Government of **Western Australia**
Department of **Transport**

Empowering a thriving community

# KALGOORLIE 2050 | CYCLING STRATEGY

City of Kalgoorlie Boulder

# Acknowledgement of Country

The authors of the *Kalgoorlie 2050 Cycling Strategy* acknowledge the Traditional Custodians of the land on which we work and live, and recognise their continuing connection to land, water and community. We pay respect to Elders past and present.

Specific acknowledgements have been made throughout the document to name the country and the Traditional Custodians.

In the first instance this has been informed by Native Title Determination Areas, as per the Native Title Tribunal Native Title Claimant Applications and Determination Areas Map, available from the National Native Title Tribunal.

Where no formal Native Title claim has been determined, reference has been made to the AIATSIS Map of Indigenous Australia. We note that some of the information shown on that map is contested and may not be agreed to by some traditional custodians. We additionally recognise there are alternative spellings for some of these names.

Please contact activetransport@transport.wa.gov.au if Traditional Custodians have not been accurately recognised.

Aboriginal and Torres Strait Islander people are respectfully advised that this publication may contain images or names of people who are deceased.

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*This strategy captures the needs of a diversity of existing and potential bike rider groups and is centred on catering for people of all ages and abilities.*

# Executive Summary

**Western Australia has many wonderful paths and trails that provide for world class walking, wheeling and riding experiences. Cities and towns with high levels of bicycle riding enjoy a range of social, environmental and economic benefits. Not only is bike riding proven to reduce traffic congestion and improve air quality, it also helps to create more vibrant and welcoming communities. It increases access for people to more places, enabling people to participate in learning, employment, cultural and recreational activities.**

Bike riding enhances community health and well-being and provides people with a low-cost mode of transportation. It can also facilitate new forms of industries such as cycle tourism, skills building and bicycle hire services. Fundamentally, increasing the number of people on bikes, including other forms of active travel such as walking and scooting, is about improving quality of life, which is a key element for continuing to attract people to visiting and living in the Kalgoorlie region.

The key to increasing the number of people choosing to ride is the combination of social interventions, such as activation and education campaigns, alongside infrastructure measures, such as the provision of dedicated bicycle and trip facilities. Social interventions need to consider peoples' barriers and motivators to bike riding, with initiatives adapted to fit the context of local communities and delivery agencies, while built infrastructure must be safe, convenient and designed to reflect the local environment.

To achieve greater participation in bike riding, people on bikes need to be prioritised ahead of other modes in appropriate locations, ensuring that the bike riding network is well integrated with adjoining land uses and can function as a competitive mode against other forms of transport. Safe and connected bike riding networks must be supported by trip facilities and engagement programs.

If we are serious about enabling active travel and providing genuine mode choice for people of all ages and abilities, particularly for short trips, these priorities need to be reflected in the way our communities are planned and administered.

The *Kalgoorlie 2050 Cycling Strategy* has been developed by the Department of Transport (DoT) in partnership with the City of Kalgoorlie-Boulder. This strategy reflects a common vision for encouraging more people to ride in and around the region, and builds on the ongoing work undertaken by each local government to deliver active transport infrastructure and supporting initiatives. A principle aim of the Strategy is to inform future investment in the region's bike riding network through the current Regional Bike Network (RBN) grants program, local government capital works programmes, as well as other funding sources.

*Extensive consultation was undertaken with key stakeholders and the local community to ensure that the networks and actions in this strategy are reflective of what is desired and required to improve peoples' experiences of bike riding and encourage more people to ride more often in the Kalgoorlie region.*

Four key themes and complementary opportunities for bike riding in the Kalgoorlie region were identified through stakeholder and community consultation, as shown in the table below:

| Theme | Opportunity |
|---|---|
| **Enabling young people to ride** | **1.** Increase the number of students riding to school.<br>**2.** Support road safety and bike riding skills education.<br>**3.** Improve managed road crossings serving schools.<br>**4.** Support programs in schools to encourage active travel.<br>**5.** Invest in recreational bike riding facilities. |
| **Promoting healthy and active communities** | **1.** Improve bike riding connections to the City's green spaces.<br>**2.** Connect people to active recreation facilities.<br>**3.** Support safer routes for road cyclists.<br>**4.** Provide opportunities for mountain biking.<br>**5.** Create more opportunities for group cycling activities. |
| **Connecting the community to local jobs and services** | **1.** Improve links to major employment nodes including West Kalgoorlie industrial area.<br>**2.** Improve access to Kalgoorlie city centre and Boulder town centre as well as the City's neighbourhood centres.<br>**3.** Create a rideable city centre. |
| **Highlighting the region's rich history** | **1.** Develop a riding trail connecting locations of historical significance.<br>**2.** Profile the region's historical affiliation with bike riding.<br>**3.** Create opportunities for long distance cycle touring. |

In delivering the network outlined in the Strategy, it is important to note that the long-term vision is highly aspirational, therefore, further work is required to determine the feasibility and form of various routes. Ongoing consideration will be given to the potential environmental impacts to ensure that the unique characteristics of the area, including Aboriginal cultural and heritage needs, are respected and maintained.

The Strategy will be reviewed every five years to ensure it continues to align with the region's broader planning aspirations, noting that the long-term bike riding networks identified in this strategy are intended as a dynamic framework. The classification and alignments of routes may change following further feasibility assessment and consideration of local environmental, heritage, engineering constraints and impacts on other road users.

# Why we want more people walking and riding

## More vibrant, friendly and safe communities

Increasing active transport improves community cohesion and can enhance local security.[1]

**More than 1 in 4**

Regional Western Australians bike ride in a typical week – the highest proportion of any Australian state and territory.[2]

## A more sustainable health system

Consistent walking or riding can help reduce cardiovascular disease, type 2 diabetes and the mortality rate.[3]

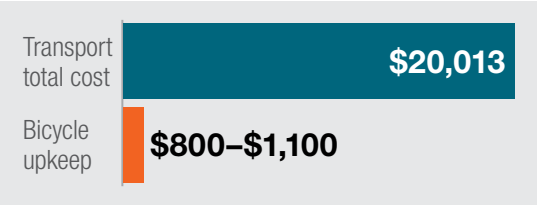
**More than 4 in 10**

Western Australian adults don't get enough physical activity.

Improving access to walking and riding infrastructure in regional areas is a key focus to better sustain outer metro health systems.[4, 5]

## A stronger economy

**Cost per year (Australian average)[6]**




Bike tourism is a growing niche, encouraging more repeat travel to regional WA areas.[7]

**At a glance**

**The bike riding industry in 2022**

**$6.7bn**
Contributed to the Australian economy.

**58,272**
Full-time jobs supported.[8]

## Healthier and happier people

Bike riding can improve mental, physical and social health and wellbeing, as well as reduce sickness absence to work.[9]

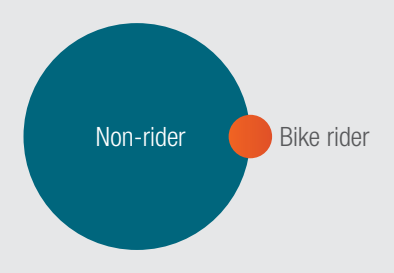
## A fairer and more equitable society

Many people living in outer urban, rural and remote regions have very limited transport options.[10]

The improvement of walking and bike riding conditions can reduce motorised travel and enables people of all ages and abilities to use healthier, more cost-effective active travel modes.[11]

## Greener and cleaner places

**CO2 emissions from daily travel**




Bike riders had 84% lower CO2 emissions than non-riders.[12]

People who shifted from car to bike were found to decrease life cycle CO2 emissions by 3.2kg CO2/day.[13]

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# 1. Introduction

## 1.1 Guiding principles

**The City of Kalgoorlie-Boulder (the City) has a vision of creating a vibrant, resilient, and well-connected regional centre, with 'connectivity' identified as one of ten top priorities in the *Strategic Community Plan 2020–2023*. Central to this vision is a design approach that enables people of all ages and abilities to have choice in how to get to the places they want to go to.**

An 'all ages and abilities' design philosophy is about creating places and facilities that are safe, comfortable, and convenient for as many people as possible. By designing walking and bike riding facilities to cater for young and vulnerable users we create a network that everyone can use. At the heart of this approach is fairness, by enabling people to access places regardless of age, physical ability or the wheels they use.

The *Kalgoorlie 2050 Cycling Strategy* (the Strategy) recognises that communities with high levels of bike riding enjoy a range of social, environmental and economic benefits. Bike riding supports people to live happier, healthier and more active lives. Providing a safe, connected and comfortable bike riding network suitable for all ages and abilities reduces dependence on cars which can help reduce traffic congestion and parking issues, and improve air quality.

Bike riding can also facilitate new forms of industry, such as cycling tourism, which can help support economic vitality at a local and regional scale. The goal of the Strategy is to have more people choosing to bike ride more often in the region. The Strategy sets out actions to deliver a safe and well-connected bike riding network, initiatives to foster positive community attitudes towards bike riding, and to create an environment where bike riding is safe, convenient, fun and viewed as a viable transport option.

The bike riding network aims to connect residents and visitors to the region's key destinations and attractions, including natural and recreational assets unique to the region, as well as sites of historical and modern-day significance which have gained prominence due to the abundance of rich mineral resources found in the region.

The long-term cycle network proposed in this strategy has been developed based on the following six principles:

- **Safe** – the 2050 cycling network should be built to a standard which reflects an all ages and abilities design philosophy. People of all ages and abilities should be able to cycle safely and confidently to the places they need and want to go. Unprotected cycling facilities located on busy roads are not considered suitable for vulnerable road users, and will not encourage more people to cycle, more often;
- **Connected** – like a road network, all bike riding routes should connect to something along the way and at each end (whether that is a destination or another bike riding route);
- **Widespread** – in suburbs and towns, the network should be extensive enough for people to safely assume they can get to their destination without encountering hostile traffic conditions. When bike riding networks reach a certain level of density it enables more people to conveniently and enjoyably make many more of their trips by bike;
- **Legible** – the bike riding network needs to be both intuitive and direct. To achieve this, it makes sense to locate major bike riding routes parallel to natural land forms, such as rivers and coastlines, or within existing road and rail corridors. The development of coherent wayfinding initiatives is also important in supporting legibility;
- **Aspirational** – given the long-term nature of this strategy, several ambitious ideas have been put forward to help enable residents to adopt bike riding as a viable and priority transport mode, as well as encourage visitors to stay longer and explore areas across the Kalgoorlie region comfortably by bicycle. This includes linking town sites and national parks via rail corridors and road systems, and implementing climate and terrain specific mid and end-of-trip facilities; and
- **Achievable** – for the most part, the proposals put forward in this strategy adopt tried-and-tested planning principles. The case studies chosen provide regional, interstate and international examples of similar projects undertaken in recent years.

Previous Regional Cycling Strategies have focussed on the transport function of bike riding and have not included deliberate consideration of recreational and sports bike riding activities, especially those that require purpose-built facilities, such as BMX pump tracks, velodromes and mountain bike trails.

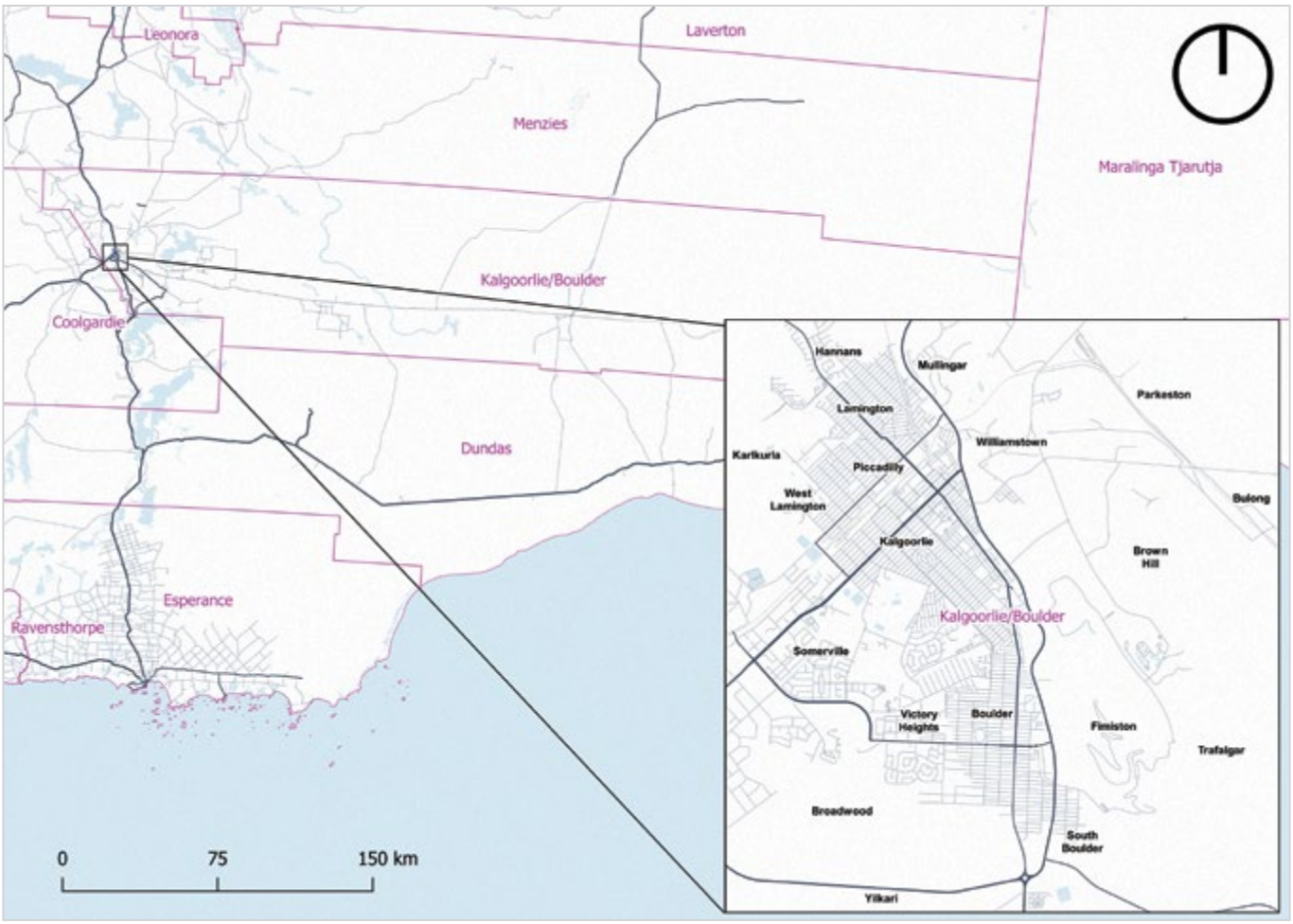
*Stakeholders and community members from the Kalgoorlie region highlighted the benefits of recreational and sports bike riding to the region, including positive public health, tourism and economic benefits. Although not the focus of this strategy, it is acknowledged that with more people riding bikes for recreation or sport, there is more potential for people to feel confident to choose to ride a bike for travel to work, school or the shops.*

## 1.2 Kalgoorlie-Boulder in context

The City of Kalgoorlie-Boulder is one of ten local government areas (LGAs) forming the broader Goldfields-Esperance region. The City is bounded by the shires of Coolgardie to the west, Menzies to the north, Dundas to the south, and the state of South Australia to the east. Located approximately 594 kilometres east of Perth, the City covers more than 95,000 square kilometres (km$^2$), making it the third-largest city in the world.

Kalgoorlie-Boulder is cited as 'WA's inland capital' and is the largest city in the Australian Outback[14]. The City is home to an estimated resident population of 29,300[15] and serves as the hub of the WA Goldfields, containing one the richest gold deposits in the world – The Golden Mile. The abundance of mineral resources, including gold, nickel, iron ore, uranium and lithium, results in the region being a major contributor to the WA economy.

**Map 1. Site context map showing the City of Kalgoorlie-Boulder**



The Kalgoorlie region has been home to Aboriginal people for tens of thousands of years prior to European settlement, with a number of First Nations language groups that continue to inhabit the region. Aboriginal Australians represent approximately 7.7 per cent of the City's population, while nationally Aboriginal and Torres Strait Islander people make up 3.3 per cent of the population.

The discovery of gold in 1893 fundamentally changed the region and its people, bringing a major influx of new residents. As the early gold rush has evolved into a modern-day mining industry, so has Kalgoorlie-Boulder developed as a major regional city that is rich in culture and historical significance, placing it on the map as a top tourism destination in WA.

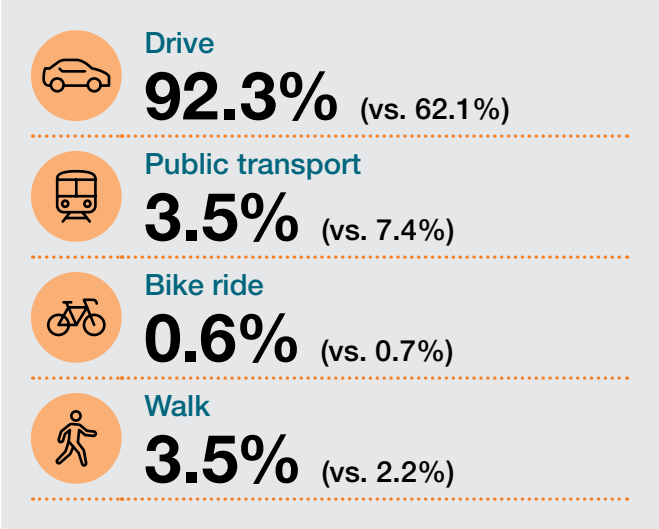
As per the 2021 ABS Census, the median age for the region's residents is 33 years old, slightly younger than the WA median age of 38, with the largest age cohort being 25–29 years old. The region has a higher proportion of lone households (27.3 per cent) than the WA average (25.4 per cent). Sixty-nine per cent of the region's households are comprised of families, which is lower than the WA average of 71.2 per cent.

Approximately 70 per cent of people,15 years or older, are employed in the region, which is higher than the WA employment rate (63.9 per cent). The key industry in the region is Gold Ore Mining (20.4 per cent), followed by Primary Education (3.2 per cent).

The dominance of the mining sector is reflected in the City's high non-resident/service population, encompassing fly-in-fly-out and drive-in-drive-out workers. At the time of the 2021 Census, there were almost 3,000 non-residents in the City.

There is an average of two motor vehicles per dwelling in the region, which is slightly higher than the WA average. Because of the small size of the City's main townsite and limited public transport service the region is well suited to active travel. Despite this, the 2021 Census found the City has a similar percentage of people riding a bike to work compared to WA. The primary mode of travel for people in the region to get to work is private vehicle, with 92% of people travelling to work by car (either driving or as a passenger).

**Figure 1. 2021 Journey to work: City of Kalgoorlie-Boulder (vs. WA)[16]**



*The name for Kalgoorlie comes from the Wongi word 'Karlkurla' which translates to 'silky pear'.*

**Rider on a shared path on Johnston Street.**
Credit: Department of Transport.

## 1.3 The need for a long-term regional cycling strategy

Many of the Kalgoorlie-Boulder region's strategic plans recognise the importance of bike riding for the health and wellbeing of the region. This includes local bicycle network planning and footpath programs which focus on the urban area. However, this strategy adopts a wider lens, identifying region-wide opportunities for supporting the region's potential for bike riding.

Developing an interconnected bike riding network and fostering a culture of bike riding is key to getting more people on bikes within the region. Through meaningful collaboration with stakeholders, this strategy establishes an agreed vision for bike riding at the regional scale.

Key reasons for developing this strategy include:

- To identify opportunities in the region to support the long-term growth in cycling aligned with future land use and transport developments;
- To help guide investment between local government and State Government;
- To facilitate the planning and development of long-distance bike riding routes that serve a regionally significant need but may be outside the typical funding capacity of local government;
- To ensure that the standard of future bike riding facilities meets best practice; and
- To adopt a consistent approach with other 2050 bike riding strategies being developed for regional WA.

This Strategy will be reviewed every five years to ensure it continues to align with the region's broader planning aspirations as set out in local government, State Government and other relevant plans and strategies. The review will assess the effectiveness of the Strategy by reviewing trends in bike riding, and take account of changes in technology and regulation related to active travel. Section 6.4 details the framework for maintaining this strategy.

### 1.3.1 Expected changes in population

The 2021 census found that the City of Kalgoorlie-Boulder has a population of 29,300 residents. The City recorded a decrease in population of approximately 2.5% between 2016 and 2021, possibly partly due to Covid-related changes in work-related travel practices.

By 2040 the City's resident population is projected to reach 40,000[15]. Population forecasts for the region recognise that this growth scenario is strongly influenced by the outlook of the mining industry, given the sector's dominant role in the growth and development of the region.

### 1.3.2 Expected changes in land use

The Strategy takes a long-term view of the bicycle network and therefore takes account of strategic land use planning for growth areas and developments in the region. The City's *Local Planning Strategy 2013–2033* (LPS) broadly identifies residential land availability and potential residential yield for the City over this time horizon.

It notes that the areas of Hannans, Piccadilly and O'Connor have the greatest proportion of land available for new dwellings, while a smaller portion of lots are available for residential development in Boulder and Kalgoorlie. Within South Boulder and West Kalgoorlie no vacant lots are available, however, the LPS identifies an opportunity to create more housing through infill development.

Committed projects in the planning pipeline which will attract more people living and working in the region include:

- Greenview at Karkurla: Residential development close to Kalgoorlie Golf Course, with land available for 1,300 new homes in the future;
- Karkurla Rise: Residential development of 901m2 in Hannans, overlooking Karlkurla bush land;
- Residential development of 400 new homes on Lots 9003, 9004 and 9005 Hart Kerspien Drive, proximate to Kalgoorlie-Boulder Airport;

- Two-hundred and six hectares of new industrial land located 2.5km south-west of the urban area; and
- Expansion of the existing Anzac Drive Industrial Estate by 103 hectares in West Kalgoorlie.

### 1.3.3 Expected changes to transport

Planned investments in major transport infrastructure can present opportunities for supporting investments in the bike riding network. The following planned transport investments were identified through a review of background information relevant to the region (see Section 1.4).

The following major projects of significance to this strategy are currently in planning or development:

- An additional $159 million to the Regional Road Safety Program was announced as part of the 2022–23 State Budget. This program has already delivered upgraded shoulders and installed audible edges to more than 1,495 kilometres of roads in the Goldfields-Esperance region.
- There is potential to increase the use of Kalgoorlie-Boulder as a hub in WA's overland freight transport network[15]. While further analysis is required on the viability of options, there is an opportunity to deliver a solution that improves safety by reducing truck traffic on roads.
- The *Kalgoorlie-Boulder Airport Master Plan 2018–2032* forecasts that by 2032 the airport will see up to 375,000 passengers per year, increasing from 270,00 in 2018. The master plan includes provision for hotel, commercial and light industry. An increase in aviation transport coupled with land use changes will increase access demand to and from the airport precinct.

### 1.3.4 Relationship to other documents

The *2014–2031 Western Australian Bicycle Network (WABN) Plan* identifies the need to review cycling facilities in WA's regional centres. Although many regional local governments have their own local bike plans, it is recognised that there is a need to develop long-term regional strategies which have an aspirational focus and, where appropriate, span across entire regions.

Key objectives of this process include improving connections to activity centres and schools, identifying inter-regional routes, and harnessing the potential of bicycle tourism.

DoT is currently leading the development of a new active travel strategy, *Walk, Wheel, Ride, Thrive* which will better align existing State Government strategies and outline a collaborative approach to increasing active travel across Western Australia. Once published, *Walk, Wheel, Ride, Thrive* will replace the WABN Plan.

Funding applications for the development of key strategic projects within these areas can be made through the current Regional Bicycle Network (RBN) Grants Program. This program makes funds available for the planning, design and construction of bike riding networks and bike riding infrastructure by local governments in regional WA, with funding matched on a dollar-for-dollar basis.

Long-term cycling strategies such as this do not preclude local governments from preparing a local bike plan. While the purpose of this strategy is to provide a blueprint for Kalgoorlie's 2050 bike riding network, a local bike plan may be used to identify short-term priorities such as upgrades to existing infrastructure and maintenance requirements. Local bike plans are also important for outlining strategies around the activation of bike riding infrastructure and various education, promotion and encouragement strategies aimed at affecting behavioural change.

## 1.4 Background research and analysis

### 1.4.1 Integrated land use and bicycle network planning

This strategy is informed by current land use and transport planning for the Kalgoorlie-Boulder region, community consultation and stakeholder engagement. The 2050 bicycle network strategy builds on previous bicycle network planning and route design. Listed on the following page is the planning literature that informed the Strategy.

**Literature review – Local**

- *Local Planning Strategy 2013–2033*
- *Local Planning Scheme No. 1 (1997)*
- *Strategic Community Plan 2020–2030*
- *Corporate Business Plan 2021–24*
- *Access and Inclusion Plan 2021–2026*
- *Reconciliation Action Plan 2021–2023*
- *Youth Strategic Action Plan 2018–2021*
- *Kal City Centre Place Plan 2018*
- *Tourism Strategy 2020–2034*

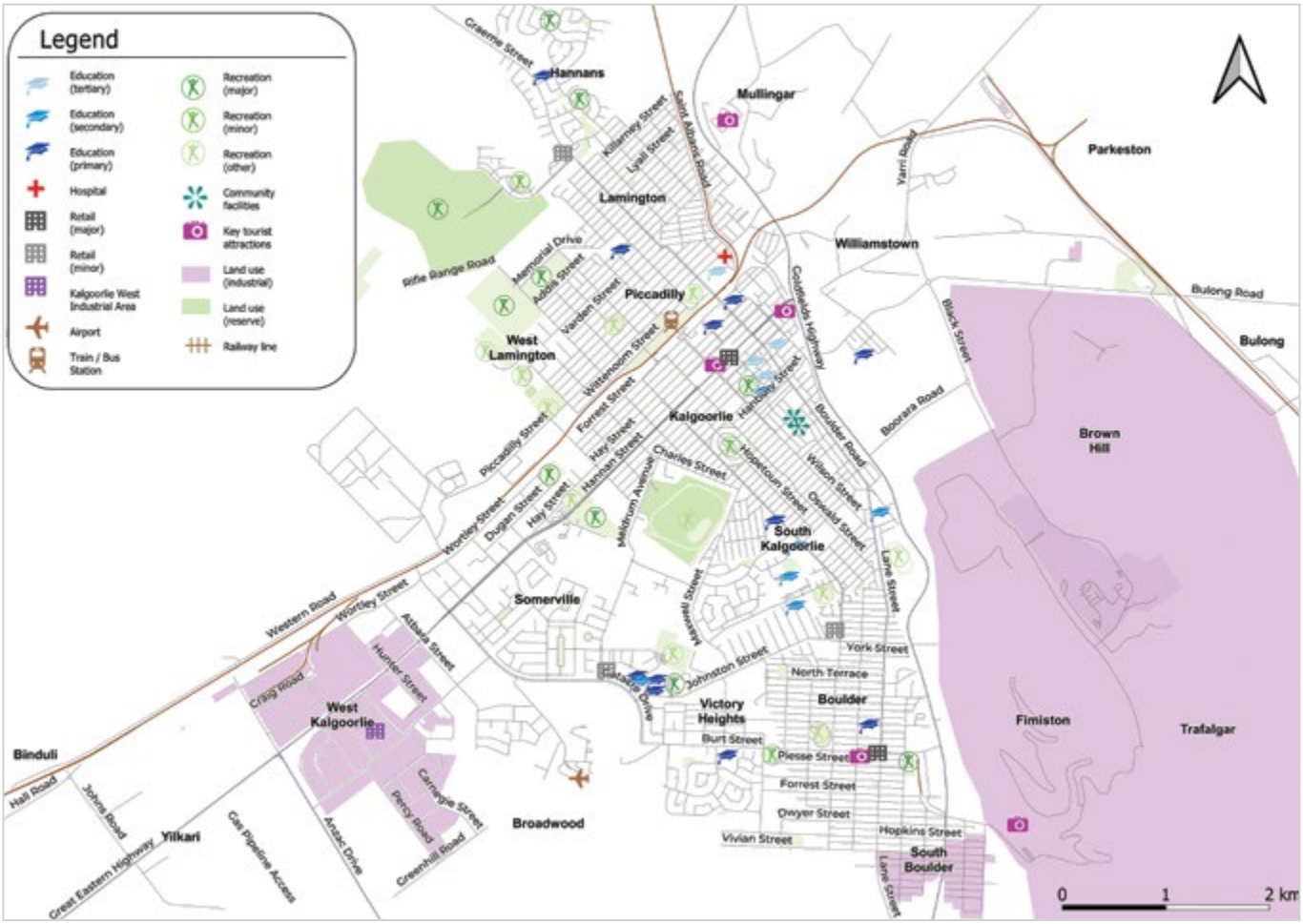
**Literature review – State, Federal and other**

- *Growing Kalgoorlie – Boulder Growth Plan 2017*
- *National Cycling Participation Survey*
- *Western Australia Bicycle Network Plan 2017*
- *Mountain Bike Strategy 2022–2032*
- *WA Cycle Tourism Strategy (2018)*
- *WA Strategic Trails Blueprint 2022–2027*
- Relevant State planning policies

An analysis of existing and planned land use identified potential key trip attractors for bike riding. These include schools, shopping centres, central business districts, industrial areas, tourist destinations, health campuses and sporting precincts (see Map 2). The 2050 bicycle network and route hierarchy aims to optimally serve the key trip attractors to make bike riding convenient and attractive for a broad range of trips. The planning underpinning the 2050 bicycle network is discussed in Section 2 and Section 3.

On-site observations coupled with desktop reviews of the existing bike riding network identified strengths, weaknesses and opportunities. The Kalgoorlie urban area has existing pathway networks that provide a reasonably good network of bike riding routes serving many destinations.

**Map 2. Key attractors in the City of Kalgoorlie-Boulder urban area**



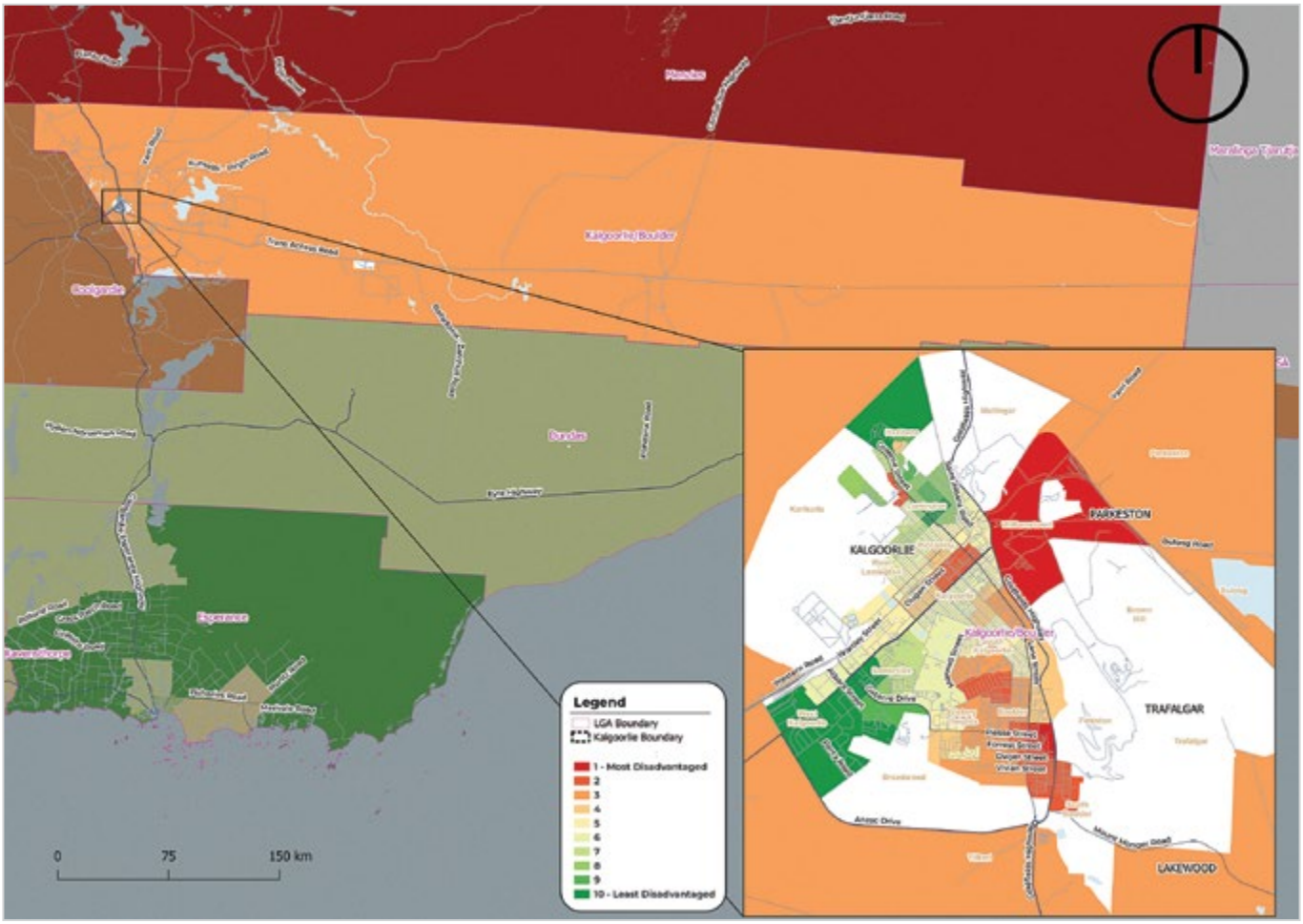
However, there are sections of bike riding routes that require upgrade, and opportunities to expand the existing networks to better cater for bike riding trips, particularly to schools, the town centre, recreational opportunities and industrial areas.

Key opportunities identified for bike riding in the Kalgoorlie-Boulder region include:

- Improving connectivity by constructing missing links;
- Developing safe and convenient connections between existing routes allowing for easy access to multiple destinations;
- Providing bike riding infrastructure separate from traffic to improve safety on heavy vehicle routes;
- Upgrading older sections of shared paths to provide a wider and smoother pathway to improve the comfort of walking and bike riding;
- Introducing wayfinding signage to assist with network legibility;
- Implementing and advocating for interventions to provide safer on-road cycling and cycle touring environments including alerting drivers to the presence of bike riders; and
- Supporting unique cycling tourism initiatives including profiling the region's historical affiliation with cycling since the discovery of gold in the 1800's.

An analysis of demographic data for the region identified areas of particular need. The ABS analysis of relative socio-economic disadvantage in the region (see Map 3) shows high levels of disadvantage in the south-east of the City.

**Map 3. Socio-economic advantage and disadvantage in the City of Kalgoorlie-Boulder**



With increased cost-of-living pressures, there is particular importance of providing residents with higher levels of socio-economic disadvantage with a safe and viable alternative to driving a car.

### 1.4.2 Current use of the cycling network

There is limited data available to obtain a detailed understanding of the level of bike riding activity in the Kalgoorlie-Boulder region. Based on site visits to the region it is clear that there is an existing bike riding culture, especially at some schools. Throughout the City a broad range of people were observed riding for a variety of purposes.

Every two years a national survey of cycling participation is undertaken to provide insight into cycling activity across Australia. The survey provides a state-wide overview of bike riding activity levels, with a comparison of levels in metropolitan Perth and regional WA. No detailed analysis of bike riding activity levels is provided for the Kalgoorlie-Boulder region, but the data for regional WA provides insight into typical levels of bike riding activity.

The 2021 survey showed that in WA approximately 50 per cent of children aged under 10 ride a bicycle at least once a week. In regional WA this level is around 58 per cent for children under 10. The state-wide bike riding participation rate reduces to around 40 per cent for teenagers, before reducing to around 10 per cent for young adults.

In regional WA only around 6 per cent of young adults ride a bicycle at least once a week. For other age groups the level of bike riding participation in regional WA is similar to the WA average of between 10 per cent and 20 per cent.

The 2021 Cycling Participation Survey shows that in Regional WA, of the people who rode a bike in the last month, 87 per cent did so for recreation while only 40 per cent rode for transport. Of those who rode for transport, the largest number of people were visiting friends or relatives. This was almost three times as many as those who rode to work. Bike riding to access education and shopping were more prevalent than bike riding to work, but less than bike riding to visit friends and family.

ABS census data shows that over the past 10 years the number of commuter bike riding trips in Kalgoorlie-Boulder has decreased. Similarly, the percentage share of commuter trips made by bicycle has decreased (see Figure 2b). There are multiple factors that influence the trend in reduced cycle commuting, however it demonstrates that there is a need for targeted intervention to reverse the decline. It is important to note that this data does not include bike riding trips to school, the shops or for any other purpose other than commuting to work.

**Figure 2a. Number of people riding a bike to work (region-wide)**

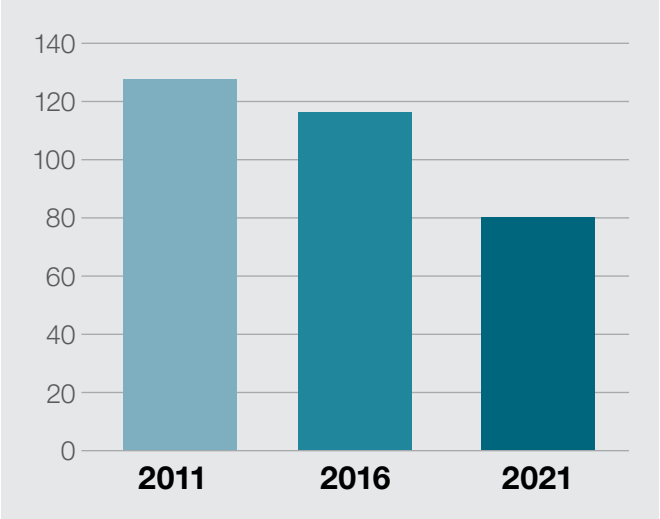
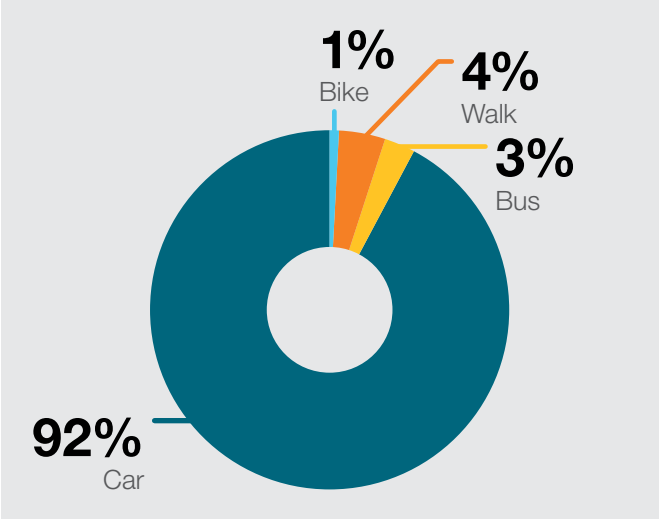



**Figure 2b. Proportion of people travelling to work by bike (2021)**



The Strava GPS Cycling and Running App records usage data that can provide an understanding of the routes most used by bicycle riders. The Strava App is largely used to track athletic activity via GPS.

The network usage data (shown in Map 4) can therefore be biased towards sports cycling training or high-intensity recreational cycling activity. However, it still provides useful insight into how people currently use the region's network.

**Map 4. Bike riding activity in the regional centres (source: Strava)**

### 1.4.3 Analysis of crash data

The most recent five-year crash statistics (2018–2022) were obtained from Main Roads WA's Crash Analysis Reporting System (CARS) which captures reported incidents only. It has been estimated that bike riding incidents reported to WA Police make up only 20 per cent of all bike riding related incidents that result in hospitalisation.[17]

The number of crashes involving pedestrians or bike riders has remained relatively constant over the past five years. There was a total of 50 crashes over the five-year period. Of these crashes, six fatal crashes occurred involving a pedestrian.

There were eighteen crashes recorded over the five-year period that involved bicycles. The analysis was expanded to include crashes involving pedestrians to provide an indication of locations that may also present a danger for people riding bikes. The location of pedestrian and bicycle crashes are illustrated in Map 5.

Actions in this strategy aim to deliver improved safety for bike riders and pedestrians by minimising potential conflicts with motor vehicles on active transport corridors that serve the key active travel trip attractors. Specific emphasis is placed on path renewals and improved active transport road crossings in locations with higher crash risk.

| Crashes involving a bicycle or pedestrian (2018–2022) | | | | |
|---|---|---|---|---|
| Fatal | Hospitalisation | Medical | Property damage | Total |
| 6 | 11 | 3 | 30 | 50 |

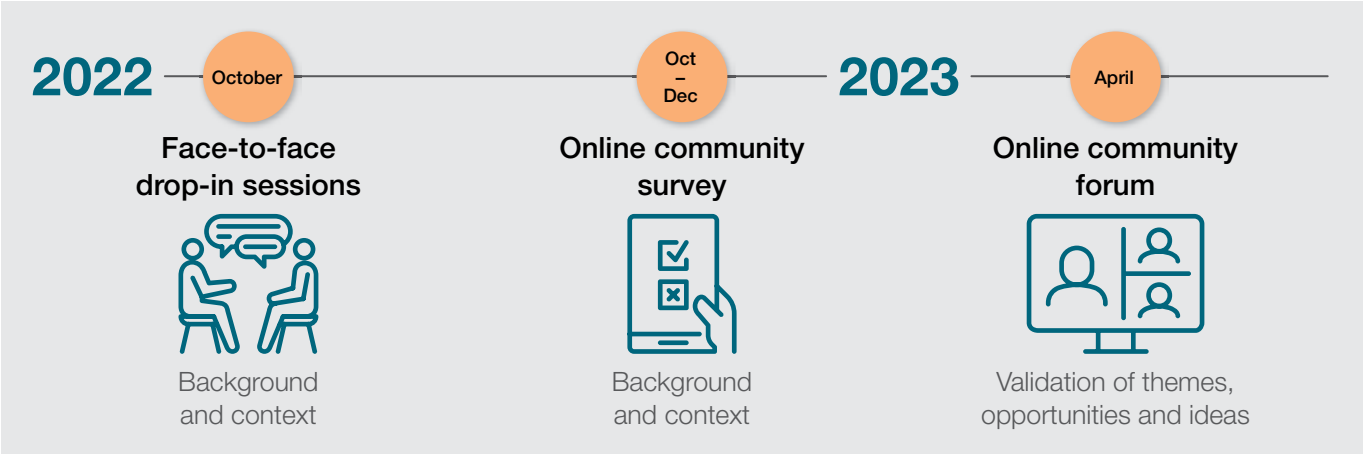
**Map 5. Crash locations involving a bicycle or pedestrian[18]**

### 1.4.4 Community consultation

Consultation with the local community was a key input to the development of the *Kalgoorlie 2050 Cycling Strategy*. The overarching objectives of the community consultation were to:

- Raise community awareness of the project;
- Identify existing challenges and barriers to bike riding, including major issues and missing links associated with the existing bike riding network;
- Identify actions, ideas and initiatives that would support people, across different user groups, to ride more often in the region;
- Confirm the themes, opportunities and projects that are most prioritised by the community; and
- Seek local buy-in and ongoing support for the Strategy.
- Several community engagement activities were undertaken, as shown in Figure 3.

**Figure 3. Community consultation activities and timeline**




Bike riding safety, network maintenance improvements as well as recreational bike riding were recurring themes raised during consultation. The insights gained through community consultation supported the development of the themes, opportunities and key priorities for the region's bike riding network, serving as critical inputs to the 5-year Action Plan. A detailed analysis of the community consultation is contained in Appendix B.

### 1.4.5 Stakeholder consultation

This Strategy has been developed by the DoT in partnership with the City of Kalgoorlie-Boulder. Internal stakeholders from the City provided input and helped to shape the Strategy's development.

While the majority of actions identified in this strategy fall within the jurisdiction of the City, its successful delivery will require a co-ordinated effort with a number of other stakeholders. Accordingly, input was also sought from government and non-government organisations, with the desire to collaboratively work towards achieving a cohesive planning vision for increasing bike riding participation in the region.

**Local government stakeholders**

- City of Kalgoorlie-Boulder

**State Government stakeholders**

- Department of Transport (DoT)
- Public Transport Authority (PTA)
- Main Roads WA (MRWA)
- Goldfields-Esperance Development Commission
- Department of Planning, Lands and Heritage (DPLH)
- Department of Environment and Water Regulation (DWER)
- Department of Environment and Conservation (DEC)
- Department of Biodiversity, Conservation and Attractions (DBCA)
- Tourism WA

**Other key stakeholders/partners**

- Community members
- Local cycling clubs
- WestCycle
- Western Australian Local Government Association (WALGA)
- Commercial and business owners
- Land developers

# 2. Encouraging Bike Riding

**The health and wellbeing benefits of bike riding are well understood. Bike riding for recreation, leisure, sport and/or transport is positively related to overall physical activity which in turn has positive benefits for physical and mental health outcomes. And yet, bike riding participation rates remain low. Several factors support or inhibit the uptake of bike riding, including the nature and quality of built infrastructure as well as social norms and attitudes.**

## 2.1 Activation, consultation and evaluation

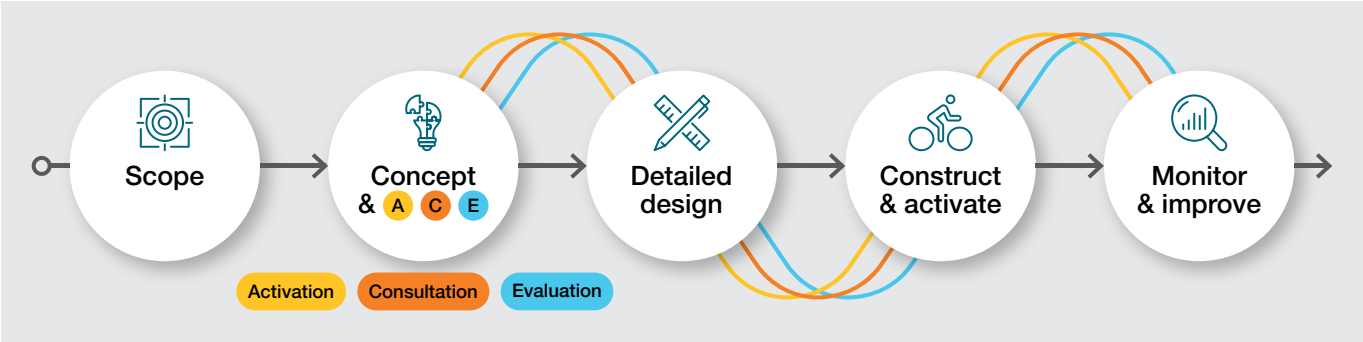
This strategy outlines how new bike riding infrastructure can support greater participation in bike riding in the Kalgoorlie region. However, planning and building infrastructure in isolation will not necessarily lead to significantly more people riding.

There needs to be an emphasis on creating inclusive infrastructure projects so that the product delivered serves the needs of the local community as well as people visiting the region.

This can be achieved through a range of engagement and monitoring activities as projects are planned, designed and constructed, and as the infrastructure continues to be used after construction.

Effective engagement incorporates three essential elements throughout all project phases – activation, consultation and evaluation (ACE). ACE is an infrastructure delivery model, so the approach will vary with the type of project. One approach, for WABN grant projects, is outlined in the following framework, in Figure 4.

**Figure 4. Activation, Consultation and Evaluation Model**




| | |
|---|---|
| **Activation** | Activation includes promotions and programs designed to encourage people onto the infrastructure by raising awareness and appeal. This can range from highlighting the new facilities in media releases and creating local maps, to making bike riding trips more pleasant through added amenities such as end-of-trip facilities, bike parking, natural landscaping, art works and other initiatives. Activation can take place throughout all phases of an infrastructure project – starting well before a project is built – and can be temporary (one-off activities), intermittent (such as a monthly group ride) or permanent (such as wayfinding signage). |
| **Consultation** | Consultation is a crucial part of the delivery of inclusive bike riding infrastructure to ensure that the facilities meet the needs of users, stakeholders and the local community. Consultation can be undertaken in a variety of formats and is typically led by local government. |
| **Evaluation** | Evaluation of the infrastructure is essential to measuring the impact it is having, both for people using the infrastructure and for the wider community experiencing the outcomes of increased transport mobility. These outcomes may include better local liveability, improved congestion and parking management, growth in cycle tourism and increased spending at local businesses. Ongoing monitoring will ensure facilities are well maintained and that the planning and delivery of bike riding initiatives undergo continuous improvement. |

All three of these elements are inherently linked and some activities will deliver outputs for more than one, such as a community workshop where people are asked to review existing facilities (evaluation), help prioritise new ones (consultation), and participate in the delivery and promotion of new facilities and amenities (activation).

*At its core, this approach acknowledges that cycle networks are part of a richer local landscape and should be delivered in an inclusive way that invites participation and supports a range of community outcomes.*

## 2.2 Cross-agency synergies

An integrated approach to transport planning is a positive way to influence the planning and provision of transport systems towards more sustainable patterns. Integrated transport planning considers key transport issues such as transport system interdependencies, interactions between transport and land use, transport safety, traffic congestion, parking, travel demand management and accessibility. Integrated transport plans will help identify and prioritise transport infrastructure and service improvements and meet community and government objectives.

Developing and leveraging the benefits of bike riding and other forms of active transport throughout the Kalgoorlie-Boulder region will rely on the cooperation of several government agencies.

The diversity of opportunity allows for key agencies to work together with local governments, communities and businesses to promote active transport.

A key consideration for transport trails and paths in the Kalgoorlie-Boulder region (particularly those connecting towns) are public drinking water source areas. Prior to development, it is critical that consultation is undertaken with the Department of Water and Environmental Regulation (DWER).

Similarly, transport trails through reserve areas should be referred to the DBCA at an early stage of the design process. Early consideration should also be given to Aboriginal heritage and recognition of local sensitivities.

*Working together provides greater scope in integrating communities and allows a more effective use of resources to achieve outcomes to benefit more communities.*

# 3. Regional Route Hierarchy

**A hierarchy comprising five types of bike riding routes has been used to plan and illustrate the Kalgoorlie's 2050 cycling network. This hierarchy has been adopted for all bike riding strategies in WA as a key action of the WABN Plan. An important aspect of the hierarchy is that unlike many traditional cycling network plans, routes are defined primarily by function, rather than built form. The key differences between the five types of routes are explained in Sections 3.1 to 3.5, with additional detail provided in Appendix A.**

## 3.1 Primary routes

**Shared path along Forrest Street.**
Credit: Department of Transport.

Primary routes form the backbone of the Kalgoorlie 2050 cycling network. They define high demand corridors connecting major destinations of regional importance. Primary routes afford people riding and walking with safe and generally uninterrupted journeys.

Primary routes should be completely separated from motorised traffic. Due to this, major road and rail corridors, as well as river and ocean foreshores, tend to be the most practical locations for these types of routes.

In terms of built form, primary routes predominantly consist of high-quality shared paths at least three metres in width. To ensure high levels of rideability and legibility, red asphalt is usually the preferred surface treatment however this may vary depending on the localised climate and terrain.

An important consideration for shared paths is managing safety and ensuring etiquette between different users. In areas of high pedestrian activity, it may be necessary to provide separate facilities for people walking and riding.

In regional areas, which often include long distance connections, consideration should be given to convenience and emergency facilities such as water fountains, rest points and toilets.

## 3.2 Secondary routes

**Shared path through Rotary Park.**
Credit: Department of Transport.

Secondary routes are typically located within built-up environments. The aim of these routes is to provide connectivity for users between primary routes and important trip attractors such as shopping centres and industrial areas, as well as education, health and sporting and civic precincts.

In most cases, secondary routes are located adjacent to busy streets and take the form of protected on-road bike lanes or separated shared paths. It is important that the design of all new bike riding infrastructure (including secondary routes) incorporates an 'all ages and abilities' approach (see Section 1.1).

To ensure that on-road bike riding infrastructure is safe and attractive to such a wide range of users, separation in the form of kerbed medians is desirable to minimise the interaction between those riding bikes and those driving cars – particularly on busier roads. Where this is not possible, softer measures such as painted hatching, mountable plastic kerbing or flexible bollards can be considered, however these treatments are normally only acceptable in low speed environments. In some cases, off-road shared paths are the best option for secondary routes.

Unlike primary routes, secondary routes do not necessarily provide users with uninterrupted journeys. Consequently, it is important that appropriate consideration is given to the design of secondary routes at all intersecting roads, but particularly those controlled by either traffic signals or roundabouts. Where possible, priority should be given to the bike riding route at intersecting minor roads and driveways.

*An important consideration for shared paths is managing safety and ensuring etiquette between different users.*

## 3.3 Local routes

**Shared path along Lionel Street.**
Credit: Department of Transport.

The objective of local routes is to collect bike riding traffic from local residential areas and distribute it to the secondary and primary bike riding networks. Local routes are also used by bike riders to access a range of lower-order destinations such as local shops and parks. The look and feel of local routes are distinctively different from primary and secondary routes.

Examples of local route treatments include:

- 30km/h safe active streets which adopt 'self-explaining street' and 'filtered permeability' urban design principles;
- Very quiet suburban streets, communicated using sharrows* and other signage or wayfinding;
- Sections of shared path (normally linking two or more quiet streets together); and
- On-road bike lanes (but only on quiet roads with low traffic volumes and where posted speed limits are less than or equal to 50km/h).

In many cases, a local route may consist of a combination of two or more types of treatment. Where this is the case, the transition from one type of facility to another needs to be carefully considered.

* Sharrows are a wayfinding tool that assist cyclists in road positioning and alert motorists to the presence of people on bikes.

## 3.4 Transport trails

**Unsealed Kep Track.**
Credit: Department of Transport.

Transport trails are long-distance, predominantly unsealed trails which are typically used to connect towns. Unlike downhill mountain biking trails, transport trails are non-technical in design. While there will be some level of crossover, transport trails provide users with a more passive bike riding experience.

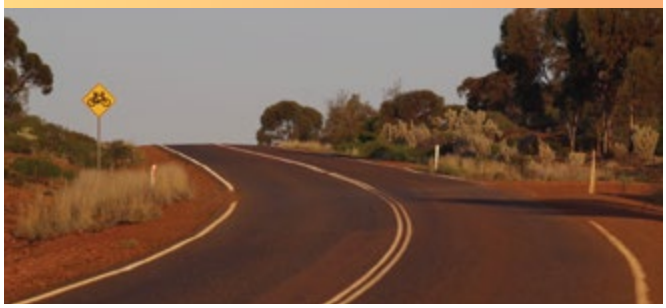
In some cases, transport trails cater for other types of users including bushwalkers, trail runners and horse-riders. On such trails, it is essential that paths are managed appropriately to ensure the safety and satisfaction of all user groups.

In terms of their built form, transport trails should ideally be wide enough to allow two people to ride comfortably side-by-side. As they are often located in remote locations, it is important that extensive wayfinding signage is used to direct users to, from and along the route.

Transport trails are often constructed along the alignments of disused or closed railways, watercourses (such as rivers, drains and irrigation channels), utility corridors (such as electricity, gas or water supply), as well as fire breaks and other tracks through forested areas including nature reserves and national parks.

Depending on land ownership, the planning, design, construction and maintenance of transport trails is typically led by local government or the DBCA. Funding is usually sought through the DLGSC or Lotterywest. Other government agencies such as DoT and Tourism WA, and key documents such as the WA Strategic Trails Blueprint can assist with planning, design and promotion.

## 3.5 Road cycling routes



**Signage to support on-road cycling without exclusive bike lanes on Goldfields Highway.**
Credit: Department of Transport.

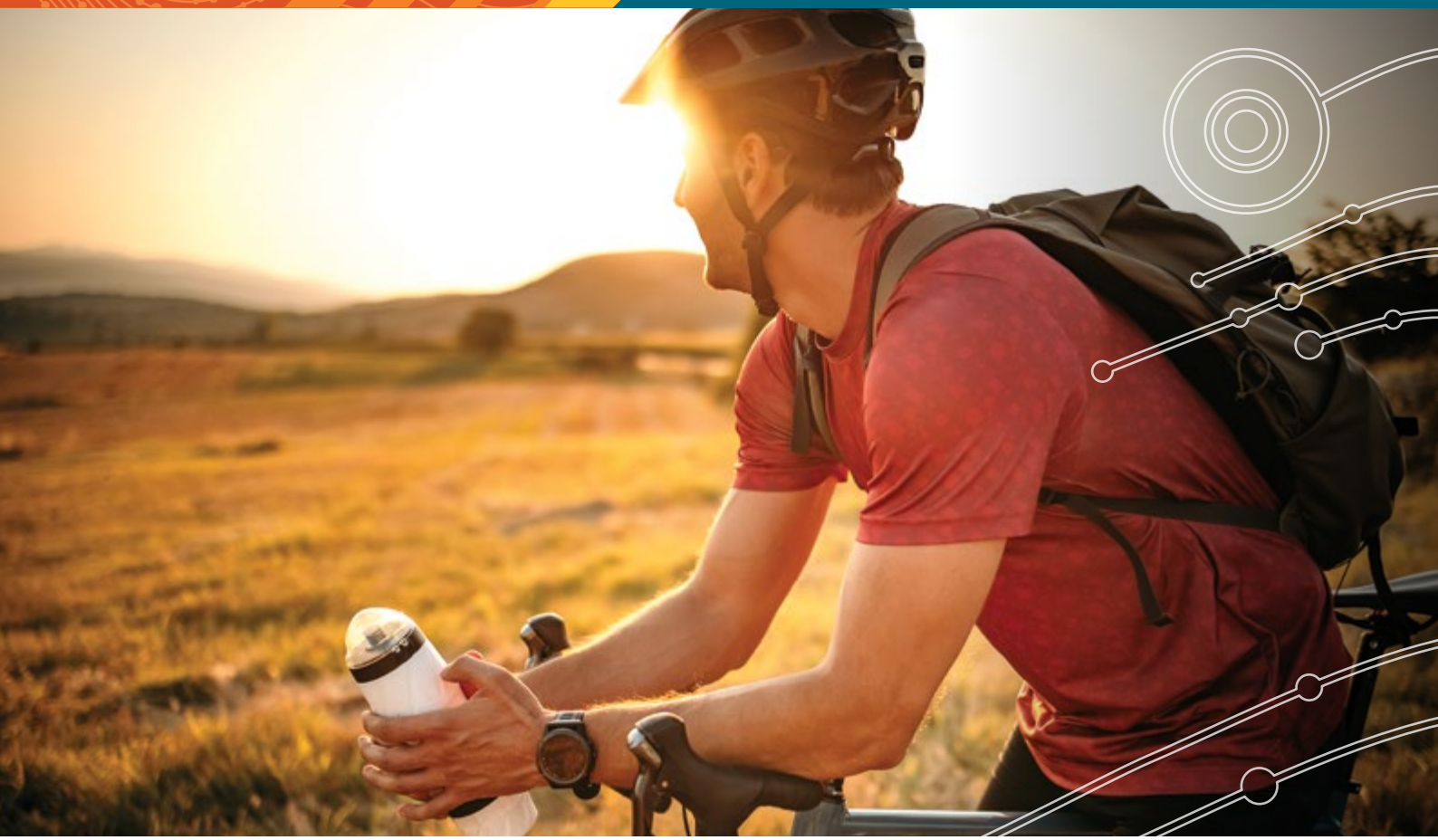
Road cycling routes cater for people cycling long distances for training, sport or recreational as well as transport, purposes. For this user group, distances of 100 kilometres or more are achievable.

This type of bike riding, which is often undertaken by groups or clubs, is commonly carried out on rural and semi-rural roads which tend to feature nice scenery, challenging terrain and low traffic volumes, but are also selected in order to minimise the likelihood of interactions with pedestrians and lower speed cyclists.

Around WA there is a growing need to review the key routes being used by road cyclists in order to improve safety and user experience. The introduction of safe passing legislation has gone some way to protect those riding on the road*. However, other initiatives may include shoulder widening, pull-off bays, advisory signage, and electronic flashing warning signs which detect when groups of cyclists are using certain sections of road. Detailed assessment is required in partnership with cycling bodies and groups to determine appropriate locations and preferred safety measures, which will likely differ on each route.

* *Road Traffic Code 2000 Part 11 Division 3 r124A*
A driver of a motor vehicle must pass a bicycle travelling in the same direction at a safe distance (1m on roads with a posted speed limit of ≤60km/h and 1.5m on roads >60km/h.) While legislation for passing safely has always existed in WA, these amendments to the *Road Traffic Code 2000* clarify the minimum distance a driver must keep between their vehicle and a bicycle when overtaking.

*Around WA there is a growing need to review the key routes being used by road cyclists in order to improve safety and user experience.*



# 4. Proposed Network

**The Strategy sets out a network of short and long-distance bike riding routes in the region that serve a transport and/or recreational bike riding function. It covers connectivity within the urban area as well as interregional connections between towns for recreational, sports cycling and cycle touring trips.**

The long-term cycle network (LTCN) is intended as a dynamic framework. The classification and alignments of routes may change following further feasibility assessment and consideration of local environmental, heritage, engineering constraints and impacts on other road users.

For the Kalgoorlie-Boulder region there are specific considerations that are of particular importance to the identification of the proposed network.

These include:

- An established network of off-road cycle routes in the City that provide a good framework for developing the long-term cycle network;
- The high risk presented to on-road cycling on regional roads and in the City due to the large number of heavy vehicles related to the region's mining industry, long-haul freight and tourism (caravans/motorhomes);
- The opportunities presented for the bike riding network resulting from the City's extensive network of parkland, drainage corridors and open space; and
- The opportunities presented by the region's unique areas of significant ecological, scientific, heritage and cultural value in encouraging active recreation and touring.

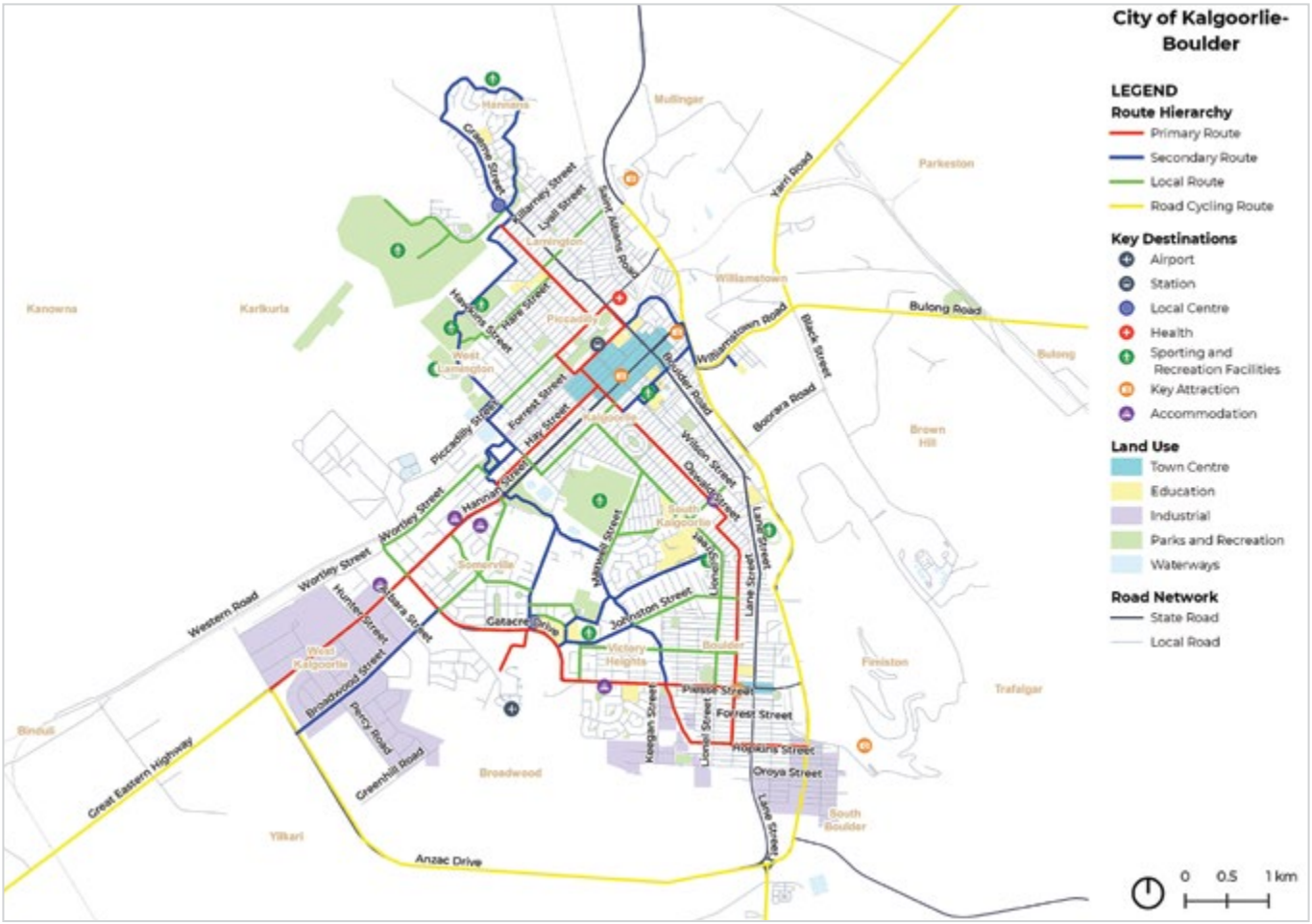
## 4.1 Network overview

Map 6 and Map 7 provide an overview of the proposed 2050 bike riding network for the region.

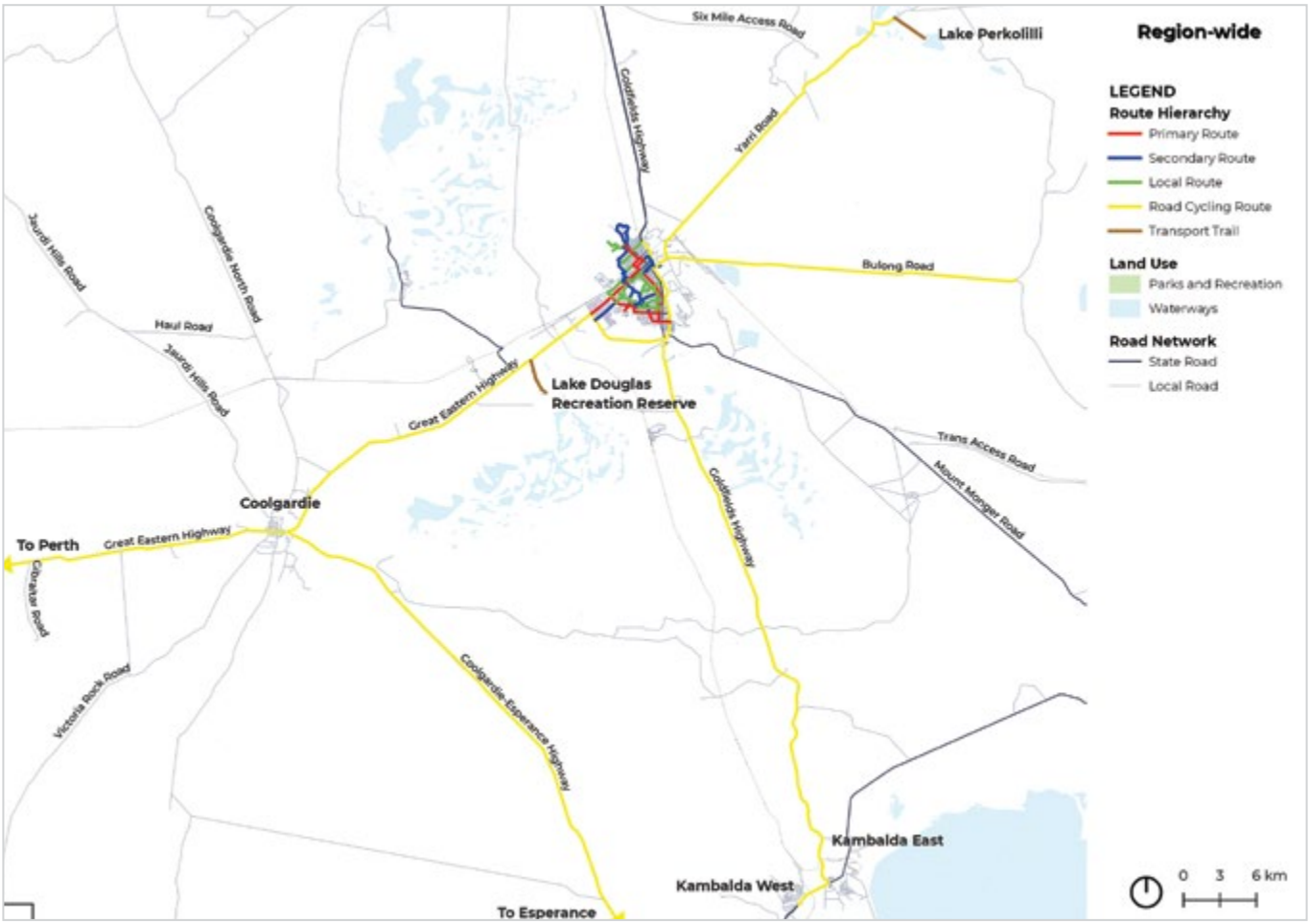
Key features include:

- A series of primary routes connecting key destinations in the urban area, including a north-south spine linking Hannans and South Boulder, a route along Great Eastern Highway linking the Kalgoorlie city centre and West Kalgoorlie industrial precinct, and an east-west route along Gatacre Drive to serve the Boulder town centre;
- The major secondary route spine uses the existing Gribble Creek trail to provide direct connectivity linking Karlkurla bushland in the north and Boulder in the south. A series of other secondary routes branch off this spine with the aim of supporting safe access to all schools;
- Local routes provide safe connections between the places where people live, work, learn and play and the primary or secondary network;
- Transport trails provide unique recreational and tourism cycling experiences; and
- Road cycling routes are identified to support improved safety of road cycling for fitness.

**Map 6. Proposed 2050 bike riding network for the Kalgoorlie-Boulder urban area**



**Map 7. Proposed 2050 sub-regional bike riding network for the Kalgoorlie region**



# 5. The Way Forward

**This section outlines the way forward for the Kalgoorlie-Boulder region through the identification of central themes for bike riding across the region. These themes have been identified from the stakeholder and community consultation undertaken throughout the development of this strategy.**

For each of the themes a range of key opportunities have been identified to highlight the potential for bike riding in and around the Kalgoorlie-Boulder region. Case studies are used to illustrate where similar outcomes have been achieved elsewhere.

## 5.1 Enabling young people to ride

Kalgoorlie-Boulder has over 34.5 per cent of the population aged under 25 years old[15]. Their health and wellbeing is critical to the City's future growth and prosperity. In 2018, the Goldfields Health Profile published by WA Country Health Service reported that over half of children in the region did not do sufficient physical activity[19], impacting on their physical development and mental health. This significantly increases their risk of developing chronic diseases such as heart disease and type 2 diabetes[20].

Active travel is a convenient and accessible way for children and young people to increase their physical activity. It also supports their ability to independently access a wider range of services, activities and recreational opportunities.

The City's *Youth Strategic Action Plan 2018–2021* includes priorities for increasing independent mobility for young people, including recognising and using safe transport options, and the importance of low cost or free transport options.

**Young people using the Kingsbury Park skate park.**
Credit: City of Kalgoorlie-Boulder Youth Council.

*For more young people to ride more often, the bike riding network needs to be safe for them to use to access attractive destinations within easy riding distance.*

They also need to be equipped with the confidence and riding skills to use the network safely. This will give parents the confidence to encourage their children to choose to ride a bicycle from a young age and will ensure that young people choose to continue riding bicycles into adulthood.

### 5.1.1 Opportunity: Increase the number of students riding to school

Active travel to school helps children reduce the long-term health risks of inactivity, supports their cognitive development and helps them gain independence[21]. Over the past 40 years the percentage of children walking or bike riding to school in Australia has declined from 75 per cent to 25 per cent[22]. Although some schools in the Kalgoorlie region have a relatively high percentage of children walking and cycling to school, the declining trend is likely similar in the region.

It is important that the bike riding network provides routes to schools that are appropriately designed for children to use and give parents confidence that their children can independently get to and from school safely.

This may include:

- Paths that are wide enough to accommodate the large volumes of students walking, scooting and bike riding and do not conflict with vehicles during the busy school drop-off and pick-up period;
- Bike routes that are separated from busy roads or on quiet streets;
- Bike routes located in areas with good passive surveillance to reduce risks to children from crime and harassment;
- Road crossings that enable children to cross safely;
- Clear wayfinding and safety signage; and
- Forgiving infrastructure so that an error by a person on a bike is less likely to result in severe injury.

*The City has 11 primary schools and five secondary schools which are mostly well served by an existing network of shared paths connecting to most suburbs. The LTCN includes a comprehensive network of bike riding routes that enhances and extends the existing network to ensure all schools are accessible by bike.*

The City's planned shared path upgrade along Keenan Street and Maritana Street will support improved bike riding access to North Kalgoorlie Primary School, St. Mary's Primary School and Kalgoorlie Primary School. Targeted engagement with these schools will be a critical input to ensuring the design adequately meets the needs of children walking and cycling to these schools.

Walking and bike riding to East Kalgoorlie Primary School is challenging due to the lack of a safe pedestrian crossing of the Goldfields Highway.

Although a shared path along Williamstown Road links the school, the crossing of the Goldfields Highway is uncontrolled. This presents a major barrier to children walking or cycling to the school as the road is a key freight route carrying a high volume of vehicles travelling at high speeds.

The LTCN identifies a secondary cycle route serving the school along Williamstown Road, however this will require an upgrade to the crossing of the Goldfields Highway to make it safe for pedestrians and bicycle riders. It is expected that in the future there will be a need to upgrade the intersection to improve traffic safety, creating the opportunity to improve active transport access to the school.

| Relevant key actions | Action reference |
|---|---|
| Proposed network improvements to enable safe travel to all schools in the region by bicycle. | KB1, KB7, KB8, KB10, KB15, KB16 |

## CASE STUDY | High Wycombe shared path activation

Engagement with schools on nearby infrastructure projects can be a great way to create outstanding local projects and encourage kids to ride.

*The City of Kalamunda's High Wycombe Shared Path project collaborated with first nation's artist Aurora Abraham and three local primary schools to develop pavement art treatments at road crossings along the route.*

The first stage of consultation was the co-design of community values with young people. Students from the local primary schools were asked to share and draw their experiences riding, scooting, walking and playing within their neighbourhood. Four themes emerged from this: natural environment; transport and inspiration; play and active fitness, and storytelling and animals.

The City then published a survey asking residents from across High Wycombe to select themes from the four concepts, propose other values and rank the icons established during engagement with primary school students.

**High Wycombe shared path road crossing art.**
Credit: City of Kalamunda.

A design brief was developed, highlighting the three elements of 'storytelling and natural environment', 'a healthy, respectful and active community', and 'High Wycombe is a place for everyone'. From this brief, local artist Aurora Abraham further developed and delivered the inspiring crossing treatments.

Once the infrastructure was completed the City widely promoted the new path and a big launch event was held, including a group ride with the local students to see the art treatments, a free sausage sizzle, and a blender smoothie bike dispensing healthy smoothies.

**Launch event poster.**
Credit: City of Kalamunda.

### 5.1.2 Opportunity: Support road safety and bike riding skills education

For children to safely ride a bike they will experience a range of different riding environments and contexts with varying levels of risk and riding skill required. Developing road sense and understanding of road and bike safety is important to make sure children can confidently and safely ride a bike, particularly where they may interact with motor vehicles.

Road Safety Education Facilities are purpose-built to reflect a real-life road environment and are designed to teach children how to negotiate hazards and make safe choices when walking or bike riding along paths and on streets. These facilities can be used by parents and schools as a safe place where children can learn about road safety and develop bike riding skills. Currently the region does not have a Road Safety Educational Facility and the opportunity has been identified to develop a facility in a central location. The facility would function as both a formal educational facility for schools to use for school excursions, and as a public facility for parents to informally use with their children.

Key elements of the facility may include:

- Pathways that have characteristics of roads and pathways;
- Different types of pedestrian crossings of roads (and the railway line);
- Traffic lights, priority intersections and roundabouts; and
- Car parking areas.

A partnership between WA Police, schools and the City can ensure that the proposed Road Safety Education Facility would be optimally used to provide experiential learning opportunities for children to learn road safety and safe bike riding skills.

For older school students, bike riding skills workshops can be another important way to support youth bike riding. This may include teaching basic maintenance and upkeep skills as well as more advanced riding skills. Targeted sessions at schools, at the Road Safety Education Facility or at relevant youth events, can help children learn skills and practice them in safe settings.

There are a variety of education programs for children and youth to help them build a necessary understanding of their rights and responsibilities on the road, making riding safer and more fun for everyone. WestCycle, the peak cycling body throughout WA, coordinates programs to teach people how to ride and bolster riding confidence. Several private businesses such as 'People on Bicycles'[23] also provide such services. A Road Safety Education Facility in Kalgoorlie could create a venue for hosting such training programs.

| Relevant key actions | Action reference |
|---|---|
| Investigate the feasibility of delivering a Road Safety Education Facility for the region. | KB30 |

**City of Kalgoorlie-Boulder's Youth Festival.**
Credit: City of Kalgoorlie-Boulder Youth Council.

## CASE STUDY | Constable Care Safety School

Road trauma is a leading cause of death and serious injury for Australian children[24]. In addition to providing safe walking and cycling routes serving schools, there is a need to encourage a safe and healthy culture of kids riding and walking to school. It is important that as part of this program children are equipped with the awareness and skills to safely deal with traffic conflict risks.

The Constable Care Safety School in Maylands, WA is designed to teach children (ages 4–12) road and public transport safety skills in an immersive learning environment without the real-life traffic risks.

The Safety School's experiential learning centre helps children learn to identify safety hazards and how they should respond. School excursions give children the chance to ride bikes and walk through a variety of situations they would come across when riding on paths or on streets.

This includes traffic lights and intersections, road works, school zones, rail line crossings, bus stops and others, providing opportunities to learn how to safely use the road and path network on foot or by bike.

The Safety School runs in-school programs for schools that cannot access the Maylands facility.

### At a glance

**25%**
of in-school programs in regional WA are delivered by the Constable Care Foundation.

**16**
Regional tours per year.

Online resources are available to support classroom learning.

**Students participating in activities at the Constable Care Safety School in Maylands.**
Credit: Constable Care Foundation.

### 5.1.4 Opportunity: Improve managed road crossings serving schools

Roads around schools become extremely busy during school drop-off and pick-up. This increases safety risk for children and families walking and bike riding to and from schools, particularly at road crossings. Children's crossings with traffic wardens are valuable in improving the safety of road crossings close to schools.

Local schools identified a shortage of trained traffic wardens in the region, limiting the ability of schools to provide children's crossings. Due to the shortage of traffic wardens police officers are sometimes enlisted to help fill this gap.

A key barrier to training traffic wardens for the region is that training courses are only offered in Perth. An action in the Strategy is to work with the WA Police Children's Crossing Unit to provide regular training opportunities for childrens' crossings traffic wardens within the region. This will reduce the cost of training traffic wardens, ensuring that all children's crossings are staffed and allowing for investment in new children's crossings where there is a need.

| Relevant key actions | Action reference |
|---|---|
| Advocating to build the region's capacity for children's crossing traffic wardens. | KB31 |

### 5.1.3 Opportunity: Support programs in schools to encourage active travel

Safe riding routes to school provide a foundation that is essential for increasing active travel to school. Active travel encouragement programs increase the potential for bike riding to school by helping them and their families make informed travel choices.

Your Move[25] is a free program, run by DoT, that encourages students to increase physical activity by increasing walking, scooting and riding to school. Schools sign up voluntarily to the program, which includes support from DoT's dedicated experts in travel choices. Typically, students are empowered to run their own activities tailored to their local context and can earn points to spend in the 'shop' on resources and activities to enhance their active travel.

Currently, none of the 15 schools in the City are subscribed to the Your Move Schools program. A key action in this strategy is to raise awareness of and promote engagement in the program by all schools in the region. Ongoing engagement and encouragement of active travel through this program will support an increase in the number of students riding to school.

| Relevant key actions | Action reference |
|---|---|
| Active travel programs to build bike riding skills and encourage bike riding to schools. | KB31 |

**Road crossings at O'Connor Primary School.**
Credit: Department of Transport.

**School bicycle repair and maintenance session.**
Credit: Eastern Goldfields Cycle Club.

## CASE STUDY | Your Move at Geraldton Primary School

Geraldton Primary School in the City of Greater Geraldton is actively involved in the DoT's Your Move Schools program. Their approach sees an active committee of 10 students who meet regularly with clearly defined aims including:

- Increasing the number of students at Geraldton Primary School who use active transport to get to and from school;
- Providing messages to the public about how increased active transport use can reduce traffic congestion at drop-off and pick-up times;
- Increasing the available bike parking at the school; and
- Forming a bike riding club to provide additional activities.

The students use Facebook, newsletters, assemblies and Seesaw messages/photos to communicate with students, parents and the public.

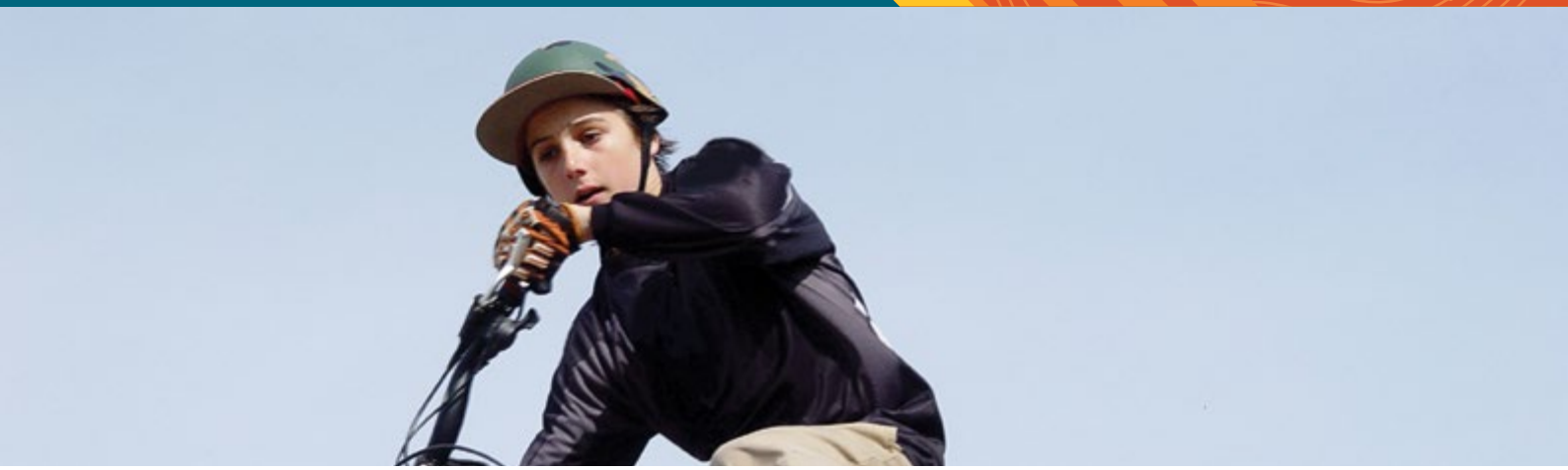
The committee organises and participates in events including:

- **Super Tuesday Bike Count:** A committee member volunteered in data collection efforts to fundraise for the school's Your Move activities;
- **Spot rewards:** Committee members were positioned at school entrances on different days handing out rewards to students using active transport to get to school; and
- **Bike Month Ride to School Day:** More than 100 students used active travel to get to school, and which made the local headlines.

Active participation in the Your Move Program has earnt the school enough points to provide in-school bike education for all Year 4 students for several years, making it a regular feature of the school calendar. The committee has also been successful in applying for $5,000 from the P&C to install new bike parking racks.

*The program allows the students to build a culture of active travel at their school while also building their capacity in civic participation.*

**Students participating in activities bike Month Ride to School Day.**
Credit: Geraldton Primary School.



### 5.1.5 Opportunity: Invest in recreational bike riding facilities

Recreational bike riding facilities for children typically include BMX parks, bicycle skills parks and pump tracks, gravel bike and mountain bike trails. These facilities provide young people with opportunities for physical activity, and an opportunity to develop strong bike riding skills and confidence.

BMX bikes have smaller bicycle frames and wheels than road or mountain bikes, making BMX an easy entry into bike riding for children. However, as a sport it has participation at all age levels. AusCycling holds annual regional, state and national competitions, with the Eastern Goldfields BMX Club previously hosting a state series event in the Kalgoorlie-Boulder region.

BMX racing and freestyle, skills parks and pump tracks require a relatively small purpose-built area. This makes them suitable for delivery in urban parklands, making it easy for children to access independently. They also provide a valuable social and recreational resource for young people, particularly in under-resourced areas.

The City has a state-of-the-art BMX facility located in the suburb of West Lamington, managed by the BMX Club. A new pump track will be constructed in 2023 as part of a planned Youth Precinct and upgrades to the Lord Forrest Precinct and Kingsbury Park. During community and stakeholder engagement for this strategy, people asked for more recreational bike riding facilities suitable for children, including BMX tracks, pump tracks and urban off-road bike riding trails.

Opportunities to create new recreational bike riding facilities or to formalise existing riding trails will be investigated in consultation with the community.

| Relevant key actions | Action reference |
|---|---|
| Collaborate with stakeholders to investigate providing additional recreational riding opportunities in the region. | KB33 |

**Engagement session poster seeking community feedback on the new Kingsbury Park pump track.**
Credit: City of Kalgoorlie-Boulder Youth Council.

**CASE STUDY**
**Shepherds Bush Park bicycle skills track**

Shepherds Bush Park in Kingsley, WA features a pump and jump track as well as a small children's bike skills track marked with lines and road signs.

*The park provides opportunities for families and kids to improve their riding skills and awareness of various traffic conditions in a safe environment.*

It was developed in 2016 with joint funding by local government and State government grant (Lotterywest).

The park is located in one of the City of Joondalup's prized conservation areas and is situated next to a playground, barbeques and toilet facilities. The park is accessible via the existing path network, making it ideal for children and young people to get active and spend time in their local community.

**Shepherds Bush Park bicycle skills track.**
Credit: Kids Around Perth.

## 5.2 Promoting healthy and active communities

In the Goldfields Region, which includes the City of Kalgoorlie-Boulder, 38% of adults (aged 16 and over) are obese, two in five adults do not get sufficient daily physical activity, while one in five adults have high blood pressure[26].

Increased active recreation and active travel can help to address these chronic health issues. Research shows that it helps reduce risk of cardiovascular diseases and improves mental health conditions such as depression, stress and anxiety[27].

The City has a wealth of existing active recreation assets including extensive parklands, scenic green spaces and diverse sport facilities and recreational destinations.

*The Strategy identifies opportunities to leverage existing active recreational assets, while also promoting new and improved active recreation opportunities including destinations and events. Support for bike riding events can also have the benefit of creating increased community spirit and social connection.*

**Birds eye view of the section of the Gribble Creek trail along Maxwell Street.**
Credit: Department of Transport.

Enabling people to choose to walk and ride as part of everyday journeys will increase physical activity and promote improved physical and mental health outcomes.

The City has an extensive network of pathways that provide opportunities to cycle across much of the City with minimal interaction with traffic. Improving these connections will help encourage more people to choose to travel by bicycle instead of driving for short-distance trips.

The urban cycle network is not always suitable for longer-distance sports cycling, requiring these cyclists to share the road with traffic. While traffic volumes on many urban and regional roads are relatively low, there is a high proportion of heavy vehicles on some key routes. During community and stakeholder engagement concerns were raised over the lack of safe routes for sports cyclists. The Strategy identifies the opportunity to support safer road cycling through identifying popular routes and implementing appropriate measures.

### 5.2.1 Opportunity: Improve bike riding connections to the City's green spaces

Kalgoorlie's green spaces including neighbourhood parks and nature trails, provide valuable assets for community and a key drawcard for visitors. They provide opportunities for increased physical activity by functioning as destinations for people to walk and ride to, as well as spaces for people to exercise in.

Green spaces provide places for people to socialise, fostering community cohesion, and to play and explore, supporting the development of children.

According to the Heart Foundation[28], green spaces are linked to mental health benefits and provide restorative experiences, where people can connect with the natural landscape. Benefits include improved focus, increased happiness and reduced stress.

*Karlkurla Bushland is 200 hectares of natural bushland and forms part of the internationally significant Great Western Woodlands. The woodlands are the largest remaining area of intact Mediterranean-climate woodland, covering almost 16 million hectares (about the size of England), home to many threatened and unique species[29]. A secondary cycling route links the Kalgoorlie urban area to the 4km trail located within the bushland.*

**Bicycle parked at the Karlkurla Bushland entrance (left) and at Hammond Park (right).**
Credit: Department of Transport.

The 12km Gribble Creek trail (informally known as the Kokoda Trail) runs from Hannans in the north-west, to South Boulder in the south-east. This extensive network of green space corridors provides a key route for both recreational and utility riding. Currently it has both sealed and unsealed sections of path.

Poor path maintenance of the Gribble Creek trail was identified as an issue through community engagement. The trail provides excellent connections to several key destinations along its length. Improving path quality has the potential to encourage more use by existing or new riders. There is a need to rehabilitate, upgrade and extend the Gribble Creek trail to ensure it can adequately serve its role as a key active transport and recreational asset for the City.

Community and stakeholder engagement informing the Strategy revealed a strong desire for improved access to and activation of green spaces. The LTCN has been designed to provide convenient and safe riding access to and through the regions green spaces. This provides people to access these areas without needing to use a car. This includes attractions beyond the urban area including Lake Perkolilli and Lake Douglas Recreation Reserve.

| Relevant key actions | Action reference |
|---|---|
| Path construction and upgrades to provide direct bike riding access to the City's green spaces. | KB12, KB13, KB14, KB16, KB22, KB23 |
| Ancillary infrastructure to support the bike riding network. | KB28 |

**Sections of the Gribble Creek trail with damaged/degraded pathway conditions.**
Credit: Department of Transport.

**CASE STUDY | City of Kalgoorlie-Boulder Bike It event**

The City of Kalgoorlie-Boulder celebrated WA Bike Month in 2022 by hosting a 'Bike It' event. The event commenced with a community bike ride in the morning, involving a round-trip between Centennial Park and the Oasis Playing Field. After the ride participants enjoyed a free barbeque breakfast, plenty of games and activities including a cycle scavenger hunt for the kids.

To complement event advertising the City published a brochure titled 'Why is it better to bike?' which outlines the broad reaching benefits associated with bike riding categorised into areas of: mental health, physical health, conveniency and efficiency, social, community, economic, transport and environmental benefits.

*Such initiatives and events not only increase the visibility of bike riding and connect the community to their localised bike riding routes, riding events can also support children to develop the necessary skills and awareness to safely ride in their local context. This includes building bike riding skills and road safety awareness through fun and engaging activities in a real-world setting.*

**'Bike It' event promotion (top left) and people attending bike riding activities hosted by the City (other).**
Credit: City of Kalgoorlie-Boulder.

**The Gribble Creek trail adjacent to one of the City's many sporting fields.**
Credit: Department of Transport.

### 5.2.2 Opportunity: Connect people to active recreation facilities

There are over 150 active sporting organisations in Kalgoorlie-Boulder. To support this level of activity and demand, the region contains a large number of high-quality recreational facilities to accommodate a diversity of sporting clubs and active recreation.

There is a need to ensure that these recreational facilities can be conveniently and safely accessed by bicycle for all members of the community to enjoy. This will help reduce car parking issues and increase the ability of children to independently access these facilities. Encouraging people to ride to and from recreational facilities will also help increase the positive public health outcomes of increased physical activity.

The Strategy identifies a LTCN that provides high quality bike riding network connections for all ages and abilities to key recreational facilities including path connections. The provision of supporting infrastructure, including bicycle parking, water fountains and bike repair stations are also recommended to promote bike riding as a viable mode of transport.

| Relevant key actions | Action reference |
|---|---|
| Path construction and upgrades to provide direct bike riding access to the City's recreational facilities. | KB11, KB12, KB13, KB14, KB16, KB19 |
| Ancillary infrastructure to support the bike riding network. | KB28 |

**Bicycle parking and pathways at key destinations in the City including (from left to right) the Goldfields Oasis Recreation Centre, Hammond Park and Rotary Peace Park.**
Credit: Department of Transport.

### 5.2.3 Opportunity: Support safer routes for road cyclists

Road cycling requires routes with a range of riding distances, minimal interruptions from intersections, a smooth riding surface and an acceptable level of risk from motor vehicles. The level of risk from traffic is dependent on the amount of traffic on the road, especially heavy vehicles, the ability of traffic to safely pass riders and the speed of traffic. Continuous road shoulders of adequate width are ideal to support road cycling training routes. Low-traffic roads without shoulders can be suitable for road cycling if drivers are aware of their presence and can safely pass cyclists with limited delay.

During stakeholder and community consultation many people noted that many of the roads in the region don't have continuous road shoulders increasing safety risks for on-road cycling. Heavy vehicles and cars towing caravans or boats present a risk to road cyclist.

The high volume of heavy vehicles related to mining operations present a particular risk on some key routes. This was recognised as a key constraint that could limit the opportunity to create high quality road cycling routes in the region.

There is existing demand for road cycling in the region. Key routes identified through stakeholder and community consultation, including with the region's local cycling club, include:

- Road cycling loop around Anzac Drive, Great Eastern Highway/Hannan Street and Goldfields Highway;
- The length of Bulong Road, commencing from Yarri Road/Black Street; and
- The long-distance circuit linking the Kalgoorlie urban area, Kambalda and Coolgardie.

The long-distance circuit was noted as a route with very high traffic risk due to discontinuous road shoulders and extensive heavy vehicle traffic between Kalgoorlie and Coolgardie.

**Road trains travelling along the Goldfields Highway.**
Credit: Department of Transport.

There is a need to work with the State government and local cycling groups to identify road cycling routes with sections with high safety risks that can be addressed through appropriate mitigations. This will include the development of a strategy to improve safety through short-term low-cost measures (such as signage and line marking) to increase awareness of bike riders on roads, and a long-term program of prioritised upgrades to provide road shoulders in locations with high safety risk.

There is also a need to address unsafe behaviours of cyclists and drivers through education and awareness programs.

| Relevant key actions | Action reference |
|---|---|
| Delivering and advocating for safe on-road cycling environments throughout the region. | K20, KB21, KB22 |

## CASE STUDY | Share the Regional Road

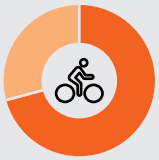
It is not always feasible to widen regional roads to provide the width required for road shoulders suitable for safe road cycling. To improve the safety of regional roads without shoulders that are used for road cycling there is a need for mutual respect between people riding and driving on roads to ensure everyone remains safe. Signage to raise driver's awareness of bike riders and to encourage safe behaviours can assist in improving safety on these road cycling routes.

The City of Busselton, in partnership with the Federal Government's Road Safety Innovation Fund grant scheme, recently trialled different 'Share the Regional Road' sign designs. The trial measured the effectiveness of different road signs in increasing driver awareness of cycling on regional roads.

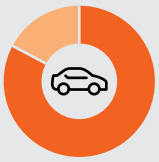
Signs used included:

- Static cyclist ahead warning signs;
- Static 1.5m passing distance signs; and
- Dynamic signs with flashing lights when cyclists are using particular routes.

### Trial evaluation results



**71%**
of cyclists believe the signage is effective in improving their perception of safety.



**83%**
of drivers think that the signage is effective in improving their awareness of cyclists.

Dynamic signage has been noted in previous Regional 2050 Cycling Strategies as an opportunity for raising awareness of bike riders on regional routes. Supporting the initiative was a local advertising campaign to raise awareness and promote sharing the road.

**Static 1.5m passing distance sign (left) and 'Share the Regional Road' campaign signage (right).**
Credit: City of Busselton.

### 5.2.4 Opportunity: Provide opportunities for mountain biking

Mountain bike trails provide an opportunity to showcase the region's unique scenery and rugged environment for more adventurous riders. Mountain bike trails can provide for people with varied technical abilities and can also include gravel tracks, fire trails and purpose-built single tracks.

Mountain biking/gravel biking is identified as one of Western Australia's fastest growing recreational, sport and tourism activities[30].

*Formalised trails can prove popular for local communities and benefit the local economy by attracting visitors to stop and stay. Mountain bike trails can be publicised through providing easy access to route information, targeted marketing and/or competitive events.*

The *WA Strategic Trails Blueprint 2022–2027*[31] has been developed by DBCA in conjunction with key stakeholders and the potential for multi-use cycling trails is highlighted in the Blueprint.

Kalgoorlie-Boulder is surrounded by bushland that is ideal for gravel and mountain bike trails. Several informal trails exist in bushland within the City or in surrounding areas.

During stakeholder and community consultation, mountain biking was viewed as an underutilised opportunity in the region. The City highlighted the desire to continue to grow demand for bike riding and noted cycle tourism as an area of interest. A key constraint for creating these trails is land tenure and getting access permission. The need to ensure appropriate protections are in place for sensitive natural environments is also a key consideration. This strategy recommends an action to work with key stakeholders to investigate suitable locations for mountain bike trails within the region.

| Relevant key actions | Action reference |
|---|---|
| Collaborate with stakeholders to investigate the provision of additional recreational riding opportunities in the region. | KB33 |

**CASE STUDY | Exmouth Trails Strategy development**

The Shire of Exmouth is working in partnership with local cycling club, the Cape Range Riders, to develop a Trails Strategy. The purpose of the Trails Strategy is to investigate potential trail alignments across the Cape Range National Park.

A key constraint for creating these trails is obtaining access permission from the landowners. The sensitive natural environments also present a challenge and require sensitive route choice and appropriate trail development and maintenance. The Shire is developing a Trail Strategy through meaningful collaboration with the key stakeholders including Traditional Owners.

*The Trail Strategy seeks to balance the need to protect sensitive environmental, heritage and ecological areas, while enabling people to use a mountain bike enjoy and connect to the natural environment.*

**Members of the local cycling club in Exmouth ride across the Cape's unique landscape.**
Credit: Department of Transport.

### 5.2.5 Opportunity: Create more opportunities for group cycling activities

Competitive riding events provide a point of motivation for local residents to ride a bicycle for fun or for fitness. These events can increase levels of cycling participation and help increase health outcomes for the region. They can also serve as a form of motivation for some people to consider commuting to work by bicycle to improve their cycling fitness.

*Competitive and social bike riding events (road cycling, mountain biking, BMX, triathlons, etc.) can generate economic benefits by attracting cycle tourists to the area. In Australia 7% of the cycle tourism market is for participating in competitive events[32].*

The region is host to several well-established competitive cycling events of varying scales. This includes the internationally renowned Goldfields Cyclassic organised by the Eastern Goldfields Cycle Club, the AusCycling BMX state series organised by the Eastern Goldfields BMX Club as well as an active calendar of events hosted by the Kalgoorlie Tri Club.

**Bicycles parked at a Kalgoorlie Tri Club race event.**
Credit: Department of Transport.

The *City of Kalgoorlie-Boulder's Tourism Strategy 2020–2024*[33] identifies 'recreation/sport' as one of several niche tourism markets that offer a point of difference and one that Kalgoorlie-Boulder has the resources to establish a marketable tourism product around. In support of this, an opportunity to further build on the region's identity as a competitive sports cycling hub and promote cycle tourism has been identified in collaboration with stakeholders.

Depending on their scale, the organising, promotion and management of competitive cycling events can require up-front funding support to make them viable. Further opportunities for sports cycling events and the need for funding support of these should be investigated in collaboration with local sports cycling groups.

| Relevant key actions | Action reference |
|---|---|
| Collaborate with stakeholders to investigate hosting more group cycling events in the region. | KB33 |

## 5.3 Connecting the community to local jobs and services

There are many factors that influence people's willingness to ride a bicycle. The single biggest factor that determines people's willingness to ride a bicycle is their perception of danger from traffic.

*International research shows that between 50% and 60% of adults would consider riding a bicycle, but don't because they don't feel safe riding on busy roads*[34]*.*

Community and stakeholder engagement revealed this was a concern for people in the region, with people suggesting they would ride more often if there were better paths, facilities and on-road safety features.

To maximise the number of people willing to ride a bicycle there is a requirement to serve the needs of all ages and abilities, allowing children and cautious riders to feel confident riding to multiple destinations for many different purposes.

**Figure 11. Types of people and their willingness to ride a bicycle**[34]

| Children | Cautious | Confident | Fearless |
|---|---|---|---|
| | | | |
| Children who can safely cross the road (typically 10 or older) or younger children under supervision. | Adults and teens of varying cycling ability who want to cycle but are cautious about safety risks from traffic. | Adults and teens with higher levels of cycling skill and confidence to interact with traffic using bicycle lanes. | Skilled bicycle riders that are confident interacting with traffic on busy roads with no or minimal cycle lanes. |
| Proportion of adult population | 50% to 60% | 5% to 10% | Less than 5% |

The City benefits from a largely grid-layout street network, relatively flat terrain, with a condensed population centre in established residential suburbs and relatively short distances between destinations.

Small, local centres across the City provide for residents' daily needs, and it is a comfortable riding distance from most suburbs to the Kalgoorlie City centre and Boulder town centre where key destinations are located.

The Strategy identifies three key opportunities to help people use active travel to get to where they are going, including improving the rideability within the City centre, improving access to the City centre, Boulder town centre, and the City's neighbourhood centres, and improving links to major employment nodes.

### 5.3.1 Opportunity: Improve links to major employment nodes including West Kalgoorlie industrial area

Industrial areas often are poorly served by the walking and bike riding network. Although industrial areas tend to have less traffic than busy centres, the large number of heavy vehicles and the early morning or late-night travel for shift work can make walking or bike riding to work in industrial areas particularly dangerous.

West Kalgoorlie is Kalgoorlie-Boulder's industrial hub, serving as a major employment node in the City, with the majority of industrial uses located in this area. Its role as key trip attractor is expected to increase in the future.

Existing industrial uses in other areas of the City are planned to be co-located in West Kalgoorlie as per the City's *Local Planning Strategy 2013–2033*, while new industrial lots, including Anzac Drive West and Lot 505[35] are planned to be developed, which will draw more workers to the area.

Engagement with stakeholders and community members highlighted gaps in bike riding connectivity to the City's industrial areas. Accordingly, the LTCN identifies opportunities to support an increase in the number of people riding to and from West Kalgoorlie as well as the smaller South Boulder industrial area.

The availability of employee end-of-trip facilities is also essential to encouraging bike riding access to workplaces. People are less likely to consider bike riding as a viable transport option without this supporting infrastructure. An action of this strategy, is to review the appropriate planning scheme policies to ensure that new developments and redevelopments will include provision for bicycle parking and end-of-trip facilities, appropriate to the scale and type of development, and its location.

*To demonstrate commitment to active travel, it is recommended that the City include suitable employee end-of-trip facilities and public bicycle parking in government offices and service centres as appropriate.*

**Existing conditions along Broadwood Street (the key route serving West Kalgoorlie industrial precinct).**
Credit: Department of Transport.

The Fimistone Open Pit (Super Pit), which employs approximately 1,200 people, and Mount Charlotte Underground Mine are also major employment nodes in the City. A large number of workers at these mines are residents within easy bike riding distance of the mines. Discussions with stakeholders highlighted an opportunity to investigate the feasibility of providing safe bike riding routes linking the mines to the urban bike route network. Engagement with mine operators, Northern Star Resources Limited and KCGM, will be undertaken to investigate this opportunity further.

| Relevant key actions | Action reference |
|---|---|
| Path construction and upgrades to provide direct bike riding access to the City's major employment nodes. | KB1, KB2, KB3, KB4, KB5, KB6, KB7, KB8, KB10 |
| Ancillary infrastructure to support bike riding to workplaces. | KB29 |

**CASE STUDY | Supporting cycling access to industrial precincts**

The Industry Training and Workplace Services business, located in the West Kalgoorlie industrial precinct provides support to apprenticeship and traineeship placements. Many of their participants are below the legal driving age. The training facility run an initiative where participants learn to refurbish and maintain old bicycles. The trainees are given the bicycle they refurbish during the training. The program helps empower participants by providing them with a bicycle that gives them independent, affordable mobility that supports their entry into the workforce.

*The organisation has partnered with the WA Police to obtain bicycles that have been seized or recovered, are unsuitable for auction and all attempts to identify the owner have been exhausted. The program therefore supports positive environmental outcomes by diverting unusable bicycles from landfill.*

The program is well received by trainees, many of whom would otherwise be reliant on their parents to get to work in the industrial precinct. Improvements to the cycle network serving the precinct would further support an increase in the number of people riding to work in the industrial area.

**The shared path past Broadwood Street, which connects people to jobs in the West Kalgoorlie industrial precinct.**
Credit: Department of Transport.

### 5.3.2 Opportunity: Improve access to the Kalgoorlie City centre and Boulder town centre, as well as the City's neighbourhood centres

All of the Kalgoorlie-Boulder urban area is within a comfortable cycling distance of less than 10km. The relatively even dispersal of the City's primary and neighbourhood centres means that most residents are within comfortable riding distance of many jobs, shops and other key services. However, if people don't feel safe riding a bicycle to access these destinations, people will continue to drive despite the short distances of trips.

The City's primary centre is the Kalgoorlie City centre, located along Hannan Street, to the City's north. The Boulder town centre is smaller in scale and contains a mixture of specialty retail and commercial, and food and dining premises, along Burt Street to the City's south-east.

These two centres are supported by minor neighbourhood centres, servicing the City's growth areas. This includes Hannans Boulevard Shopping Centre located in the suburb of Hannans to the City's north-west, and O'Connor retail centre servicing the residents of O'Connor in the City's south.

Increasing the number of bike riding trips made to these centres can reduce the amount of space needed for car parking.

This makes it easier for people who have to drive to find parking and can create opportunities for investments to increase space for landscaping and community space, preserve heritage values and improve the amenity of centres.

The existing pathway network in the City is reasonably well connected, however, as reflected in community engagement comments and on-site observations, the existing condition of paths in some locations is poor. This includes cracked/damaged path surfaces, narrow pathway widths, presence of broken glass and debris, as well as non-compliance to universal access and inclusion requirements.

Ensuring route continuity across driveways and crossovers and disruptions to route continuity resulting from the placement of grabrails was also identified through consultation and on-site observations as a challenge. Measures to provide priority to people riding along key routes to minimise conflict between users and deliver path continuity are recommended in key locations.

Public bicycle parking to support increased use of bicycles for customer access to businesses and secure end-of-trip facilities for employees to support riding to workplaces within the region's major and minor centres is also recommended as part of this strategy.

**Change in path surface and width along a shared path (left) and grabrails restricting the path of travel (right).**
Credit: Department of Transport.

| Relevant key actions | Action reference |
|---|---|
| Path construction, upgrades and initiatives to provide uninterrupted bike riding access to the City's major and minor activity centres. | KB1, KB2, KB3, KB4, KB5, KB6, KB7, KB8, KB26, KB27, KB32 |
| Improving universal accessibility and connectivity of path networks. | KB25 |
| Ancillary infrastructure to support the bike riding network. | KB28, KB29 |

### 5.3.3 Opportunity: Create a rideable City centre

The Kalgoorlie city centre is characterised by wide streets, on-street angled car parking, continuous raised medians, and wide paths with relatively continuous awnings providing shade. This form provides barriers and opportunities for people choosing to ride.

Improving the bike friendliness of the city centre means we can empower more people to choose to ride more often to access some of the City's important destinations.

*The City centre has significant place intensity and co-locates numerous types of important destinations for people of all ages, including work, study, retail, services, and food and dining premises.*

Along these routes, considerations for the bike friendliness of the Kalgoorlie City centre include:

- The Kal City Centre Place Plan[36] identifies a future vision for locations throughout the CBD, including dedicating Cassidy Common as a 'people first' zone where car access is removed, supporting mid-block crossings, and providing amenity features such as seating and public art throughout;
- The Plan also includes streetscape suggestions which would support a bike-friendly CBD; a greening program to extend street tree canopy and provide shade; reconfiguring parking to support active travel, and traffic calming including removal of a traffic lane;
- Existing wide paths in the City centre would generally be of benefit to people choosing to ride, however potential conflicts with active frontages mean this is not necessarily a comfortable place for people on bicycles or pedestrians;

**'Bike hire' signage (left) at the Kalgoorlie-Boulder Visitor Centre (right).**
Credit: Department of Transport.

- Crossing opportunities, particularly mid-block crossings on Hannan Street are limited by raised medians without pedestrian/bicycle cut throughs. Block lengths are approximately 200m;
- Adequate provision of secure bike parking in the CBD was raised during community and stakeholder engagement. Awning posts can provide informal bike parking opportunities but do not play a role in the visibility of bicycle parking which promotes bicycles as a transport mode; and
- The existing speed limit for vehicle traffic through the CBD is 60km/hr. Where people, particularly vulnerable people, mix with traffic such as in city centres, a maximum speed of 30km/hr is recommended by global road safety experts[37] to make centres safer and more comfortable for people on the street.

Major routes in the Kalgoorlie City centre are all designated parts of the heavy vehicle network[38]. Alternatives to sharing road space should be considered to support the comfort of riders of all ages and abilities.

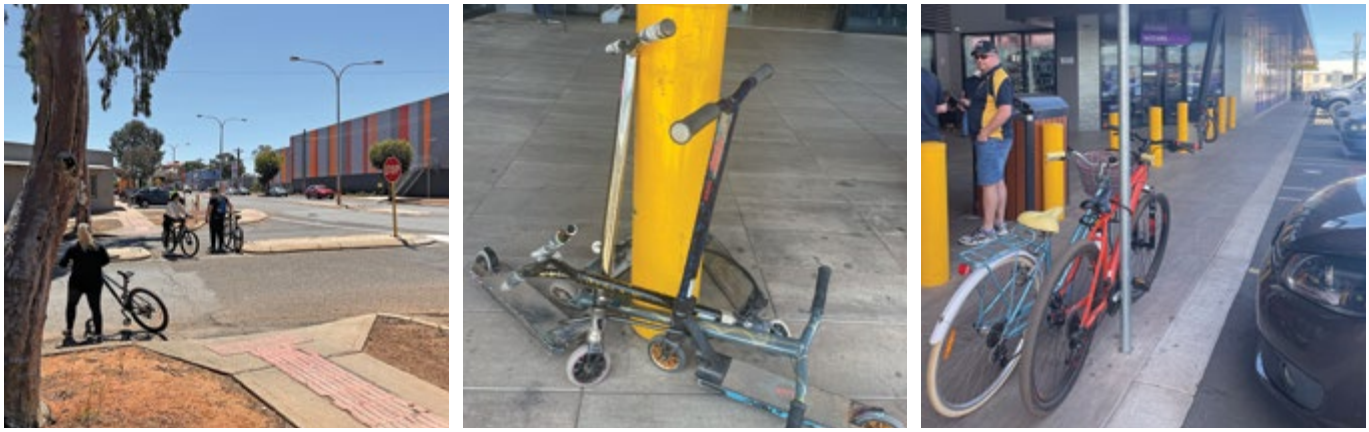
| Relevant key actions | Action reference |
|---|---|
| City centre enhancements to support a safe bike riding environment. | KB35 |
| Ancillary infrastructure to support the bike riding network. | KB28 |

## 5.4 Highlighting the region's rich history

The Kalgoorlie region has a rich and diverse history of settlement stretching back tens of thousands of years. Aboriginal people lived and thrived in the region for millennia prior to the region's gold rush. The discovery of gold in the 1890s brought about European settlement of the area and the growth of Kalgoorlie-Boulder in its unique role in the development of WA.

The ongoing importance of gold mining to the region means this legacy continues to be widely celebrated. The City's strategic documents support continued connection to the City's gold rush past, including the Strategic Community Plan 2020–30 and the Tourism Strategy 2020–2024[33]. Therefore, this strategy identifies several opportunities to support connections to heritage for residents and visitors alike, including through the development of a trail connecting locations of historical significance, such as Hannans North Tourist Mine, the Mining Hall of Fame, Museum of the Goldfields and key historical buildings including the Kalgoorlie Town Hall and Boulder Town Hall.

Opportunities to celebrate and promote Aboriginal culture and continued connection to Country should be explored through engagement with the relevant stakeholders, to ensure that the views and requirements of Traditional Owners are adequately and respectfully captured.



**People riding past Coles, a major trip attractor in the Kalgoorlie City centre (left) and bikes parked against posts outside Coles due to no bicycle parking provision (right).**
Credit: Department of Transport.

### 2021–22 State Budget

**$12.1m**

to fund regional Aboriginal tourism initiatives in the Goldfields, presenting opportunities as part of the region's bike riding network development.

The City has also played a key role in historic state-significant developments, such as the Goldfields Water Supply Scheme, completed in 1902, which saw the development of steel pipeline and series of pump stations delivering water from Mundaring (560km to the west of Kalgoorlie) across the goldfields all the way to Kalgoorlie.

The pipeline and pump stations remain, dotted along Great Eastern Highway at towns between Perth and Kalgoorlie. This is identified in the Strategy as an opportunity for long distance cycle tourism, allowing people a unique connection with the region's historic assets, an engineering marvel, as well as identifying rest locations for people making longer, interregional riding trips.

Furthermore, the region has a strong historical affiliation with cycling starting out in the 1890's in line with the goldrush, and saw the establishment of the Eastern Goldfields Cycle Club in 1920. This strategy embraces the opportunity to emphasise this long relationship, and the importance cycling has played in the region over the last 100 years.

### 5.4.1 Opportunity: Develop a riding trail connecting locations of historical significance

The *City of Kalgoorlie-Boulder's Tourism Strategy 2020–2024*[33] identifies an aspiration to:

*"…develop and capture the diverse tourism offering of Kalgoorlie-Boulder and to activate the region as a desirable and competitive destination for both domestic and international travellers looking for a unique experience."*

The Tourism Strategy identifies 'tourism assets' as one of six strategic priorities, recognising that the region has many unique assets which set it apart from other places in the world. This strategy, therefore, seeks to support the City's aspiration of increasing tourism by at least 50%, over the Tourism Strategy's time horizon.

The LTCN is designed to profile the City's key historical and cultural attractions, to ensure people, both residents and visitors, can safely and conveniently access these points of interest. There is a need for this to recognise the long history of settlement and cultural significance of the area, not just the recent European heritage.

**City of Kalgoorlie-Boulder (left) and bike parking racks outside the Court Hotel (right).**
Credit: Department of Transport.

Caravan and mobile-home based travel is a popular way to explore the region. Often these vehicles carry bicycles, enabling tourists to set up in the caravan park and explore the local area in a fun and immersive way by bicycle. The convenience of exploring a small town by bicycle eliminates the need for visitors or residents to find car parking in busy centres, around popular attractions and reduces fuel use.

The LTCN includes improved links to key heritage locations. The following are also important elements needed to connect people to these destinations:

- Signage including route maps and wayfinding guidance to help tourists use a bicycle to explore the area and visit these destinations safely and conveniently;
- Signage such as interpretive panels along the key routes linking these destinations; and
- Provision of secure bike parking at each destination.

| Relevant key actions | Action reference |
|---|---|
| Path construction and upgrades to provide bike riding access to historical attractions in the urban centre. | KB1, KB2, KB3, KB7, KB8, KB15 |
| Ancillary infrastructure to support the bike riding network. | KB24, KB28 |

**Caravan carrying bicycles on the back at Discovery Parks (Kalgoorlie Goldfields).**
Credit: Department of Transport.

### 5.4.2 Opportunity: Profile the region's historical affiliation with cycling

The region has a long-standing connection with cycling. In the 1890's courier cyclists traversed all the Goldfields carrying messages to people before the telegraph line came to the region[39]. Following on from this, the Eastern Goldfields Cycle Club was established in the 1920's, recognising cycling as a popular sport. The club was responsible for organising races and facilitating competitive cycling in the region and is still active today.

From inception, the club conducted both track and road racing throughout the region, leaving a legacy of bicycle racing tracks and bicycle racing routes, some routes of which are still used for competitive cycling today.

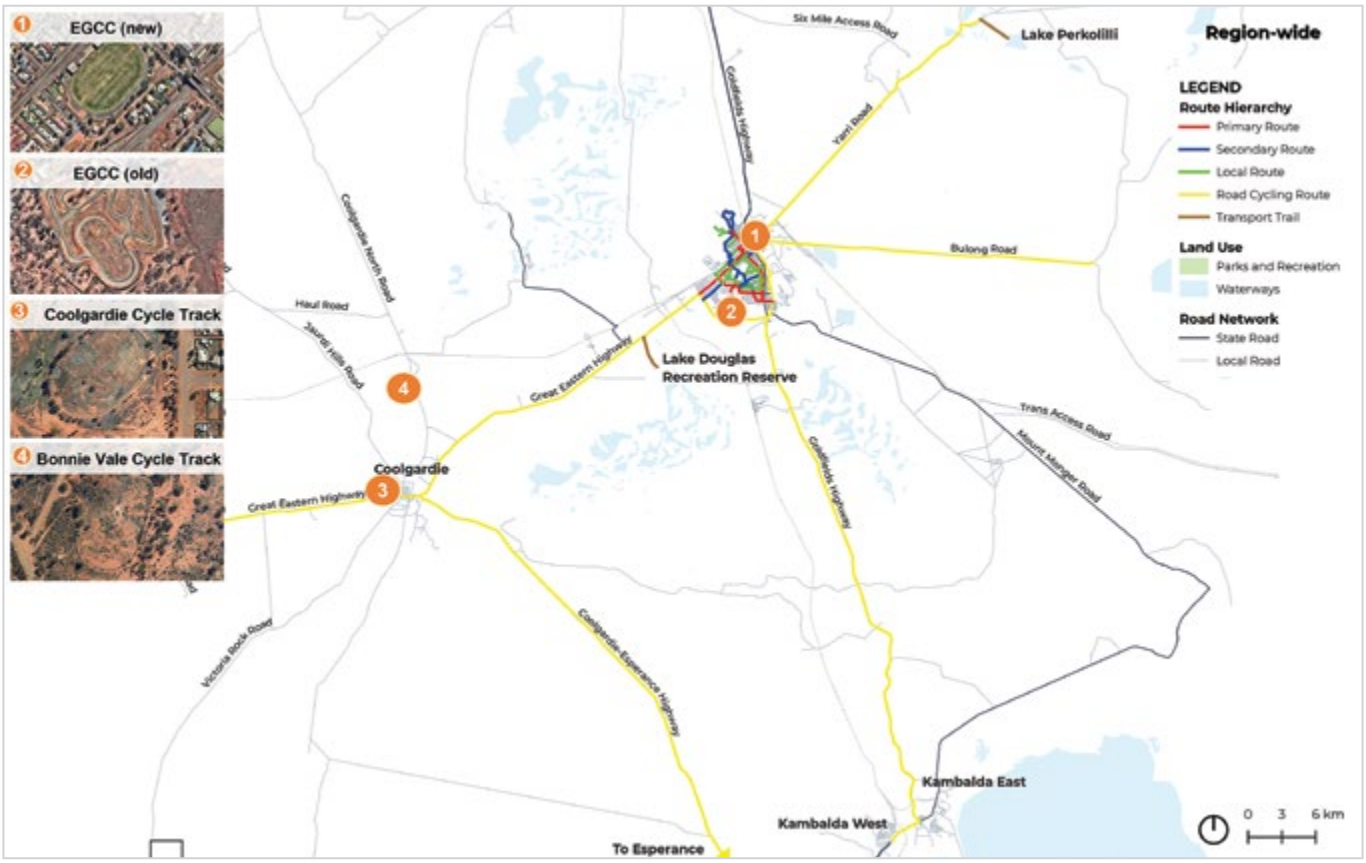
Engagement with the Eastern Goldfields Cycle Club highlighted an opportunity to develop a historical riding trail to highlight the regions rich history in cycling. This includes historical velodromes developed in most Goldfields and Wheatbelt towns in the late 1890's/early 1900's on the cricket oval. The following locations were identified as locations of interest for cycling in the Kalgoorlie-Boulder region include (illustrated in Map 8):

- The new Kalgoorlie Eastern Goldfields Cycle Club track (EGCC cycle track – new), now Sir Richard Moore Oval;
- The former Kalgoorlie Eastern Goldfields Cycle Club track (EGCC cycle track – old), now the Eastern Goldfields Kart Club;
- The former Coolgardie cycle track, remnants of the legacy cycle track is evident however now primarily a dirt track. This site was flagged through consultation as being particularly significant as it is where cycling took hold in the Goldfields. The Westral Cycle Race was held here in 1898 and attracted an estimated 7,000 to 8,000 attendees, including local and international racers[40]; and
- The former Bonnie Vale cycle track remnants of the legacy cycle track is evident however now primarily a dirt track.

This opportunity could draw existing cycling enthusiasts to the area. It could also raise the region's tourism profile more broadly by introducing a niche tourist attraction that can be marketed through a well-defined trail and publicised information.

| Relevant key actions | Action reference |
|---|---|
| Collaborate with stakeholders to investigate developing a historical riding trail. | KB33 |

**Map 8. Map showing the locations of historical cycle racing tracks in the region**



## CASE STUDY | Eastern Goldfields Cycling Club

The Eastern Goldfields Cycling Club formed in the 1920's, with 12 cyclists attending the Club's first foundational meeting in April 1926. At its peak the club's membership grew to 150 racing members, which saw a drop and rise, in line with the decline and eventual revival of the mining industry[41].

The current membership count is at 33, although small in size, the Club continues to stage a national standard cycling event annually, the Goldfields Cyclassic, a cycling race between Kalgoorlie-Boulder, Menzies and Lenora.

*The event attracts local, national and international racers and spectators, drawing visitors to the region and boosting the region's local economy. An estimated amount of $200,000 is spent annually to organise the event, with funding sourced through local and state government grants, sponsorships, club raised funds and in-kind support.*

Through many decades of hard work and visioning, the Club is in a sound financial position. Key factors attributing to the Clubs long-standing success include:

- Minimal overhead costs to run the Club, with two websites and financial compliance forming the bulk of the costs. The Club has no assets/ club house to manage or maintain.
- The Club has evolved over time to become more inclusive in its membership, catering to riders of all skill levels, with the introduction of recreational cycling activities, while retaining its original purpose of racing. The Saturday Social Group Rides have become the Club's most popular segments.
- The Club outsourced organisation of the Goldfields Cyclassic to a professional event manager in 2022 to ensure long-term viability of the event and overcome challenges with historically dwindling club membership and reluctance in taking on event organisational roles.
- Clear delineation of target market, recognising that under 18 juniors are the main user group for the Eastern Goldfields BMX Club and are occupied with winter and summer sports given the highly active community.

Plans to celebrate the Club's milestone 100th year anniversary in 2026 are currently in progress.

**Promotional poster for a ladies bicycle training event (left) and a newspaper snippet of participants in the Egan Memorial Bike Race in 1934 (right).**
Credit: Eastern Goldfields Cycle Club.

### 5.4.3 Opportunity: Create opportunities for long distance cycle touring

Cycle touring is a small but growing international tourism market. Cycle tourers ride for two or more days and can be independent or can be supported. Typically, they cycle between 50km and 150km a day and stay along the route. Although cycle touring is not a large market, their benefit to small regional communities can be significant as the distances they can travel in a day are limited.

*Attracting more cycle tourers can provide a small but valuable increase in tourism revenue to small regional communities.*

Cycle touring can be along off-road routes/riding trails, or along roads that are safe to ride along. Cycle tourers have the same fundamental safety requirements and acceptable risk from motor vehicles as outlined in Section 5.2.3.

There are various types of cycle touring trip types with varied user needs. The following information is required to support long distance cycle touring journeys:

- Key attractions and scenic routes for cycle touring journeys;
- The safety and condition of routes to inform route selection;
- Locations to obtain potable water to inform how much water to carry;
- Places to stay overnight, including safe camping locations; and
- Places to purchase food to know how much food to take with.

Providing reliable and up-to-date information can help support cycle tourers choosing routes through the region.

A desire for a long-distance road cycling route linking Kalgoorlie, Coolgardie and Kambalda East was identified during stakeholder and community consultation (see Section 5.2.3). Although not specifically identified for cycle touring, safety improvements to this route would benefit cycle tourers. Providing safe inter-regional cycling routes to Esperance and Perth would further support an increase in cycle touring to and through the region.

**Riding a bike on the Goldfields Highway equipped with panniers (left) and riding on the Goldfields Highway with no luggage or equipment (right).**
Credit: Department of Transport.

The Golden Pipeline Heritage Trail[42] is a self-guided drive trail between Mundaring (Perth) and Kalgoorlie, established by the National Trust of Western Australia. Key points of interest and historical facts are identified along the length of the trail, with information presented via a dedicated webpage and printout. This existing information can be leveraged to promote long distance cycle touring and connect people to the region's rich history.

Another way to support long-distance cycling touring in the region is to make it easy to travel to the region with a bicycle. The Transwa Prospector train service travels between Perth and Kalgoorlie daily (twice on Monday and Friday) but currently does not allow standard bikes onboard. Only two fold-up bikes in carry bags can be taken onboard the service. This presents a significant constraint to cycle tourers using the train service to access the region.

Transwa coach services and some regional rail services permit bikes. There is an opportunity to advocate for the same provision on the Prospector, supporting opportunities for multi-modal long-distance cycle touring journeys and, more broadly, supporting active holidays which do not require a car.

| Relevant key actions | Action reference |
|---|---|
| Delivering and advocating for safe on-road cycling environments throughout the region | K20, KB21, KB22 |

**Wayfinding signage – Golden Pipeline Heritage Trail.**
Credit: National Trust of Western Australia.

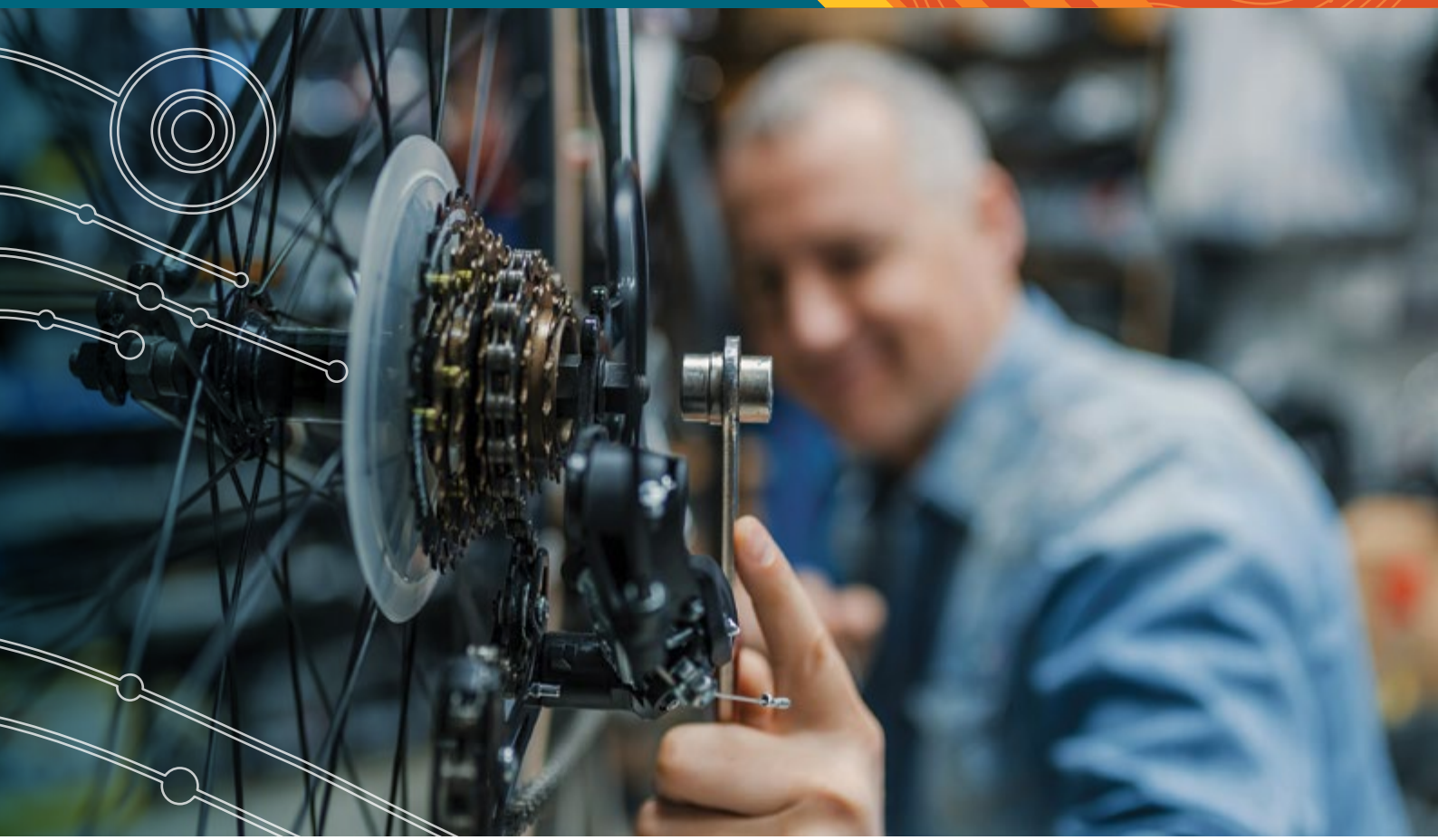
### 5.4.4 CASE STUDY | Bicycles onboard the AvonLink

Transwa operates coach and rail services to various regional towns in WA including between Perth to Bunbury, Kalgoorlie, Merredin and Northam. Transwa reconfigured space onboard the AvonLink, which travels between Midland Station to Northam Train Station. This has made it more accessible for people to bring their bicycles onto the regional train services.

This supports using a bicycle to travel between the station and peoples' final destination. It also supports train travel with a bicycle which can boost tourism in the regions without increasing traffic congestion.

Currently, standard bicycles are permitted on select regional services for a fee and are required to be pre-booked. A bicycle is defined by Transwa as: "Having no obtrusive features such as flags, saddlebags, trailers or similar that is powered by pedal power using pedals, chain and belt, and is not supported by any motor. A bicycle does not include tandems/and or tricycles". Such services include all Transwa coaches, the AvonLink and MerredinLink regional rail services.

**Bike storage – AvonLink regional train service.**
Credit: Bicycles Network Australia.



# 6. Action Plan and Maintenance

**This section outlines the strategic priorities that are proposed to be progressed over the next five years. This approach will help enable the Kalgoorlie-Boulder region to realise its long-term bike riding potential over time. The priorities have been informed by community and stakeholder consultation throughout the project, as summarised in Appendix B.**

## 6.1 The existing bike riding network

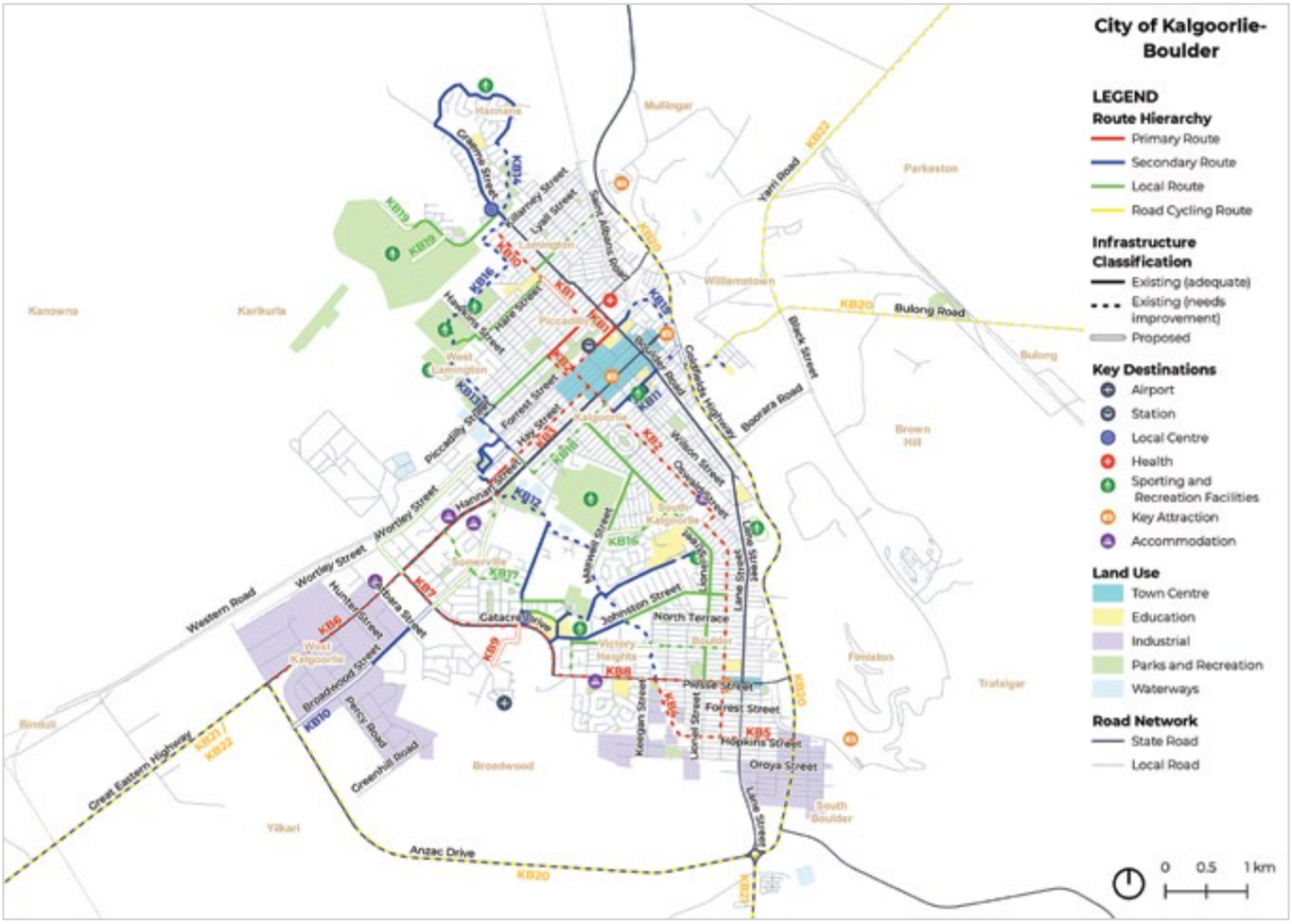
To inform the action plan's strategic priorities, each route within the 2050 bike riding network was classified as one of the following:

- **Existing** (adequate) – the level of service reflects current best practice for this type of bike riding route (as defined in the route hierarchy);
- **Existing** (needs improvement) – although active transport infrastructure is provided along this corridor, the level of service provided does not reflect current best practice for this type of riding route (as defined in the route hierarchy); or
- **Proposed** – no formal on-road or off-road bike riding facility is currently provided on this route and most people are unable or unwilling to ride comfortably in the corridor.

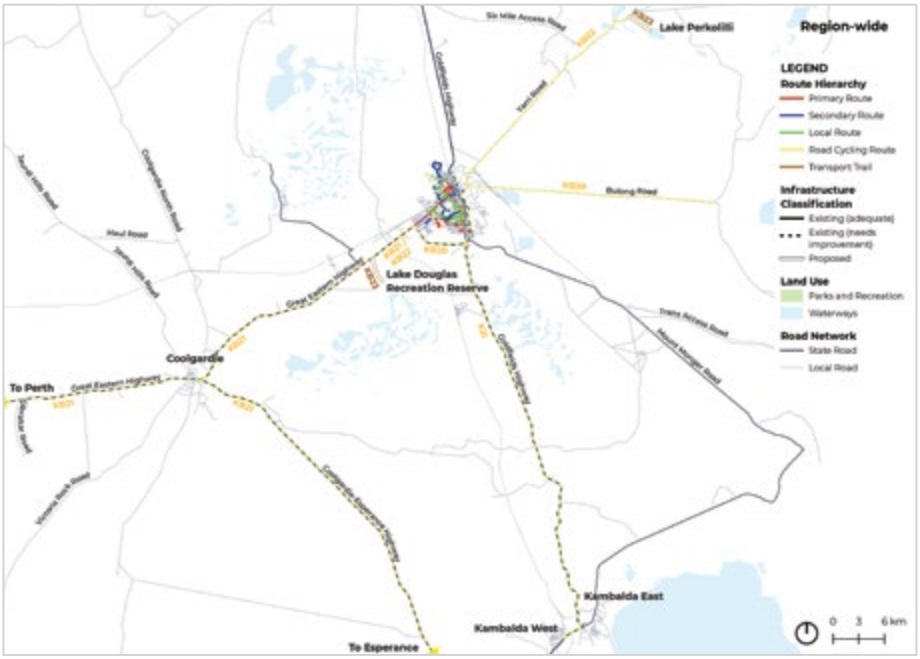
These classifications are reflected in the maps as per Map 9 and Map 10, with each route classified as either existing (adequate), existing (needs improvement) or proposed, and considered in the context of the five-year timeframe of this action plan.

A unique project reference has been included on the map. This reference corresponds to the priority projects identified in Section 6.2 and Section 6.3 to depict the location of each project.

**Map 9. Existing route infrastructure conditions based on the proposed 2050 bike riding network for the Kalgoorlie-Boulder urban area**




**Map 10. Existing route infrastructure conditions based on the proposed 2050 bike riding network for the Kalgoorlie region**



## 6.2 Priority projects

The following tables identify the local strategic priorities for bike riding in the Kalgoorlie region, if and when organisational and funding capacity permits. Broadly categorised as: Short-term (to commence within 1–3 years); Medium-term (to commence within 4–5 years); and Long-term (to commence in 5+ years).

### 6.2.1 City of Kalgoorlie-Boulder

| Ref. | Primary routes |
|---|---|
| KB1 | **Keenan Street and Maritana Street Shared Path**<br>**Project Type: Construction \| Timeframe: Short-term** |
| | **Action:** Construct a shared path on:<br>• Stage 1 – Piccadilly St (Keenan Street to Maritana Street) and Maritana Street (Piccadilly Street to Dugan Street).<br>• Stage 2 – On road bidirectional bike lane Keenan Street (from Piccadilly to Campbell Street).<br>**Need:** Maritana Street, Keenan Street and Piccadilly Street have existing 1.5m footpath, of average condition. Obstructions such as trees, light poles and an over bridge restrict the effective path width, resulting in higher risk of conflict between pedestrians and people riding.<br>**Benefit:** Funding has been secured through the 2021/2022 and 2022/2023 WA Bicycle Network Grants program to design Stage 1 and 2 and construct Stage 1 of this riding route as high priority project due to the concentration of major facilities and key services along the route. |
| KB2 | **North-south primary route corridor upgrade (Northern section)**<br>**Project Type: Renewal \| Timeframe: Short-term** |
| | **Action:** Deliver path upgrades along the key north-south primary route between Piccadilly Street and Ware Street, along Chapple St, Forrest Street (the section between Chapple Street and Wilson Street), Lane Street and Oswald St. Include Davidson Street local route to connect to schools. Due to the length of the route (approx. 3.8km long), there may be a desire to stage the delivery, for example:<br>• Stage 0 – Forrest Street and Lane Street (between Wilson Street and Hannan Street) are under construction with grant funding from DoT, due for completion in October 2023.<br>• Stage 1 – Chapple Street (between Piccadilly Street and Forrest Street), Forrest Street (between Chapple Street and Lane Street), Lane Street (between Hannan Street and MacDonald Street).<br>• Stage 2 – Lane Street and Oswald Street, between MacDonald Street and Ware Street, including the Davidson Street local route connecting to schools.<br>**Need:** The existing path infrastructure is too narrow (1.5m–1.8m wide) to function as a primary route. There is poor continuation of the path over driveways and many of the kerb ramps along the route are not compliant with universal accessibility standards. The rail level crossing on Chapple Street forces people on bikes to dismount, disrupting riding continuity on the key route to the Kalgoorlie town centre.<br>**Benefit:** This route forms the backbone of the bike riding network, linking Kalgoorlie-Boulder communities in the north to the south. It connects to the Kalgoorlie Train Station, Kalgoorlie town centre, John Paul College Kalgoorlie, Kalgoorlie-Boulder Community High School, Eastern Goldfields Hockey Association, the Youth Precinct and multiple other riding routes. Providing a high-quality riding environment along this route will help increase the number of people choosing to ride to the town centre, encourage active tourism opportunities, and has potential to reduce car parking demand. |

| Ref. | Primary routes |
|---|---|
| KB3 | **Hay Street town centre link upgrades**<br>**Project Type: Design and Construction \| Timeframe: Short-term** |
| | **Action:** Design and deliver path network improvements on Hay Street, between Martin Street and Lane Street (approximately 1.4km).<br>**Need:** The existing pathway between Martin Street and Lane Street is narrow at approximately 1.8m wide on each side, with poor crossings at several intersections with kerb ramps that are not compliant with universal accessibility standards. There is poor continuity of the path over major driveways, reducing safety of bike riding on this key east-west route.<br>**Benefit:** This route connects to employment and entertainment locations in the town centre and provides access to parks (including Usher Park which contains public toilets and picnic tables) and lower order routes for network permeability. |
| KB6 | **Improving riding conditions along Great Eastern Highway primary route**<br>**Project Type: Feasibility and Planning \| Timeframe: Short to long-term** |
| | **Action:** In collaboration with MRWA, undertake a feasibility study to identify opportunities for upgrading the pathways along Great Eastern Highway primary route, between Anzac Drive and the Gribble Creek trail to provide a consistent, continuous and high-quality riding environment.<br>**Need:** Great Eastern Highway is a key freight route and carries a high volume of vehicles, including road trains, with a posted speed limit of 70km/h. There are pathways on both sides of the road in varying condition, between 1.5m–2.5m wide, with several driveways to negotiate while riding.<br>**Benefit:** There is significant potential to increase the number of people riding in and around the City by improving this route which provides connectivity to the West Kalgoorlie industrial precinct, a major employment node, as well as the Kalgoorlie town centre via Hay Street primary route. |
| KB7 | **East-west primary route corridor upgrades (Western section)**<br>**Project Type: Renewal \| Timeframe: Short-term** |
| | **Action:** Deliver path upgrades to the western section of the east-west primary route along Gatacre Drive and Burt Street, between Great Eastern Highway and Nanson Street.<br>**Need:** There are existing pathways on both sides of the road along Gatacre Drive, until Hart Kerspien Drive where the south path terminates. While the existing pathways are generally in good condition, there are sections which warrant improvements, for example in sections where the path narrows to 1.5m, providing route continuity across driveways and road crossings and sections where the path edge has deteriorated.<br>**Benefit:** This route is critical in providing east-west connectivity across the Kalgoorlie-Boulder urban area, providing access to the Boulder town centre, Gribble Creek trail, schools and retail in O'Connor and to the Great Eastern Highway primary route. |

| Ref. | Primary routes |
|---|---|
| KB8 | **East-west primary route corridor upgrades (Eastern section)**<br>**Project Type: Renewal \| Timeframe: Short-term** |
| | **Action:** Deliver path upgrades to the eastern section of the east-west primary route along Gatacre Drive and Burt Street, between Nanson Street and Brookman Street as follows:<br>• Stage 1 – Burt Street/Boulder town centre (between Lionel Street to Brookman Street).<br>• Stage 2 – Burt Street (between Nanson Street to Gribble Creek).<br>• Stage 3 – Burt Street (between Gribble Creek to Lionel Street).<br>**Need:** There are existing pathways on both sides of the road along most of Burt Street. While the existing pathways are generally in good condition, there are sections which warrant improvements, for example in sections where the path narrows to 1.5m, providing route continuity across driveways and road crossings and sections where the path edge has deteriorated.<br>**Benefit:** As per KB8 |
| KB9 | **Improving connectivity to Kalgoorlie-Boulder Airport and surrounding developments**<br>**Project Type: Design and Construction \| Timeframe: Short to medium-term** |
| | Action: Design and construct new primary riding routes to serve the airport precinct and future surrounding residential development in the suburb of Broadwood.<br>Need: There is currently no riding infrastructure along these routes.<br>Benefit: The desire to provide riding connectivity to the airport precinct, planned development and the growth suburb of Broadwood was identified by stakeholders. Currently, Kalgoorlie-Boulder Airport has no public transport access, limiting access options for workers at the airport. Improved riding access to the airport reduces reliance on cars for access. |

| Ref. | Secondary routes |
|---|---|
| KB10 | **Broadwood Street industrial precinct shared path**<br>**Project Type: Design and Construction \| Timeframe: Short to medium-term** |
| | **Action:** Design and construct a shared path on Broadwood Street, between Anzac Drive and Gatacre Drive. This includes the upgrade of the existing segment of asphalt path between Atabara Street and O'Byrne Crescent (south) as follows:<br>• Stage 1 – Broadwood between Gatacre Drive to Atbara Street.<br>• Stage 2 – Broadwood between Anzac Drive to O'Byrne Crescent.<br>**Need:** There is no path along this route, apart from an existing section of path between Atabara Street and O'Byrne Crescent (south) which is in poor condition. This forces people riding and walking onto Broadwood Street through the industrial area, increasing the risk of unsafe conflicts between people on bikes and heavy vehicles, with a posted speed limit of 50km/h to 60km/h.<br>**Benefit:** This route supports safe riding connectivity between residential areas and the West Kalgoorlie industrial precinct, one of the City's key employment nodes. The need to complete this gap along Broadwood Street for people who work in this area was raised as a priority through community consultation. |

| Ref. | Secondary routes |
|---|---|
| KB11 | **Improving access to the Lord Forrest Precinct and Kingsbury Park**<br>**Project Type: Design and Construction \| Timeframe: Short to medium-term** |
| | **Action:** Design and deliver a shared path along Wearne Ln where there are gaps in the network, and undertake pathway upgrades to provide a consistent, continuous and high-quality riding environment, connecting to Wilson Street.<br>**Need:** There is a gap of approximately 50m in the path network along Wearne Ln, while the pathways either side are less than 2.5m wide, presenting the risk of conflict between people walking and riding, given the path's location in a well-trafficked area.<br>**Benefit:** This route services several of the City's key trip attractors including Kingsbury Park and the Lord Forrest Precinct (where urban realm improvements are being delivered by the City) Central Regional TAFE, the Goldfields Art Centre, the Eastern Goldfields College and student accommodation block. |
| KB12 | **Enhancing the Gribble Creek trail network (South-eastern section)**<br>**Project Type: Renewal \| Timeframe: Short-term** |
| | **Action:** Deliver path upgrades and improved road crossing connections along the Gribble Creek trail in the southeast of the City, between Hannan Street and Burt Street, to provide a consistent, continuous and high-quality riding environment as follows:<br>• Stage 1 – Centennial Park shared path (Hannan Street to Meldrum Avenue).<br>• Stage 2 – Shared path along Speculation Road to Dwyer Street.<br>• Stage 3 – Centennial Park (Meldrum Avenue to Speculation Road).<br>**Need and Benefit:** As per KB5 |
| KB13 | **Enhancing the Gribble Creek trail network (North-western section)**<br>**Project Type: Renewal \| Timeframe: Short-term** |
| | **Action:** Deliver path upgrades and improved road crossing connections along the Gribble Creek trail in the northwest of the City, between Graeme Street/Eureka Street and Dugan Street, to provide a consistent, continuous and high-quality riding environment.<br>**Need and Benefit:** As per KB5 |
| KB14 | **Improving access around Hannans**<br>**Project Type: Design and Construction \| Timeframe: Short-term** |
| | **Action:** Design and deliver pathway upgrades and improved road crossing connections along the Finnerty Park shared path, between Nankiville Road and Graeme Street.<br>**Need:** Sections of the existing pathway along this route are severely degraded, reducing the effective path width and making the route unsuitable for some bicycle riders and wheelchair users.<br>**Benefit:** This route provides direct connectivity between Kalgoorlie-Boulder's northern residential catchment in the suburb of Hannans, the Gribble Creek trail as well as Karlkurla Bushland Park. It traverses through Finnerty Park, providing bike riders with a low stress riding environment, in comparison to the Graeme Street secondary route. |

| Ref. | Secondary routes |
|---|---|
| KB15 | **MacDonald Street and Goldfields Highway school connector improvements**<br>**Project Type: Design and Construction \| Timeframe: Long-term** |
| | **Action:** Design and deliver pathway upgrades along Outridge Terrace, between Shamrock Street and Hannan Street.<br>**Need:** The existing path varies in width and condition, narrowing to 1.2m in some sections.<br>**Benefit:** This route provides direct connectivity to St. Mary's Primary School. The extension of this route along the Goldfields Highway provides connectivity to proposed route improvements to Mount Charlotte Mine, a key employment node, and East Kalgoorlie Primary School. |
| KB16 | **Completing gaps in the local route network in South Kalgoorlie**<br>**Project Type: Design and Construction \| Timeframe: Long-term** |
| | **Action:** Design and construct a shared path along the existing drainage corridor which runs parallel to Wills Street and Maxwell Street.<br>**Need:** There is currently no provision for riding along this route which traverses through a reserve.<br>**Benefit:** This route provides direct connectivity to John Paul College, South Kalgoorlie Primary School and the Gribble Creek trail. |
| KB17 | **Improving the local route network in Somerville**<br>**Project Type: Design and Construction \| Timeframe: Long-term** |
| | **Action:** Design and deliver pathway upgrades along McCleery Street, between Great Eastern Highway and O'Connor Street.<br>**Need:** There are sections of degraded edges along the length of the existing black asphalt path on the south side of the road. There is poor path continuity due to changes in path surface treatment across some driveways.<br>**Benefit:** Improving this section will deliver a consistent, continuous, and high-quality riding environment along the length of McCleery Street, connecting the O'Connor Street secondary route and Great Eastern Highway primary route. |
| KB18 | **Local town centre link upgrades**<br>**Project Type: Renewal \| Timeframe: Medium-term** |
| | **Action:** Design and deliver pathway upgrades along Egan Street and Throssell Street as follows:<br>• Stage 1 – Upgrade Egan Street in between Lane Street and Lionel Street.<br>• Stage 2 – Upgrade Egan Street – Throssell Street in between Hay Street and Lionel Street.<br>**Need:** The existing pathways vary in width (approximately 1.8m) and condition, with poor path continuity across driveways. This increases the risk of conflict between people driving, riding as well as walking along this route.<br>**Benefit:** Delivering improvements along this route has the potential to facilitate a significant increase in walking and riding demand as it ties into the Lane Street and Hay Street primary route, which provides direct access to the Kalgoorlie town centre. |

| Ref. | Local Routes |
|---|---|
| KB19 | **Improving local access to Karlkurla**<br>**Project Type: Design and Construction \| Timeframe: Short to medium-term** |
| | **Action:** Design and construct new paths connecting to the Kalgoorlie Golf Course and to serve future surrounding residential development in the suburb of Karlkurla.<br>**Need:** There is currently no riding infrastructure along these routes.<br>**Benefit:** A desire to provide riding connectivity to the growth suburb of Karlkurla, where future development is planned, and the Kalgoorlie Golf Course was identified through stakeholder consultation. This has the potential to reduce reliance on private vehicle usage. |

| Ref. | Road cycling routes |
|---|---|
| KB20 | **Enhancing safety along key sports cycling training routes**<br>**Project Type: Feasibility and Planning \| Timeframe: Short-term** |
| | **Action:** Undertake planning and design to deliver a safe road cycling environment along Bulong Road, as well as advocate to, and work with MRWA to identify opportunities for providing a safe road cycling environment along Anzac Drive and Goldfields Highway. This may include installing signage and line marking to enhance driver awareness and promote sharing of the road space. In high-risk locations there may be a need for road shoulder widening to provide space for riders.<br>**Need:** Bulong Road, Anzac Drive and Goldfields Highway are popular sports cycling routes, used for riding training. This route carries a high volume of heavy vehicles including road trains and mining vehicles, with a posted speed limit of 110km/h. Riders and drivers are required to share the road space, with limited to no sealed shoulders and signage to alert drivers to the presence of people on bikes.<br>**Benefit:** A desire to see improved safety along these routes was identified through stakeholder and community consultation, including by the local cycling club. Creating a safer road cycling environment has the potential to attract more riders, resulting in positive public health outcomes. |

| Ref. | Road cycling routes |
|---|---|
| KB21 | **Facilitating long-distance road cycling opportunities**<br>**Project Type: Feasibility and Planning \| Timeframe: Short to long-term** |
| | **Action:** Advocate to and work with MRWA to undertake a feasibility study to identify opportunities for providing a safe road cycling environment along key routes linking to and from Kalgoorlie-Boulder. This includes along Great Eastern Highway to Perth, Goldfields Highway to Coolgardie, Kambalda East and Kambalda West, Coolgardie-Esperance Highway to Esperance and eastwards along Eyer Highway. This may include installing signage and line marking to enhance driver awareness and promote sharing of the road space, and the provision of mid-trip facilities in suitable locations. In high-risk locations there may be a need for road shoulder widening to provide space for riders.<br>**Need:** There is some existing demand for road cycling along these routes, although minimal. These routes carry high volumes of heavy vehicles including road trains, caravans and motorhomes with a posted speed limit of 110km/h. The provision of road shoulders along these highways varies in width, with no provision along the majority of these routes. Riders and drivers are required to share the road space, with limited signage in place to alert drivers to the presence of people on bikes.<br>**Benefit:** Creating a safer road cycling environment along these routes facilitates travel between regional towns and has the potential to attract more riders, support the creation of unique bicycle tourism opportunities, resulting in positive outcomes for the region's local economy. |
| KB22 | **Providing connectivity to the region's lake reserves**<br>**Project Type: Feasibility and Planning \| Timeframe: Long-term** |
| | **Action:** Undertake a feasibility study to identify opportunities for providing a safe road cycling environment along Yarri Road, connecting to Lake Perkolilli, as well as advocate to, and work with MRWA to identify opportunities for providing a safe road cycling environment along Great Eastern Highway, between Anzac Drive and Muncaster Road (also supported by KB21), providing riding connectivity to Lake Douglas Recreation Reserve.<br>This may include installing signage and line marking to enhance driver awareness and promote sharing of the road space. In high-risk locations there may be a need for road shoulder widening to provide space for riders.<br>**Need:** A desire to improve riding connectivity to Lake Perkolilli and Lake Douglas Recreation Reserve was identified through stakeholder engagement. Yarri Road and Great Eastern Highway have a posted speed limit of 110km/h, with Great Eastern Highway carrying a high volume of heavy vehicles including road trains, mining vehicles, caravans, motorhomes etc. Riders and drivers are required to share the road space, with no signage in place to alert drivers to the presence of people on bikes.<br>**Benefit:** This route provides connectivity to one of Kalgoorlie-Boulder's unique attractions. Providing a safe riding route has the potential to attract more riders, both locals and visitors, resulting in positive public health outcomes, and can be promoted as an active tourism destination, resulting in positive outcomes for the region's local economy. |

| Ref. | Transport trails |
|---|---|
| KB23 | **Providing connectivity to the region's lake reserves**<br>**Project Type: Feasibility and Planning \| Timeframe: Long-term** |
| | **Action:** Plan and design a suitable riding environment along Kurnalpi-Pinjin Road and Perkolilli Road, between Lake Perkolilli and Yarri Road, and along Muncaster Road, between Lake Douglas and Great Eastern Highway.<br>**Need:** A desire to improve riding connectivity to Lake Perkolilli and Douglas Recreation Reserve was identified through stakeholder engagement. The current form of this route is an unsealed dirt track with no provision for riding.<br>**Benefit:** This route provides connectivity to one of Kalgoorlie-Boulder's unique attractions. Providing a safe riding route has the potential to attract more riders, both locals and visitors, resulting in positive public health outcomes, and can be promoted as an active tourism destination, resulting in positive outcomes for the region's local economy. |

| Ref. | Non-hierarchy specific actions |
|---|---|
| KB24 | **Improving legibility of the riding network through wayfinding**<br>**Project Type: Feasibility and Planning \| Timeframe: Short-term** |
| | **Action:** Develop a City-wide wayfinding strategy.<br>**Need:** While there is existing wayfinding signage throughout the City, a wholesale audit will enable the City to identify gaps and deliver a wayfinding system that is legible, with consistency in signage style and form.<br>**Benefit:** Wayfinding signage can be a low-cost intervention to leverage on the existing path network, increasing the visibility of riding as a viable mode of transport and connect unfamiliar users of the network to key destinations. |
| KB25 | **Delivering universal accessibility across the region's path network**<br>**Project Type: Design and Construction \| Timeframe: Ongoing** |
| | **Action:** Upgrade existing pathway networks and ensure future pathways are delivered in accordance with universal accessibility standards.<br>**Need:** Sections of the existing pathway network in the region are non-compliant with universal accessibility standards.<br>**Benefit:** Delivers safe access across the region for people of all ages and abilities using the path network. |

| Ref. | Non-hierarchy specific actions |
|---|---|
| KB26 | **Driveway safety improvement program**<br>**Project Type: Construction \| Timeframe: Short to long-term** |
| | **Action:** Implement treatments to deliver path continuity across driveways along key routes, initially focussing on schools. There is an opportunity to engage with the Your Move Schools program to help identify key routes to each school. This program may be further rolled out to all routes in the network for quick impact while more significant network upgrades are implemented overtime.<br>**Need:** On many routes throughout the City, existing paths do not continue over driveways. Under the WA Road Traffic Code, people continuing on pathways have legal priority over people in vehicles entering or exiting the carriageway to adjacent lots. The built environment does not reflect the legal priority afforded to people travelling on the path and is disruptive to journeys and communicates an unsafe message. Path continuity provides a visual reminder that people actively travel along paths. Safe riding routes to school provide a necessary foundation to increase active travel to school.<br>**Benefit:** Treatments over driveways can be low-cost, quick to implement, and a visually effective way of reinforcing priority for people walking and riding. This can be coupled with publicity and activation activities with schools to encourage more children to ride to school. |
| KB27 | **Grab rail removal program**<br>**Project Type: Construction \| Timeframe: Short to medium-term** |
| | **Action:** Undertake a review of the network to remove central grab rails obstructing pathways. Install grab rails or bollards on edges where appropriate, depending on a range of criteria such as traffic speed, traffic volumes, pedestrian and bike riding need.<br>**Need:** Several grab rails at road crossings are installed in the centre of the path approach. This treatment is consistent with older streets in the network and was once considered to be best practice. Revision to Austroads Guide to Road Design: Part 6A includes guidance for grab rail installation, requiring grab rails to be installed at the left-hand side of the path on the approach of an intersection, so that vulnerable users can use these for support while waiting to cross.<br>**Benefit:** Increased manoeuvrability for a broader range of path users, including those of greater width than typical bicycles such as cargo bikes and mobility devices. |
| KB28 | **Providing public bicycle parking**<br>**Project Type: Construction \| Timeframe: Ongoing** |
| | **Action:** Provide, and/or work with business owners/service providers, to install public bicycle parking in the Kalgoorlie town centre, Boulder town centre, and other local centres.<br>**Need:** Limited public bicycle parking was identified as an issue through community consultation.<br>**Benefit:** Providing visible public bike parking at key destinations improves access for bicycle riders and promotes bicycles as a viable mode of transport in and around the City. |

| Ref. | Non-hierarchy specific actions |
|---|---|
| KB29 | **Supporting the provision of end-of-trip facilities**<br>**Project Type: Feasibility and Planning \| Timeframe: Short-term** |
| | **Action:** Review the City's Local Planning Policies to include a clause(s) which requires the implementation of end-of-trip facilities as part of new developments or redevelopments where appropriate, such as bicycle parking, lockers and showers.<br>**Need:** There is currently no requirement for the provision of end-of-trip facilities in the City's Local Planning Policies.<br>**Benefit:** Retrofitting end-of-trip facilities to existing buildings can be costly. End of trip facilities support active travel to workplaces for employees and other building users, resulting in positive public health outcomes. |

## 6.3 Social infrastructure and capacity building activities

| Ref. | Project name |
|---|---|
| KB30 | **Road safety and bike skills education facility \| Timeframe: Long-term** |
| | **Action:** Work with WA Police and schools to investigate the feasibility of delivering a Road Safety Education facility for the region.<br>**Need:** Kalgoorlie-Boulder has multiple schools but there is currently no dedicated road safety education facility. This results in each school teaching road safety and riding skills to students to varying degrees. An opportunity to provide a dedicated facility in the region has been identified through stakeholder consultation.<br>**Benefit:** Similar facilities, such as the Constable Care Safety School in Maylands, are effective in enabling children to learn how to negotiate hazards in a safe and controlled environment, allowing them to build skills and confidence while riding without being at risk. This initiative supports the formation of healthy and sustainable transport habits from the outset, encouraging reduced car dependency as the students move into adulthood. |
| KB31 | **Traffic warden training \| Timeframe: Short to medium-term** |
| | **Action:** Work with the WA Police Children's Crossing Unit to provide regular training within the region for children's crossing traffic wardens.<br>**Need:** A shortage of trained traffic wardens has been identified through stakeholder consultation. All traffic warden training is provided in Perth, making it difficult to easily and cost effectively train new traffic wardens in the region.<br>**Benefit:** Traffic wardens support safe travel to school during school pick-up and drop-off, increasing the willingness of parents to allow their children to walk or ride to school. |
| KB32 | **Snap, Send, Solve promotion \| Timeframe: Ongoing** |
| | **Action:** Promote the use of the Snap, Send, Solve app to the community as a platform to report issues with the path network.<br>**Need:** The City's existing path network is extensive and in varying states of repair/condition.<br>**Benefit:** Leveraging on the community to help report issues will enable the City to attend to areas in need of attention and prioritise maintenance works. |

| Ref. | Project name |
|---|---|
| KB33 | **Supporting recreational riding, group cycling and attracting cycling tourism to the region**<br>**Timeframe: Ongoing** |
| | **Action:** Collaborate with relevant stakeholders, such as the DLGSC, DBCA, Tourism WA and local cycling clubs, to identify opportunities to provide recreational riding facilities, create additional group cycling events and support cycling tourism in the region. This may include investigating the potential for purpose-built bike riding facilities, mountain biking or gravel trails, developing historical riding trails, advocating to the PTA to allow bicycles on the Prospector rail services, supporting organised bike riding events and identifying locations for additional pump tracks and other such facilities in the region.<br>**Need:** A desire to increase recreational riding opportunities and grow cycling tourism in the Kalgoorlie-Boulder region has been identified through stakeholder and community consultation.<br>**Benefit:** Increasing the recreational riding offering and promoting cycling tourism in the Kalgoorlie-Boulder region has the potential to attract more riders, both locals and visitors, resulting in positive public health outcomes and supporting positive outcomes for the region's local economy. |
| KB34 | **Your Move program promotion and participation \| Timeframe: Short-term to ongoing** |
| | **Action:** Work in partnership with the DoT to:<br>• Collaborate with schools to increase participation in the Your Move schools program and promote the Connecting Schools grant program;<br>• Run a City-wide Your Move community program, targeting households and workplaces; and<br>• Participate in the Your Move local government program and continue delivering community events and activities, such as during Bike Month.<br>**Need:** Stakeholder consultation identified a desire to increase active travel in and around the City. There are currently no school or workplaces in the City of Kalgoorlie-Boulder subscribed to DoT's Your Move program to promote active transport.<br>**Benefit:** DoT's Your Move program provides a range of resources to support local government, schools, communities and workplaces in encouraging active travel. Collaborating with key partners to create a strong culture of bike riding can support the development of high-quality riding infrastructure and initiatives to increase riding participation. |

| Ref. | Project name |
|---|---|
| KB35 | **Town centre enhancements to support active travel**<br>**Timeframe: Medium-term to ongoing** |
| | **Action:** As part of planned and future projects to deliver town centre enhancements in Kalgoorlie town centre and Boulder town centre, ensure adequate provision to prioritise people walking and riding. This may include identifying additional road crossings to improve pedestrian access, providing additional rest stops, shade, bicycle parking and other features as appropriate. This may also include working with MRWA to undertake a speed reduction trial on roads where high speeds are a safety risk for pedestrians and riders.<br>**Need:** The LTCN does not directly serve through movements in the Kalgoorlie town centre and Boulder town centre due to existing constraints. However, these areas are important activity centres that are accessed by walking and riding. The posted speed limits through the town centres are 60km/h along Hannan Street and 50km/h along Burt Street, with an influx during peak holiday periods in large vehicles including caravans, motorhomes etc.<br>**Benefit:** Simple and low-cost interventions can be delivered to support people walking and riding without major changes to infrastructure, such as implementing measures to facilitate safe speed limits. Safe vehicle speeds help create environments where pedestrians and people on bicycles feel safe, with significant potential to increase the number of people walking and riding, when coupled with network improvements. |
| KB36 | **Bicycle network promotion and activation \| Timeframe: Ongoing** |
| | **Action:** Continue to promote and encourage riding as a safe and viable mode of transport and recreation for the community including:<br>• Using the City's existing communication channels to provide up-to-date information on riding routes, pathway closures affecting riders, end-of-trip facility locations and to promote positive news stories related to riding.<br>• Organising activities and events, such as hosting bicycle skills workshops and participating in Bike Month.<br>• Delivering initiatives to increase road user awareness, including working with industry to promote driver awareness of bike riding and safe behaviours.<br>• Targeting activation events to raise community awareness of new and upgraded bike riding routes.<br>**Need:** The importance of creating a culture of riding in the Kalgoorlie-Boulder region and developing positive attitudes toward bike riding, in an area where there is heavy reliance on vehicles as a mode of transport, has been identified through stakeholder and community engagement.<br>**Benefit:** There is significant potential to increase the number of people riding in and around Kalgoorlie-Boulder by curating an environment where riding is viewed as legitimate, safe, convenient and fun activity or mode of transport. The delivery of promotion and activation initiatives create opportunities for constructive engagement and supports linkages between social and built environmental factors. |

| Ref. | Project name |
|---|---|
| KB37 | **Bicycle network monitoring and evaluation \| Timeframe: Ongoing** |
| | **Action:** Implement measures to collect data and capture riding demand within the region, in order to understand baseline usage and support the justification for future improvements in riding infrastructure. This includes monitoring and evaluating new bicycle infrastructure to assess the impact against the desired project outcomes and ensure facilities are well maintained. Measures may include the installation of bicycle counters, annual counts on key bike riding links, community surveys, public bicycle parking usage counts and regular route infrastructure condition audits.<br>**Need:** Monitoring and evaluation is essential to ensure projects are delivering on the intended outcomes or to determine when and why specific outcomes are not being met.<br>**Benefit:** The City will be able to use data-backed approaches to inform advocacy, planning and delivery, including developing strong, local context-responsive approaches to the social and built infrastructure needs of the community. |

## 6.4 Plan maintenance

Progress on the priority actions identified in Section 5 of this strategy will be reported to the DoT on an annual basis by local government.

The Kalgoorlie 2050 long-term cycling network should remain consistent over the medium term. A review of the overarching strategy document every 8-10 years will allow new opportunities to be identified and incorporated into a revised document.

The strategic priorities will be reviewed every five years to ensure current conditions are reflected and relevant projects are prioritised. This review will include reassessing each route's classification as either existing (adequate), existing (needs improvement), or non-existent (proposed) and updating the existing network maps.

# Appendix A. Route Hierarchy

Reference to key planning document, the WA Cycle Network Hierarchy.

Department of **Transport**
**Main Roads** Western Australia
**Public Transport** Authority

GOVERNMENT OF WESTERN AUSTRALIA

WESTERN AUSTRALIAN

## CYCLING NETWORK HIERARCHY

**The Western Australian Cycling Network Hierarchy designates routes by their function, rather than built form. Function considers the type of activities that take place along a route, and the level of demand (existing and potential). The built form of a route is based on the characteristics of the environment, including space availability, topography, traffic conditions (speed, volumes), primary users, and so on.**

**When considering appropriate built forms for primary, secondary and local routes, an all ages and abilities design philosophy should be adopted.**

| | 1. PRIMARY ROUTE | 2. SECONDARY ROUTE | 3. LOCAL ROUTE |
|---|---|---|---|
| **Function** | Primary routes are high demand corridors that connect major destinations of regional importance. They form the spine of the cycle network and are often located adjacent to major roads, rail corridors, rivers and ocean foreshores. Primary routes are vital to all sorts of bike riding, including medium or long-distance commuting / utility, recreational, training and tourism trips. | Secondary routes have a moderate level of demand, providing connectivity between primary routes and major activity centres such as shopping precincts, industrial areas or major health, education, sporting and civic facilities.<br>Secondary routes support a large proportion of commuting and utility type trips, but are used by all types of bike riders, including children and novice riders. | Local routes experience a lower level of demand than primary and secondary routes, but provide critical access to higher order routes, local amenities and recreational spaces. Predominantly located in local residential areas, local routes often support the start or end of each trip, and as such need to cater for the needs of users of all ages and abilities. |
| **Design Philosophy** | An all ages and abilities design philosophy is about creating places and facilities that are safe, comfortable and convenient for as many people as possible.<br>By planning for and designing infrastructure that caters for the youngest and most vulnerable users, we create a walking and bike riding network that everyone can use.<br>At the heart of this approach is fairness and enabling all people to use the network regardless of age, physical ability or the wheels they use. | | |
| **Form** | All routes can take a number of different forms and are designed to suit the environment in which they are located.<br>These forms include:<br>• Bicycle only, shared and/or separated paths;<br>• Protected bicycle lanes (uni or bi-directional, depending on the environment); and<br>• Safe active streets<br>Principal Shared Paths (PSPs) are often built along primary routes. A PSP is a high quality shared path built to MRWA PSP standard which generally means the path will be 4m wide, have adequate lighting and be grade separated at intersections (where possible).<br>In some locations, quiet residential streets incorporating signage and wayfinding may be appropriate for local routes. | | |

**Road Cycling Routes and Transport Trails form part of the complementary network, supporting more select user groups, primarily for recreational, sport and/or tourism purposes.**

| | ROAD CYCLING ROUTE | TRANSPORT TRAIL |
|---|---|---|
| **Function** | Road cycling routes are designated routes for bike riders undertaking long distance rides in (predominantly) on-road environments, for training, sports or recreational purposes. | Transport trails provide long-distance, off-road (predominantly unsealed) riding experiences through natural settings, away from motorised traffic.<br>They often support recreational and tourism trips between towns and regions. |
| **Form** | Road cycling routes are predominantly located on lower order, rural or semi-rural roads on the outskirts of cities and towns. Sections may follow busier roads, particularly as road cycling routes typically begin and end in built up areas and often follow scenic roads popular with other road users.<br>These routes support bike riders undertaking challenging longer distance rides by raising awareness and encouraging safe behaviour by all road users.<br>This is achieved through advisory signage, warning technology and other road safety initiatives. | Transport trails are typically located within underutilised transport and service corridors in rural areas. Due to their relatively gentle gradients, former railways and certain utility corridors make excellent candidates for these trails.<br>Transport trails should be constructed from materials appropriate to the environment and level of service required. Well drained, compacted gravel with supporting infrastructure such as wayfinding signage is a common form.<br>In some instances transport trails will be sealed, such as where they intersect with busy roads or run through town sites. They will often change classification to a primary or secondary route when they pass through a town, reflecting the more holistic role they perform in the transport network in these situations. |

# Appendix B. Stakeholder Consultation

## B.1 Engagement overview

This project aims to develop an aspirational cycling strategy for the Kalgoorlie region, in partnership with the City of Kalgoorlie-Boulder (the City). The City is the local government authority of the region, located 550 kilometres east of Perth and covers an area of over 95,000 square kilometres

Development of the Strategy was identified as a key action in the *Western Australian Bike Network (WABN) Plan 2014–2031* and reflects the growing demand for high quality cycling infrastructure in regional Western Australia.

The Strategy will be aspirational, long term out to 2050, and include a short term implementation program (5-year Action Plan) to prioritise the future delivery of infrastructure, activation, and behaviour change initiatives.

Through development of an aspirational vision for cycling in the Kalgoorlie-Boulder region, the Strategy aims to identify and support an increase in bike riding uptake as well as:

- A higher level of bicycle connectivity between work, school, home and other local services and key destinations;
- Opportunities to improve connectivity between town sites; and
- Ways to capitalise on cycle tourism opportunities in the region and showcase/highlight the areas unique to the region.

Prior to consultation, a Community Consultation Plan was developed. The proposed engagement methodology and key dates were discussed with the LGAs, while support with promoting/advertising the engagement activities was sought to maximise input from the local community and stakeholders.

### B.1.1 Objectives

The objectives of community engagement were to:

- Raise awareness of the project;
- Identify existing barriers to the uptake of cycling and initiatives that would support people to ride more often;
- Identify the major issues and missing links associated with the existing cycle network;
- Provide the community with the opportunity to share their ideas;
- Confirm the themes, opportunities and projects that are most prioritised by the community; and
- Seek local buy-in and ongoing support for the Strategy.

The target audience of engagement was residents and visitors. Most respondents to the survey were residents (80%), with 1 response (20%) from a regular visitor to the region.

### B.1.2 Approach

With support from the City, engagement across the region ran from October 2022 to December 2022.

Two community drop-in sessions were held in the region:

- **Oasis Community Sports Facility**
  15 October 2022 (8:00am–9:00am)
- **Coles Kalgoorlie**
  22 October 2022 (10:00am–12:00pm)

These sessions were attended by a total of 20 people (6 at Oasis Sports Facility and 14 at Coles Kalgoorlie).

Online engagement was via the Department of Transport's (DoT) online engagement platform "My Say Transport" (My Say). The platform page received 111 visits between 12 October 2022 and 15 December 2022. Two features were used to gather information:

- **Online survey:** This included questions on respondents' current bike use in the region and information on what would help them to ride more often. 6 people responded to the online survey; and
- **Interactive map:** This allowed respondents to add comments which were linked to geographical locations. Respondents self-categorised their comments as 'Issues/pain points,' 'Strengths,' or 'Ideas.' No responses were received.

## B.2 Community comment summary

### B.2.1 Comments received from Goldfields Oasis Recreation Centre drop-in session

| # | Details | Key points raised |
|---|---|---|
| 1 | Cycled to centre | • It is quicker to ride my bike to the Oasis centre than drive.<br>• Paths are well connected but are falling apart and need maintenance and regular sweeping as there is lots of glass and dirt on the path. |
| 2 | Regular road cyclist | • Often ride on road for fitness. Usually use Bulong Road as it is not busy.<br>• Although the road has no shoulder he has had no issue with road trains as the drivers respect the cyclists and give them space. |
| 3 | Mother with kids | • Her primary school-aged kids have bikes but she doesn't, so they don't use the bikes much.<br>• She is concerned about her kids riding around on their own. |
| 4 | Cycled to centre | • The paths are needing maintenance and there is lots of glass and gravel on the paths.<br>• There is good driver awareness in the City so cycling on the very wide roads is okay – but there is danger from drivers hooning.<br>• At the school close to where he lives some of the parents park on the shared path waiting for school pick-up, making it unsafe for kids using the path. |
| 5 | Cycled to centre | • Great network of paths in the suburbs around Oasis.<br>• But there is a need for better cycle routes connecting to the city-centre.<br>• The nice wide roads makes it safe to ride on-road. |
| 6 | Father and son who skate-boarded to centre | • Like the network of paths, but they need a lot of maintenance. They are hazardous to skate on. |

### B.2.2 Comments received from Coles Kalgoorlie community drop-in session

| # | Details | Key points raised |
|---|---|---|
| 1 | Cycled to shops | • Paths are great but the ramps on and off the paths are really bad – risks punctures.<br>• Rather ride on road on the wide local streets to avoid damaging frame or getting a puncture. |
| 2 | Cycled to shops | • Took flyer on the project but was not interested in providing any comments. |
| 3 | Waiting for a coffee | • Works for a pre-apprentice training organisation in West Kalgoorlie industrial area.<br>• There have been many bike and scooter crashes on Broadwood Street as there is no pathway and a very narrow road between Gatacre Drive and Atbara Street.<br>• The ITWS trains school-aged youth skills to become apprentices. Most are under 17 or can't afford a car and so can't drive there – they either walk, ride a bike or scoot.<br>• First part of training is they learn bike maintenance skills and refurbish an old bike donated by the police. They bike becomes theirs once they have fixed it up – this is essential for them to get to the centre.<br>• Willing to be a 'case study' for the Strategy. |
| 4 | Shopper – retiree | • They recently bought an electric bike to get around town.<br>• They were knocked off their bike when riding on Graeme Street at the IGA by a car entering road.<br>• Would like better cycle tracks linking to centre of town so he can feel safe riding. |
| 5 | Wife of retiree who got hit by car | • Enjoy riding bike with husband, but very concerned about safety from traffic.<br>• Need proper cycle routes safe from traffic that connect to the shops. |
| 6 | Cycled to shops | • There is a need for proper bicycle parking at Coles. |

### B.2.3 Online community engagement forum results

**Community engagement forum attendee 1**

Local resident, 60 years old, rides a hybrid bike and covers approximately 140km a week.

- Previously hit by a vehicle while riding.
- Has ridden all the routes mapped on the proposed Long Term Cycle Network map, with the map showing good coverage of where people want to ride.
- Main issue is the lack of maintenance on the existing network.
- Path behind the cemetery regularly used, however, the path is poor.
- Negotiating wide road crossings is a challenge – consider the installation of refuge islands in the median.
- It was promoted by the Mayor that people can board the train and ride through town, however, bikes are currently prohibited on the train (only fold-up bikes are permitted).

- Wortley Street identified as a good access road off Great Eastern Highway, currently used by a lot of workers.
- Noted that Council have been re-tarmacking the roads, however, aren't applying a soft seal, making the route difficult to ride along.
- Fewer students are riding to school.
- Need more awareness and common courtesy amongst people using the roads (including pedestrians with headphones in).
- Need to consider e-scooter usage and conflict/ interactions with people riding bikes.

**Community engagement forum attendee 2**
Rides for physical fitness, participates in Ironman events, covers a few hundred kilometres a week, member of local cycling groups

- Mainly rides along Bulong Road, safest option, less cars and trucks compared to other roads.
- Negative community sentiment towards cyclists, therefore making it unsafe.
- Unsafe to ride single file in some locations.
- Previously hit by a vehicle while riding.
- Cycle paths in Perth are great, continuous paths and no cars to contend with.
- PB's kids used to ride to ride to school on pathways, not the road.
- Increase in mining traffic has made cycling less safe.
- Driver education and behaviour change is critical to making cycling safer.

## B3. Summary of consultation themes

Throughout the engagement process, respondents contributed meaningful suggestions on how to improve bike riding across the region.

Responses revealed support for preliminary themes and opportunities established via background review and stakeholder engagement, particularly:

- Promoting healthy and active communities;
- Connecting the community to local jobs and services;
- Enabling young people to ride; and
- Highlighting the region's rich history.

Within these themes, responses supported a range of preliminary opportunities established via background review and stakeholder engagement, including:

- Promoting healthy and active communities;
- Improve cycling connections to the City's green spaces;
- Support safer routes for road cyclists;
- Connecting the community to local jobs and services;
- Improve access to Kalgoorlie and Boulder town centres as well as the City's neighbourhood centres;
- Enabling young people to ride;
- Invest in recreational cycling facilities (BMX, pump tracks etc.);
- Highlighting the region's rich history; and
- Develop a riding trail connecting locations of historical significance.

*Survey respondents raised that the condition of the existing network is an issue (maintenance and upkeep including sweeping and clearing debris), helping to shape the social infrastructure and capacity building actions to be developed in the Strategy's Action Plan.*

# Endnotes


1 Evaluating Active Transport Benefits and Costs. Available at vtpi.org

2 Cycling RACWA. Available at rac.com.au

3 The climate change mitigation effects of daily active travel in cities. Available at sciencedirect.com

4 Rural and remote Australians Overview. Available at aihw.gov.au

5 Regional and rural health is suffering. Available at jcu.edu.au

6 Evaluating Active Transport Benefits and Costs. Available at vtpi.org

7 The (very good) economic case for riding a bike in 2023.Available at bicyclenetwork.com.au

8 The Australian Cycling and e-Scooter Economy in 2022. Available at weride.org.au

9 Longitudinal associations of active commuting with wellbeing and sickness absence. Available at sciencedirect.com

10 The relationship between transport and disadvantage in Australia. Available at aifs.gov.au

11 Transport Disadvantage, Car Dependence and Urban Form. Available at link.springer.com

12 The climate change mitigation effects of daily active travel in cities. Available at sciencedirect.com

13 The climate change mitigation effects of daily active travel in cities. Available at sciencedirect.com

14 Growing Kalgoorlie-Boulder, the Kalgoorlie-Boulder Growth Plan Partnership (2017). Available at ckb.wa.gov.au

15 ABS Census Data. Available at abs.gov.au

16 Journey to work in Australia. Available at abs.gov.au

17 Department of Transport, Pilbara 2050 Cycling Strategy (2021). Available at transport.wa.gov.au

18 Main Roads WA Crash Analysis Reporting System. Available at mainroads.wa.gov.au

19 Goldfields Health Profile, WA Country Health Services (2018). Available at wacountry.health.wa.gov.au

20 Benefits of physical activity for children. Available at healthdirect.gov.au

21 Active School Travel: Pathways to a Healthy Future, Australian Health Policy Collaboration (2018). Available at vu.edu.au

22 The Declining Rate of Walking and Cycling to School in Perth, Department of Transport (2021). Available at transport.wa.gov.au

23 People on bicycles. Available at peopleonbicycles.com.au

24 Australia's Children, Australian Institute of Health and Welfare (2022). Available at www.aihw.gov.au

25 Discover healthier, more active ways to get around. Available at yourmove.org.au

26 Goldfields Health Profile: Planning and Evaluation Unit – November 2018. Available at wacountry.health.wa.gov.au

27 Cycling – health benefits. Available at betterhealth.vic.gov.au

28 Why is Public Open Space important for physical activity and health? Available at healthyactivebydesign.com.au

29 The Great Woodlands. Available at wheatbelttourism.com

30 WestCycle. (2015). *Western Australia Mountain Bike Strategy 2015–2020*. Available at dlbca.wa.gov.au

31 WA Strategic Trails Blueprint 2022–2027. Available at dlgsc.wa.gov.au

32 Cycle Tourism Insights, Angus and Associates for Nga Haerenga New Zealand Cycle Trails (2021). Available at mbie.govt.nz

33 Tourism Strategy: City of Kalgoorlie-Boulder 2020–24. Available at ckb.wa.gov.au

34 Dill, J., and McNeil, N. (2016). Revisiting the Four Types of Cyclists: Findings from a National Survey. Transportation Research Record, 2587(1), 90–99

35 Lot 505 Kalgoorlie: Overview – Development WA. Available at developmentwa.com.au

36 Kal City Centre Place Proposition, Place Plan and Destination Snapshots – Draft 1. Available here

37 20mph and 30km/h limits mandated by global ministers. Available at www.20splenty.org

38 HVS Network Map. Available at mrwebapps.mainroads.wa.gov.au/hvsnetworkmap

39 Goldfields Cycle Classic and Community Challenge. Available at cyclassic.com.au

40 Cycling – Successful Meeting at Coolgardie. Available at trove.nla.gov.au

41 Eastern Goldfields Cycle Club. Available at egcc.com.au

42 The Golden Pipeline. Available at goldenpipeline.com.au

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