Services, Civil Assets, Engineering Operations</td>
<td>Medium</td>
</tr>
<tr>
<td>3.4</td>
<td>Obtain contributions for cycling facilities and infrastructure through Council’s Section 94 and 94A contributions. Funds obtained will supplement Council’s future works program identified in the Community Strategic Plan 2013+ and Delivery Program and Operational Plan to create an inter-connected network of bike and footpaths</td>
<td>Civil Assets, Engineering Operations, Environmental Services</td>
<td>High</td>
</tr>
<tr>
<td>3.5</td>
<td>Ensure temporary construction or maintenance works maintain an acceptable level of service for cyclists</td>
<td>Civil Assets, Engineering Operations</td>
<td>High</td>
</tr>
<tr>
<td>3.6</td>
<td>Actively support initiatives that increase understanding of pedestrian and cyclist planning in all levels of government, the community sector and industry professionals</td>
<td>Internal Council</td>
<td>High</td>
</tr>
<tr>
<td>3.7</td>
<td>Develop pedestrian and cyclist planning requirements for each town centre, to ensure any new developments, traffic upgrades or modifications to the street scape create and support walking and cycling-friendly environments</td>
<td>Corporate Services Environmental Services</td>
<td>Medium</td>
</tr>
</tbody>
</table>
secure and convenient end-of-trip infrastructure is available at key destinations

To make cycling more convenient, quality end-of-trip facilities, such as safe bicycle storage areas, water bubblers and directional signage are recognised as incentives for cyclists.

Owners and managers of existing premises are increasingly recognising the importance of providing secure facilities to attract walk and cycle trips, which reduce congestion and carparking demand. Research shows that walk and cycle trips are more enjoyable when mid-trip facilities, such as water fountains, shaded rest areas and directional signage are available. The importance of such amenities is being increasingly recognised in the design of cyclist facilities and networks, and they are generally provided in response to user feedback.

Some initiatives for improving end-of-trip facilities cyclists in the Upper Hunter Shire are listed below.

Table 20. Actions for Goal 4

<table>
<thead>
<tr>
<th>Ref</th>
<th>Locality</th>
<th>Action</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Scone, Aberdeen, Merriwa and Murrurundi</td>
<td>Provide highly visible, secure bicycle parking facilities at key destination, including sportsgrounds, neighbourhood parks, skate parks, Council facilities such as administration centres/customer service centres, libraries, swimming pools, information centres and train stations</td>
<td>Medium</td>
</tr>
<tr>
<td>4.2</td>
<td>Shire wide, though mainly Scone, Murrurundi and Aberdeen</td>
<td>Work with NSW Department of Education and Communities and private education institutions to ensure bicycle storage and access are integrated into school design</td>
<td>Medium</td>
</tr>
<tr>
<td>4.3</td>
<td>Scone, Aberdeen, Merriwa and Murrurundi</td>
<td>Install water-bubblers and bench seats at key destinations, including sportsgrounds, neighbourhood parks, skate parks, Council facilities such as administration centres/customer service centres, libraries, swimming pools, information centres and train stations</td>
<td>Low</td>
</tr>
<tr>
<td>4.4</td>
<td>Internal Council</td>
<td>Ensure that any new Council buildings or venues provide facilities for bicycle parking, storage and shower/dressing rooms</td>
<td>Low</td>
</tr>
<tr>
<td>4.5</td>
<td>Scone, Aberdeen, Merriwa and Murrurundi</td>
<td>Provide directional and distance signage at end-of-trip facilities</td>
<td>Medium</td>
</tr>
<tr>
<td>4.6</td>
<td>Internal Council and stakeholders</td>
<td>Encourage and promote local business, particularly cafes, to provide bicycle parking at their facility</td>
<td>Medium</td>
</tr>
</tbody>
</table>
Bicycle tourism is a growing market within the Australian tourism sector. Research demonstrates that bicycle tourism has the potential to make an active contribution to the revitalisation of regional Australian towns.

The Upper Hunter Shire is referred to as the Horse Capital of Australia, however with vineyards, fine foods and horse studs within a reasonable riding distance, there is opportunity for great cycling.

Nature based tourism is a big driver behind bicycle tourism, as such, it is important to consider the natural and rural assets of the Shire to attract and promote a variety of cycling experiences. These can range from on-road cycling to off-road cycling via travelling stock routes and unused rail trails. The National and State Parks within the Shire also offer numerous off-road cycling experiences that Council should embrace.

Table 21: Actions for Goal 5

<table>
<thead>
<tr>
<th>Ref</th>
<th>Action</th>
<th>Responsibility</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>Work with Upper Hunter Country Tourism to develop and promote bicycle tourism opportunities</td>
<td>Corporate Services, Economic Development and Tourism</td>
<td>High</td>
</tr>
<tr>
<td>5.2</td>
<td>Explore opportunities with other interest groups, agencies and the government to promote bicycle tourism in the Upper Hunter Shire</td>
<td>Corporate Services, Economic Development and Tourism, community</td>
<td>Medium</td>
</tr>
<tr>
<td>5.3</td>
<td>Promote the current rural cycle routes on Council’s website and information centres</td>
<td>Economic Development and Tourism</td>
<td>High</td>
</tr>
<tr>
<td>5.4</td>
<td>Commit to the feasibility study of the Sandy Hollow to Merriwa unused rail trail to meet the significant demand for safe, off-road walking and cycling tracks</td>
<td>Economic Development and Tourism, Civil Assets</td>
<td>Low</td>
</tr>
<tr>
<td>5.5</td>
<td>Direction signage along popular rural routes to highlight key attractions</td>
<td>Economic Development and Tourism</td>
<td>Medium</td>
</tr>
<tr>
<td>5.6</td>
<td>Install warning and guidance signs and billboards along rural tourist routes so that motorists and cyclists are made aware that they need to share the road and what’s considered a safe passing distance, e.g. ‘a metre matters’</td>
<td>Economic Development and Tourism, Civil Assets</td>
<td>High</td>
</tr>
</tbody>
</table>
Funding opportunities

Funding towards the Shire’s bicycle network can come from within Council, external funding bodies or a combination of both. Included below is a brief summary of existing and potential funding sources.

**Internal funding**

There may be areas within Council’s exiting budget where funds can be sourced to help implement some of the actions within this Plan.

Contributions or funds towards the bicycle network may come from projects such as:

- footpath construction program,
- open space programs,
- major road projects of local roads,
- council road maintenance and upgrade programs, and
- Section 94 and/or 94A contributions.

If Council decides to develop a Pedestrian Access and Mobility Plan (PAMP), funding towards the Shire’s bicycle network can also be obtained through the plan.

**State and Federal Government funding programs**

Funding is available for a variety of community based and bicycle riding/safety programs/projects across a range of State and Federal Departments, including:

- Transport for NSW/Roads and Maritime Services
  - NSW Bike Week event funding,
- Department of Communities - Sport and Recreation
  - Sport and Recreation Participation Program: provides funding to not-for-profit organisations and local councils for projects designed to increase regular and ongoing participation in sport, recreation or structured physical activity,
- Department of Education,
- Department of Health,
- Department of Resources, Energy and Tourism
  - Tourism Quality Projects: a grant program that offers funds to small scale projects that lifts the quality and variety or Australia’s tourism experiences, and
- Regional Development Australia Australia Fund - program open to council’s supporting regional infrastructure investment projects in Australia

**Other**

*Public/private partnerships:*

Where there are opportunities for private investment in public infrastructure.

*Community fundraising:*

Where funds are raised for an identified service or project.