# Fairfield City Council Bike Plan

Report // June 2021

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# Section 1 **Introduction**

Fairfield City Council has developed the Fairfield City Council Bike Plan 2021 with the goal of increasing cycling to enhance greater accessibility and liveability in the Fairfield community. The bike plan has been informed by over 50 submissions from the wider community to guide improvements in cycling infrastructure and cycle networks through an interactive online map, survey and community workshop. Along with more social initiatives, the strategy will create a more integrated transport network to facilitate increased bicycle use within the City of Fairfield and support sustainable, economic and social living.

The proposed bike plan will fall under *Theme 2: Places and Infrastructure* of the Community Strategic Plan with the following goals:

1. An accessible and liveable city
2. Community assets and infrastructure are well managed into the future
3. Inviting and well used open spaces

Fairfield City Council aims primarily to promote off-road recreational paths in the short-term in conjunction with the implementation strategy. Doing so will allow the Council to focus on improving the existing cycling network through upgrades and completing critical missing links such as the Smithfield Road Cycle Way. Furthering this notion, it is important to note that each identified path will be considered based on the level of funds required, whereby, paths that are more expensive to build will be undertaken over a longer period of time, subject to the availability of funding. Moving forward, the long-term plan of Fairfield City Council is to place greater importance on end-user facilities, such as bike racks, complete missing links and construct new user paths. When streetscape designs are undertaken for town centres, provision will be made for end-user facilities.

The Council's current bicycle plan was prepared in 1995 by Arup Transportation Planning and Geoplan Urban & Traffic Planning. While the plan has been very useful in implementing a safe system of off-road and on-road facilities for cycling and developing a programme of community education and encouragement, it now requires revision to reflect the growing cycling and transport infrastructure demands in the Fairfield Local Government Area. Upon revision, the Fairfield City Council Bike Plan 2021 will reflect new bicycle routes and amenities to provide connectivity between areas that are most frequently used and accommodate a number of missing links in the existing network.

# Section 2 **Background**

## **2.1** Aims and objectives

Fairfield City Council's Bicycle Plan 2021 comprehensively analyses cycling issues and outlines provision of relevant bicycle infrastructure and improvements for missing links in the existing bicycle network. New cycle paths that support the connectivity of the transport network are proposed by recognising key challenges and opportunities in the Fairfield LGA. The Bicycle Plan will accommodate for all types of cyclists and trip types, including school students, commuters and recreational cyclists.

The key objectives of the 2021 Bicycle Plan are to:

1) Review and analyse deficiencies and challenges in the existing network of cycleway and shared paths for cycling in the Fairfield LGA.
2) Identify feasibility of future cycle routes using key trip generators and recreational opportunities to improve bicycle access within Fairfield.
3) Identify existing locations of cycling infrastructure and determine where future amenity and bicycle-friendly facilities are required to create safe and convenient cycling environments.
4) Provision of educational programs and awareness to support a significant switch from cars to bicycles as an equal first choice mode of transport and thereby reducing car-induced traffic congestion.

## **2.2** Communication Methodology

### *2.2.1 Community Engagement/The Engagement Process*

A broad consultation process was implemented to engage the views of the community in informing future cycling priorities in the Fairfield LGA. The Fairfield community recognises the important role of cycling in improving community health, environmental sustainability and reduced traffic pollution. The respondents of the community engagement expressed importance of missing links and new cycle paths as the top priorities for future cycle planning in Fairfield.

### *2.2.2 Online Survey Questionnaire*

An online survey was developed to determine future improvements and upgrades to the cycling environment according to the experiences of the cycling community in Fairfield. The survey was conducted between 14 September and 14 October 2018 via Survey Monkey and gathered qualitative and quantitative data, which addressed major trip attractors along cycle routes, recommendations for new cycling routes, cycling barriers (traffic hazards, steep hills, highly trafficked roads and weather), trip purpose, travel mode choices and frequency, age and gender. The findings from the survey were substantial, allowing for greater analysis and understanding of the community's needs.

### *2.2.3 Workshops*

The community engagement process involved an interactive workshop, which was held on Wednesday 26th of September 2018 to actively involve the community and seek feedback to enhance cycling in the Fairfield area. The main points of discussion were the existing cycling involvement and further development to the bicycle network. This involved route mapping exercises of potential uses that reflected the participant's needs and those of the community. In total 12 people attended the workshop, with representation from cycling groups and the local community.

### *2.2.4 Online Spatial Mapping*

In addition to the online survey, an online spatial mapping platform, Social Pinpoint, was utilised to enable the wider community to digitally map locations, routes and 'missing links' across the Fairfield LGA that were perceived as unsafe for cycling. The participant could also locate and map crash spots and favourable cycle areas. The digital engagement platform was effective as it allowed the community to provide comments on the issue spots identified which enabled Council to propose appropriate solutions for those issues.

### *2.2.5 Bike Trip Land Use Attractors*

The City of Fairfield has clear boundaries to the west (Hoxton Park Corridor), the north (Prospect Creek) and Woodville Road to the east. The southern boundary is a composite of Cabramatta Creek, the Georges River and North Liverpool Road. Key trip attractors include schools, railway stations, educational institutions, hospitals, commercial and retail premises and parks.

Major cyclist attractors in the city are the shopping centres particularly Stockland Shopping Centre, Greenfield Park Shopping Village, Cabramatta Town Centre and Fairfield Town Centre. Due to the heavy traffic, there is not much cycling to school as could be expected.

Of major importance to cycle planning is the creek system and the associated open space corridors. While the system is broken in locations, the general continuity through the heart of the city makes it a valuable resource for cyclists. Many paths presently exist in this open space system, and if connected, can offer a valuable pedestrian/cyclist network.

Since the creation of the first Fairfield Bike Plan in 1988, the population grew through an anticipated 20,000 within the last 20 years.

Trip attractors represent common route destinations for cyclists in the Fairfield area. Identifying trip attractors is beneficial as it helps to determine key cycle routes. The online survey results for the question 'Where do you predominantly travel to and from (using any mode of transport)?' revealed the residential area as the primary trip generator. The second most common generator of trips in the Fairfield region is local shops, restaurants or entertainment.

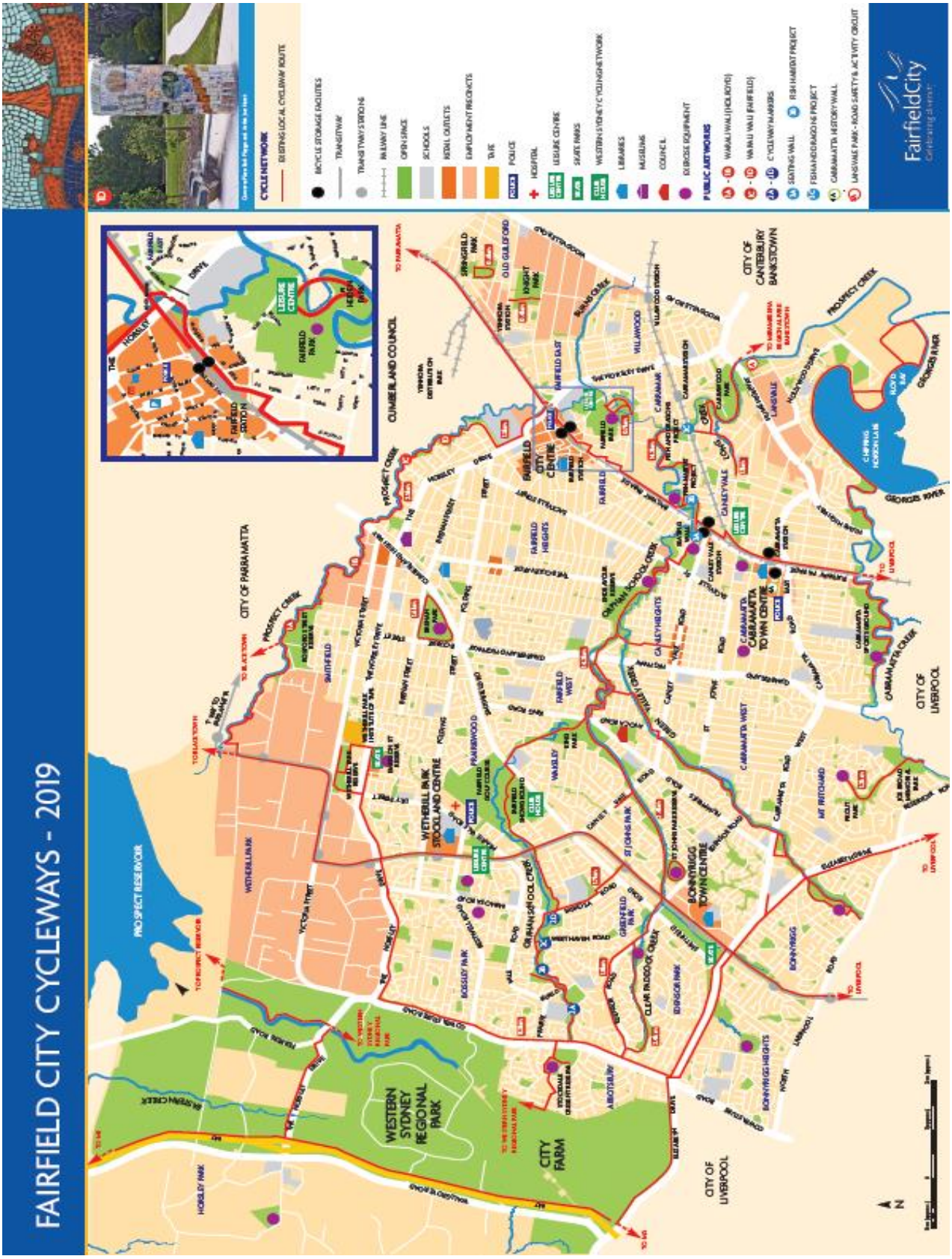


Figure 2.1 – Map of Fairfield City Cycleways

### *2.2.6 Existing bike routes*

The 1995 Fairfield Bicycle Plan proposed a network of bicycle routes consisting of three classes of routes:

- Regional routes;
- Local bike network; and
- Recreational bike routes.

The principal recommendations of the strategy for the regional routes involved implementing on-road bike lanes, median refuges and off-road paths. The existing regional bike network has been designed to link the following four main sub-regions:

i. Fairfield;
ii. Cabramatta;
iii. Wetherill Park; and
iv. Bonnyrigg.

The local bike network was implemented through declaration of shared paths near schools and along sections of busy roads where there are high traffic volumes, large vehicle numbers and/or narrow roads which make on road cycling dangerous. This was supported with the implementation of safe crossings on busy roads near schools, shopping centres, recreational areas and other land uses that attract cyclists to increase the safety of the local bike network. Recreational cycling in the City of Fairfield was established by the construction of off-road cycle paths along the river and creek system in the study area.

The principle recommendations proposed in the 1995 Fairfield Bike Plan were implemented through the assistance of private developers and government agencies, such as the Transport for NSW (TfNSW – Formerly RMS). Since then, new cycling routes have been completed in the Fairfield LGA including significant regional routes that travel north/south through the city and main cycling routes running east/west across the city.

The main off-road cycle paths are:

a) The Georges River recreational cycle path,
b) The Clear Paddock Creek recreational cycle path, and
c) The Green Valley Creek recreational cycle path.

There are three main regional cycling routes east/west across the City:

1) The Prospect Creek recreational shared cycle path connects to the Holroyd City network and Fairfield Town Centre (about 5km) from Fairfield Road to Prospect Reservoir Picnic Ground.
2) The Orphan School Creek recreational shared cycle path connects to Mirambeena Regional Park, Bankstown and to Prospect Reservoir, Blacktown (about 20km).

3) Cabramatta Creek shared path, which has added to the overall distance of a minor shared path that comes off the Orphan School Creek network in King Park, Wakeley, and connects to Cowpasture Road via St Johns Park (about 7km).

There are three (3) regional routes that travel north/south through the City:

1) Rail Trail cycleway connects Parramatta to Liverpool and links to Prospect Creek and the Bay to Mountains shared path network. This path will connect to the Cabramatta Creek shared path when the next stages are completed, and is about 7.5km long.
2) T-Way cycleway connects Parramatta to Liverpool and links to the Bay to Mountains and the St Johns Park shared path networks.
3) The Westlink M7 Shared Path is just under 40kms long and stretches from Prestons to Baulkham Hills. It runs alongside the Westlink M7 and is separated from road traffic. It has its own bridges over roads and creeks, allowing users to enjoy an uninterrupted trip for nearly 40 kilometres. For most of its length, the path is 4m wide to provide plenty of space for both pedestrians and cyclists.

The whole system across the City is about 85-95km in length. The Orphan School Creek cycle path also connects to the Rail Trail. The Cowpasture Road shared path connects Elizabeth Drive to The Horsley Drive, linking to the Orphan School Creek route, St Johns Park route and the T-Way networks. It is approximately 8km in length. There are also circuit paths in some of Council's parks, including Brenan Park (Smithfield) and Springfield Park (Old Guildford). The off–road cycle paths along Orphan School Creek, Clear Paddock Creek and Green Valley Creek have dual use. They are used by many cyclists for leisure activities as well as for regional bike routes, linking the major town centres.

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## 2.3 Cycling Data

### *2.3.1 Introduction*

A community survey was designed to obtain general feedback from the community on their experience and needs for cycling in Fairfield City. The Community Survey was aimed at residents, recreational cyclists, commuters and sports groups, and examined reasons for travel, cycling frequency and barriers to cycling. The survey was completed by 22 respondents. Most respondents chose to report directly on issues and ideas at specific locations on the mapping platform, rather than answer the more general survey. The survey was predominantly undertaken by respondents online, while a small number were completed in hard copy.

### *2.3.2 Demographics*

Demographic questions were asked of all those who commented and completed the survey. Data was collected from a total of 57 respondents and the following age profile information of respondents was attained (*Figure 2.2*).

- 34% of respondents are between 45-54 years of age and constitutes the largest percentage;
- 24% of respondents are between 25-34 years of age; and
- 22% of respondents are over the age of 55.

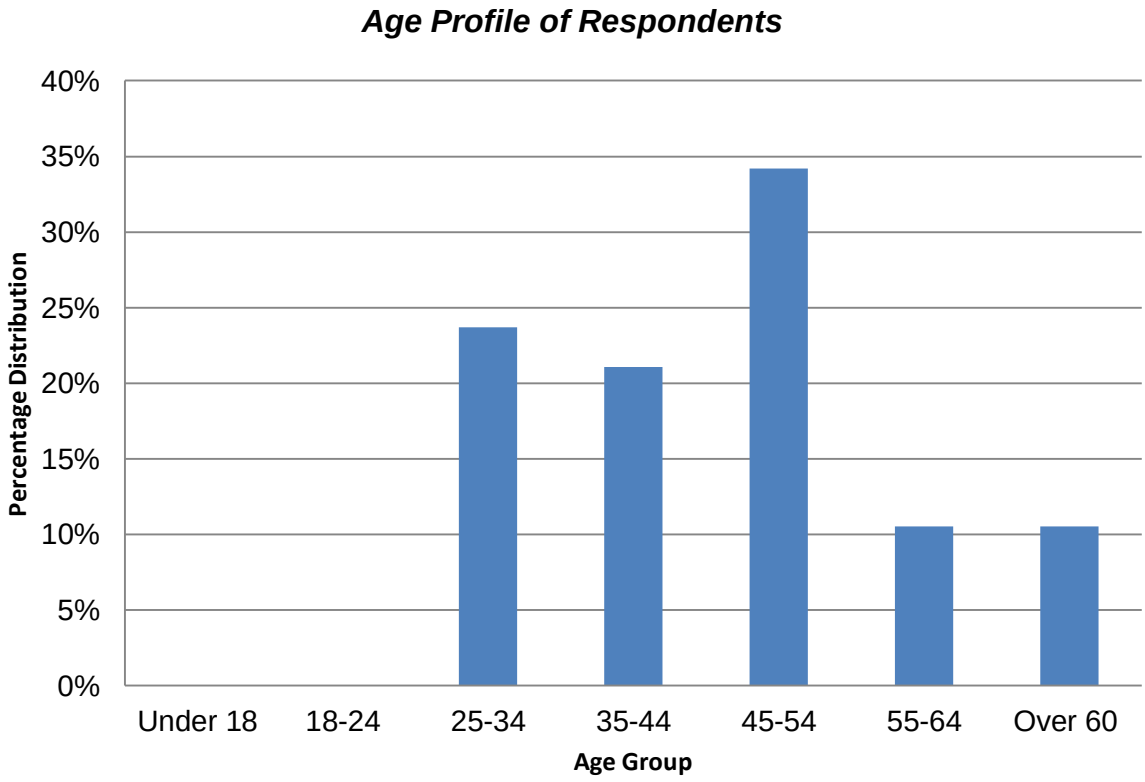


Figure 2.2: Age Profile of Respondents

*Figure 2.3* depicts that the representation of male respondents was substantial (51%) as opposed to female respondents (18%).

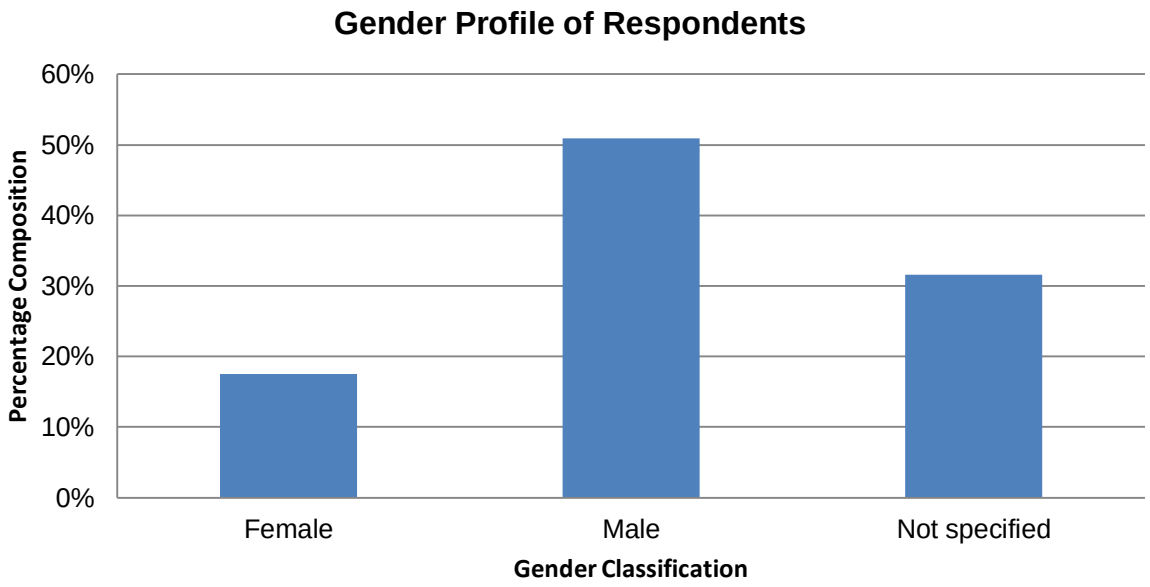


Figure 2.3: Gender Profile of Respondents

### *2.3.3 Main Mode of Travel*

As portrayed in *Figure 2.4* below, a large number of the respondents (59%) reported their main mode of transport was by car (as driver). Cycling as a main mode of transport was poorly represented (9%) amongst respondents. The lack of representation for cycling as a mode of transport provides difficulty in ascertaining the best solutions to the existing cycling network. As such, upgrades made to the cycling network shall reflect user demand and high usability by current cyclists. This will ensure usage of the cycle paths, reflecting the main purpose behind the bike plan for well used open spaces.

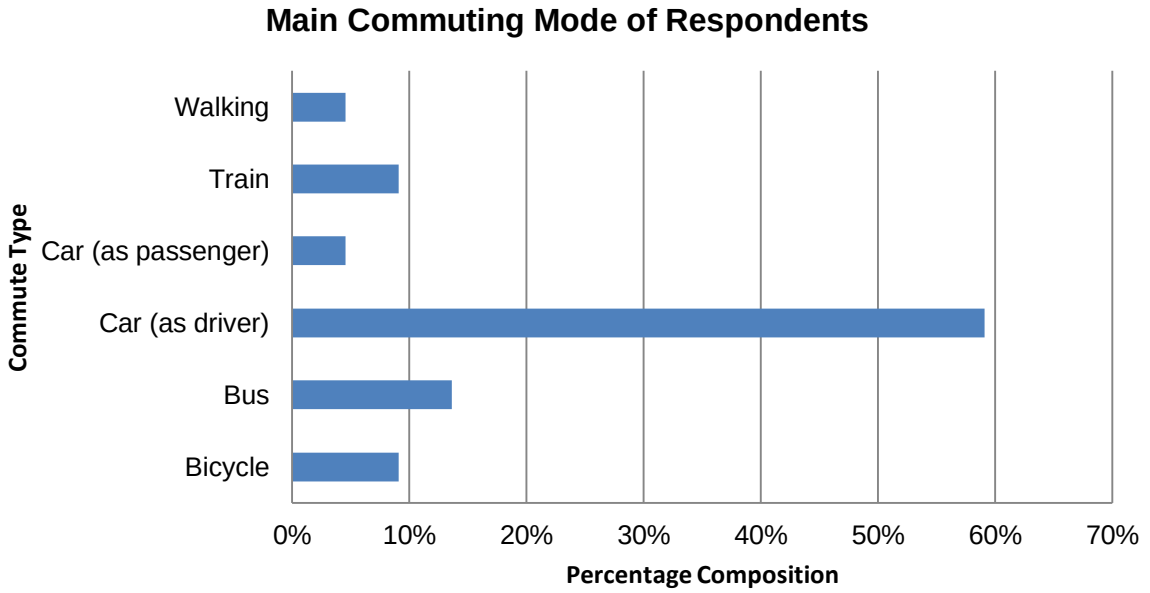


Figure 2.4: Main Commuting Mode of Respondents

### 2.3.4 *Cycling Participation*

As illustrated in *Figure 2.5*, a significant proportion of respondents (68%) indicated that they cycle a few times a week, followed by fewer respondents (14%) who cycle once a week. This data shows that respondents are predominantly committed cyclists and so their judgment shall be taken into account when determining the best possible improvements to be made to the existing cycling network in order to increase usability and develop vital linkages.

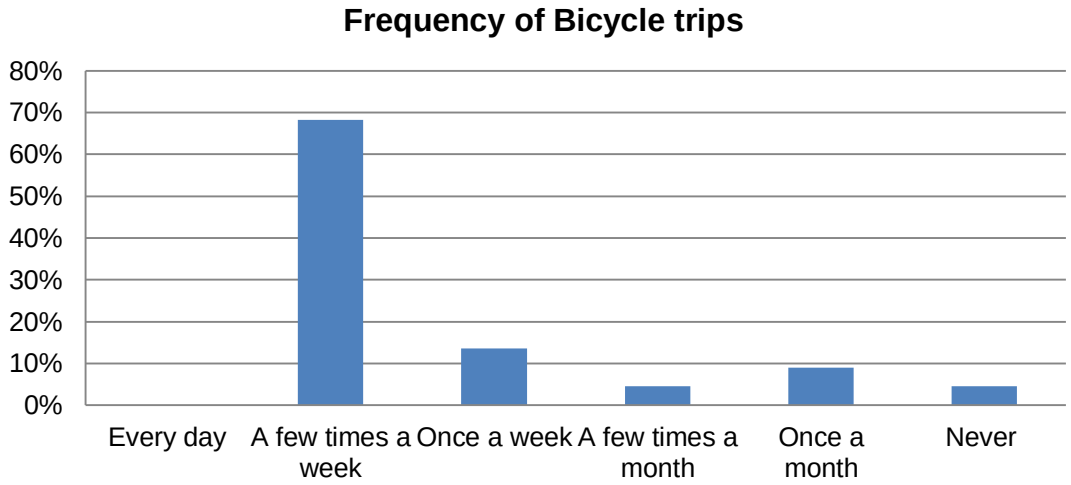


Figure 2.5: Frequency of Bicycle Trips

### 2.3.5 *Duration of Bicycle Trips*

Of the rides longer than 30 minutes in duration, *Figure 2.6* communicates that the greatest proportion were leisurely rides (82%). Of the 10-30 minute trips, a small proportion (4.8%) were for local trips, with predominant reasons for cycling being split between leisurely rides (13.6%) and commuting trips (14.2%). These cycling inclinations may be attributed to the five main regional cycling routes across and through Fairfield City with a dual recreational function.

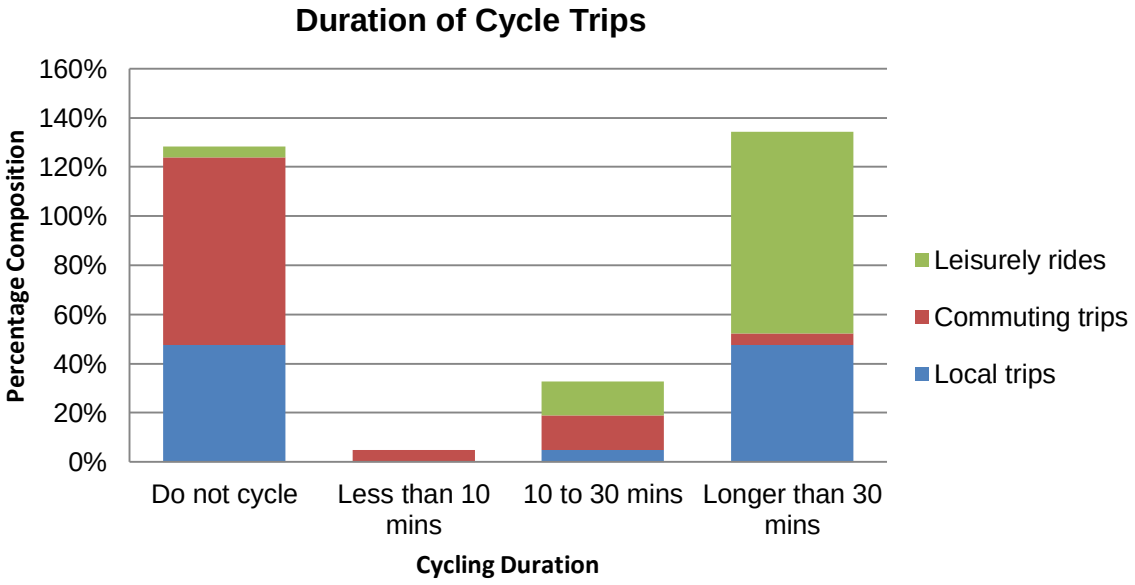


Figure 2.6: Duration of Cycle Trips

### 2.3.6 *Most visited locations*

Based on the data outlined in figure 2.7, information about priority areas can be acquired so that greater focus can be directed towards these areas. This will assist Council to encourage travel by cycling, promoting active travel between various locations both within the LGA as well as other localities. The data below communicates that the destinations most frequently visited by cyclists include home travels (to and from friends/relatives) (28.8%), local shops/restaurants/entertainment (23.7%) and park/recreational areas (22%). A smaller percentage of trips revolved around travel to/from work (8.5%).

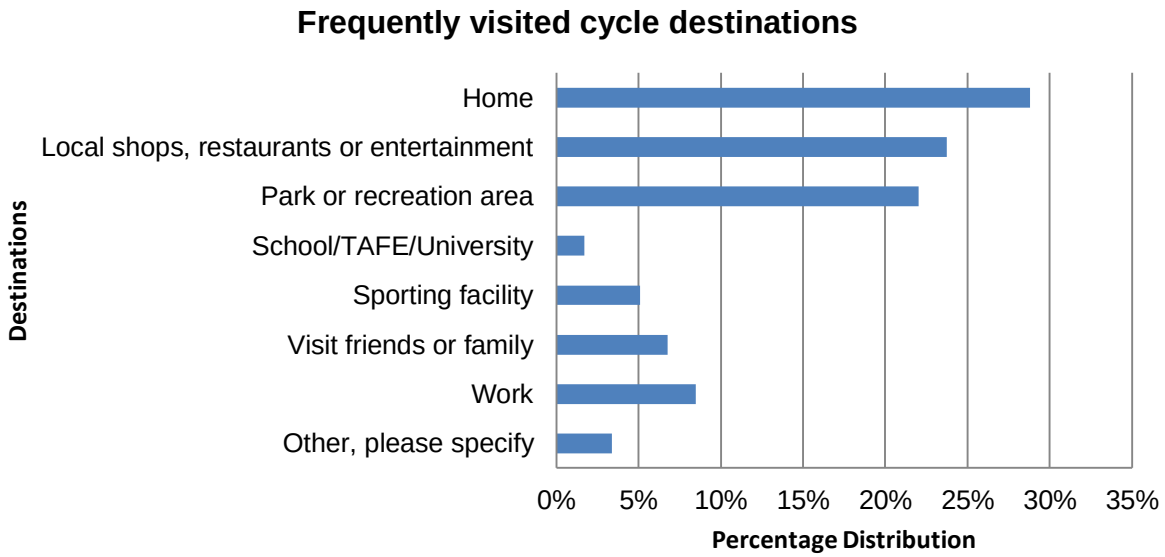


Figure 2.7: Frequently Visited Cycle Destinations

### 2.3.7 *Motivations for Cycling*

Among all motivations, cycling for fitness and health reasons had the highest priority (31%), followed by enjoyment (27%). A large number of respondents (25%) expressed their main motivations to be involved in a cycling group; it may be surmised that part of this motivation might be building social connections and for the camaraderie of belonging to a local group.

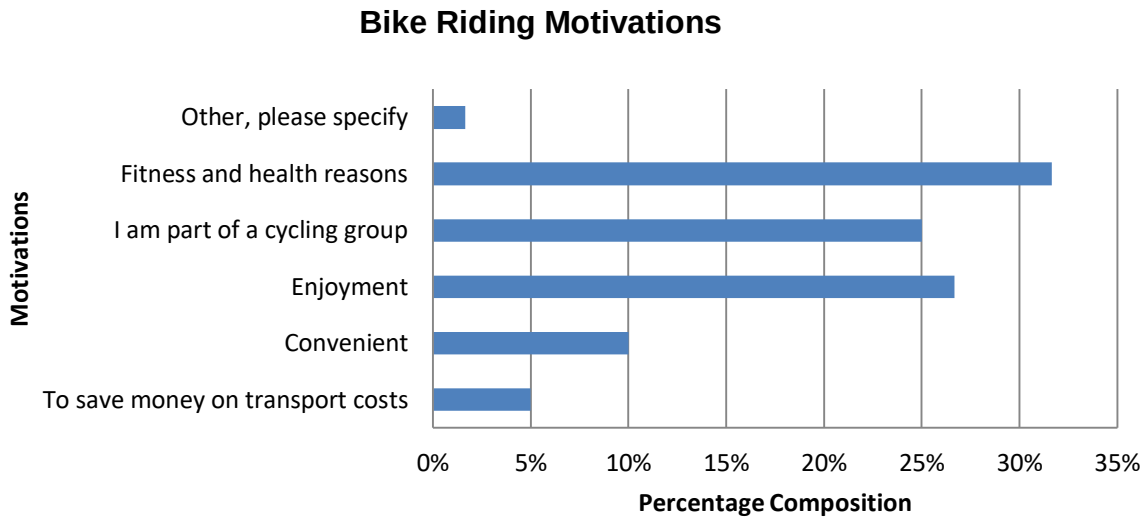


Figure 2.8: Bike Riding Motivations

### *2.3.8 Barriers to Cycling*

*Figure 2.9* below discloses the biggest barriers to cycling as reported by the respondents. The following information was gathered:

- Sharing road with traffic – 23%;
- Missing links on bike paths – 18%;
- Lack of dedicated bicycle routes – 14%;
- Lack of respects for cyclists – 9%;
- Unsafe intersections – 8%; and
- Lack of bicycle parking – 8%.

This reveals that the main concerns are largely due to a lack of connected infrastructure and supporting facilities as well as the associated quality of each. Thus, resources must be allocated in order to provide and improve existing and proposed infrastructure/facilities in order to increase cycling as a mode of transport. Furthermore, provision of infrastructure will assist in promoting an active lifestyle for newer cyclists as facilities will become more easily accessible and frequent.

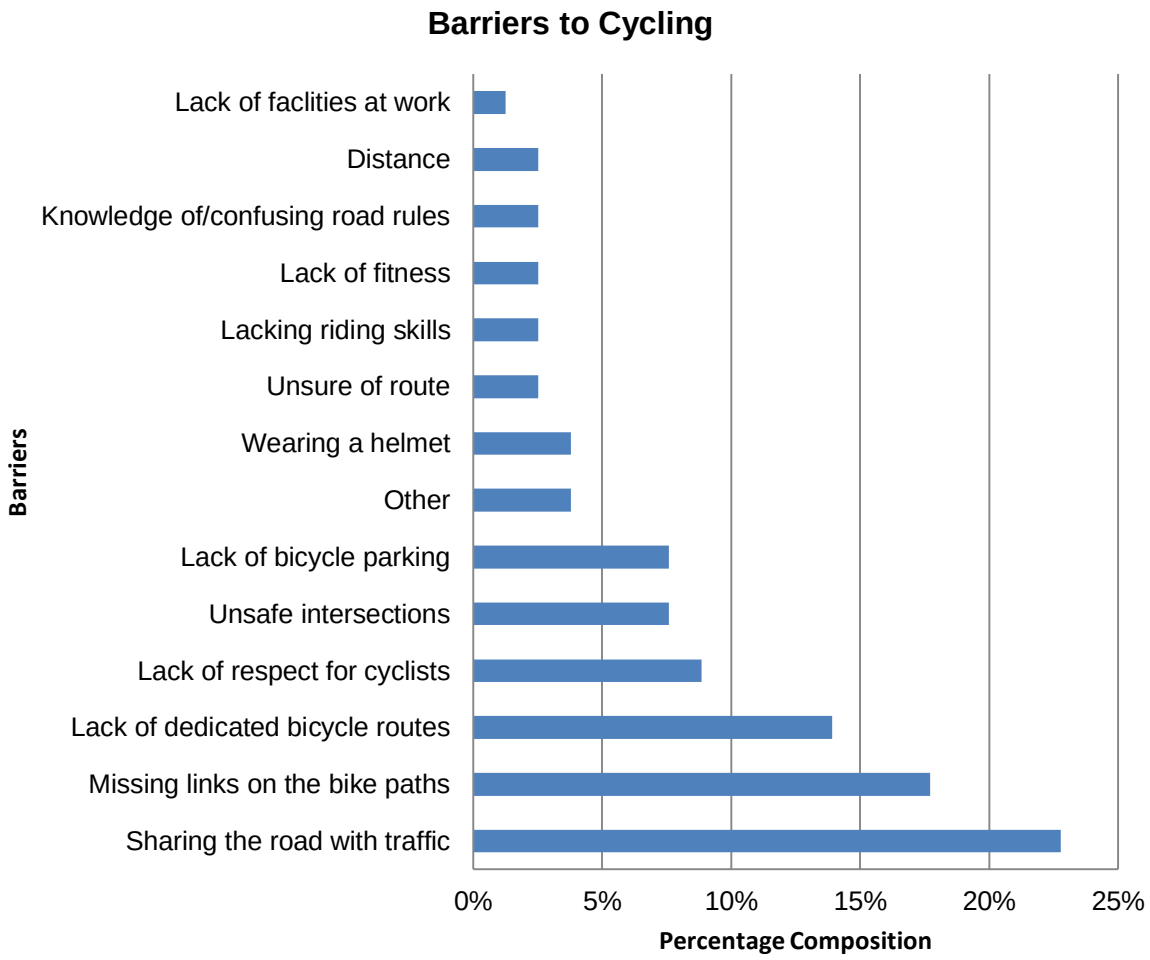


Figure 2.9: Barriers to Cycling

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### *2.3.9 Community workshop outcomes*

#### 2.3.9.1 Introduction

A workshop was held on the 26 September 2018 at Fairfield Showground. The event was attended by 12 people of the local community. The attendees expressed substantial involvement in cycling and shared their understanding of the opportunities and inadequacies in the existing bicycle network. During the workshop the participants were divided into five groups to facilitate topic focused discussion, including problem and safety areas, new routes, favourite riding place/trip attractors, missing links and facilities.

The groups were given maps of the bicycle network which they used in identifying locations for areas with safety related issues and where lack of infrastructure and bicycle pathways was inhibiting the optimal functionality of the network. Each group engaged in an open discussion and afterwards clearly described key areas of improvement to Council officers. At the end of the workshop, the participants were asked to determine their priorities based on the list of issues and ideas outlined in the initial task.

#### 2.3.9.2 Top Ten Overall Priorities from the Community

The following top ten priority areas have emerged as the highest priority links and works as indicated by respondents. In brief, these top ten priorities are:

1) Need for link between M7 and Prospect Reservoir - a cycle path along Chandos Road between M7 and Trivet St / Prospect Reservoir.
2) Cabramatta Creek linkages – link the sections of shared path along Cabramatta Creek to the greatest extent possible, from Elizabeth Drive to Joe Broad Reserve to Cumberland Highway, and then east to start of the existing path near Cabramatta sportsground.
3) Connection to Liverpool LGA across Georges River near Floyd Bay to form part of the extensive connectivity across three LGAs Fairfield, Canterbury-Bankstown, Liverpool. This could form a "lakes loop" around Chipping Norton Lakes.
4) Need for bridge over the Prospect Highway, Wetherill Park, for cycling and pedestrians to link the shared path on either side.
5) Steel bridge over Orphan School Creek near Johnston Park is bumpy and narrow, needs to be addressed.
6) Connection over Prospect Creek from Lansvale to Garrison Point Reserve/ Lake Gillawarna.
7) A safe solution for crossing Smithfield Road
8) Improve the connection on First Avenue, Canley Vale, between Bareena St and Orphan School Creek shared path.
9) Create a shared path linking the M7 to Horsley Park Shops.
10) Orphan School Creek, Canley Heights - Shared path under the Cumberland Highway near Parklea Parade suggestion for brighter lighting especially for winter months.

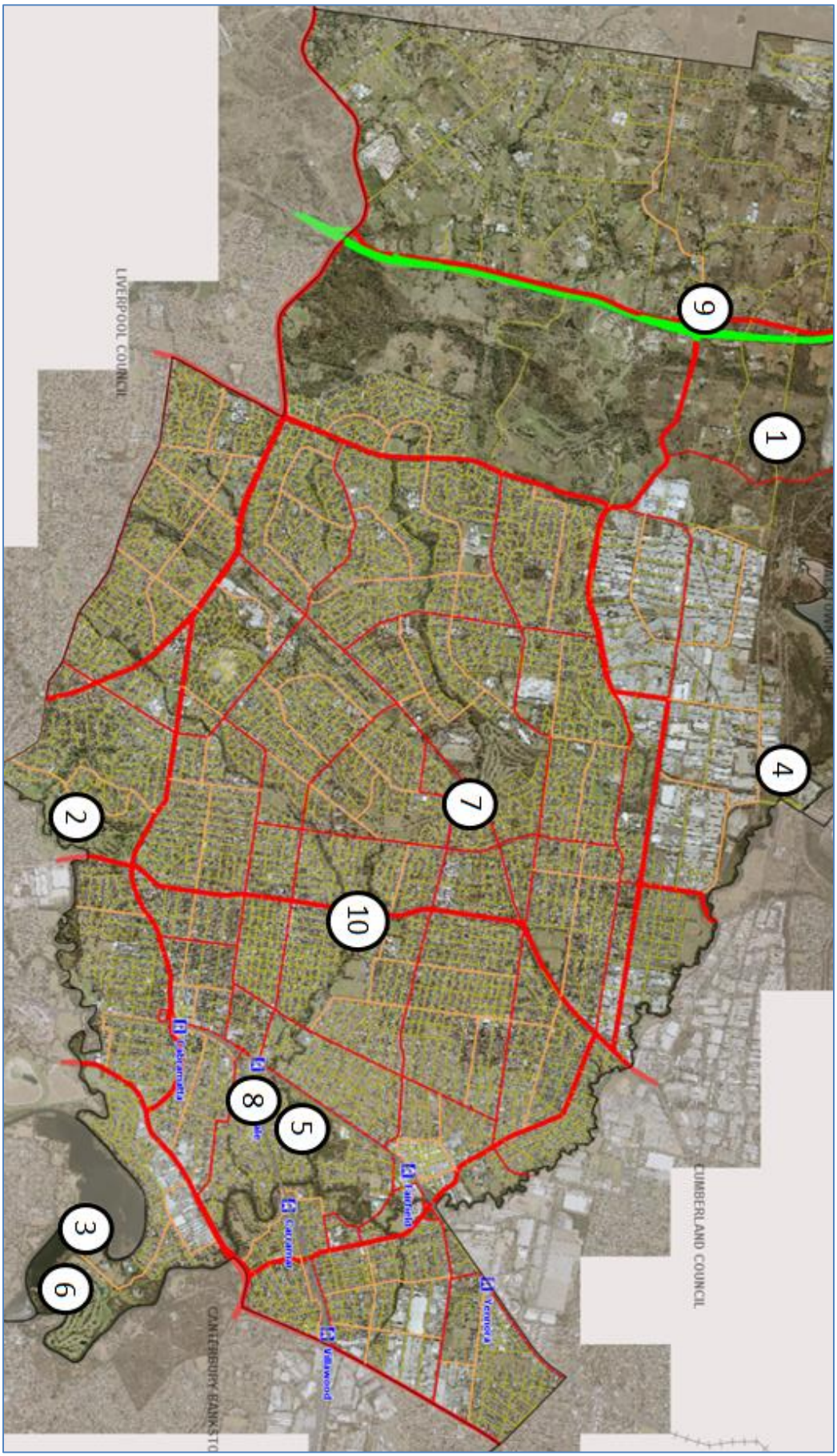



Figure 2.10: Location of Top Ten Priority Cycling Routes

#### 2.3.9.3 Community discussion

Of the site specific, infrastructure and behavioural issues discussed in the workshop, particular emphasis was seen for infrastructure issues and is reflected in the top ten cycling priorities. The outcomes revealed a need for significant improvements in connecting existing routes and increasing provisions of north-south cycle routes.

Key infrastructure issues highlighted included poor provision of shared pedestrian-cyclist footpaths for missing links in the existing bicycle network, lack of safe crossings, unsatisfactory road surfaces due to insufficient maintenance, lack of wayfinding signs for less obvious destinations and shortage of cycling infrastructure along key bike paths and attractors.

An issue identified in existing shared paths is that the dimensions do not meet those specified for shared paths and therefore future widening is required for use as a shared pedestrian and bike route.

A behavioural concern was highlighted in the survey that there exists the perceived lack of respect among users to safely coexist on Fairfield's roads. An example of this is that drivers of motor vehicles do not leave appropriate space when driving in the presence of bike riders on roads. Also, more awareness needs to be taken by drivers and passengers of motor vehicles to look out for bike riders and then safely exit their vehicle when parking parallel to moving traffic on the roads of Fairfield.

#### 2.3.9.4 Route mapping exercise

Route mapping was conducted both in the community workshop and using the online spatial mapping platform, Social Pinpoint. In both route mapping exercises participants identified ideas, issues and facilities across the Fairfield region. The exercise allowed the community to provide comments on the issue spots identified which enabled the council to better address solutions for those issues. The outcomes largely addressed locations across the Fairfield LGA that were perceived as unsafe for cycling, with known barriers for bike riding or where any 'missing links' in the network were identified.

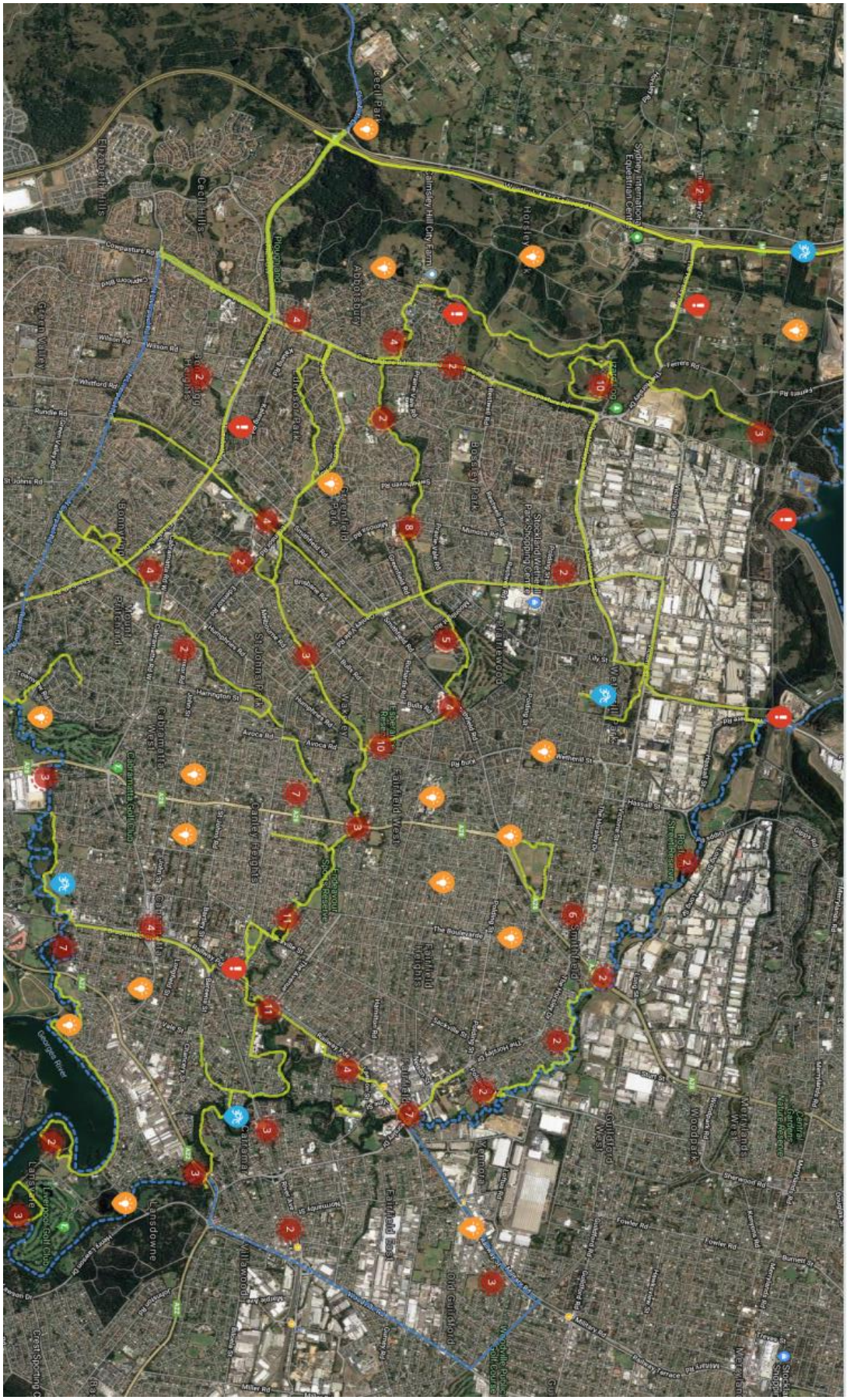



Figure 2.11: Map of Routes

#### 2.3.9.5 Key ideas

- Provision of shared off-road paths for pedestrians and low speed cycling with high quality way-finding signage.
- Improving network connectivity through construction of missing links for off-road and on-road cycle paths.
- Improving existing and establishing new north-south cycle routes through the Fairfield LGA.
- Working with neighbouring councils to establish an extensive cycle network across LGAs including Cumberland, Bankstown and Liverpool.

#### 2.3.9.6 Key issues

- Lack of connectivity between individual cycle ways in the existing LGA-wide cycle network and missing links in individual cycle ways.
- Path user conflict due to narrow pathways that do not provide sufficient width for shared pedestrian and cycle paths.
- A number of incidents have been attributed to collisions with bollards located in shared paths from poor visibility due to peeled, vandalised and deteriorating mounting detail on the bollards.
- Accessibility to specific locations is difficult with the absence of dedicated crossings in high use pedestrian and cyclist areas.
- Pavement deterioration and poor maintenance of cycle ways have resulted in injury and an unsafe cycling environment.
- High vehicle demand for limited road space where no dedicated on-road cycle lanes are provided creates conflict between cyclists and motorists.
- A poor level of wayfinding and directional signage recognised in the cycle routes limits user's ability to make easy and efficient travel choices.

#### 2.3.9.7 Key facilities

- Provision of secure bicycle parking infrastructure including inverted U-railing cycle parking for short parking durations or secure storage for all-day parking at schools, shopping centres, libraries, railway stations, sporting facilities and leisure centres.
- Integration of drinking water fountains/taps and toilets at key trip destinations and main cycle ways will contribute to the overall convenience and appeal of the bicycle network.
- Installation of lighting in locations remote from the street system to prioritise the safety of people on bicycles.

## **2.4** Policy Context

### *2.4.1 State Policy*

#### 2.4.1.1 NSW 2021 – State Plan, 2011

NSW 2021 is a 10-year plan that sets long-term goals and measurable targets to deliver on community priorities. Goal eight of the policy outlines the need to grow patronage on public transport by making it a more attractive choice. A measurable target that contributes to this goal is an increase in cycling to more than double the number of bicycle trips made across Greater Sydney as this will help ease transport congestion and build a more active community.

Completion of Fairfield's local cycle network is a priority action for Fairfield City Council as it will enable us to address Goal eight of the NSW 2021 State Plan.

#### 2.4.1.2 NSW Future Transport Strategy 2056

Future Transport 2056 is a suite of strategies and plans that set the 40-year vision, directions and principles for customer mobility in NSW, guiding transport investment over the longer term. It presents a glimpse of the large economic and societal shifts we will see in the future and places the customer at the centre of everything we do, to ensure we respond to rapid changes in technology and innovation to create and maintain a world-class, safe, efficient and reliable transport system.

Future Transport 2056 was developed collaboratively with the Greater Sydney Commission, Infrastructure NSW, and the Department of Planning, Industry and Environment to ensure NSW's overarching strategies for transport and land use planning align and complement each other, delivering an integrated vision for the State.

#### 2.4.1.3 NSW Long Term Transport Master Plan, 2012

The NSW Long Term Transport Master Plan is a 20-year plan that's sets the strategy and direction required to deliver a customer-focused, integrated transport system. First, it identifies the challenges that the transport system in NSW needs to address to support the State's economic and social performance. Second, it identifies a planned and coordinated set of actions (reforms, service improvements and investments) to address those challenges.

The plan reveals safety concerns as a barrier to cycling and hence the need to guide the provision of attractive cycling facilities in different traffic conditions. This suggests that in future programs providing measures to separate bikes from cars would increase cycling. Over 3.5 million car trips (vehicular driven) that are less than 5km are made on a typical Sydney weekday. This highlights the potential to shift existing short car trips to cycling by promoting cycling as a more viable and attractive mode choice in Sydney and therefore reducing the reliance on cars (Figure 4.44 reference).

Short term initiatives included in the NSW Long Term Transport Master Plan to support and grow cycling across Sydney are to:

- Build a connected cycling network within a five km catchment of local centres
- Provide bike parking at transport interchanges
- Continue to invest in the cycling network with a focus on dedicated cycling paths and pinch point improvements

#### 2.4.1.4 Sydney's Cycling Future: Cycling For Everyday Transport, 2013

Sydney's Cycling Future specifically addresses the importance of a connected network of bicycle paths in Sydney's integrated transport system. It outlines ways to improve the bicycle network and ensures the needs of the bike riders and community are built into the planning of bicycle programs and infrastructure. Sydney's Cycling Future is targeted to the 70 per cent of NSW residents who say that they would cycle for everyday transport if it were made a safer option for them. This can be achieved by providing separate cycle paths for bikes from motor vehicles, more direct routes to destinations and improvements to the quality of roads for peoples on bikes.

The three pillars of Sydney's Cycling Future include:

- Safe, connected networks - Investments prioritised within five kilometre catchments of major centres, extending to 10km in longer term.
- Better use of existing infrastructure - Provide enhanced online bike trip planning information.
- Policy and partnerships - Partner with councils to target missing links and problem intersections in local bicycle networks.

#### 2.4.1.5 Western City District Plan

The Western City District Plan is a 20-year plan to manage growth and achieve a 40-year vision in order to enhance liveability, productivity and sustainability for Greater Sydney. It covers the Western City District which incorporates the following localities:

- Blue Mountains
- Camden
- Campbelltown
- Fairfield
- Hawkesbury
- Liverpool
- Penrith
- Wollondilly

The plan seeks to provide Councils with a guideline and support to increase connectivity and promote various transport initiatives, such as cycling, to plan for growth and change through the Greater Sydney area.

### *2.4.2 Local Policy*

#### 2.4.2.1 2012-2022 Fairfield City Plan (Top 10 Priorities Issue Paper) and Delivery Program

The Bike Plan supports a number of the top 10 priorities identified by the community:

- Better Public Transport - improved connection and facilities for cycling
- Improved Roads - better connections and access for cyclists
- More Activities for Children and Youth - safe cycling provides a range of locations and activities for children, families and extended groups
- Better Health Services - more active residents through cycling can help in reducing obesity and other health concerns

The 4 Year Delivery Program provides the community with the template for the actions Council will undertake during that term. Council has sought and matched grant funding from Transport for NSW to install new sections of cycle ways which are planned, designed and built to assist both pedestrians and cyclists. This has typically allowed projects up to $200,000 to occur in individual years.

Sydney's Cycling Future released by the NSW Government in 2013 has placed an emphasis on the planning and provision of bicycle networks so that they are located within five kilometres of major centres.

In the Fairfield LGA, the centres that have been selected are Fairfield and Prairiewood

#### 2.4.2.2 2021-2022 Operational Plan

An operational plan is developed for each year of the delivery program and provides the detail of the services and projects to be implemented by Council. The Western Sydney Cycling Network is supported by the Social Planning and Community Development Division, which advocated for community participation as well as safe and healthy people and places. Council alongside the Western Sydney Cycling Network seeks to further encourage cycling as a mode of transport through:

- Promoting cycling for transport, leisure and health and increased use of Fairfield City's cycle ways.
- Recycling used bicycles for community use.
- Supporting the Western Sydney Cycling Network to partner with community organisations to increase ownership and safe riding of bicycles.
- Ensure volunteers understand and comply with work, health and safety standards.

#### 2.4.2.3 Saddle survey

At the completion of the online survey and spatial mapping, key locations such as 'missing links', crash spots, favourable spots and issue spots were clearly identified.

Moving forward, verification of the key locations was needed and a saddle survey was identified as the best practise in auditing current cycling conditions.

A five-day saddle survey was conducted during September 2018 by members of the Western Sydney Cycling Network accompanied by a Fairfield City Council Officer. The saddle survey consisted of five different bicycle routes proposed for each day.

## **2.5** Types of cyclists and barriers to greater cycling participation

One of goals of this bike plan is to understand why people make choices not to cycle for recreation or transportation purposes. This information is beneficial in developing strategies and programs to eliminate and overcome the perceived emotional and physical barriers. Upon completion of the saddle survey, community consultation and an analysis of Fairfield cycling data a number of barriers to cycling in the Fairfield area were identified, including:

### *2.5.1 Physical barriers - infrastructure*

- A lack of cycling infrastructure particularly separated cycle paths.
- Insufficient end-of-trip facilities at work places.
- Bike lanes that end at intersections, particularly at roundabouts.

### *2.5.2 Emotional barriers*

- Perception that cycling is dangerous due to the perceived or actual lack of safe places to cycle.
- Impression that motorists are not observant or respectful of bike lanes.
- Limited or no understanding of the rules and regulations regarding cycling on footpaths.
- The negative image of cycling created from a lack of respect and fear of abuse/confrontation by motor vehicle drivers.

# Section 3 **Infrastructure Programs**

This section will identify the most prominent cycle routes in the Fairfield LGA to analyse the current infrastructure and propose improvements in order to improve the cycling experience for residents in the Fairfield LGA as well as encourage connectivity with other Council LGAs.

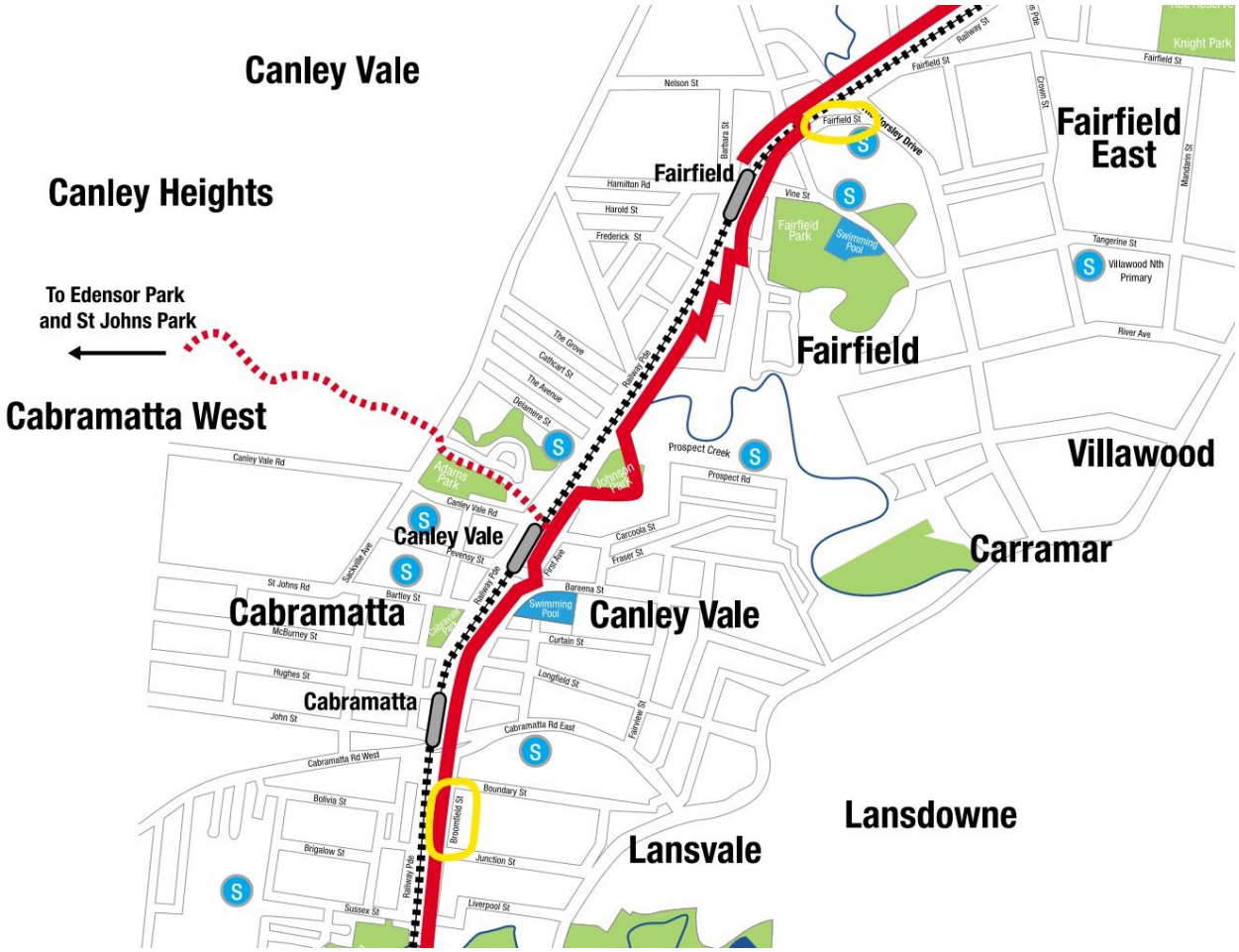
The top 10 priorities from the community consultation have been included in the review and addressed as follows:

| Item | Reference |
|---|---|
| 1) Need for link between M7 and Prospect Reservoir - a cycle path along Chandos Road between M7 and Trivet St / Prospect Reservoir. | The east west link is anticipated to be provided via The Horsley Drive / Ferrers Road link.<br><br>Note: any link along Chandos will be considered as part of any future upgrade of Chandos Road |
| 2) Cabramatta Creek linkages – link the sections of shared path along Cabramatta Creek to the greatest extent possible, from Elizabeth Drive to Joe Broad Reserve to Cumberland Highway, and then east to start of the existing path near Cabramatta sportsground. | See Table 3.4 |
| 3) Connection to Liverpool LGA across Georges River near Floyd Bay to form part of the extensive connectivity across three LGAs Fairfield, Bankstown, Liverpool. This could form a "lakes loop" around Chipping Norton Lakes. | See Table 3.4 |
| 4) Need for bridge over the Prospect Highway, Wetherill Park, for cycling and pedestrians to link the shared path on either side. | See Table 3.2 |
| 5) Steel bridge over Orphan School Creek near Johnston Park is bumpy and narrow, needs to be addressed. | See Table 3.1 |
| 6) Connection over Prospect Creek from Lansvale to Garrison Point Reserve/ Lake Gillawarna. | See Table 3.4 |
| 7) A safe solution is needed for crossing Smithfield Rd near Dunstan St. Suggestions included a small bridge, an under or over pass, a pedestrian crossing, or a footbridge. | Already Addressed – See 2.3.9.2 |
| 8) Improve the connection on First Avenue, Canley Vale, between Bareena St and Orphan School Creek shared path. | See Table 3.1 |
| 9) Create a shared path linking the M7 to Horsley Park Shops. | To be considered as part of Future Delivery Program as this section is classified as a local road. |
| 10) Orphan School Creek, Canley Heights - Shared path under the Cumberland Highway near Parklea Parade suggestion for brighter lighting especially for winter months. | See Table 3.3 |

## 3.1 Current routes

Rail Trail cycleway connects Parramatta to Liverpool and links to Prospect Creek and the Bay to Mountains shared path network. This path connects to the Cabramatta Creek shared path and is approximately 7.5km long.

**Figure 3.1: Map of Parramatta to Liverpool Rail Trail Cycleway**




http://www.westernsydneycyclingnetwork.com.au/goodies/topomap.pdf

Table 3.1: Parramatta to Liverpool Rail Trail Cycleway

| Street | Description | Current infrastructure | Proposed infrastructure | Justification |
|---|---|---|---|---|
| **Fairfield Street** | Fairfield Street is two-way with one lane in each direction. There is an off-road cycle route running parallel to Fairfield Street. | The off-road cycleway currently lacks bicycle infrastructure. | Addition of line marking to raise awareness of the shared use nature of this path.<br><br>Provision of R8-2 shared path regulatory signage to legitimise pedestrian and cycle use. | The route provides a direct connection to The Horsley Drive and Military Road cycle paths and so are heavily used by cyclists. |
| **Dale Street** | Dale Street is a two-way street continuing south with one lane in each direction. The path acts as a connection continuing south to Liverpool. It has no lane markings, and is not of sufficient width for cycling lanes. | Fairfield Station provides a bike rack along Dale Street for commuter utilisation. | No infrastructure improvements are advised. On road cycle logos and/or signage to assist cyclist navigating the appropriate path | The path is not declared as a shared path. However the logos and signage will help improve pedestrian / cyclist / motorist interactions. |
| **Wilga Street** | Wilga Street is two-way with one lane in each direction. It currently has a 2.5-metre-wide off-road shared path on the eastern side. | Provision of R8-2 shared path regulatory signage which legitimises pedestrian and cycle use. R7-4 supplementary plates indicating end of regulatory zone is located at the intersection of Fairlight avenue and Wilga street. A convex safety mirror is located at the bend to prevent path user conflict. | No infrastructure improvements are required. | This route is a high quality path allowing users to travel with ease from Parramatta to Liverpool. |
| **Fairlight Avenue** | Fairlight Avenue is a residential street, with two-way traffic and parking on both sides of the road. It currently has an off road shared path with painted bike lanes running parallel to Fairlight Avenue and | Provision of R8-2 shared path regulatory signage which legitimises pedestrian and cycle use. Provision of 'Fairfield to Parramatta' route | The painted cycle lanes are faint and need to be reinstated. | Fairlight avenue provides a safe and direct route towards Liverpool and of sufficient width for a shared cycle path. |

| Street | Description | Current infrastructure | Proposed infrastructure | Justification |
|---|---|---|---|---|
| | continuing off road to connect to Lyndon Street. | directional signage. | | |
| **Lyndon Street** | Lyndon Street is a residential no through road, with two-way traffic and parking on both sides of the road. It currently has an off road shared path. | Provision of R8-2 shared path regulatory signage which legitimises pedestrian and cycle use. Provision of 'Fairfield to Parramatta' route directional signage. | The bollard located at the connection between Lyndon Street and Fairlight avenue does not comply with standard bollard marking and should be upgraded. | The shared path is of high quality, with sufficient width. However, a number of incidents have been attributed to collisions with bollards and hence modification to existing bollard markings is recommended. |
| **North Street** | North Street is a residential street with one lane each way and an off-road bicycle path linking to East Parade. At 2.0m in width, the path is not adequate for 2-way simultaneous travel. | Provision of 'Canley Vale to Liverpool' and 'Fairfield to Parramatta' bicycle network route directional signage. | No infrastructure improvements are required. Extending the width of the path was considered but three power poles are closely aligned to the path making it difficult. | The cycle path is of insufficient width for bi-directional travel, however extending the width of the path is difficult as the power poles are directly adjacent and difficult to relocate. The use of the path is considered minimal, therefore conflict points are not anticipated. |
| **East Parade** | East Parade is a quiet no through road with no lane markings but sufficient road width for two-way travel. It currently has an off-road cycle path that travels a significant length of the bike route towards Liverpool. | East Parade lacks in bicycle infrastructure including provision of R8-2 shared path regulatory signage which legitimises pedestrian and cycle use. | Pavement markings and provision of regulatory or guidance signage to increase the awareness of cyclists by drivers will reduce the risk of collision. Additionally, a letter drop alerting residents of the potential presence of cyclists along the path, will aid in reducing any crash risks. | The shared path offers a direct route towards Liverpool and is a crucial link of the cycle network. Awareness of cyclists to drivers will support the safe functioning of the route. |
| **Orphan School Creek**<br><br>(Community Consultation Priority No.5) | The off-road cycle path extends from East Parade through Orphan School Creek heading towards Liverpool. It crosses Orphan School Creek via a narrow bridge. | Uneven surfaces along path causes discomfort for cyclists. The surface is slippery and could potentially pose a hazard. There has been no recorded | The off-road cycle path consists of a steel bridge running over Orphan School Creek. Treatment of the surface of the steel bridge and potential deck | Treatments on the bridge will increase cyclist's safety and ease of travel. |

| Street | Description | Current infrastructure | Proposed infrastructure | Justification |
|---|---|---|---|---|
| | | crash history at this location. | replacement work is advised. | |
| **First Avenue**<br><br>(Community Consultation Priority No.8) | First Avenue is a residential no through road with two-way traffic and parking on both sides of the road. An off-road cycle path begins at the station providing a connection to Bareena Street. | Ample R8-2 shared path regulatory signs have been installed along the route.<br>Provision of 'Cabramatta to Liverpool' and 'Canley Vale to Fairfield' bicycle network route directional signage. | No cycle path is provided for the short distance between the Orphan School Creek shared path and the cycle path on Bareena Street<br><br>Construct a shared path on the existing garden strip to complete the missing link and accommodate for pedestrian and cycle use. | The proposed infrastructure along the green space will improve the legibility of the route and cycling safety. It also benefits pedestrian's accessibility to the station and surrounding neighbourhood. |
| **Bareena Street** | Bareena Street is an industrial street with two-way traffic and no parking permitted. It has a shared path connecting First Avenue and Broomfield Street. | Provision of R8-2 shared path regulatory signage which legitimises pedestrian and cycle use and bicycle network route directional signage.<br>The path contains bicycle shoulder lane markings. | No infrastructure improvements are required. | The bike path is of varying width, with a narrower width along the bridge which makes two bikes passing difficult and greater risk for path and cyclist conflict. Extending the existing shared path will not be possible as the road is narrow. Despite the width restrictions Bareena street offers a safe and direct path towards Liverpool. |
| **Broomfield Street** | Broomfield Street is a residential street, with two-way traffic and parking on both sides of the road. An off-road shared cycle path runs along the distance of the road with additional sections of the road allocated for on road cycling as well. | Provision of R8-2 shared path regulatory signage, 'Canley Vale to Fairfield' bicycle network route directional signage, bicycle parking and toilets.<br>Broomfield Street has PS2 symbols and an S5 off-road path broken separation line for | Restore faint line marking along the off-road cycle path and along Broomfield Street. | No significant infrastructure improvements are needed as the current on road and bi-directional cycle paths are high quality, offering a safe and direct route. |

| Street | Description | Current infrastructure | Proposed infrastructure | Justification |
|---|---|---|---|---|
| | | the dual-direction cycle path.<br>“U” hoops exist to allow for bicycle parking. | | |

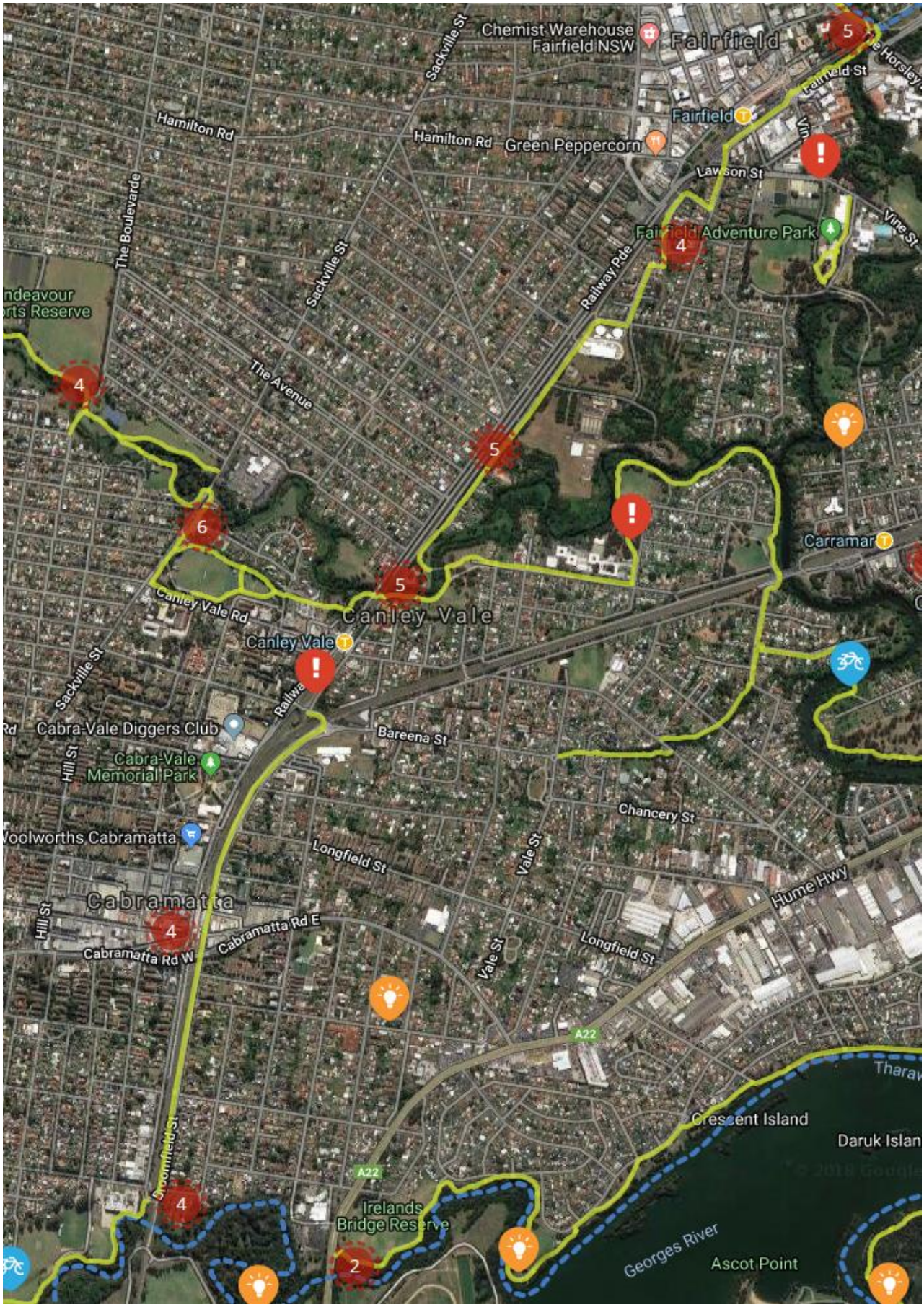



**Figure 3.2: Map of Parramatta to Liverpool Rail Trail Cycleway (Extract of Online Community Consultation)**

### Table 3.2: Parramatta to Liverpool T-Way Cycleway

| Street | Description | Current infrastructure | Proposed infrastructure | Justification |
|---|---|---|---|---|
| **Off-road path starting at the corner of Widemere Rd and Liverpool-Parramatta Transit way**<br><br>(Community Consultation Priority No.4) | Widemere Road has four lanes with two lanes travelling in each direction. An off-road shared path runs parallel to Widemere Road and offers a connection to the shared path travelling through Prospect Creek. | The shared path is of high quality, with S5 off-road path broken separation line marking for dual-direction cycling, bike lanterns at signalised intersections and provision of R8-2 shared path regulatory signage.<br><br>Bridge overpass raised in Community Consultation (Priority No.4). Future review of this intersection will be undertaken | No infrastructure improvements are required. | The Widemere road shared path offers a reliable and direct connection towards the Liverpool-Parramatta Transit way. |
| **Davis Road** | Davis Road is a four lane, two-way road connecting cyclists from Parramatta to the Liverpool – Parramatta Transit way. | Has an off-road shared path with S5 off-road path broken separation line marking for dual-direction cycling, bike lanterns at signalised intersections and provision of R8-2 shared path regulatory signage. | Restore faint line marking along the off-road cycle path. | Line marking will support safe cycling by improving the visibility and legibility of the cycle path. |
| **Liverpool-Parramatta Transit way** | Liverpool–Parramatta T-way specifically accommodates for buses with one lane each way between Parramatta and Liverpool. An off-road cycle path runs parallel to the T-way. | The shared path is of high quality with bicycle parking and regulatory signage, however lacks in line marking.<br>**Need a saddle survey to analyse the off road cycle path, could not do this using Aerial imagery | Provide S5 off-road path broken separation line marking for dual-direction cycling. | Line marking will support safe cycling by improving the visibility and legibility of the cycle path. |
| **Victoria Street** | Victoria Street is an industrial street with two-way traffic and three lanes each way, two of which are bus lanes. An off-road shared path runs parallel to Victoria Street up to Canley Vale Road. | The shared path is of sufficient width, with bike lanterns located at signalised intersections and bicycle parking provided along the path. No S5 off-road path broken separation line is provided. | Provision of route directional signage and water fountains. | Route directional signage is crucial in allowing cyclists to navigate along the route as the Liverpool-Parramatta Transit way disconnects at Victoria street and resumes beyond Canley Vale road. |

| Street | Description | Current infrastructure | Proposed infrastructure | Justification |
|---|---|---|---|---|
| **Canley Vale Road** | Canley Vale Road is between four and five lanes, with two-way traffic and bus only lanes occupying sections of the road. An off-road shared path runs parallel to Canley Vale Road up to Horsley Drive and continues on to Liverpool-Parramatta Transit way. | The shared path is of sufficient width, with bike lanterns located at signalised intersections. No S5 line marking is provided and lack of signage. | Provision of route directional signage and R8-2 shared path regulatory signage. | A reliable signage system for bicycle network facilities will assist users to find their way around the network. |
| **Liverpool-Parramatta Transit way** | The Liverpool–Parramatta T-way continues from Canley Vale Road. The off-road cycle path runs parallel to the t-way and ends at North Liverpool Road within the Fairfield LGA. | The off-road shared path is of high quality, with a number of bike racks, bike lockers and bike lanterns at signalised intersections. | Provision of water stations along the T-way. | High quality end-of-trip and mid-trip facilities support the needs of cyclists and improve the attractiveness of cycling. |

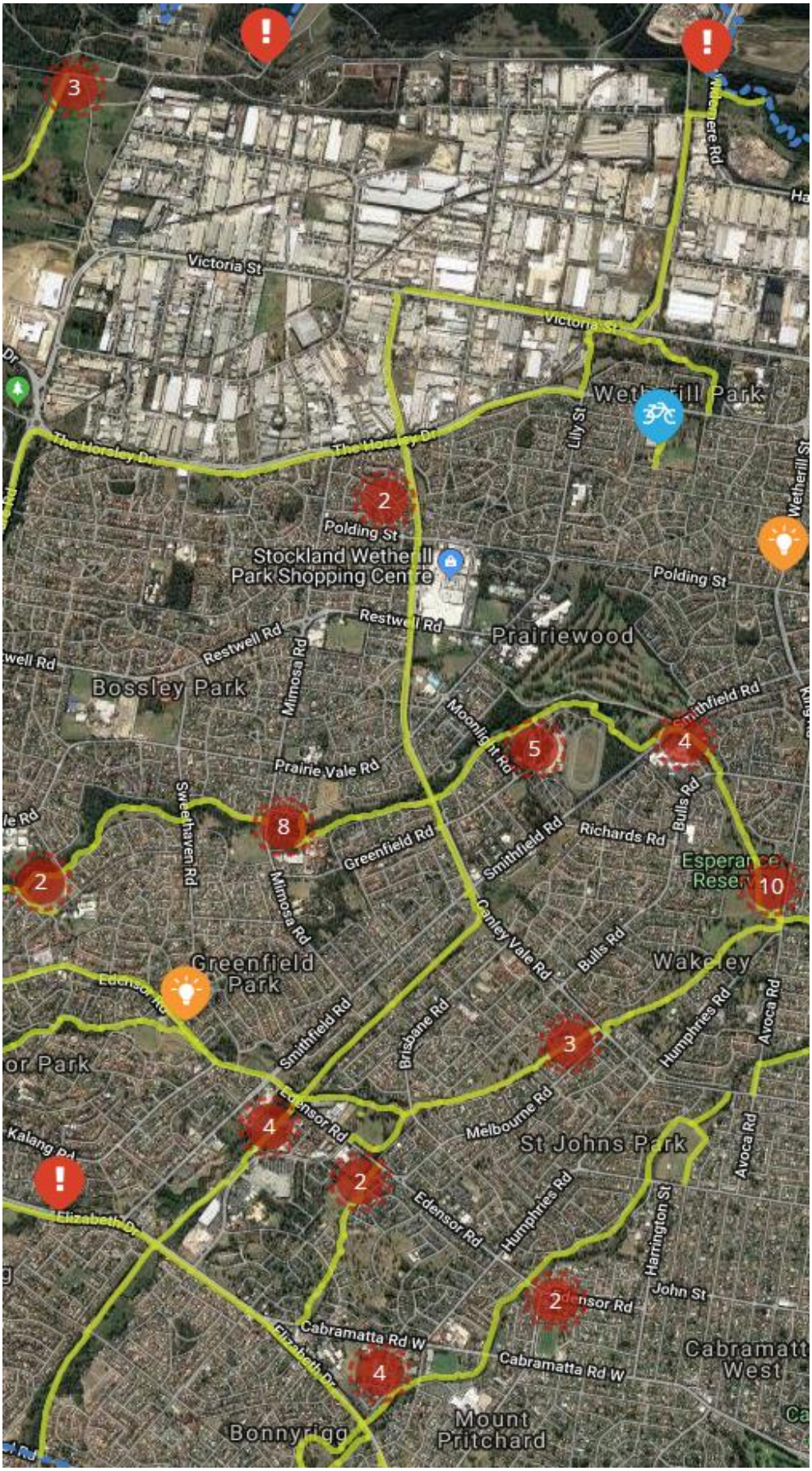



**Figure 3.3: Map Prospect Creek Cycleway**

### Table 3.3: Prospect Creek Cycleway

| Street | Description | Current infrastructure | Proposed infrastructure | Justification |
|---|---|---|---|---|
| **Junction of Widemere Road and Prospect Creek** | An off-road shared path runs parallel to Widemere Road. The Prospect Creek shared path starts at the junction of Widemere Road and Prospect Creek and heads east along Prospect Creek. | The shared path is of sufficient width, with bike lanterns located at signalised intersections. No S5 line marking is provided and lack of signage. | The bollard located at the junction does not comply with standard bollard marking and needs to be upgraded. | The shared path is of high quality, with sufficient width. New bollards need to be installed with standard reflective tape to make them highly visible. This will significantly reduce the likelihood of incidents attributed to collisions with bollards. |
| **Intersection of Prospect Creek and Gipps Road** | The off-road cycle path runs under Gipps Road along Prospect Creek. | The shared path is a direct and high quality route providing north-south accessibility along Gipps Road and west-east accessibility along Prospect Creek. | No infrastructure improvements are required. | The cycle path provides extensive connectivity across three LGAs Fairfield, Bankstown, and Liverpool. |
| **Intersection of Prospect Creek and Warren Road/ Cumberland Highway** | 6 lane two way Road section with off-road cycle path running parallel to Warren Rd towards Low Street. | The shared path is a direct route providing north-south accessibility along Warren Road and west-east accessibility along Prospect Creek. | No infrastructure improvements are required. | The cycle path provides extensive connectivity across three LGAs Fairfield, Bankstown, and Liverpool. |
| **Granville Street** | The off-road shared user path extends along Prospect Creek. | The shared path is of sufficient width and extends west-east along Prospect Creek, connecting Fairfield Road to Warren Road. | No infrastructure improvements are required. | The cycle path continues to provide extensive connectivity across three LGAs Fairfield, Bankstown and Liverpool. |
| **Crosby Reserve** | The off-road shared user path continues through Crosby Reserve and Cawarra Park with multiple connections to residential roads. | The shared path is of sufficient width and runs west-east along Prospect Creek, connecting to Polding Street North. | Provision of a water fountain may be viable. | Provision of a water fountain is crucial for cyclists as there exists a lack of water fountain along cycle paths in the Fairfield LGA. |
| **Intersection of Prospect Creek and Fairfield Road** | The off-road shared user path runs under Fairfield Road along Prospect Creek. | The shared path does not connect to Fairfield Road at this location but travels parallel along Fairfield Road towards Ace Avenue. | Provision of route directional signage. | Route directional signage is crucial in allowing cyclists to navigate along the |
| **Ace Avenue** | Ace Avenue is a residential street, with two-way traffic and | The shared path extends partially into Ace Avenue. Cyclists | Provision of route directional | Route directional signage is crucial in allowing cyclists to |

| Street | Description | Current infrastructure | Proposed infrastructure | Justification |
|---|---|---|---|---|
| | parking on both sides of the road. | are to utilise the road until they reach The Horsley Drive. | signage with reference to a point of interest. | navigate along The Horsley Drive. |
| **The Horsley Drive** | The off-road shared user path runs alongside The Horsley Drive. | The shared path is of sufficient width and is a direct and high quality route providing east-west accessibility along The Horsley Drive. | Provision of route directional signage. | Directional signage will assist cyclists to navigate towards either Fairfield Station or Yennora Station. It serves as a crucial connection point. |

### Table 3.4: Orphan School Creek Cycleway

| Street | Description | Current infrastructure | Proposed infrastructure | Justification |
|---|---|---|---|---|
| **Ferrers Road** | An off-road cycle path from Prospect Reservoir runs parallel to Ferrers Road and intersects the Horsley Drive. | Provision of 'Prospect to Blacktown' and 'Abbotsbury to Cecil Hills' route directional signage, bike lanterns at signalised intersections, S5 off-road line marking, bollards with standard bollard marking and shared path signage. | No infrastructure improvements are required. | The shared path is of high quality, with adequate width and bicycle infrastructure. |
| **The Horsley Drive** | Along the Horsley Drive from Ferrers Road to the roundabout at Horsley Drive and Cowpasture Road. | No cycle infrastructure. | New off-road shared path between the cycle path parallel to Ferrers road and the roundabout at Horsley Drive and Cowpasture Road with a minimum width of 2.5m. This recommendation will be referred to RMS as they regulate this portion of the cycle network. | A new shared path will significantly increase cyclist safety and legibility of the route, increasing its appeal. |
| **Cowpasture Road** | Cowpasture Road has four lanes with two lanes travelling in each direction. An 8.3km off-road shared path runs parallel to Cowpasture Road and offers a direct north-south connection to Orphan School Creek. Beyond the intersection of Restwell Road and Cowpasture Road heading toward Orphan school creek an on-road cycle path in addition to the off-road shared path runs parallel along the road and discontinues at Edensor Road. | Provision of R8-2 shared path signage and 'Wetherill Park to Parramatta' and 'Wetherill Park to Cecil Hills' route directional signage. The shared path is of sufficient width with no S5 off-road path broken separation line. | No infrastructure improvements are required. However, maintenance of the cyclist path along Cowpasture Road is advised. | Several concerns have been raised regarding uneven and unclean roads along Cowpasture Road from The Horsley Drive to Restwell Road. Beyond Restwell Road there is concern for debris on the cycle path. |
| **Orphan School Creek**<br><br>(Community Consultation Priority No.10) | The off-road cycle route continues at the intersection of Cowpasture Road and Orphan School Creek heading towards Mirambeena Regional Park, Bankstown. Orphan School Creek is approximately 24.8 kilometres from the western suburbs of Fairfield City to the east. | Orphan school creek currently lacks bicycle infrastructure. | Provision of route directional signage at forks in path including the diversion located at Allambie Road Reserve, diversion after Mimosa Road, diversion after King Road, diversion after Cumberland Hwy, two diversions at The Boulevarde, the intersection of Sackville Street and Adams Park, diversion after Railway | A reliable signage system for bicycle network facilities will enable easier wayfinding along the Orphan School Creek cycle path.<br><br>Provision of cycle friendly facilities such as water fountains, toilets and lighting in dim areas will significantly |

| Street | Description | Current infrastructure | Proposed infrastructure | Justification |
|---|---|---|---|---|
| | | | Parade and diversion at Cook avenue after Carramar station.<br><br>Provision of R8-2 shared path regulatory signage along the cycle path. Reinstate vandalised Orphan School Creek sign at the entrance of the cycle path.<br><br>Cyclist refuges at the intersection of Orphan School Creek with Belfield Road, Sweethaven Road and Smithfield Road cannot be replaced with Zebra crossings as it may impact traffic generation in the area.<br><br>Integration of water stations in Baragoola Reserve, King Park, Dwyer Park, Adams Park and along the cycle path beyond Cumberland Hwy travelling to the east.<br><br>Provision of toilets along the cycle path beyond Cumberland Hwy travelling to the east.<br><br>Bridge underpass through which the cycle route travels across Cambridge Street requires installation of lighting.<br><br>Reinstatement of vandalised mirror at a blind spot immediately after the tunnel across Cambridge Street. | increase the quality of the route and attract more cyclists through Orphan School Creek.<br><br>A reliable signage system for bicycle network facilities will assist users to find their way around the network.<br><br>Cyclist refuges provide a safe location for cyclists and pedestrians alike to cross a busy road with ease.<br><br>Mirrors provided at blind spots remediate sight distance and safety issues for cyclists and pedestrians utilising the shared path. |

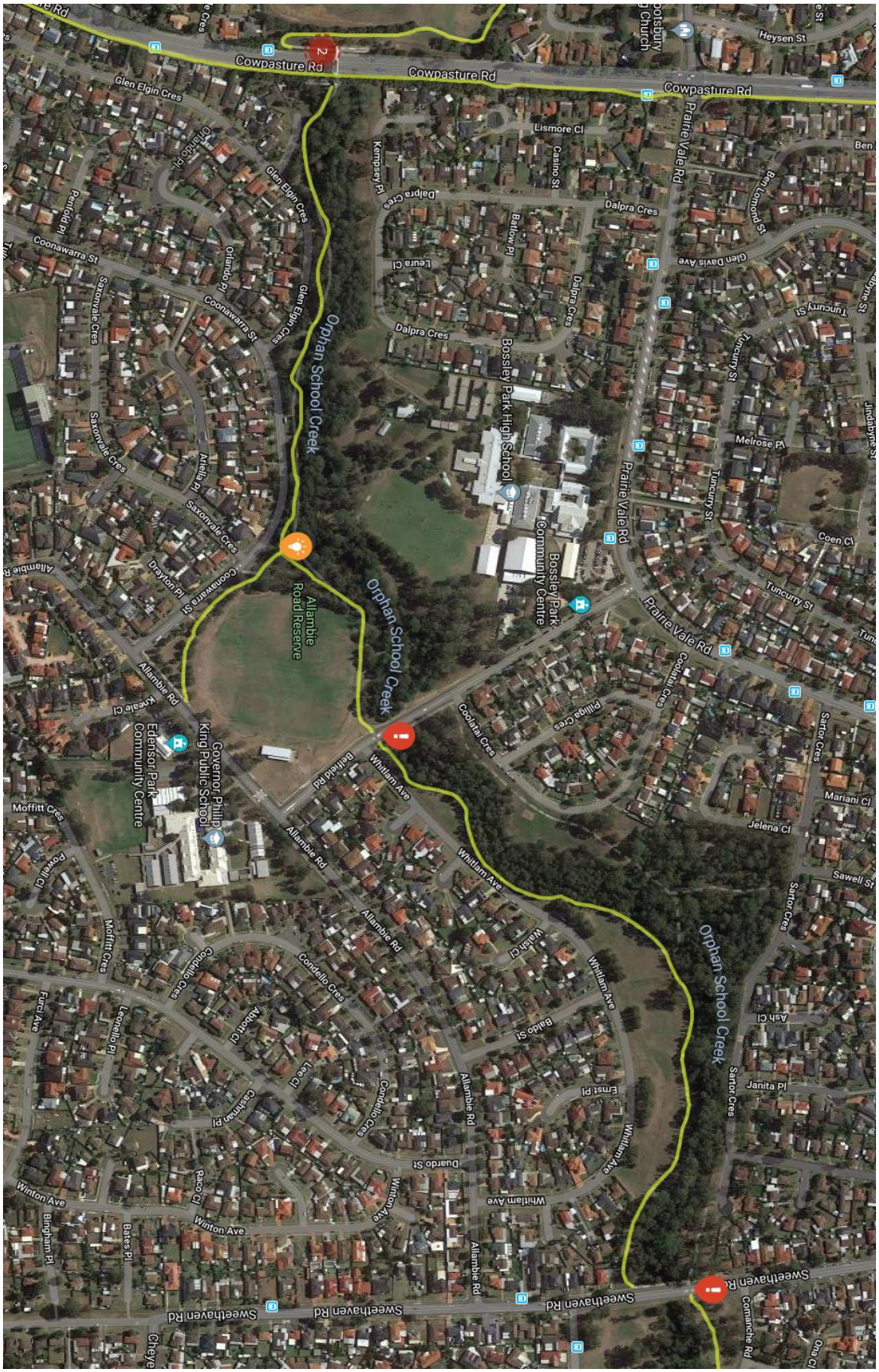



**Figure 3.4: Satellite Image of Orphan School Creek Cycleway (Extract of Online Community Consultation)**

### Table 3.5: Cabramatta Creek Cycleway

| Street | Description | Current infrastructure | Proposed infrastructure | Justification |
|---|---|---|---|---|
| **Intersection of Oliphant Street and Friends Way** | Oliphant Street is a residential two-way street with one lane in each direction. A 1.2 km off-road shared path runs along Oliphant Street, aligning itself to the bend of Florey Crescent. The shared path further runs parallel to Conder Avenue passing through Joe Broad Reserve and discontinuing at Cumberland Grove Country Club. | The shared path is of sufficient width, and has bollards with standard reflective tape to make them highly visible. No S5 line marking is provided and there is a lack of signage. | Provision of route directional signage and R8-2 shared path regulatory signage. | A reliable signage system for bicycle network facilities will assist users to find their way around the network. |
| **Joe Broad Park to Bowden Street**<br><br>(Community Consultation Priority No.2) | A potential cycle route exists between Joe Broad Park and Bowden Street travelling across Orange Grove Road and Cumberland Hwy. | No cycle infrastructure. | New shared path from Joe Broad Park to Cumberland Highway, and then east to start of the existing cycle path directly under Bowden Street and connecting to the shared cycle path travelling through Bowden Park. The new cycle link will travel over Cabramatta Creek to create access to Orange Grove Shopping centre (Warwick Farm). | There is a high demand for the implementation of this cycling route, rating second in the top ten priorities and favourably expressed in the online survey and workshop. |
| **Elizabeth Drive to Joe Broad Park**<br><br>(Community Consultation Priority No.2) | Elizabeth Drive is an arterial road, with heavy traffic from collector roads and the Westlink M7 (Toll road). | Elizabeth Drive contains a shared cycle path with S5 line marking with the southern half of the road within the jurisdiction of Liverpool Council, from Cowpasture Road to the western most boundary of Fairfiled City. | The section directly under Cabramatta Creek lies in the Fairfield LGA. A new shared cycle path is proposed from Elizabeth Drive to Joe Broad Park. | The shared path is a community consultation priority to provide cycle connectivity to Liverpool. |

| Street | Description | Current infrastructure | Proposed infrastructure | Justification |
|---|---|---|---|---|
| **Bowden Park running parallel to Cabramatta Creek** | A shared cycle path directly under Bowden Street travels east through Bowden Park, Cabramatta Sportsground and travels north towards the junction of Broomfield Street and Railway Parade connecting to the Rail Trail Cycleway. | The shared path is of sufficient width and provides a connection to local streets and Cabramatta Sportsground. | Integration of drinking water fountains located nearby Cabramatta Sportsground for both runners and cyclists. | High quality mid-trip facilities support the needs of cyclists and improve the attractiveness of cycling. |
| **Rail trail ending at Broomfield Street to Irelands Bridge Reserve** | The area currently contains green space with no cycle link along Cabramatta Creek. | No cycle infrastructure. | A new shared path from the end of the rail trail at Broomfield Street to Irelands Bridge Reserve under Hume Hwy parallel to Cabramatta Creek. | The shared path will provide a necessary connection for recreational and local cyclists travelling along the Cabramatta Creek route. |
| **Hume Hwy** | Hume Hwy is an arterial road, with two-way traffic and two lanes in each direction. An off road cycle path runs along Hume Hwy and connects to the cycle path running east from Hume Hwy parallel to Cabramatta Creek. The path runs parallel to Georges River and travels along Tharawal Bay towards Strong Park. | The shared path is of sufficient width, with a quality surface and has an S5 off-road path broken separation line marking. There is a lack of signage indicating it is a shared path. | Provision of route directional signage and R8-2 shared path regulatory signage. | Shared path signage increases awareness to users and ameliorates potential conflict between pedestrians and cyclists. |

| Street | Description | Current infrastructure | Proposed infrastructure | Justification |
|---|---|---|---|---|
| **Strong Park** | Strong Park is located at the bend located on Georges River. A cycle path loops at Strong Park. | The shared path is well-connected round the loop with no missing links. The cycle path has a width less than the minimum requirement of 2.5m, lacks in signage and has a poor surface quality. | Installation of shared path signs and provision of water stations along the cycle loop. Improving the surface. Cycle path width will remain as a priority with the emphasis placed on establishing new high quality cycle paths and accommodating for missing links in the Fairfield cycle network. | The proposed infrastructure will improve the quality of the cycle path, increasing its attractiveness for recreational and local use. |
| **New shared path providing connection to Liverpool LGA** | Presently Georges River separates Fairfield LGA and Liverpool LGA. | No cycle infrastructure. | A new bridge from the Strong Park cycle loop in the Fairfield LGA connecting to Liverpool LGA across Georges River. A new shared cycling path would run along the bridge and connect to cycle paths in the Liverpool LGA. | Connectivity to Liverpool LGA would form part of the extensive connectivity across three LGAs Fairfield, Canterbury-Bankstown and Liverpool. This could also form a "lakes loop" around Chipping Norton Lakes. The new bridge and path is the top third priority expressed by the local community and will significantly increase cycling as a more viable and attractive mode choice. |
| **Hollywood Drive** | Hollywood Drive is in a public recreation zone with an off-road shared path connecting the cycle path at Strong Park to the cycle path at Hollywood Park. | The shared path is of sufficient width with a quality surface. | No infrastructure improvements are required. | This route connects the two existing cycle loops along Georges River, providing a safe and direct path. |

| Street | Description | Current infrastructure | Proposed infrastructure | Justification |
|---|---|---|---|---|
| **Hollywood Park**<br><br>(Community Consultation Priority No.6) | Hollywood Park is located at the bend connecting Georges River and Prospect Creek. An off-road shared cycle path loops around Hollywood Park adjacent to the Fairfield LGA border. | The shared path is of sufficient width with a quality surface. | A new bridge across Prospect Creek from the Hollywood Park cycle path to Garrison Point. A new-shared cycling path would run along the bridge and connect the Hollywood Park cycleway to the cycle ways in Canterbury-Bankstown. | This new link would form part of the extensive connectivity across three LGAs Fairfield, Canterbury-Bankstown and Liverpool. The new bridge and path is the top sixth priority expressed by the local community and will significantly increase cycling as a more viable and attractive mode choice. |

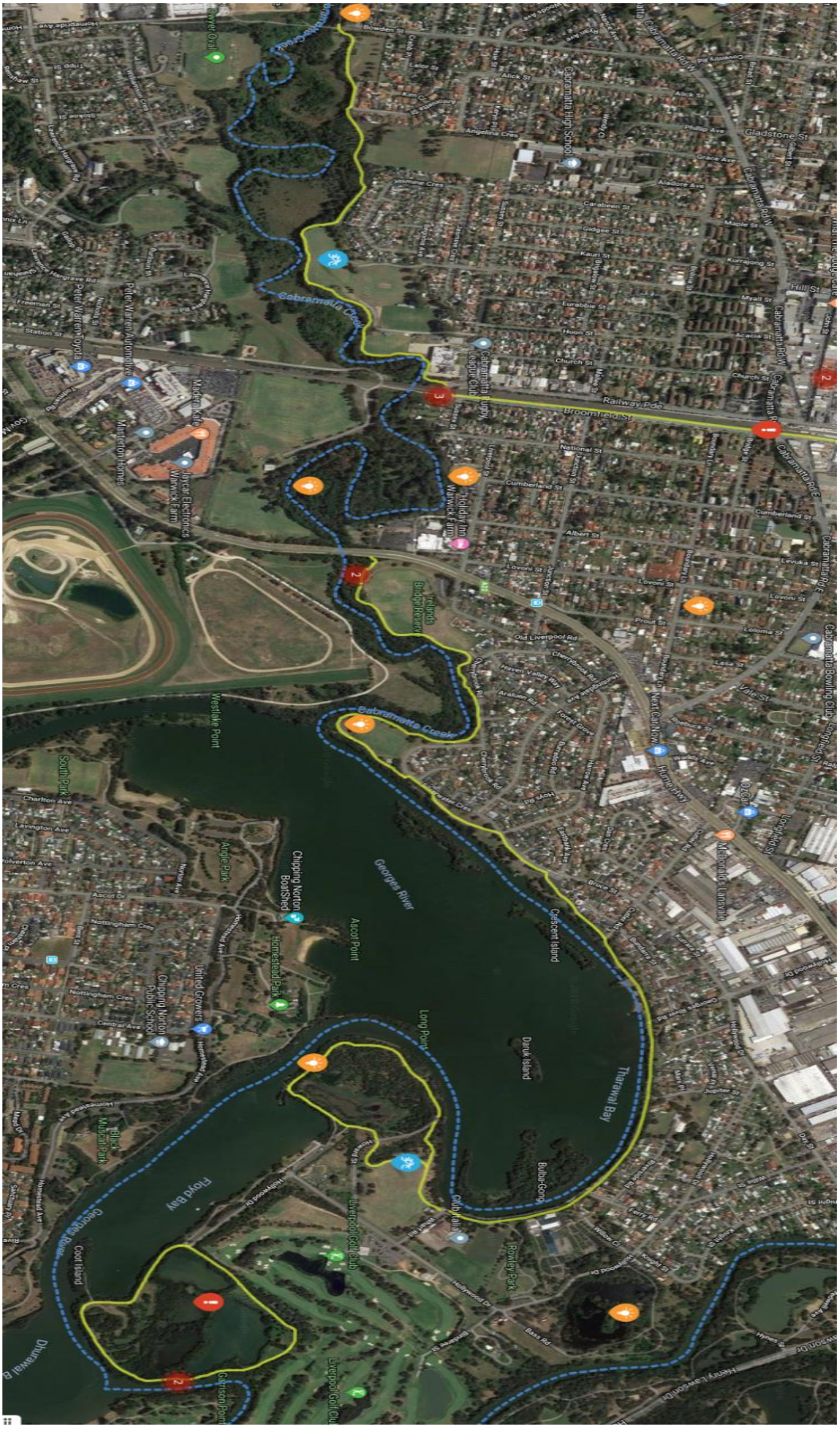



**Figure 3.5: Map of Cabramatta Creek Cycleway (Extract of Online Community Consultation)**

## 3.2 Current bicycle infrastructure

### *3.2.1 Bollards*

Currently Fairfield has installed bollards in shared bicycle and pedestrian paths where there is a need to prevent illegal vehicle access. The bollards follow the standard bollard marking and mounting detail as outlined in the NSW Bicycle Guidelines. Recently issues have been raised regarding the poor visibility of bollards in Fairfield LGA, which has been stated to contribute to collisions with the bollard and resulting injury claims. To prevent further collisions, improvements to ensure bollards are finished in a light bright colour with reflective tape to make them highly visible to road and path users in low light conditions.

### *3.2.2 Signage*

In Fairfield City a combination of **regulatory signage** and line marking which defines the types of bicycle facility provided are utilised. Yellow diamond shaped warning signs are used to alert riders to potentially hazardous path or road conditions. These **warning and advisory signage** are also used to alert other road users of intersecting or merging bicycle movements. **Directional signs** (identifying both distance and time) are installed to help users find their way around the system of bicycles routes and guide them to their destinations. This is useful as it avoids any ambiguity and conflict between motorised road users and bicycle riders.

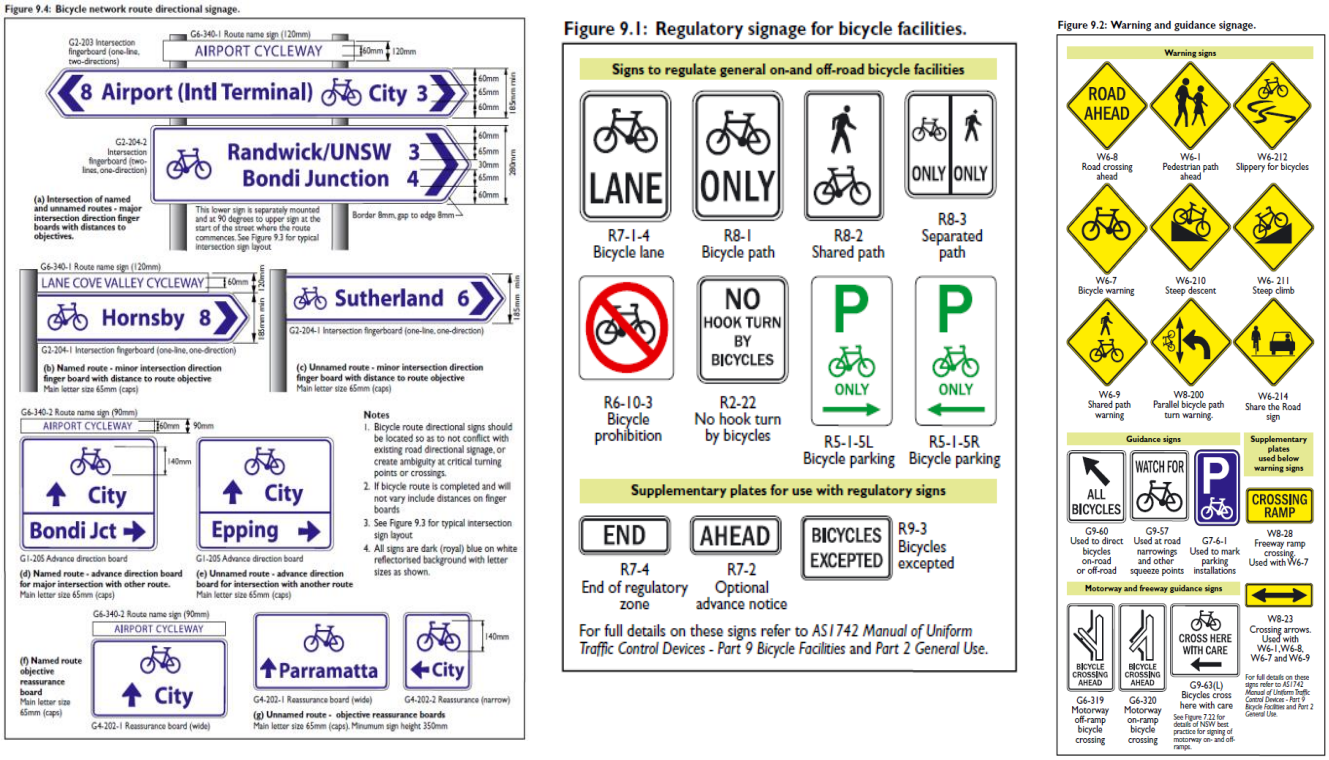



**Figure 3.6: Advisory and Directional Signage**

### *3.2.3 Shared paths*

Shared paths provide physically separated operating space for pedestrians and cyclists off-road within the road corridor. A basic requirement for all shared paths is installation of a path centreline and pavement symbols. This requirement falls under level one which is defined as low use and few reported conflicts. The path centreline separates the two-way flow and permits safe operation of the facility. Level 2 is defined as moderate path use and a number of reported conflicts. The requirements of level 2 include installation of a path centreline, pavement symbols and shared path behavioural signage. Shared path behavioural signage encourages shared path users to behave in a co-operative manner. The four key behavioural messages are:

1. Keep left when using the path;
2. Warn other path users on approach and overtaking;
3. Move off the path when stopped; and
4. Walkers control your dogs.

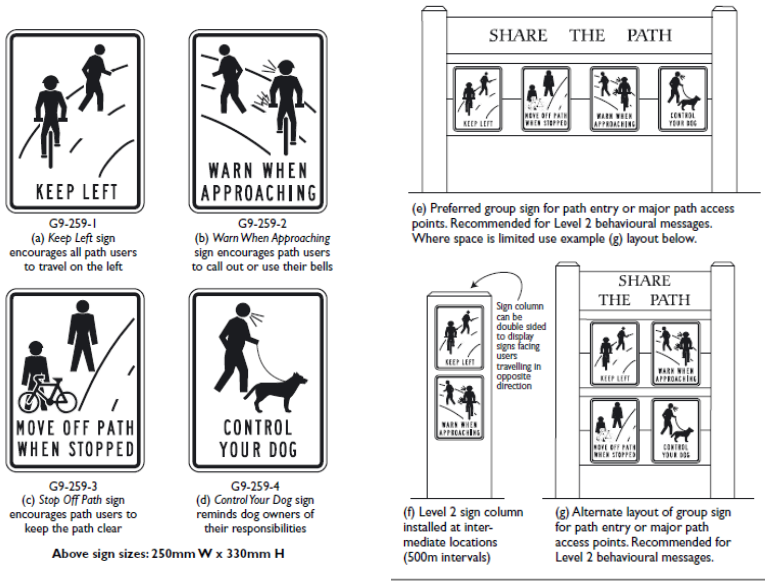



**Table 6.4: Shared path behavioural sign installation.**

| Level | Level of usage | Recommended installation |
|---|---|---|
| Level 1 | Basic requirement for all shared paths. Low use and few reported conflicts. | Path centreline and pavement symbols (PS-3, PS-4 and PA-1). See Figure 6.1 for path linemarking recommendations. |
| Level 2 | Moderate path use and number of reported conflicts. | As for Level 1 plus group signs (Figure 6.6 (e) or (g)) at key locations and sign columns (Figure 6.6 (f)) at min 500m spacings. |
| Level 3 | High path use and number of reported conflicts. | As for Level 2 plus additional single or grouped behavioural signs according to the type and level of reported and observed conflicts. |

**Figure 3.7: Control Signage**

### *3.2.4 Bicycle parking*

At schools, railway stations, shopping centres and leisure centres cycling is encouraged and practised, hence there is a higher demand for parking. These developments have a medium volume demand for bicycle parking (10-20 bike parking spaces), where the floor space available for bicycle parking is limited and user demand is substantial. An inverted “U” style bicycle rack with 850mm mounting centres that will allow for two bicycles parked in reverse direction is the recommended layout arrangement for a medium demand parking installation (refer to figure below).

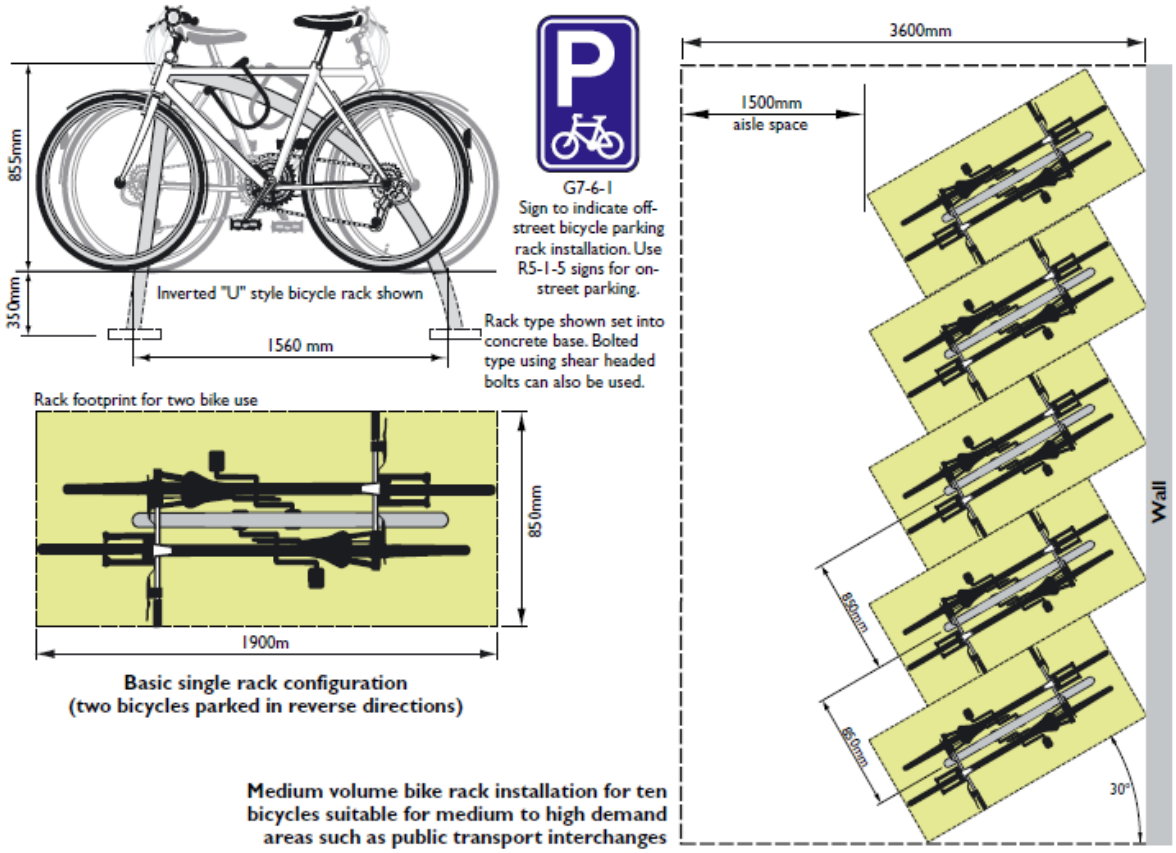



**Figure 3.8: Bicycle Parking Layout**

### *3.2.5 Bubblers*

End of trip facilities such as bubblers are recognised as incentives for cyclists and will attract more cycle trips. The result of this is reduced congestion and car parking demand in the Fairfield area. Integration of water-bubblers in the future is an important priority and will be located at key destinations, including sportsgrounds, leisure centres, local parks, main bicycle routes and train stations.

Information about key stoppage locations will be attained from the local cycling community to determine the most optimal bubbler locations along dedicated cycle paths. The locations to be considered will be analysed for both monetary and environmental value to ascertain the feasibility of installation. Great importance is placed on bubbler installation due to the lack of water bubbler provision in the Fairfield LGA. This will provide an incentive for current and newer riders within the local community.

## 3.3 Infrastructure in the Fairfield LGA

*Figure 3.9* below displays the most common cycling infrastructure installed within the Fairfield LGA:

- Advisory Shared Path signage: This serves as a warning to both pedestrians and cyclists, notifying them that the footpath is a shared path and individuals should proceed with caution.

- Regulatory Shared Path signage: This sign is placed at intervals to serve as a reminder for riders and pedestrians of the purpose of a shared path.
- Mounted "U" Rail: Holding rails designed for pedestrian and cyclist crossing to allow users to hold onto or rest against the rail, especially in cases of changed traffic conditions.
- Bollard: Bollards are installed to prevent motor vehicles such as cars and motorbikes from driving onto and endangering users on the shared path.

Figure 3.9: Advisory, Regulatory Signage & mounted "U" rail in Fairfield LGA

## 3.4 Education, Awareness and Promotion

Raising awareness and attractiveness of cycling in the Fairfield area is essential to foster positive attitudes to the practise of cycling in daily life. This enables the community to benefit from the many positive outcomes including health benefits and reduced costs related to transport. Many initiatives have been designed for the purposes of promoting cycling in NSW and these can be readily adopted by schools, local communities and businesses.

### *3.4.1 Western Sydney Cycling Network*

In Fairfield City, cycling education and promotion is predominantly facilitated by a non-profit community based cycling group called the Western Sydney Cycling Network. The Western Sydney Cycling Network aims to promote cycling for transport, leisure and health and increased use of Fairfield cycle-ways. Further, they aid communities by increasing ownership of bicycles through recycling used bicycles and managing a bicycle loan system. Free Sunday community rides and Thursday rides are held by the WSCN to support cyclists in developing skills and confidence to cycle. In addition, the group is involved in national cycling events such as Gear up Girl, Spring Cycle Super Weekend, Coota Bike Festival and Wagga Gears and Beers Weekend.

### *3.4.2 Initiatives for Cycling*

In addition to the initiatives engaged by the Western Sydney Cycling Network, there are a number of similar initiatives to promote cycling in NSW which can be adopted by communities, businesses, workplaces and local governments. These initiatives include:

- Ride to Work Day
- Ride to School Day
- Great Escapade, a nine-day annual tour set out to explore a different region each year.
- MS Sydney to the Gong ride, a 90km ride from Sydney to Wollongong via the Royal National Park with 10,000 riders each year
- NSW Bike Week, a NSW Government initiative that raises the profile of cycling as a healthy, easy, low cost and environmentally friendly transport option for short trips. Events may include car free days; ride to work day, breakfasts/bbqs and cycling and road safety skill lessons for children.
- Cycle Routes web pages such as Bike map and Service NSW Cycleway Finder Map allow users to search and access routes in the local area and create new routes.
- Car-Free Day - Which requires employees, senior school students to forget the car and ride a bike to work or school for the day
- Providing easy to follow maps and brochures around the Fairfield Area
- Biketober – Held in 2020 for the first time. A NSW Health Initiative.

STOP
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# Section 4 **Proposed Bike Routes**

## **4.1** Western Sydney Parklands

With the proposed M12 Motorway, as part of the Western Sydney International (Nancy-Bird Walton) Airport project, Western Sydney Parklands Trust will be subject to various changes to access arrangements and layouts.

The construction process and subsequent completion will result in the placement of access restrictions to avoid road user conflicts and maintain safety.

As a result, the existing bike trails will have to undergo either modification or relocation to ensure high usage of the cycle paths.

The main area of interest resides in Abbotsbury, where the proposed link will provide a north-south connection for residents in Darling Street, Begovich Crescent and Whitley Place to the existing WSPT cycleway. As a result, it will provide cyclists with a better connection and more practical route, which connects Elizabeth Drive to the Prospect Reservoir cycle path along with the cycle network in the Blacktown LGA.

Furthermore, the proposal seeks to provide a direct link to Cowpasture Road, expanding the connectivity of the existing cycle network.

## **4.2** Local Town Centres

Based on the Urban Design Study, Council is also looking to prioritise the provision of on-road missing links proactively, in order to cater for the projected growth associated with town centres in Fairfield LGA. Two such town centres that are prioritised are listed below:

- Villawood Town Centre
- Carramar Town Centre

In addition to the abovementioned Council priority works, is the provision of an on-street missing cycle link connected to Carramar Station. This will significantly assist those residing in Carramar to safely cycle to Carramar Station, further promoting cycling as a mode of transport amongst users.

## **4.3** Other Projects

The following works have been proposed in conjunction with the Smithfield Road and Showground upgrades in order to improve the cycling experience and increase cycling opportunities in the Fairfield LGA:

- Construction of a shared user footpath from Scotchey Street to Myrtle Road, Prairiewood;
- Implementation of bicycle lanterns at the signalised intersections of Smithfield Road/Showground entrance and Smithfield Road/Myrtle Road, Prairiewood.

## **4.4** Future Possibilities

Links to all centres from existing cycleways will be considered as part of future planning opportunities to improve active transport access to these major attractors.

# Section 5 **Implementation and Budget**

## 5.1 Funding

Funding is generally not achieved through one specific method, instead, it varies due to Council's need to apply for funding from State Government bodies, such as TfNSW. It is also possible to gather funds from development contributions such as Section 7.11 or general footpath upgrade works. Some other funding sources are listed below:

- Transport for New South Wales;
- Commonwealth Department of Infrastructure, Transport, Regional Development and Communications;
- Department of Planning Industry and Environment;
- NSW Office of Sport;
- Developer Contributions (Section 7.11 funds);
- Council funds;
- Voluntary Planning Agreements; and
- Commonwealth Department of Education, Skills and Employment.

In order to ascertain efficient allocation of funds, Council seeks to implement changes and improvements in the cycling network at locations which experience the greatest number of daily cyclists.

Locations with higher rider volumes will be made the top priority to ensure that improvements made to the existing network are effective. By creating links to trip generators such as local shops or employment centres, it is envisaged that this will encourage more residents to cycle.

There are two categories of actions:

1. Cycleway extensions
2. Other actions

**Cycleway Extensions**

| Route Type | Indicative Estimate ($) |
|---|---|
| 3m wide (off road shared path) | 200/$m^2$ |
| 2.5m wide (off road shared path) | 150/$m^2$ |

**Other actions**

| Infrastructure Type | Indicative Estimate (per unit) |
|---|---|
| Install Bubblers | $12,000.00 |
| Install Bicycle parking facilities | $1,500.00 |
| Install bollards | $1,200.00 |
| Install signage | $100.00 |

# Section 6 **Monitoring and Evaluation**

## **6.1** Monitoring

### *6.1.1 Bike Week*

NSW Bike Week is a New South Wales Government initiative run annually in each local community to provide an organised bicycle event. This initiative is set to promote cycling as a healthy and easy transport option for commuters to consider in their day to day lives. It is organised with the following key objectives:

- Reach a diverse range of people with positive messages about the benefits of cycling;
- Encourage new riders to try cycling and encourage participation amongst existing cyclists;
- Increase use of local cycling infrastructure for transport and recreation;
- Enable an environment for new and less confident cyclists to improve cycling skills;
- Promote cycling as a convenient and fun mode of transport for short trips; and
- Educate the community about relevant road rules and importance of protecting vulnerable road users.

Council recognises that bike week attracts on average 50 cyclists of a variety of ethnicities and ages to participate in a 20km ride that lasts three hours in order to expose residents to cycling as a viable transport option. It seeks to provide riders with knowledge of their rights on roads as well as information on the extensive cycling network present in the Fairfield LGA.

### *6.1.2 Super Tuesday and Sunday Counts*

Super Tuesday is an annual commuter bike count for local councils undertaken by Bicycle Network Victoria and local volunteers. The program aims to track active transport performance and inform infrastructure delivery by providing the following information at each intersection:

- Total numbers of bike riders in 15 or 30 minute time intervals
- All movements of bike riders at each intersection
- Gender

Council has the option to register online and liaise with the Bicycle Network, to ensure newly built bicycle routes are covered by the Super Tuesday surveys.

### *6.1.3 Bicycle Facilities Audit*

Audits for bicycle facilities including bicycle parking infrastructure should be conducted at least every two years to ensure it is in good condition. Council should engage with the local public and advocacy groups such as the WSCN to gather additional feedback. Observations that will be made upon conducting test runs for the new bicycle infrastructure include:

- Barriers encountered
- Surface quality of the paths
- Adequacy of the route to deal with number of users, including any actual or near conflicts
- Other observations

### *6.1.4 On-Road & Off-Road Audits*

On-Road and Off-Road safety audits will be conducted annually to monitor and maintain:

- Appropriate pavement markings and delineations;
- Bollards; and
- Standard U-rail marking

The importance of these safety audits is to assess the current condition in regard to design requirements with reference to AS 2890.3:2015 Bicycle parking and Bollard and U-rail detail (clearly outlined reflective tape and yellow coating) as outlined in the NSW Bicycle Guidelines.

## **6.2** Evaluation

Evaluation methods include the following:

### *6.2.1 Annual Reflection Workshop*

An annual reflection workshop will be held with Council officers, community members and cycling groups to review the performance of the implemented actions in this bike plan. The findings from the annual evaluation will support future decision making in regard to integrating more bicycle infrastructure in the local network. Outputs of the evaluation workshop will be a revision of the existing bike plan with new and amended outcomes.