



Cycling Strategy

OUR PEOPLE OUR PLACE OUR FUTURE



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Executive summary

Background

The Cessnock Cycling Strategy (the Strategy), sets Council's direction and framework to establish a bicycle friendly environment within the Local Government Area (LGA) over the next 20 years. The Strategy builds on the Cessnock City Council Bicycle Plan 1995, which proposed a number of actions designed to encourage and support cycling in the Cessnock area.

A number of documents were reviewed in the process of preparing the Cycling Strategy. Some of the key documents reviewed include:

- Hunter Regional Transport Plan 2014 - sets out the direction for transport in the region with a strong focus on cycling through a number of programs including the Connecting Centres Cycling Program.
- Cessnock City Council Community Strategic Plan 2023 - identifies five outcomes to achieve the community vision of being "thriving, attractive and welcoming".
- Various Section 94 Contributions Plans - a total of seven Plans have been reviewed and a number of significant cycling infrastructure projects are planned that are incorporated into planning for the Cessnock Cycling Strategy.
- NSW Bike Plan 2010 - a visionary document that aims to make NSW "one of the world's best places to ride a bike."

Consultation summary

Cessnock has a growing population, which is expected to reach 68,364 people by the year 2031. This growth in population creates opportunities for increasing cycling infrastructure in new urban release areas such as Huntlee and Bellbird North.

The Cycling Strategy involved significant consultation with the community. Some of the key findings from consultation include:

- A significant share of community members feel that cycling in the Cessnock LGA is not safe (86%).
- More than 80% of community members feel that a lack of adequate cycle paths is a barrier to cycling in the region.
- Almost half of respondents to the community survey cycle to recreational areas (47%), much higher than any other response.

The Strategy also included a number of interviews with key stakeholders with the following suggestions for improving cycling in the region:

- Bike paths to connect towns to the wine region (particularly Cessnock).
- Provide wider road shoulders on main roads (particularly Wine Country Drive).
- Provide more recreational bike paths (off road).
- Greater education for motorists to improve awareness of cyclists.

Vision and Strategic Objectives

The vision for cycling in Cessnock is to "Create a safe, attractive and accessible cycleway network that improves the community's connections with key destinations and each other and encourages residents of all ages to use their bicycle for recreation and everyday transport." The vision is supported by four strategic objectives:

- Provide a cycling environment that is safe, secure and encourages residents to cycle without fear of accident or injury.
- Provide a cohesive and integrated bicycle network that is easy for cyclists to use.
- Integrate cycling into Council's planning processes.
- Promote awareness of cycling amongst the community and road and path user groups.

A framework for cycling in Cessnock

The review of Bicycle NSW and Austroads guidelines helped to develop a framework for cycling in the Cessnock area. A route classification system assigns a cycling route to be a regional, district or local cycleway. This helps with prioritisation when routes intersect with roads and provides Council with a basis to access funding for new cycling infrastructure.

The cycling framework also identified preferred standards for cycling infrastructure, based on Austroads and Bicycle NSW guidelines. The following path types are recommended for use in the Cessnock LGA:

- On road (bicycle lane, bicycle shoulder lane, mixed traffic streets).
- Off road (shared path).

The framework for cycling in Cessnock also provides guidance on the provision of end-of-trip facilities. Bicycle parking facilities should be provided within 100m of common commuting or recreational destinations. These include schools, shopping centres, passenger railway stations, parks and work places. Further information on which type of facility is required in each location is provided within the Strategy.

Cessnock cycling environment and opportunities

The information discussed above has been combined with a thorough audit of the existing cycling conditions in Cessnock. As noted above, a number of people in the community feel that cycling is not safe and this is a major barrier to cycling in the LGA. Despite the relatively low cycling infrastructure levels in the area, there are a number of opportunities for improving cycling in Cessnock, particularly for recreation cycling. The Hunter Valley wine region, disused rail corridors and appealing landscapes provide numerous opportunities for Council to promote cycling. A number of infrastructure opportunities and recommendations have been made within the Strategy to improve connections within and between towns and to provide locals with more opportunities to cycle.

Strategic directions

To achieve the objectives of the Cessnock Cycling Strategy, seven strategic directions have been identified. They are:

1. Enhance the safety and continuity of cycling in Cessnock.
2. Provide appropriate support infrastructure.
3. Provide a convenient and attractive cycling environment.
4. Provide measures for cycling in new development.
5. Provide leadership and direction in encouraging cycling through planning and policy.
6. Promote cycling, cycleway routes and cycling events through various sources.
7. Monitor the implementation of cycling actions and progress towards targets.



Key actions

A number of actions have been developed to address the strategic directions outlined above. The key actions that have been deemed to be of a high priority to cycling in the region are provided below.

Ref	Action	Rationale	User type(s)	Priority
1.2	<p>Support the Transport for NSW's Cycling Safety Action Plan 2014, namely:</p> <p>Action 2: Work with bicycle user organisations and training providers to promote road safety within cycling skills and confidence training courses with a particular focus on helmet wearing and compliant and safe cycling for young people.</p> <p>Action 4: Provide information on cycling routes, safety messaging, skills and confidence training courses to the community through a dedicated website</p> <p>Action 35: Roads and Maritime Services to work with local governments to include bicycle safety projects within the Local Government Road Safety Program and other programs.</p>	To demonstrate and guide Council's commitment to cycling safety.	All cycling user groups	High
1.3	<p>Implement Council's Road Safety Strategy, particularly the following objectives:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 1.6.1 - Develop and deliver road safety programs to improve road safety outcomes for bicyclists <input type="checkbox"/> 1.6.2 - Participate in Bike Week activities/ events to further promote road safety solutions for bicyclists. <input type="checkbox"/> 1.6.3 - Distribute TfNSW bicycle safety campaign materials to promote the increased use of helmets and compliance with road rules by bicyclists. <input type="checkbox"/> 1.6.5 - Work with local school communities to ensure that bicycle safety around schools is well monitored and provided for. 	To demonstrate and guide Council's commitment to road safety.	All cycling user groups	High
1.5	Implement the projects identified in the Works Program shown in Appendix 1.	To provide key cycling infrastructure within the Cessnock LGA.	All cycling user groups	High
1.6	Prior to implementation of scheduled road surfacing, relinemarking or reconstruction projects on roads, Council and the RMS undertake an assessment of provisions for cyclists and determine capacity for upgrading of facilities (such as reallocation of space, linemarking, physical separation of cyclists and motorists).	To improve safety for road cyclists.	Road cyclists	High
2.2	Provide highly visible, secure bicycle parking facilities at key destinations, including sportsgrounds, neighbourhood parks, skate parks, Council facilities, such as administration centres/ customer service centres, libraries and swimming pools, information centres, train stations/transport hubs and retail areas (see Section 5 for guidance on appropriate locations and facilities).	To encourage cycling to key destinations, particularly for commuter/utility cyclists.	All cycling user groups	High

Ref	Action	Rationale	User type(s)	Priority
3.1	Development and installation of directional and destination signage for cyclists in accordance with relevant standards and Cessnock's Signage Strategy.	To improve way-finding and encourage cycling.	All cycling user groups	High
4.3	Review the Cessnock Development Control Plan to include the cycling framework into the DCP and to include requirements for end-of-trip facilities in new development.	To encourage cycling particularly for commuter cyclists.	All cycling user groups	High
5.1	Maintain partnerships with adjoining local governments.	To maximise opportunities to improve the Council's cycling network.	All cycling user groups	High
5.3	Collaborate with RMS to initiate a driver/cyclist awareness campaign.	To create awareness among the community for cycling and improve safety for cyclists and motorists.	All cycling user groups	High
5.4	Implement an Internal Working Group for cycling (see section 8 for more details).	To address the actions in the Cycling Strategy.	All cycling user groups	High
5.5	Commit to the allocation of funds for cycling in future budgets.	To implement the recommendations of this Strategy and provide for cycling in Cessnock.	All cycling user groups	High
6.2	Promote and sponsor events including 'National Ride to Work Day', 'Ride 2 School Day' and 'NSW Bike Week'. Promote staff participation in events such as 'National Ride to Work Day'.	To create awareness for cycling and encourage its uptake.	All cycling user groups	High
6.4	Provide information on cycling through the Council website. Include information such as cycling routes, the benefits of cycling (health, environmental etc.), events and links to other resources.	To provide the community and visitors with information on cycling in Cessnock.	All cycling user groups	High
7.1	Implement bicycle counts as standard practice, whenever traffic and pedestrian counts are undertaken.	To track the trends for participation in cycling.	All cycling user groups	High
7.4	Annually monitor progress against the actions within this Strategy through Council's internal reporting processes (see Section 8 for more details).	To monitor implementation of the Cycling Strategy.	All cycling user groups	High

High priority works

The following table summarises proposed works in each of the cycling environments across the LGA that have been identified as high priorities (as soon as resources allow). All proposed works (high, medium and low priorities) for each environment are detailed in Section 6, with a consolidated works program found in Appendix 1.

Item	Distance	Hierarchy
Regional cycling environment		
New off-road path on Doyle/Church/Dover Streets (Cessnock) - Maitland Road to Wine Country Drive	1.420km	Regional
New off-road path along Appleton Ave (Weston) - Margaret Johns Park to Scott Street rail crossing	0.789km	Regional
New on-road connection through Neath along Cessnock Road from Northumberland Street to Duffie Drive	2.236km	Regional
New on-road connection on Wine Country Drive - O'Connor's Road to Lovedale Road cycleway	2.600km	Regional
New on-road connection on Maitland Road - Davis Street to Victoria Street	0.635km	Regional
New on-road connection on Lang Street and Victoria Street from Heddon Street to Rawson Street	1.180km	Regional
Sub-total of high priority works		\$796,000
Cessnock town cycling environment		
New off-road path on Cumberland Street - Aberdare Road to Millfield Street	0.970km	District
New off-road path on Victoria Street, Cessnock - Maitland Road to Yango Street	0.122km	Local
New off-road path on Halcyon Street from David Street to Koree Street	0.392km	Local
New on-road connection on Cooper Street between North Avenue and Cumberland Street	0.255km	Local
New on-road connection on Jurd Street - Church Street to Dixon Street	1.013km	Local
New on-road connection on Wollombi Road/Maitland Road from Darwin Street to Doyle Street	0.680km	District
Upgrade the Mount View Road footpath to a shared path between Wollombi Road and the Cessnock Civic Indoor Sports Centre	1.163km	District
Sub-total of high priority works		\$1,313,300
Pokolbin's cycling environment		
New off-road path on Broke Road - Wine Country Drive to McDonalds Road	3.616km	District
New off-road path on McDonalds Road from McDonalds Road cycleway to Broke Road	1.000km	District
Sub-total of high priority works		\$1,625,000
Greta-Branxton cycling environment		
New off-road path on Bridge Street/Drinan Street/Cessnock Road - Railway Street to the New England Highway	0.962km	Local
Upgrade on-road conditions on Railway Street, Branxton	0.492km	Local
Sub-total of high priority works		\$339,500

Item	Distance	Hierarchy
Kurri Kurri town cycling environment		
New off-road path on Heddon Street - Lang Street to Hopetoun Street	0.420km	Local
New on-road connection along Railway Street from Allworth Street to Victoria Street	0.350km	Local
New on-road connection on Victoria Street - Northcote Street to Lang Street	0.731km	District
Sub-total of high priority works		\$151,000
Weston-Abermain-Neath cycling environment		
New on-road connection along Station Street from First Street to Cessnock Road	0.105km	Local
Sub-total of high priority works		\$500
Kitchener-Kearsley cycling environment		
New on-road connection along Quorrobolong Road from Baddeley Park to Stanford Street, Kitchener	3.200km	District
Sub-total of high priority works		\$10,000
Millfield-Paxton-Ellalong-Wollombi cycling environment		
		No high priority works
TOTAL OF HIGH PRIORITY WORKS ACROSS LGA		\$4,235,300

1

Introduction

The Cessnock Cycling Strategy (the Strategy), sets Council's direction and framework to establish a bicycle friendly environment within the Local Government Area (LGA). The Strategy's long term vision for a network of on- and off-road bicycle routes that connect 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 Strategy's vision.

The key objectives for the Cycling Strategy are to:

1. Build on the Cessnock City Council Bicycle Plan 1995.
2. Assess and analyse the recreation, commuting and other cycling needs of the current and additional population to 2031.
3. Integrate the Cycling Strategy with the City Wide Settlement Strategy – thereby enabling cycleway priorities and routes to be integrated with the new urban release areas and their staging.
4. Inform Council policy and strategies - including Plans of Management and Master Plans, Recreation & Open Space Strategic Plan, cycling programs and services, strategic property review and asset management.
5. Provide a robust framework for incorporation of development contributions as appropriate into new/updated Section 94 and/or Section 94A Contributions Plans. This will provide a clear strategy and policy framework for cycle-ways to be potentially included in voluntary Planning Agreements initiated by a development proponents and to enable development applicants to incorporate planned routes for cycle-ways within subdivision designs and build them at their costs and as material public benefit.

This Strategy will contribute to and enhance Council's strategic vision of an attractive and sustainable rural environment, which is supported by accessible infrastructure creating a thriving, attractive and welcoming community.

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 can complement the role of other government agencies and non-government organisations. Council's role in achieving progress towards this Strategy 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 built environment.

Advocacy

Council's role is to advocate and lobby on behalf of local communities in achieving progress towards community outcomes e.g funding for road safety programs.

Cessnock 2023 Community Strategic Plan

Council's Community Strategic Plan 2023, 'Our People, Our Place, Our Future' outlines the aspirations and objectives of Council and its residents and guides the operations and strategic planning for Council over the coming years. Operations and decisions are guided by five community desired outcomes:

A connected, safe and creative community

A sustainable and prosperous economy

A sustainable and healthy environment

Accessible infrastructure, services and facilities

Civic leadership and effective governance

It is through these community desired outcomes that Council can plan for and maximise the quality of life for its residents. The relevant objectives of these desired outcomes as determined through community engagement, are:

A connected, safe and creative community

- Objective 1.1 - Promoting social connections.
- Objective 1.3 - Promoting safe communities.

A sustainable and prosperous economy

- Objective 2.3 - Increasing tourism opportunities and visitation in the area.

Accessible infrastructure, services and facilities

- Objective 4.1 – Better transport links.

It is important that the vision and goals of this Strategy support the desired outcomes of the Cessnock 2023 Community Strategic Plan.

Vision

A good quality, connected cycleway network plays an important role in a community's quality of life. It has the potential to improve health, increase social cohesion, promote environmental awareness and appreciation and attract economic opportunities to the region. The following vision sets the desired scene for Cessnock City Council's cycleway network:

“Create a safe, attractive and accessible cycleway network that improves the community's connections with key destinations and each other and encourages residents of all ages to use their bicycle for recreation and everyday transport.”

Strategic Objectives

The following objectives have been established to form the basis of the Cycling Strategy. The four strategic objectives fundamental to achieving Council's vision are:

- Provide a cycling environment that is safe, secure and encourages residents to cycle without fear of accident or injury.
- Provide a cohesive and integrated bicycle network that is easy for cyclists to use.
- Integrate cycling into Council's planning processes.
- Promote awareness of cycling amongst the community and road and path user groups.

These four objectives guide the development of the Strategy and are paired with directions, actions and indicators to achieve the vision of the Cessnock Cycling Strategy.

Planning process

Methodology

The methodology used in the development of this Strategy has been broken down into five stages. The diagram below shows the sequential development of the strategic framework and detailed analysis of Cessnock's bicycle network. The information gathered and generated throughout this process provides the various outputs required for the Strategy. The five stages are:



Document structure

The Cessnock Cycling Strategy adopts the following document structure to address the Cycling needs of the region:

- Document review - a thorough document review has been conducted, which provides direction for the Strategy and increases the integrative nature of this document.
- Influences on cycling in Cessnock - a demographic study and thorough consultation provides valuable information to work with in the formation of strategies to address cycling in the region.
- Benefits of cycling to the Cessnock LGA - the benefits of cycling are explored and detail how cycling can provide benefits to physical health, society, the economy and the environment.
- Cessnock cycling framework and hierarchy - Austroads and Bicycle NSW guidelines provide the basis for establishing a route and path classification system to guide the future development of cycling facilities and infrastructure in Cessnock.
- The Cessnock cycling environment and opportunities - a thorough audit of existing facilities is conducted and opportunities for the region and each small area are provided.
- Strategic directions and actions - a set of strategic directions, actions and indicators is proposed to achieve the strategic objectives of the Strategy.
- Implementation Plan - a number of opportunities are presented for implementing the Strategy including key partnerships, funding opportunities, a promotion plan and Council resources.



2

Document review

A number of background documents were reviewed in the development of this Strategy. 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: National, State or Regional influence, Local Government Area (LGA) or a specific area within the Council. Each of the documents reviewed is listed below and the full Review can be found at Appendix 2.

Strategic and land-use planning

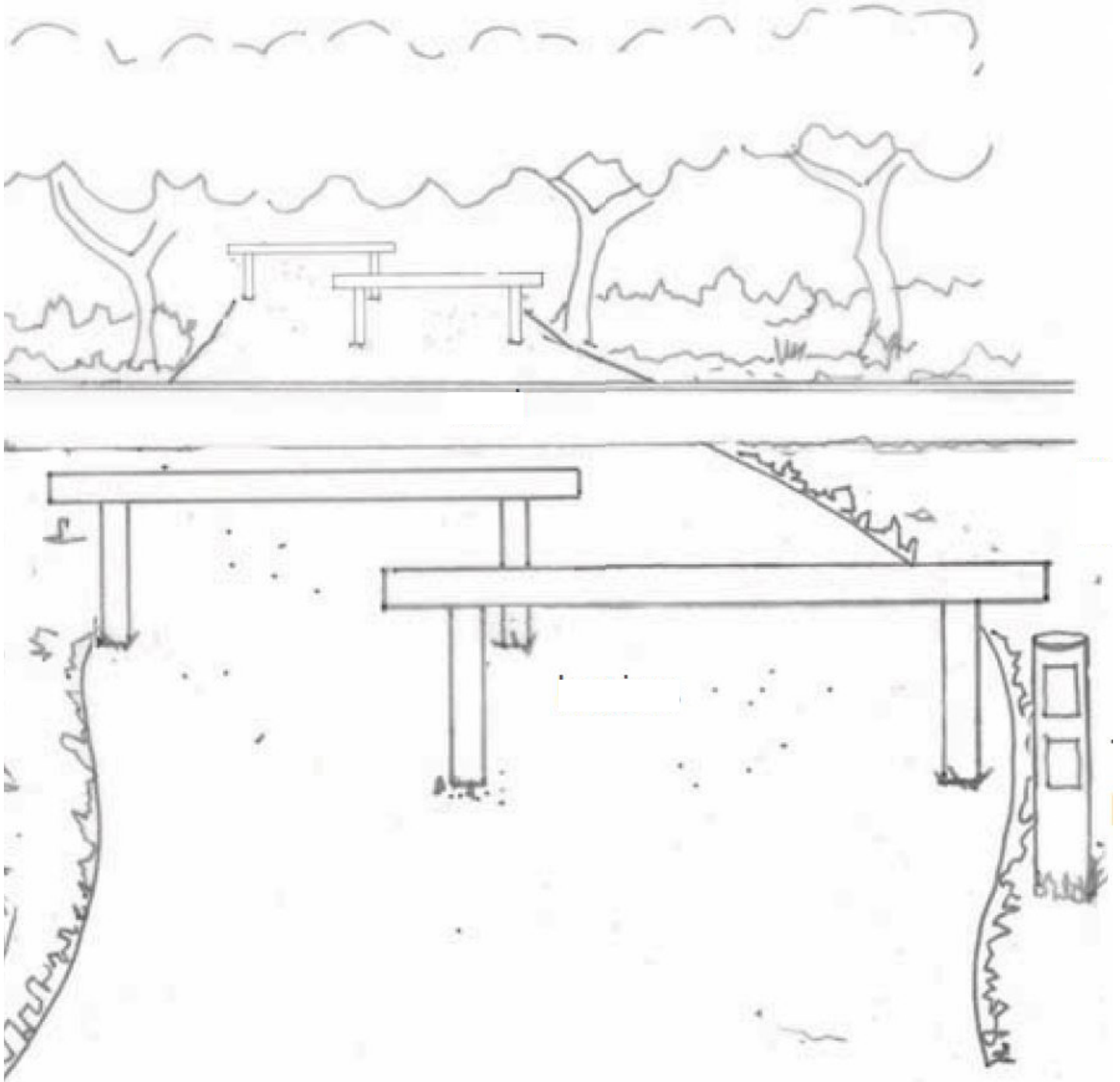
State/Regional	Cessnock LGA	Area/site-specific
<ul style="list-style-type: none"> <input type="checkbox"/> Lower Hunter Regional Strategy 2006-2031 <input type="checkbox"/> Hunter Regional Transport Plan 2014 <input type="checkbox"/> Draft Hunter Regional Plan 2015 	<ul style="list-style-type: none"> <input type="checkbox"/> Cessnock City Council Community Strategic Plan - Cessnock 2023 <input type="checkbox"/> Cessnock City Council Community Research 2012 and 2014 <input type="checkbox"/> Cessnock Economic Development Strategy 2013-17 <input type="checkbox"/> Cessnock City Wide Settlement Strategy 2010 <input type="checkbox"/> Cessnock City Council Revised Delivery Program 2013-17 <input type="checkbox"/> Cessnock Signage Strategy <input type="checkbox"/> Cessnock City Council Recreation and Open Space Strategic Plan 2009 <input type="checkbox"/> Cessnock Skate and BMX Facilities Needs Assessment 2011 <input type="checkbox"/> Cessnock Aquatic Needs Analysis 2014 <input type="checkbox"/> Various Section 94 Development Contribution Plans <input type="checkbox"/> Various Planning Agreements 	<ul style="list-style-type: none"> <input type="checkbox"/> Vineyards District Community Vision Community Consultation Report 2012 <input type="checkbox"/> Cessnock CBD Masterplan 2012 <input type="checkbox"/> Branxton Town Centre Masterplan <input type="checkbox"/> Cessnock Development Control Plan 2010 <input type="checkbox"/> Huntlee Development Control Plan 2013

Bicycle planning

National	State/Regional	Local
<ul style="list-style-type: none"> <input type="checkbox"/> National Cycling Participation Survey 2015 - National results <input type="checkbox"/> National Cycling Strategy 2011-2016 <input type="checkbox"/> Cycling Aspects of Austroads Guides 	<ul style="list-style-type: none"> <input type="checkbox"/> NSW Bike Plan 2010 <input type="checkbox"/> Cycling Safety Action Plan 2014-2016 <input type="checkbox"/> How to Prepare a Bike Plan - NSW <input type="checkbox"/> NSW Bicycle Guidelines - Roads and Maritime Services <input type="checkbox"/> Cycle Tourism in the Hunter Region 2005 	<ul style="list-style-type: none"> <input type="checkbox"/> Cessnock City Council Bicycle Plan 1995 <input type="checkbox"/> Road Safety Strategic Plan 2014-2018 <input type="checkbox"/> Lake Macquarie City Council Cycling Strategy 2021 <input type="checkbox"/> Newcastle Cycling Strategy and Action Plan 2012 <input type="checkbox"/> Maitland Bicycle Plan and Strategy 2014 <input type="checkbox"/> Singleton Bike Plan 2015

*'Many regional towns in NSW are ideal for walking and cycling for transport. Almost 90 percent of people in regions live within easy walking or cycling distance of a local centre, with access to shops, schools, and workplaces. Wider streets, lower traffic volumes and safe routes in regional centres will make walking and cycling safer and more convenient transport options.'*¹

¹ Hunter Regional Transport Plan 2014



3

Influences on cycling in Cessnock

Influence of community profile

Cessnock Council - a snapshot

Total population (2011)	50,840
Age group	
0-4 years	7.5%
5-11 years	9.6%
12-17 years	8.5%
18-24 years	8.7%
25-34 years	12.3%
35-49 years	19.6%
50-59 years	13.4%
60-69 years	11.1%
70-84 years	7.7%
85+ years	1.7%
Median age	37
Household composition	
Couples with children	30.1%
Couples no children	25.6%
Lone household	22.9%
Method of transport to work (one method)	
Car (driver or passenger)	74.8%
Walked only	2.2%
Bus or Train	0.8%
Bicycle	0.2%
Other	
People without access to a motor vehicle	6.2%
People requiring assistance with daily activities	6.5%

Social profile

The way in which a community uses its environment and participates in physical activities is largely influenced by age. Understanding the spatial and demographic variations in communities, such as concentrations of older residents or youth, is fundamental in responding to and planning for, the future provision of facilities (including cycling infrastructure).

With an average age of 37 years, Cessnock's residents are relatively younger compared to State averages. Compared to regional NSW, the Council area has a higher proportion of young people (0-17 years) and a lower proportion of people in the older age groups (60 years and above). However, the fastest growing age group is the retirees and empty nesters (60 - 69 years), being 9.1% of the population in 2006 and 11.1% in 2011.

Approximately 18.1% of the population is school aged (5 to 17 years old). Of those aged between 5 and 17 years, the highest proportion live in the Cessnock and Kurri Kurri-Weston urban localities.

In 2011, the main method of transport to work in Cessnock was by car, accounting for 74.8% of all trips. This figure is significantly higher than the regional NSW average of 71.1% and the method of bicycle to work (0.2%) is significantly lower than the regional NSW average of 0.7%.

The Cessnock and Kurri Kurri-Weston township areas have a low index of socio-economic disadvantage (SEIFA) which indicates a higher level of disadvantage, when compared to the rest of the Cessnock LGA. The SEIFA index is derived from indicators such as low income, low educational attainment, high unemployment and relatively unskilled occupations.

Population growth

The population of the Cessnock LGA has grown quickly over the last 10 years, achieving 10% growth between 2006 and 2011. The projected population for 2031 is expected to be 68,364 people (it should be noted that although the Department of Planning advises that the population at 2031 is projected to be 66,400 people, Cessnock City Council estimates this to be slightly higher at 68,364). That is a significant increase and will create increased demand for cycling infrastructure, facilities and services.

Cessnock City Council contains an even mix of residents who work within (44%) and outside (43%) the council area. As a result, there are several things that will impact on the future growth of the population in Cessnock. The continued growth of industries associated with the Hunter Valley Wine Country is likely to be a key factor.

Other sources contributing to population growth are 'tree changers' (particularly empty-nesters and retirees) looking for a more relaxed lifestyle and:

- The emergence of new industries, particularly in research and development.
- New development projects associated with major land release.
- Attraction of families to the area, based on the amenity and beauty.

As a result of the overall projected growth of the Cessnock LGA, it is expected that the total number of people looking for flexible, low cost recreation, such as cycling, will increase.

The growth of population in Cessnock will be catered for largely in greenfield sites, with the following sites proposed or approved for residential development:

- Huntlee - 7,500 lots (21,000 residents)
- Bellbird North - 3,500 lots (10,000 residents)
- Anvil Creek, Greta - 1,365 lots (3,820 residents)
- Averys Village, Heddon Greta - 1,200 lots (3,000 residents)
- Cliftleigh - 977 lots (2,440 residents)
- Government Road, Cessnock - 450 lots (1,305 residents)
- Black Creek 10, Nulkaba - 280 lots (870 residents)
- Kitchener - 300 lots (870 residents)
- Golden Bear, Rothbury - 300 lots (840 residents)
- Bellbird Heights - 300 lots (840 residents)
- Mount View Road - 280 lots (680 residents)
- Wyndham Street, Greta - 240 lots (670 residents)
- Heddon Greta - 195 lots (487 residents)
- Valley View Place, Nulkaba - 120 lots (370 residents)
- Congewai Creek 5, Millfield - 125 lots (360 residents)
- Rose Hill, Millfield - 100 lots (290 residents)
- Hebburn Estate, Weston - 90 lots (250 residents)
- Black Creek 5, Cessnock - 75 lots (215 residents)
- Paxton North - 42 lots (120 residents)
- Weston - 20 lots (55 residents)

The provision of cycleways and bike facilities in these areas has been considered as part of the Strategy.

Strategic implications

A growing population creates greater demand for cycling facilities. Major urban release areas in Cessnock include Huntlee and Bellbird North. These areas should include high quality cycling facilities as part of their development and as such, connections to and from these areas are considered to be important.

Additionally, the increase of older age groups creates a demand for passive and informal recreation activities such as cycling. Access to playing fields and formal sport opportunities are still important to younger people, while older people will generally seek walking, cycling and other low impact physical activities.

As identified in the Social Profile review, the majority of school-aged children in the area live within the Cessnock or Kurri Kurri townships. Assuming the majority of primary school aged children attend their local primary school, there is tremendous scope for increased cycling within these two towns.

Currently up to 20% of trips by car within Australia are less than 5km. The Cessnock region currently has a low level of cycling participation when compared to regional NSW. Due to their compact development nature, the urban areas of Cessnock and Kurri Kurri-Weston are ideal locations to encourage cycling as the preferred method of transport for short trips (5km).

The Cessnock and Kurri Kurri-Weston townships also have a relatively low SEIFA ranking. Improving access to safe and quality walking/cycling paths within areas like Cessnock and Kurri Kurri-Weston can help prevent social isolation, create a greater sense of personal independence and can encourage positive health and wellbeing outcomes.

Influence of the layout of Cessnock LGA

The layout of the Cessnock LGA has a major influence on the potential for cycling in the region. The distance between major centres and the terrain in many areas can provide major challenges for cyclists in the area. A summary of the conditions in and around each town is provided below, along with a summary of cycling between major centres.

Cessnock

Generally speaking the town of Cessnock itself is an ideal location for cycling. Much of the town is relatively flat and well contained meaning cycling between key destinations is possible. Areas directly to the east of the CBD have fairly steep gradients and would be challenging for cyclists. However the majority of routes from residential areas to the CBD are easily achievable given the distance and gradients present. The key routes include:

- Bellbird to Cessnock CBD (4.45km) - suitable for a majority of cyclists, with an average gradient of 1.6% and one challenging climb at Bellbird Heights.
- Mount View Park/High School to Cessnock CBD (2.64km) - suitable for all types of cyclists, with an average gradient of 1.2% and no challenging climbs.
- Cessnock High School/Turner Park to Cessnock CBD (2.37km) - suitable for all types of cyclists with an average gradient of 1.2% and no challenging climbs.
- Kearsley to Cessnock CBD (5.22km) - suitable for confident cyclists with an average gradient of 2.4% and a relatively long challenging climb after leaving Kearsley.

Kurri Kurri

The town of Kurri Kurri is slightly more challenging for cyclists compared to Cessnock. The town centre is perched on a hill making it challenging to cycle into the centre of Kurri Kurri from any direction. However, like Cessnock the key destinations in Kurri Kurri are centrally located and the distance from these areas to surrounding residential areas is not great. Some of the key routes in the Kurri Kurri area include:

- Heddon Greta to Kurri Kurri town centre (4.2km) - suitable for most cyclists, although the last section leading into town is a long uphill section.
- Pelaw Main to Kurri Kurri town centre (1.92km) - suitable for capable cyclists, with a long downhill section followed by a steep uphill section to the town centre.
- Margaret Johns Park to Kurri Kurri High School (1.79km) - suitable for all types of cyclists, with an average slope of 1.0% and one challenging climb towards the school.

Greta-Branxton-Huntlee

This area includes the new Huntlee development, which is currently under construction and is expected to provide up to 7,500 dwellings to the area. The area is suitable for cycling with the three towns in relatively close proximity with each other. While the terrain is undulating, there are no major climbs to speak of meaning cycling is generally suitable for most cyclists. Some of the key routes in the area include:

- Branxton to Greta (4.72km) - suitable for most cyclists with an average slope of 1.6% and a few long but relatively gentle climbs followed by downhill relief.
- New Huntlee development to Miller Park (2.32km) - suitable for most cyclists with an average slope of 2.2%, with the most challenging climb on the return trip through the town of Branxton.

Cycling between major centres and towns

The potential for cycling between major centres and towns in Cessnock is somewhat limited due to the distance between some towns and the steep terrain in some areas. The following key regional routes have been examined:

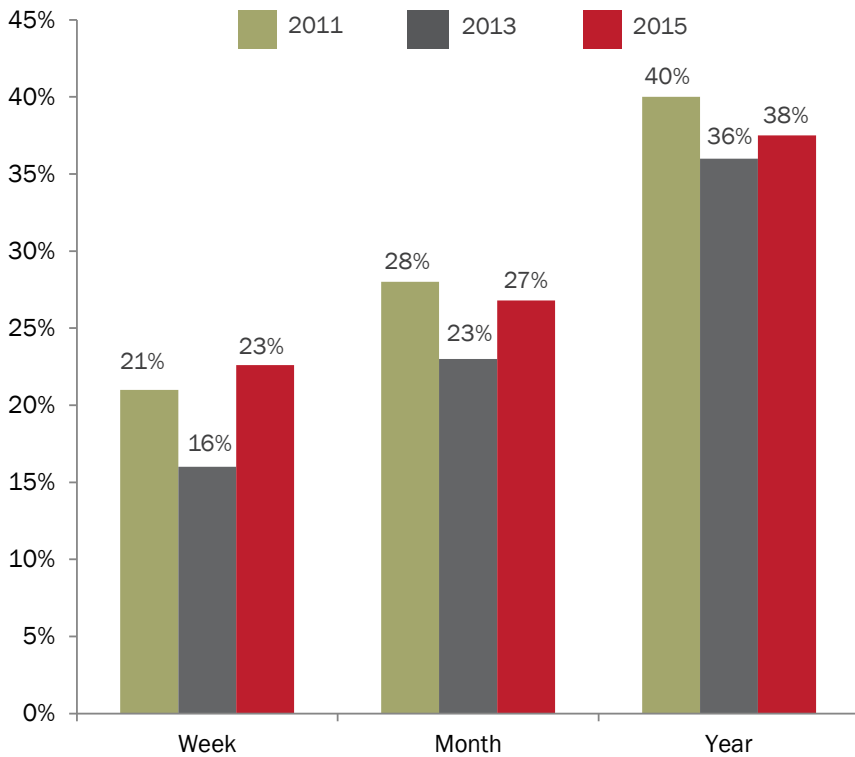
- Cessnock to Pokolbin (10.3km) - suitable for most cyclists with an average slope of 1.6% and a gentle climb leading into Pokolbin.
- Cessnock to the new Huntlee development (19.5km) - suitable for capable cyclists only. Relatively flat for the most part but a long distance and a few gentle climbs.
- Millfield to Cessnock (12.6km) - suitable for capable cyclists only with a relatively long ride and a very challenging climb on the return trip between Pelton and Greta Main.
- Kurri Kurri to Cessnock (12.4km) - suitable for capable cyclists with a relatively long ride and a challenging climb through Neath.

Participation trends

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

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

Between 2011 and 2015, cycling participation rates have been fairly constant at a state level, however, changes can be seen in regional NSW¹. Rates decreased significantly in 2013 and have returned to being similar to 2011 levels in 2015.



Cycling participation rates in regional NSW by frequency of participation between 2011 and 2015

Of the NSW residents who participated in the 2013 National Cycling Participation Survey:

- 16.7% of NSW residents ride a bicycle in a typical week, equating to approximately 1.25 million residents.
- More males (20%) than females (14%) ride a bicycle, however female participation is increasing particularly for those under the age of 18.
- A significantly higher proportion of children than adults ride a bicycle².

¹ Anywhere in NSW, excluding the Sydney metropolitan area

² 2015 National Cycling Participation Survey

Cycling purpose

Comparison of recreational and transport cycling in regional NSW is similar to Australian averages. Cyclists in regional NSW tend to cycle more for recreation than those in Australia in general.

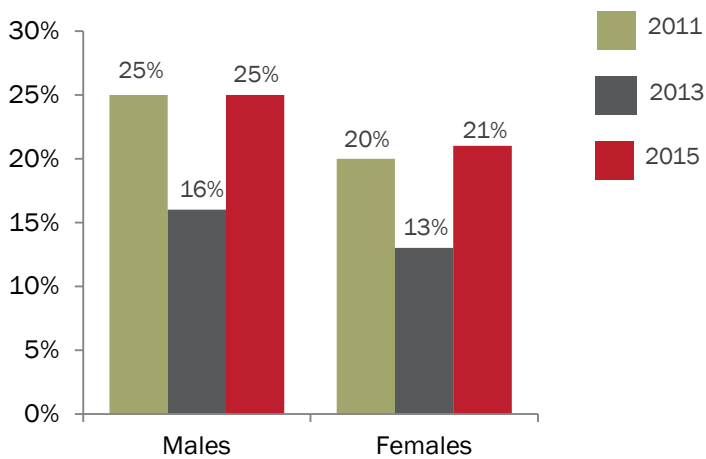
Cycling Purpose	Regional NSW	Aust
Recreation	91%	85%
Transport	31%	30%

When looking at those who cycle for transport, the vast majority of those cycle to visit friends or relatives. Cycling for education or shopping is also common.

Cycling for Transport	Regional NSW	Aust
Commuting	2%	7%
Education	7%	10%
Public Transport	0%	1%
Shopping	7%	8%
Visit friends/relatives	21%	12%

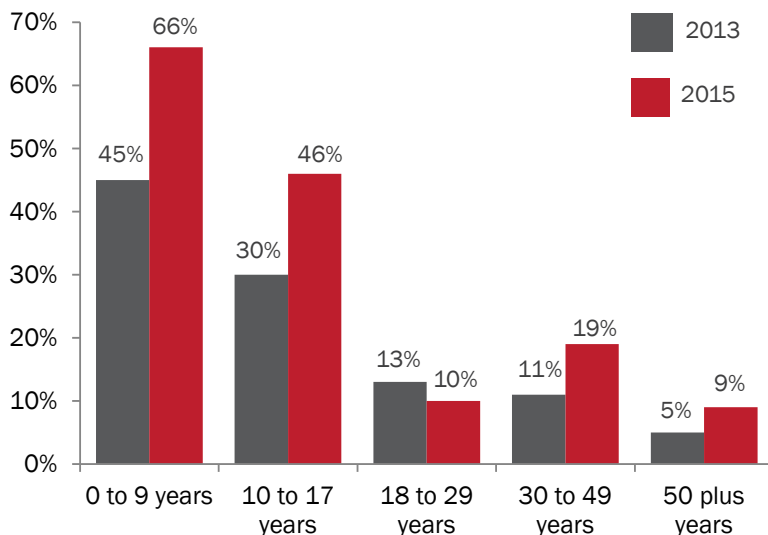
Participation by age and gender

Consistent with national trends, males in regional NSW are more likely to cycle than females (see figure below). The rate of female cycling has increased on 2011 and 2013 levels.



Cycling participation in regional NSW by gender cohort for 2011, 2013 and 2015

Trends also show that cycling participation rates are much higher among the youth and then decrease as people get older. Considering the activity of cycling 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 participation in regional NSW by age cohort for 2013 and 2015

Cycling participation in regional NSW among almost all age groups has increased significantly. The only age group where cycling decreased in popularity was in 18 to 29 year olds.

Bicycle ownership

The number of bicycles per household in regional NSW tells a similar story to cycling participation comparisons. Roughly 29% of respondents have access to three or more working bicycles, much higher than NSW and Australia.

Number of bicycles per household	Regional NSW	NSW	Aust
none	43%	50%	46%
one	16%	15%	16%
two	11%	12%	15%
three or more	29%	23%	24%

Participation barriers

Understanding why people choose not to cycle for recreation or transportation purposes helps Council 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 barriers; physical barriers; and practical barriers.

Emotional barriers

Safety

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.

Research has found that 'visibility' is a major contributor to crashes involving a bicycle. This includes both bicycle riders not being seen by a driver at all or in time, or by vehicles not being seen by the bicycle rider at all or on time¹.

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

- Bike lanes often do not provide the level of security they are designed to.
- Many motorists do not notice or respect bike lanes.
- Cyclists are vulnerable to parked cars opening doors.
- Many people are unsure about, or do not understand the rules and regulations regarding cycling on footpaths.

Parents' 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 or small towns/villages, the streets around the towns are often wide enough to allow for safe cycling. However, outside of these towns, 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 will not or choose not to, go around them.

A NSW study of bicycle riders identified road rules which bicycle riders regularly break, and provided insights into why. These include riding on footpaths and intersection-related issues such as running a red light or breaking early².

Motivations behind these actions suggest maintaining safety is a factor, including the speed differential between vehicles and bicycle riders, behaviours of other road users and distance and visibility to other vehicles.

Additional research undertaken by Transport for NSW in 2013 confirmed that safety is a major barrier to people cycling. The research found that around 45% of those surveyed were less confident riding in the road environment, but would be more likely to consider riding if they were more confident and gained increased riding skills.

Issues identified for consideration include safe connectivity to infrastructure, the behaviour of other road users and a lack of understanding of the road rules.

- NSW Cycling safety statistics**
- On average, approximately 300 NSW bicycle riders are seriously injured each year.
 - Comparatively, 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.
 - 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, 2pm to 6pm).
 - Almost half of injuries and fatalities involve another vehicle turning across the path of a bicycle rider.
 - Mix of crashes where the vehicle driver or bicycle rider has not given way at an intersection.
 - In 30% of fatalities and 15% of injuries, the rider was not wearing a helmet.
 - Young people under 17 years of age have the highest rate of non-helmet usage among injuries.

Cessnock Council cycling safety statistics

- From 2010 to 2015, there were 25 casualty crashes involving bicyclists, one of which was a fatality. The table on the following page details these incidents.

Sources:

RMS 2014, *Interactive Crash Statistics*

Cessnock City Council *Road Safety Strategic Plan 2014*

1 *Cycling Safety Action Plan 2014-2016*

2 *Cycling Safety Action Plan 2014-2016*

Year	Degree	Street	Suburb
2010	Injury	North Ave	Cessnock
	Injury	Wollombi Rd	Bellbird
	Injury	Aberdare Rd	Cessnock
	Injury	Maitland Rd	Cessnock
	Injury	Wyndham St	Greta
2011	Injury	Francis St	Cessnock
	Injury	Deakin St	Kurri Kurri
	Injury	Millfield Rd	Millfield
	Injury	Sandy Creek Rd	Quorrobolong
	Injury	Swanson St	Weston
	Injury	Francis St	Cessnock
2012	Injury	Wollombi Rd	Cessnock
	Injury	Barton St	Kurri Kurri
	Injury	Anzac Ave	Cessnock
	Fatal	Broke Rd	Pokolbin
	Injury	Allandale Rd	Cessnock
	Injury	Victoria St	Kurri Kurri
2013	Injury	Aberdare Rd	Aberdare
	Injury	Darwin St	Cessnock
	Injury	Mavis St	Cessnock
	Injury	Lang St	Kurri Kurri
2014	Injury	Old Maitland Rd	Cessnock
	Injury	Cessnock Rd	Aberdare
2015	Injury	Wine Country Dr	Nulkaba
	Injury	HEX	Greta

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 do not 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 limited¹.

While many acknowledge that cycling with a friend or group is a great way of overcoming 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 two 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 or costly 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 design in regards to cycling infrastructure and can often create unsafe environments for cyclists. Examples include:

- Bike lanes often disappear at intersections, particularly at roundabouts posing problems for cyclists and motorists.
- Complex traffic interchanges, bridges with no hard shoulders 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), cool down and shower, especially if they have children.

Weather and seasonal considerations

In winter, it is often dark in the morning and evenings when people ride between work and home, which can impact upon their decision to ride or not. Additionally, the weather can play a large role in people's preference to ride, with hot summers and periods of rain impacting a riders' level of comfort and subsequent travel mode preferences.

¹ 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.

The car allows people 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 at their destination.

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. However, many workplaces continue not to have comfortable end-of-trip facilities, such as showers, ironing facilities, 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.

Actions to encourage cycling

Respondents to the *National Cycling Participation Survey 2015* were also asked to rank the importance of actions Council could take to encourage cycling in their area. The following actions were most supported among respondents:

- Better connections between bike paths and schools (70% of people rated this to be a high or very high priority).
- More off-road paths and cycleways (66%).
- More on-road bicycle lanes (60%).
- More signs highlighting bicycle routes (57%).
- More events or campaigns that promote bicycle riding (50%).
- Better connections between bike paths and shops (47%)¹.

The results show the importance of cycling infrastructure particularly around schools. This is a key consideration for this Strategy.



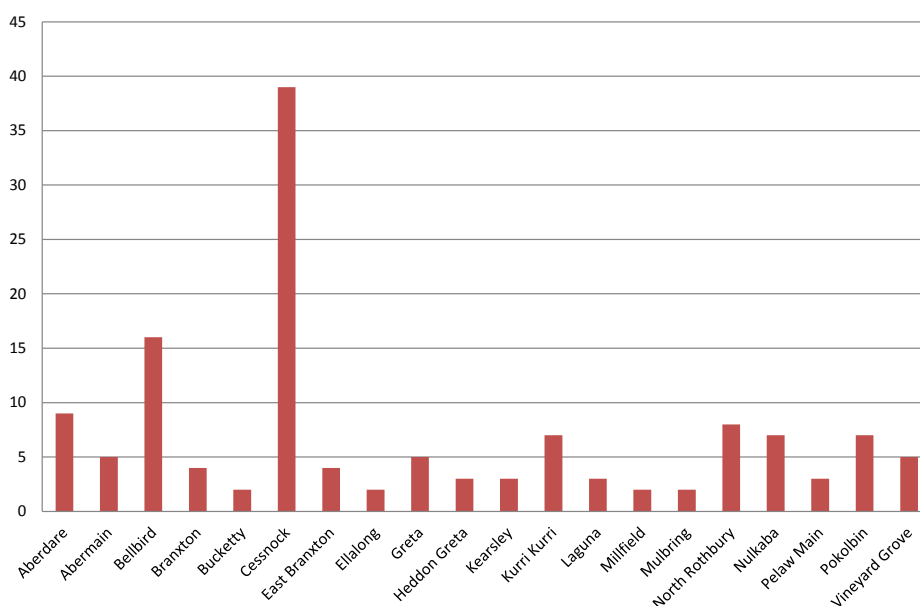
¹ 2015 National Cycling Participation Survey

Cessnock LGA cycling participation trends

Understanding cycling trends in Cessnock is an important part of developing the Cycling Strategy. The trends that are shown can assist in identifying the anticipated demand for cycling facilities. It should be noted that access to baseline data for cycling in Cessnock is limited and as a result anticipated demand is a combination of national/state data, consultation and a community survey.

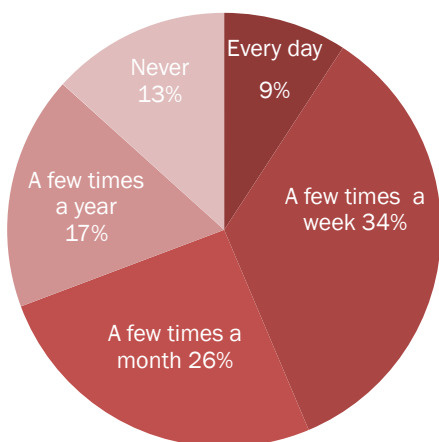
Community survey

An online survey was undertaken as part of the development of the Cessnock Cycling Strategy. A total of 199 survey responses were received through the engagement process with the bar graph below indicating the number of responses received from the residential locations best represented (there were several locations with only one response received). The aim of the survey was to gain an understanding of cycling trends in the Cessnock area. Respondents were also encouraged to highlight areas in Cessnock where cycling can be improved to encourage a greater uptake of cycling in the area.

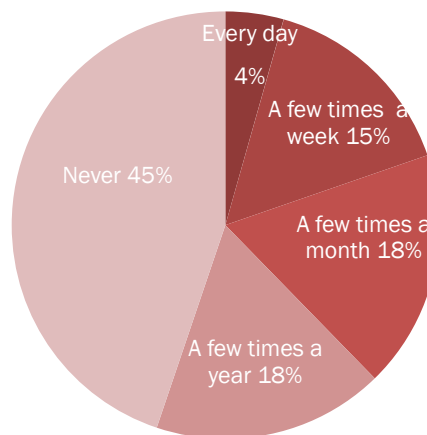


Participation in cycling and frequency

Respondents were asked how often they rode a bike for *recreation, sport or fitness*.



Respondents were asked how often they rode a bike for *transport/commuting* e.g. to work, shops, school etc.

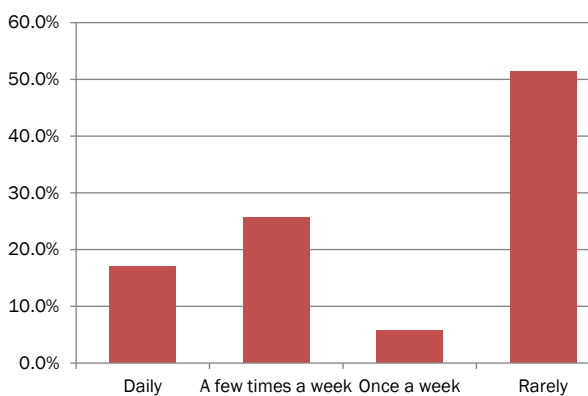


Additionally, the 2011 ABS Census data reports that just 0.2% of Cessnock LGA residents ride their bicycle as a form of transport to work. Just five of those people who ride to work (or 11%) are female.

Participation of school children

Respondents with school aged children reported that 23% rode to school, leaving a significant proportion (77%) taking other means of travel.

Of those who do ride to school, respondents were asked about their frequency. The majority of those children rode to school on rare occasions only.



Preference of cycling environment

Respondents were asked about their preference to cycling environment, with:

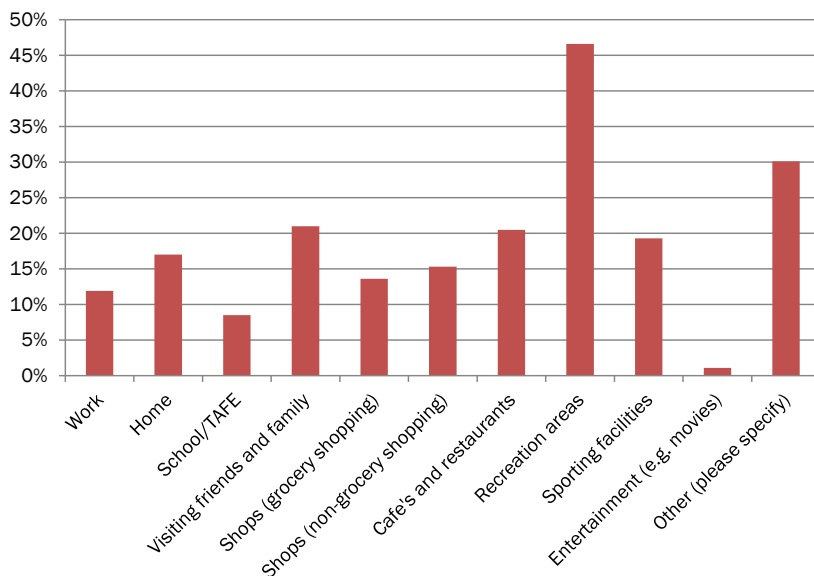
- 56% preferring shared paths/bicycle paths only.
- 39% preferring a combination of paths and on-road.
- 4% with a preference for on-road only.

Bicycle ownership

For the respondents, bicycle ownership was very high, with 96% of those surveyed owning or having access to a bicycle.

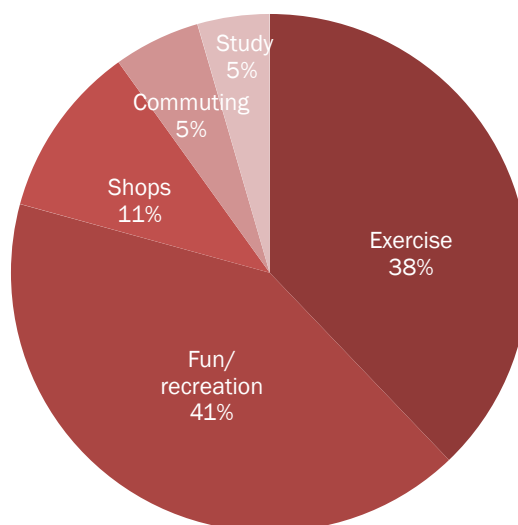
Cycle destinations

Survey respondents were asked where they cycle to within the LGA. As shown in the graph below, nearly half (46%) cycle to recreational areas. Additionally, a number of respondents reported cycling to the vineyards and bushland areas (noted as 'other').



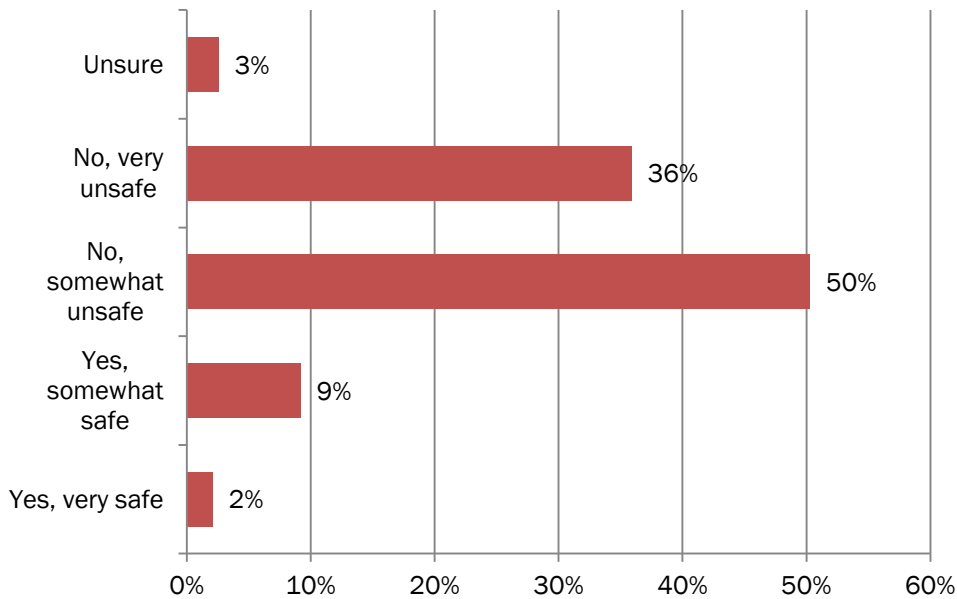
Reasons to cycle

In relation to their most popular cycling routes, survey respondents were asked what the purpose of their trip was. Responses were mixed with the most popular reasons for cycling being for fun/recreation (41%) and for exercise (38%).



Safety of cycling environment

Respondents were asked if they felt that cycling in the Cessnock Council area was safe. A large majority of people feel that cycling in the Cessnock area is not safe (86% in total).



Reasons not to cycle

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

Adults

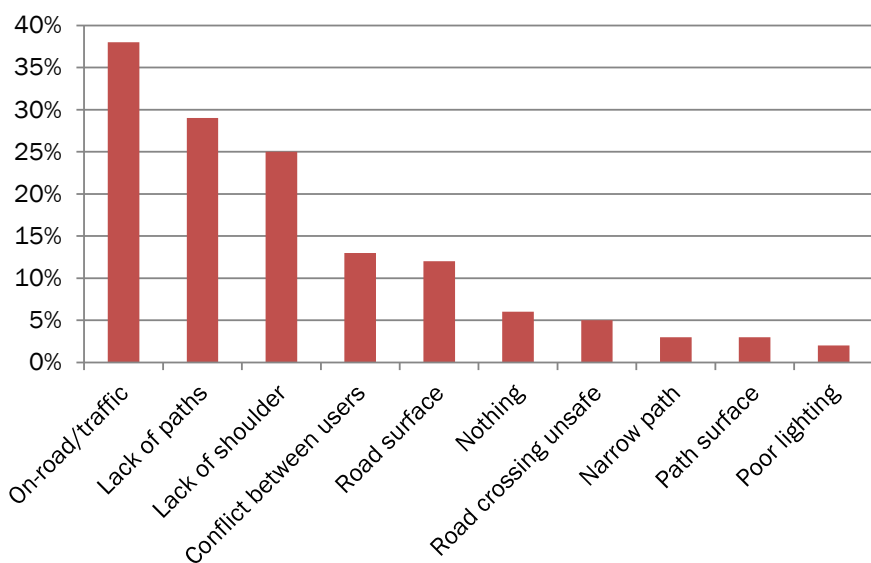
Reason provided	Percent
Lack of adequate cycle paths	81%
Safety concerns (perceived or actual experiences)	65%
Lack of adequate end of trip facilities (e.g. bike racks etc.)	20%
Other transport modes are more convenient	12%
Weather conditions	12%
I don't own or have access to a bicycle	2%
I cannot or am not fit enough to ride a bicycle	1%
Negative image associated with cycling	1%
Other:	9%
<input type="checkbox"/> education/awareness of cyclists from motorists	
<input type="checkbox"/> dangerous roads with no safe verges	
<input type="checkbox"/> don't like cycling	

Children - to school

Reason provided	Percent
Lack of adequate paths	39%
Dangerous roads/traffic	30%
Distance - too far	22%
General safety concerns (perceived or actual experiences)	20%
Age - too young	8%
Lack of road shoulders/narrow streets	7%
Road crossings unsafe	6%
Other:	5%
<input type="checkbox"/> fear of kidnapping	
<input type="checkbox"/> poor road surface	
<input type="checkbox"/> catch the bus instead	

Things that make cycling difficult or unsafe

Respondents were asked to state things that made their most popular cycling route difficult or unsafe. The most common response was on-road conditions and traffic (38%). Respondents also cited lack of shoulders on roads as a major problem (25%), which reinforces the need for better road conditions. A lack of cycle paths was the second most common response (29%).



Ways to overcome barriers to cycling

Respondents were asked to select two improvements that would encourage them to take up cycling or cycle more often. The top four responses relate to increased provision of cycling infrastructure through either on-road or off-road paths.

Answer provided	Percent
More designated cycleways/bike lanes	67%
More paths connecting towns	59%
Increase provision of shared paths (for pedestrians and cyclists)	50%
Wider road shoulders for cycling	41%
Safe road crossing points	24%
Improved path maintenance	23%
Greater respect from motorists	15%
Improved signage and education for path users	14%
Cycling groups/social rides	10%
End of trip facilities	10%
Other:	8%
<input type="checkbox"/> Improved road surfaces, particularly on edges	
<input type="checkbox"/> Mountain bike parks/trails	
<input type="checkbox"/> Speed humps to slow traffic down in North Rothbury	

Popular cycling routes

Respondents were asked to identify their most popular cycling routes. The information received revealed the following key trends:

- The Cessnock CBD area is currently the most popular destination for respondents.
- Respondents who travelled to the Cessnock CBD did so from a variety of locations in the LGA.
- The Pokolbin wine region is also a popular destination.
- Generally, the starting points are spread fairly evenly over the residential areas of the LGA.
- A number of people cycle from the Bellbird and Vineyard Grove areas.

Inaccessible destinations

Respondents were also asked to identify locations they would like to cycle to but couldn't. This information revealed the following key trends:

- The Pokolbin wine region is the most popular destination that respondents feel they cannot cycle to
- A large majority of people wanted to cycle to one of Cessnock, Nulkaba or Pokolbin
- Millfield and Wollombi were also popular destinations that people felt they could not access by cycling
- Many people wanted to cycle between Greta and Branxton but did not feel safe on the New England Hwy
- St Philip's Christian College, Nulkaba was deemed to be inaccessible by four respondents, three citing a lack of shoulder on Wine Country Drive as a problem
- The most popular roads that people want to cycle on or next to but can't are Wine Country Drive, Wollombi Road, New England Highway, Mount View Road and Oakey Creek Road.

Stakeholder consultation

As part of the Cycling Strategy, local and regional cycling organisations have been interviewed to build on the knowledge of cycling in the area. Representatives from the following groups/organisations have been consulted:

- Cessnock Healthy Lifestyle Network
- Abernethy Healthy Lifestyle Association.
- Kurri Mongrels Mountain Bike Club.
- Grapemobile Bicycle Hire and Tours.
- Hunter Valley Racing.
- Bike Trax (Cessnock).
- 3C Racing.
- Hunters Cycling Group.
- Hunter Valley Wine Country Cycleway.
- NSW Department of Primary Industries - Lands.
- Department of Transport NSW.
- Hunter District Cycling Club.
- Kooragang Cycling Club (Newcastle).
- Bicycle NSW.
- Office of Sport and Recreation NSW.

These interviews revealed a number of trends regarding what was good about cycling in the Cessnock LGA and what could be improved. The trends are summarised below and a summary of each interview is provided in Appendix 4.

Positive statements about cycling

The following matters were raised as being positive aspects about cycling in the Cessnock region:

- The Hunter Expressway provides good on-road cycling conditions.
- There are a number of good scenic destinations to cycle to, particularly for mountain biking.
- Many stakeholders agree that the vineyards provide attractive cycling destinations for tourists and this should be promoted and invested in.

Issues with cycling

A number of issues were raised by stakeholders:

- Roads in the Hunter Valley are too dangerous for cyclists.
- On road conditions in the Cessnock area as a whole are dangerous.
- There is a lack of off road recreational bike paths.
- Very few roads have wide enough shoulders for cyclists.
- Promotion of cycling (including mountain biking) could be improved.

Suggested improvements

A significant number of improvements were suggested in the stakeholder consultation process, they include:

- Bike paths to connect towns to the wine region (particularly Cessnock).
- More recreational bike paths for off road cycling, in particular a 1.2km crit track (sealed surface) would be beneficial.
- Provide wider road shoulders on main roads (particularly Wine Country Drive).
- Greater education for motorists to improve awareness of cyclists.

School consultation

School consultation involved two school visits to talk to students about cycling and a school survey, which was emailed to every school in the LGA. The results of each method are discussed below.

Classroom discussions

Cessnock Public School (Year 5 and 6)

Classroom discussions with 23 students in Years 5 and 6 attending Cessnock Public School reveal the following trends:

- Two boys and two girls ride to school on a regular basis.
- Reasons students don't ride to school include dangerous roads, not having a bicycle and parents not allowing them.
- 15 students ride for recreational purposes.
- Students cited riding on the road, in the bush and to shops.
- Things Council could do to make cycling more attractive include more pedestrian crossings, more pathways, a bike hire scheme for students, smoother roads and more off-road tracks.

Mount View High School (Year 10)

Classroom discussions with 28 students in Year 10 attending Mount View High School reveal the following trends:

- Seven boys and no girls cycle to school on a regular basis.
- Reasons students don't ride to school include not owning a bicycle, potholes on roads, lack of bike lanes, ranger enforcement of not riding on footpaths and abuse from drivers.
- Things Council could do to make cycling more attractive include more bicycle lanes, more bicycle paths for recreational riding and allow riding on a footpath.

School survey

As part of the community consultation local schools were contacted for feedback on their cycling environment, the level of students who regularly commute to school, and opportunities for improving the safety of the environment surrounding each school. The responses from the schools revealed the following key trends:

- Perceptions of cycling safety surrounding each school varies largely between safe and unsafe.
- A number of reasons were cited for children not riding to school including more suitable methods (e.g. walking) being preferred, poor roads, parents perceptions of safety, age of children and distance.
- Providing more footpaths near primary schools was seen as a popular way to improve cycling near schools.
- Kerb and guttering on nearby roads is also a way to improve cycling conditions for children near schools.

The responses for each school have been assessed in determining the demand for cycling facilities surrounding schools in the Cessnock LGA and those responses can be found in Appendix 3.

Emerging data sources highlighting trends

A number of technological applications (apps) are aiding the cycling community in tracking, recording and mapping their cycling activities. The apps allow participants to compete against themselves, as well as other app users. It can also be a useful tool for managing authorities in determining where the community currently participate in activities (whether authorised or not). At the current time, there are two main 'apps' that cycling participants are using: Strava and Map my Ride/Run. Strava has been further discussed because of the better level of analysis and mapping available on where its users cycle or run.

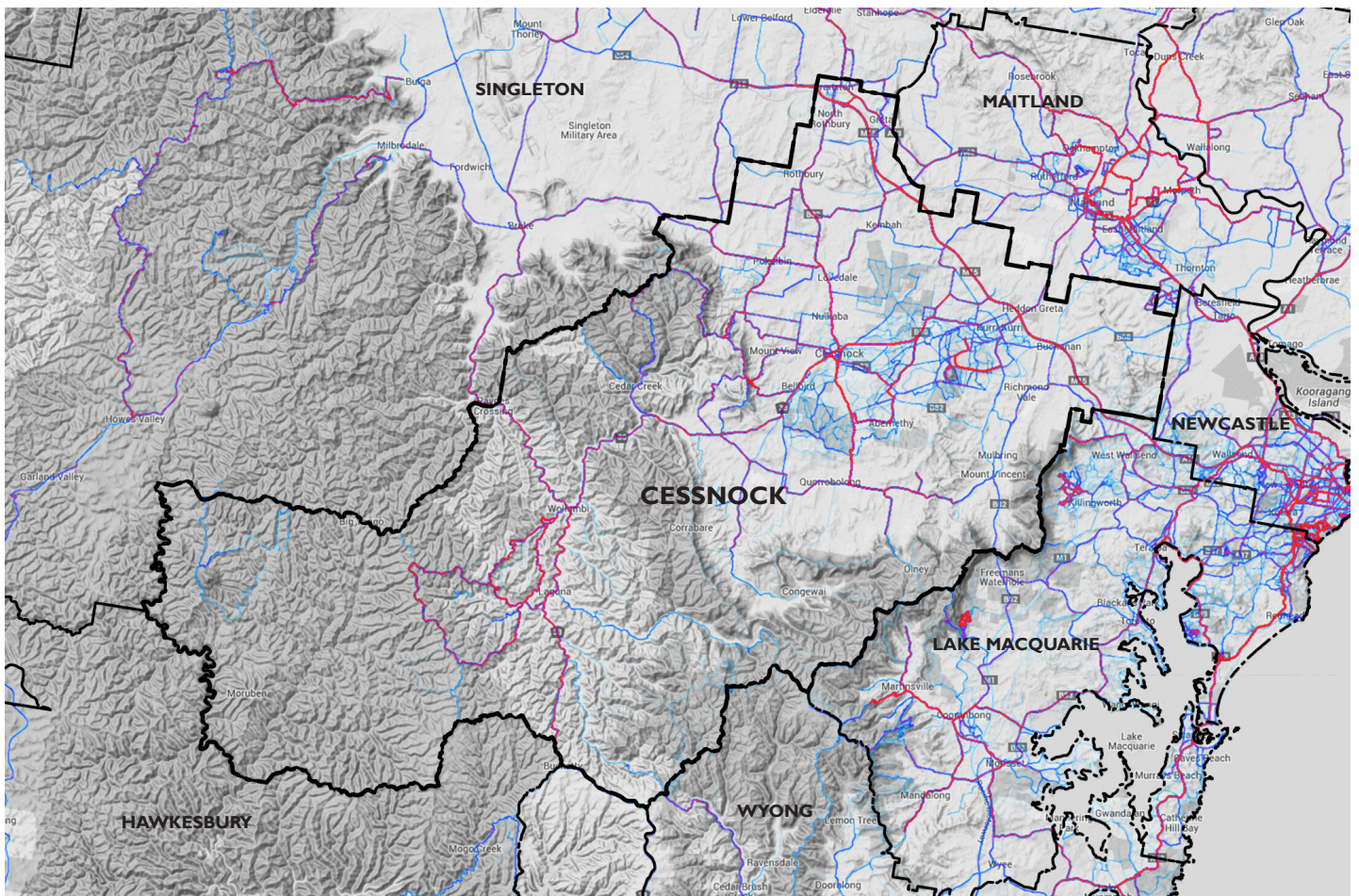
Strava

Strava is a mobile app (supported by a website) that allows participants to share information about their cycling, using GPS data collected during their activity. The app provides a social network for participants and is established on the idea of tracking participants progression in fitness, and allowing users to challenge their friends or strangers.

For land managers, the app provides an insight into some of the locations that are unauthorised for certain activities (or public access). The Strava app 'sees all' and by default makes a route (such as a ride) public to all users. For users, it is possible to mark a route as private, however, this is rarely done since it would defeat one of the biggest appeals of the app, which is to challenge other users.

Locally, there is significant road cycling use evident within the Cessnock LGA. The image below has been developed from Strava Labs heatmaps (<http://labs.strava.com>) and shows the concentration of use by cyclists. Low use routes are light blue and high use routes are red with the colour getting heavier with higher use.

Whilst the number and frequency of users behind the images is not known, the data can be used as an informal tool in building a picture of demand for road cycling in certain locations.



Strava bike heatmap - Cessnock LGA and surrounds (Strava, 2015).

4

Benefits of cycling to the Cessnock LGA

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 in Australia 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%). The Hunter region is reflective of this trend with 70% of people overweight or obese in 2011-12.

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 Cessnock Council area 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.

Children can also benefit from these trends. 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 children¹.

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.

¹ Australian Bicycle Council 2011, National Cycling Strategy 2011-2016

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 (including cycling), some of the consistent benefits of participation include:

- Increased social cohesion.
- Improved social/community networks and social capital.
- 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, when undertaken in a group or social setting, it also allows children to:

- Develop communication, interpersonal, leadership and co-operation skills.
- Create friendships.
- Improve concentration at school.
- Reduce other unhealthy behaviours (tobacco smoking, drug use).
- Build social skills among children.

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.
- Prolonged, independent living.

Although safety is a major barrier to cycling, increased use of cycling also has safety benefits in itself. Studies of countries around the world, show that increased rates of cycling correspond with proportionally less serious crashes involving cyclists. This is most likely due to the increased awareness for cyclists from motorists that appears when cycling is prevalent in society.

Economic benefits

The main area of research into the economic benefits of physical activity (including cycling) often relates to the cost savings associated with participation and the flow-on affects on the public health system. In 2008, Medibank Private estimated the cost of physical inactivity to the Australian economy at \$13.8 billion¹.

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 to no intervention.

The prevalence of overweight and obesity has been steadily increasing over the last 30 years in Australia and is correlated with increasingly sedentary lifestyles. In 2008, obesity was estimated to cost \$58.2 billion to the Australian economy due to diabetes, cardiovascular disease and various cancers. The direct financial cost of obesity was estimated at \$8.3 billion, with the Australian Government bearing \$2.8 billion of these costs².

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 vehicle³. 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

A study commissioned by the Queensland Government in 2011 found that, for a typical off-road path in an inner urban area, economic benefits per kilometre walked or cycled are:

- Decongestion (20.7 cents per km walked or cycled).
- Health (up to 168.0 cents per km).
- Vehicle operating costs (35.0 cents per km).
- Infrastructure savings (6.8 cents per km) and environment (5.9 cents per km).

The cumulative result is that:

- 1,000 pedestrians per day will generate discounted benefits of around \$7 million per kilometre over a 30 year period (\$2.12 per km walked per person).
- 1,000 bicycle riders per day will generate discounted benefits of around \$15 million per kilometre over a 30 year period (\$1.43 per km cycled per person).

This means that, for each person who cycles 20 minutes to work and back, our economy benefits by \$14.30, and for each person who walks the same distance the economy benefits by \$8.48.

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. These benefits include:

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

Opportunities and constraints for cycle tourism

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.

Cycle Tourism in the Hunter Region states that cycling is included in 'Active outdoor/sport' which includes sports (other than fishing), other outdoor activities and organised sporting events and these activities make up 2%, 3% and 2% respectively of the major leisure activities for domestic day visitors in the Hunter region. It should be noted that while useful, this is not an adopted government document.

Additionally, both the Singleton and Cessnock Visitor Information Centres, which together have over 155,000 visitors each year, are receiving increasing numbers of enquiries in relation to cycleways. This shows the growing demand for cycling in the Cessnock region from tourists.

Constraints surrounding cycle tourism in the Cessnock LGA include:

- Competition for cycle tourism from surrounding LGA's (i.e. Newcastle and Lake Macquarie), which already have some significant development and planning for cycle infrastructure.
- Ownership and funding of regionally significant cycling infrastructure such as the Richmond Vale Rail trail and Hunter Valley Wine Country cycleways.

Despite these constraints, cycle tourism is still seen as a major opportunity for the economic development of Cessnock. The increased provision of cycling infrastructure in the Hunter Valley Wine Country can result in an increase in tourism and will also provide local residents with quality recreational cycling opportunities. Cessnock's mining heritage sites and abundance of bushland and natural areas also presents a great opportunity that can be explored through the preparation of a Trails Strategy.

1 Medibank Private 2008, *the cost of physical inactivity*

2 Australian Government 2013

3 Australian Bicycle Council 2011, *National Cycling Strategy 2011-2016*

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 household¹. 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 in the rural areas of Cessnock, it can be assumed that a large proportion of daily motor vehicle trips in the towns are around 5km, short trips. Many of these trips could easily be ridden by bicycle.

Motor vehicles are major producers of air pollutants which are harmful to the environment and adversely affect the yield of some crops.¹ Furthermore, they contribute to health issues such as chronic disease and respiratory ailments.¹

Currently, approximately 20% of trips in Australia are less than 5km.² 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



¹ Cycling Promotion Fund and Bicycle Federation of Australia 2007, *Environmental benefits of cycling*

² Australian Bicycle Council 2011, *National Cycling Strategy 2011-2016*





Cessnock cycling framework and hierarchy

Cycling hierarchy framework

The cycling hierarchy framework aims to set the classification system for cycling in the Cessnock LGA. The framework is an important tool for informing the recommendations of this Strategy and future cycling infrastructure projects.

Route classification

The classification system for cycling routes in the Cessnock region is based on the Roads and Maritime Services (RMS) bicycle network function system. The RMS system identifies three route types (regional, local, mixed traffic streets). District routes have also been added to the Cessnock classification system, which is consistent with other Council policies for classifying infrastructure and this is intended to provide some direction on the responsibility for funding cycleways. The class of cycleway will also inform priority for intersections with roads. For instance, where a district cycle path crosses an arterial road, the latter will be given priority, with give way signals or similar necessary for the cycling route.¹

Regional

High priority cycling route, which provides major connections between larger towns within the LGA (I.e. Huntlee, Cessnock and Kurri Kurri) or key destinations. Often long or significant routes that serve the entire Cessnock LGA and surrounding LGAs (i.e. Singleton, Maitland, Newcastle and Lake Macquarie). They can also be significant recreational routes that are used by people from all over the Cessnock Council area. Cessnock Road is an example of an existing regional cycling route, which services the Cessnock Local Government Area.



District

High quality cycling route, which generally provides key links between towns and villages. Often located adjacent to or with high motor vehicle traffic areas, with a mixture of on road and off road needed to cater for different cycling capabilities. District routes are intended to serve communities within towns and villages and may also be used from residents of adjoining towns and villages. The on-road New England Highway cycleway, which travels between Greta and Branxton is an example of a district cycling route, which services the Greta-Branxton district.



Local

Local cycling routes provide feeder routes to district/regional routes or to minor destinations (such as small schools, local shops etc.). Treatment for cycling paths along these routes should be informed by the volume of motor vehicles and the speed of traffic (see separation treatments in design standards on pages 36-41). Local routes are generally only used by residents from the suburbs, villages or towns in which they occur. The East Esplanade shared path is an example of an existing local cycling route, which services the town of Weston.



¹ Roads and Maritime Services. (2005). NSW Bicycle Guidelines.

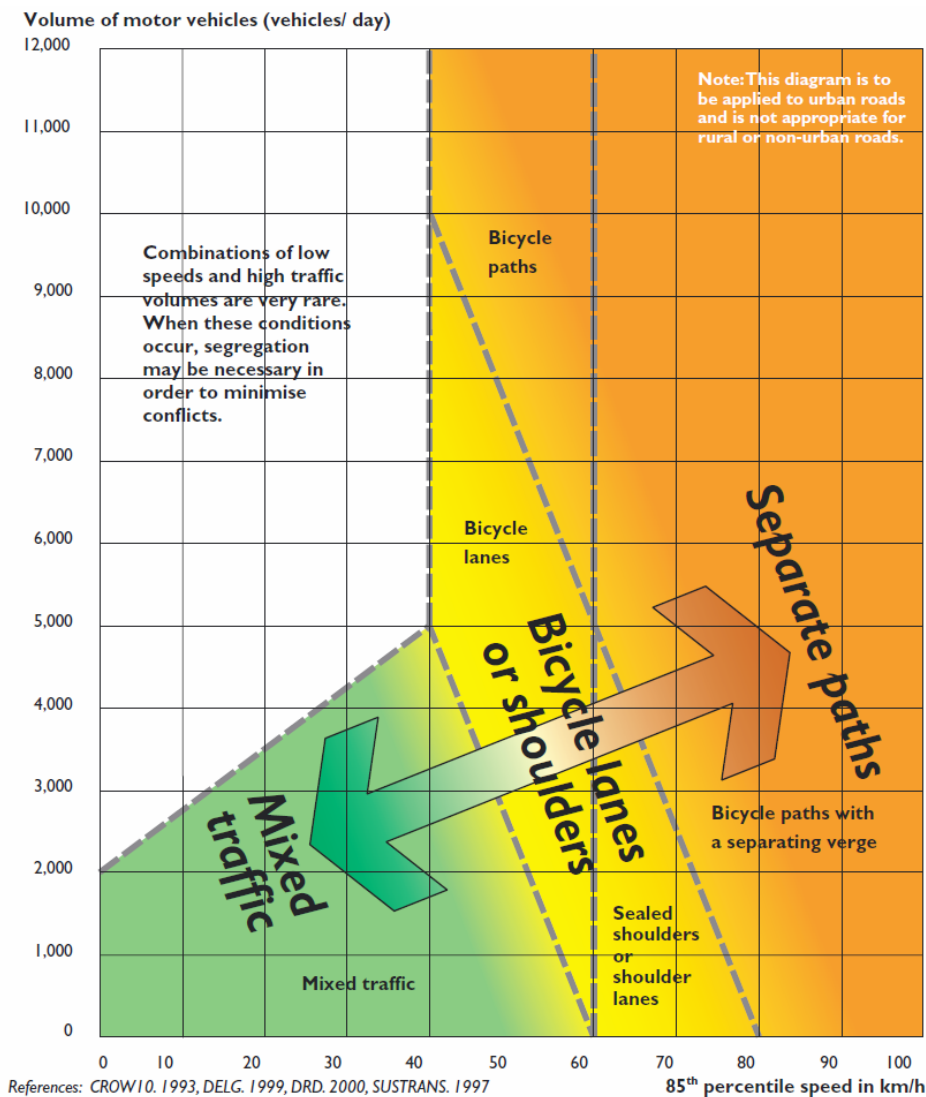
Path classification and design standards

This section addresses the classification of different cycling path types and the design standards required for each path type. In the event of any inconsistencies between the standards identified in this document and Council's engineering guidelines, the standards identified in Council's engineering guidelines prevail.

Type of bicycle facility required

The type of bicycle facility required will depend on a number of factors, including the hierarchy of the route and the type of cyclist likely to use such a route. However, the most important factor to consider for urban cycling routes is the characteristics of adjacent motor vehicle traffic. Austroads and RMS suggest that guidelines for deciding on the type of facility required should be based on the speed of traffic and the number of vehicles present on adjacent roads. The guide is shown visually below and is based on best-practice studies from the Netherlands and other sources.

The guide suggests that generally 40km/hr streets will be suitable for mixed traffic (except where there is a very high amount of traffic). 50-60km/hr streets are often suitable for bicycle lanes/shoulders (depending on the traffic level). Streets that are 80km/hr or higher will usually require separated paths¹. These principles are intended as a guide only and it may not be possible to include the recommended facility in every situation.



¹ Austroads. (2014). *Cycling Aspects of Austroads Guides; Roads and Maritime Services. (2005). NSW Bicycle Guidelines.*

Path classification/design

On-road facilities

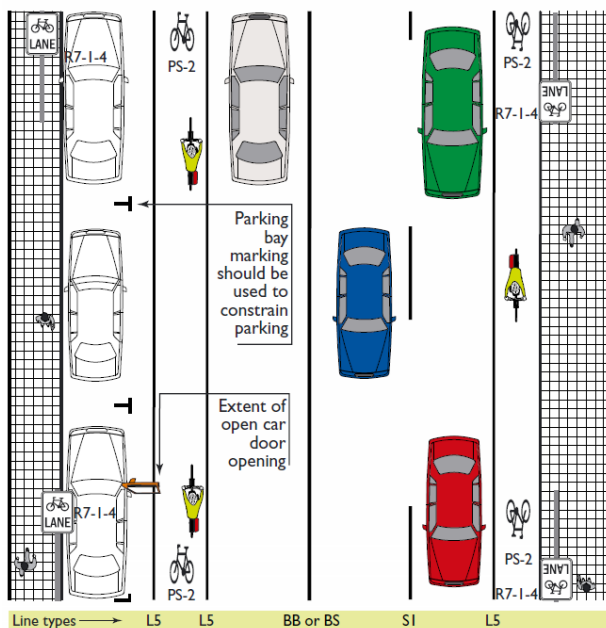
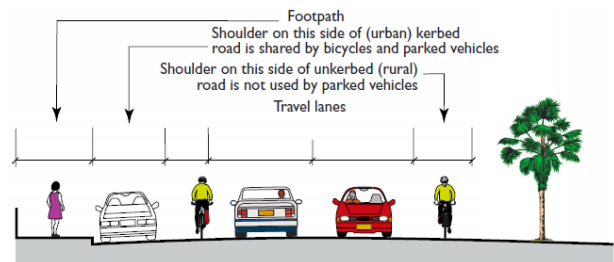
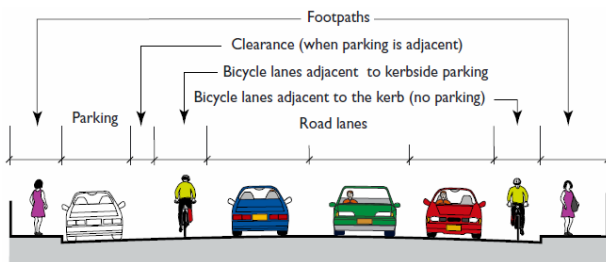
Bicycle lane (exclusive bicycle lane or bicycle shoulder lane)

On-road facilities provide visually separated operating space for the use of cyclists on roads. They are used to define bicycle routes where the prevailing road speed and traffic volume requires a degree of separation. Both exclusive bicycle lanes and bicycle shoulder lanes share the same recommended path widths and these are provided in the table below. Bicycle lanes should be provided on both sides of the road where possible.

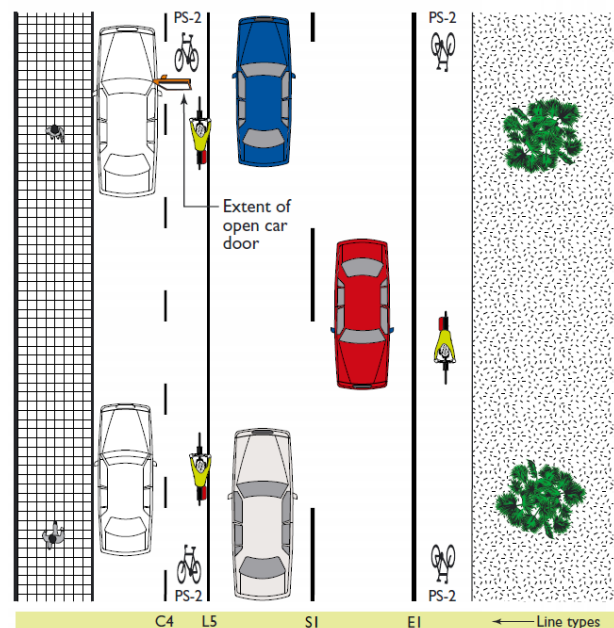
Exclusive bicycle lanes are generally preferred to shoulder lanes in urban areas, with a higher volume of traffic, while shoulder lanes are preferred in rural areas where there are lower volumes of traffic. Aside from the speed of motor traffic, designers should also consider the number of cyclists, the volume of large vehicles, the ability to make space available and physical and budgetary constraints when deciding an appropriate lane width.

Recommended bicycle lane dimensions¹

Road posted speed limit (km/hr)	Lane width (m)		
	60	80	100
Desirable	1.5	2.0	2.5
Acceptable range	1.2 - 2.5	1.8 - 2.7	2.0 - 3.0



Exclusive bicycle lane (RMS - NSW bicycle guidelines)



Bicycle shoulder lane (RMS - NSW bicycle guidelines)

¹ Austroads. (2014). *Cycling Aspects of Austroads Guides*.

Mixed traffic street (wide kerbside lanes or tight profile)

Mixed traffic streets are often common in urban areas with low traffic speeds and volumes. Mixed traffic streets can be wide kerbside lanes which provide room for motorists to safely pass cyclists. It is preferable to only include wide kerbside lanes in traffic speeds of up to 60km/hr. Roads, which contain higher traffic speeds should generally include bicycle lanes for on road cycling. Where this is not possible, roads up to 80km/hr may be used for wide kerbside lanes, with a preferred lane width of 4.5m.¹

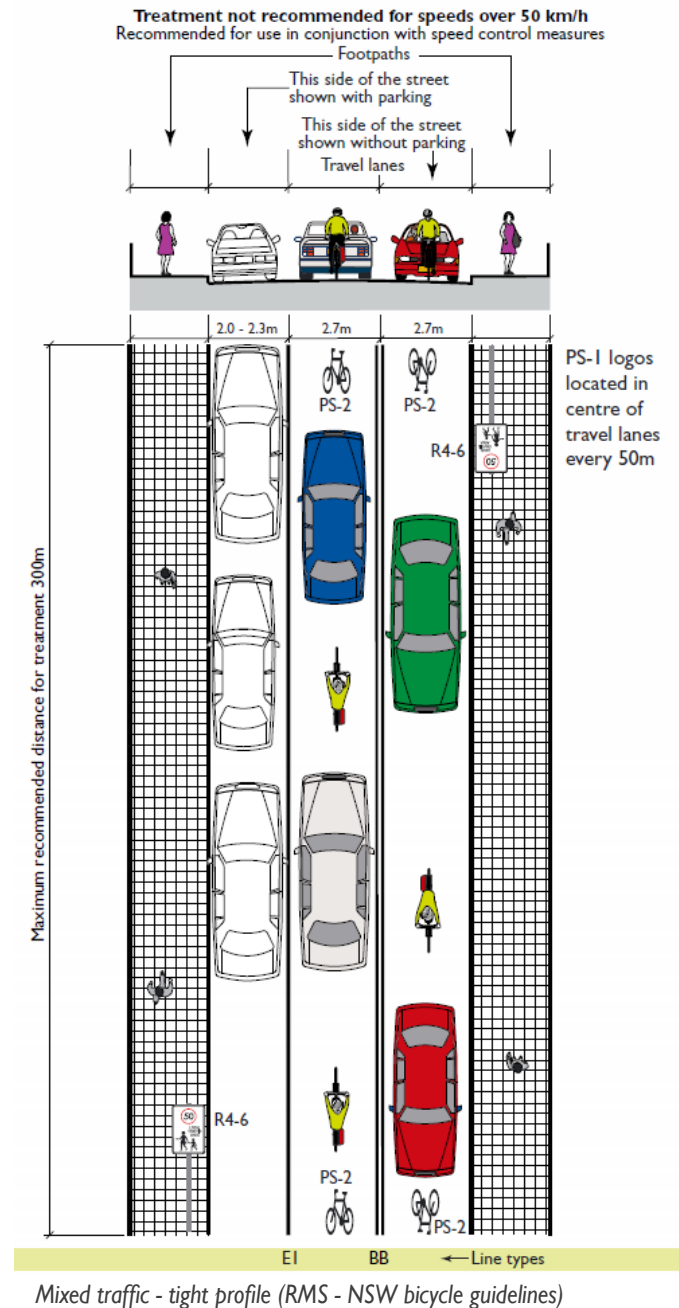
Mixed traffic streets can also be provided in a narrow cross section road (tight profile). These are generally provided for in low speed, low traffic environments. In the narrow cross section roads the speed limit should be 50km/h or less with no room for motorists to overtake cyclists. Lanes with a critical width of 3.3 - 3.7m should not be used in mixed traffic situations as they encourage dangerous overtaking by motorists. RMS recommends PS-2 pavement symbols for mixed traffic streets to be placed every 50m-75m and before and after intersections.²

Recommended mixed traffic street dimensions³

Profile and road posted speed limit (km/hr)	Lane width (m)	
	Narrow (50km/hr)	Wide (60km/hr)
Desirable	2.7	4.2
Acceptable range	2.5 - 3.3	3.7 - 4.5



Wide kerbside lane (City of Newcastle)



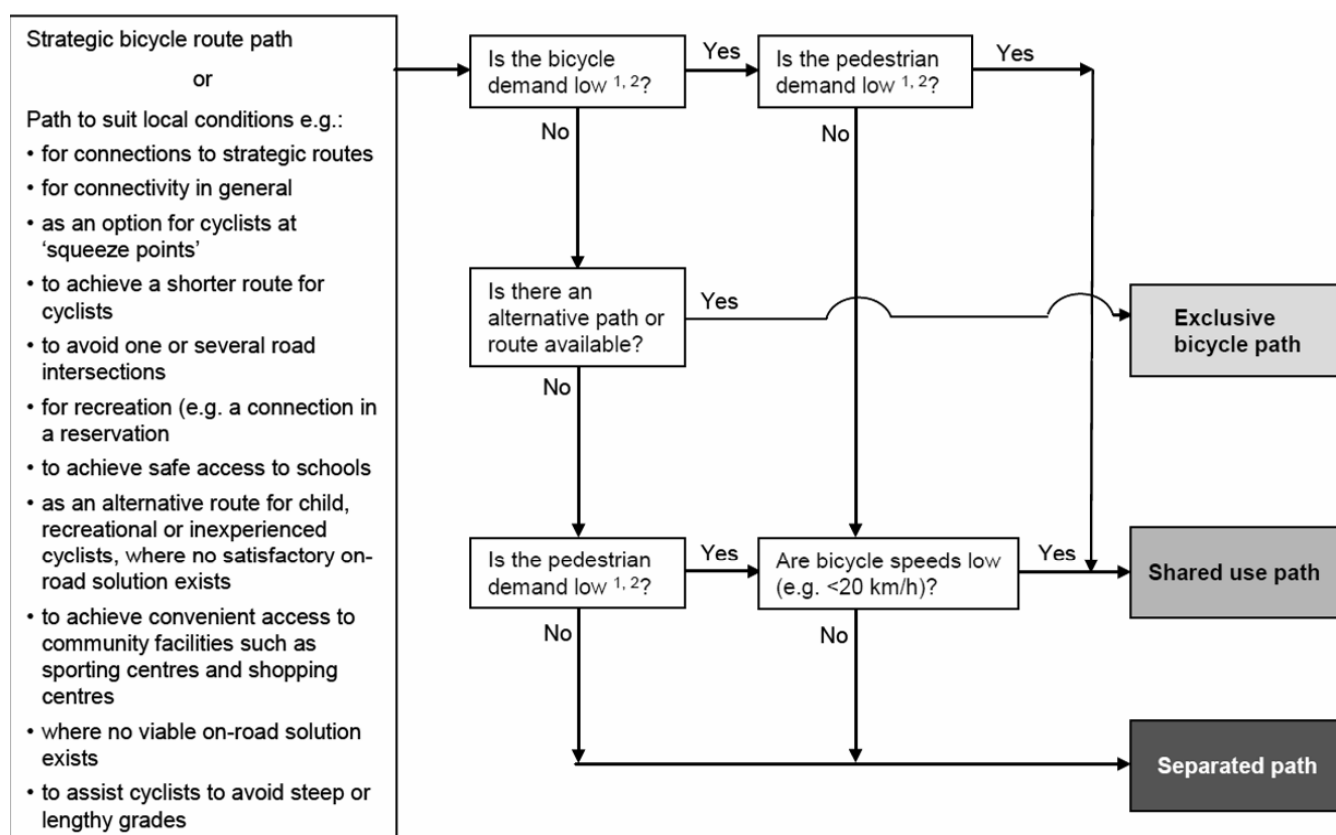
- 1 Austroads. (2014). *Cycling Aspects of Austroads Guides*.
- 2 Roads and Maritime Services. (2005). *NSW Bicycle Guidelines*.
- 3 Austroads. (2014). *Cycling Aspects of Austroads Guides; Roads and Maritime Services. (2005). NSW Bicycle Guidelines*.

Off-road facilities

Off-road cycling facilities provide routes that are separated from motor vehicle traffic. These can take the form of:

- Exclusive bicycle paths.
- Shared paths.
- Separated paths.

The diagram below from Austroads suggests where off road cycling facilities are appropriate and delivers a method for selecting the appropriate path type. The majority of routes in Cessnock are expected to be suitable for shared path use. The level of demand for each route should be assessed separately. However, generally speaking the demand for each path from pedestrians and cyclists is expected to be moderate enough to allow shared path implementation with minimal conflict between users.



- 1 The level of demand can be assessed generally on the basis of the peak periods of a typical day as follows:
 - a. Low demand: Infrequent use of path (say less than 10 users per hour)
 - b. High demand: Regular use in both directions of travel (say more than 50 users per hour).
- 2 These path volumes are suggested in order to limit the incidence of conflict between users, and are significantly lower than the capacity of the principal path types.

Source: Austroads (2009f) Figure 2.1.

Selection guide for off road bicycle route types (Austroads - Cycling Aspects of Austroads Guides)

Path surfaces

In the interest of being able to deliver a reasonable amount of infrastructure, consideration should be given to suitable alternatives to concrete for lower demand routes. The Australian Bicycle Council's *User guide to bicycle and shared path selection - using whole-of-life costing* provides information regarding the advantages and disadvantages of different surfaces for off-road cycle paths, including their respective costs.

There are three most appropriate surfaces for such paths - concrete, asphalt/bitumen or granular (commonly decomposed granite). The table below summarises the advantages and disadvantages of each type of surface so that when path designs are being developed, the most appropriate surface, based on the anticipated amount and type of use, can be determined.

Surface type	Advantages	Disadvantages
Concrete	<ul style="list-style-type: none"> <input type="checkbox"/> Longest lifespan (~ 40 years) and lowest maintenance. <input type="checkbox"/> Hardest, most durable surface. <input type="checkbox"/> No edge restraint required. 	<ul style="list-style-type: none"> <input type="checkbox"/> Construction and expansion joints can influence ride quality. <input type="checkbox"/> Highest construction costs. <input type="checkbox"/> Depress and crack as settlement occurs. <input type="checkbox"/> Whole panels require replacement when there is a failure/broken slabs. <input type="checkbox"/> Tree roots can cause vertical separation. <input type="checkbox"/> Unnatural looking surface.
Asphalt/Bitumen	<ul style="list-style-type: none"> <input type="checkbox"/> Moderate lifespan (~ 20 years). <input type="checkbox"/> Hard smooth surface. <input type="checkbox"/> No joints in riding surface. <input type="checkbox"/> Suitable where there is anticipated ground movement as can withstand gradual settlement of the sub-grade. <input type="checkbox"/> Less costly to reconstruct because repairs can be localised to damaged area (compared with whole of slab replacement). 	<ul style="list-style-type: none"> <input type="checkbox"/> More intensive maintenance to maintain a smooth surface. <input type="checkbox"/> Prone to upheaval by tree roots. <input type="checkbox"/> Suitable edge restraint required that will be flush with path surface. <input type="checkbox"/> More susceptible to failure following periodic inundation.
Granular	<ul style="list-style-type: none"> <input type="checkbox"/> Moderate to low cost. <input type="checkbox"/> Natural looking surface. <input type="checkbox"/> Firm smooth surface if well maintained. 	<ul style="list-style-type: none"> <input type="checkbox"/> Unrideable when wet. <input type="checkbox"/> Regular maintenance to keep consistent surface (sweeping, grading and weed control). <input type="checkbox"/> Prone to washouts, rutting and erosion following heavy rainfall. <input type="checkbox"/> Requires periodic re-sheeting to replenish material. <input type="checkbox"/> Inappropriate for steep grades.



Shared path

A path designed for many users including cyclists, people with prams and wheelchairs as well as pedestrians. The term shared path is used to describe a path that allows both cyclists and pedestrians. Austroads suggests that shared paths are appropriate where:

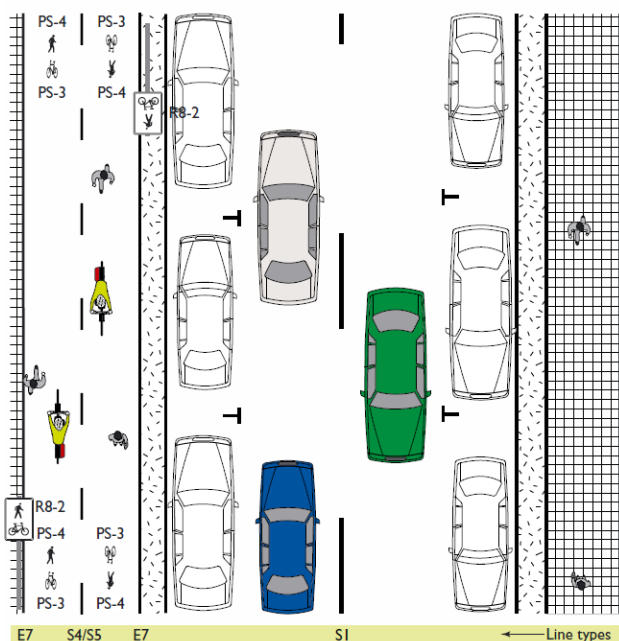
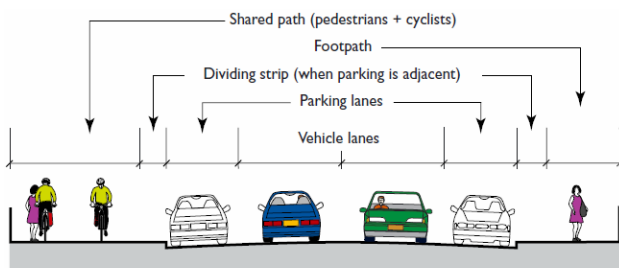
- Demand exists for both a pedestrian path and a bicycle path but where the intensity of use is not expected to be sufficiently great to provide separate facilities.
- An existing low-use path can be satisfactorily modified (e.g. by appropriate width and signage) to provide for cyclists.¹

Shared paths can be provided for in a road reserve with physical separation from motor vehicle traffic by a median strip, verge or kerb. They can also be provided outside the road reserve in locations such as parks, drainage easements or reserves. Where the shared path is on a regional route, consideration should be given to prioritising the route over low volume side streets.² The recommended shared path dimensions are provided in the table below. Although the minimum recommended width is 2.5m it is noted that a lesser width (2.0m - 2.5m) may be adopted in certain circumstances, where volumes and speeds remain low.

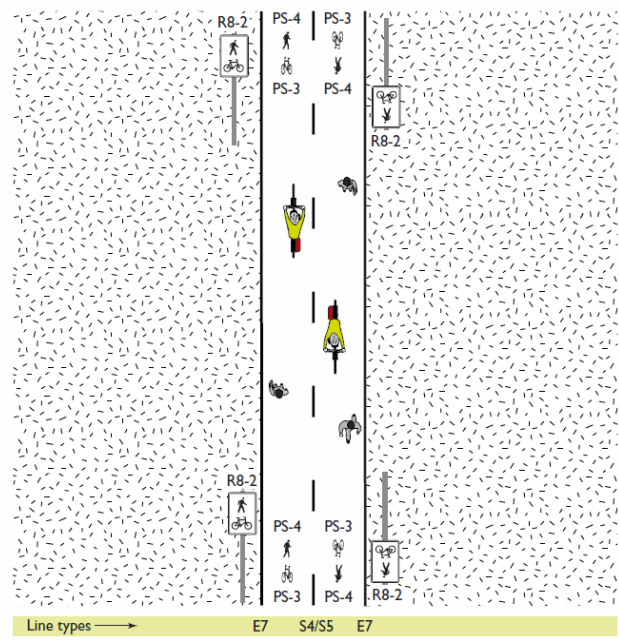
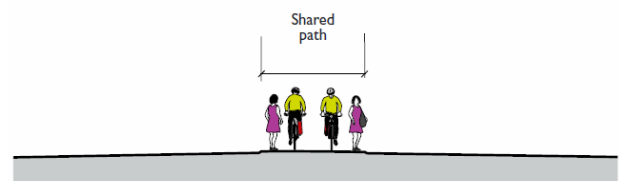
Recommended shared path dimensions³

Path type	Path width (m)		
	Local access path	Commuter path	Recreational path
Desirable	2.5	3.0	3.5
Acceptable range	2.5* - 3.0	2.5* - 4.0	3.0* - 4.0

* A lesser width should only be adopted where cyclist volumes and operational speeds will remain low.



Shared path in a road reserve (RMS - NSW bicycle guidelines)



Shared path in a non-road reserve (RMS - NSW bicycle guidelines)

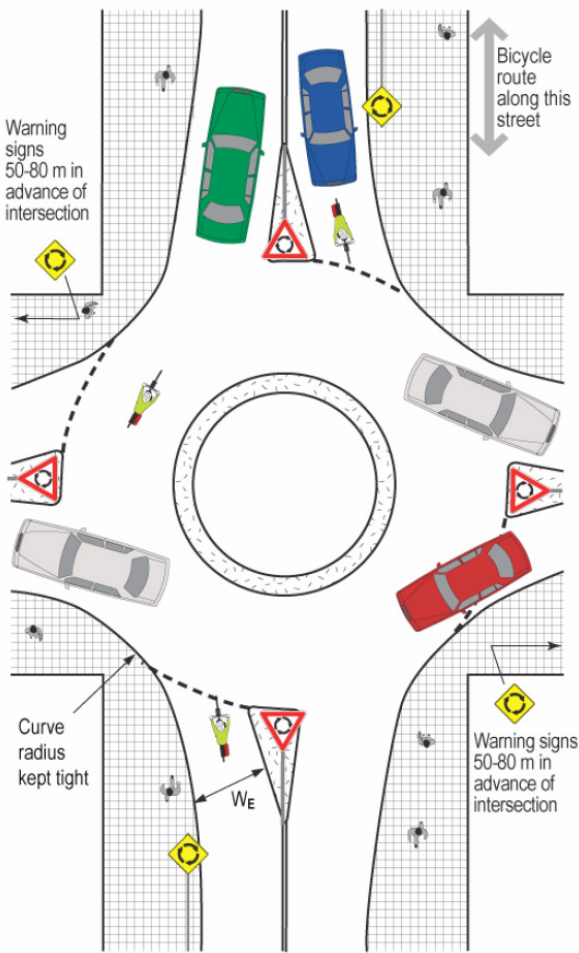
- 1 Austroads. (2014). *Cycling Aspects of Austroads Guides*.
- 2 Roads and Maritime Services. (2005). *NSW Bicycle Guidelines*.
- 3 Austroads. (2014). *Cycling Aspects of Austroads Guides*.

Intersection design

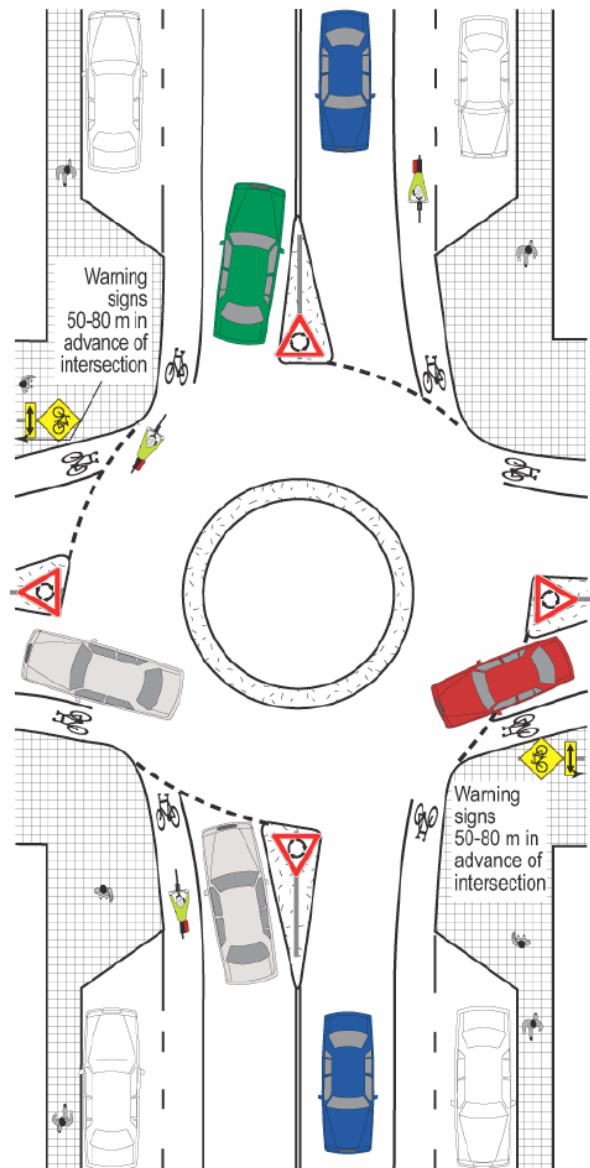
Roundabouts

One of the biggest issues facing cyclists is appropriate design of roundabouts. Studies have shown that roundabouts increase the risk of crashes for cyclists¹ and this needs to be taken into account by designers. The two figures below show preferred design of a roundabout in two different situations. The first is where there is mixed traffic or no bicycle facility is provided. In this case, the cyclist will occupy the approach lane and it is preferred that the approach lane width is less than 3.0m to discourage risky overtaking.

The second roundabout design is preferred on local streets with bicycle lanes. These streets will typically have low approach speeds and low traffic volumes. Warning signs are provided leading into the roundabout, however no special treatment is provided for the cyclists on the roundabout.



Roundabout design for mixed traffic cycling (RMS - NSW bicycle guidelines)



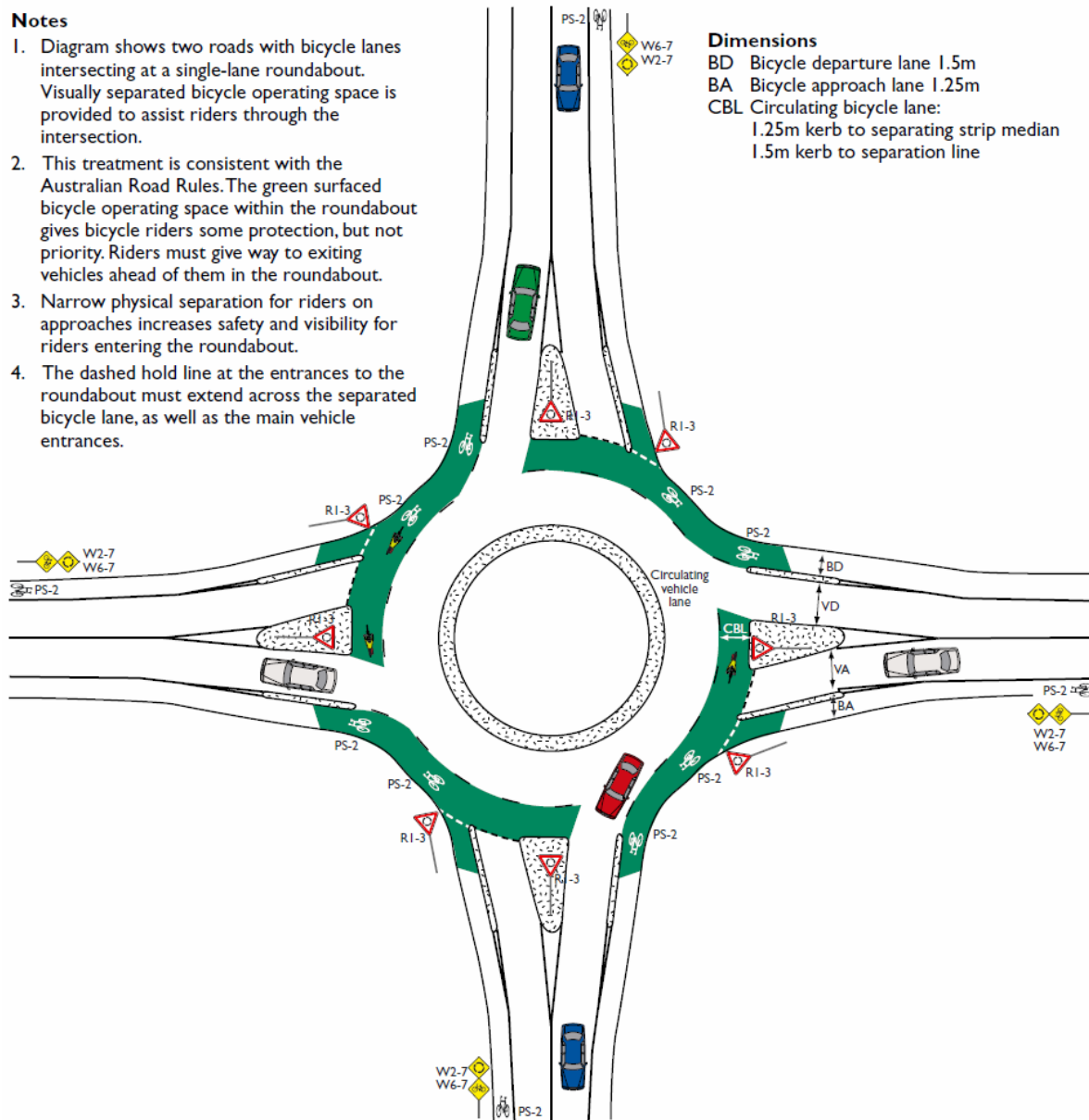
Roundabout design for local streets with bicycle lanes (RMS - NSW bicycle guidelines)

1 Austroads. (2014). *Cycling Aspects of Austroads Guides*.

Busier roads such as collector or arterial roads should include treatment on the roundabout to provide greater protection for cyclists. A preferred design of roundabouts on collector or arterial roads is provided below. It is noted that physical separation is preferred on the approach. This may not always be possible and in that case the visually separated green surfaced operating space should be provided as a minimum.

Notes

1. Diagram shows two roads with bicycle lanes intersecting at a single-lane roundabout. Visually separated bicycle operating space is provided to assist riders through the intersection.
2. This treatment is consistent with the Australian Road Rules. The green surfaced bicycle operating space within the roundabout gives bicycle riders some protection, but not priority. Riders must give way to exiting vehicles ahead of them in the roundabout.
3. Narrow physical separation for riders on approaches increases safety and visibility for riders entering the roundabout.
4. The dashed hold line at the entrances to the roundabout must extend across the separated bicycle lane, as well as the main vehicle entrances.



Roundabout design for collector or arterial roads with bicycle lanes (RMS - NSW bicycle guidelines)

Other intersection treatments

Austrroads and RMS guidelines contain designs for many different intersection scenarios. Please refer to Austrroads *Cycling Aspects of Austrroads Guides and Roads and Maritime Service's NSW Bicycle Guidelines* for further advice on design for different intersections.

Railway crossing design

The specific railway crossing treatment depends on a number of factors specific to that particular intersection. Austroads *Cycling Aspects of Austroads Guides* provides some direction on what should be considered when a cycle or pedestrian path needs to cross a railway. Railway level crossings are commonly used for pedestrians and cyclists and are suitable where the risk of collision is deemed to be low. Grade separated facilities for cycleways are generally only provided in conjunction with a roadway or where the level of pedestrian/cycle use and/or the level of train traffic is relatively high.

At-grade crossings can be passively or actively controlled depending on the level of pedestrian, cycle and rail traffic expected in each situation and the sight lines in each location. Austroads provides a number of considerations for passive and active controlled at-grade crossings.¹

Type of railway crossing	Considerations for pedestrians and cyclists
Passive controlled at-grade crossings	<ul style="list-style-type: none"> <input type="checkbox"/> Provide signs to warn pedestrians and cyclists to look for trains; pavement markings to define footway and safer waiting position. <input type="checkbox"/> Where cyclists are permitted to ride over the crossing, provide a cyclist warning sign on approaches to the crossing. <input type="checkbox"/> Where cyclists are not permitted to ride over the crossing, provide cyclist must dismount signs on the approaches to the crossing. <input type="checkbox"/> Ensure surface condition is adequate including flangeway gaps (within practicable limitations). <input type="checkbox"/> Where necessary (e.g. urban areas) provide pedestrian mazes or gated enclosures; where mazes are provided, people with visual or mobility impairments, or people pushing prams should be able to easily negotiate them. <input type="checkbox"/> Requirements also apply to pedestrian crossings remote from vehicular crossings.
Active controlled at-grade crossings	<ul style="list-style-type: none"> <input type="checkbox"/> Provide red symbolic standing pedestrian signals, audible alarms and signs to warn pedestrians and cyclists to look for trains. Also use pavement markings to define the footway and a safer waiting position. <input type="checkbox"/> Where cyclists are permitted to ride over the crossing, provide a cyclist warning sign on approaches to the crossing. <input type="checkbox"/> Where cyclists are not permitted to ride over the crossing, provide 'Cyclist must dismount' signs on the approaches to the crossing. <input type="checkbox"/> Ensure surface condition is adequate including flangeway gaps (within practicable limitations). <input type="checkbox"/> Where necessary (e.g. urban areas) provide pedestrian mazes or gated pedestrian enclosures; where gated enclosures and mazes are provided, people with impairments or people pushing prams should be able to easily negotiate them. <input type="checkbox"/> Requirements also apply to pedestrian crossings remote from vehicular crossings.

Suitable materials for a railway level crossing include asphalt, concrete, chip seal or compacted aggregate. Wherever possible, cycleway level crossings should be constructed at right angles to the railway. This is to prevent bicycle wheels slipping into the tracks, which can be a major hazard for cyclists.²

¹ Austroads. (2014). *Cycling Aspects of Austroads Guides*.

² NZ Transport Agency. (2012). *Traffic Control Devices Manual - Part 9 Level Crossings*.

End-of-trip facilities

Bicycle parking should be provided for cyclists in key destinations. Approximately 20% of respondents to the community survey cited that a lack of end-of-trip facilities discouraged them from cycling. Bicycle parking facilities should be provided within 100m of common commuting or recreational destinations. These include schools, shopping centres, passenger railway stations, parks and work places. The exact location of parking facilities at each destination is vital and convenience is the most important factor to consider when choosing a location. The classification of bicycle facilities is provided below and examples of appropriate facilities for the Cessnock region are provided below. It is noted that Class A facilities are not required in Cessnock at this stage.

Classification of bicycle parking facilities¹

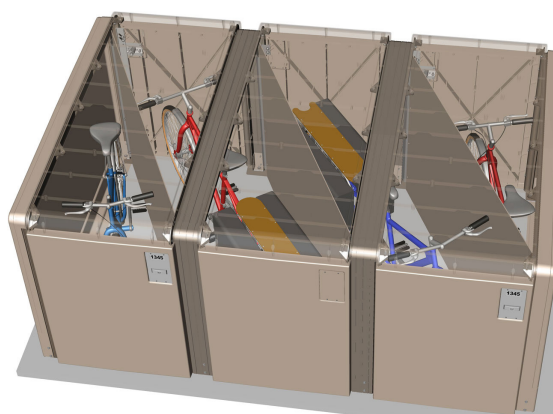
Security level	Description	Safety features	Typical applications	Applications in Cessnock
A	Individual locker with a high security locking mechanism.	Highly visible, publicly accessible, well lit and close to the modal change point.	Transport hubs.	None.
B	A secure room or structure, protected from the weather, containing bicycle parking devices that allow users to lock the bicycle frame and both wheels.	Direct surveillance may be necessary to reduce the level of theft among users (e.g. CCTV). Should be located as close to the entrance/exit as possible and in well lit areas where passive surveillance is likely.	Destination parking (nearby to where a cyclist works, lives or studies), all day parking (workplace, school, university), transport hubs, multi-dwelling developments.	Aquatic centre; passenger railway stations (Greta and Branxton); high schools; TAFE campuses; Cessnock town centre.
C	Bicycle rails or racks to which both the bicycle frame and wheels can be locked.	Located in well lit areas where passive surveillance is likely. Facilities should be located as close as practicable to the user's destination.	Short term parking only e.g. retail, libraries, gyms, parks.	Parks; shopping precincts; popular tourist destinations; commercial precincts or main streets in towns (e.g. Vincent Street, Lang Street).

Best practice bicycle parking

Security level A



Individual bicycle lockers



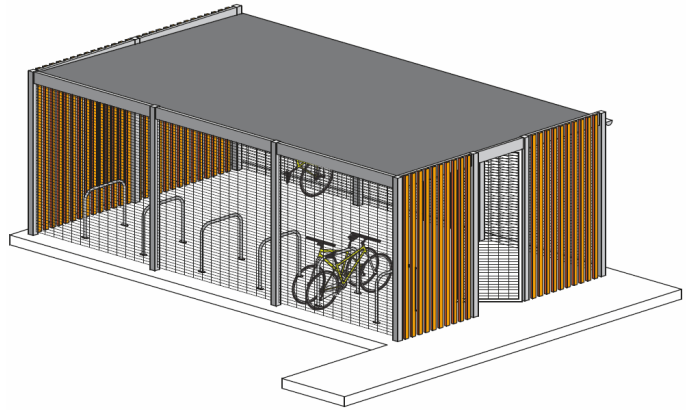
Individual bicycle locker indicative design

¹ AS 2890.3:2015 Parking facilities - Bicycle parking

Security level B



Secure bicycle parking enclosure with vertical bicycle parking



Secure bicycle parking enclosure indicative design

Security level C



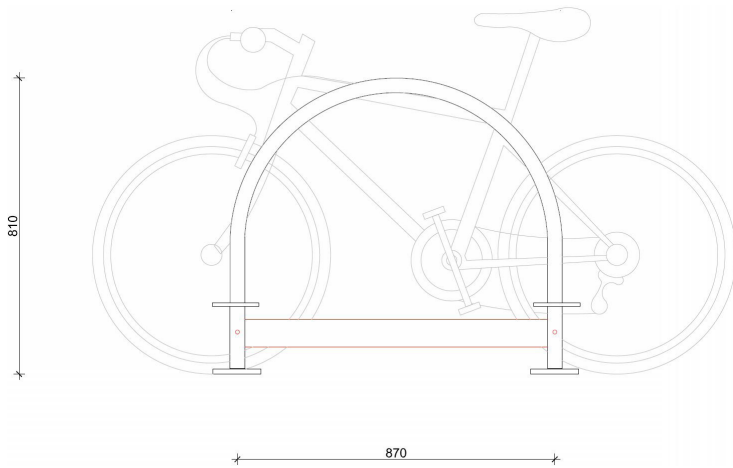
Radial vertical bicycle parking



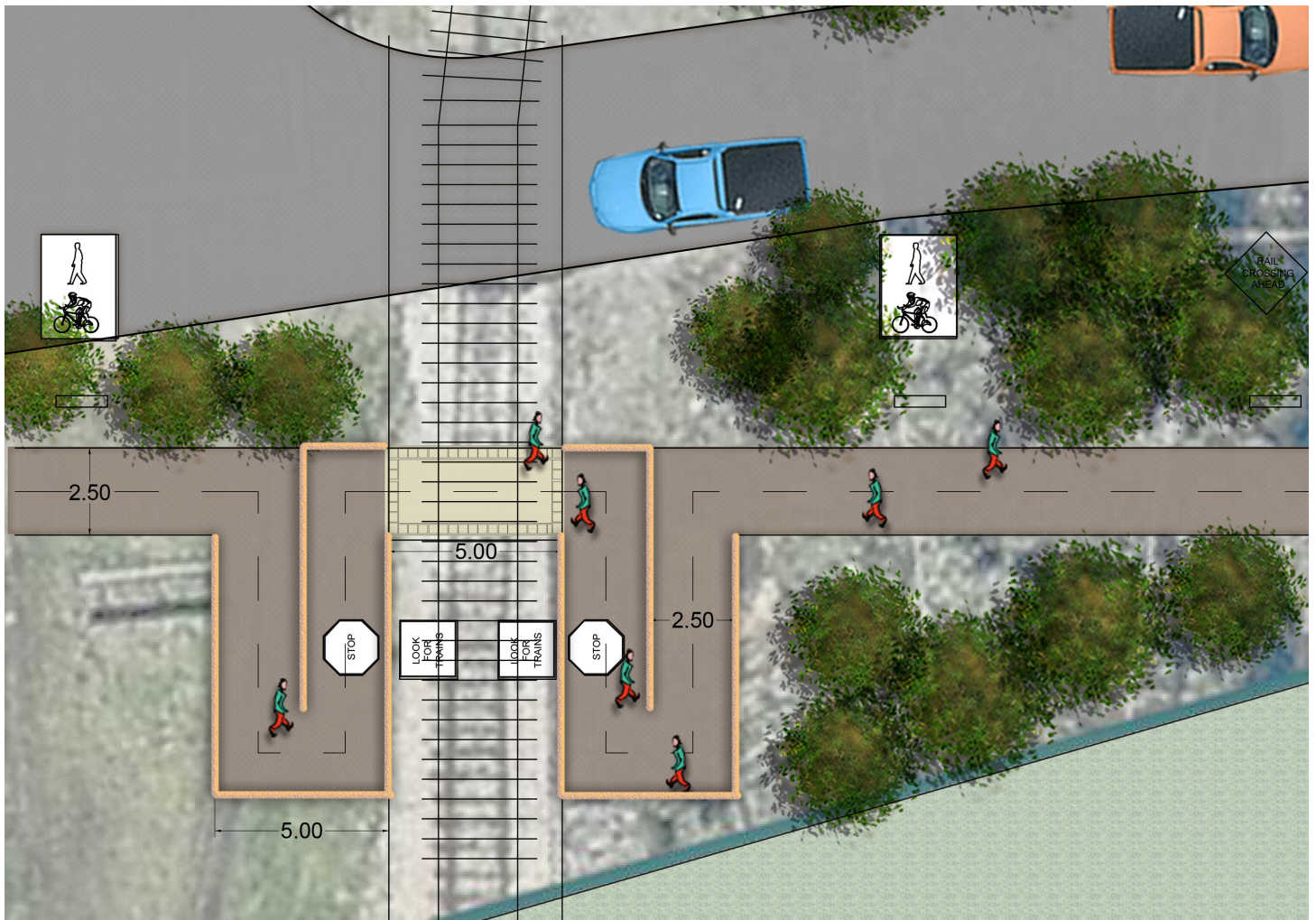
On street bicycle parking

Concept design drawings

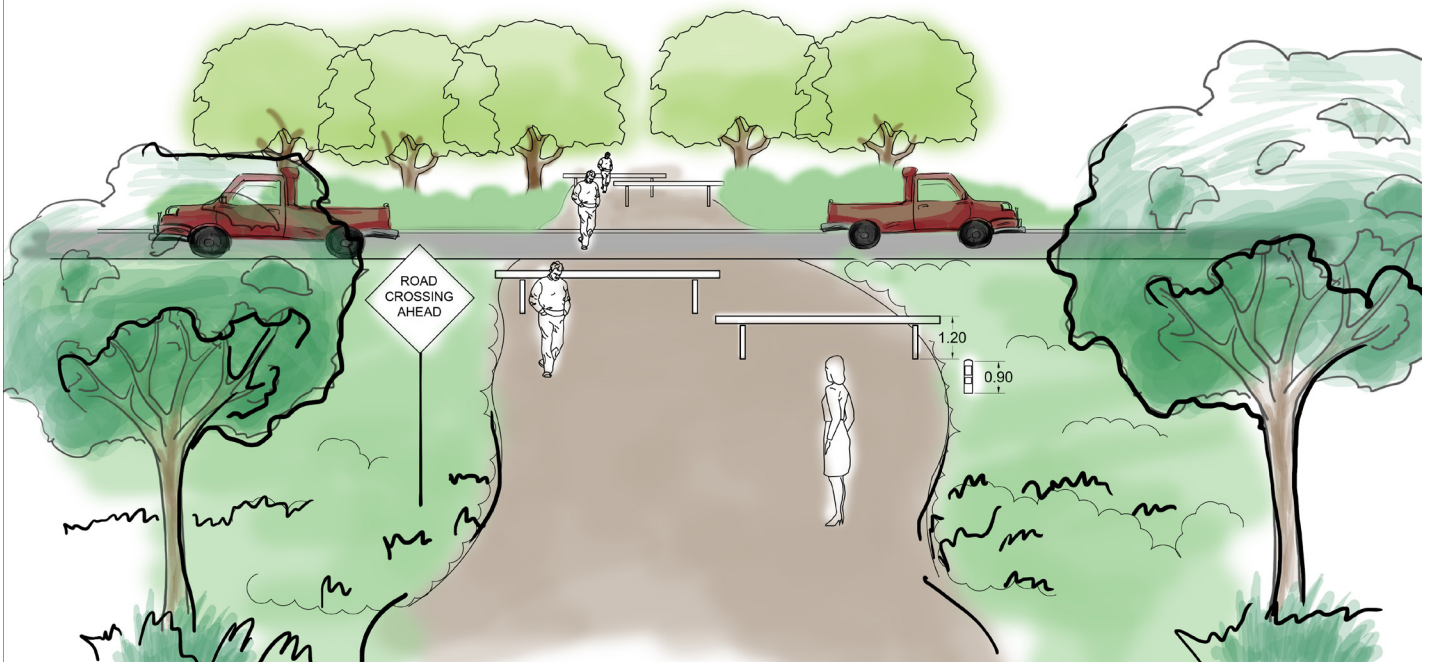
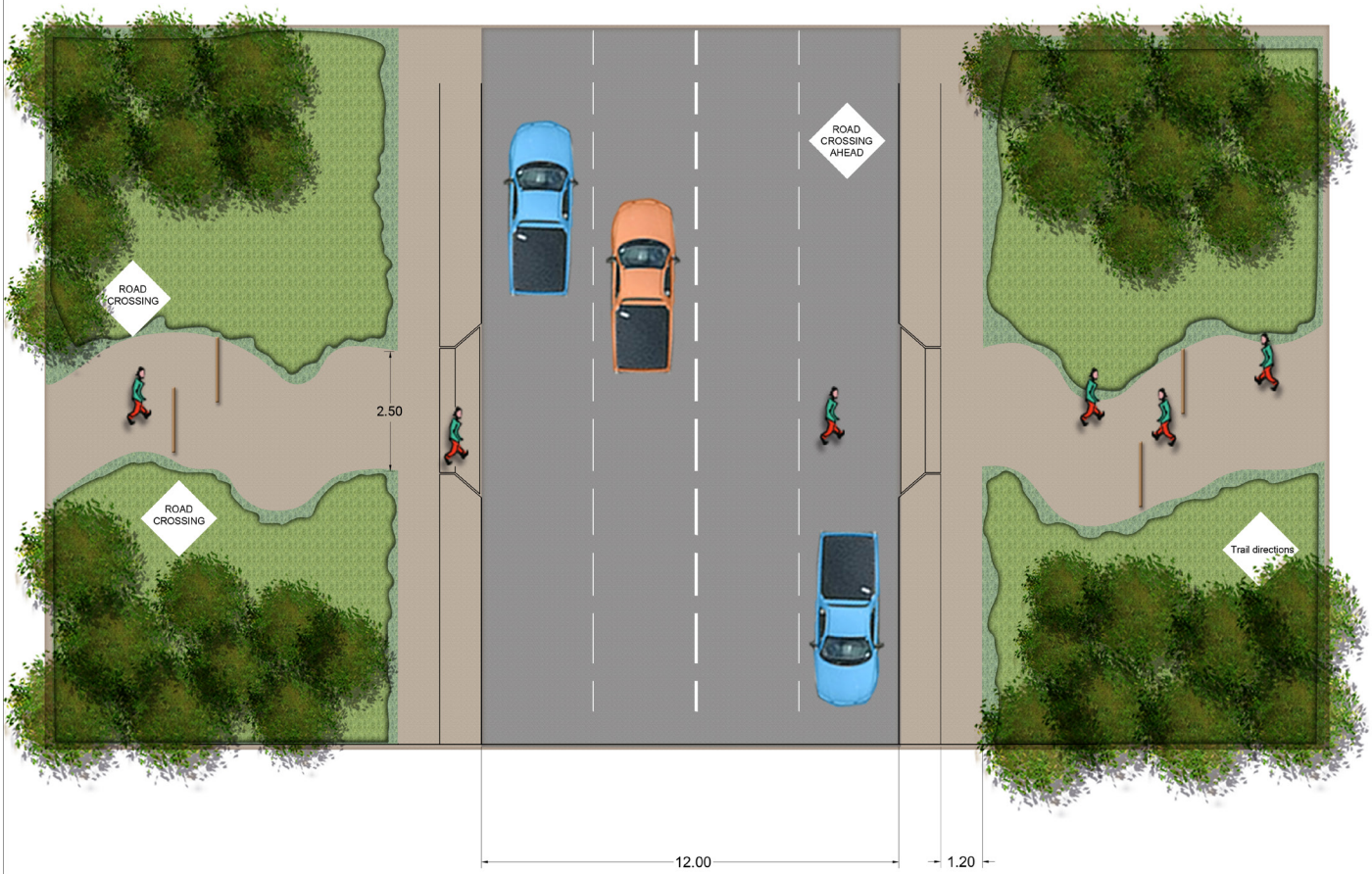
Bicycle parking (security level C)



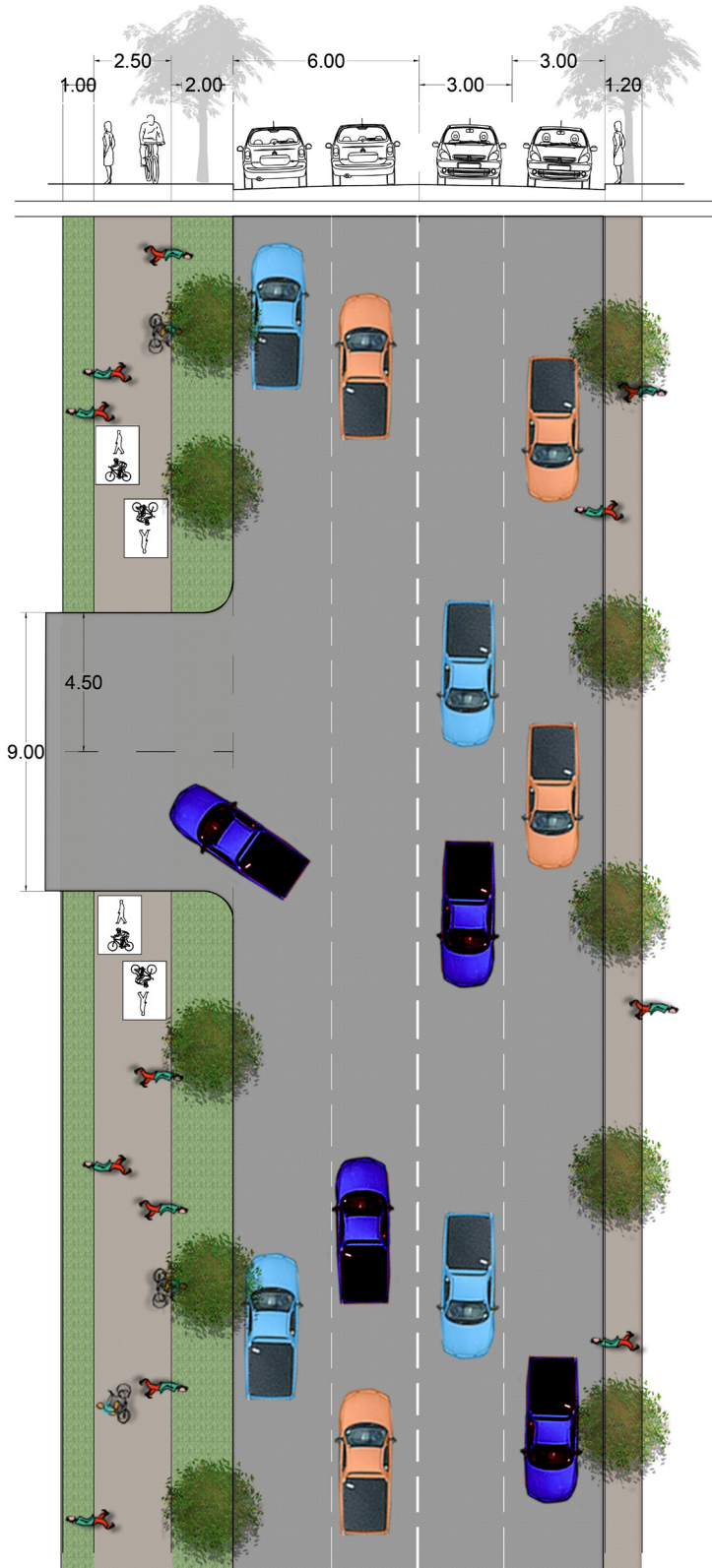
Railway crossing



Road crossing



Shared path in a road reserve



Types of cyclist

Cycling can be a type of active transport as well as a physical activity that can be enjoyed and participated in by all ages and abilities. The reason why one chooses to cycle varies among riders. As such, cyclists have been categorised into nine different types, as summarised in the Table below.

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

Type of cyclist	Rider characteristics	Riding environment
Non-cyclists and potential cyclists	Do not currently ride, however have the potential to with effective encouragement	This group would generally begin with off-road shared paths, footpaths (where permitted), very low volume residential streets or learn-to-ride circuits (where available)
Primary school children	Cognitive skills may not be fully developed, little knowledge of road rules, require supervision	Off-road shared path, footpath (where permitted), very low volume residential street or learn-to-ride circuit (where available)
Secondary school children	Skill level varies, developing confidence	Generally use on-road facilities or off-road shared paths where available
Recreation	Experience, age and skills vary greatly	Desire off-road shared paths and quiet streets, avoid heavily trafficked routes, more experienced will prefer to use road system for long journeys
Commuter	Vary in ages and fitness, come highly skilled and able to handle a variety of traffic conditions	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, speed maintenance
Utility	Ride for specific purpose (e.g. shopping), short length trips, routes unpredictable	Not on highly trafficked roads, needs include comprehensive end-of-trip facilities and low-stress routes
Touring	Long distance journeys, may be heavily equipped, some travelling in groups	Often route is similar to that of other tourists i.e. roads and long distance paths
Sporting	Often in groups, two abreast occupying left lane, needs are similar to commuters	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
Mountain biking	Recreational riders seeking an off-road adventure	Prefer an off-road facility or a natural setting, generally non-urban areas such as bushland, National Parks and purpose-built facilities. Desire undulating terrain

Source: Austroads 2014, Austroads Guide to Traffic Management - Part 4

The prioritisation of cycleway infrastructure

Prioritising cycleway infrastructure is one of the most important aspects of implementing a successful Strategy to encourage cycling. Austroads has developed five principles to guide the provision of and assist Council to achieve a direct, safe and comfortable bicycle network that is well used by the Cessnock community. The principles can be found in Section 3.1 of the NSW Bicycle Guidelines (Austroads Guide to Traffic Engineering Practice, Part 14 - Bicycle and Australian Standard AS1742.9). These principles are discussed below and form the basis for more refined principles to guide the prioritisation of cycleway infrastructure in Cessnock.

Principle
1. Safety (High)
A well designed bicycle network improves and enhances the road safety of riders, pedestrians and motorists. Intersection designs that include a path for cyclists are an important element of an integrated and safe bicycle network. Mid-block treatments need to provide safe and easy major roadway crossings for riders.
Design considerations
D1.1 Provide for cyclist connectivity in road infrastructure upgrades.
D1.2 Provide separation between cyclists, pedestrians and motor vehicles.
D1.3 Provide directional signage and line marking on cycling routes.
D1.4 Incorporate Crime Prevention Through Environmental Design principles in planning and designing cycleways.
Prioritise works that:
P1.1 Provide for cyclists at pinch points including intersections and narrow road shoulders.
P1.2 Provide for cyclists along roads of high motor vehicle use and designated heavy vehicle routes.
P1.3 Increase motor vehicle and pedestrian separation for inexperienced cyclists (eg recreational, primary school and secondary school riders).
P1.4 Provide cycling infrastructure in reported cycling casualty 'hot spots'.
P1.5 Increase passive surveillance and lighting along popular commuter and utility cyclist routes.
2. Cost-benefit (High)
The cycling network should be developed with the cost-benefit principle in mind. Where a project is low cost and offers a significant benefit to the community it should be prioritised above other projects. The cost-benefit principle will assist in achieving the best possible bicycle network that can be achieved given available funds.
Design considerations
D2.1 Cycleways are located and designed to maximise utility.
D2.2 Cycleways are located to provide a feasible alternative to motorised transport.
D2.3 Utilise appropriate materials for the purpose and amount of anticipated use.
D2.4 Cycleway infrastructure is provided to attract and promote cycling tourism.
Prioritise works that:
P2.1 Service areas of low socio-economic populations.
P2.2 Provide safe, convenient and comfortable routes for inexperienced and potential cyclist types.
P2.4 Provide cycleways along desire lines and routes of demonstrated demand.
P2.5 Compliment and diversify visitor experiences within established tourist destinations.
P2.6 Have high potential to attract external party funding.
P2.7 Improve cyclist connectivity within core business districts.

Principle
3. Coherence (Medium)
The bicycle network should form a coherent network by providing a clear and continuous linkage between key destinations and local residential streets. The quality of the bicycle network should be consistent and routes should be easy to find from the local streets.
Design considerations
D3.1 Provide connections to key trip attractors including recreational areas, schools, retail and commercial areas and transport hubs.
D3.2 Cycleways are to form a continuous link and are of a consistent standard.
D3.3 Cycleways are easily identified and provide clear sightlines.
D3.4 Directional and way-finding signage should be clear and appropriately located.
Prioritise works that:
P3.1 Complete missing links on existing cycling networks.
P3.2 Provide direction and way-finding on popular cycle routes.
P3.3 Provide connections between large population centres and key trip attractors including regional recreation facilities, core business districts and secondary schools.
4. Attractiveness (Medium)
Enjoyable cycling requires attractively designed and located facilities. Bicycle routes should also feel safe and offer good personal security. The community prefers well-lit pathways and open-to-view- routes rather than dark alleyways with poor surveillance.
Design considerations
D4.1 Provide signage, surface treatment and line marking that clearly indicates the intent and direction of cycleways.
D4.2 Integrate cycleways with the natural environment and open-to-view areas that encourage passive surveillance.
D4.3 Located to facilitate convenient maintenance activities.
D4.4 Avoid areas of prolonged darkness and visual screening.
D4.5 Provide convenient end of trip facilities.
Prioritise works that:
P4.1 Promote and encourage use of existing networks.
P4.2 Utilise areas of interest to provide connections to key trip attractors.
P4.3 Provide lighting along popular commuter and utility cycleways.
P4.4 Provide end of trip facilities at key trip attractors.
P4.5 Improve the amenity of existing cycleways including tree planting and lighting.

Principle
5. Comfort (Medium)
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 vehicle or pedestrian), some level of separation is often needed. Effective intersection treatments is a critical factor in providing safe and comfortable crossings of major arterial roads.
Design considerations
D5.1 Cycleway surfaces are smooth, well maintained and appropriate to the intended use. D5.2 Separation is provided between cyclists and areas of high traffic volume (including pedestrian and motor vehicle). D5.3 Intersection and road design provides for the safe and comfortable crossing of cyclists. D5.4 Cycleways are designed and located to avoid steep gradients and complicated manoeuvres.
Prioritise works that:
P5.1 Facilitate safe and comfortable crossing of major roads and intersections along popular cycle routes. P5.2 Separate inexperienced cyclists groups from pedestrian and motor vehicle traffic. P5.3 Upgrade kerbing and laybacks on existing cycling routes to facilitate smooth transitioning of on-road and off-road cycleways. P5.4 Provide a safe and convenient alternative route to physical barriers such as steep hills, uneven surfaces or water courses.
6. Directness (Low)
The bicycle network should be as direct as safely practical. The directness of a bicycle route needs to be balanced against topography, safety and any physical barriers to cycling.
Design considerations
D6.1 Cycleways allow riders to maintain safe, comfortable and consistent operating speeds throughout the length of the route. D6.2 Cycleways are located on desire lines and are not perceived as detours. D6.3 Cycleways are located on long, flat, tracts of land that have minimal intersections with motorised traffic. D6.4 Cycleways are designed to minimise obstructions caused by pedestrians.
Prioritise works that:
P6.1 Provide cyclists an advantage, in regards to directness and priority, over motor vehicles. P6.2 Provide direct connections between large population centres and key trip attractors including regional recreation facilities, core business districts and secondary schools. P6.3 Limit the impact of obstructions on existing routes and desire lines.

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



The Cessnock cycling environment and opportunities

Regional opportunities

Connections between towns and villages

Popular cycling routes

Consultation with the community and key stakeholders revealed a number of popular cycling routes within the Cessnock LGA. The town of Cessnock is currently the most popular destination and also the highest trip generator. Regional cycling projects should focus on connecting Cessnock to other areas and improving connectivity throughout the region.

The vineyards of Pokolbin have been identified as an area that people want to cycle to but feel they can't (due to unsafe cycling conditions). A regional cycling route along Wine Country Drive would connect Cessnock to the vineyards and the Greta-Branxton area, which includes the new major development at Huntlee.

The Richmond Vale Rail Trail is another key route that could link the Cessnock region to the Greater Newcastle area. When connected to Kurri Kurri and Cessnock, the proposed path could boost tourism and connectivity within and outside the region by providing a high quality cycling path for long distance cycling.

Opportunities for improved on road cycling environment

It is not always possible (or feasible) to dedicate off-road bicycle paths (off-road routes). A number of improvements for enhancing the safety of road cyclists include:

- 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.
- Pamphlets at cycle shops, cafes and tourist information centres that educate cyclists about the safety and appropriate behaviour when riding on rural roads.

Connections to neighbouring LGA's

Providing connections to neighbouring Local Government Area's has been identified as an important consideration for the regional cycling environment. Currently, the majority of cyclists who come from outside the LGA travel along the Hunter Expressway. The recently opened Expressway is a quality cycling link, but is only suitable for confident cyclists due to the high speed of motor vehicles on the road. The Richmond Vale Rail Trail could provide a quality cycling link for less confident cyclists from the Cessnock LGA to Newcastle and Lake Macquarie. Failing the implementation of this project, investigations should be made for a cycling route along John Renshaw Drive to provide that key connection.

Recreation and Tourism

Consultation and investigations reveal that the Cessnock community needs greater opportunities for recreation and tourism cycling. The following projects have been identified as potential regional cycling initiatives that could provide the local community and tourists with much needed recreational cycling opportunities.

Richmond Vale Rail Trail

The Richmond Vale Rail Trail is a proposed cycleway project that would link the Cessnock region to Newcastle and Lake Macquarie. The proposal is along the 28km former railway line, which runs from Hexham, through the Sugarloaf range to Pelaw Main near Kurri Kurri. It is noted that the project is complex and subject to a number of engineering and environmental approvals. Although it may be a long term project, which takes some time to implement, this Strategy supports its implementation. The Rail Trail would provide cyclists in the region with a high quality cycleway that will make cycling more attractive and encourage people to get on their bikes and participate in cycling.

Hunter Valley Cycleway

A cycleway in the Hunter Valley wine region is an opportunity for recreational cycling that could be used by local residents and tourists alike. The project could link the Hunter Valley Gardens and major resorts in the region, with funding opportunities existing to share the costs of building the cycleway with those resorts.

Great Wineries Walk shared path opportunity

An opportunity exists to partner with Crown Land - NSW and provide a shared path along the Pokolbin arm of the Great North Walk (Great Wineries Walk). The Great Wineries Walk path is 22km in total with the opportunity for cycling being to implement a shared path for the Millfield to Pokolbin section. The State Government would maintain the trails on Crown Land, while Council would be responsible for:

- Identifying the track location.
- Marketing the trail.
- Maintaining sections on Council roads.

Council supporting the Great Wineries Walk is also subject to the outcomes of the Recreation Needs Analysis, which is currently being developed.






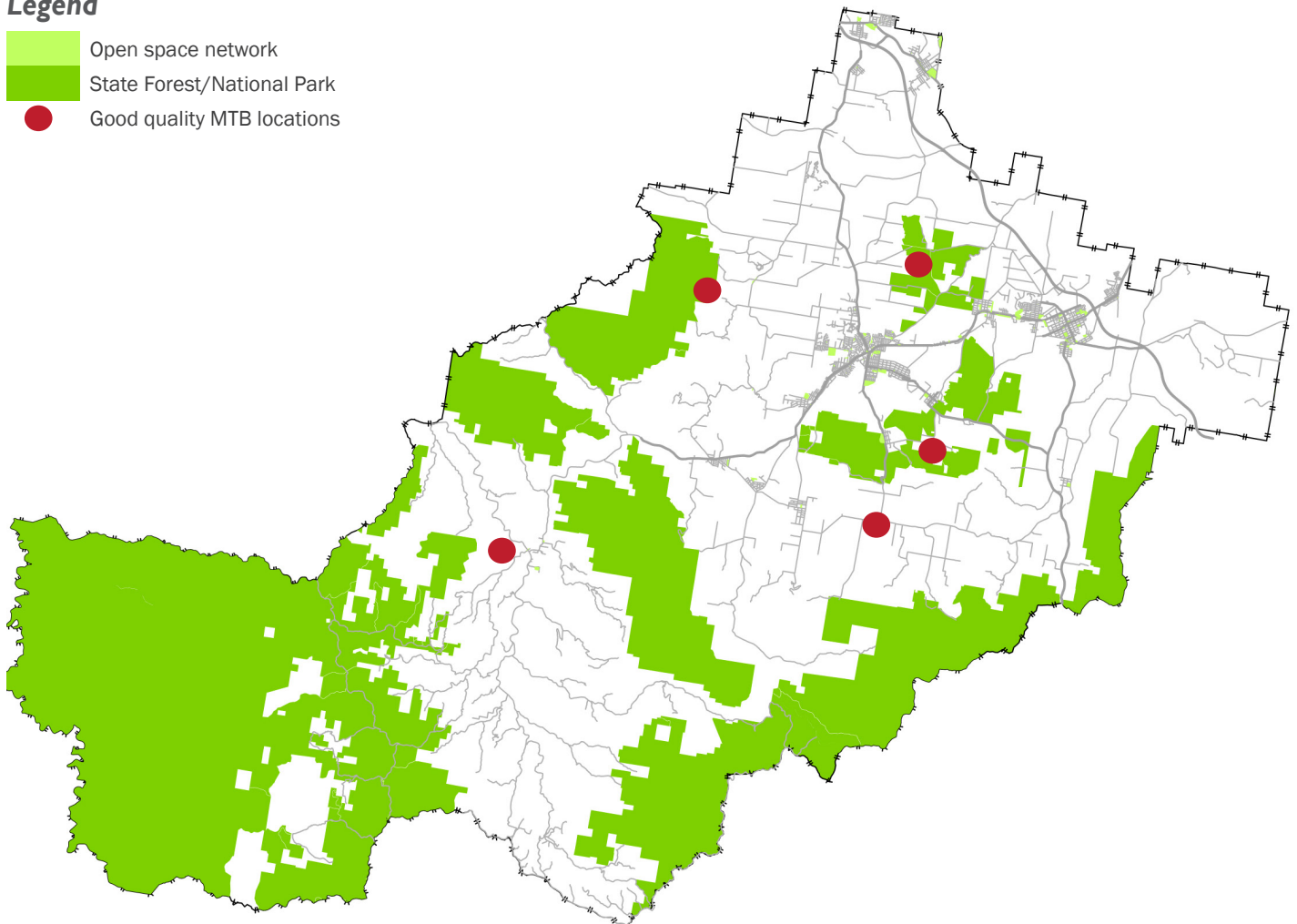
Trail opportunities

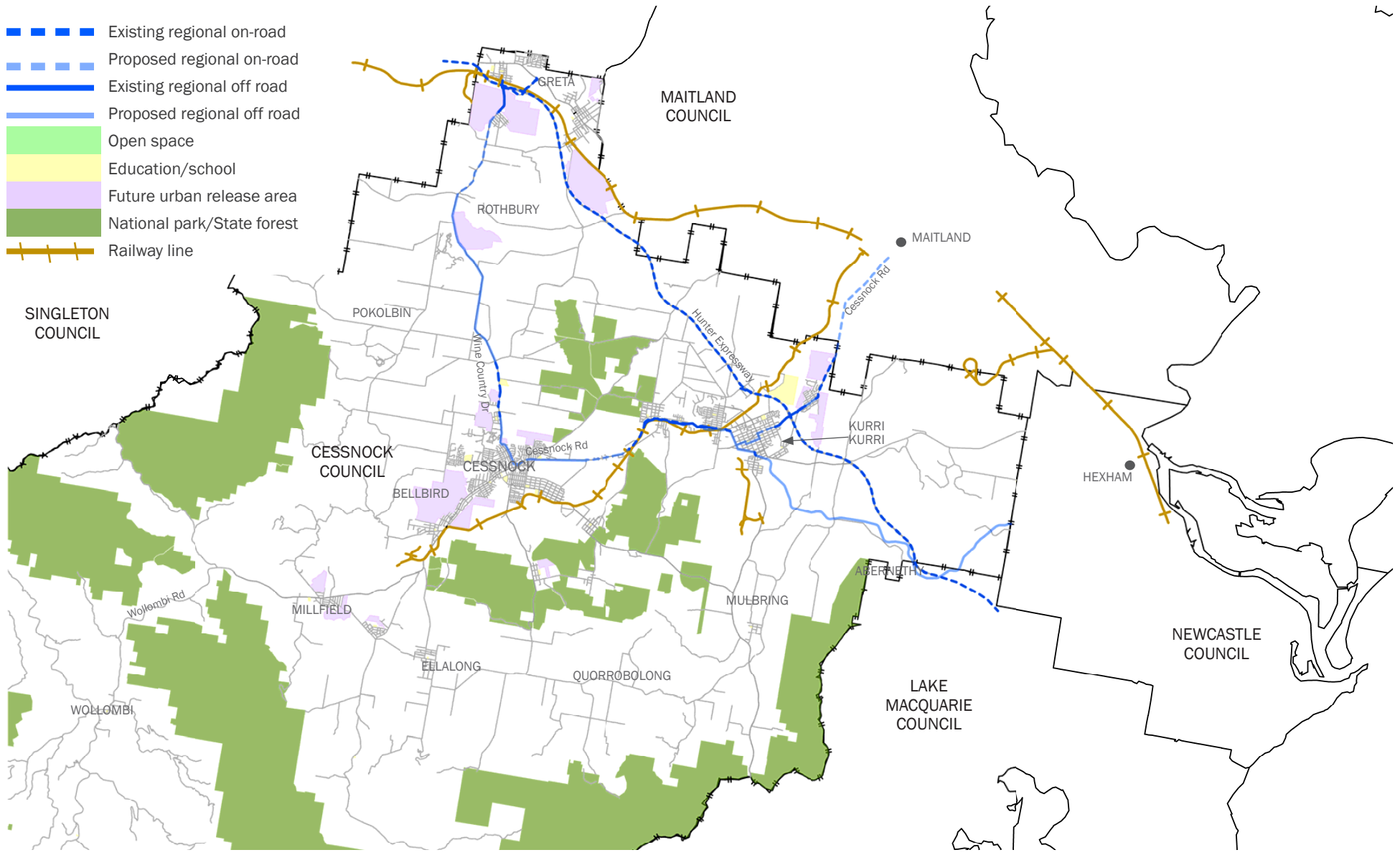
There are major opportunities for mountain biking in Cessnock with disused mine sites and railway corridors and abundant national parks/state forests providing natural settings for riders. There are a number of existing trails in the area, most of which require minimal or no maintenance to keep up the quality for local and visiting riders. The existing trails attract major regional mountain biking events such as the Port to Port MTB and the Wollombi Wild Ride. As can be seen in the map below, good quality locations for mountain biking are spread throughout the Cessnock LGA. Areas for mountain biking are not limited to these locations and there are trails that can be accessed in almost every suburb in the Cessnock LGA.

The mapping and promotion of these trails could provide locals and visitors with more information on where they can mountain bike and would likely increase the popularity of the activity in Cessnock. Due to the significant number of trails present and the likely future demand for mountain biking, it is recommended that a Trails Strategy be completed by Council to drive mountain bike promotion and collate the wealth of mountain biking information in the area.

Legend

-  Open space network
-  State Forest/National Park
-  Good quality MTB locations





Opportunities for the regional cycling network

The table below provides the details of the proposed improvements to the regional cycling environment, including new pathways, on-road connections and pathway improvements.

Ref	Item	Description	Hierarchy	User type(s)
1.1 New pathway				
1.1.1	New off-road path on Maitland Road (Cessnock/Neath) - David Street to Duffie Drive	Shared path connecting Cessnock to Neath	Regional	Primary school children, secondary school children, recreation, commuter, utility, mountain biking
1.1.2	New off-road path on Wine Country Drive (Cessnock/Nulkaba) - Dover Street to Nulkaba	New shared path on Wine Country Drive linking Cessnock to Nulkaba (identified in Nulkaba s94 Contributions Plan)	Regional	Primary school children, secondary school children, recreation, commuter, utility
1.1.3	New off-road path on Doyle/Church/Dover Streets (Cessnock) - Maitland Road to Wine Country Drive	Shared path linking Cessnock CBD to the proposed shared path on Wine Country Drive	Regional	Primary school children, secondary school children, recreation, commuter, utility
1.1.4	New off-road path - Richmond Vale Rail Trail	Support the introduction of a shared path along the Richmond Vale Rail Trail to link Kurri Kurri to Hexham and the Greater Newcastle area	Regional	Recreation, commuter, touring, mountain biking
1.1.5	New off-road path on Mulbring and Boundary Streets (Kurri Kurri) - Log of Knowledge Park to Margaret Johns Park	Shared path linking the Richmond Vale Rail Trail to Margaret Johns Park	Regional	Recreation, commuter, utility, touring, mountain biking
1.1.6	New off-road path along Appleton Ave (Weston) - Margaret Johns Park to Scott Street shared path	New shared path linking Margaret Johns Park to the Scott Street shared path, providing a link to a safe railway level crossing	Regional	Recreation, commuter, utility, touring
1.1.7	New off-road path along Scott Street and Kilne Street (Weston) - Scott Street shared path to Cessnock Road	New shared path linking the Scott Street shared path to the shared path adjacent to Cessnock Road	Regional	Recreation, commuter, utility, touring
1.1.8	New off-road path along Main Street (Heddon Greta) - Heddon Street to Earp Street	New shared path through Heddon Greta linking the existing shared path on Main Street to the existing on-road bicycle lane which travels to Cliftleigh	Regional	Primary school children, secondary school children, recreation, commuter, utility
1.1.9	New off-road path on Rawson/Alexandra/Lang Streets from Victoria Street to Boundary Street	Providing connections to the regional network and district and local paths and schools	Regional	Primary school children, secondary school children, recreation, commuter, utility
1.1.10	New off-road path on Maitland Road - Victoria Street to Doyle Street	Off-road path to maintain an off-road network that connects residents north of Maitland Road/Wollombi Road to East Cessnock Public School and Bridges Hill Park	Regional	Primary school children, secondary school children, recreation, commuter, utility
1.1.11	New off-road path on Wine Country Drive from Lovedale Road to Broke Road	Part of the proposed regional network for the area	Regional	Secondary school children, recreation, commuter, touring
1.1.12	New off-road path on Wine Country Drive from Broke Road to Old North Road	Part of the proposed regional network for the area	Regional	Secondary school children, recreation, commuter, touring

Ref	Item	Description	Hierarchy	User type(s)
1.2 On-road connections				
1.2.1	New on-road connection through Neath along Cessnock Road from Northumberland Street to Duffie Drive	On road connection along Cessnock Road through Neath to maintain regional cycleway	Regional	Secondary school children, recreation, commuter, touring
1.2.2	New on-road connection on Wine Country Drive - O'Connors Road to Lovedale Road cycleway	On road connection on Wine Country Drive provides a missing link from Nulkaba to Lovedale Road and further north to North Rothbury	Regional	Secondary school children, recreation, commuter, touring
1.2.3	New on-road connection on Maitland Road - David Street to Victoria Street	To complete regional connection into Cessnock along Maitland Road	Regional	Secondary school children, recreation, commuter, touring
1.2.4	New on-road connection on Lang Street and Victoria Street from Heddon Street to Rawson Street	To continue regional connection through Kurri Kurri and beyond	Regional	Secondary school children, recreation, commuter, touring
1.2.5	New on-road connection on Wine Country Drive from Old North Road to Thomas Street	To complete regional link on Wine Country Drive from Cessnock through to Branxton	Regional	Secondary school children, recreation, commuter, touring

District/local environment

The following section provides a detailed analysis of the existing cycling environment within Cessnock's major towns and villages:

- Cessnock (includes Aberdare and Bellbird)
- Pokolbin (includes Nulkaba, Rothbury and Lovedale)
- Greta-Branxton (includes North Rothbury and Huntlee)
- Kurri Kurri (includes Heddon Greta, Cliftleigh, Pelaw Main and Stanford Merthyr)
- Weston-Abermain-Neath
- Kitchener-Kearsley (includes Abernethy and Mulbring)
- Millfield - Paxton - Ellalong - Wollombi

The analysis includes an overview of the existing cycling environment, identification of missing links, and opportunities for improvements in the cycling environment. These opportunities double as actions to be completed as part of the works program (see Appendix 1).



Cessnock's cycling environment

The town of Cessnock currently has challenging conditions for cyclists, with very few off-road paths and heavy traffic on many of the roads.

There are a number of key destinations in Cessnock and they include:

- Mount View High School and the adjacent Mount View Park
- The commercial centre (Vincent Street, Coles and Woolworths shopping centres etc.)
- Cessnock Public and High School and the adjacent Turner Park
- Cessnock West Public School
- Cessnock East Public School
- Bridges Hill Park
- Cessnock PCYC
- Bellbird Public School

A detailed summary of Cessnock's cycle network is provided in the table below and shown spatially in the map on page 55 .

Cessnock CBD

A key characteristic of Cessnock is that it's CBD is not cycle friendly due to existing parking configurations and active commercial frontages. Providing for cycling within the CBD is addressed in the Strategic Actions outlined on page 96.



Cessnock's existing cycle network

Cessnock's existing cycling environment

Railway Street shared path

The Railway Street shared path provides cyclists with an off-road connection from Vincent Street in Cessnock to Turner Park, Cessnock High School and the back streets of Aberdare.

C01 - The first section of the shared path adjacent to Railway Street



C02 - The middle section of the shared path is adjacent to the netball courts and Turner Park



C03 - The path ends on Mulbring Street behind Cessnock High School



Cessnock's existing cycling environment

Aberdare Road

Aberdare Road has very wide shoulders, providing reasonably safe on-road conditions for cyclists. However, the road is not marked or signed for cyclists, which would help to create greater awareness for cyclists on the road and improve the connection from Aberdare to Vincent Street in Cessnock.

C04 - Wide road shoulders provide suitable conditions for experienced cyclists



C05 - This footpath provides reasonable access for children to Cessnock Public School



Wollombi Road, Cessnock

Wollombi Road provides cyclists with marked lanes making up the majority of the on-road route. Parked cars and busy intersections provide minor obstacles, but overall the route is safe for reasonably experienced cyclists.

C06 - Marked shoulder begins the on-road cycling section of Wollombi Road close to town



C07 - On-road cycle lanes on both sides of the road continue to the intersection at Hickey Street



Cessnock's existing cycling environment

Wollombi Road, Bellbird

The majority of this on-road cycling section is unmarked road shoulders, however, there is a marked cycle lane for part of the route.

C08 - A marked cycle lane begins the on-road conditions on Wollombi Road in Bellbird



C09 - Unmarked road shoulders make up the majority of the on-road route



Bellbird footpaths

Bellbird has a small footpath network surrounding Bellbird Public School suitable for primary school children to cycle on. The path could be extended to Carmichael Park to increase opportunities for children to cycle in the area. Quiet streets in Bellbird make cycling on the road comfortable for reasonably confident cyclists.

C10 - The footpath on the corner of Bellbird Public School.



C11 - The end of the footpath on Kendall Street



Cessnock's existing cycling environment

Shared path from Sports Avenue to Mount View High School

A shared path is mapped from Sports Avenue to Mount View High School on Mount View Road. Although the path is signed near Sports Avenue (see below), there is no signage on the path on Mount View Road, which appears to be a footpath. Additionally, part of the mapped path travels through the indoor sports centre's car park, which is not marked or signed. This shared path would benefit from better maintenance, signage, marking and an upgraded (wider) path near the school.

C12 - The start of the shared path off Sports Avenue



C13 - Shared path signage at the start of the path



C14 - The path continues along Mount View Road to Mount View High School



Mount View Road

Mount View Road has a narrow, unmarked shoulder, suitable only for confident and experienced cyclists. The route from Oakey Creek Road to Mount View High School would benefit from a separate cycling path to encourage less experienced cyclists to cycle along the road. This could also connect to the shared path from Sports Avenue.

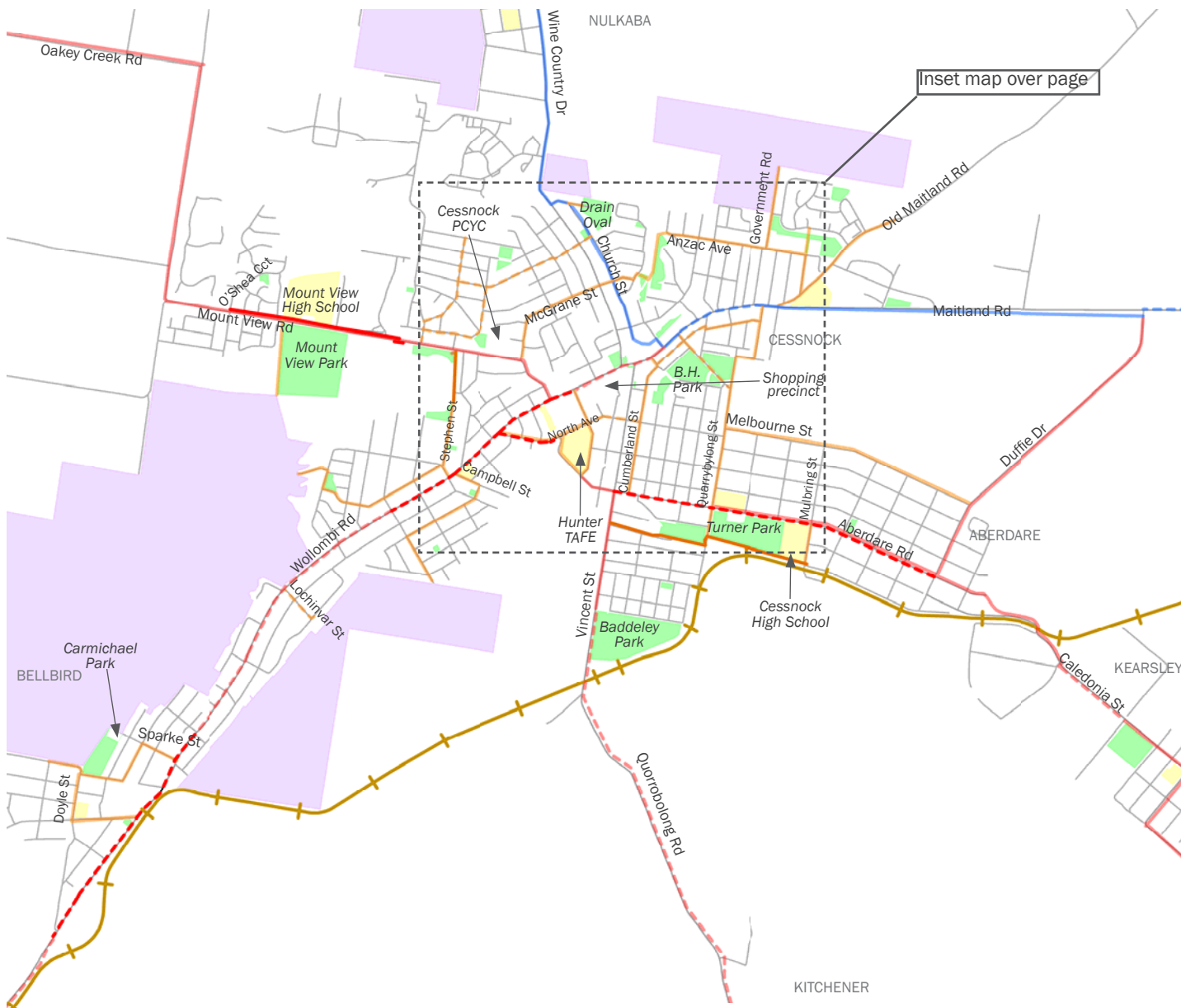
C15 - A narrow, unmarked shoulder for cycling near the intersection of Oakey Creek Road



C16 - The narrow shoulder continues down Mount View Road towards Mount View High School



Map of Cessnock's cycling environment and identified missing links



Existing conditions

- — — — Regional on road
- Regional off road
- - - - District on road
- District off road
- - - - Local on road
- Local off road
- Open space
- Education/school
- Future urban release area
- + + + + Railway line

Proposed cycleways

- - - - Regional on road
- Regional off road
- - - - District on road
- District off road
- - - - Local on road
- Local off road



Inset map of Cessnock's cycling environment and identified missing links



Existing conditions

- — — — — Regional on road
- Regional off road
- - - - - District on road
- District off road
- - - - - Local on road
- Local off road
- Open space
- Education/school
- Future urban release area
- + + + + + Railway line

Proposed cycleways

- - - - - Regional on road
- Regional off road
- - - - - District on road
- District off road
- - - - - Local on road
- Local off road

Opportunities for Cessnock's cycling network

The table below provides the details of the proposed improvements to Cessnock's local/district cycling environment, including new pathways, on-road connections and pathway improvements.

Ref	Item	Description	Hierarchy	User type(s)
2.1 New pathway				
2.1.1	New off-road path on Cumberland Street - Aberdare Road to Millfield Street	Shared path connecting Aberdare Road towards proposed Maitland Road regional path	Local	Recreation, commuter, utility, touring
2.1.2	New off-road path on Duffie Drive/Colliery Street - Aberdare Road to Maitland Road	Shared path connecting Aberdare to Maitland Road	District	Primary school children, secondary school children, recreation, commuter, utility
2.1.3	New off-road path on Aberdare Road/Cessnock Road/Caledonia Street - Colliery Street to Ellalong Street	Shared path connecting Aberdare to proposed Kearsley on road connection	District	Primary school children, secondary school children, recreation, commuter, utility
2.1.4	New off-road path on Dover Street - Church Street to Drain Oval	Shared path on Dover Street linking Drain Oval and the proposed regional link on Church Street (identified in Nulkaba s94 Contributions Plan)	Local	Primary school children, secondary school children, recreation, touring
2.1.5	New off-road path on McGrane Street - Church Street to Mount View Road	Shared path running from proposed regional shared path on Church Street to proposed district shared path on Mount View Road	Local	Primary school children, secondary school children, recreation, utility, commuter
2.1.6	New off-road path on Stephen Street/Ivan Street/Wollombi Road - Sports Avenue Shared path to Wollombi Road/Alexander Street Intersection	Shared path connecting the existing sports Avenue	Local	Primary school children, secondary school children, recreation, utility, commuter
2.1.7	New off-road path on Francis, Margaret and Campbell Streets	Shared local path to connect to district path on Wollombi Road	Local	Primary school children, secondary school children, recreation, utility, commuter
2.1.8	New off-road path in Bellbird	Shared path along the following streets: <input type="checkbox"/> Tennant, Doyle, Ruby, Hetton, Sparke and Kendall Streets	Local	Primary school children recreation
2.1.9	New off-road path - URA to Mount View Road via Mount View Park	Local connection between URA and district path on Mount View Road	Local	Primary school children, secondary school children, recreation, utility, commuter
2.1.10	New off-road path on O'Connors Road - URA to Wine Country Drive	Local connection between URA and regional path on Wine Country Drive	Local	Primary school children, recreation, commuter, touring
2.1.11	New off-road path - Buttaba Avenue via O'Neill Park playground along Acadia/Edith Streets to Stephen/Ivan Streets	To link with other local paths at Stephen/Ivan Streets and provide connections to district paths on Mount View Road and Wollombi Road	Local	Primary school children, recreation, commuter, touring

Ref	Item	Description	Hierarchy	User type(s)
2.1.12	New off-road path on South Avenue - North Avenue to Darwin Street	Shared path around Hunter TAFE	Local	Primary school children, secondary school children, commuter, utility
2.1.13	New off-road path on Mulbring Street - Railway Street shared path to Aberdare Road	Shared path connecting the Railway Street shared path to Aberdare Road	Local	Secondary school children
2.1.14	New off-road path on Melbourne Street - Quarrybylong Street to Duffie Drive	Shared path connecting the proposed Duffie Drive shared path to the proposed Quarrybylong Street on-road connection	Local	Recreation, commuter, utility, touring
2.1.15	New off-road path on Victoria Street, Cessnock - Maitland Road to Yango Street	Shared path connecting Maitland Road to Bridges Hill Park, East End Oval and Quarrybylong Street	Local	Secondary school children, recreation, commuter
2.1.16	New off-road path on Old Maitland Road - Maitland Road to Council depot	Shared path going past Cessnock East Public School, connecting Maitland Road to Alkira Avenue Park	Local	Primary school children, recreation, commuter, utility
2.1.17	New off-road path on Kanowna Avenue from Alkira Avenue to Old Maitland Road	New shared path from Alkira Avenue connecting Government Road to Old Maitland Road	Local	Primary school children, recreation, commuter, utility
2.1.18	New off-road path on Government Road - Anzac Avenue to URA	New shared path along Government Road from Alkira Avenue Park to the new development on Government Road (identified in the Government Road s94 Contributions Plan)	Local	Primary school children, recreation, commuter, utility
2.1.19	New off-road path on McGrane Street/Lightfoot Avenue from Church Street to Anzac Avenue (via Manning Park)	Off-road path to provide local connections to paths and park land	Local	Primary school children, secondary school children, recreation, commuter, utility
2.1.20	New off-road path on Vincent Street - Aberdare Road to Baddeley Park	Shared path connecting CBD to major sporting facilities	District	Primary school children, secondary school children, recreation, commuter, utility
2.1.21	New off-road path on Anzac Avenue from Manning Park to Kanowna Avenue	To complete local connections, including primary school and regional pathway	Local	Primary school children, secondary school children, recreation, commuter, utility
2.1.22	New off-road path on Halcyon Street from David Street to Koree Street	To complete local connections, including primary school, major park and regional pathway	Local	Primary school children, secondary school children, recreation, commuter, utility
2.1.23	New off-road path on Darwin Street from South Avenue to Wollombi Road	Local connection to Hunter TAFE and shopping precinct	Local	Primary school children, secondary school children, TAFE students, recreation, commuter, utility
2.1.24	New off-road path on South Avenue/Aberdare Road - Darwin Street to Vincent Street	To provide a connection between the TAFE and the proposed district pathway along Aberdare Road	District	Primary school children, secondary school children, TAFE students, recreation, commuter, utility

2.1.25	New off-road path - Quarrybylong, Neath and David Streets	To complete local connections, including primary school, major park and district and regional pathways	Local	Primary school children, secondary school children, recreation, commuter, utility
2.1.26	New off-road path on Mount View Road - O'Shea Circuit to Oakey Creek Road	To continue connection from Mount View Road to the wine country area	District	Primary school children, secondary school children, recreation, commuter, utility
2.1.27	New off-road path on Mount View Road - Wollombi Road to the Cessnock Civic Indoor Sports Centre	Provide a shared path linking Mount View High School and Mount View Park to Cessnock CBD	District	Secondary school children, recreation, utility, commuter
2.1.28	New off-road path on West Avenue/North Avenue - Darwin Street to Wollombi Road	Upgrade the West Avenue/North Avenue footpath to a shared path to link the Hunter TAFE to the proposed Bellbird Heights footpath and the existing on-road connection on West Avenue	Local	Primary school children, secondary school children, recreation, utility, commuter
2.1.29	New off-road path on Wollombi Road - Millfield Street to Doyle Street	Off-road path between Millfield Street and Doyle Street off-road cycleways	District	Primary school children, secondary school children, recreation, utility, commuter
2.2 On-road connections				
2.2.1	New on-road connection - Maclean Street/Nelson Street/Buckland Avenue	New on-road connection from Cessnock PCYC to the west of Mount View Road	Local	Secondary school children, recreation, utility
2.2.2	New on-road connection on Cooper Street between North Avenue and Cumberland Street	New on-road connection from Hunter TAFE past the shopping precinct to Cumberland Street	Local	Secondary school children, commuter, utility
2.2.3	New on-road connection on Jurd Street - Church Street to Dixon Street	Local on-road connections to regional path on Church Street and District path on Mount View Road, and connections to the hospital and PCYC	Local	Secondary school children, commuter, utility, touring
2.2.4	New on-road connection on Dixon Street from Mavis Street to Maclean Street	To provide local connections to hospital and district cycleway on Mount View Road	Local	Secondary school children, commuter, utility, touring
2.2.5	New on-road connection on laneway from Koree Street to Millfield Street	To complete local connections around major park and between regional and district cycleways	Local	Secondary school children, recreation, commuter, utility
2.2.6	New on-road connection on Victoria Street from Quarrybylong Street to Yango Street	To complete local connections around major park and between regional and district cycleways	Local	Secondary school children, recreation, commuter, utility
2.2.7	New on-road connection on Wollombi Road/Maitland Road from Darwin Street to Millfield Street	To complete district connection to regional cycleway	District	Secondary school children, recreation, commuter, utility, touring
2.3 Cessnock CBD				
2.3.1	Shared pedestrian zone within Cessnock CBD	Investigate the viability and best location for a shared pedestrian zone within the Cessnock CBD.	Local	Recreation, commuter, utility, touring

Pokolbin's cycling environment


The Pokolbin district includes the suburbs of Pokolbin, Nulkaba and parts of Rothbury and Lovedale. The region currently has a limited cycling network with only one off road path. On road conditions are suitable for cycling in some areas, but dangerous in others.

Cycling in Pokolbin is very popular with attractive scenery and a number of key destinations:

- Hunter Valley Gardens
- St. Philip's Christian College
- Nulkaba Public School
- the Vintage Golf Club and Resort
- Cypress Lakes Resort
- Crowne Plaza Hunter Valley
- The many wineries in the region

A detailed summary of Pokolbin's cycle network is provided in the table below and shown spatially in the map on page 63.

Pokolbin's existing cycle network

Pokolbin's existing cycling environment		
<p>McDonalds Road bikeway</p> <p>The McDonalds Road bikeway is a valuable asset to the wine region, providing visitors and locals with an opportunity to cycle off-road. The cycleway could be used more often if it were better promoted and linked to other bikeways in the wine region. Small maintenance/upgrades may also be required to improve user-friendliness.</p>		
<p><i>P01 - The first section of the bikeway is not paved or marked</i></p>	<p><i>P02 - The bikeway contains a total of four road crossings</i></p>	<p><i>P03 - The path in this section is made of a gravel mix</i></p>
		
<p><i>P04 - The path continues with a smoother bitumen surface</i></p>	<p><i>P05 - Pokolbin Park provides a good rest stop along the path</i></p>	<p><i>P06 - The path ends 200 metres short of Oakey Creek Road</i></p>
		

Pokolbin's existing cycling environment

Broke Road

Cycling along Broke Road provides mixed conditions for cyclists. There are no markings or signage for cyclists on the road and although a shoulder exists, its width varies from two metres (wide) to under one metre (narrow). As the road has an 80kmph speed limit in most areas, some areas can be dangerous for cyclists.

P07 - The first section of Broke Road has a fairly wide shoulder



P08 - The road shoulder nearly disappears at this intersection



P09 - Some parts of the western section of Broke Road have narrow shoulders



McDonalds Road (north)

The northern section of McDonalds Road is mapped as an on-road cycleway, however there is nothing to indicate that this road is safe for cyclists. There are no signs or road markings and for the majority of the section there are very narrow shoulders.

P10 - The section starts with narrow shoulders on a divided road



P11 - The road shoulder disappears at this intersection



P12 - The final section of the road has no shoulder at all



Pokolbin's existing cycling environment

Wine Country Drive

Wine Country Drive is not mapped as a cycleway but is used by cyclists to travel between Cessnock and the wine region. Most sections of the road have sufficient shoulders for cycling. Minor upgrades, signage and road marking would help to make the road safer for cyclists.

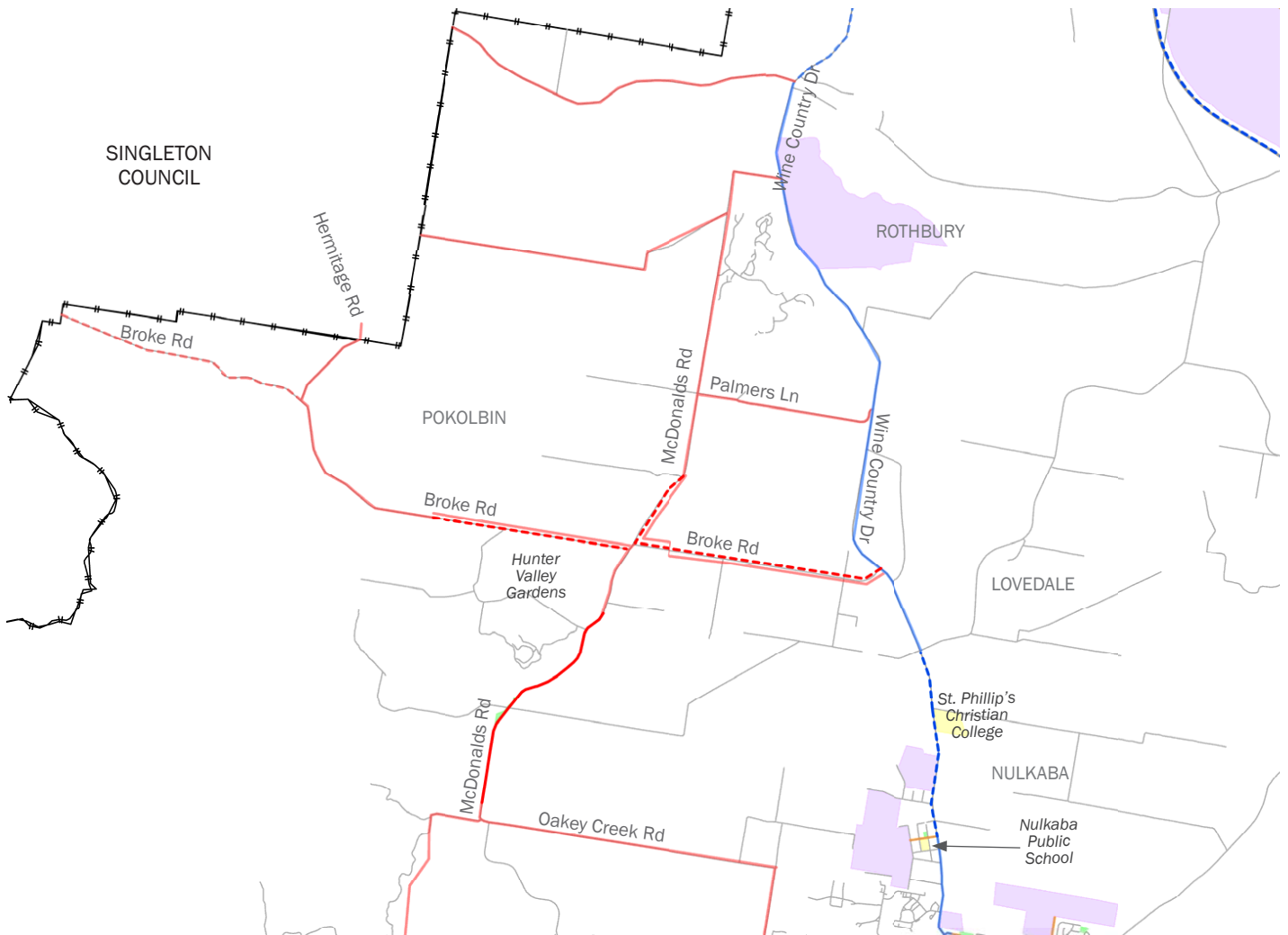
P13 - Wine Country Drive between Cessnock and Nulkaba



P14 - This section of Wine Country Drive has moderately wide shoulders for cyclists



Map of Pokolbin's cycling environment and identified missing links



Existing conditions

- — — — Regional on road
- Regional off road
- - - - District on road
- District off road
- - - - Local on road
- Local off road
- Open space
- Education/school
- Future urban release area

Proposed cycleways

- - - - Regional on road
- Regional off road
- - - - District on road
- District off road
- - - - Local on road
- Local off road



Opportunities for Pokolbin's cycling network

The table below provides the details of the proposed improvements to Pokolbin's local/district cycling environment, including new pathways, on-road connections and pathways improvements.

Ref	Item	Description	Hierarchy	User type(s)
3.1 New pathway				
3.1.1	Extension of McDonalds Road cycleway to Oakey Creek Road	McDonalds Road cycleway extended to Oakey Creek Road to meet the proposed Great North Walk Pokolbin Arm shared path	District	Recreation, touring
3.1.2	New off-road path on Oakey Creek Road - McDonalds Road to Mount View Road	Off-road connection on Oakey Creek Road connects Pokolbin with West Cessnock	District	Recreation, touring, sporting
3.1.3	New off-road path on Palmers Lane - McDonalds Road to Wine Country Drive	Connect the Hunter Valley Cycleway to the regional Wine Country Drive route	District	Recreation, touring, sporting
3.1.4	New off-road path on Broke Road - McDonalds Road to Hermitage Road	Connect the existing on-road connection on Broke Road to the Singleton Council border on Broke-Cessnock Road	District	Recreation, touring, sporting
3.1.5	New off-road path on Hermitage Road - Broke Road to Deasys Road	Connect Broke Road and Pokolbin to the Singleton Council Area through Hermitage Road	District	Recreation, touring, sporting
3.1.6	New off-road path on Broke Road - Wine Country Drive to McDonalds Road	New off-road path on Broke Road to connect Wine Country Drive and McDonalds Road	District	Recreation, touring, sporting
3.1.7	New off-road path on McDonalds Road - Broke Road to Wine Country Drive	New off-road path on McDonalds Road to connect Wine Country Drive and Broke Road	District	Recreation, touring, sporting
3.1.8	New off-road path on Deasy's - McDonalds Road to Hermitage Road	Connect district path on McDonalds Road to Singleton LGA	District	Recreation, touring, sporting
3.1.9	New off-road path on Old North Road - Wine Country Drive to Hermitage Road	District connection between Wine Country Drive cycleway and Singleton LGA	District	Recreation, touring, sporting
3.1.10	New off-road path on McDonalds Road - McDonalds Road cycleway to Broke Road	Complete off-road connection along McDonalds Road to Broke Road	District	Recreation, touring, sporting
3.2.1	New on-road connection on Broke Road - Hermitage Road to Singleton	Complete connection between Broke Road and Singleton LGA	District	Recreation, touring, sporting

Greta-Branxton's cycling environment

The Greta-Branxton region includes the suburbs of Greta, Branxton and North Rothbury. The area has some good examples of quality cycling infrastructure, however, there is a need for more to encourage cycling, particularly between the towns of Greta and Branxton.

Key destinations in the region include:

- Miller Park
- Greta Park
- Branxton Public School
- Rosary Park Catholic School (Primary)
- Greta Public School
- Branxton shops
- Greta shops
- Branxton Railway Station
- Greta Railway Station

The region is also expected to house a large proportion of the growing population in Cessnock. The Huntlee development south of Branxton and the Anvil Creek development in Greta are expected to contain a total of 8,800 new dwellings.

A detailed summary of Greta-Branxton's cycle network is provided in the table below and shown spatially in the map on page 69.

Greta-Branxton's existing cycle network

Greta-Branxton's existing cycling environment

Wine Country Drive shared path

The shared path on Wine Country Drive provides a good off-road connection from North Rothbury into Branxton. The start of the path is not signed though, meaning it is unclear whether the path is suitable for use by cyclists. The end of the shared path becomes a footpath on Bridge Street in Branxton and also connects onto Railway Street.

GB01 - The path begins adjacent to Wine Country Drive in North Rothbury (not signed)



GB02 - The shared path is signed at the Hunter Expressway overpass



GB03 - The end of the path connects on to Railway Street in Branxton



Greta-Branxton's existing cycling environment

Wine Country Drive (on-road)

The northern section of Wine Country Drive has very good on-road cycling conditions. Signage, road marking and wide shoulders make cycling conditions safe even for relatively inexperienced cyclists. The route provides a good connection from the shared path to the Hunter Expressway and the New England Highway.

GB04 - The on-road route begins off the shared path with signage and road markings



GB05 - Cyclists are well catered for at the Hunter Expressway roundabout overpass



GB06 - The good on-road route ends at the New England Highway between Greta and Branxton



New England Highway (Branxton)

The New England Highway through Branxton provides an on-road cycle lane which is marked and signed. This type of cycle lane is a valuable asset for cyclists in the area. An extension of the lane to Greta would provide major benefits for connectivity of the lane. Currently cyclists are forced to cycle on shoulders of varying widths on the New England Highway once they leave the town of Branxton.

GB07 - An on-road bike lane leaving Branxton towards Greta



GB08 - On-road lanes exist on both sides of the road through the busiest part of Branxton



GB09 - The bike lanes end with a sign to watch for cyclists on the road



Greta-Branxton's existing cycling environment

Branxton footpaths

Branxton has a number of footpaths for children to cycle on. This is important in Branxton as the streets are not as wide here as in other areas of Cessnock. The connectivity of footpaths could be improved slightly, particularly near Rosary Park Catholic School.

GB10 - This path connects Miller Park with the centre of Branxton



GB11 - A short path exists at the front of Rosary Park Catholic School



GB12 - A footpath exists at the front of Branxton Public School



New England Highway (Greta)

The New England Highway in Greta provides less appealing conditions for cyclists compared to Branxton. Although the majority of the road has wide shoulders, there are areas where the shoulder disappears and there are no road markings or signs for cyclists. Minor upgrades through signage and markings would improve conditions on the road, and provide cyclists with a safe option for cycling between Greta and Branxton.

GB13 - The road shoulder is non-existent between Branxton and Greta



GB14 - A wider shoulder exists as you approach Greta



GB15 - A wide road shoulder also exists at the end of the southern end of Greta



Greta-Branxton's existing cycling environment

Cycling environment near Greta Public School

The cycling environment near Greta Public School is characterised by relatively quiet but narrow streets. There is also a lack of footpaths in the area, providing challenging conditions for primary school aged children.

GB16 - This footpath is adjacent to Greta Public School



GB17 - The bridge on Anvil Street is a potential hazard for children cycling on road



GB18 - Anvil Street to the east is a quiet street for cycling but has no footpaths



Opportunities for Greta-Branxton's cycling network

The table below provides the details of the proposed improvements to Greta-Branxton's local/district cycling environment, including new pathways, on-road connections and pathways improvements.

Ref	Item	Description	Hierarchy	User type(s)
4.1 New pathway				
4.1.1	New off-road path on Bridge Street/Drinan Street/Cessnock Road - Railway Street to the New England Highway	New shared path from the existing Wine Country Drive shared path to the proposed shared path along the New England Highway	District	Primary school children, secondary school children, recreation, commuter, utility
4.1.2	New off-road path on the New England Highway - Cessnock Road (Branxton) to Greta Park (Greta)	New shared path along the New England Highway linking Branxton with Greta (Council has a design for this)	District	Secondary school children, recreation, commuter, utility
4.1.3	New off-road path on Dalwood Road - New England Highway to Spring Street	New shared path along Dalwood Road linking the East Branxton population to Miller Park and the proposed shared path along the New England Highway	Local	Primary school children, secondary school children, recreation, commuter, utility
4.1.4	New off-road path on Wyndham Street - Evans Street to Sale Street (Greta)	New shared path in Greta on Wyndham Street connecting the northern side of town to the south and Greta Public School	Local	Primary school children, secondary school children, recreation, commuter, utility
4.1.5	New off-road path on West Street - High Street to URA	New shared path connecting the proposed Greta-Branxton shared path to URA	Local	Primary school children, secondary school children, recreation, commuter, utility
4.1.6	New off-road path on Elderslie Road - New England Highway to Singleton LGA	New shared path connecting the proposed Greta-Branxton shared path to a new development in the Singleton LGA (proposed in the Singleton Bike Plan Revision 2015).	Local	Primary school children, secondary school children, recreation, commuter, utility
4.1.7	New off-road path on McMullins Road - Dalwood Road to Hillview Road	New shared path providing local connection to Singleton LGA	Local	Secondary school children, recreation, commuter, utility
4.1.8	New off-road path on Station Street - New England Highway to Railway Street	New shared path to provide connection to other local paths and the district path on New England Highway	Local	Primary school children, secondary school children, recreation, commuter, utility
4.1.9	New off-road path between urban release area along Camp Rd/ Mansfield Street to proposed Nelson Street cycleway	Local connection between urban release area and proposed local path which in turn, connects to district path on New England Highway	Local	Primary school children, secondary school children, recreation, commuter, utility
4.1.10	New off-road path on Nelson Street - New England Highway to Greta Railway Station	Local off-road connection from highway to train station	Local	Secondary school children, commuter

Ref	Item	Description	Hierarchy	User type(s)
4.1.11	New off-road pathway on Washery Road/Morgan Street and Thomas Street, connecting to existing cycleway on Wine Country Drive	Local connection to existing regional path on Wine Country Drive	Local	Recreation, commuter, utility
4.2 On-road connections				
4.2.1	Upgrade on-road conditions on Railway Street, Branxton	Upgrade Railway Street for mixed traffic usage to link the Wine Country Drive shared path and Branxton Railway Station	Local	Secondary school children, commuter



Kurri Kurri's cycling environment

The Kurri Kurri region includes the suburbs of Kurri Kurri, Stanford Merthyr, Pelaw Main, Heddon Greta and Cliftleigh.

There are a number of key destinations in the region, including:

- Hunter TAFE - Kurri Kurri Campus
- Birralelee Park
- Margaret Johns Park and Kurri Kurri Aquatic and Fitness Centre
- Log of Knowledge Park
- Kurri Kurri shops
- Kurri Kurri High School
- Kurri Kurri Public School
- Stanford Merthyr Public School
- Pelaw Main Public School
- Holy Spirit Primary School
- Hunter Economic Zone (HEZ)
- Richmond Vale Railway Museum

With so many key destinations in close proximity to each other in Kurri Kurri, it is an ideal town for cycling. However, the conditions for cycling are not ideal with very few dedicated bike paths or lanes and as a result, cycling uptake in the town is low.

A detailed summary of Kurri Kurri's cycle network is provided in the table below and shown spatially in the map on page 77.

Kurri Kurri CBD

Similar to Cessnock, cycling in Kurri Kurri's CBD is constrained by active commercial frontages and parking configurations. Providing for cycling within the CBD is addressed in the Strategic Actions outlined on page 96.



Kurri Kurri's existing cycle network

Kurri Kurri's existing cycling environment

Main Street

The cycling conditions along Main Street through Cliftleigh are mixed. A cycling lane appears only sporadically along the stretch of road. Through Heddon Greta, conditions are slightly better with very wide shoulders providing ample room for cyclists and parked cars. A shared path also begins in Heddon Greta providing cyclists with a safe and direct route to Kurri Kurri.

It is important to note that the connection to Maitland along Main Street is highly constrained at the 'Testers Hollow' section where a 250m section is very narrow, has no shoulder, an uneven riding surface, and is subject to flooding.

KK01 - The on-road section of Main Street begins near the Council's border with Maitland



KK02 - An off-road shared path provides a safe option for cyclists crossing the Hunter Expressway



KK03 - The off-road shared path concludes just before the town of Kurri Kurri



Margaret Johns Park shared path

Margaret Johns Park has a small shared path running through it, connecting Northcote and Boundary Streets with the skate park and Kurri Kurri Aquatic and Fitness Centre.

KK04 - The start of the shared path near Northcote Street



KK05 - The path ends off Boundary Street



Kurri Kurri's existing cycling environment

Log of Knowledge Park shared path

Log of Knowledge Park has a shared path, providing connections from Mulbring Street to Evatt Street and Stanford Street. It also connects to a gravel path, which travels through to the other side of Pokolbin Street. The Log of Knowledge Park is a good cycling location, and is easily accessible by locals thanks to its many connections.

KK06 - The wide shared path travels through the park from Mulbring Street



KK07 - The concrete path ends at the Stanford Street underpass and a gravel path continues to the other side of Pokolbin Street



KK08 - The shared path connects to Evatt Street



Kurri Kurri streets

Kurri Kurri has a number of quiet streets with wide roads, which make for ideal conditions for cycling on-road. Improved signage and road markings would further enhance conditions for on-road cycling in Kurri Kurri.

KK09 - Northcote Street has a wide shoulder for cycling on road



KK10 - Deakin Street is a very wide road, ideal for on-road cycling



KK11 - Double lanes currently exist on the B68, which could potentially have bicycle lanes at the expense of one road lane



Kurri Kurri's existing cycling environment

Kurri Kurri footpaths surrounding primary schools

Footpaths exist surrounding primary schools in the Kurri Kurri area. However, provision could be increased outside all the primary schools in the area to encourage cycling. Busy roads in Kurri make cycling difficult for young children and although Pelaw Main has relatively quiet streets, there are still very few footpaths for children to use.

KK12 - Pelaw Main Public School has just one footpath outside the school



KK13 - Kurri Kurri Public School has footpaths surrounding the school.



KK14 - Holy Spirit Primary School has a footpath outside the school.



Heddon Street shared path - Kurri Kurri

The shared path on Heddon Street has been recently constructed and provides a pedestrian/cycle link from East Kurri Kurri to Stanford Merthyr. Opportunity exists to extend the shared path in both directions to increase connections in the area.

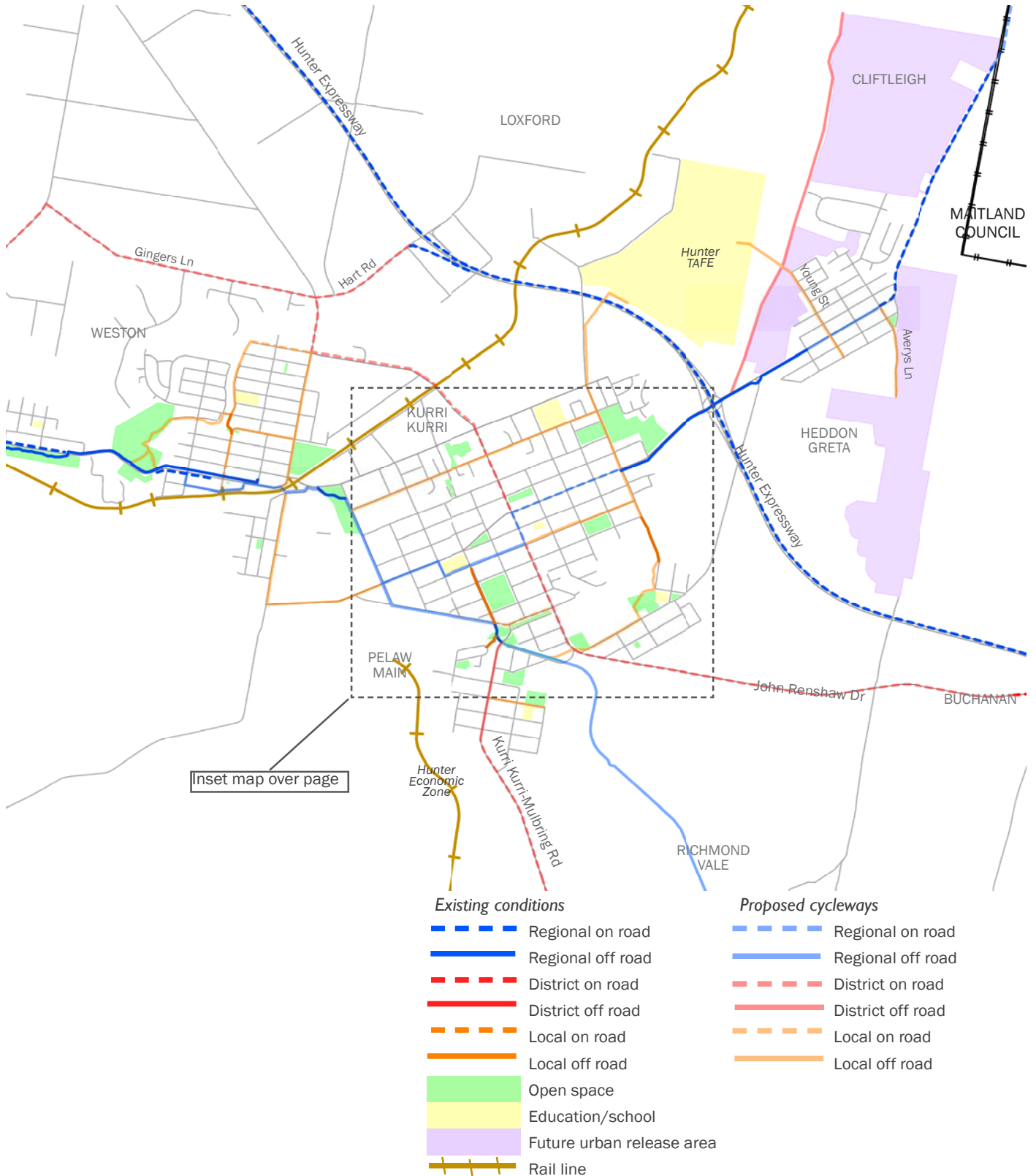
KK15 - The Heddon Street shared path begins near the intersection with Hopetoun Street



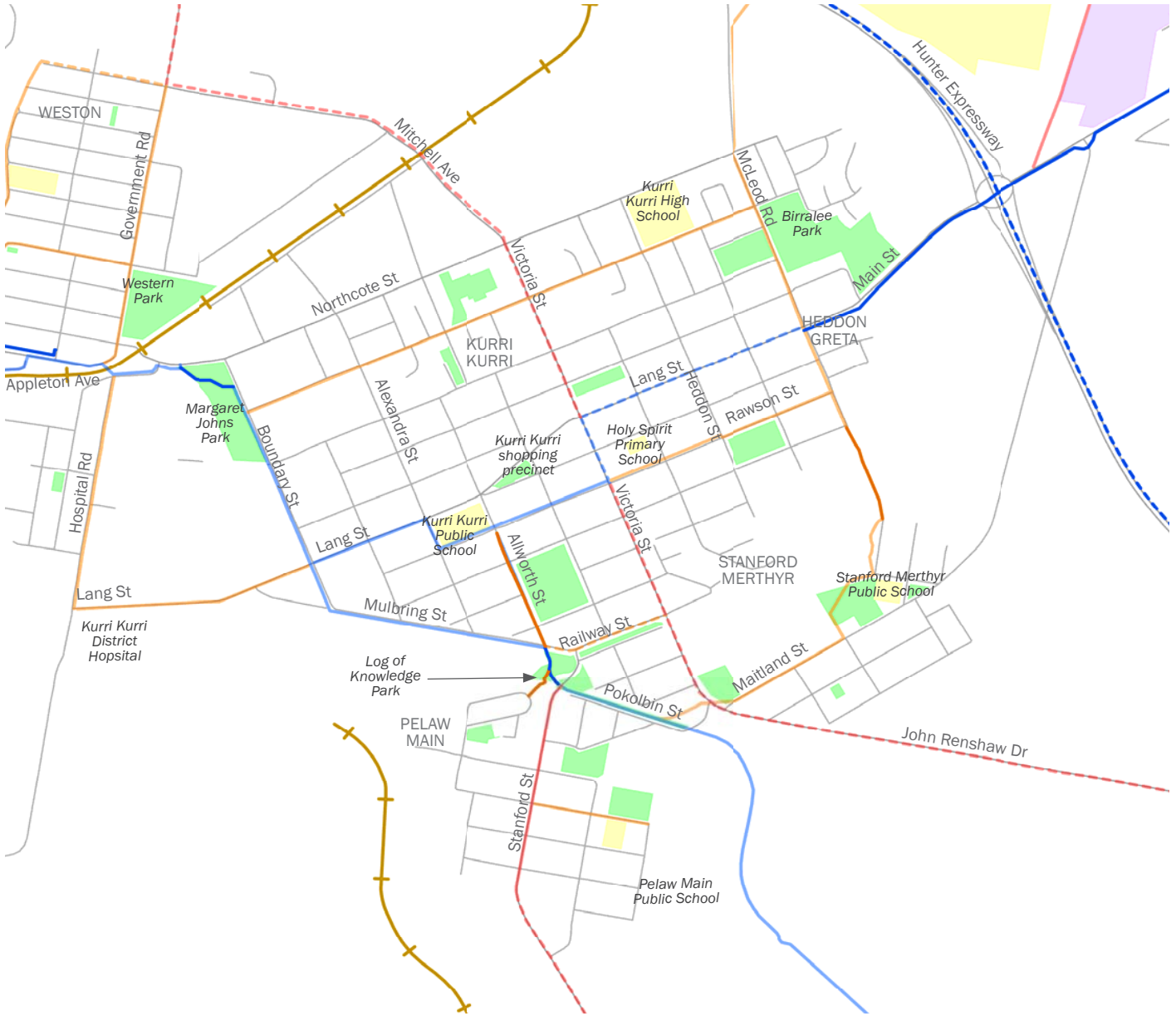
KK16 - The shared path ends on Colliery Street in Stanford Merthyr



Map of Kurri Kurri's cycling environment and identified missing links



Inset map of Kurri Kurri's cycling environment and identified missing links



Existing conditions

- — — — Regional on road
- Regional off road
- - - - District on road
- District off road
- - - - Local on road
- Local off road
- Open space
- Education/school
- Future urban release area
- + + + + Railway line

Proposed cycleways

- - - - Regional on road
- Regional off road
- - - - District on road
- District off road
- - - - Local on road
- Local off road

Opportunities for Kurri Kurri's cycling network

The table below provides the details of the proposed improvements to Kurri Kurri's local/district cycling environment, including new pathways, on-road connections and pathways improvements.

Ref	Item	Description	Hierarchy	User type(s)
5.1 New pathway				
5.1.1	New off-road path on McLeod Street	Shared path from the Hunter TAFE to Northcote Street	Local	Secondary school children, TAFE students, commuter
5.1.2	New off-road path on Colliery Street/Maitland Street - Heddon Street to Pokolbin Street	Shared path from the existing shared path on Heddon Street crossing Tarro Road to the proposed regional link through Pelaw Main	Local	Primary school children, secondary school children, recreation
5.1.3	New off-road path from Pokolbin Street to Tarro Street	Local off-road path to connect district cycleway	Local	Primary school children, secondary school children, recreation
5.1.4	New off-road path on Heddon Street - Lang Street to Hopetoun Street	Shared path linking the existing shared path on Heddon Street to Lang Street and the proposed regional route through Kurri Kurri	Local	Primary school children, secondary school children, recreation, utility
5.1.5	New off-road path on Rawson Street - Victoria Street to Heddon Street	Local off-road connection linking cycleways on Heddon and Victoria Streets	Local	Primary school children, secondary school children, recreation, utility
5.1.6	New off-road path on Deakin Street - Heddon Street to Boundary Street	Local off-road connection to extend existing pathway along Kurri Kurri High School between Heddon and Boundary Streets	Local	Primary school children, secondary school children, recreation, utility
5.1.7	New off-road path on Heddon Street - Lang Street to McLeod Road	Local connection from Kurri Kurri to Hunter TAFE	Local	Secondary school children, TAFE students, commuter
5.1.8	New off-road path on Lang Street - Alexandra Street to Hospital Road	Provide a shared path linking Kurri Public School and town centre to the Kurri Kurri Hospital and the south of Weston	Local	Primary school children, recreation, commuter, utility
5.1.9	New off-road path on Averys - URA to Main Street	New shared path linking the Averys Village subdivision to Main Road (identified in Averys Village s94 Contributions Plan)	Local	Recreation, commuter, utility
5.1.10	New off-road path on Young Street - Clift Street to Hunter TAFE	Shared path linking the north of Heddon Greta to the south (identified in Heddon Greta VPA)	Local	Recreation, commuter, utility
5.1.11	New off-road path along former railway line from Main Street to Cliftleigh URA	Shared path to connect Cliftleigh URA to regional path on main street	District	Primary school children, secondary school children, recreation, commuter, touring, utility
5.1.12	New off-road path on Stanford Street - from Neath Street to existing cycleway in Log of Knowledge Park	Shared district path connecting to regional and district paths and main township	District	Primary school children, secondary school children, recreation, commuter, touring, utility

Ref	Item	Description	Hierarchy	User type(s)
5.1.13	New off-road path on Abermain Street - Stanford Street to Pelaw Main Public School	New shared path connecting school to proposed district path	Local	Primary school children, recreation
5.2 On-road connections				
5.2.1	New on-road connection on Victoria Street/Tarro Street - Rawson Street to Maitland Street	On-road connection on Victoria Street from Maitland Street to Rawson Street and the centre of Kurri Kurri town	District	Secondary school children, commuter, utility
5.2.2	New on-road connection on John Renshaw Drive - Buchanan Road to Maitland Street	On-road connection to link the Hunter Expressway with Kurri Kurri	District	Commuter, touring
5.2.3	New on-road connection on Railway Street from Allworth Street to Victoria Street	On-road connection linking the proposed district route from Mulbring to Kurri Kurri	District	Commuter, touring
5.2.4	New on-road connection on Mulbring Road - Neath Street to White Bridge Road (Mulbring)	On-road connection from Pelaw Main to the Hunter Economic Zone (HEZ) and Mulbring	District	Recreation, commuter, touring, sporting
5.2.5	New on-road connection on Mitchell Avenue - Northcote Street to Government Road	On-road connection on Mitchell Avenue from Northcote Street in Kurri Kurri to the north of Weston	Local	Secondary school children, commuter, utility
5.2.6	New on-road connection on Victoria Street - Northcote Street to Lang Street	On-road connection linking Northcote Street to Kurri Kurri town centre	Local	Secondary school children, commuter, utility
5.3 Kurri Kurri CBD				
5.3.1	Shared pedestrian zone within Kurri Kurri CBD	Investigate the viability and best location for a shared pedestrian zone within the Kurri Kurri CBD.	Local	Recreation, commuter, utility, touring

Weston-Abermain-Neath's cycling environment

The Weston-Abermain-Neath district includes the three suburbs mentioned in the name of the district. Conditions for cycling in the area are quite good with relatively safe opportunities for both on road and off road cycling.







Key destinations in the area include:

- Peace Park and Chinamans Hollow
- Weston Public School
- Abermain Public School
- Weston shops

Focus for cycling in the area should be on ensuring safe access to these key locations and providing good connections to Cessnock and Kurri Kurri.

A detailed summary of Weston-Abermain-Neath's cycle network is provided in the table below and shown spatially in the map on page 84.

Weston-Abermain-Neath's existing cycle network

Weston-Abermain-Neath's existing cycling environment		
<p>Cessnock Road</p> <p>Conditions for cycling along Cessnock Road through the area are generally good. An on-road cycle lane exists for a fair section of the road and wide shoulders make cycling relatively comfortable for confident cyclists. There are also off-road options along the route but cyclists cannot cycle completely off-road on this route. The major problem with this route is the eastern section of the road, leading into Kurri Kurri town, where cyclists are forced to ride with traffic or along the single footpath to cross the railway line.</p>		
<p>WA01 - This section of Cessnock Road in Neath has wide shoulders, not marked for cyclists</p> 	<p>WA02 - A marked on-road section begins in Abermain</p> 	<p>WA03 - This cycleway provides an off-road option through Jeffries Park</p> 
<p>WA04 - Cyclists can safely cross Swamp Creek over this shared path bridge</p> 	<p>WA05 - An off-road option is also provided at Bailey Park via this shared path</p> 	<p>WA06 - The on-road cycle lane ends near the intersection of Station Street</p> 

Weston-Abermain-Neath's existing cycling environment

Peace Park/Chinamans Hollow

Peace Park and Chinamans Hollow provide great opportunities for families and young children to cycle off road. A shared path is used by walkers and cyclists alike. The path is longer in Chinamans Hollow and is connected to Peace Park by the Cessnock Road underpass. The only existing issue is the temporary closure of part of the path in Chinamans Hollow due to flooding.

WA07 - The path winds past a lake in Peace Park



WA08 - The path continues onto a bridge in Chinamans Hollow



WA09 - A section of the path in Chinamans Hollow is blocked as it is under water



East Esplanade shared path

The East Esplanade shared path provides a connection from Station Street to Weston Public School. The condition of the path is suitable for young children who would most likely use it most. People using the path must beware of traffic when crossing Fourth Street.

WA10 - The start of the path on Station Street is signed with graffiti covering the cycling symbol



WA11 - The path runs between the side of a property and a small creek



WA12 - The path crosses Fourth Street and continues up to Weston Public School



Weston-Abermain-Neath's existing cycling environment

Scott Street shared path

The Scott Street shared path provides a connection for cyclists from the main part of Weston to the southern residential area of the suburb. The path has a level crossing at the railway line, providing an alternative for cyclists to crossing the railway line on Cessnock Road. At the time of inspection the start of the path was signed for pedestrians and not cyclists. The end of the path is correctly signed as a shared path.

WA13 - The start of the path on Scott Street is currently signed for pedestrians only



WA14 - After crossing the railway line, the path winds through bushland



WA15 - The short path ends at Embleton Street with appropriate shared path signage



Map of Weston-Abermain-Neath's cycling environment and identified missing links



Existing conditions

- Regional on road
- Regional off road
- District on road
- District off road
- Local on road
- Local off road
- Open space
- Education/school
- Future urban release area
- + + + Railway line

Proposed cycleways

- Regional on road
- Regional off road
- District on road
- District off road
- Local on road
- Local off road

Opportunities for Weston-Abermain-Neath's cycling network

The table below provides the details of the proposed improvements to Weston-Abermain-Neath's local/district cycling environment, including new pathways, on-road connections and pathways improvements.

Ref	Item	Description	Hierarchy	User type(s)
6.1 New pathway				
6.1.1	New off-road path on East Esplanade - Tenth Street to Fourth Street	Local connection to Fourth Street and joining to proposed path leading to Swanson/Station Streets	Local	Primary school children, secondary school children, recreation, utility
6.1.2	New off-road path - Fourth Street/Swanson Street to Chinamans Hollow	Local connection to regional recreation park Chinamans Hollow	Local	Primary school children, secondary school children, recreation
6.1.3	New off-road path on Government Road - Mitchell Avenue to Cessnock Road	New shared path to provide local connections to proposed and existing regional and district paths	Local	Primary school children, secondary school children, recreation, commuter, touring, utility
6.1.4	New off-road path on Swanson/Station Street - Government Road to First Street	New shared path to provide connections to other local paths and the existing regional path	Local	Primary school children, secondary school children, recreation
6.1.5	New off-road path on Goulburn Street - Lismore Street to Cessnock Road	New shared path providing local connection to regional path and bushland	Local	Primary school children, recreation, commuter
6.1.6	New off-road path on Armidale Street - Goulburn Street to Orange Street	Local connection between proposed new shared path on Goulburn Street and proposed district on-road connection on Orange Street	Local	Primary school children, recreation, commuter
6.1.7	New off-road path on Hospital Road - Lang Street to Appleton Avenue	Shared path along Hospital Road connecting Kurri Kurri District Hospital to Weston	Local	Primary school children, recreation, commuter, utility
6.2 On-road connections				
6.2.1	New on-road connection on Hart Road/Gingers Lane/Frame Drive - Hunter Expressway to Lismore Street	On-road connection from the Hunter Expressway to the north of Abermain	District	Commuter, touring
6.2.2	New on-road connection on Orange Street - Lismore Street to Cessnock Road	On-road connection from the proposed bicycle shoulder lane on Frame Drive to Cessnock Road	District	Commuter, utility, touring
6.2.3	New on-road connection on Tenth Street - Government Road to East Esplanade	On-road connection continuing the proposed Mitchell Avenue on-road bicycle lane to the East Esplanade shared path in Weston	Local	Primary school children, secondary school children, utility
6.2.4	New on-road connection on Government Road - Mitchell Avenue to Hart Road	District connection to district cycleway along Gingers Lane and Hart Road	District	Commuter, touring
6.2.5	New on-road connection on Station Street - First Street to Cessnock Road	On-road connection from the proposed shared path on Station Street to the regional path on Cessnock Road	Local	Primary school children, secondary school children, recreation

Kitchener-Kearsley's cycling environment

The Kitchener-Kearsley region includes the two mentioned suburbs as well as Abernethy, Elrington and Mulbring. Conditions for cycling in the region are fairly poor with very few designated cycleways and poor connections between the three towns.

Key destinations in the area include:

- Kearsley Public School
- Kitchener Public School
- Mulbring Public School
- Kitchener Poppethead Reserve

Abernethy in particular also has a number of quality mountain bike trails surrounding old mine sites and significant landmarks. Access to these trails will be considered in the strategy as well as the promotion and enhancement of trails and programs in the Kitchener-Kearsley district.

A detailed summary of Kitchener-Kearsley's cycle network is provided in the table below and shown spatially in the map on page 88.

Kitchener-Kearsley's existing cycle network

Kitchener-Kearsley's existing cycling environment

Kearsley (on road cycling)

Kearsley has relatively wide streets, ideal for cycling. There are currently no marked or signed cycleways in the suburb, which would increase safety for cyclists in the area.

KA01 - Caledonia Street is very wide with a significant shoulder for cycling



KA02 - Allandale Street has relatively wide shoulders, which can cater for parked cars and cyclists



Kitchener-Kearsley's existing cycling environment

Footpaths near Kearsley Public School

A footpath provides an option for primary school children to cycle off-road adjacent to the busiest roads in Kearsley.

KA03 - The footpath begins at the top of Allandale Street



KA04 - The footpath ends at the corner of Caledonia and Congewai Street



Mountain Bike trails

There are numerous mountain bike trails in the Kearsley-Abernethy area and further south near Quorrobolong. A number of the trails require little to no maintenance and opportunities exist to provide greater promotion of existing trails and to provide missing links to improve connectivity of the trails.

KA05 - The northeastern shore of the old Abernethy Dam



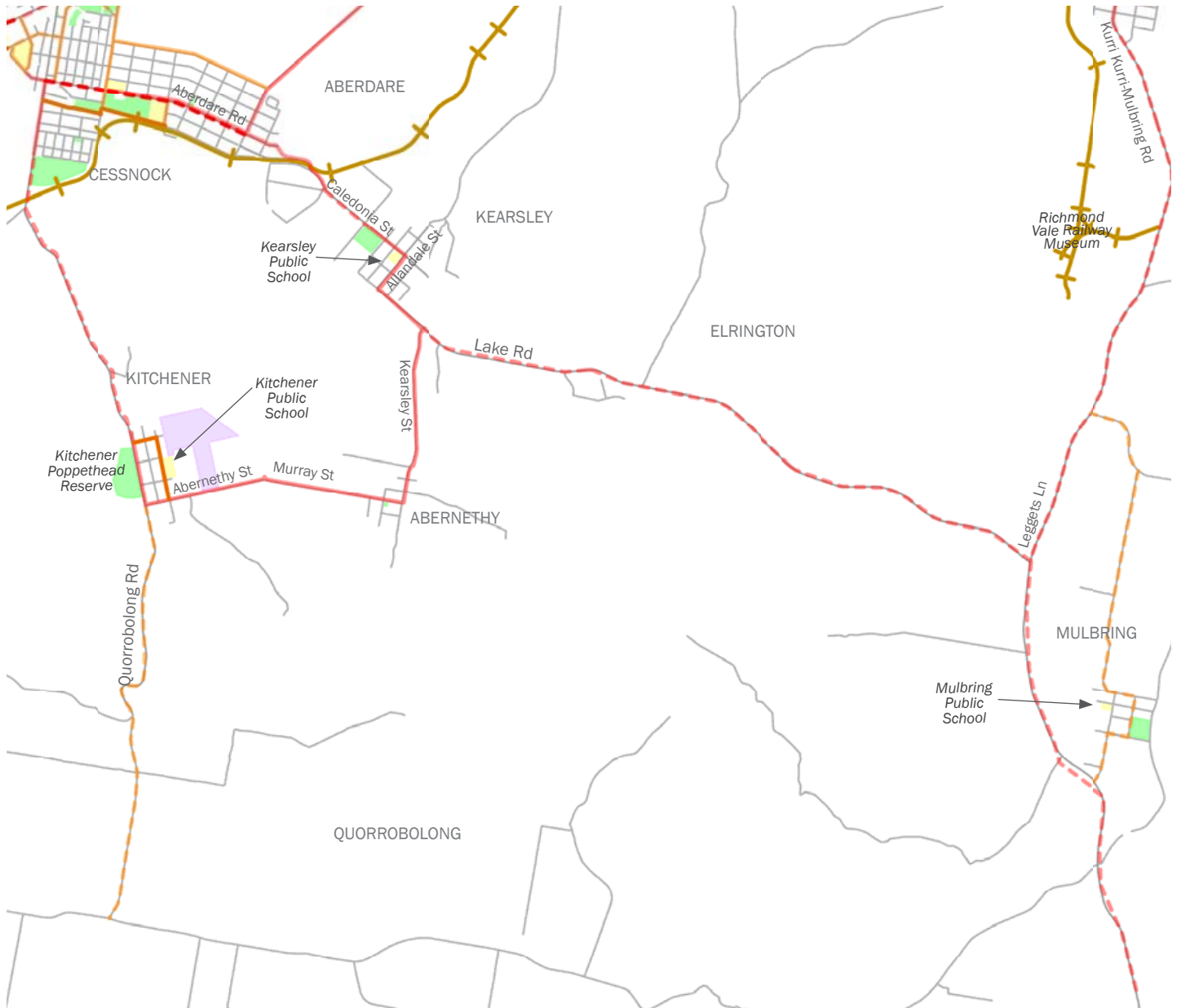
KA06 - The access point from Howells Road Abernethy (looking north) to the eastern "fork" of the Abernethy horse/bike/walk trail.



KA07 - The Abernethy trail parallel to Kearsley Rd.



Map of Kitchener-Kearsley's cycling environment and identified missing links



Existing conditions

- — — — Regional on road
- Regional off road
- - - - District on road
- District off road
- - - - Local on road
- Local off road
- Open space
- Education/school
- Future urban release area
- + + + + Railway line

Proposed cycleways

- - - - Regional on road
- Regional off road
- - - - District on road
- District off road
- - - - Local on road
- Local off road

Opportunities for Kitchener-Kearsley's cycling network

The table below provides the details of the proposed improvements to Kitchener-Kearsley's local/district cycling environment, including new pathways, on-road connections and pathways improvements.

Ref	Item	Details	Hierarchy	User type(s)
7.1 New pathway				
7.1.1	New off-road path on Abernethy Street/Murray Street - Quorrobolong Road to Ferguson Street	Shared path connecting Kitchener to Abernethy	District	Primary school children, secondary school children, recreation, utility
7.1.2	New off-road path on Cessnock Street - Stanford Street to Abernathy Street	To continue district off-road connection through Kitchener and connect to other proposed district shared path to Abernethy	District	Primary school children, secondary school children, recreation, utility
7.1.3	New off-road path on Richmond/Stanford Street - Abernethy Street to Cessnock Street	Provides a local off-road connection past the primary school between a proposed district off-road pathway.	Local	Primary school children, secondary school children, recreation, utility
7.1.4	New off-road path on Ferguson Street/Kearsley Road - Murray Street to Lake Road	Shared path connecting Abernethy to Kearsley	District	Primary school children, secondary school children, recreation, utility
7.1.5	New off-road path on Lake Road - Kearsley Road to Allandale Street	To complete the proposed district off-road circuit through Kitchener, Abernethy and Kearsley	District	Primary school children, secondary school children, recreation, utility
7.1.6	New off-road path on Allandale Street - Lake Road to Caledonia Street	Provide an off-road connection through Kearsley and to Kearsley Public School	District	Primary school children, utility
7.1.7	New off-road path on Caledonia Street - Allandale Street to Wilson Street	Provide an off-connection through Kearsley and to Jeffery Park	District	Primary school children, utility, recreation, commuter, touring
7.2 On-road connections				
7.2.1	New on-road connection on Quorrobolong Road - Baddeley Park to Stanford Street, Kitchener	On-road connection providing a link between Cessnock and Kitchener	District	Recreation, commuter, touring
7.2.2	New on-road connection on Lake Road - Kearsley Road to Leggets Lane	On-road connection providing a link between Kearsley and Mulbring	District	Recreation, commuter, touring
7.2.3	New on-road connection on Branxton-Toronto Road - Lake Road to Palmers Road	On-road connection from Lake Road district cycleway to south of Mulbring	District	Recreation, commuter, touring
7.2.4	New on-road connection from Leggets Lane along New Street, North Street, Vincent Street, Child Street and Palmer Street	To provide a local connection through Mulbring and to the district cycleway along Leggets Lane/Branxton-Toronto Road	Local	Primary school children, secondary school children, recreation, utility

Ref	Item	Details	Hierarchy	User type(s)
7.2.5	New on-road connection on Leggets Lane - White Bridge Road to Lake Road	On-road connection from the proposed district route on Kurri Kurri-Mulbring Road to Mulbring and the proposed district route on Lake Road	District	Recreation, commuter, touring
7.2.6	New on-road connection on Quorrobolong Road - Abernethy Street to Sandy Creek Road	On-road connection from Kitchener to Sandy Creek Road providing a connection to mountain bike trails	Local	Recreation
7.2.7	New on-road connection on Caledonia Street - Wilson Street to Government Circuit	On-road connection between Kearsley (Jeffery Park) and Aberdare	District	Recreation, commuter, touring



Millfield-Paxton-Ellalong-Wollombi's cycling environment

This district includes Ellalong, Paxton, Millfield and Wollombi. Conditions for cycling in the region are fairly poor with no designated cycleways. The roads are fairly quiet the majority of the time, however high traffic speeds make road cycling dangerous at certain times and locations.

Key destinations in the area include:

- Ellalong Public School
- Paxton Public School
- Millfield Public School
- former Wollombi Public School
- Wollombi township

The south-western region has the potential to be safer and more appealing to cyclists. The Ellalong, Millfield and Paxton townships are all in close proximity of each other and Wollombi, although further away, has the appeal of its stunning natural landscape, which is popular for recreational cyclists.

A detailed summary of the district's cycle network is provided in the table below and shown spatially in the map on page 93.

Millfield-Paxton-Ellalong-Wollombi's existing cycle network

Millfield-Paxton-Ellalong-Wollombi's existing cycling environment

Wollombi Road

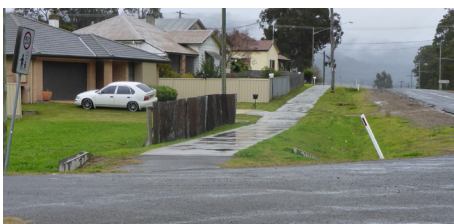
As mentioned above the Wollombi area is an appealing destination for recreational cyclists, however, Wollombi Road is currently not suitable for cyclists as there are no shoulders and a high speed limit for traffic makes cycling quite dangerous. Very confident cyclists (mainly touring groups) still cycle on the road, but significant upgrades would be required to make cycling on the road safe for more cyclists.



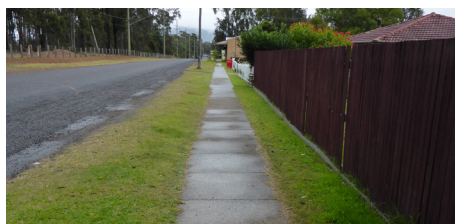
Footpaths around primary schools

Footpaths are important near primary schools, particularly where there are busy roads, to encourage young children to cycle to school. The footpath in Millfield is valuable and could be extended east to Bennett Street to improve access for residents. A footpath would also be useful on Millfield Road, which is a connecting road to Paxton and Ellalong and gets quite busy. Paxton has a footpath adjacent to the busy Millfield Road but there are no footpaths near Paxton Public School. Ellalong has a footpath near the school, however, more work needs to be done to provide a safe connection for children who reside south of Helena Street.

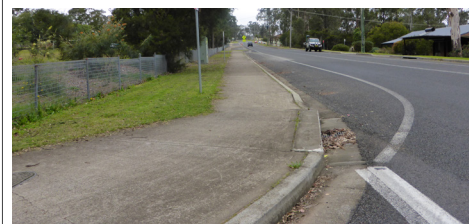
MP01 - This footpath in Millfield runs adjacent to Wollombi Road and past Millfield Public School



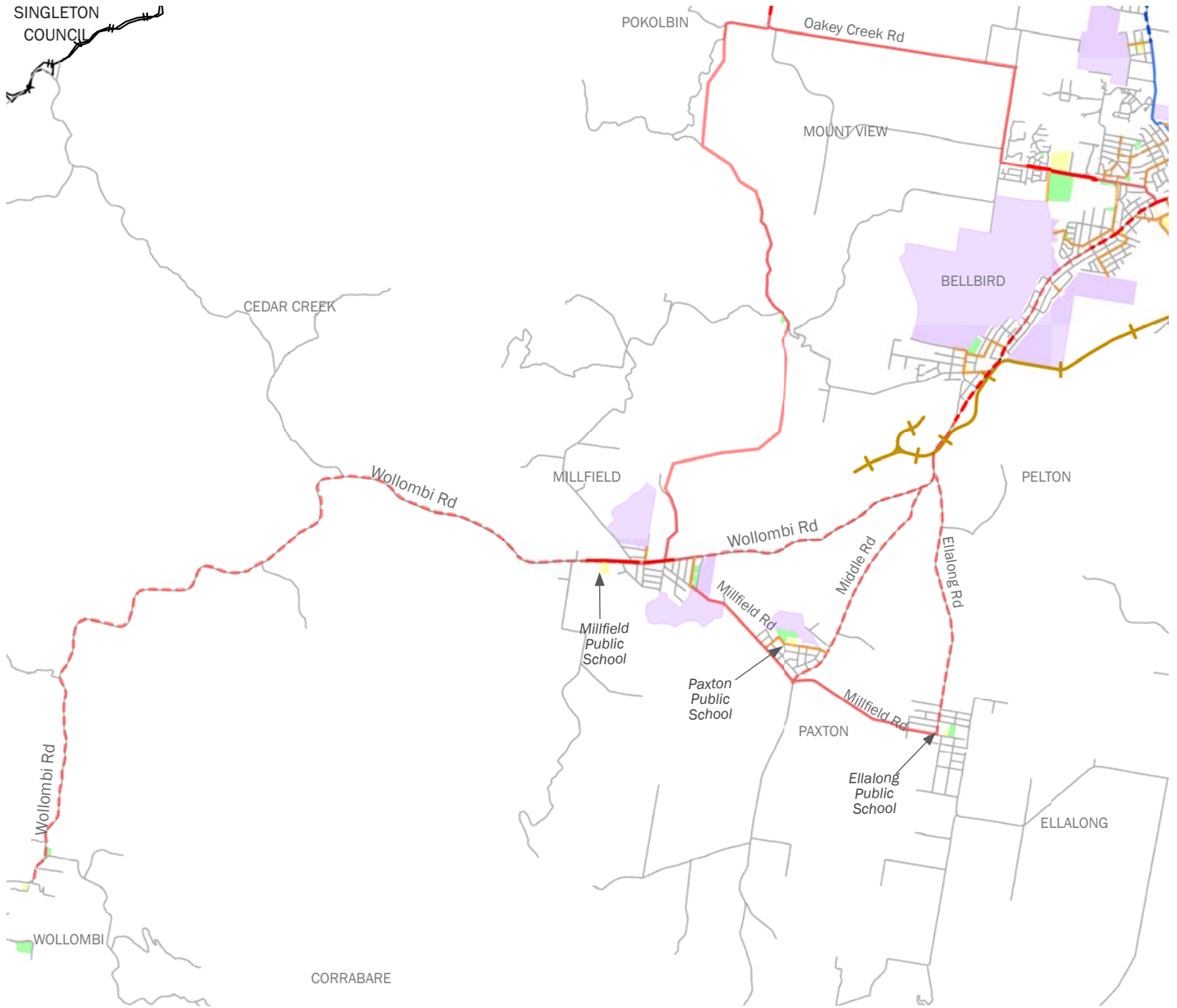
MP02 - This footpath in Paxton runs adjacent to Millfield Road but there is no footpath near Paxton Public School



MP03 - This footpath in Ellalong runs adjacent to Helena and Rugby Streets and past Ellalong Public School



Map of Millfield-Paxton-Ellalong-Wollombi's cycling environment and identified missing links



Existing conditions

- Regional on road
- Regional off road
- - - District on road
- District off road
- - - Local on road
- Local off road
- Open space
- Education/school
- Future urban release area
- + + + Railway line

Proposed cycleways

- - - Regional on road
- Regional off road
- - - District on road
- District off road
- - - Local on road
- Local off road

Opportunities for Millfield-Paxton-Ellalong-Wollombi's cycling network

The table below provides the details of the proposed improvements to Millfield-Paxton-Ellalong-Wollombi's local/district cycling environment, including new pathways, on-road connections and pathway improvements.

Ref	Item	Details	Hierarchy	User type(s)
8.1 New pathway				
8.1.1	Great Wineries Walk off-road path - Millfield to Pokolbin	Further discussion with Crown Land needed to investigate the implementation of a shared path along part of the Great Wineries Walk (subject also to Recreation Needs Analysis outcomes)	District	Recreation, touring
8.1.2	New off-road path on Boundary Street - URA to Wollombi Road	Local connection between URA and district on-road cycleway on Wollombi Road	Local	Primary school children, secondary school children, recreation, utility
8.1.3	New off-road path on Bennett Street - Wollombi Rd to Millfield Road	Local connection between two district cycleways and past community building and sports park	Local	Primary school children, secondary school children, recreation, utility, touring
8.1.4	New off-road path on Earps Road, McDonald Avenue and Anderson Avenue	Local connection through Paxton, past the primary school and between a proposed district cycleway	Local	Primary school children, secondary school children, recreation, utility, touring
8.1.5	New off-road path on Wollombi Road - Bennett Street to Bligh Street	To provide an off-road district connection through Millfield and connecting to local off-road path on Bennett Street	District	Primary school children, secondary school children, recreation, utility, touring
8.1.6	New off-road path on Millfield Road/Helena Street - Bennett St to Rugby Street	Off-road district connection between the towns of Millfield, Paxton and Ellalong	District	Recreation, touring
8.2 On-road connections				
8.2.1	New on-road connection on Ellalong Road/Rugby Street - Wollombi Road to Helena Street	On-road connection on Ellalong Road from Wollombi Road to Ellalong	District	Secondary school children, commuter, utility
8.2.2	New on-road connection on Middle Road - Wollombi Road to Millfield Road	On-road connection from Wollombi Road creating a direct, on-road link to Paxton	District	Recreation, touring
8.2.3	New on-road connection on Wollombi Road - Doyle Street, Bellbird to Bennett Street	On-road connection between Bellbird and Millfield	District	Recreation, touring, commuter
8.2.4	New on-road connection on Wollombi Road - First Avenue to Wollombi	On-road connection between Millfield and Wollombi	District	Recreation, touring

7

Strategic directions and actions

Four objectives were outlined in the introduction to achieve Council's vision for cycling in the Cessnock LGA. Those objectives were:

- Provide a cycling environment that is safe, secure and encourages residents to cycle without fear of accident or injury.
- Provide a cohesive and integrated bicycle network that is easy for cyclists to use.
- Integrate cycling into Council's planning processes.
- Promote awareness of cycling amongst the community and road and path user groups.

Strategic directions

To achieve the objectives of the Cessnock Cycling Strategy, seven strategic directions have been identified. They are:

1. Enhance the safety and continuity of cycling in Cessnock.
2. Provide appropriate support infrastructure.
3. Provide a convenient and attractive cycling environment.
4. Provide measures for cycling in new development.
5. Provide leadership and direction in encouraging cycling through planning and policy.
6. Promote cycling, cycleway routes and cycling events through various sources.
7. Monitor the implementation of cycling actions and progress towards targets.

The strategic directions form the basis for specific actions, which have been developed to improve cycling in the Cessnock area.

Prioritisation

The successful undertaking of the actions outlined below will require strong leadership, appropriate resourcing and a commitment from Council.

Priorities are assigned for each action as follows:

- High - as soon as resources allow.
- Medium - 5 or more years.
- Low - 10 or more years.

The prioritisation of actions recommended within this Strategy is based on the principles for prioritisation outlined in Section 5 (Cessnock Cycling Framework and Hierarchy). The degree to which each project addresses the prioritisation principles and the potential for available resources to complete the project determine whether the project is rated as a high, medium or low priority.

Actions

Ref	Action	Rationale	User type(s)	Priority
1. Enhance the safety and continuity of cycling in Cessnock				
1.1	Continue to participate in the Local Government Road Safety Program.	The program is a primary avenue for delivering Council's commitment to road safety.	All cycling user groups	Ongoing
1.2	Support the Transport for NSW's Cycling Safety Action Plan 2014, namely: Action 2: Work with bicycle user organisations and training providers to promote road safety within cycling skills and confidence training courses with a particular focus on helmet wearing and compliant and safe cycling for young people. Action 4: Provide information on cycling routes, safety messaging, skills and confidence training courses to the community through a dedicated website Action 35: Roads and Maritime Services to work with local governments to include bicycle safety projects within the Local Government Road Safety Program and other programs.	To demonstrate and guide Council's commitment to cycling safety.	All cycling user groups	High

Ref	Action	Rationale	User type(s)	Priority
1.3	Implement Council's Road Safety Strategy, particularly the following objectives: <ul style="list-style-type: none"> <input type="checkbox"/> 1.6.1 - Develop and deliver road safety programs to improve road safety outcomes for bicyclists <input type="checkbox"/> 1.6.2 - Participate in Bike Week activities/ events to further promote road safety solutions for bicyclists. <input type="checkbox"/> 1.6.3 - Distribute TfNSW bicycle safety campaign materials to promote the increased use of helmets and compliance with road rules by bicyclists. <input type="checkbox"/> 1.6.5 - Work with local school communities to ensure that bicycle safety around schools is well monitored and provided for. 	To demonstrate and guide Council's commitment to road safety.	All cycling user groups	High
1.4	Implement a rolling program to widen road shoulders on identified cycling routes.	To improve safety for cyclists and provide designated routes for road-cycling.	Road cyclists	Ongoing
1.5	Implement the projects identified in the Works Program shown in Appendix 1.	To provide key cycling infrastructure within the Cessnock LGA.	All cycling user groups	High
1.6	Prior to implementation of scheduled road surfacing, relinemarking or reconstruction projects on roads, Council and the RMS undertake an assessment of provisions for cyclists and determine capacity for upgrading of facilities (such as reallocation of space, linemarking, physical separation of cyclists and motorists).	To improve safety for road cyclists.	Road cyclists	High
1.7	Investigate the viability of developing shared pedestrian zones within the CBDs of both Cessnock and Kurri Kurri.	Both CBDs are not conducive to cycling (mainly due to parking configurations and active commercial frontages).	All cycling user groups	Medium
1.8	Review road speeds for the current and proposed on-road bike network.	To improve safety for road cyclists.	Road cyclists	Medium
2. Provide appropriate support infrastructure				
2.1	Investigate the building of a bicycle storage premises that could be hired to a small bicycle hire business.	To improve opportunities for local families and tourists to cycle.	All cycling user groups	Medium
2.2	Provide highly visible, secure bicycle parking facilities at key destinations, including sportsgrounds, neighbourhood parks, skate parks, Council facilities, such as administration centres/ customer service centres, libraries and swimming pools, information centres, train stations/transport hubs and retail areas (see Section Five for guidance on appropriate locations and facilities).	To encourage cycling to key destinations, particularly for commuter/utility cyclists.	All cycling user groups	High
2.3	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 and swimming pools, information centres and train stations.	To improve comfort and encourage greater usage for cyclists.	All cycling user groups	Low
3. Provide a convenient and attractive cycling environment				
3.1	Develop and install of directional and destination signage for cyclists in accordance with relevant standards and Cessnock's Signage Strategy.	To improve way-finding and encourage cycling.	All cycling user groups	High
3.2	Provide directional and distance signage at end-of-trip facilities.	To improve way-finding and encourage cycling	All cycling user groups	Medium

Ref	Action	Rationale	User type(s)	Priority
3.3	Consider the inclusion of children's concrete bike tracks in public parks.	To provide young children with a recreational cycling track, which they can learn to cycle on and enjoy.	Young cyclists	Low
3.4	When local area traffic management schemes and road works are undertaken, analyse opportunities to increase priority for cyclists and pedestrians.	To increase convenience of cycling and walking.	All cycling user groups	Ongoing
4. Provide measures for cycling in new development				
4.1	Continue to link schools with surrounding subdivisions (both existing and future developments).	To enhance safety for school children and increase the number of children riding to school.	Shared path users, namely school children	Medium
4.2	Ensure that any new Council buildings or venues provide facilities for bicycle parking, storage and shower/dressing room.	To encourage people to cycle to work.	Commuter cyclists	Medium
4.3	Review the Cessnock Development Control Plan to include the cycling framework into the DCP and to include requirements for end-of-trip facilities in new development.	To encourage cycling particularly for commuter cyclists.	All cycling user groups	High
4.4	Continue to include new cycleway projects (particularly those recommended in this Strategy) in section 94 contributions plans.	To assist funding new cycleways.	All cycling user groups	Ongoing
5. Provide leadership and direction in encouraging cycling through planning and policy				
5.1	Maintain partnerships with adjoining local governments.	To maximise opportunities to improve the Council's cycling network.	All cycling user groups	High
5.2	Commission a Trails Strategy.	To identify and map trails in Cessnock and identify opportunities for mountain biking.	Mountain bike riders	High
5.3	Collaborate with RMS to initiate a driver/cyclist awareness campaign.	To create awareness among the community for cycling and improve safety for cyclists and motorists.	All cycling user groups	High
5.4	Implement an Internal Working Group for cycling (see section 8 for more details).	To address the actions in the Cycling Strategy.	All cycling user groups	High
5.5	Commit to the allocation of funds for cycling in future budgets.	To implement the recommendations of this Strategy and provide for cycling in Cessnock.	All cycling user groups	High
6. Promote cycling, cycleway routes and cycling events through various sources				
6.1	Increase promotion of mountain bike trails and events within the Cessnock region in accordance with the outcomes of the Trails Strategy identified in Item 5.2.	To increase awareness of the good mountain bike opportunities within the Council area.	Mountain bike riders	Medium
6.2	Promote and sponsor events including 'National Ride to Work Day', 'Ride 2 School Day' and 'NSW Bike Week'. Promote staff participation in events such as 'National Ride to Work Day'.	To create awareness for cycling and encourage its uptake.	All cycling user groups	High
6.3	Promote cycling within the area through the ongoing publication of cycling brochures/guides that map cycling routes, list key destinations and end of trip facilities within the region (see Promotion Plan in section 8 for more details).	To provide the community and visitors with up to date information on where they can cycle.	All cycling user groups	Medium

Ref	Action	Rationale	User type(s)	Priority
6.4	Provide information on cycling through the Council website. Include information such as cycling routes, the benefits of cycling (health, environmental etc.), events and links to other resources.	To provide the community and visitors with information on cycling in Cessnock.	All cycling user groups	High
6.5	Identify and promote cycle tourism opportunities including those identified in the <i>Cycle Tourism in the Hunter Region</i> document.	To increase opportunities for tourists to cycle and encourage cyclists to visit Cessnock.	Recreation	Medium
6.6	Approach Bicycle NSW to conduct Local Discovery Rides.	To create awareness of local cycling routes.	Inexperienced cyclists	Medium
7. Monitor the implementation of cycling actions and progress towards targets				
7.1	Implement bicycle counts as standard practice, whenever traffic and pedestrian counts are undertaken.	To track the trends for participation in cycling.	All cycling user groups.	High
7.2	Undertake a staff travel survey on a yearly basis.	To track trends for cycling participation among Council staff.	All cycling user groups.	Medium
7.3	Survey residents on cycling participation through resident surveys (including Community Research Surveys).	To track the trends for participation in cycling.	All cycling user groups.	Medium
7.4	Annually monitor progress against the actions within this Strategy through Council's internal reporting processes (see Section 8 for more details).	To monitor implementation of the Cycling Strategy.	All cycling user groups.	High
7.5	Undertake a review of the Cycling Strategy five years after its implementation.	To ensure the currency and accuracy of the Strategy.	All cycling user groups.	Medium
7.6	Implement a Cycling Working Party (see section 8 for more details).	To supervise the delivery of the Cessnock Cycling Strategy and assist with cycling projects and promotion.	All cycling user groups.	Medium

Indicators

In order to successfully measure the effectiveness of the Cessnock Cycling Strategy and in particular the strategic directions and actions, a number of indicators have been developed. It is intended that these indicators are utilised on a regular basis to effectively measure the success of the Cycling Strategy. However, it should be noted that the feasibility of monitoring these indicators will be contingent on the available Council resources, which are currently inadequate to undertake this effectively.

Ref	Indicator	Agency/partner/lead	Measuring	Assessed
1	Bicycle crash data	NSW Police, Transport for New South Wales	Safety of cycling	Annually
2	Community survey	Council, Community Health Organisations (Cessnock Healthy Lifestyle Network, Abernethy Healthy Lifestyle Association), schools	Participation (recreation and transport identified) and attitudes towards cycling (e.g. perceptions of safety)	Biannually
3	Strava usage data	Council, Strava	Road cycling use	Biannually
4	Bike shop sales and rentals	Council, bike shops	Sales and rentals of bicycles	Annually
5	Anecdotal observations of cycling	Council, bicycle user groups, schools	Participation in cycling	Ongoing
6	Community requests for cycling information	Council, bike shops, bicycle user groups	Demand for cycling related activities	Annually
7	Percentage of cycling in journey to work	Council, ABS	Cycling mode share for commuting	Census years



Implementation plan

Resources

Resources are crucial to the successful implementation of the Cycling Strategy. Council currently does not have a designated cycleway planner (or steering group) or a cycleway budget. The following resource initiatives will assist in the successful implementation of the Cycling Strategy and will provide a foundation for cycling in Cessnock.

Cycling Working Party

It is proposed that a cycling committee or “Working Party” is appointed to supervise the delivery of the Cessnock Cycling Strategy and assist with cycling projects and promotion where possible. The Cycling Working Party could meet on a half-yearly basis and discuss actions from the Strategy, a progress report and any new challenges or opportunities that have arisen.

The Working Party should comprise:

- A Councillor “Cycling Champion”.
- Representatives from cycling user groups.
- An RMS representative.
- A local police representative.
- Interested members of the community.
- The Internal Working Group.

Internal Working Group

The Internal Working Group is an internal Council group responsible for the day-to-day delivery of the Cycling Strategy. The group should consist of key officers responsible for implementing the many elements of the Strategy, including:

- Recreation and Community Facilities.
- Capital works.
- Roads and traffic engineering.
- Road safety.
- Sustainability.
- Communications and marketing.
- Community engagement.

The group will ideally meet every two months to discuss and report the progress of delivery of the Strategy and discuss any relevant issues or opportunities for cycling.

Implementation funding

Human resources alone will not allow the effective implementation of the Cycling Strategy.

Council needs to commit to the allocation of funds in its future budgets to ensure the development and maintenance of appropriate infrastructure as recommended in this Strategy.

Some possible funding opportunities (internal and external) are outlined on the following page, but it should be noted that they are not exhaustive and further opportunities may present themselves in the future.

Key partnerships

A number of stakeholders are key to the successful implementation of the Cessnock Cycling Strategy. These include:

Stakeholder	Relationship
Local Government Road Safety Program	The program is a primary avenue for delivering Council’s commitment to road safety.
Roads and Maritime Services	Funding opportunities.
Bicycle NSW	Funding and advocacy for cycling.
Richmond Vale Rail Trail Inc	Inclusion as stakeholder on future working parties.
Adjacent councils	Partnerships with adjacent councils will be key to achieving inter-council regional routes such as the Richmond Vale Rail Trail.
Local bicycle stores	Bicycle stores can promote existing shared path routes to cyclists and encourage safe practices.
Local schools	Partner with local schools in the provision of education and awareness campaigns. Schools should be encouraging their students to practice safe practices in regards to cycling to school including the wearing of helmets.
Cessnock Healthy Lifestyle Network/ Coalfields Healthy Heartbeat	These two organisations work closely together and either could provide assistance to Council in promoting cycling programs and gathering information on cycling.
Abernethy Healthy Lifestyles Association	Promotion of local cycling initiatives and mountain bike trails.
Cyclists and pedestrians	Users of Council’s footpaths and shared paths are key in the successful delivery of the Strategy, through obeying signage and being aware and courteous of other path users.
Local media	To communicate positive messages to the community in regards to safe cycling practices and road safety.
The community	The general community can play a role in encouraging positive attitudes towards cyclists, as well as generally obeying road rules.

Funding opportunities

Funding towards Cessnock'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 existing budget where funds can be sourced to help implement some of the actions within this Strategy.

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

- Footpath construction program.
- Open space programs.
- Major local road projects.
- Council road maintenance and upgrade programs.
- Section 94 and/or 94A contributions.
- Leveraging of funding by integrating cycling infrastructure into broader projects with an alternative focus (e.g. economic development, environmental conservation/management).

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
 - Active Transport Program (currently the most significant external funding opportunity for cycleways)
 - NSW Bike Week event funding
 - Fixing Country Roads.
- NSW Department of Industry - Resources for Regions.
- NSW 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.
- Infrastructure NSW - Regional Tourism Infrastructure Fund.
- Australian Department of Infrastructure and Regional Development - National Stronger Regions Fund.
- Department of Education.
- Department of Health.
- Black Spot Program - Federal Department of Infrastructure and Regional Development.

Other

Public/private partnerships:

- Where there are opportunities for private investment in public infrastructure (including initiatives such as crowd funding).

Community fund raising:

- Where funds are raised for an identified service or project.

Promotion plan

Promotion of cycling can increase participation by raising awareness of the multiple benefits cycling can have, as a cheap and healthy alternative to car travel. Additionally, promotion activities can have a positive effect on behavioural aspects of interactions between cyclists and non-cyclists.

Some of the key outcomes of community and stakeholder consultation were:

- The need for education to improve awareness and respect between cyclists and motorists.
- The need for documenting and making available to the community, a guide to cycling in the Cessnock region.
- The need for Council to promote cycling in the region for tourism benefits.

Marketing

Council should promote cycling within the area through the ongoing publication of cycling brochures/guides that map cycling routes, list key destinations and end of trip facilities within the region. Such an initiative has been successfully implemented in the Shoalhaven, where maps of 30 popular cycling routes have been created linking population centres with tourist destinations. Each map details tourist spots, water and food stops, lookouts, emergency spares and caution points. Ride length, estimated travel time and a difficulty rating have also been assigned to each route to encourage greater awareness and information for cycling.¹

Council should continue to participate in and promote NSW Bike Week, through facilitating local events and workshops on topics such as bike maintenance and safe riding habits, in conjunction with local bike retailers.

There are also a number of opportunities to promote mountain biking within the Cessnock LGA. There currently exists a number of good mountain biking trails in the southern areas of the LGA. Many of the trails bypass historic sites of mining and indigenous importance and present an opportunity to be promoted by Council.

Education campaign

As cycling participation continues to increase, a focus on bicycle education campaigns will be needed to support the growth in safe cycling and safe driving around cyclists.

Knowledge and awareness of cycling among cyclists and non-cyclists is key to:

- Elevating the status of cycling as a major transport mode.
- Encouraging safe and courteous behaviour on shared paths.
- Improving confidence among new cyclists.
- Encouraging safer driver and cyclist behaviours on roads.

The following bicycle education programs are recommended to increase the knowledge and awareness that will address the above outcomes:

- Cycle skills training.
- Local Discovery Rides.
- Driver awareness education.

Cycle skills training

Improving cycling skills can improve cyclist safety by boosting confidence of riders and their ability to safely ride in a range of environments.

Improving the skills of new cyclists can provide the confidence needed to participate in cycling on a regular basis. The provision of regular, free cycle training is recommended. The training would benefit cyclists of a range of skill levels covering topics such as:

- Road rules.
- Commuter cycling.
- Children's basic training.
- Adult beginner/refresher training.
- Basic bicycle training.
- Shared path etiquette and safety.

Local Discovery Rides

Bicycle NSW conducts regular discovery rides to enable local residents to discover local riding facilities and routes within their community. The rides provide a number of benefits and are valuable as:

- Local bicycle leaders guide the tours resulting in great local knowledge.
- The rides show participants the best routes to key attractions including local shops, schools, business centres and community attractions.
- The rides help participants to feel safer riding in their community and encourage greater cycling participation.

Local Discovery Rides will be particularly beneficial for community members who aren't sure where they can cycle in the region.

Driver awareness education

The vulnerability of cyclists (both on and off the road) can be forgotten by drivers who benefit from the protection and comfort offered by their motor vehicle.

Driver awareness of cyclists and cycling issues can be elevated through:

- Council's continued road safety campaign.
- Council support of relevant campaigns such as the Amy Gillett Foundation "a metre matters" campaign.
- Implementation of warning and other signage as well as line marking on on-road cycling routes.

¹ How to Prepare a Bike Plan, NSW, 2010.

Monitoring and review of the Strategy

The Cessnock Cycling Strategy provides Council, stakeholders and the community with a twenty year strategic direction and framework to establish a bicycle friendly environment in the LGA.

In order to maintain the currency of the Strategy, the following monitoring and review framework is proposed.

Council's Integrated Planning and Reporting processes

Council has a well established Integrated Planning and Reporting process, which will serve as a useful tool for monitoring the progress of the Cycling Strategy. The following topics can be addressed within Council's reporting:

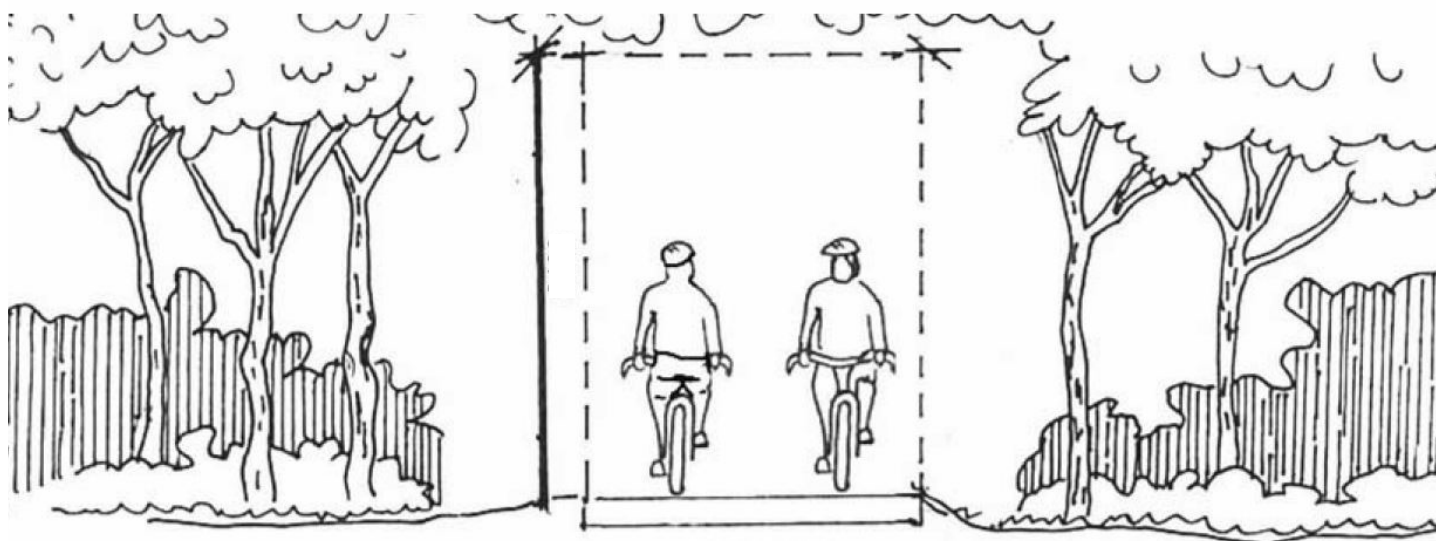
- The actions which have been met.
- Funding received.
- Successful partnerships.
- Resources required to achieve the defined Strategy priorities for the coming period.
- Outcomes of annual events such as NSW Bike Week.
- Updated participation trends in cycling.
- Any emerging issues or opportunities for cycling within the LGA.

Five years

Within five years of the Strategy's development, undertake an internal review of the document with key stakeholders and document any major changes in an addendum to the Strategy. This mid-term review will ensure the currency of the Strategy, including community profile, cycling participation trends, Council's strategic planning framework, and emerging funding opportunities.

Ten years

In ten years the Strategy will be required to be re-written. It is likely that the Cessnock community will look significantly different at this point in time, and the cycling preferences and trends of the community may have vastly different requirements to the current population.





Appendix one

Works program

Cessnock Cycling Strategy Works Program

Sections 1 to 8 of the Action Plan relate to infrastructure improvements and these are costed (where possible) and prioritised in the table below. The width and treatment relied upon for costing each project is based on Austroads standards identified in the Path Design section of this Strategy.

Please note that the following rates have been applied:

- New concrete shared path (2.5m wide and 125mm thick): \$352/LM (including markings and signage)
- Replace existing path with above: \$392/LM (including markings and signage)
- On-road cycleway markings (including signage, symbols and lines, but excluding roadworks): \$25/symbol (every 50m) plus 100mm line @ \$1.65/LM
- Cycleway bridge: \$40,000

It should be noted that kerb and gutter works have been excluded from the cost of all cycleways. These works may be required in some instances at a cost of approximately \$100/LM. It should also be noted that the standard shared path width of 2.5m has been applied to every proposed cycleway. In some cases a lesser width of 2.0m will be suitable for low use paths and a greater width of 3.0-4.0m will be required for high use paths.

Costings

It should be noted that there are costs that haven't been considered in the estimates in the following table (such as road upgrades or rail crossings, design etc). The purpose of the schedule is to provide a preliminary quantification of works to assist in prioritising. Further consideration of projects will assist in refining the costs (and subsequently the priority). The works program is a working document that will be updated as more detailed information becomes available.

Individual works items have been allocated a cost category as follows:

- \$: Low cost - where the cost estimate is less than \$50,000.
- \$\$: Medium cost - where the cost estimate is \$50,000 and \$150,000.
- \$\$\$: High cost - where the cost estimate exceeds \$150,000.

Sub-totals of the actual cost estimates for each environment are provided within the table.

Prioritisation

Priorities are assigned for each project as follows:

- High - as soon as resources allow
- Medium - 5 or more years
- Low - 10 or more years.

The prioritisation of actions recommended within this Strategy is based on the principles for prioritisation outlined in Section 5 (Cessnock Cycling Framework and Hierarchy). The degree to which each project addresses the prioritisation principles and the potential for available resources to complete the project determine whether the project is rated as a high, medium or low priority.

Prioritised and costed Works Program

Ref	Item	Distance	Hierarchy	Priority	Cost Estimate
Regional cycling environment					
1.1.1	New off-road path on Maitland Road (Cessnock/Neath) - David Street to Duffie Drive	2.500km	Regional	Low	\$\$\$
1.1.2	New off-road path on Wine Country Drive (Cessnock/Nulkaba) - Dover Street to Nulkaba	1.444km	Regional	Medium	\$\$\$
1.1.3	New off-road path on Doyle/Church/Dover Streets (Cessnock) - Maitland Road to Wine Country Drive	1.420km	Regional	High	\$\$\$
1.1.4	New off-road path - Richmond Vale Rail Trail	16.130km (Cessnock section)	Regional	Medium	\$\$\$
1.1.5	New off-road path on Mulbring and Boundary Streets (Kurri Kurri) - Log of Knowledge Park to Margaret Johns Park	1.806km	Regional	Medium	\$\$\$
1.1.6	New off-road path along Appleton Ave (Weston) - Margaret Johns Park to Scott Street rail crossing	0.789km	Regional	High	\$\$\$

Ref	Item	Distance	Hierarchy	Priority	Cost Estimate
1.1.7	New off-road path along Scott Street and Kilne Street (Weston) - Scott Street off-road path to Cessnock Road	0.620km	Regional	Medium	\$\$\$
1.1.8	New off-road path along Main Street (Heddon Greta) - Heddon Street to Earp Street	0.665km	Regional	Medium	\$\$\$
1.1.9	New off-road path on Rawson/Alexandra/Lang Streets from Victoria Street to Boundary Street	1.279km	Regional	Medium	\$\$\$
1.1.10	New off-road path on Maitland Road - Victoria Street to Doyle Street	0.135km	Regional	Low	\$
1.1.11	New off-road path on Wine Country Drive from Lovedale Road to Broke Road	1.330km	Regional	Low	\$\$\$
1.1.12	New off-road path on Wine Country Drive from Broke Road to Old North Road	7,520km	Regional	Low	\$\$\$
1.2.1	New on-road connection through Neath along Cessnock Road from Northumberland Street to Duffie Drive	2.236km	Regional	High	\$
1.2.2	New on-road connection on Wine Country Drive - O'Connor's Road to Lovedale Road cycleway	2.600km	Regional	High	\$
1.2.3	New on-road connection on Maitland Road - David Street to Victoria Street	0.635km	Regional	High	\$
1.2.4	New on-road connection on Lang Street and Victoria Street from Heddon Street to Rawson Street	1.180km	Regional	High	\$
1.2.5	New on-road connection on Wine Country Drive from Old North Road to Thomas Street	4.640km	Regional	Medium	\$
Sub-total of high priority works					\$796,000
Sub-total of medium priority works					\$9,899,195
Sub-total of low priority works					\$4,043,000
TOTAL for Regional Environment					\$14,738,195

Ref	Item	Distance	Hierarchy	Priority	Cost Estimate
Cessnock town cycling environment					
2.1.1	New off-road path on Cumberland Street - Aberdare Road to Maitland Road	0.970km	Local	High	\$\$\$
2.1.2	New off-road path on Duffie Drive/Colliery Street - Aberdare Road to Maitland Road	2.333km	District	Low	\$\$\$
2.1.3	New off-road path on Aberdare Road/ Cessnock Road/Caledonia Street - Quarrybylong Street to Ellalong Street	2.870km	District	Medium	\$\$\$
2.1.4	New off-road path on Dover Street - Church Street to Drain Oval	0.095km	Local	Low	\$
2.1.5	New off-road path on McGrane Street - Church Street to Mount View Road	0.922km	Local	Medium	\$\$\$
2.1.6	New off-road path on Stephen Street/Ivan Street/Wollombi Road - Sports Avenue shared path to Wollombi Road/Alexander Street intersection	0.597km	Local	Medium	\$\$\$
2.1.7	New off-road path along Francis, Margaret and Campbell Streets	1.159km	Local	Medium	\$\$\$
2.1.8	New off-road path in Bellbird - Sparke, Doyle, Tennant, Ruby, Hetton and Kendall Streets	1.853km	Local	Medium	\$\$\$
2.1.9	New off-road path - URA to Mount View Road via Mount View Park	0.512 km	Local	Low	\$\$\$
2.1.10	New off-road path - on O'Connors Road - URA to Wine Country Drive	0.374 km	Local	Low	\$\$\$
2.1.11	New off-road path - Buttaba Avenue via O'Neill Park playground along Acadia/Edith Streets to Stephen/Ivan Streets	1.264km	Local	Low	\$\$\$
2.1.12	New off-road path on South Avenue - North Avenue to Darwin Street	0.333km	Local	Medium	\$\$
2.1.13	New off-road path on Mulbring Street - Railway Street shared path to Aberdare Road	0.259km	Local	Medium	\$\$
2.1.14	New off-road path on Melbourne Street - Quarrybylong Street to Duffie Drive	1.752km	Local	Low	\$\$\$
2.1.15	New off-road path on Victoria Street, Cessnock - Maitland Road to Yango Street	0.122km	Local	High	\$
2.1.16	New off-road path on Old Maitland Road - Maitland Road to Council depot	0.982km	Local	Medium	\$\$\$
2.1.17	New off-road path on Kanowna Avenue from Alkira Avenue to Old Maitland Road	0.459km	Local	Medium	\$\$\$
2.1.18	New off-road path on Government Road - Anzac Avenue to URA	0.554 km	Local	Low	\$\$
2.1.19	New off-road path on McGrane Street/ Lightfoot Avenue - Church Street to Anzac Avenue via Manning Park (includes 2 cycleway bridges)	0.650km	Local	Low	\$\$\$
2.1.20	New off-road path on Vincent Street - Aberdare Road to Baddeley Park	1.080km	District	Medium	\$\$\$

Ref	Item	Distance	Hierarchy	Priority	Cost Estimate
2.1.21	New off-road path on Anzac Avenue - Manning Park to Kanowna Avenue	0.962km	Local	Medium	\$\$\$
2.1.22	New off-road path on Halcyon Street - David Street to Koree Street	0.392km	Local	High	\$\$
2.1.23	New off-road path on Darwin Street - South Avenue to Wollombi Road	0.632km	Local	Medium	\$\$\$
2.1.24	New off-road path on South Avenue/ Aberdare Road - Darwin Street to Vincent Street	0.302km	Local	Medium	\$\$
2.1.25	New off-road path - Quarrybylong, Neath and David Streets	1.815km	Local	Medium	\$\$\$
2.1.26	New off-road path on Mount View Road - O'Shea Circuit to Oakey Creek Road	0.450km	District	Low	\$\$\$
2.1.27	New off-road path on Mount View Road - Wollombi Road to the Cessnock Civic Indoor Sports Centre	1.163km	District	High	\$\$\$
2.1.28	New off-road path on West Avenue/North Avenue - Darwin Street to Wollombi Road	0.640km	Local	Medium	\$\$\$
2.1.29	New off-road path on Wollombi Road - Millfield Street to Doyle Street	0.101km	District	Low	\$
2.2.1	New on-road connection - Maclean Street/ Nelson Street/Buckland Avenue	0.810km	Local	Low	\$
2.2.2	New on-road connection on Cooper Street - North Avenue and Cumberland Street	0.255km	Local	High	\$
2.2.3	New on-road connection on Jurd Street - Church Street to Dixon Street	1.013km	Local	High	\$
2.2.4	New on-road connection on Dixon Street - Mavis Street to Maclean Street	0.685km	Local	Low	\$
2.2.5	New on-road connection on laneway from Koree Street to Millfield Street	0.420km	Local	Medium	\$
2.2.6	New on-road connection on Victoria Street - Quarrybylong Street to Yango Street	0.391km	Local	Medium	\$
2.2.7	New on-road connection on Wollombi Road/ Maitland Road - Darwin Street to Millfield Street	0.680km	District	High	\$
Sub-total of high priority works					\$983,300
Sub-total of medium priority works					\$5,349,500
Sub-total of low priority works					\$2,766,800
TOTAL for Cessnock Town Environment					\$9,099,600

Ref	Item	Distance	Hierarchy	Priority	Cost Estimate
Pokolbin's cycling environment					
3.1.1	Extension of McDonalds Road cycleway to Oakey Creek Road	0.246km	District	Medium	\$\$
3.1.2	New off-road path on Oakey Creek Road - McDonalds Road to Mount View Road	5.790km	District	Low	\$\$\$
3.1.3	New off-road path on Palmers Lane - McDonalds Road to Wine Country Drive	2.037km	District	Low	\$\$\$
3.1.4	New off-road path on Broke Road - McDonalds Road to Hermitage Road	5.640km	District	Medium	\$\$\$
3.1.5	New off-road path on Hermitage Road - Broke Road to Deasys Road	1.220km (Cessnock Council section)	District	Low	\$\$\$
3.1.6	New off-road path on Broke Road - Wine Country Drive to McDonalds Road	3.616km	District	High	\$\$\$
3.1.7	New off-road path on McDonalds Road - Broke Road to Wine Country Drive	6.255km	District	Medium	\$\$\$
3.1.8	New off-road path on Deasy's Road - McDonalds Road to Hermitage Road	5.400km	District	Low	\$\$\$
3.1.9	New off-road path on Old North Road - Wine Country Drive to Hermitage Road	8.700km	District	Low	\$\$\$
3.1.10	New off-road path on McDonalds Road - McDonalds Road cycleway to Broke Road	1.000km	District	High	\$\$\$
3.2.1	New on-road connection on Broke Road - Hermitage Road to Singleton	1.500km	District	Low	\$
Sub-total of high priority works					\$1,625,000
Sub-total of medium priority works					\$4,274,000
Sub-total of low priority works					\$8,151,000
TOTAL for Pokolbin Environment					\$14,050,000
Greta-Branxton cycling environment					
4.1.1	New off-road path on Bridge Street/Drinan Street/Cessnock Road - Railway Street to the New England Highway	0.962km	Local	High	\$\$\$
4.1.2	New off-road path on the New England Highway - Cessnock Road (Branxton) to Greta Park (Greta)	5.451km	District	Low	\$\$\$
4.1.3	New off-road path on Dalwood Road - New England Highway to Spring Street	1.235km	Local	Low	\$\$\$
4.1.4	New off-road path on Wyndham Street - Evans Street to Sale Street (Greta)	0.832km	Local	Medium	\$\$\$
4.1.5	New off-road path on West Street - High Street to URA	1.133km	Local	Low	\$\$\$
4.1.6	New off-road path on Elderslie Road - New England Highway to Singleton LGA	0.397km	Local	Low	\$\$

Ref	Item	Distance	Hierarchy	Priority	Cost Estimate
4.1.7	New off-road path on McMullins Road - Dalwood Road to Hillview Road	0.513km	Local	Low	\$\$\$
4.1.8	New off-road path on Station Street - New England Highway to Railway Street	0.687km	Local	Medium	\$\$\$
4.1.9	New off-road path between urban release area along Camp Rd/ Mansfield Street to proposed Nelson Street cycleway	1.032km	District	Low	\$\$\$
4.1.10	New off-road connection on Nelson Street - New England Highway to Greta Railway Station	0.962km	Local	Medium	\$\$\$
4.1.11	New off-road path on Washery Road/ Morgan Street and Thomas Street, connecting to existing cycleway on Wine Country Drive	0.765km	Local	Medium	\$\$\$
4.2.1	Upgrade on-road conditions on Railway Street, Branxton	0.492km	Local	High	\$
Sub-total of high priority works					\$339,500
Sub-total of medium priority works					\$1,142,000
Sub-total of low priority works					\$3,429,000
TOTAL for Greta-Branxton Environment					\$4,910,500
Kurri Kurri town cycling environment					
5.1.1	New off-road path on McLeod Road - Northcote Street to Hunter TAFE	0.971km	Local	Low	\$\$\$
5.1.2	New off-road path on Colliery Street/ Maitland Street - Heddon Street to Pokolbin Street	1.392km	Local	Medium	\$\$\$
5.1.3	New off-road path from Pokolbin Street to Tarro Street	0.165km	Local	Low	\$\$
5.1.4	New off-road path on Heddon Street - Lang Street to Hopetoun Street	0.420km	Local	High	\$\$
5.1.5	New off-road path on Rawson Street - Victoria Street to Heddon Street	1.733km	Local	Medium	\$\$\$
5.1.6	New off-road path on Deakin Street - Heddon Street to Boundary Street	2.080km	Local	Medium	\$\$\$
5.1.7	New off-road path on Heddon Street - Lang Street to McLeod Road	0.733	Local	Medium	\$\$\$
5.1.8	New off-road path on Lang Street - Alexandra Street to Hospital Road	0.961km	Local	Low	\$\$\$
5.1.9	New off-road path on Averys Lane - URA to Main Street	0.756km	Local	Medium	\$\$\$
5.1.10	New off-road path on Young Street - Clift Street to Hunter TAFE	1.350km	Local	Medium	\$\$\$
5.1.11	New off-road path along former railway line - Main Street to Cliftleigh URA	3.222 km	District	Low	\$\$\$
5.1.12	New off-road path on Stanford Street - Neath Street to existing cycleway in Log of Knowledge Park	0.638km	District	Medium	\$\$\$
5.1.13	New off-road path on Abermain Street - Stanford Street to Pelaw Main Public School	0.440 km	Local	Low	\$\$\$

Ref	Item	Distance	Hierarchy	Priority	Cost Estimate
5.2.1	New on-road connection on Victoria Street/ Tarro Street - Rawson Street to Maitland Street	1.216km	District	Medium	\$
5.2.2	New on-road connection on John Renshaw Drive - Buchanan Road to Maitland Street	3.500km	District	Medium	\$
5.2.3	New on-road connection on Railway Street - Allworth Street to Victoria Street	0.350km	Local	High	\$
5.2.4	New on-road connection on Mulbring Road - Neath Street (Pelaw Main) to White Bridge Road (Mulbring)	4.564km	District	Low	\$
5.2.5	New on-road connection on Mitchell Avenue - Northcote Street to Government Road	1.482km	District	Low	\$
5.2.6	New on-road connection on Victoria Street - Northcote Street to Lang Street	0.731km	District	High	\$
Sub-total of high priority works					\$151,000
Sub-total of medium priority works					\$3,077,000
Sub-total of low priority works					\$2,082,000
TOTAL for Kurri Kurri Town Environment					\$5,310,000

Ref	Item	Distance	Hierarchy	Priority	Cost Estimate
Weston-Abermain-Neath cycling environment					
6.1.1	New off-road path on East Esplanade - Tenth Street to Fourth Street	0.630km	Local	Low	\$\$\$
6.1.2	New off-road path - Fourth Street/Swanson Street to Chinamans Hollow	0.931km	Local	Medium	\$\$\$
6.1.3	New off-road path on Government Road - Mitchell Avenue to Cessnock Road	1.060km	Local	Medium	\$\$\$
6.1.4	New off-road path on Swanson/Station Street - Government Road to First Street	0.780km	Local	Low	\$\$\$
6.1.5	New off-road path on Goulburn Street - Lismore Street to Cessnock Rd	0.830km	Local	Low	\$\$\$
6.1.6	New off-road path on Armidale St - Goulburn St to Orange St.	0.580km	Local	Low	\$\$\$
6.1.7	New off-road path on Hospital Road - Lang Street to Appleton Avenue	0.924km	Local	Low	\$\$\$
6.2.1	New on-road connection on Hart Road/ Gingers Lane/Frame Drive - Hunter Expressway to Lismore Street	4.67km	District	Medium	\$
6.2.2	New on-road connection on Orange Street - Lismore Street to Cessnock Road	0.668km	District	Medium	\$
6.2.3	New on-road connection on Tenth Street - Government Road to East Esplanade	0.480km	Local	Medium	\$
6.2.4	New on-road connection on Government Road - Mitchell Avenue to Hart Road	0.455km	District	Medium	\$
6.2.5	New on-road connection on Station Street - First Street to Cessnock Road	0.105km	Local	High	\$
Sub-total of high priority works					\$500
Sub-total of medium priority works					\$757,300
Sub-total of low priority works					\$1,318,000
TOTAL for Weston-Abermain-Neath Environment					\$2,075,800
Kitchener-Kearsley cycling environment					
7.1.1	New off-road path on Abernethy Street/ Murray Street - Quorrobolong Road to Ferguson Street	2.874km	District	Medium	\$\$\$
7.1.2	New off-road path on Cessnock Street - Stanford Street to Abernethy Street	0.700km	District	Low	\$\$\$
7.1.3	New off-road path on Richmond Street/ Stanford Street - Abernethy Street to Cessnock Street	0.972km	Local	Low	\$\$\$
7.1.4	New off-road path on Ferguson Street/ Kearsley Road - Murray Street to Lake Road	1.944km	District	Medium	\$\$\$
7.1.5	New off-road path on Lake Road - Kearsley Road to Allandale Street	0.645km	District	Medium	\$\$\$
7.1.6	New off-road path on Allandale Street - Lake Road to Caledonia Street	0.477km	District	Low	\$\$\$
7.1.7	New off-road path on Caledonia Street - Allandale Street to Wilson Street	0.553km	District	Low	\$\$\$

Ref	Item	Distance	Hierarchy	Priority	Cost Estimate
7.2.1	New on-road connection on Quorrobolong Road - Baddeley Park to Stanford Street, Kitchener	3.200km	District	High	\$
7.2.2	New on-road connection on Lake Road - Kearsley Road to Leggets Lane	7.420km	District	Low	\$
7.2.3	New on-road connection on Branxton-Toronto Road - Lake Road to Palmers Road	2.663km	District	Low	\$
7.2.4	New on-road connection from Leggets Lane along New Street, North Street, Vincent Street, Child Street and Palmer Street	4.842km	Local	Low	\$
7.2.5	New on-road connection on Leggets Lane - White Bridge Road to Lake Road	1.782km	District	Low	\$
7.2.6	New on-road connection on Quorrobolong Road - Abernethy Street to Sandy Creek Road	4.804km	Local	Low	\$
7.2.7	New on-road connection on Caledonia Street - Wilson Street to Government Circuit	0.582km	District	Medium	\$
Sub-total of high priority works					\$10,000
Sub-total of medium priority works					\$1,924,700
Sub-total of low priority works					\$1,041,500
TOTAL for Kitchener-Kearsley Environment					\$2,976,200

Ref	Item	Distance	Hierarchy	Priority	Cost Estimate
Millfield-Paxton-Ellalong-Wollombi cycling environment					
8.1.1	Great Wineries Walk off-road path - Millfield to Pokolbin	12.180km	District	Low	\$\$\$
8.1.2	New off-road path on Boundary Street - URA to Wollombi Road	0.290km	Local	Low	\$\$
8.1.3	New off-road path on Bennett Street - Wollombi Rd to Millfield Rd	0.486km	Local	Low	\$\$\$
8.1.4	New off-road path on Earps Road, McDonald Avenue and Anderson Avenue	1.226km	Local	Low	\$\$\$
8.1.5	New off-road path on Wollombi Road - Bennett Street to Bligh Street	0.349km	District	Medium	\$\$
8.1.6	New off-road path on Millfield Road/Helena Street - Bennett St to Rugby Street	5.080km	District	Medium	\$\$\$
8.2.1	New on-road connection on Ellalong Road/ Rugby Street - Wollombi Road to Helena Street	4.482km	District	Medium	\$
8.2.2	New on-road connection on Middle Road - Wollombi Road to Millfield Road	4.009km	District	Low	\$
8.2.3	New on-road connection on Wollombi Road - Doyle Street, Bellbird to Bennett Street	5.500km	District	Medium	\$
8.2.4	New on-road connection on Wollombi Road - First Avenue to Wollombi	24,321km	District	Low	\$\$
Sub-total of high priority works					-
Sub-total of medium priority works					\$1,939,000
Sub-total of low priority works					\$5,057,500
TOTAL for Millfield-Paxton-Ellalong-Wollombi Environment					\$6,996,500
Total works by priority for LGA					
High priority works					\$3,905,300
Medium priority works					\$28,362,695
Low priority works					\$27,888,800
Total works					\$60,156,795



Appendix two

Document review

Strategic and land use planning documents

Regional context

Lower Hunter Regional Strategy 2006-2031

The Lower Hunter Regional Strategy attempts to manage growth within the region, which contains the five local government areas of Newcastle, Lake Macquarie, Port Stephens, Maitland and Cessnock. The region is expected to accommodate an additional 160,000 people by 2031, taking the total population to 675,000. A significant number of those people will be housed in the Cessnock LGA with a total of 21,700 new dwellings. Branxton-Huntlee is identified as a major release site with an additional 7,200 dwellings as is Bellbird with an additional 4,000 dwellings. These new release areas represent opportunities to include significant cycling infrastructure, which can encourage cycling.

Draft Hunter Regional Plan

The Draft Hunter Regional Plan is a 20-year plan for the Hunter Region and prioritises growing and diversifying the Hunter economy, protecting the environment and supporting regional communities. Goal 1 for the Draft Plan is to “grow Australia’s next major city”. Hunter City includes parts of Maitland, Newcastle, Port Macquarie and Lake Macquarie Councils and the Plan encourage walking and cycling within the city. Goal 4 of the Plan is to “support robust regional communities”. Promoting cycling in regional communities can help to achieve this goal.

Hunter Regional Transport Plan 2014

The Hunter Regional Transport Plan outlines specific actions to address the unique challenges of transport in the area. It includes three actions related to cycling. Both the Connecting Centres Program and the Cycling Towns Program represent significant opportunities for Cessnock.

Action: Connecting Centres Cycling Program

“We will work with councils and other stakeholders to identify bicycle network gaps and pinch points in the five kilometre catchments that surround regional towns.

The Connecting Centres Program will help councils to complete local cycle networks to regional centres in partnership with local councils. We will also work with councils and bicycle user groups to get more people riding on this network and provide better information to customers.”

Action: Roll-out the Cycling Towns Program

“The Cycling Towns Program will focus bicycle infrastructure provision and encouragement in a small number of regional centres with the aim to rapidly increase rates of cycling in these areas.

Two regional centres will be selected for initial investment in the Cycling Towns Program by the NSW Government in partnership with councils, the bicycle industry and bicycle users. Candidate towns must demonstrate that a range of destinations are within easy cycling distance from their residential centres. They will require political support, and a commitment to maintain new infrastructure and complementary promotion measures.

Cycling Towns Programs may include bicycle network construction and bicycle parking facilities, complemented by local government funded encouragement programs, and support for tourist routes and information for visitors.”

Action: Improve information about walking and cycling routes and facilities

“We will get people walking and cycling more by promoting the benefits of active transport, improving customer information, and developing guidelines and resources for local government. This will include improved online resources, such as trip planning, as well as other programs to promote walking and cycling for transport. We will also continue to sponsor events and community programs, such as NSW Bike Week, which promote active transport.”

Local context

Cessnock City Council Community Strategic Plan - Cessnock 2023

The Community Strategic Plan was refined and adopted in 2013 and is based on significant community consultation. The Plan identifies five outcomes to achieve the community vision of being “thriving, attractive and welcoming”. The outcomes and objectives relevant to cycling in Cessnock are outlined below.

A connected, safe and creative community

- Objective 1.1 - Promoting Social Connections.
 - “We are connected to others in our neighbourhood and across the Local Government Area.”
 - “Our communities are linked by walking and bike tracks.”
- Objective 1.2 - Strengthening community culture.
 - “Our facilities are utilised by community groups.”

A sustainable and prosperous community

- Objective 2.3 - Increasing tourism opportunities and visitation in the area.
 - “We have a range of diverse visitor experience across the entire local government area.”
 - “Our local government area is attractive to visitors.”

A sustainable and healthy environment

- Objective 3.1 - Protecting and enhancing the natural environment and the rural character of the area.
- Objective 3.2 - Better utilisation of existing open space.
 - “We have green corridors connecting our open space areas.”

Accessible infrastructure, services and facilities

- Objective 4.1 - Better transport links.

A number of the outcomes and objectives in the Community Strategic Plan relate to cycling, which can contribute in a major way to the achievement of the community vision.

Cessnock City Council Community Research 2012 and 2014

Cessnock City Council Community Research from 2012 and 2014 seeks to examine community attitudes and perceptions towards current and future services and facilities provided by Council. Respondents were asked to rate cycleways in Cessnock based on their importance and satisfaction.

In 2014, nearly half (41%) of respondents said that cycleways were very important, with the next highest response of 27% saying they were important. Despite these results, cycleways are considered to be less important than other infrastructure such as roads and footpaths.

The level of satisfaction for cycleways in Cessnock is moderate. Just 9% of people were very satisfied with cycleways, while 21% were satisfied. 28% of respondents were somewhat satisfied and the overall mean score for satisfaction (2.8) was higher than in 2012 (2.5) but still lower than the benchmark (3.2).

Cessnock Economic Development Strategy 2013-17

The Economic Development Strategy articulates the objectives and directions for economic development within Cessnock LGA and provides the strategies and actions to achieve sustainable growth. Strategy 5.6 is “extend the cycling infrastructure” and is to be achieved by implementing the following key actions:

- Key Action 5.6.1: Continue to develop recreational and commuter cycleways throughout the LGA and provide support infrastructure (eg bicycle rack, bicycle storage) in key locations.
- Key Action 5.6.2: Explore options for developing a network of mountain bike trails in the Werakata SCA and/or in the State Forests located in close proximity to rural villages, for recreation and as the basis for mountain bike tourism and possibly events.
- Key Action 5.6.3: Ensure that cycleways are included in the Huntlee and Anvil Creek developments with these extended to the Branxton and Greta village centres and railway stations.

Each of these actions have been considered in the development of this Strategy.

Cessnock City Wide Settlement Strategy 2010

The *Cessnock City Wide Settlement Strategy* (CWSS) incorporates the outcomes and actions of the *Lower Hunter Regional Strategy 2006-2031* (LHRS). The CWSS notes that population projections identified in the LHRS are yet to be realised and therefore a conservative approach to new development should be taken to ensure an adequate level of service and support can be provided.

The majority of the population in the LGA is located between Cessnock and Kurri Kurri. Cessnock is the largest settlement area in the LGA, containing 38.5 per cent of the population in 2006. Kurri Kurri is the second largest settlement area, containing 27.5 per cent of the Council population in 2006. Branxton is expected to experience significant growth with the development of the Huntlee Urban Release Area of 7,200 dwellings.

Cessnock City Council Revised Delivery Program 2013-17

The Delivery Program was adopted in 2013 and aims to achieve the objectives and outcomes set out in the Community Strategic Plan 2023. The Program adopts the five outcomes identified in the Community Strategic Plan and the following actions are relevant to cycling in Cessnock:

Objective 1.1 - Promoting social connections.

- 1.1.4 Commence implementation of the Cessnock City Bicycle Plan.
 - 1.1.4a Identify potential funding sources to implement the priority projects from the Cessnock City Bicycle Plan.

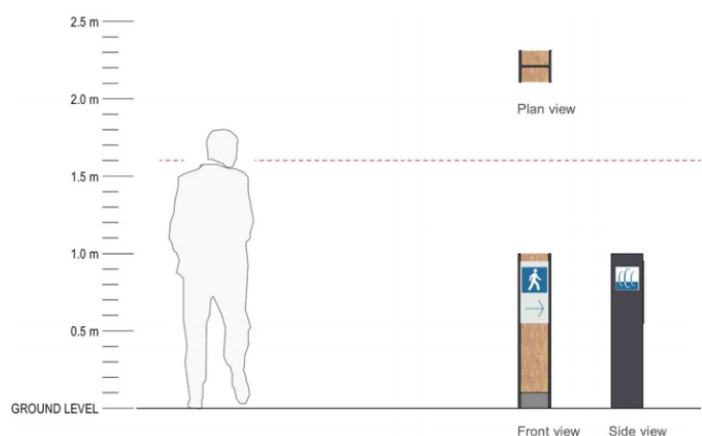
Cessnock Signage Strategy

The Cessnock Signage Strategy provides guidance on the planning, design and installation of signage in the Cessnock LGA. Aside from providing well designed and positioned signs, the Strategy also aims to “enhance the image and branding of Cessnock”. The theme of signs draws inspiration from the rural, viticultural and industrial landscapes that define the Cessnock region.

Section 4.11 of the Strategy addresses signage for walkways and cycleways. The recommendations for cycleway signage are to include pictograms, arrows and the Cessnock City Council logo in the form of a ground mount sign. The recommended materials and design from the plan can be found below.



Recommended materials for walkway/cycleway signage (Moir Landscape Architecture)



Recommended walkway/cycleway signage design (Moir Landscape Architects)

Cessnock City Council Recreation and Open Space Strategic Plan 2009

The Recreation and Open Space Strategic Plan assists Council to plan and manage the future development and maintenance needs of open space and recreation facilities throughout the Cessnock LGA. The following comments related to cycleways were made:

- 60 kilometres of cycleways exist in the LGA, which is encouraging, though a great deal more needs to be created to provide significant links between open spaces.
- Significant gaps in the provision of cycleways/shared pathways include the areas of Millfield, Cessnock, Nulkaba, Abermain, Branxton and Greta.

The Cessnock Cycling Strategy will consider the provision of new cycleways/shared paths in the above identified areas.

Cessnock Skate and BMX Facilities Needs Assessment 2011

The Cessnock Skate and BMX Facilities Needs Assessment recommends a district-level facility in Cessnock, which could be a new facility or upgraded at the current location (Cessnock Skate Park). Providing cycling access to the existing skate park in Bridges Hill Park has been included as a consideration of this Strategy.

Analysis of the Greta Skate Park acknowledges Council plans for a cycleway linking Branxton and Greta, providing a safe route for young people accessing the skate park from Branxton. Council has a design for this cycleway and the route has been included in this Strategy.

Cessnock Aquatic Needs Analysis 2014

The Cessnock Aquatic Needs Analysis proposes a new aquatic centre in the Cessnock town centre. The location of the proposed pool is not decided in the document, however cycling access is listed as a factor to consider for the selection of a suitable site.

Section 94 Contributions Plans

Residential Section 94 Contributions Plan

The Residential Contributions Plan has been indexed to December 2014. The Plan identifies requirements for contributions by residential development towards the cost of providing public facilities such as cycleways. The following projects involve cycleways that are subject to contributions:

- Cycleway construction has been identified as a part of the district-level open space that is subject to development contributions from residential development in the Cessnock LGA. The Plan calculates contributions at 5% of the cost of district-level facilities. A total of \$30,000 is to go towards the construction of cycleways, which are estimated at \$600,000.
- Mount View Road upgrades include “pedestrian and cycleway works” adjoining the Vineyard Grove estate.

Kitchener Section 94 Contributions Plan 2012

Kitchener has been identified as a Release Area in the City Wide Settlement Strategy (CWSS). The development area will involve approximately 1,000 lots and 2,900 residents over 15 to 20 years. The following contributions for cycleways have been identified in the Plan:

- The upgrade of Quorrobolong Road includes a cycleway in the road shoulder. At an Apportionment Factor (AF) of 100%, \$1,054,882 is to be contributed to the upgrade in the mid stage of development.
- The Kitchener Contributions Plan also includes \$367,500 in contributions towards a Bus/Car/Cycle/Pedestrian interchange.

Bellbird North Section 94 Contributions Plan 2009

Bellbird has been identified as a Release Area in the CWSS. The development area will involve approximately 3,500 lots and 10,000 residents over the next 15 to 20 years. The following contributions for cycleways have been identified in the Plan:

- The embellishment of a large passive open space (140ha) to include cycle tracks among other things is included in the contributions. At an AF of 100% the embellishments require \$2,300,000 in contributions in all stages of development.
- The reconstruction of Wollombi Road between Lochinvar Street and Abbotsford Road is to include an on road cycleway. At an AF of 65%, \$1,885,000 is to be contributed to the project at stage one of development.

Government Road Precinct, Cessnock Section 94 Contributions Plan 2010

The Government Road Precinct has been identified as a Release Area in the CWSS. The development area will involve approximately 370 lots and 1,073 residents over the next 10 to 15 years. The following contributions for cycleways have been identified in the Plan:

- A pedestrian/cycle path is to be included on Government Road. At an AF of 100%, \$106,000 is to be contributed at a timing of 50% of the developed lots.
- A pedestrian/cycle path is to be included to the Landcom Subdivision. At an AF of 100%, \$20,000 is to be contributed at a timing of 50% of the developed lots.

Mount View Road Millfield Precinct Section 94 Contributions Plan 2011

The Mount View Road Millfield Precinct has been identified as a Release Area in the CWSS. The development area will involve approximately 164 lots (159 additional) and 398 residents over the next 10 to 15 years. Specific cycleway projects are not identified in the Plan. However, cycleways are identified as a facility that should be provided as part of Roads and Traffic Facilities and the construction of a pedestrian/cycle path is identified as an opportunity to connect to the existing village and transport.

Averys Village Heddon Greta Section 94 Contributions Plan 2013

Averys Village has been identified as a Release Area in the CWSS. The development area will involve approximately 960 lots and 2,400 residents over the next 10 to 15 years. The following contributions for cycleways have been identified in the Plan:

- An off road concrete bicycle/pedestrian path is to be constructed on Averys Lane and Heddon Street from the proposed subdivision to Main Road Heddon Greta. At an AF of 100%, \$225,000 is to be contributed to the project, which is to be provided short-term.
- An off road concrete bicycle/pedestrian path is to be constructed on Main Road Heddon Greta from Heddon Street to Stanford Street. At an AF of 63%, \$39,501 is to be contributed to the project (total \$63,000), which is to be provided short-term.

Nulkaba Section 94 Contributions Plan 2014

Nulkaba includes the Valley View Place and BC10 precincts, which have been identified as Release Areas in the Cessnock Local Environmental Plan 2011. The Nulkaba Contributions Area will involve approximately 960 lots and 2,400 residents over the next 10 to 15 years. The following contributions for cycleways have been identified in the Plan:

- An off road cycleway linking Nulkaba to the existing path in Cessnock is to be constructed along Wine Country Drive (1250m). The total cost of the project is \$375,000, of which, \$254,329 is to be contributed from the Nulkaba Contributions at a timing of 50% of the lots.
- An off road cycleway linking Wine Country Drive/Allandale Road to Drain Oval via Dover Street is to be constructed. The total cost of the project is \$82,500 of which, \$55,952 is to be contributed from the Nulkaba Contributions at a timing of 50% of the lots.

Planning Agreements

A number of Planning Agreements contain provisions for new cycleways in the Cessnock LGA. The relevant Agreements are discussed below.

Anvil Creek (Local Infrastructure) VPA

The Anvil Creek Planning Agreement was made in 2008 for an additional 1,365 lots in Greta. The Agreement contains the following provisions for new cycleways:

- Cycle/pedestrian path between Branxton and Greta.

Heddon Greta (Local Infrastructure) VPA

The Heddon Greta Planning Agreement was made in 2010 for an additional 130 lots in Heddon Greta. The Agreement contains the following provisions for new cycleways:

- Young Street - Construct pedestrian/cycle pathway (0.9km)

West & Wyndham Streets (Local Infrastructure) VPA

The West & Wyndham Streets Planning Agreement was made in 2014 for an additional 234 lots in Greta. The Agreement contains the following provisions for new cycleways:

- West Street - Shared off road footpath/cycleway from High Street to Branxton Street (200m) at an estimated cost of \$50,000, of which, 50% is to be apportioned to the West & Wyndham Street development.
- West Street - Shared off road footpath/cycleway from Branxton Street to entry driveway (800m) at an estimated cost of \$200,000, of which, 100% is to be apportioned to the West & Wyndham Street development.

Bellbird Heights (Local Infrastructure) VPA

The Bellbird Heights Planning Agreement was made in 2014 for an additional 305 lots in Bellbird Heights. The Agreement contains the following provisions for new cycleways:

- Cycle Path - Release Area to Cessnock CBD at an estimated cost of \$790,000, of which, 15% is to be apportioned to the Bellbird Heights development.

Rose Hill (Local Infrastructure) VPA

The Rose Hill Planning Agreement was made in 2014 for an additional 100 lots in Millfield. The Agreement contains the following provisions for new cycleways:

- Shared pedestrian footpath/cycleway (400m site entrance on Millfield Road to Millfield Community Hall and playground) at an estimated cost of \$120,000, of which, 100% is to be apportioned to the Rose Hill development.

The following documents have been examined and contain no cycleway projects:

- Cliftleigh (Local Infrastructure) VPA.
- Kitchener (Local Infrastructure) VPA.
- Huntlee Planning Agreement.

Area/site specific context

Vineyards District Community Vision Community Consultation Report 2012

The report was commissioned by Cessnock City Council to create a vision for the Vineyards area. The adopted vision states that “The Vineyards District...has high quality infrastructure and services which meet community’s need.” The document also contains draft objectives and actions under a revised vision. The revised vision contains a similar statement to the adopted vision with regards to the provision of “high quality infrastructure and services which meet the community’s and visitors’ needs.” The following draft objectives and actions under this statement (Vision 6) have been proposed:

- Draft objective 4 - Increased use of bicycles is encouraged as a viable mode of transportation.
- Draft action 3 - Develop and implement an integrated bike path network and improve bicycle facilities throughout the Vineyards district.

The Cessnock Cycling Strategy proposes measures that will increase the viability of cycling in the Vineyards area.

Cessnock CBD Masterplan 2012

The Cessnock CBD Masterplan is a long-term strategy which is based on a collaborative process between Council, major stakeholders and the Cessnock community. The plan was adopted by Council in late 2012 with a number of objectives, which align with the Cessnock Community Strategic Plan vision of making Cessnock attractive, thriving and welcoming. Those objectives relevant to cycling are:

- A healthy place to live and work:
 - “Active transport modes, such as walking and cycling are encouraged and communities linked via a network of footpaths and bike tracks, with increased safety, amenity and activity. The Hunter Expressway should reduce the number of trucks along Vincent Street, which would greatly improve pedestrian amenity.”
- A connected and accessible place:
 - “The CBD is connected, both physically and socially, through a range of reliable transport options, fast internet access and active transport facilities. Walking and cycling routes, improved public transport and efficient vehicular access offer convenient links to the surrounds and other centres.”

There is a heavy focus throughout the plan on making the Cessnock CBD a place that is safe, attractive and accessible for pedestrians and cyclists. A number of initiatives have been developed relevant to cycling:

- AM9 - Review/update the 1995 Bicycle Plan to coordinate investment in a network of safe and coherent bicycle routes (both on- and off-road), link into regional (tourist) bike routes.
- AM10 - Provide basic secure bicycle lock-up rings across the CBD and establish highly visible bike parking spots at key locations, e.g. the library, the Art Gallery and major retailers.
- PD4 - Investigate how to deal with the open drainage channels that meander through the western area of the CBD, e.g. investigate beautification of channel edges, opportunities for walking/cycle links, widening of sections to establish green open space, realignment of sections and/or culverts to enable improved connections and new links.

Potential cycling links for the Cessnock CBD have been proposed in the Masterplan and mapped below.



Upgraded laneways, cycle paths and pedestrian-priority areas (Cessnock CBD Masterplan, 2012)

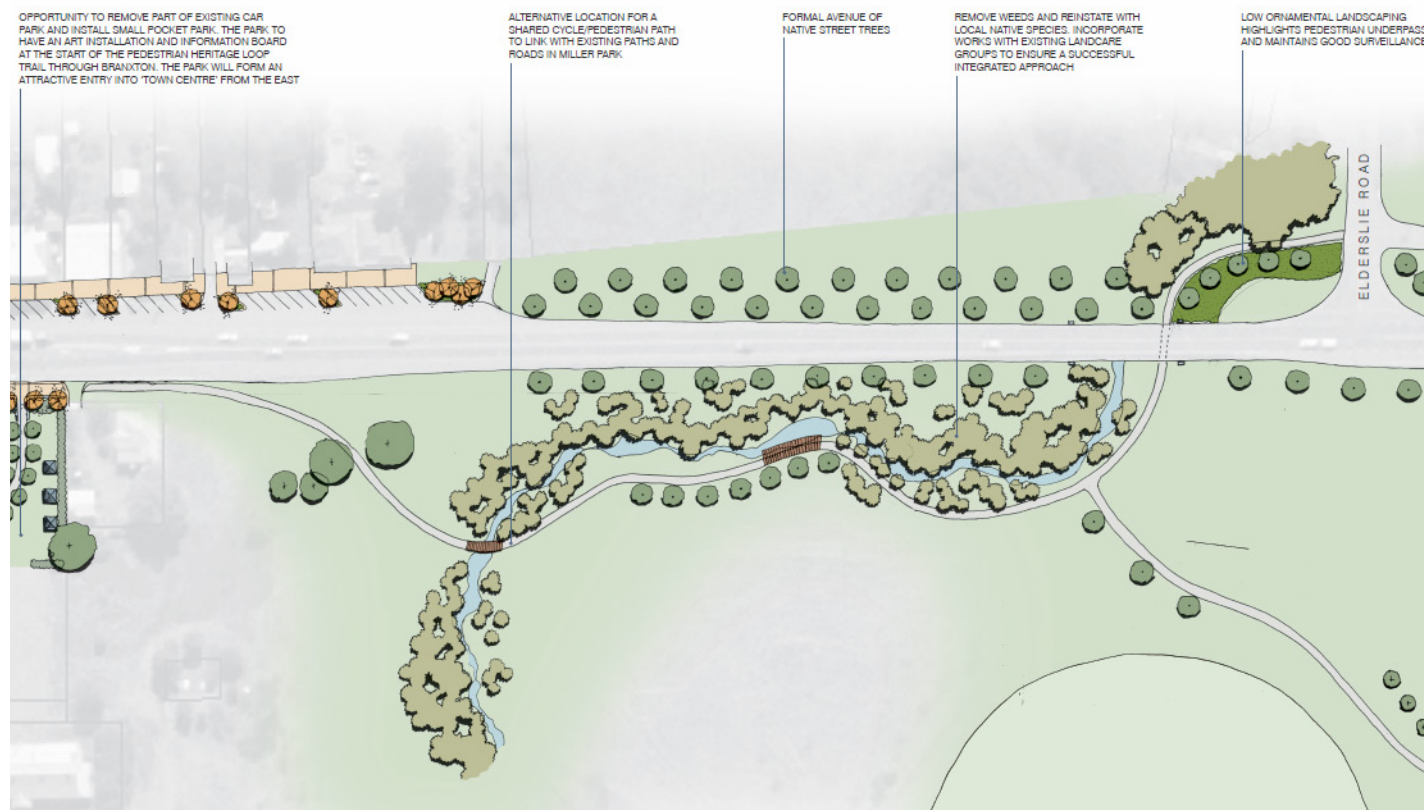
The Masterplan also addresses Vincent Street specifically as an environment that should be focused on pedestrians and cyclists. This can be achieved by “reducing vehicular traffic speeds and providing bicycle infrastructure, i.e. bike parking.



Artist's impression of the potential future look and feel of Vincent Street (Cessnock CBD Masterplan, 2012)

Branxton Town Centre Masterplan

The Branxton Town Centre Masterplan was developed in 2006 and contains an alternative location for a shared cycle/ pedestrian path to link Branxton with existing paths and roads in Miller Park. The relevant section of the Masterplan can be seen below. Branxton is also currently the subject of a Sub-Regional Land Use Strategy, which is being jointly prepared by the NSW Department of Planning & Environment, Singleton Council and Cessnock City Council. This Strategy may include further recommendations for cycling in Branxton and these will need to be considered once the Strategy is adopted.



Branxton Town Centre Masterplan - shared path section (Andrews.Neil)

Cessnock Development Control Plan 2010

The Cessnock Development Control Plan guides certain types of development within the Cessnock Local Government Area (LGA). Section C contains General Guidelines for development and guidelines for cycling are provided in "C.8 Social Impact Assessment and Crime Prevention through Environmental Design Guidelines for a Proposed Development". Those guidelines include:

- The Social Impact Assessment should consider...the need for healthy infrastructure, e.g. walkways, bicycle pathways.
- Social impact mitigation strategies should be integrated in Development Proposals in the early stages and include:
 - d3. Placement of employment should include amenities that encourage people to walk or cycle to work (such as showers and bicycle parking).
 - e4. Bicycle use is encouraged by providing ample, safe, attractive and convenient access to key destinations.
 - f3. People, including children should have the opportunity to walk and cycle safely from major residential areas to a local park, playground or natural area.

The Cessnock Cycling Strategy considers these guidelines/strategies as being significant to promoting cycling in the Cessnock region.

Huntlee Development Control Plan 2013

The Huntlee Development Control Plan (DCP) was adopted by the Department of Planning and Infrastructure in mid 2013. The Plan guides development in the Huntlee and contains a number of provisions for cycling. The vision for Huntlee includes "... an active and memorable urban core, surrounded by well connected neighbourhoods, each with an identifiable centre that is within easy and safe walking and cycling distance from the houses in that neighbourhood." The Layout Plan proposes four villages connected to the town centre and each other by a network of pedestrian and cycleways, open space, local roads and bus routes.

The following controls relate to cycling in Huntlee:

The following controls are provided in section 4.2 specifically for the pedestrian and cycle network:

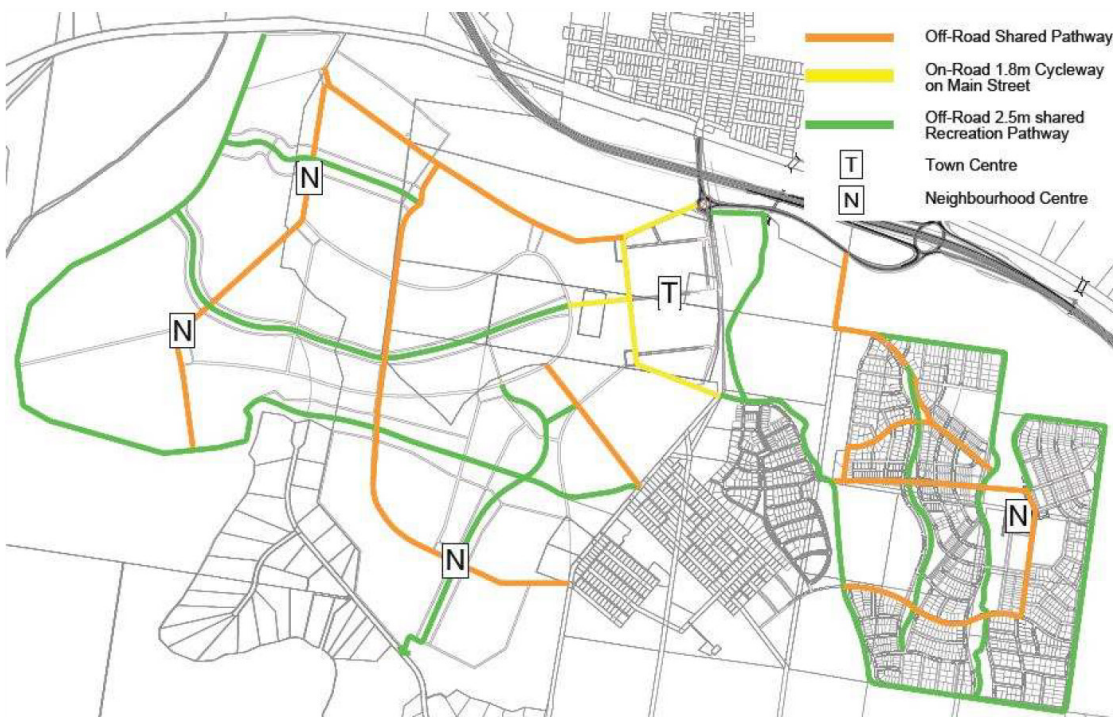
- (1) Footpaths and cycle paths are to be provided in accordance with street sections provided in Section 4.1. Verge areas may be more generous in order to accommodate local features such as existing trees or provide visual interest.
- (2) Pedestrian paths, cycle routes and facilities in public spaces are to be safe, well lit, clearly defined, functional and accessible to all.
- (3) Pedestrian paths, cycle paths and pedestrian refuge islands are to be designed to be fully accessible by all in terms of access points and gradients, generally in accordance with Australian Standard 1428:1-4.
- (4) Pedestrian and cycle pathways are to be constructed as part of the infrastructure works for each residential stage with detailed designs to be submitted with the construction certificate application. Concept approval will be required at DA stage.
- (5) Pedestrian and cycle routes shall be in accordance with Figure 30 (see below).
- (6) Minimum footpath width is to be 1.5 m and a shared cycle/ pedestrian path is to be 2.5 m.

Several other controls are mentioned in the Plan to promote cycling in Huntlee. Those of note include:

- 2.6.4 Open Space (2) - Provide appropriate car and bicycle parking for active recreation and playing fields.
- 4.4.1 Public parks and landscape (2) - Public parks are to....be highly accessible and linked by pedestrian and/or cycle routes.
- 4.4.1 Public parks and landscape (4) - Riparian corridors and conservation areas are to provide opportunities for pedestrian paths and cycleways...
- 7.9 Safety and surveillance (3) - Appropriate lighting should be provided to all cycle and pedestrian paths, bus stops, car parks and buildings.

Controls also provide for bicycle parking in multi-dwelling housing, residential flat buildings and shop top housing, education establishments, places of public worship and commercial and retail premises and employment areas.

The Huntlee DCP contains some significant controls to promote cycling in the area. It is likely that once developed, Huntlee will have a high rate of people cycling for transport and recreation. This Strategy will consider links to and from Huntlee as an important part of the document.



Bicycle planning documents

National context

National Cycling Strategy 2011-2016

The National Cycling Strategy sets out a number of actions to achieve its vision of doubling cycling participation in Australia over the five years of the Strategy. The actions are identified under six priorities/objectives and those actions that local governments are responsible for are presented below.

Priority one - Cycling promotion

- Objective - Promote cycling as both a viable and safe mode of transport and an enjoyable recreational activity:
 - Action (i) - Marketing and education programs that promote the benefits of cycling and encourage people to cycle for short personal trips will continue to be developed and implemented. These programs should target: a) underrepresented groups, such as school children, seniors and female commuters; and b) both cyclists and other road users, including motorists and pedestrians.
 - Action (ii) - Marketing and education programs that encourage people to take up cycling as a recreational activity will continue to be developed and implemented. These programs should target both local residents and visitors to the area.
 - Action (iii) - Key stakeholders will continue to work with employers to develop cyclist-friendly workplace facilities and projects.

Priority two - Infrastructure and facilities

- Objective - Create a comprehensive and continuous network of safe and attractive routes to cycle and end-of-trip facilities:
 - Action (i) - All jurisdictions will continue to invest in developing local on-road and off-road cycling networks to key destinations in both urban and rural areas that are consistent with national standards, and should commit to the identification of required funds in the relevant budget processes.
 - Action (ii) - States, territories and local government will continue to develop end-of-trip facilities that make it possible for people to cycle, including considering the introduction of regulations, such as planning policies and building standards, to mandate the provision of facilities.

Priority three - Integrated planning

- Objective - Consider and address cycling needs in all relevant transport and land use planning activities:
 - Action (ii) - Local governments will take into account the state and territory plans together with community aspirations, priorities and available resources when developing local area cycling action plans. Where necessary states and territories will provide local government support to develop their action plans.
 - Action (iii) - All states, territories and local governments will ensure that all their land use planning and infrastructure strategy documents take into account active transport needs.

Priority four - Safety

- Objective - Enable people to cycle safely:
 - Action (iii) - All jurisdictions will continue to develop and implement programs that target road safety and people's perception of the safety of cycling.

Priority five - Monitoring and evaluation

No relevant objectives or actions.

Priority six - Guidance and best practice - no relevant actions

No relevant objectives or actions.

Each of the actions outlined above has been considered and incorporated into the Cessnock Cycling Strategy.

National Cycling Participation Survey 2015 - National results

The National Cycling Participation Survey is taken every 2 years to assist the Australian Bicycle Council with the implementation of its Cycling Strategy. Cycling rates in regional NSW have been fairly consistent over the last four years. The results to the survey are further dissected in section 2 below.

Cycling Aspects of Austroads Guides 2014

The Cycling Aspects of Austroads Guides is a one-stop document, which covers all the relevant cycling design guidelines for Australian roads. The document has guided many of the design recommendations featured later in the Strategy. The document is intended as a guide only and is suitable for the development of this Strategy. However, reference should be made to the relevant Austroads Guides when developing or designing cycling infrastructure.

State/regional context

NSW Bike Plan 2010

The NSW Bike Plan is a visionary document that aims to make NSW “one of the world’s best places to ride a bike.” Importantly for Cessnock, the 10-year vision for cycling includes:

- In regional NSW and cities like Newcastle and Wollongong, cycleway investment will support access to important community facilities. Other initiatives, such as the NSW Coastline Cycleway, will deliver active transport options across the State, especially in lower-density areas not serviced by public transport.

The NSW Bike Plan also explores a number of initiatives that could well be of assistance in developing the Cessnock Cycling Strategy:

- The North Coast Area Health Service (NCAHS) employ around 8,000 staff members, of which a quarter would cycle to work one day a week with some support. The NCAHS ‘One Car Less’ program aims to enable staff to cycle to work by providing incentives such as cycleway maps, anti-theft tagging of bikes and end-of-trip facilities. AustCycle training was also provided to staff to improve their skills and awareness for cycling in the area.
- The 50/50 funded local cycleways program presents an opportunity for Cessnock Council. In 2009/10 the program funded 92 cycle projects in 77 different councils across NSW. It is worth investigating the occurrence of such a program to assist funding of cycleways in Cessnock.

The plan states that Newcastle and Lake Macquarie are traditionally among the highest bike-using areas in the State. As such the plan included funding to fast-track completion of the Fernleigh Track from Adamstown to Belmont. The rail-trail from Glendale to Wallsend is also a jointly funded project. These projects are good examples that could be replicated to grow cycling in Cessnock.

Cycling Safety Action Plan 2014-2016

The Cycling Safety Action Plan acknowledges that safety is a major barrier to cycling in NSW. It attempts to address this issue by developing a number of actions to improve cycling safety through improved infrastructure, improved use of safety equipment, safe and compliant behaviours and safer bicycles. The Plan adopts the Safe Systems approach to road safety, which recognises that human error will occur and in the event of a crash, the outcomes should not be life threatening. Although the actions are intended to be implemented by the State Government, some are relevant to and should be considered by Cessnock and they include:

Safer people

- Riding safely:
 - 1. Work with bicycle user organisations to develop information for bicycle riders to increase their safety on the road, including road positioning, increased visibility (including reflective clothing) and helmet wearing.
 - 2. Work with bicycle user organisations and training providers to promote road safety within cycling skills and confidence training courses with a particular focus on helmet wearing and compliant and safe cycling for young people.
 - 4. Provide information on cycling routes, safety messaging, skills and confidence training courses to the community through a dedicated website.

Safer roads and speeds

- Increase the visibility of bicycle riders on the road network at mid block and intersection locations:
 - 16. Investigate the moving of bicycle logos from parking zones to reduce potential conflicts.
 - 17. Create cycling friendly neighbourhoods through the identification of corridors with dedicated treatments such as lower speed roads and other low cost traffic calming measures.
- Shared path design:
 - 24. Improve bicycle rider awareness of the need to slow down and give way to pedestrians on shared paths.
- Increase safety for bicycle riders on high speed roads:
 - 25. Improve signage across popular cycling routes and high speed roads to alert drivers of the likely presence of bicycle riders.

How to Prepare a Bike Plan - NSW

The guide sets out a recommended structure and tasks to complete in preparing a local bike plan. Each of the steps recommended in the document have been undertaken in the development of the Cessnock Cycling Strategy. The guide also suggests a number of promotional initiatives including the creation of cycling maps, which have been considered in this Strategy.

NSW Bicycle Guidelines - Roads and Maritime Services

The NSW Bicycle Guidelines document was issued by the Roads and Maritime Services (formerly Roads and Traffic Authority) in 2005. It contains a number of best practice guidelines to inform the development of cycling facilities. From 2011, the RMS adopted the Austroads Guides and Australian Standards as its primary technical references. The Bicycle Guidelines document is a complementary guideline and therefore, its use in this Strategy is generally limited to plans and cross sections, which provide a visual of the best practice standards being recommended. Austroads standards for design have been used where possible.

Cycle Tourism in the Hunter Region 2005

Cycle Tourism in the Hunter Region was administered by the Hunter Cycling Network in partnership with the NSW Department of State and Regional Development and NSW Roads and Traffic Authority. The document aims to develop a regional cycling network for the Hunter Region that would be attractive to tourists. Whilst the information contained within the document was sourced directly from various Local Government and NSW State Government sources, it is not an adopted government document and the information within has been considered with an elevated level of caution. In light of this, the following recommendations were made in the document:

- Shared paths are generally preferred in the region due to their cost to benefits comparison in regional areas
- The Richmond Vale Rail Trail is identified as the number one priority project to be invested in for the Hunter region
- Vineyard Cycle shared paths are the number three priority project to be invested in for the region
- The Hunter Valley Wine Country (which, is located in Cessnock LGA) is the ideal location for cycle tourism in the Hunter region
- Once Vineyard Cycle shared paths are developed in the Hunter Valley Wine Country, actions should be made to link the shared paths to public transport, in particular rail at Branxton, or a potential passenger station at Cessnock.

The Cycle Tourism report provides an insight into the key projects that can drive cycle tourism in the Hunter region. Two of the top three priority projects are located in the Cessnock LGA and these will be discussed and investigated further within this Strategy. Opportunities exist for Council to support these projects, which can be jointly funded by local, state and federal governments (as well as private partnerships).

Richmond Vale Rail Trail Feasibility Analysis

The Feasibility Analysis considered the most important issues relevant to the development of the Richmond Vale Rail Trail (RVRT). Those issues included the trailhead locations, private land, a suitable route out of Kurri Kurri and the need for repairing or rebuilding bridges and tunnels. Despite these issues the Analysis recommends that the proposed trail proceeds due to the significant opportunities that exist upon completion of the project. The opportunities that are discussed include:

- The trail provides connections between centres, and to the existing Newcastle bicycle network where significant investments have been made, and to the proposed Newcastle Cycle Safe Network.
- Newcastle and Kurri Kurri are high profile anchors that draw people for a range of tourism purposes. A number of these visitors will utilise a trail linking the two centres.
- Development of the trail provides a good community-based opportunity to clean up bushland particularly at the western end of the corridor.
- Passive, non-organised recreation in natural or near-natural settings (demand for which is increasing).
- A number of schools are in close proximity to the trail, increasing the potential for use by local schoolchildren.

Although the Rail Trail is still in the early stages of planning, its implementation has been considered in this Strategy.

Local context

Cessnock City Council Bicycle Plan 1995

The Cessnock City Council Bike Plan was developed in 1995 in response to the growing use of cycling for recreation and transport. The Plan proposed a number of actions designed to encourage and support cycling in the Cessnock area. Some of the key actions listed in each of the six sections are presented below.

Education

- Approach the Department of School Education to obtain improved educational facilities in the region. These include both a Community and Road Safety Education Scheme (C.A.R.E.S.) and Bicycle Education Resource Trailers (B.E.R.T.)
- Support the Police Service to obtain resources necessary to allow a presence at schools for road safety education.
- Council to take part in the "Bike Week" activities.
- Encourage schools to take part in "Bike Week" activities.

Encouragement

- Ensure that in new subdivisions cycleways are provided in accordance with the Bikeplan concepts.
- Encourage schools, business houses and other establishments to provide facilities for cyclists including safe parking and change rooms.
- Feature safety articles periodically in the local press.
- Encourage the RTA and Police Service to be more active in promoting the schools education programs. In particular to endeavour to obtain Community and Road Safety Education Schemes and Bicycle Education Resources Trailer for the region.

Enforcement

- Make representations to the Police Service with the view to:
 - Creating an improved presence at schools in the region in the area of road safety and bicycle instruction.
 - Place more emphasis on the surveillance of cyclists, particularly during the periods before and after school hours and vacation periods.
 - Means of involving parents in the behaviour of child cyclists through a warning and involvement system.

Engineering standards

- All road construction to be designed as "Bicycle Safe" as a policy.
- In all developments, the developer is to be responsible for all signage and markings
- The provision of bicycle parking facilities in public areas be investigated and implement a program for their provision.
- The need for bicycle parking facilities in developments be written into Building Code requirements. These facilities to cater for both staff and the public attending the facility.

Engineering works

- A forward works program, fitting into Council's forward planning format be established, utilising the priority schedule contained in this study for the purpose of cost estimation.
- The current and future cycleways network be incorporated into a Pavement Management System, to ensure timely major maintenance.
- A proposal be prepared for the regular sweeping, mowing of verges and trimming of vegetation. This to include schedules of service and reviews of finance and resources.

Route awareness/mapping

- Maps to be prepared to inform cyclists of the location of cycleways.
 - The possibility of making tourist information available in the form of maps be investigated.
 - As part of the Engineering Works Program, a system of route signage to be investigated.
 - When a computer based mapping system is functional, the information contained in this report should be incorporated.

The key actions developed in the Plan have been considered in this Strategy. In particular, the proposed works developed in the Bike Plan have been assessed and new recommendations will be developed in this Strategy to reflect the changing landscape of the Cessnock LGA.

Road Safety Strategic Plan 2014-2018

The Cessnock Road Safety Strategic Plan adopts the Safe System approach, consistent with the State's Cycling Safety Action Plan. The Plan makes special mention of the currently ongoing Vineyards Roads Project, which includes 2 metres of on-road cycleway at Broke Road East and the Broke Road/McDonalds Road intersection. An important message from the Plan regarding cycling is that:

- "Any campaign which has a focus on safe cycling should be comprehensive and aimed at all road users, not just the cycling community. Messages in a cycling safety campaign should include that cyclists are legitimate users of the road and deserve the respect of other road users."

There are also a number of actions to improve road safety for bicyclists, including:

- 1.6.1 Develop and deliver road safety programs to improve road safety outcomes for bicyclists.
- 1.6.2 Participate in Bike Week activities/events to further promote road safety solutions for bicyclists.
- 1.6.3 Distribute Transport for NSW bicycle safety campaign materials to promote the increased use of helmets and compliance with road rules by bicyclists.
- 1.6.4 Work with Council traffic engineers to provide new or improve existing on-road and off-road bicycle facilities, including shared paths, to ensure the consistent application of treatments and that such facilities are in accord with the NSW Planning Guidelines for Walking and Cycling, Austroads Guide to Road Design and the NSW Integrating Land Use & Transport Planning Policy Package as well as Council's Bicycle Plan.
- 1.6.5 Work with local school communities to ensure that bicycle safety around schools is well monitored and provided for.
- 1.6.6 Develop and deliver local projects promoting the safe use of shared paths to ensure harmonious interactions between bicyclists and pedestrians.

These actions are important for increasing the perceived and actual safety of cycling in Cessnock and will be included in the recommendations of this Strategy.

Draft Engineering Guidelines

Cessnock City Council's draft Engineering Guidelines provide some guidance on the design of cycling facilities and infrastructure. As the guidelines are still in draft, the use of the document should be limited at this stage, although the following guidelines should be taken into account:

- The design of bicycle parking facilities should consider a number of things including the need for lighting, weather protection and signage for locating and using the facilities
- Cycleways and bicycle facilities are generally to be designed in accordance with Austroads guides
- Design drawings of cycleways should consider and detail numerous things including the width (2.0m minimum) and cross fall of 3%
- Bicycle racks should be provided in all commercial centres and other cycling destinations, for example, town centres, suburban shops, sports facilities, libraries and public buildings.

Adjoining councils

Lake Macquarie City Council Cycling Strategy 2021

The Lake Macquarie Cycling Strategy was finalised in 2012 to support greater levels of participation in cycling over a 10-year period. The Strategy contains the following proposals of relevance to the Cessnock Cycling Strategy:

- Off road cycle paths are proposed to link the Richmond Vale Rail Trail (indicative future link) in Seahampton to Cameron Park, Barnsley and Edgeworth.

The proposals mentioned above could provide quality cycling links from Cessnock to Lake Macquarie if they and the Richmond Vale Rail Trail are implemented.

Newcastle Cycling Strategy and Action Plan 2012

The Newcastle Cycling Strategy aims to make cycling a safe and attractive travel option. The Strategy contains the following proposals of relevance to the Cessnock Cycling Strategy:

- An off road path from Minmi to Hexham is proposed along the Richmond Vale Rail Trail. It is acknowledged that because of the long off road sections to be built and potential environmental, land ownership and engineering issues this is likely to be a long term project. This path would also connect to Beresfield, Fletcher and other cycle paths in the Newcastle LGA.

The proposal mentioned above could provide quality cycling links from Cessnock to Newcastle if they are implemented.

Maitland Bicycle Plan and Strategy 2014

The Maitland Bicycle Plan and Strategy was finalised in 2014, with the intention to create an inclusive, connected and integrated cycleway network that encourages people to cycle for transport and recreation. The following proposals are of relevance to the Cessnock Cycling Strategy:

- An off-road shared path is proposed on Cessnock Road from Maitland town to the Cessnock/Maitland LGA border.

The abovementioned proposal will be considered by this Strategy. However it is noted that the proposal has a low priority within the Maitland Bicycle Plan (61 out of 71).

Singleton Bike Plan Revision 2015

The Singleton Bike Plan was revised in 2015. The Revision contains a number of proposals or opportunities in or near the Cessnock LGA area:

- A three stage cycle network in the Hermitage Road development area including:
 - Stage 1 - an initial link from Old North Road to Mistletoe Lane.
 - Stage 2 - completion of loop extending along the existing disused stock route to Old North Road and connecting to Stage 1 to complete the loop.
 - Stage 3 - possible extensions outside the Hermitage Road precinct into Belford/Branxton and Cessnock LGA.

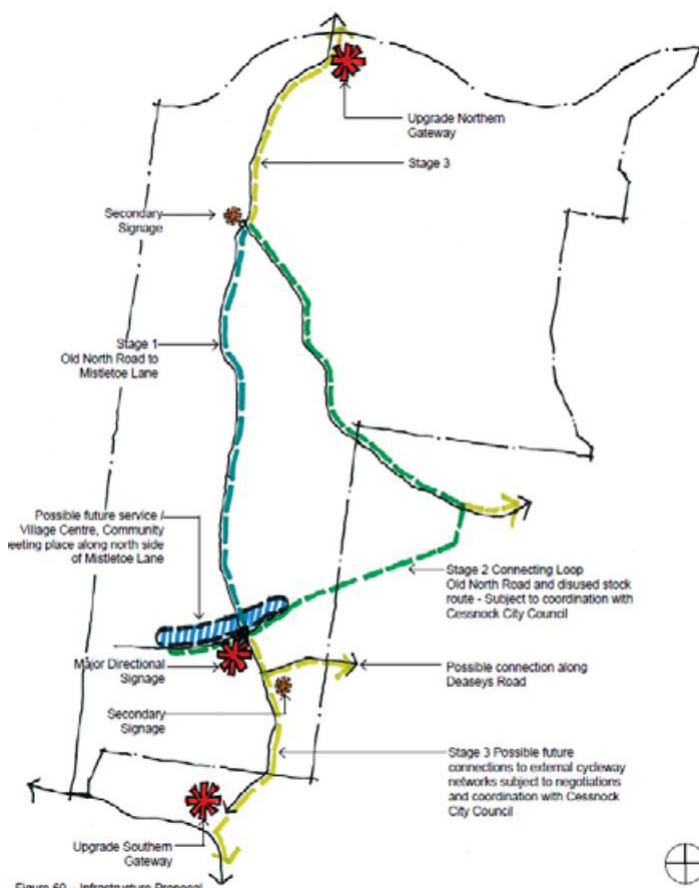


Figure 60 - Infrastructure Proposal

- An off-road cycle shared path on Elderslie Road in Branxton from the New England Highway to a new development in Singleton LGA.
- An on-road cycleway on Dalwood Road, Branxton from Wyndham Street to Preston Close.
- An off road cycle shared path on McMullins Road, Branxton from George Street to the town limits.
- An on-road cycleway on Wyndham Street, Branxton from the New England Highway to George Street.
- An on-road cycleway on George Street, Branxton from Wyndham Street to McMullins Road.



Appendix three

School engagement summary

School engagement

As part of the community consultation local schools were contacted to request their feedback on their cycling environment, the level of students who regularly commute to school, and opportunities for improving the safety of the environment surrounding each school. A summary of each school who provided a response is provided below.

Branxton Public School

Number of students enrolled in the school	360
Number of students who ride to school regularly	12 students
Safety of cycling environment surrounding school	Quite unsafe
Reasons why students may not cycle to school	<input type="checkbox"/> Some students are too young <input type="checkbox"/> Poor roads around the school <input type="checkbox"/> Distance to ride for some <input type="checkbox"/> Changing outlook of parents letting their children go anywhere unsupervised
Cycling infrastructure provided for	Bike racks are provided for students
Cycling education programs	A general safety unit is presented each year, with bike safety being a small part of that unit. But nothing as specific as a Bike Ed unit
Cycling improvements the school would like to see	Obviously cycle lanes on every street, but that would be too hard, but curb and guttering on all the streets around the school and maybe a specific bike Ed course presented at the school each year

Rosary Park Primary School Branxton

Number of students enrolled in the school	204
Number of students who ride to school regularly	25 students. Increases on Thursday as they are allowed to ride on a cycle track the school has built
Safety of cycling environment surrounding school	Unsafe – Footpaths are only found along the school – built by the CSO and not Council when the school was built. The walkway from Fleet Street to the foot paths are very rough and unsafe. The other side of the road walkway is overrun with bush from the paddocks along the path
Reasons why students may not cycle to school	Distance/safety
Cycling infrastructure provided for	Bike racks are provided for students
Cycling education programs	Classroom education
Cycling improvements the school would like to see	Walkways leading to the school on both sides made safe

Weston Public School

Number of students enrolled in the school	187
Number of students who ride to school regularly	Approximately 10 students.
Safety of cycling environment surrounding school	Somewhat safe
Reasons why students may not cycle to school	<input type="checkbox"/> Bike not in road-worthy condition <input type="checkbox"/> No helmet <input type="checkbox"/> Parents refuse due to safety concerns
Cycling infrastructure provided for	Bike racks are provided for students
Cycling education programs	<input type="checkbox"/> Cycling safety in PBL sessions <input type="checkbox"/> Individual class lessons <input type="checkbox"/> Cycling is to be the After School Sport Activity in Term 4
Cycling improvements the school would like to see	<input type="checkbox"/> Specific cycling areas marked on side of roads <input type="checkbox"/> Safety strategies involving Fourth Street Bridge in Weston

Mount View High School

Number of students enrolled in the school	980
Number of students who ride to school regularly	15 - 20 students
Safety of cycling environment surrounding school	Somewhat safe
Reasons why students may not cycle to school	Students seem to prefer to walk rather than ride bikes, although a large number ride skateboards to school. Also, until recently we had little security for bikes at school and there had been some vandalism or tampering of bikes while they were on the school premises
Cycling infrastructure provided for	Since the beginning of this term we now have a bike shed which is locked at the start of the school day and unlocked before students leave at the end of the day to increase security of their bikes. The bikes are stored in bike racks within the shed. Earlier this year the Beacon Foundation offered up to 75 mountain bikes, free of charge, to students at the school. Despite extensive promotion only 35 students elected to participate in the 1 day workshop in Sydney about bike maintenance and bike safety and collected their bike. The bikes were transported free of charge back to MVHS and the students incurred no costs to get their free bike. We were quite disappointed with the response - this initiative was aimed at getting young people more physically active
Cycling education programs	It forms a small part of the PDHPE syllabus
Cycling improvements the school would like to see	This hasn't been discussed at school

Millfield Public School

Number of students enrolled in the school	60
Number of students who ride to school regularly	15 students
Safety of cycling environment surrounding school	Somewhat safe - the main road has a footpath, other streets have no footpaths or kerb and guttering meaning road edges are unsafe.
Reasons why students may not cycle to school	Roads in bad condition- pot holes and lack of space on roads/lack of footpaths cause parents angst
Cycling infrastructure provided for	Bike racks are provided for students
Cycling education programs	<input type="checkbox"/> Bike safety day once per year <input type="checkbox"/> Ride to school safely day supported <input type="checkbox"/> Bike skills for after school sports
Cycling improvements the school would like to see	Not sure

Cessnock West Public School

Number of students enrolled in the school	377
Number of students who ride to school regularly	6 - 7 students only
Safety of cycling environment surrounding school	Very unsafe
Reasons why students may not cycle to school	<input type="checkbox"/> Parents drop off <input type="checkbox"/> Weather reasons <input type="checkbox"/> Unsafe areas to cycle <input type="checkbox"/> Our school is located at the main road <input type="checkbox"/> They live quite some distance from the school
Cycling infrastructure provided for	Bike racks are provided for students
Cycling education programs	Cycling education is in the yearly programming of all teachers
Cycling improvements the school would like to see	Better cycling areas around the community. Children in our community have nowhere local and safe to ride their bikes, without travelling to other towns. Better footpath areas around the back streets, would also provide children with the opportunity to ride to school without riding on roads

Ellalong Public School

Number of students enrolled in the school	118
Number of students who ride to school regularly	Approximately 10 - 12 students
Safety of cycling environment surrounding school	Somewhat unsafe
Reasons why students may not cycle to school	<input type="checkbox"/> State of the local roads- due to no kerb and guttering makes riding on edge of roads unsafe <input type="checkbox"/> Uncertain traffic conditions , some cars tend to drive fast and in an unsafe manner, especially around the school crossings
Cycling infrastructure provided for	Bike racks are provided for students
Cycling education programs	Basic road safety and bicycle safety is covered in our peer support program
Cycling improvements the school would like to see	<input type="checkbox"/> Improvements to roads <input type="checkbox"/> Provision of a practical and hands on bike and road safety program where children can participate with their bikes in the safety of the school grounds and then use these skills when they are on the roads

Greta Public School

Number of students enrolled in the school	200
Number of students who ride to school regularly	Approximately 15 students
Safety of cycling environment surrounding school	Somewhat unsafe
Reasons why students may not cycle to school	<input type="checkbox"/> Distance from school to home/bus <input type="checkbox"/> Parents drive them or they come to school from Tilly's Day Care <input type="checkbox"/> Some students walk
Cycling infrastructure provided for	We have bike racks where the bikes and helmets are stored. in the event of rain a senior student moves them under cover
Cycling education programs	<input type="checkbox"/> Ride/walk safely to school days are held annually and there is ongoing incidental education <input type="checkbox"/> NRMA road safety days <input type="checkbox"/> Police talks semi regularly <input type="checkbox"/> The teacher that is in charge of exiting the cyclist in the afternoon checks helmet safety etc
Cycling improvements the school would like to see	<input type="checkbox"/> Safer road edging (the pathway outside of school ends directly onto a road) <input type="checkbox"/> Cycle/walk ways <input type="checkbox"/> Stronger police presence to enforce cycling road rules <input type="checkbox"/> Stronger liaison between school and cycling safety authority

Kitchener Public School

Number of students enrolled in the school	84
Number of students who ride to school regularly	Approximately 1 - 2 students
Safety of cycling environment surrounding school	Somewhat safe
Reasons why students may not cycle to school	Distance they live from the school - majority live either extremely close to the school and walk or live a great distance (Quorrobolong and Abernethy) and are unable to ride
Cycling infrastructure provided for	Two sets of bike racks are provided for students
Cycling education programs	Road safety is taught as a part of the PD unit every 2 years, with an emphasis on the Infants classes. Bike riding and maintenance has been run as a part of the sporting programming previously but is no longer running
Cycling improvements the school would like to see	Access to affordable bike safety/riding programs to promote bike riding would be good



Appendix four

Stakeholder engagement summary

Stakeholder engagement

As part of the engagement process a number of key stakeholders were contacted for their input into the Cycling Strategy. Face-to-face and over-the-phone interviews were conducted with the following groups and a summary of the discussions is provided below.

Grapemobile Bicycle Hire

Role within the cycling community	Hire out bicycles to tourists in the wine region. They promote cycling on trails in public reserves and private properties. Routes are mapped for users but are only available in hard copy
Comments regarding cycling in the region	Roads in the Hunter Valley region are generally too dangerous for riding. Broke Road in particular is dangerous, with a fatality there about four years ago
Suggestions/improvements	Bike paths to connect towns to wine region (particularly Cessnock). Two-way cycling lanes on one side of the road (popular in European cities)

Hunter Valley Cycling

Role within the cycling community	Hire out bicycles to tourists in the wine region. They have a number of mapped cycling routes which they recommend to tourists. The majority of those routes are on-road. Mark also champions the “DeBeyers Drift” which is a 1.8km bike sailing course on DeBeyers Road
Comments regarding cycling in the region	The road works currently being completed in the wine region will be good for cyclists. The speed limit on Oakey Creek Road is too high and makes conditions dangerous for cyclists
Suggestions/improvements	Upgrade Oakey Creek Road or the Council preferred route of Marrowbone Rd. Create a better link to Cessnock by making Wine Country Drive safe for cyclists

Bike Trax Cessnock

Role within the cycling community	Hire out bicycles in the town of Cessnock
Comments regarding cycling in the region	Cyclists that he speaks to generally say that their main issue is not having off road recreational bike paths to use. On road conditions are also dangerous in many places
Suggestions/improvements	More recreational bike paths and wider shoulders on key routes

Kooragang Cycle Club (Newcastle)

Role within the cycling community	Cycling club from the Newcastle LGA
Comments regarding cycling in the region	The Kooragang Cycling Club have cyclists who ride in the Cessnock region to use the Hunter Economic Zone (HEZ) for racing purposes. Approximately 50% of riders will cycle from the Newcastle area to HEZ for this purpose via the Hunter Expressway. Some will choose to take the John Renshaw Drive turnoff while others will take the Kurri Kurri exit.
Suggestions/improvements	-

3C Racing

Role within the cycling community	3C Racing are a cycling enthusiast group who participate in daily organised rides in and around the Cessnock area. They participate in social and competitive cycling
Comments regarding cycling in the region	On-road conditions are not good. Wine Country Drive is not safe for riding – a rider was hit by a car near Potters Tavern recently. A 1.5m shoulder width is needed for safe riding
What is good about cycling in the area?	The Hunter Expressway provides good cycling conditions (currently accessed via Hermitage Rd). There are a number of good destinations to cycle to, particularly for mountain bikes (Ashley's Tower, Mount Bright Lookout, Quorrobolong National Park, Wollombi)
Suggestions/improvements	Wider road shoulders on main roads, particularly Wine Country Drive. Greater education for motorists to improve poor image of cyclists. The 1m passing rule, which has been promoted in Queensland has helped to create a greater awareness of cyclists

Hunters Cycling Group

Role within the cycling community	Social and competitive cycling group. Racing conducted on HEZ and Kooragang Island. Social rides conducted every fortnight, during the week in off-peak periods. Destinations for the social ride include Wollombi, Paxton, Kitchener and Sandy Creek Road
Comments regarding cycling in the region	On road conditions are poor. Very few roads have decent shoulders
What is good about cycling in the area?	The vineyards provide attractive cycling destinations for tourists
Suggestions/improvements	A crit track (1.2km sealed surface) which could be used for recreational use and also used for racing once a week. Could be a shared path in a park for walkers to use. Wider road shoulders

Abernethy Healthy Lifestyle Association

Role within the cycling community	Aim to improve the health of community members by raising funds for cycling/walking infrastructure and by hosting regular recreational events
Comments regarding cycling in the region	There are a number of interesting routes in the Abernethy area for mountain biking. Some don't need much or any work but rather just promotion, signage and mapping. A number of the roads in the area are not safe for cycling
Suggestions/improvements	A big shed which could be leased out for bike hire purposes. Abernethy trails could be easily linked to the proposed Richmond Vale Rail Trail. Council promotion of the MTB event "Abernethy Bike Adversity Dash", which links both branches of the Great North Walk. Promotion of cycling in the region via a Hunter Cycle Trails Guide.

Kurri Mongrels Mountain Bike Club

Role within the cycling community	Conduct regular social rides and promoting the Richmond Vale Rail Trail (RVRT)
Comments regarding cycling in the region	The RVRT could be a missing link to link Newcastle (the beach), Lake Macquarie (the lake) and Cessnock (the vineyards)
What is good about cycling in the area?	Cessnock has an established biking community. The vineyards provide an attractive destination for cycling
Suggestions/improvements	Existing tracks from Kurri to Cessnock could be upgraded for cycling at a low cost. Regional funding for rail trails could be sought

Hunter District Cycling Club

Role within the cycling community	Racing club who use the Hunter Economic Zone (HEZ) once a fortnight during winter
Comments regarding cycling in the region	Roads can be dangerous for cycling. The community is generally accepting of the Club racing at HEZ but there is still some angst among some sections
What is good about cycling in the area?	The Hunter Expressway is a very convenient and cycling friendly road.
Suggestions/improvements	Sheppard Drive in Richmond Vale would be a good alternative to HEZ for racing if Council and residents would be willing to make it available

Cessnock Healthy Lifestyle Network/Coalfields Healthy Heartbeat

Role within the cycling community	Promoting physical activity (including cycling) and a healthy lifestyle within the Cessnock community
Comments regarding cycling in the region	Driver awareness is poor, there is very little infrastructure available for cyclists (including bicycle parking) and the quality of roads is not ideal for cyclists. Generally it is very unsafe.
What is good about cycling in the area?	The Hunter Valley wine region is an attractive area for cycling.
Suggestions/improvements	A designated cycle path from Cessnock to Pokolbin would encourage recreational cycling. Increase promotion of cycling through programs such as Ride to School, Ride to Work and NSW Bike Week. Increase provision of bicycle parking facilities. Increase awareness of cycling among the community and motorists. CHLN/Coalfields Healthy Heartbeat is keen to assist with any promotional programs or activities that result from the Cycling Strategy.



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