

GASCOYNE

2050 CYCLING STRATEGY









Acknowledgement of Country

The authors of the *Gascoyne 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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Contact us

Department of Transport

140 William Street, Perth WA 6000

Telephone: (08) 6551 6000

Website: www.transport.wa.gov.au









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. Bike riding increases access for people to more places, enabling people to participate in learning, employment, cultural and recreational activities.

Bike riding enhances community health and wellbeing and provides people with a low-cost mode of transportation. Bike riding 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 is about improving quality of life, which is a key element for continuing to attract people to visiting and living in the Gascoyne 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 Gascoyne 2050 Cycling Strategy (the Strategy) has been developed by the Department of Transport (DoT) in partnership with the shires of Exmouth, Carnarvon, Shark Bay and Upper Gascoyne. 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 DoT's grant funding programme, 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 Gascoyne region.

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

Theme	Opportunity
Improving access to education, employment, retail and recreation	 Improve rideability serving Carnarvon, Exmouth, Denham and Gascoyne Junction town centres. Provide safe bike riding routes serving the region's industrial areas. Deliver a safe bike riding network serving schools. Support active travel programs in schools, and enhance riding skills and road safety education. Improve supporting end-of-trip and route infrastructure. Provide safe and convenient access to recreational facilities.
Enhancing the region's potential for cycle tourism and active recreation	 Create a recreational route that highlights the region's unique attractions. Improve bike riding network connectivity with tourist attractions and assets. Formalise and improve sports cycling opportunities. Facilitate the growth of a local bicycle economy. Provide clear and consistent information.
Promoting social inclusion and equity to support happy and healthy communities	 Improve connectivity between communities. Ensure the network aligns with disability access and inclusion requirements. Support mobility for temporary working populations. Support improved access to affordable bicycles and maintenance services for disadvantaged communities.
Supporting the recognition and empowerment of First Nations Australians.	 Supporting positive health outcomes in Aboriginal communities. Embed Aboriginal cultural heritage design elements as part of bike riding routes. Connect people to places of Aboriginal heritage significance.

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

Contributed to the Australian economy.

58,272 Full-time iobs

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



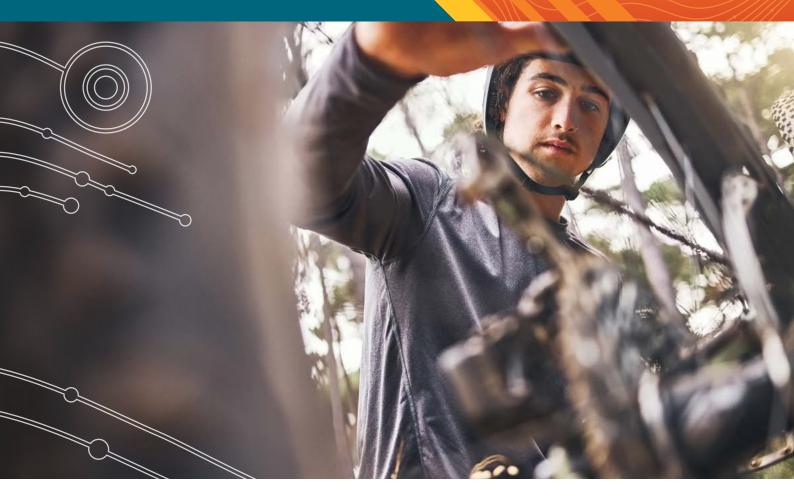
People who shifted from car to bike were found to decrease life cycle CO2 emissions by 3.2kg CO₂/day.¹³

Contents

1.	Int	roduction	8
	1.1	Guiding principles	8
	1.2	Gascoyne in context	10
	1.3	The need for a long-term regional cycling strategy	12
	1.4	Background research and analysis	14
2.	En	couraging Bike Riding	21
	2.1	Activation, consultation and evaluation	21
	2.2	Cross agency synergies	23
3.	Re	gional Route Hierarchy	24
	3.1	Primary routes	24
	3.2	Secondary routes	25
	3.3	Local routes	26
	3.4	Transport trails	26
	3.5	Road cycling routes	27
4.	Pro	pposed Network	28
	4.1	Overall network	28
5.	Th	e Way Forward	36
	5.1	Improving access to education, employment, retail and recreation	36
	5.2	Enhancing the region's potential for cycle tourism and active recreation	44
	5.3	Promoting social inclusion and equity to support happy and healthy communities	55
	5.4	Supporting the recognition and empowerment of First Nations Australians	60
6.	Ac	tion Plan and Maintenance	64
	6.1	The existing cycling network	64
	6.2	Priority projects	69
	6.3	Social infrastructure and capacity building activities (all LGAs)	83
	6.4	Plan maintenance	86
	_	endices otes	87 96







1. Introduction

1.1 Guiding principles

The shires of Carnarvon, Exmouth, Shark Bay and Upper Gascoyne local government areas (LGAs) have collaborated in the development of the Gascoyne 2050 Cycling Strategy. Each LGA is distinctly unique, however, all four local governments have expressed a common vision of creating vibrant and liveable regional centres. 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 Gascoyne 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 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 connects residents and visitors to the region's key destinations and attractions, including internationally renowned World Heritage sites, and embraces the region's long-standing culture and connection to Country.

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

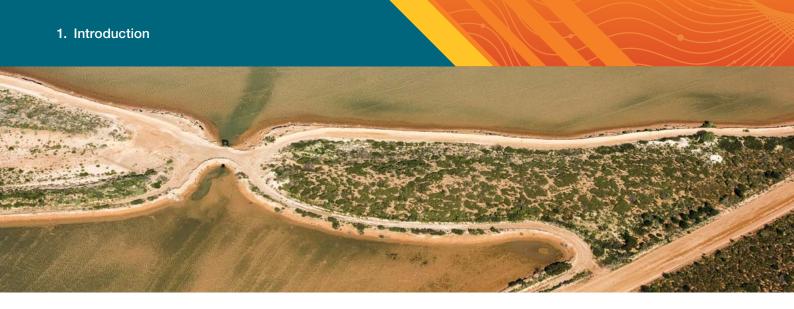
- Safe the 2050 cycling network should be built to a standard which reflects an all ages and abilities design philosophy. People of all ages and abilities should be able to cycle safely and confidently to the places they need and want to go. Unprotected cycling facilities located on busy roads are not 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 Gascoyne 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-andtested 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 Gascoyne region highlighted the benefits of recreational and sports bike riding to the region, including positive public health, tourism and economic benefits. 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.

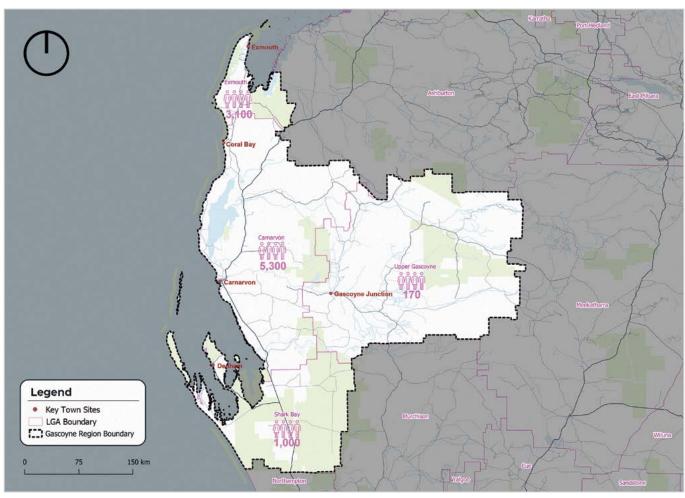


1.2 Gascoyne in context

The Gascoyne region occupies a large area of over 135,000 square kilometres (km2). With over 600 kilometres (km) of coastline at its western border, the region is uniquely positioned as the western-most point of Australia and is made of highly diverse landscapes, as it transitions eastwards inland to an outback environment.

According to the Australian Bureau of Statistics (ABS) census data (2021), the region is home to an estimated population of 9,500 people (see Map 1), making it the least populated region in WA. Of this total, 5,300 people reside in the Shire of Carnarvon, the largest local government area (LGA) within the region. Carnarvon is the LGA's main township and functions as the region's major administrative and service hub.

Map 1. Site context map showing the Gascoyne region



Smaller townships within the region include: Exmouth, in the Shire of Exmouth, with an estimated population of 3,100 residents; Denham, in the Shire of Shark Bay, with an estimated population of 1,000 residents; and Gascoyne Junction, in the Shire of Upper Gascoyne, with an estimated population of 170 residents.

The region has the lowest population density of any region in Australia with 84% of the region's land covered by pastoral leases. However, as a popular tourism destination, including United Nations Education, Scientific and Cultural Organisation (UNESCO) World Heritage Areas Shark Bay and Ningaloo Coast, the total service population of the region is higher than the resident population.

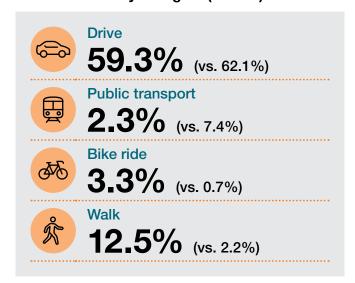
Contemporary understanding of Aboriginal language groups in the Gascoyne region recognises the five main Traditional Owners groups of Yinggarda, Baiyungu, Malgana, Thudgari and Wajarri Aboriginal groups¹⁴. Aboriginal Australians represent approximately 11.9% of the region's population, while nationally Aboriginal and Torres Strait Islander people make up only 3.3% of the population.

The median age for the region's residents is 40 years, slightly older than the WA median age of 38. The region has a higher proportion of lone households (31.1%) than the WA average (24.4%). 64% per cent of the region's households are comprised of families, which is lower than the WA average of 71.2%.

Approximately 61% of people, 15 years or older, are employed in the region, which is comparable to the WA employment rate (63.9%). Key industries in the region include Agriculture, Forestry and Fishing, Accommodation and Food Services, Retail Trade, and Public Administration and Safety.

There is an average of 1.9 motor vehicles per dwelling in the region, which is consistent with the WA average. Due to the small size of towns and limited public transport service the region has higher rates of active travel to work when compared to WA, as per Figure 1. However, the primary mode of travel for people in the region to get to work is private vehicle, with just over 59% of people going to work travelling by car (either driving or as a passenger).

Figure 1. 2021 Journey to work: Gascovne region (vs. WA)15





Dolphin feeding experience at Monkey Mia beach. Credit: Damian Lugowski.



The original and historic Billabong Roadhouse. Credit: Damian Lugowski.

1.3 The need for a long-term regional cycling strategy

Many of the region's strategic plans recognise the importance of bike riding for the health and wellbeing of the region. This includes local bicycle network plans, footpath programs and trails strategies. Across the region, bicycle planning has occurred at the individual local government level with no region-wide strategy to provide consistency and integration.



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 and identifies region-wide opportunities for supporting the region's potential for bike riding.

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 5.4 details the framework for maintaining this strategy.



Primary school students cycle along Hatch Street Shared Path, Gascoyne Junction. Credit: Department of Transport.

1.3.1 Expected changes in population

The 2021 census found that the Gascoyne region has a population of 9,500 residents. By 2050 the resident population for the region is projected to reach 23,000¹⁶. Industries such as fly-in fly-out (FIFO) resources workers, horticulture and tourism attract large numbers of seasonal employees to the region. The region's seasonal population (including FIFO) is projected to increase from a baseline of approximately 20,000 in 2012, to 55,000 by 2051¹⁷.

The region's service population currently, and will continue to, exceed the permanent residential population. This characteristic of the region creates unique challenges and opportunities for increasing bike riding in the region.

1.3.2 Expected changes in land use

Strategic land use planning identifies growth areas and developments in the region that informed the development of this strategy.

These include:

- Continued development of the Exmouth Marina Village mixed-use development. This includes new residential, tourist, commercial and marine based industrial development around the existing boat harbour. The potential for development of 6,200m2 Shire owned land along Marina Terrace has also been identified; Additional opportunities for expansion of the Exmouth urban residential development and redevelopment of existing areas have been identified around Truscott Crescent, Nimitz Street, Maidstone Crescent around the town centre and Payne Street;
- Within Carnarvon the priority is for residential infill of existing areas over urban expansion. Key infill areas include East Carnarvon and Kingsford. Planning for these areas also highlights the potential increasing connectivity to Chinaman's Pool via Marmion Street and establishment of a tourist hub;

- Planning for Babbage and Whitlock Islands in Carnarvon seeks to deliver improvements to enhance the Carnarvon Heritage Precinct. In support of this, a local development plan for Babbage Island Holiday Park project has been approved. This will contribute to tourism in the area providing new and upgraded facilities and amenities for visitors and locals; and
- Development of existing as well as expansion of new industrial/light-industrial land uses are planned in Carnarvon, to the south of Robinson Street, and in Exmouth, proximate to Welch Street.

While the scale of land use change is smaller in the Shire of Shark Bay, the consolidation of the Denham town centre to improve services and facilities for residents and visitors is planned. Additionally, residential development is proposed for two areas of land adjacent to Monkey Mia Road/Dampier Road and Spaven Way, with detailed planning to occur.

Growth in Gascoyne Junction is limited by utility provision and flood risk, however, development of residential and business land uses, including of the airport, is planned, expanding the footprint of the settlement.

1.3.3 Changing climate

Climate change is putting immense pressure on the natural environment and is causing adverse effects such as greenhouse gas release, warming global temperature, rising sea level, coastal erosion and inundation. These all will impact on asset management for local governments. Motor vehicle transportation contributes to a large portion of human-generated greenhouse gas emissions. On the other hand, bike riding is a low impact, pollution-free and energy-efficient transport option with a range of environmental benefits including reduced air and noise pollution, greenhouse gas emissions and land use efficiency.

To mitigate against the effects of climate change, and to ensure future cycle infrastructure is sustainable and durable, the Strategy aims to identify opportunities to develop infrastructure that is appropriately designed and constructed.

1.3.4 Planned major transport investments

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:

- Upgrades to Minilya-Exmouth Road and Yardie Creek Road in the Shire of Exmouth, including road widening and re-edging. This builds on recently completed works along Minilya-Exmouth Road which consisted of widening of the first 4km of the road, with a further 18km of widening near the Burkett Road intersection:
- Upgrades to Harbour Road in the Shire of Carnarvon and installation of a roundabout at Robinson Street and Cornish Street. By restricting truck movements in this location, Harbour Road will be reinforced as the preferred route for heavy vehicles, while reduced heavy vehicle movements are anticipated along Robinson Street, between Cornish Street and the North West Coastal Highway; and
- Strategic planning for the Carnarvon Airport Precinct aims to stimulate economic and population growth within the town, elevating the status of the airport to one of regional significance.

1.3.5 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.

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 Gascoyne'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 was informed by current land use and transport planning for the Gascoyne region, community consultation and stakeholder engagement.

The 2050 bicycle network identified in this strategy is founded on previous bicycle network planning and route design. The planning documents informing the Strategy are listed in Appendix B.

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.

The key trip attractors informed the development of the 2050 bicycle network and allocation of the hierarchy. This is discussed in Section 2 and Section 3.

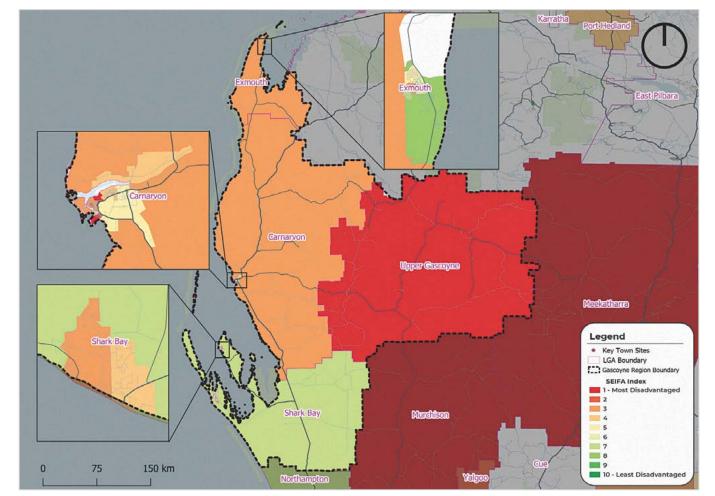
On-site observations coupled with desktop reviews of the existing bike riding network identified strengths, weaknesses and opportunities. Many of the towns across the region have existing pathway networks that already provide a reasonably good network of bike riding routes serving many destinations.

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, town centres, recreational opportunities and industrial areas.

Key opportunities identified for bike riding in the Gascoyne 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;
- Providing shade and water in key locations along routes to make it easier for people to ride a bike in the harsh climate of the region; and
- Enhancing local bike riding networks through information signage and landscaping initiatives that emphasise the unique cultural and environmental assets of the region.

An analysis of demographic data for the region identified areas of particular need. The ABS analysis of relative socio-economic disadvantage in the region (as depicted in Map 3) shows high levels of disadvantage in the communities of Carnarvon and Upper Gascoyne. With increased cost-ofliving pressures, there is particular importance of providing residents with a safe and viable alternative to driving a car.



Map 3. Socio-economic advantage and disadvantage in the Gascoyne region

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 Gascoyne region. During site visits to the region very high levels of bike riding were observed in Exmouth, particularly for school children.

Carnarvon on the other hand had far less bike riding activity than Exmouth, even amongst school children. However, during community consultation in both Carnarvon and Exmouth there was a recognition in both communities of the importance of supporting safe bike riding.



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.

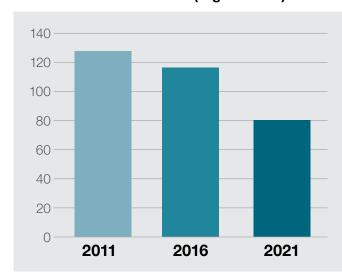
No detailed analysis of bike riding activity levels is provided for the Gascoyne region, but the data for regional WA provides insight into typical levels of bike riding activity.



The 2021 survey showed that in WA approximately 50% of children aged under 10 ride a bicycle at least once a week. In regional WA this level is around 58% for children under 10. The state-wide bike riding participation rate reduces to around 40% for teenagers, before reducing to around 10% for young adults. In regional WA only around 6% 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% and 20%.

The 2021 Cycling Participation Survey shows that in regional WA, of the people who rode a bike in the last month, 87% did so for recreation while only 40% rode for transport.

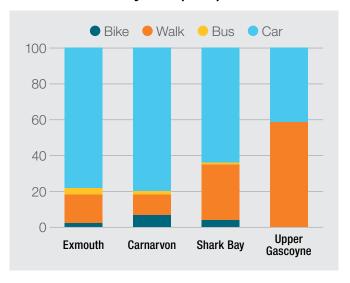
Figure 2a. Number of people riding a bike to work (region-wide)



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.

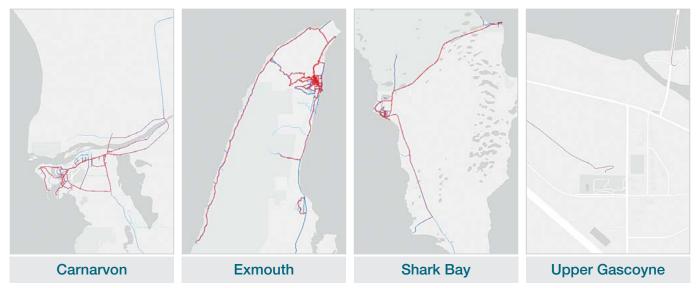
ABS census data shows that over the past 10 years the number of commuter bike riding trips in the Gascoyne region has increased. Similarly, the percentage share of commuter trips made by bicycle has increased (see Figure 2a). It is important to note that this data does not include bike riding trips to school, the shops or for any other purpose other than commuting to work.

Figure 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 utilise the region's network.

Map 4. Bike riding activity in the regional centres



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% of all bike riding related incidents that result in hospitalisation¹⁸.

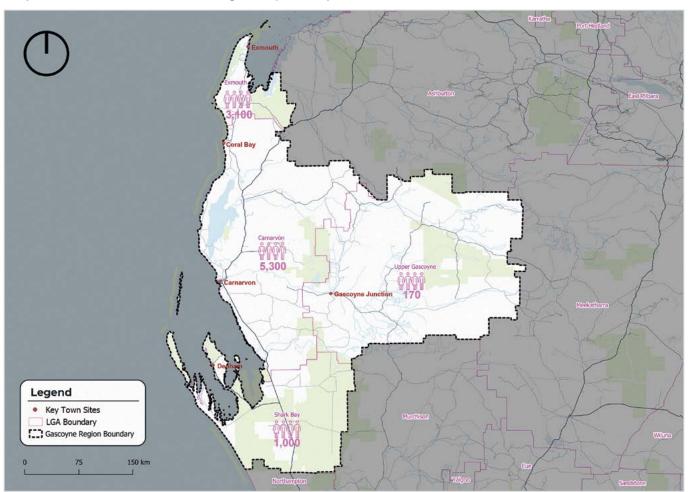
There were eight crashes recorded over the five-year period that involved bicycles - five in Carnarvon, two in Exmouth and one in Coral Bay. The analysis was expanded to include crashes involving pedestrians to provide an indication of locations that may also present a danger for people riding bikes. The location of pedestrian and bicycle crashes for the major townsites in the region are illustrated in Map 4.

The number of crashes involving pedestrians or bike riders has remained relatively constant over the past five years. There was a total of 14 crashes over the five-year period in Carnarvon, Exmouth and Coral Bay. Of these crashes, one fatal crash involving a bicycle occurred in Carnarvon on Robinson Street, at the intersection of Marmion Street.

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, including along Robinson Street and Marmion Street.

Crashes involving a bicycle or pedestrian (2018–2022)							
Fatal	Hospitalisation	Medical	Property damage	Total 14			

Map 5. Crash locations involving a bicycle or pedestrian



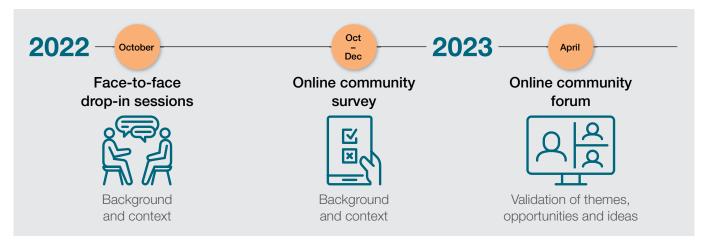
1.4.4 Community consultation

Consultation with the local community was a key input to the development of the Gascoyne 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 showing 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 shires of Carnarvon, Exmouth, Shark Bay and Upper Gascoyne. Internal stakeholders for each local government provided input and helped to shape the Strategy's development.

While the majority of actions identified in this strategy fall within the jurisdiction of local government, 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

- Shire of Carnarvon
- Shire of Exmouth
- Shire of Shark Bay
- Shire of Upper Gascoyne

State Government stakeholders

- Department of Transport (DoT)
- Public Transport Authority (PTA)
- Main Roads WA (MRWA)
- Gascoyne Development Commission
- Department of Planning, Lands and Heritage (DPLH)
- Department of Environment and Water Regulation (DWER)
- Department of Local Government, Sport and Cultural Industries (DLGSC)
- Department of Biodiversity, Conservation and Attractions (DBCA)
- Tourism WA

Other key stakeholders/partners

- Community members
- 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.

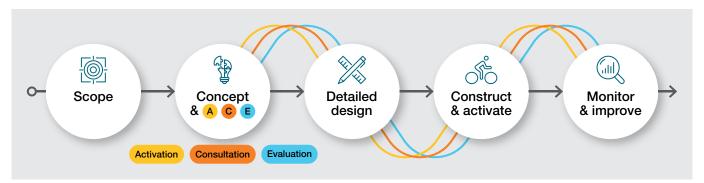
2.1 Activation, consultation and evaluation

This strategy outlines how new bike riding infrastructure can support greater participation in bike riding in the Gascoyne 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

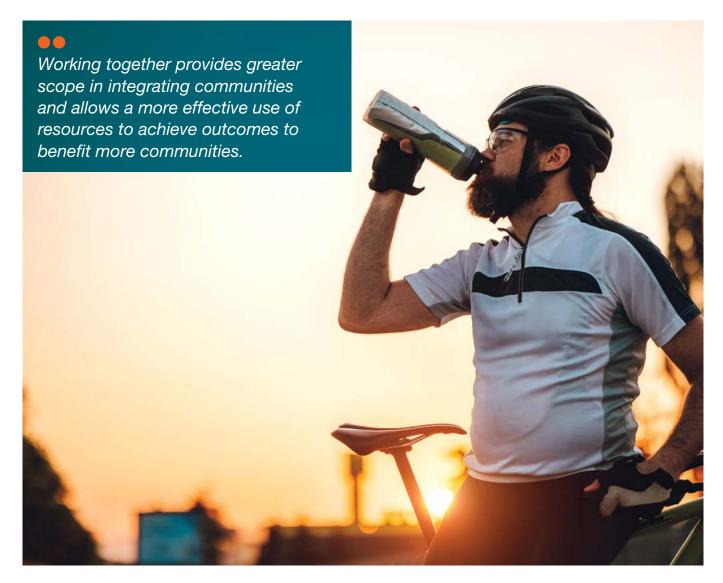
An integrated approach to transport planning is a positive way to influence the planning and provision of transport systems towards more sustainable patterns. Integrated transport planning considers key transport issues such as transport system interdependencies, interactions between transport and land 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 Gascoyne 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 Gascoyne 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.





3. Regional Route Hierarchy

A hierarchy comprising five types of bike riding routes has been used to plan and illustrate the Gascoyne'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 Murat Road, Exmouth.

Credit: Department of Transport.

Primary routes form the backbone of the Gascoyne 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 along the Fascine, Carnarvon. 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

Proposed local route, Skipjack Circle, Exmouth. 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.



Unsealed 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 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.



Road cycling route along Murat Road, Exmouth. 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.





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 Gascoyne region, specific considerations include:

- · Areas of significant ecological, scientific and cultural value;
- Hazard areas along coastal and river foreshores;
- The presence of large vehicles such as freight and mining vehicles, road trains, caravans and motorhomes.

4.1 Overall Network

Map 5 to Map 11 depicts the proposed 2050 bike riding network for the Gascoyne region. Key features include:

 Primary route spines providing direct connectivity to the town centres of Carnarvon and Exmouth;

- A series of secondary routes connecting to schools, workplaces and the shops in Carnarvon and Exmouth:
- A fine-grain network of local routes, connecting the residential areas of Carnaryon and Exmouth to the higher order bike riding routes;
- Local routes providing connectivity from the residential catchments to the town centre and other key destinations in the smaller townsites of Denham and Gascoyne Junction;
- Transport trails that have been identified to provide unique leisure and tourism bike riding experiences, while also delivering a transport function for utility/commuter trips due to improved connectivity to the higher order bike riding routes in Carnarvon, Exmouth and Denham; and
- Road cycling routes that have been identified to connect people to long-distance destinations, including interregional connectivity for touring trips, and to support safe sports cycling activities.

4.2 Shire of Carnaryon

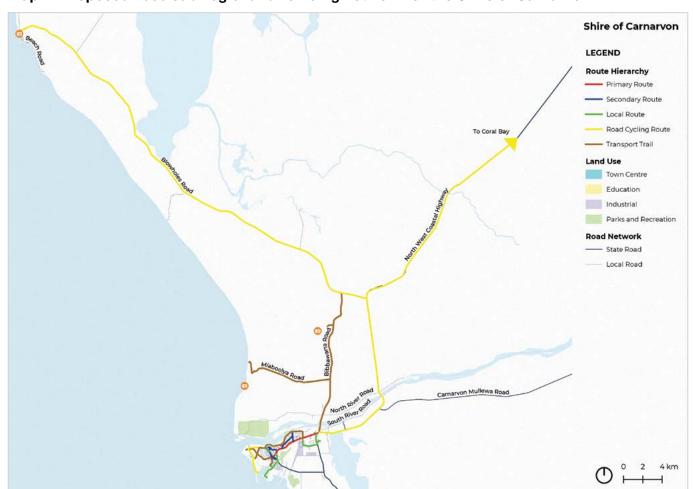
The Shire of Carnarvon 2050 bike riding network is shown in Map 5 and Map 6 and includes:

- A primary route along the length of Robinson Street, provides direct connectivity, from the east of the Carnarvon urban area to and through the town centre, to the waterfront along the Fascine. People on bikes are separated from vehicle traffic, with minimal interruptions along the length of the route;
- Secondary routes that provide safe access to all schools in Carnarvon, limiting the need for school children to interact with traffic, connects to transport trails which provides access to leisure riding and tourist attractions, and provides east-west connectivity through the town centre;

- Local routes that provide safe access to Carnarvon's industrial precincts, the Mungullah Aboriginal Community and the Space and Technology Museum
- Transport trails which leverage on the existing network of levee banks in and around the Carnarvon townsite, connecting key tourism attractions including Chinaman's Pool, the Heritage Precinct and Pelican Point more broadly, as well as Miaboolya Beach and the Bibbawarra Hot Springs further afield; and
- Road cycling routes to create a safer shared riding environment for people on bikes and people driving around Pelican Point and further afield along routes connecting to the Blowholes and Coral Bay.







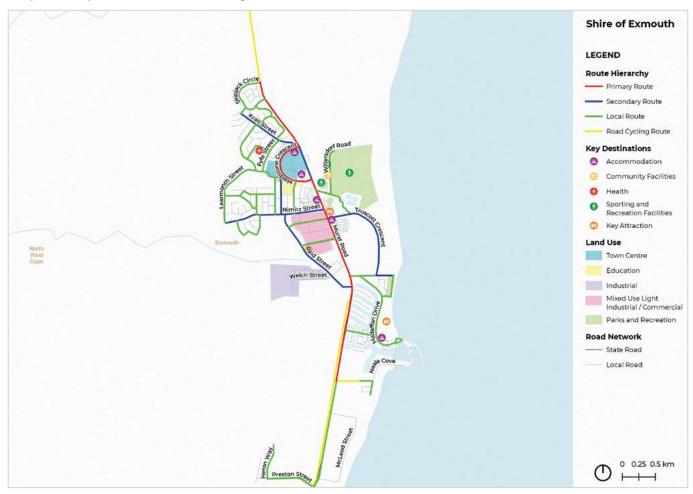
Map 7. Proposed 2050 sub-regional bike riding network for the Shire of Carnarvon

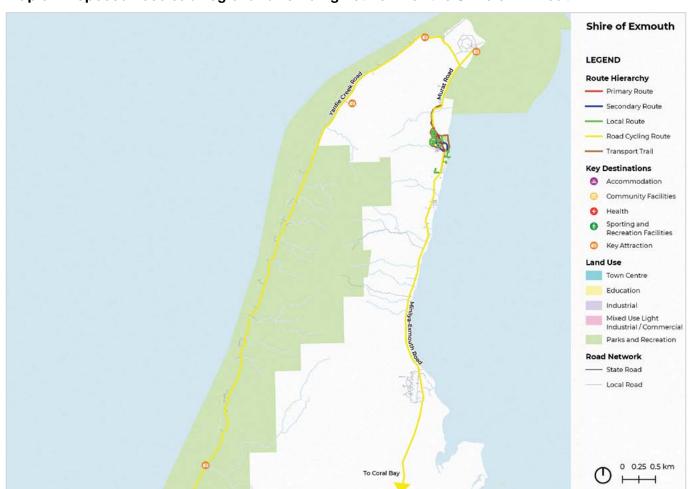
4.3 Shire of Exmouth

The 2050 bike riding network for the Shire of Exmouth is shown in Map 7 and Map 8 and includes:

- A primary route along the length of Murat Road that provides direct connectivity, from the south and north of the Exmouth urban area, to and through the town centre. People on bikes are separated from vehicle traffic, with minimal interruptions along the length of the route;
- Secondary routes that provide safe access to Exmouth's industrial and mixed-use light industrial precinct, key attractions including Town Beach and the Ningaloo Discovery Centre, as well as Exmouth District Highschool limiting the need for school children to interact with traffic;
- Local routes that connect residential streets to higher order routes, provide connectivity to the existing network of gravel trails on the periphery of the townsite (transport trails) and provide safe access around the recreational precinct to Exmouth's north-east and marina precinct to the south-east;
- Transport trails which leverage on the existing network of gravel trails around the Exmouth townsite, connecting key destinations including the town centre, Town Beach and increasing access to the north of the Cape; and
- · Road cycling routes to create a safer shared riding environment for people on bikes and people driving north of the Cape and further afield along roads connecting to Coral Bay.

Map 8. Proposed 2050 bike riding network for the Exmouth townsite





Map 9. Proposed 2050 sub-regional bike riding network for the Shire of Exmouth

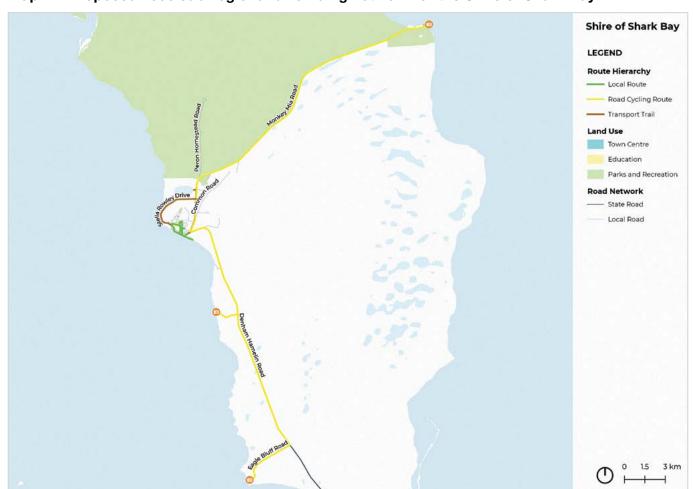
4.4 Shire of Shark Bay

The 2050 bike riding network for the Shire of Shark Bay is shown in Map 9 and Map 10 and includes:

- Local routes that provide direct connectivity to the Denham town centre and beachfront, the Shark Bay Recreation Centre as well as safe access to Shark Bay School, limiting the need for school children to interact with traffic. This network of local routes leverages on the Shire's existing path network and separates people on bikes from vehicle traffic;
- A transport trail that provides safe connectivity to Little Lagoon, delivering a unique leisure and tourism bike riding experience; and
- Road cycling routes that create a safer shared riding environment for people on bikes and people driving to the Shire's major tourist attractions including Monkey Mia, Ocean Park Aquarium and Eagle Bluff.







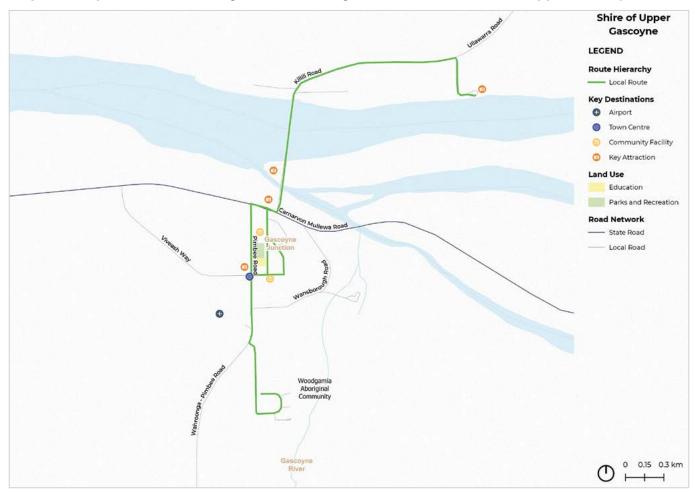
Map 11. Proposed 2050 sub-regional bike riding network for the Shire of Shark Bay

4.5 Shire of Upper Gascoyne

The 2050 bike riding network for the Shire of Upper Gascoyne is shown in Map 11 and includes:

- Local routes that provide safe access, with separation from vehicles, between Gascoyne Junction's residential homes and the Woodgamia Aboriginal Community to Gascoyne Junction Remote Community School, the shops and other key services and recreational facilities in the town centre; and
- The local route along Killilli Road that provides a crucial function in providing residents north of the Gascoyne River with access to the town centre, as well as enhancing connectivity to the river foreshore.

Map 12. Proposed 2050 sub-regional bike riding network for the Shire of Upper Gascoyne





5. The Way Forward

This section outlines the way forward for the Gascoyne 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. Key opportunities have been identified within each of the themes, each of which highlight the potential for bike riding in and around the Gascoyne region. Case studies are used to illustrate where similar outcomes have been achieved elsewhere.

5.1 Improving access to education, employment, retail and recreation

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 research¹⁹ 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 (see Figure 5).

A large proportion of the region's residents live in urban settlements that are compact. Most people therefore live within a comfortable bike riding distance of key destinations such as schools, workplaces, including commercial and industrial employment areas, the shops, healthcare services and recreational facilities.

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

busy roads with no or

minimal cycle lanes.

Less than 5%

Children Cautious Confident **Fearless** Children who can Adults and teens of Adults and teens with Skilled bicycle riders higher levels of cycling safely cross the road varying cycling ability that are confident (typically 10 or older) who want to cycle but skill and confidence to interacting with traffic on

Figure 5. Types of people and their willingness to ride a bicycle¹⁹

are cautious about

safety risks from traffic.

50% to 60%

Opportunity: Improve rideability serving Carnarvon, Exmouth, Denham and **Gascoyne Junction town centres**

or younger children

under supervision.

Proportion of adult population

The small scale of the key townsites within the region means that many jobs, major services and shops are generally concentrated in these centres. Although most residents are within comfortable bike riding distance of these centres, if people don't feel safe or comfortable riding a bicycle to and through these centres, people will continue to drive. This includes the ability to safely park your bike at a destination.

Several of the towns experience a large swell in seasonal population during the tourist season, generally between April and October, to accommodate holiday and leisure visitors, and seasonal workers required to service this group.

The Shire of Exmouth's population typically trebles over peak visitor months when compared to its permanent population of approximately 2,800²⁰, while the Shire of Shark Bay's permanent population of 950 people is estimated to double²¹.

Improving bike riding routes connecting the town centres to the main visitor accommodation areas and caravan parks can reduce the parking and traffic issues experienced during peak periods.

interact with traffic using

bicycle lanes.

5% to 10%

In general, 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 the town centre.

Relevant key actions	Action reference
Path construction and upgrades to provide direct bike riding access to the Carnarvon, Exmouth, Denham and Gascoyne Junction town centres	C1, C2, C3, C6, C8, E1, E2, E6, SB2, UG1, UG2
Ancillary infrastructure to support the bike riding network	GAS2, GAS3



5.1.2 Opportunity: Provide safe bike riding routes serving the region's industrial areas

Industrial areas can often be poorly served by the walking and bike riding network. Although these 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.

While the industrial areas within the region are relatively small and feature most prominently in the Shire of Carnarvon and the Shire of Exmouth, future growth of these industrial precincts is planned.

In Exmouth, a secondary mixed-use light industrial and commercial precinct containing several popular restaurants/bars attracts people during all hours of the day. This includes people walking and riding on the road at night time which presents a safety risk due to limited street lighting along the road.

There is a need to ensure bike riding connectivity, recognising that people currently are, and will continue to access these areas.

Relevant key actions	Action reference
Path construction and upgrades for improved access along key routes serving industrial areas in Carnarvon and Exmouth.	C9, C11, E4
Ancillary infrastructure and active travel programs to encourage bike riding to workplaces.	GAS4, GAS9



People walking along the road with no path on Reid Street in Exmouth.

CASE STUDY | Supporting cycling access to industrial precincts

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.



A person riding on the shared path past Broadwood Street in West Kalgoorlie.

Credit: Department of Transport.

5.1.3 Opportunity: Deliver a safe bike riding network serving schools

Fewer Australian children walk and ride to school than ever before. Over the past 40 years the percentage of children walking or riding to school has declined from 75% to only 25%²². Active travel to school helps children reduce the long-term health risks of inactivity, supports their cognitive development and helps them gain independence.

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 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;
- 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.



Desire line along a dirt track leading to Carnarvon Christian College.

Relevant key actions	Action reference
Proposed network improvements to enable safe travel to all schools in the region by bicycle.	C4, C5, C7, C8, E5, SB1, UG1, UG2
Active travel programs to build bike riding skills and encourage bike riding to schools.	GAS9

5.1.4 Opportunity: Support active travel programs in schools, and enhance riding skills and road safety education

Learning bike riding skills at an early age can support children in forming healthy and sustainable habits that are carried through to adulthood and can contribute to fostering a broader bike riding culture.

As they continue to ride throughout their lives, children will experience a range of different riding contexts. Developing road sense and understanding of road and bike riding safety is important to make sure they can confidently navigate a variety of circumstances, particularly where they may interact with motor vehicles.

In addition to providing built infrastructure, such as walking and riding paths, supporting social infrastructure and capacity building initiatives can help to accelerate early engagement in bike riding. This includes delivering active travel activities and programs in schools to help children build the skills and confidence needed to safely ride in a diverse range of circumstances.

Your Move is a free active travel program run by the DoT, with a specific schools program targeted at helping students to get active by walking, scooting and riding to school²⁴. Schools sign up voluntarily to the program, which includes support from DoT's dedicated behaviour change experts. 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 continue encouraging active travel.

There are a variety of education programs targeted at children and youth to help them build 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, is an organisation that delivers programs to teach people how to ride and bolster riding confidence. Several private businesses such as 'People on Bicycles'23 also provide such services.



Bike riding skills workshops are another important way to support youth bike riding. This may include teaching basic maintenance and upkeep skills as well as physical riding skills. Events and targeted sessions can help kids practice their skills in safe settings.

Encouraging youth engagement with local governments in the planning and management of bike riding infrastructure is essential to promoting bike riding in schools. This is to ensure that investments meet the needs of school children and their parents, and to increase their awareness of potential riding routes and willingness to try riding to school and for other purposes.

Relevant key actions	Action reference
Active travel programs to build bike riding skills and encourage bike riding to schools.	GAS9



A person riding along a shared path providing access to Exmouth District High School.

CASE STUDY | Gascoyne Junction Remote Community School

The DoT's Your Move Schools program has been rolled out effectively across WA's regions. The Gascoyne Junction Remote Community School in the Shire of Upper Gascoyne has been actively involved in the program over the last several years. The school has 10 students and caters for students from kindergarten to Year 12.

Students learn the importance of bike riding skills and road safety through fun and engaging events.

Over the years this has included:

- Regular morning fitness bike rides to learn road rules and build confidence;
- An Amazing Race event, requiring students from the school and surrounding Stations to ride to different spots to answer clues, complete puzzles and participate in other fun activities, before moving on to the next location; and

• A bike safety workshop and ride, complemented with bike tyre repair kit giveaways and a sausage sizzle.



In addition to being an active Your Move participant, an annual Road Safety Awareness event for students is hosted by MRWA and the Community Resource Centre. The event includes bike riding skills training, with an emphasis on teaching students road safety and awareness while riding a bike.

Currently, paths are limited throughout the Gascoyne Junction townsite, therefore, these events help children to develop the necessary skills and awareness to safely ride in their local context.





Students participating in bike riding activities in Gascoyne Junction.

Credit: Gascoyne Junction Remote Community School.

5.1.5 Opportunity: Improve supporting end-of-trip and route infrastructure

The availability of bicycle parking and related endof-trip facilities is essential to encouraging bike riding access. People are less likely to consider bike riding as a viable transport option without this supporting infrastructure.

Providing secure bicycle parking and end-of-trip facilities for employees can free up car parking spaces for clients and customers, increasing trade and customer satisfaction. Bicycle parking is around 10-times more space efficient than car parking, making space available for productive use²⁵.

Public bicycle parking can support increased use of bicycles for customer access if it is conveniently located close to destinations and suitably designed so bicycles can't be stolen or vandalised. Increased customer access by bicycle can help reduce car parking issues and can reduce the negative impacts of informal bicycle parking on pedestrian paths, handrails, lamp posts and trees used to lock bicycles to.

Some current planning schemes in the region do not have specific requirements for bicycle parking and end-of-trip facilities for new or upgraded development. As an action of this strategy, the development of appropriate planning scheme policies has been identified, ensuring 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.

These policies will include requirements for:

- Employee end-of-trip facilities: secure bicycle parking and end-of-trip facilities (which may include change rooms, lockers and showers) appropriate for the number of employees; and
- Public bicycle parking: conveniently located bicycle parking racks that are placed in visible locations to improve security and are designed to best-practice standards.

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

Further to the above, the region's hot, dry climate makes it essential that people who walk and ride are hydrated and can find shade when needed. Easy access to water, shaded paths and/or shelters and rest areas are important in making routes more comfortable, attractive and accessible for recreational riding and walking. It is important that bike riding routes in urban areas that are intended for recreational riding by locals and visitors include access to potable water and shaded rest areas along routes, as appropriate.

Relevant key actions	Action reference
Ancillary infrastructure to support bike riding to workplaces, local services and facilities.	GAS3, GAS4



Bicycle parked inside the Carnarvon Central shopping centre.

Credit: Department of Transport.



Mature trees providing shade and cooling along the Brockman Park shared path in Carnarvon.

5.1.6 Opportunity: Provide safe and convenient access to recreational facilities

In the Midwest Health Region, which encompasses the Gascoyne region, 37% of adults aged 16 years and over are obese, with coronary heart disease, chronic obstructive pulmonary disease, and mental ill-health being leading causes of disease burden²⁶. There are numerous physical and mental health benefits associated with increased physical recreation and active travel, particularly reducing risk of cardiovascular diseases, as well as positively impacting mental health conditions such as depression, stress and anxiety²⁷.



The region's recreational facilities and public open spaces (such as sporting fields and parks) are ideal locations for 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 increases the ability of children to independently access these facilities.

Encouraging people to cycle to and from recreational facilities will also help increase the positive public health outcomes of increased physical activity.

Relevant key actions	Action reference
Path construction and upgrades to improve bike riding access to the key recreational facilities in	C4, C5, C14, E1, E3, SB4,
the region.	UG2



Shared path along the Fascine providing access to exercise equipment along Carnarvon's foreshore.

Credit: Department of Transport.



Children's bike parked by the playground along Carnarvon's foreshore.

5.2 Enhancing the region's potential for cycle tourism and active recreation

Local and international tourists flock to the Gascoyne region, attracted by the stunning natural environment and unique destinations. This makes tourism one of the most significant industries for the region, with an annual average total spend of \$362 million attributed to tourism in the region, and contributing to 14.4% of the region's total employment²⁸.

In Australia \$1,168 million was spent annually on cycle tourism in 2020²⁹. Although cycle tourism is a relatively small niche market, surveys found that 46% of adults say they enjoy riding bicycles when on holiday, although only 10% actually rode a bicycle on a trip in the past year³⁰.

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 by bicycle. Improving cycle routes and wayfinding guidance helps tourists use a bicycle to safely and conveniently explore the area, access shops or restaurants, or visit destinations.

While the region has a relatively low resident population, tourism greatly increases the number of people in towns, particularly during school holidays. This can cause car parking issues and can increase traffic safety risks, particularly in small centres. Better bike routes around town and to local tourism destinations can help reduce traffic and parking issues during peak holiday season.

Bike riding can also improve the tourist offering of the region through creating opportunities for sports cycling routes (including road cycling, mountain biking or gravel biking), recreational cycling (scenic trails or historical touring routes), or active events (cycle races, triathlons, BMX). Active tourism gives people a reason to visit and stay longer in the region, and also creates activities for local residents.

Cycle tourism creates the opportunity for local businesses to offer supporting services such as bike-hire and maintenance services, creating cycle destinations or events. If well planned, cycle tourism investments can also support local residents to safely and conveniently get to work or school, access local shops and services, or enjoy their own region on a bicycle.



Sunset by the shared path along the Fascine, a key attraction in Carnarvon, connecting to the Heritage Walk Trail to the north and Town Beach to the south.

Credit: Department of Transport.



Caravan carrying bicycles on the back at Carnarvon Central shopping centre.

5.2.1 Opportunity: Create a recreational route that highlights the region's unique attractions

The towns in the region are compact with caravan parks, shops and restaurants, and many key tourist attractors within easy bike riding distance of each other. This can create an opportunity to link these sites via a well-defined cycling trail that supports all ages and abilities to safely and conveniently cycle between these destinations.



Cycling trails provide visitors, as well as residents, with a fun and immersive way to explore the town and immediate local area. Added to this, the convenience of exploring a small town by bicycle eliminates the need for visitors or residents to find car parking in busy centres and reduces fuel use.

Such routes must be clear, allowing unfamiliar users of the network to easily navigate the cycle trail, with the ability to easily get to and stop at the destinations or attractions along the way. Wayfinding signage and easily understood route maps are essential to promoting the routes and supporting the rider's ability to navigate them.

Well defined cycle trails can be promoted and marketed to people visiting the area, highlighting the towns' unique assets and attracting people to stay and spend money in the local areas. Additionally, cycle trails can deliver great value to local communities if the route is planned to support access to key destinations that local residents will ride to, like schools, sports facilities, shops and employment centres.

While relevant key actions have been identified for the next 5 years, a series of longer-term aspirations have also been identified through on-site visits. stakeholder and community consultation. This includes improving the existing gravel trail around the Exmouth township and creating a Gascoyne River trail linking the Gascoyne river foreshore picnic areas, north of the river.

Relevant key actions	Action reference
Path construction and upgrades to provide bike riding access to key attractions proximate to the region's urban areas	C5, C10, C14, E1, E3, SB4, UG2
Ancillary infrastructure to support the bike riding network.	GAS2, GAS3



Bicycles parked by Town Beach, a key attraction for both locals and visitors in Exmouth.



Section of the Heritage Walk Trail, a popular active transport trail for locals and visitors in Carnarvon. Credit: Department of Transport.

CASE STUDY | Economic benefits of cycling tourism

This case study shows the benefits cycling tourism investments in supporting increased visitation and diversified local economies in regional communities.



Known in Māori as Ngā Haerenga 'The Journeys', the Great Rides of New Zealand consist of twenty-three cycle trails with over 2,800km of cycle trails across New Zealand. The trails are mainly located in regional areas and provide a diverse range of experiences and opportunities to appreciate unique historic and cultural sites.

A 2021 evaluation of the Great Rides³¹ found significant benefits related to natural, social, human, financial and physical outcomes for the communities. The evaluation found that almost half of users would not have visited the area if there was no Great Ride. The Great Rides have been critical in supporting increased tourism revenue to regional towns with businesses noting a 72% increase in customers and 64% increase in income from before the establishment of the cycle trails.

The economic benefits of rail trails



\$950m

Approximate direct economic contribution of the trails to the regions.



Approximate capital and operating expenses.



Increase in visitor expenditure year on year.



Increase in visitor nights year

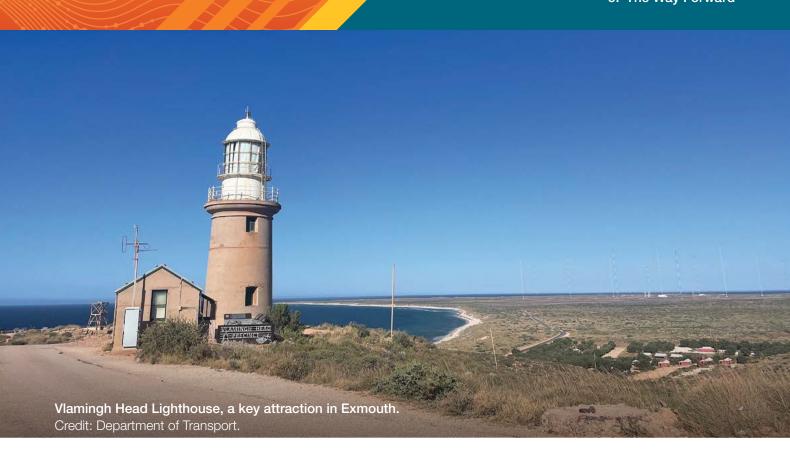
The Great Rides have supported employment and economic growth in the regions through the growth of existing businesses, or the investment in new businesses.





People on bikes enjoying the Great Rides of New Zealand.

Credit: Great Rides.



5.2.2 Opportunity: Improve bike riding network connectivity to tourist attractions and assets

The region covers an area of over 137,000 square kilometres, containing highly diverse landscapes, spanning from coastal environments to desert hinterland. A multitude of world class tourist attractions are located within the region, including the Shark Bay Heritage Area and Ningaloo Reef Heritage Area, drawing visitors from all around the world.

Given the vastness of the region, motor vehicles are mostly used to visit most tourist attractions further from town. Multi-day 'bike-packing' or cycle touring makes up about 5% of the cycle tourism market in Australia³². The potential for the region to attract more of the cycle touring 'bike-packing' market could be supported by creating safer cycle routes connecting towns and key tourist attractions in the region. The level of provision needed on these routes depends on the distance, target market and the risk to cyclists from traffic, particularly heavy vehicles. Routes within comfortable riding distance of a centre should aim to appeal to a broad segment of people with different riding abilities/ levels of riding confidence.

Routes further from urban centres would largely serve experienced cycle tourers willing to ride on roads. Longer distance routes can be segmented and form parts of bike riding journeys, where people can experience riding along sections of the route, rather than traversing the whole length by bike. There is an opportunity for private tourism operators to facilitate such trips and encourage bicycle tourism within the region.

Scenic cycle trails riding provides people with a unique opportunity to experience the region's natural beauty in a peaceful environment away from motorised traffic. Routes can be comprised of gravel or sand-based surfaces and, importantly, should contribute towards the conservation and preservation of the natural landscape, while concurrently providing the community with access to open space to enjoy and appreciate.

Relevant key actions	Action reference
Delivering and advocating for safe bike riding routes to connect people to the key attractions beyond the region's immediate urban centres.	GAS1, GAS8, C12, C15

CASE STUDY | Creating safe streets during the Exmouth solar eclipse

Exmouth was one of the few locations for viewing the April 2023 total solar eclipse.



Exmouth hosted approximately 20,000 visitors who came to see the solar eclipse. These visitor numbers far exceeded the normal surge in visitors during peak holiday periods.

To support safe travel in and around the town the Shire encouraged people to use active travel to get around town. Town Beach was identified as the prime location for people to view the eclipse. To address the risk of traffic congestion and concerns for pedestrian safety most local roads leading to Town Beach were closed to vehicle traffic on the day of the eclipse. People wanting to view the eclipse from Town Beach were encouraged to walk and bike ride to get there. The road closure ensured that everyone felt safe walking and bike riding there.

This initiative increased the visibility of bike riding, highlighting it as a convenient and efficient mode of transport. It also resulted in more people being out and about, creating vibrant streets and fostering social connectivity amongst the community.



Bikes parked at Town Beach, Exmouth, during the 2023 solar eclipse event.

Credit: Shire of Exmouth.

5.2.3 Opportunity: Formalise and improve sports cycling opportunities

Sports cycling opportunities encompass a large variety of riding activities including road cycling, trail riding, mountain biking and BMX (bicycle motocross). These activities have uniquely different requirements, but all require a level of fitness and skill of users.

Competitive riding events (road-cycling or mountain bike races, triathlons, etc) provide a point of motivation for more local residents to develop their cycling fitness. These events can increase levels of cycling participation and help increase health outcomes for the region.

In Australia 7% of the cycle tourism market is for participating in competitive events. These events therefore have potential to generate economic benefit for the region by attracting more cycle tourists and their respective families/support teams to the area. Depending on their scale, the organising, promotion and running of competitive cycling events can require up-front funding support to make them viable. Opportunities for sports cycling events and the need for funding support of these should be investigated in collaboration with local sports cycling groups and organisations such as WestCycle.

Road cycling requires routes with a range of riding distances, minimal interruptions from intersections and a smooth riding surface. Road cycling routes must have an acceptable level of risk from motor vehicles. This is dependent on the amount of traffic on the road, especially heavy vehicles, the ability of traffic to safely pass cyclists and the speed of traffic. Continuous road shoulders of adequate width are ideal to support road cycling training routes. However low-traffic roads can be suitable if drivers can safely pass cyclists with limited delay.

During stakeholder and community consultation there was recognition that many of the roads in the region don't have continuous road shoulders. Heavy vehicles and cars towing caravans or boats present a particular risk to road cyclists, particularly during the peak holiday season.

This was recognised as a key constraint that could limit the opportunity to create high quality road cycling routes in the region.

There is a need to work with local cycling groups to identify potentially suitable road cycling training routes, agree sections with high safety risks and appropriate mitigations, and develop a strategy to promote the routes and improve safety. There is also a need to address unsafe behaviours of cyclists and drivers through education and awareness programs.

Mountain bike or gravel bike trails provide an opportunity to showcase the region's unique scenery and rugged environment for more adventurous riders. These trails can provide for people with varied technical abilities and can 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. Formalised trails can prove popular for local communities and benefit the local economy by attracting visitors to stop and stay. Mountain bike and gravel 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 has been developed by the Department of Biodiversity, Conservation and Attractions in conjunction with key stakeholders, and the potential for multi-use cycling trails is highlighted in the Blueprint.

During stakeholder and community consultation several opportunities for mountain bike and gravel bike trails in the region were identified.

Possible opportunities for cycle trails that were identified through stakeholder and community engagement for the Gascoyne region include:

- Cape Range National Park: The Shire of Exmouth is working in partnership with local cycling club, the Cape Range Riders, to develop a Trails Strategy to investigate potential trail alignments across the Cape Range National Park.
- Ex-NASA Carnarvon Tracking Station: Informal mountain biking use of tracks through the area.

BMX bikes are an easy entry into bike riding for children, but as a sport it has participation at all age levels. AusCycling holds annual regional, state and national competitions in the disciplines of BMX racing and BMX freestyle.

BMX racing and freestyle requires a relatively small purpose-built area, unlike road cycling and mountain biking/gravel biking. This makes BMX suitable for delivery in urban areas, making it easy for children to access independently. BMX can provide a valuable social and recreational resource for young people, particularly in under-resourced regional centres. Currently the region does not have any BMX clubs, however, a BMX pump-track and skills course were recently constructed in Exmouth. The closest formal BMX events are held in Perth.

Relevant key actions	Action reference
Delivering and advocating for safe road cycling routes, and identifying recreational riding and cycling tourism opportunities in the region.	GAS1, GAS8, C12, C15





Members of the Cape Range Riders riding across the Cape Range National Park in Exmouth. Credit: Department of Transport.

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



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.

CASE STUDY | Exmouth Bike Park

Exmouth's Bike Park opened in 2022 at the Exmouth Recreational Precinct, a family-friendly setting close to the town centre and accessible by the town's path network. The Park is nestled between the community gardens and the tennis club, and features a pump track, a jump park and a skills loop.

Exmouth Bike Park provides riding experiences for a range of people, particularly children and young people looking to have fun and work on their bike skills in a safe, accessible location, as well as letting visitors and tourists to test out their skills before they explore the region's trails.



The Park is a great opportunity to build community as well as bike riding skills for young people.

Cape Range Riders, a local mountain biking club with an active membership, have been passionate supporters of the facility and were on hand at the Park's opening event in April 2022 to help children with their first runs on the course. The Cape Range Riders remain engaged with the Park, leading popular community riding events such as the November 2022 Exmouth Bike Park Fun Day.



Young people riding at Exmouth Bike Park.

Credit: Shire of Exmouth.

CASE STUDY | The Goldfields Cyclassic and Community Challenge

The Goldfields Cyclassic and Community Challenge is an annual cycling event held in the Kalgoorlie-Boulder region, hosted by the Eastern Goldfields Cycle Club. The Cyclassic entails riding between Kalgoorlie-Boulder to Menzies, and on to Lenora. The internationally renowned event attracts both competitors and spectators from all around the world. The Community Challenge event occurs on the same weekend and allows riders to participate in a non-competitive supported ride along the same route.

The Menzies Classic (day one of the two-day event) is one of the oldest remaining competitive cycling races in Australia, with the first race of its kind held in 1928. The Community Challenge provides the opportunity for broader participation. In 2023 the Cyclassic and Community Challenge attracted over 150 competitors, coming from clubs throughout Australia and international.

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. To ensure the long-term viability of the event the club outsourced event organisation in 2022 to a professional event manager. The event continues to draw visitors to the region, placing the region on the international map for cycling and stimulating the region's local economy.



Goldfields Cyclassic route map. Credit: Goldfields Cyclassic.

5.2.4 Opportunity: Facilitate the growth of a local bicycle economy

Cycling in Australia had a direct industry output of \$6.3 billion in 2020 and supported 34,295 direct jobs. Currently the local bicycle economy is limited in the region, with few bicycle sales and servicing businesses, and a small number of bicycle hire businesses in Exmouth. Many local riders buy their bicycles and bicycle parts online and are required to service their own bicycles. Further, no bicycle or eRideable share schemes currently exist in any part of the region.

Investments in improved cycle routes, cycle tourism experiences and sports cycling opportunities in the region will increase the potential contribution of cycling to the region's economy through:

- Increasing the viability of local bicycle sales and service businesses:
- Opening up opportunities for bicycle hire services for visitors to the region;
- Creating potential for guided or supported bicycle touring services for visitors and locals, including specialised markets unique to the region such as adventure riding, which may include sand riding and mountain biking; and
- Providing potential demand that could support eRideable or bicycle share schemes, particularly during the peak holiday season.

The growth of the bicycle economy will be very dependent on the nature and quality of the bike riding offering provided. As the region invests in improving bike riding in the region, the direct economic benefits will increase.

Relevant key actions	Action reference
Increasing mobility and access for key user groups in the region.	GAS5



Bicycle hire from 'Somebodys Bike' operating from Mutts Café in Exmouth.

Credit: Department of Transport.

CASE STUDY | Increasing access to bicycles

Holiday makers or temporary residents in the region may not have access to a bicycle, limiting their ability to use the cycle network. Supporting increased access to bicycles for visitors and residents will help provide people with a choice on how they travel around and increasing the number of people on bikes in and around the Gascoyne region.



Carnarvon currently does not have an existing bicycle hire service. Ningaloo Surfaris, a Carnarvon tourism business, is developing a bicycle hire service in Carnarvon to provide both locals and visitors with a convenient and fun way to explore the local area. Improved and expanded bike riding routes connecting to tourism destinations will help support this emerging business.

Shared active mobility, including shared bikes, e-bikes and e-scooters, in Australia has grown from 0 trips a day in 2020 to over 25,000 trips per day³³. The City of Ballarat, in Victoria started a trial of a shared e-scooter scheme at the end of 2021.

The trial made 250 e-scooters available for short-term rental in Ballarat Central, Ballarat North, Lake Wendouree, Eureka Golden Point and Redan.

The trial provides a unique illustration of how shared mobility solutions can be successful in regional cities. After an initial peak use of over 1,200 trips per day, the 250 shared e-scooters have settled down to an average of around 200 to 400 trips per day³³. The trial shows the potential for shared mobility schemes to improve access to active travel in regional communities.



Bike riders along the Fascine in Carnarvon. Credit: Ningaloo Surfaris.

5.2.5 Opportunity: Provide clear and consistent information

To increase bike riding activity within the region, there is a need for residents and visitors to be able to access information on riding routes and opportunities. Regularly updated bicycle network maps should be provided online and in print at key Council facilities such as at visitor centres, and need to clearly depict riding routes and trails, key destinations and other key elements of the riding network such as locations of rest stops, water fountains, public toilets, bicycle parking etc.



Consistency in the information provided by the four shires, such as the style and format, can also support the promotion of bike riding on a region-wide scale, increasing the level of familiarity with the bike riding network for people travelling to different areas within the region.

It is important that cycle route maps provide clear information on the level of cycling skill required for using routes in the network as well as the cycling environment such as climate, noting the region experiences hot, dry weather conditions.

This will ensure that bicycle riders will be able to plan their riding trip with confidence that the routes chosen will be suitable for their expectations in relation to separation from traffic and the need for suitable bicycle type, riding skill as well as equipment such as water and sunscreen.

Signage, including route maps and wayfinding directional signage, is crucial to creating a wellconnected and intuitive riding network. Signage not only helps people unfamiliar with the network to find their way (such as visitors or new riders), but also helps raise awareness among people who don't normally ride that riding a bicycle is a viable mode of transport.

In the region the existing pathway networks in each of the four main townsites are reasonably well connected, but there is limited bike riding network mapping available and wayfinding signage on the network is inadequate or incomplete. Improved wayfinding signage is identified as an effective, low-cost intervention to improve people's ability to find their way around.

Relevant key actions	Action reference
Providing wayfinding signage and information on bike riding routes connecting to key destinations.	GAS2, GAS11



Visitors map for Exmouth townsite including key walking and bike riding routes.

Credit: Shire of Exmouth.



Wayfinding signage in Carnarvon. Credit: Department of Transport.





5.3 Promoting social inclusion and equity to support happy and healthy communities

The ability to access services such as work, school, shopping, leisure activities and health care is essential for all members of the community. A well planned, constructed and maintained bike riding network serves a critical role in supporting affordable and equitable access to these services for people without access to a car.



The Strategy recognises that people riding bikes are not the only people using the network and highlights opportunities to develop a network supporting mobility for all by improving disability access and inclusion through adherence to relevant standards and appropriate geometric design.

Active travel and recreation, including bike riding, can benefit community safety and social cohesion by creating opportunities for increased social interactions in the neighbourhood and strengthening of community ties. More people out and about on local streets and roads also improves community safety, by providing more eyes on the street.

The region's socio-economic profile is diverse. The Socio-Economic Indexes for Areas (SEIFA) is derived from factors such as level of income. education and employment, to rank areas according to relative levels of socio-economic advantage and disadvantage. While there are variances between, as well as within, each local government area, higher levels of social disadvantage in the Shire of Upper Gascoyne and the Shire of Carnarvon are apparent.

For disadvantaged communities bicycles can be a low-cost transport option, reducing the cost of vehicle ownership, operation and maintenance. The Strategy emphasises the importance of providing a riding network that promotes social equity by making bike riding accessible to a range of communities.

Across the region there is limited access to bikes, with few stores selling or renting bicycles. This means there is a barrier, not only for physical access to bikes, but also to maintenance and upkeep services. The Strategy explores opportunities to increase access to bikes and basic bike maintenance skills for the region's community and temporary working population, by working with industry and not-for profit organisations to support access to, and maintenance of bikes.

5.3.1 Opportunity: Improve connectivity between communities

The region has a small population with long distances between townships and a resulting high reliance on motorised travel. Smaller regional communities and those on the edge of urban settlements may have limited provision for active transport within their communities, or for connections to services within towns. A core objective of this strategy is to provide a riding network that supports all people, including those in small regional settlements and on the urban fringe, to be able to access services by bicycle in a safe and convenient manner.

Communities that experience a greater level of disadvantage will be prioritised to improve riding network connectivity within or linking to these communities. Further investigation is required to assess needs and confirm priorities. During stakeholder and community consultation a number of communities were identified with poor active transport connectivity.

The Woodgamia Aboriginal Community, located in the Shire of Upper Gascoyne, was identified as a community needing improved active travel connections. It is a small community comprising of around 15 permanent residents, with numbers fluctuating seasonally.

The community currently has no continuous pathway linking the community and the town centre which is located less than two kilometres away. Providing a footpath serving the community and linking to the town centre is identified as a priority to ensure that residents can walk, cycle or use a wheelchair to access the services available in town.

Brockman Park in Carnarvon provides a highquality pathway linking the suburb of Brockman to the town centre. Meiklejohn Crescent provides a key connection from the pathway to areas east and west of the park, but it does not include any pathway. This reduces the ease of community access to the pathway through Brockman Park which particularly impacts residents of high social disadvantage in the northern section of Brockman. Similarly, Boundary Road and Boor Street provide good connectivity to Mungullah Aboriginal Village, however, minor improvements are required to enhance safety along the route and improve connectivity between the Village and the town centre.

Relevant key actions	Action reference
Providing and advocating for safe bike riding access between communities.	C6, C9, UG4



5.3.2 Opportunity: Ensure the network aligns with disability access and inclusion requirements

While the Strategy is focused on bike riding, it recognises that streets and paths are used by people for many different purposes, including people using wheelchairs or mobility scooters. The Strategy recognises the importance of ensuring that people using devices other than bikes can use the riding network safely and comfortably.

Although the region's towns provide a reasonably comprehensive network of pathways, there are several deficiencies that limit the accessibility of the network for people with a disability.

Key deficiencies include:

- Kerb ramps that are not compliant with standards for disabled access:
- · Lack of tactile ground surface indicators at intersections; and
- Misaligned pedestrian crossings.

The review of design standards, undertaking accessibility audits and prioritising network improvements are critical in achieving this and have been reflected as actions within the Strategy.

Fundamentally, the Strategy is cognisant of the fact that by planning and designing a riding network that caters for the youngest and most vulnerable users, we create a network that everyone can use. At the heart of this approach is fairness and enabling all people to use the network regardless of age, ability or the wheels they use.

Relevant key actions	Action reference
Improving universal accessibility and connectivity of path networks.	E9, GAS6

5.3.3 Opportunity: Support mobility for temporary working populations

Several industries in the region employ temporary workers who are not permanent residents of the region. These workers may fly-in and fly-out of the region for work or may be on a temporary contract and be housed in short term accommodation. These temporary working populations includes people employed in the mining industry, people studying, working or undertaking regional placements in health, education, policing or other services.

During their stay in the region temporary workers may not have access to a bicycle. This limits their ability to use the local riding network to access work, shops, services and recreation. The region aims to work with industries with temporary worker populations to identify potential ways to make it easier for temporary workers to get access to a bicycle. Temporary workers in government services will be prioritised, but opportunities for partnerships with private industry will be welcomed.

Relevant key actions	Action reference
Increasing mobility and access for key user groups in the region.	GAS5



Drainage/spillway channels disrupting path continuity in Exmouth.

Credit: Department of Transport.



Community drop-in session in Exmouth.

CASE STUDY | Bike borrowing initiatives for long-term use

The Geraldton Health Campus is a large employer in the Midwest region. They have a high proportion of temporary workers who have limited options for travelling while on placement in the region. To address this barrier the Geraldton Hospital has introduced an initiative to make pool bikes available for use by temporary staff.



This initiative encourages active travel to work and demonstrates organisational leadership at the forefront of the healthcare industry.

It also delivers on positive organisational and social benefits by providing people with a convenient and low-cost option to help people get to and from work, access the shops and visit sites around the town.

In addition to the above, there are different models of bicycle hire which provide people with regular and ongoing access to a bicycle. Lug & Carrie is a company that provides customers with an electric bike (e-bike) through a subscription service. This provides people with the benefits of using an e-bike without the significant upfront cost of purchasing one.

E-bikes take a lot of the physical effort out of riding a bike. They can increase how willing people are to consider bike riding in hot climates, over longer distances as well as for short day-to-day trips such as purchasing groceries, and enable small to medium items to be transported conveniently.

Lug & Carrie currently only operates in some major cities in Australia, and has partnered with local councils and other organisations to increase access to e-bikes, as a low-cost alternative transportation mode to cars.



People using the Lug & Carrie electric bicycle fleet. Credit: Lug & Carrie.

5.3.4 Opportunity: Support improved access to affordable bicycles and maintenance services for disadvantaged communities

Lower income households are significantly affected by the high cost of car ownership and operation which can consume a large proportion of household costs. This makes these communities particularly vulnerable to increased fuel costs or unplanned vehicle maintenance needs.

A connected and safe bike riding network can make cycling far more viable as an alternative, more affordable form of transport in lower-income households. However, the cost of bicycle purchase and ongoing maintenance can dissuade lower income households from riding for transport, particularly where there are concerns about bicycle theft.

Increasing the availability of affordable bicycles and spares can help reduce this barrier to increasing cycling participation, particularly among disadvantaged communities.

Improvements to bicycle parking combined with increased affordability of bicycles can help reduce this barrier to riding participation.

This strategy identifies actions to work with industry, not-for-profits and other organisations to improve access to affordable bicycles and maintenance services for disadvantaged communities.

Relevant key actions	Action reference
Increasing mobility and access for key user groups in the region.	GAS5

CASE STUDY | BikeRescue Local

There is an opportunity for organisations, particularly local governments, community organisations and schools, to implement programs that recycle bikes, teach refurbishment and maintenance skills, and provide low-cost bikes to those in need. The aim is to provide not only increased mobility options but also to provide activities and support for social events.

Dismantle, a Western Australian not-for-profit organisation, uses bikes as a tool for empowering at-risk youth, and has developed a successful program for building technical skills in bike maintenance in youth. In the BikeRescue program, BikeRescue mentors work with participants to build knowledge, skills, confidence and teamwork via stripping and rebuilding two bikes per participant – one donated to charity and one kept by the participant.

BikeRescue Local supports this in regional areas. BikeRescue Local has a train-the-trainer licensing model, meaning the program can be owned and run by local communities. They provide ongoing training, equipment, guidance and support to regional partners to ensure sustainability and impact for young people and their communities.

A recent BikeRescue Local program ran in Newman, in the Pilbara region of WA during school holidays.

Ten participants got to restore and customise a bike, and were gifted a new helmet and bike lock to go with the bike at the conclusion of the program. Local organisations and businesses in the community volunteered their time, helped kids attend by picking them up and providing breakfast, and donated lunch, fruit and morning tea to support the kids.



"He was so stoked and really loved spray painting and creating his own design on his bike. He also now knows how to fix his bike, which is great because I don't know any of that."

Parent feedback



BikeRescue participants with their restored bikes. Credit: BikeRescue.



5.4 Supporting the recognition and empowerment of First **Nations Australians**

Australia is home to the world's oldest continuing living culture with the Gascoyne region being home to Aboriginal people for tens of thousands of years prior to European settlement.



As per 2021 ABS census, nearly 12% of the Gascoyne's population identify as Aboriginal or Torres Strait Islander, significantly higher than the 3.3% average in the rest of WA.

Celebrating and promoting Aboriginal culture and continued connection to Country forms a part of strategic objectives across the region in local, regional, and state level policy documents. The active transport network has strong potential to support physical and spiritual connections to places of cultural and historical significance for First Nation's people within the Gascoyne region.

As part of this strategy's development, attempts were made to engage with the relevant Prescribed Body Corporates (PBCs) in the region, with guidance from the LGAs on key contact points. Successful contact was made with the Yinggarda Aboriginal Corporation and the organisation's input has helped to shape the opportunities in this strategy.

A key action of this strategy will be to continue outreach as part of specific projects and initiatives with the relevant PBCs, based on the location of the intervention, to ensure that the views and requirements of Traditional Owners are adequately and respectfully captured as part of the region's bike riding network development.

5.4.1 Opportunity: Supporting positive health outcomes in Aboriginal communities

The Yinggarda Aboriginal Corporation board members identified an opportunity for bike riding to support positive health outcomes, encouraging physical activity and promoting equitable access options amongst Aboriginal communities. This could be assisted by partnering with Aboriginal health services such as the Geraldton Regional Aboriginal Medical Services (GRAMS) and the Western Australian Centre for Rural Health (WACRH).

GRAMS is an Aboriginal-led organisation with a vision to provide high quality health care to Aboriginal people. GRAMS' anchoring vision is: "For Aboriginal people to live healthy lives, enriched by a strong living culture, dignity and justice, and that GRAMS is recognised as a driving force in achieving this."

GRAMS' Carnarvon branch operates several health care services, programs and host several events throughout the year which are built around fostering social connections, connecting with the outdoors and promoting active lifestyles.

Past events have included a 'Beach Day' at the Fascine as part of the Shire of Carnarvon's two-week school holiday program, the Great Day Out in Mungullah' event where Gascoyne Outreach Services hosted an invent in the Mungullah Village which involved local children and community members coming together over food and a friendly game of basketball.

WACRH is another organisation, led by the University of Western Australia, with a presence in the Gascoyne region (Carnarvon-based) that aims to improve rural, remote and Aboriginal Health. WACRH is centred on four priority work areas including: teach and learning, research and evaluation, community and engagement and organisational processes and systems.

WACRH identifies a series of 'specific targets' of relevance to this strategy:

- Community and Engagement: Advocate for opportunities to expand community programs in Carnarvon to address the needs of children and young people in that setting; and
- Research and Evaluation: Community wellbeing and mental health including through support for health promotion and community development interventions in priority areas such a healthy nutrition and physical activity.

There is an opportunity to introduce bike ridingbased activities, including bike riding skills/ maintenance training and bike riding for fun and leisure into the repertoire of organised programs and events organised by GRAMS and WACRH.

Relevant key actions	Action reference
Engaging with Traditional Owners as part of the region's bicycle network development.	GAS10



Interpretive signage at Vlamingh Head Lighthouse, a key tourist attraction, in the Shire of Exmouth. Credit: Department of Transport.

5.4.2 Opportunity: Embed Aboriginal cultural heritage design elements as part of bike riding routes

Bike riding routes provide a unique opportunity to recognise local context, identify and celebrate unique histories and provide opportunities for people to connect with their own and other cultures. The Strategy aims to include references to Aboriginal culture and heritage in multiple elements in the bike riding network.



Specific Aboriginal cultural heritage elements across the region can include a wide range of features and items unique to each place, community, and project.

Depending on the project, these elements may incorporate:

• Art treatments, whether surface treatments or installations to create opportunities to co-design with the community and highlight unique local perspectives;

- Interpretive signage used to tell the story of Country and its people, such as the interpretative panels in Yinigudura country in Exmouth. Many Aboriginal people speak more than one traditional language, with Elders commonly speaking five to eight languages;
- Incorporation of Aboriginal cultural spaces. appropriate to the community. This may include landscapes with cultural land management practices;
- Sharing language in the built environment, including in wayfinding signage, route names, rest stop names and on interpretive panels; and
- Consideration for low-impact materials/ construction methods to minimise impacts to Country.

Relevant key actions	Action reference
Engaging with Traditional Owners as part of the region's bicycle network development.	GAS7

Critical to success of embedding Aboriginal cultural heritage design elements is Aboriginalled design, community involvement, and ensuring appropriate approvals of any design elements and content/ information before they are implemented.

Interpretive signage at Vlamingh Head Lighthouse, a key tourist attraction in Exmouth. Credit: Department of Transport.





5.4.3 Opportunity: Connect people to places of Aboriginal heritage significance

The Yinggarda, Baiyungu, Malgana, Thadgari and Thalanyji³⁴ language groups have occupied the Gascoyne region long before the area was discovered through European exploration, and these five Aboriginal language groups are the custodians of the region's rich heritage.

Sharing and connecting people to this history is essential for preserving this history and creating opportunities for people of all walks of life and cultural backgrounds to connect to and learn from Aboriginal culture and knowledge. Opportunities for recreational and educational bicycle trails will be identified with Aboriginal leadership and community groups. Where appropriate, these will incorporate landscaping, artwork and information signage that recognises the long history, rich heritage and strong connection of the Aboriginal community to Country.

Relevant key actions	Action reference
Engaging with Traditional Owners as part of the region's bicycle network development.	GAS7





The Gwoonwardu Mia Gascoyne Aboriginal Heritage and Cultural Centre in the Shire of Carnarvon. Credit: Gwoonwardu Mia.



6. Action Plan and Maintenance

This section outlines the strategic priorities that are proposed to be progressed over the next five years. These priorities lay the foundation for the Gascoyne 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

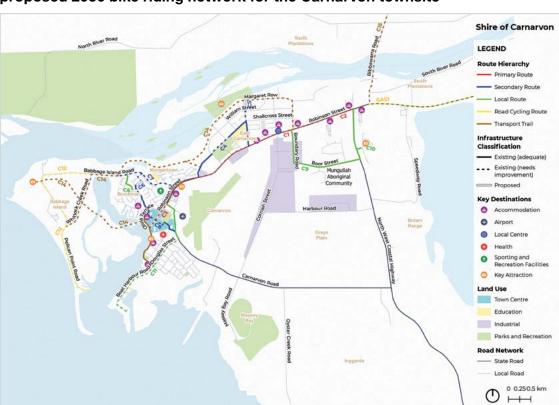
To inform the action plan's strategic priorities, each route within the 2050 bike riding network was classified as one of the following:

- 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.

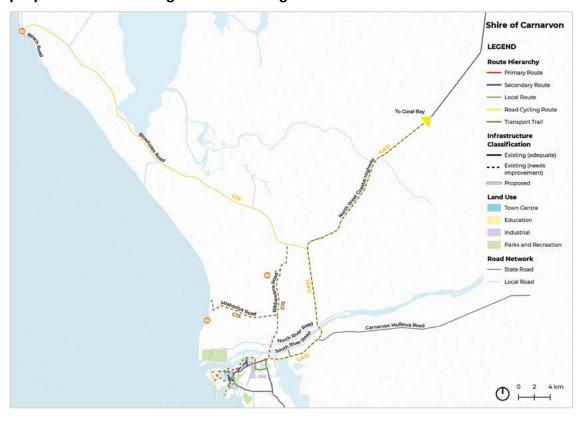
These classifications are reflected in the maps on the following pages, with each route classified as either existing (adequate), existing (needs improvement) or proposed, and considered in the context of the five-year timeframe of this action plan.

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

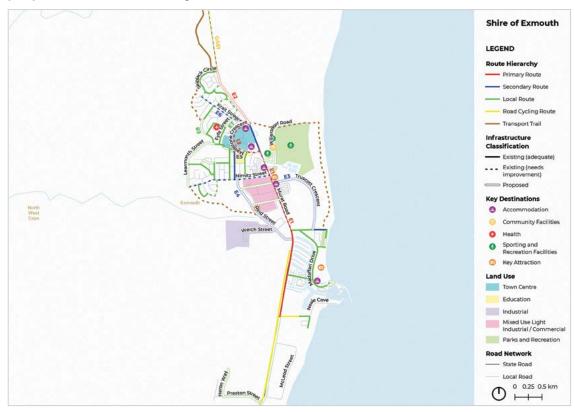


Map 13. Map of the existing route infrastructure conditions based on the proposed 2050 bike riding network for the Carnarvon townsite

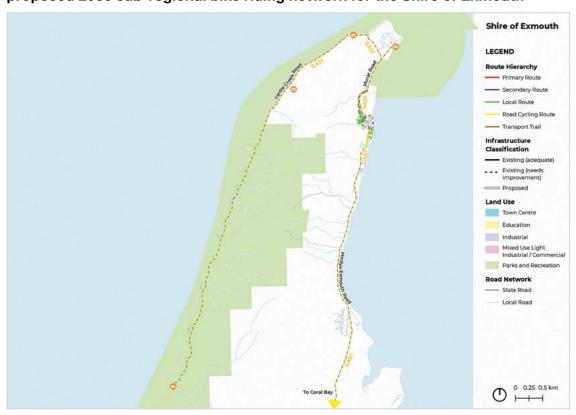
Map 14. Map of the existing route infrastructure conditions based on the proposed 2050 sub-regional bike riding network for the Shire of Carnarvon



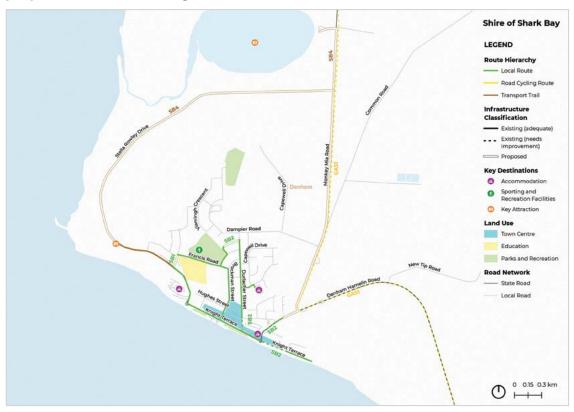
Map 15. Map of the existing route infrastructure conditions based on the proposed 2050 bike riding network for the Exmouth townsite



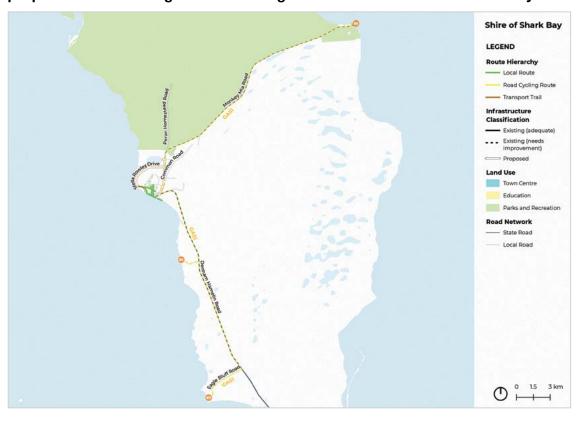
Map 16. Map of the existing route infrastructure conditions based on the proposed 2050 sub-regional bike riding network for the Shire of Exmouth



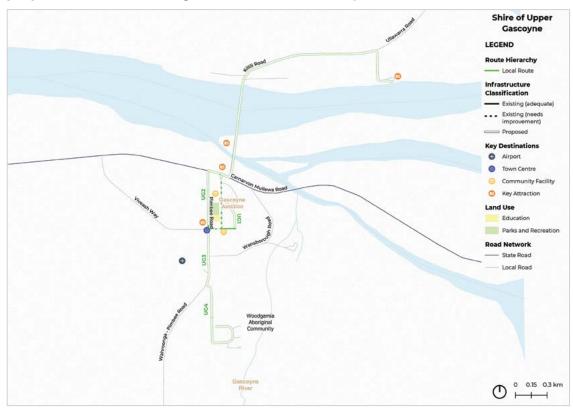
Map 17. Map of the existing route infrastructure conditions based on the proposed 2050 bike riding network for the Denham townsite



Map 18. Map of the existing route infrastructure conditions based on the proposed 2050 sub-regional bike riding network for the Shire of Shark Bay



Map 19. Map of the existing route infrastructure conditions based on the proposed 2050 bike riding network for the Gascoyne Junction townsite



6.2 Priority projects

The following tables identify the local strategic priorities for bike riding in the Gascoyne 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 Shire of Carnaryon

Primary Routes

C1 East Carnarvon road crossing improvements Project Type: Design and Construction | Timeframe: Short-term

Action: Plan and deliver a safe pedestrian and bicycle crossing for Robinson Street, where the route crosses the road near the Carnarvon Fresh IGA.

Need: The uncontrolled crossing of Robinson Street is not suitable for use by people of all ages and abilities due to the high vehicle volumes, including heavy vehicles. Inadequate signage, line marking and lighting limits driver visibility of the crossing point, decreasing safety for people crossing.

Benefit: This route forms the backbone of the bike riding network, linking Carnarvon communities east along Robinson Street. It is the main route linking Carnarvon's major caravan parks to the town centre and is the primary riding route between the Carnarvon Community College and the Mungullah Aboriginal Community. The need for improved safety of the crossing was identified as a priority through stakeholder and community consultation.

C2 Robinson Street primary route improvements Project Type: Planning and Design | Timeframe: Short-term

Action: Plan and design a pathway upgrade to provide a consistent, continuous and high-quality riding environment along Robinson Street, between North West Coastal Highway and Hill Street.

Need: The existing path varies in quality, with path widths of between 1.5m and 2.5m and sections of poor ride quality due to significant path damage or cracked pavers.

Benefit: There is significant potential to increase the number of people riding in and around Carnarvon by improving this route, which forms the backbone of Carnarvon's riding network. The route provides connectivity to schools, key employment hubs as well as linking Carnarvon's major caravan parks to the town centre, Gwoonwardu Mia and other key attractions.

C2 Robinson Street primary route improvements Project Type: Construction | Timeframe: Short-term

Action: Following design, deliver path network improvements along Robinson Street, between North West Coastal Highway and Hill Street.

Need and Benefit: As per C2.

Shire of Carnaryon continued

Primary Routes

C3 Carnaryon town centre north-south link enhancements Project Type: Planning and Design | Timeframe: Short-term

Action: Undertake planning and design development within the town centre to provide a continuous, safe route along Robinson Street, between Hill Street and the Fascine for people riding to and through the centre.

Need: Currently there is no provision for riding through the town centre, limiting the ease and safety of riding access to and through the centre. This route forms part of the Robinson Street primary route that serves Carnarvon's eastern residential catchment as well as major caravan parks, making it a key route for visitor access to the town centre and adjacent attractions. The lack of a dedicated riding route increases conflicts between riders using the footpaths and people walking in the town centre.

Benefit: Providing a riding route will enable residents and visitors of all ages and abilities to safely and conveniently ride to and through the town centre. This will reduce crash risks, conflicts between people walking and riding, and has the potential to reduce car parking demand.

C3 Carnaryon town centre north-south link enhancements Project Type: Construction | Timeframe: Short-term

Action: Following design and consultation, deliver improvements to riding route continuity and safety in the town centre along Robinson Street, between Hill Street and The Fascine.

Need and Benefit: As per C3.

Secondary Routes

C4 Carnarvon Community College shared path Project Type: Construction | Timeframe: Short-term

Action: Construct a shared path along Gascoyne Road between lles Road and Lewer Road.

Need: There is currently no path on the southern side of Gascoyne Road, while the existing path on the north side is less than 1.5m wide and is too narrow to safely serve people walking and ridina.

Benefit: This route facilitates safe access to Carnarvon Community College, with WABN funding successfully secured to deliver the path in 2023.

C5 Improving north-south connectivity along Marmion Street Project Type: Planning and Design | Timeframe: Short-term

Action: Plan and design a shared path along Marmion Street between Margaret Row and Gascoyne Road. As part of this, provide a safe road crossing treatment, connecting to the existing shared path on Gascoyne Road.

Need: There is no path along Marmion Street between Margaret Row and William Street. Between William Street and Gascoyne Road the existing path is approximately 1m wide, with no connectivity to the shared path on Gascoyne Road.

Benefit: This route supports safe access to Carnarvon Community College. It functions as a key north-south route linking Robinson Street primary route, including visitor accommodation located in East Carnarvon and Kingsford, to the Gascoyne River.

Shire of Carnarvon continued

Secondary Routes	
C5	Improving north-south connectivity along Marmion Street Project Type: Construction Timeframe: Short-term
	Action: Following design, construct a new shared path/upgrade the existing shared path along Marmion Street, between Margaret Row and Gascoyne Road. Need and Benefit: As per C5.
C6	Linking Brockman to Carnarvon town centre Project Type: Planning and Design Timeframe: Short-term
	Action: Plan and design a riding and walking link suitable for people of all ages and abilities along Dempster Street, Richards Street and Castrini Crescent. Need: There is no riding link through to the secondary route along Babbage Island Road, which connects to Carnarvon Christian School. There is no footpath along Castrini Crescent, limiting ease of walking access to Brockman Park and beyond to the town centre. Benefit: Improving riding and walking access to and from Brockman was raised through stakeholder and community consultation as important for promoting social inclusion and equity, as well as achieving positive public health outcomes by encouraging people to walk and ride.
C6	Linking Brockman to Carnarvon town centre Project Type: Construction Timeframe: Short-term
	Action: Following design, deliver a suitable riding and walking link along Dempster Street, Richards Street Castrini Crescent. Need and Benefit: As per C6.
C7	Babbage Island Road route improvements – Carnarvon Christian School road crossing improvements Project Type: Design and Construction Timeframe: Medium-term
	Action: Plan and deliver a path and pedestrian and bicycle crossing of Babbage Island Road, connecting to the existing path at Carnarvon Christian College. Need: An informal dirt track, which branches from the existing path, is visible on the south side of the road, connecting to a path on the other side of the road. This represents a clear desire line to the school's entrance. The uncontrolled crossing of Babbage Island Road is not suitable for use by people of all ages and abilities, with heavy vehicles using this route. Benefit: Implementation of this action will improve safety for students and parents crossing Babbage Island Road to access the school, and improve connectivity to the secondary route along Babbage Island Road.

Shire of Carnaryon continued

Secondary Routes

C7 Babbage Island Road route improvements Project Type: Planning and Design | Timeframe: Medium-term

Action: Plan and design a pathway upgrade to provide a consistent, continuous and high-quality riding environment along Babbage Island Road, between Robinson Street and Tonkin Crescent.

Need: The existing path varies in quality, with path widths of 1.8m or less and sections of poor ride quality due to significant path damage or cracked pavers.

Benefit: There is significant potential to increase the number of people riding in and around Carnarvon by improving this route, which provides direct access to Carnarvon Christian School and connectivity to Robinson Street primary route, Babbage Island recreational route and the suburb of Brockman.

C7 Babbage Island Road route improvements Project Type: Construction | Timeframe: Medium-term

Action: Following design, deliver path network improvements along Babbage Island Road, between Robinson Street and Tonkin Crescent.

Need and Benefit: As per C7.

C8 Carnarvon town centre east-west link enhancements Project Type: Planning and design | Timeframe: Short-term

Action: Undertake planning and design development within the town centre to provide a continuous, safe route along Camel Lane, Stuart Street, Rushton Street for people riding to and through the centre from Brockman Park through to Carnarvon's civic and health facilities.

Need: Currently there is no provision for riding through the town centre along this secondary route through Brockman Park and beyond. The lack of a safe riding route increases the risk of conflict with pedestrians due to the use of footpaths for riding.

Benefit: Providing a riding route will enable residents of Brockman to safely and conveniently ride to access shops, civic and social services including the library and Carnarvon Hospital and related health services. This increases social equity, reduces crash risks, conflicts between people walking and riding, and has the potential to reduce car parking demand. This route also provides access to St. Mary's Star of the Sea Catholic College.

C8 Carnarvon town centre east-west link enhancements Project Type: Construction | Timeframe: Medium-term

Action: Following design and consultation, deliver improvements to riding route continuity and safety in the town centre along Camel Lane, Stuart Street, Rushton Street.

Need and Benefit: As per C8.

Shire of Carnaryon continued

Local Routes

C6 Linking Brockman to Carnarvon town centre Project Type: Design and Construction | Timeframe: Medium-term

Action: Plan and deliver a safe walking and riding route along Meiklejohn Crescent, between Brockman Park shared path and Gran Berry Drive.

Need: There is a gap in the local path network in this location, forcing people to walk and ride on Meikleiohn Crescent.

Benefit: Improving walking and riding access to and from Brockman was raised through stakeholder and community consultation as important for promoting social inclusion and equity, as well as achieving positive public health outcomes by encouraging people to walk and ride.

C9 Improving access to and from Kingsford Project Type: Quick Win | Timeframe: Short-term

Action: Deliver minor route improvements along Boundary Road, Boor Street and North West Coastal Highway, including regular path maintenance (sweeping to remove excessive sand build up), installation of wayfinding/signage, improving path continuity at driveway crossovers and providing suitable road crossing treatments where the path transitions from one side of the road to the other.

Need: While the quality of the existing path is adequate in serving local riding needs, minor improvements are required to improve riding safety and route continuity.

Benefit: This route provides access to and from Carnarvon's main industrial precinct, a key employment hub, as well as the Mungullah Aboriginal Community. Improving riding and walking access to and from Mungullah was raised through stakeholder and community consultation as important for promoting social inclusion and equity, as well as achieving positive public health outcomes by encouraging people to walk and ride.

C10 Carnaryon Space and Technology Museum path Project Type: Planning and Design | Timeframe: Short-term

Action: Plan and design a path along Mahony Ave, between Craggs Court and Carnaryon Space and Technology Museum.

Need: The existing path currently terminates at Craggs Court, forcing people riding and walking onto the road, on a steep incline.

Benefit: Completing this gap in the local path network will provide safe access to the Carnarvon Space and Technology Museum, a key tourism destination.

Carnarvon Space and Technology Museum path C10 Project Type: Construction | Timeframe: Short-term

Action: Following design, construct a path along Mahony Ave, between Craggs Court and Carnarvon Space and Technology Museum.

Need and Benefit: As per C10.

Shire of Carnaryon continued

Local Routes

C11 South Carnarvon local route improvements Project Type: Quick win | Timeframe: Short-term

Action: Deliver minor route improvements along Douglas Street, Boat Harbour Road and West Street, including installing wayfinding/signage to enhance route legibility for riders and raise driver awareness.

Need: While the quality of the existing route is adequate in serving local riding needs, minor improvements are required to improve riding safety and route continuity.

Benefit: This route will improve access to and from the South Carnarvon industrial precinct, a key employment hub, and connects the South Carnarvon residential catchment to the town centre, Baxter Park and the waterfront.

Road Cycling Routes

C12 Facilitating road cycling opportunities around Carnarvon Project Type: Feasibility and Planning | Timeframe: Short-term

Action: Undertake a feasibility study to identify opportunities for providing a safe road cycling environment on Shire-owned roads. This includes along Pelican Point Road and Babbage Island Road, and to the Quobba Blow Holes. This may include installing signage, bike symbols 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.

Need: There is existing demand for road cycling along Pelican Point Road, which is well frequented by vehicles visiting Pelican Point and the Carnarvon Heritage Precinct/One Mile Jetty. Similarly, access to the Quobba Blow Holes is poor. North West Coastal Highway and Minilya-Exmouth Road carry high volumes of heavy vehicles, with a posted speed limit of 110km/h, while the existing road condition along Blow Holes Road is poor. Riders and drivers are required to share the road space leading to Pelican Point and the Quobba Blowholes, however, there is no infrastructure in place to alert drivers to the presence of people on bikes.

Benefit: Creating a safer road cycling environment has the potential to attract more riders, both locals and visitors, resulting in positive public health outcomes and positive outcomes for the region's local economy by facilitating access to some of Carnarvon's key tourist attractions.

Shire of Carnaryon continued

Transport Trails

C14 The Gascoyne River, Babbage Island and town centre transport and recreational loop Project Type: Feasibility and Planning | Timeframe: Short-term

Action: Undertake a feasibility study to enhancing riding safety along existing trails. This may include improving trail surfaces to provide a smoother riding environment and installing wayfinding/signage to enhance route legibility for riders.

Need: Existing dirt/unsealed trails, including the Heritage Tramway Walk and the network of levee banks, are currently used by people walking and riding in and around the town. However, improvements are required to improve riding safety and route continuity.

Benefit: The identified routes improve connectivity to key attractions including the Carnarvon Heritage Precinct/One Mile Jetty, the Gascoyne River/Chinaman's Pool, while also serving a commuter function, connecting the eastern residential catchment to the town centre. The route could be marketed to visitors as an active tourism experience.

C14 The Gascoyne River, Babbage Island and town centre transport and recreational loop Project Type: Construction | Timeframe: Short-term

Action: Deliver improvements to enhance riding safety along existing trails. Need and Benefit: As per C14.

C15 Providing Connectivity to Miaboolya Beach and Bibbawarra Hot Springs Project Type: Feasibility and Planning | Timeframe: Medium-term to ongoing

Action: Undertake a feasibility study to provide a suitable riding environment along Bibbawarra Road, to the hot springs, and Miaboolya Road, to the beachfront.

Need: A desire to improve riding connectivity to Bibbawarra Hot Springs and Miaboolya Beach was identified through stakeholder and community engagement. There is no provision for bicycles, forcing people riding onto Bibbawarra Road and Miaboolya Road which are unsealed dirt roads, carrying cars travelling at high speeds, with posted speed limits of 70km/h to 110km/h. This includes an influx of heavy vehicles such as four-wheel drives, caravans, motorhomes etc. during the holiday period.

Benefit: These routes provide bike network connectivity between the town and some of Carnarvon's unique attractions. Development at the hot springs site is planned and will attract more visitors as it transitions to a tourist node. Providing a safe riding route 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.

C15 Providing Connectivity to Miaboolya Beach and Bibbawarra Hot Springs Project Type: Construction | Timeframe: Medium-term to ongoing

Action: Deliver a suitable riding environment along Bibbawarra Road, to the hot springs, and Miaboolya Road, to the beachfront.

Need and Benefit: As per C15.

6.2.2 Shire of Exmouth

Primary Routes

E1 Primary route road crossing improvements Project Type: Planning and Design | Timeframe: Short-term

Action: Plan and deliver safe pedestrian and bicycle crossings for Murat Road including:

- Improve the misaligned crossing near Madaffari Drive where the path transitions from one side of Murat Road to the other.
- Investigate and provide for safe crossings of Murat Road serving walking and riding desire lines between RAC Exmouth Holiday Cape Park, Central Regional TAFE and the existing Murat Road shared path.
- Provide path continuity across the entrance and exit to the Caltex service station, at the corner of Maidstone Crescent and Murat Road.
- Investigate and provide for safe crossings of Murat Road serving walking and riding desire lines across Murat Road to the skate park/pump track and broader recreational precinct.

Need: Murat Road is the key regional road link serving a high volume of traffic and heavy vehicles, particularly during peak holiday periods. The need for improved safety of crossing points was identified through stakeholder and community consultation. The shared path runs on the west side of the road for most of its length, however, key path connections and destinations are located on the east side, requiring people walking and riding to cross the road.

Benefit: There is significant potential to increase the number of people riding in and around Exmouth by improving this route, which forms the backbone of Exmouth's riding network. This route provides connectivity to Exmouth District High School, Central Regional TAFE, key employment hubs, civic services, recreation and sporting facilities as well as linking Exmouth's major visitor accommodation sites to the town centre, Ningaloo Aguarium and Discovery Centre and other key attractions. Providing a safe and well-connected high-quality primary riding (and walking) route along Murat Road and Maidstone Crescent has the potential to reduce car parking demand in and around Exmouth, particularly during peak holiday periods.

E1 Primary route road crossing improvements Project Type: Construction | Timeframe: Short-term

Action: Following design, deliver crossing improvements for Murat Road.

Need and Benefit: As per E1.

E2 Completing primary route network gaps Project Type: Planning and Design | Timeframe: Medium-term

Action: Plan and design a shared path along Murat Road, between Skipjack Circle (north) and Maidstone Crescent.

Need: There is currently no path along this route other than a small section in front of Bowfin Way which has no road crossing provision (i.e. no kerb ramps along the future desire line).

Benefit: There is significant potential to increase the number of people riding in and around Exmouth by improving this route, which forms the backbone of Exmouth's riding network. It directly links the northern residential catchment to the town centre and other essential services and facilities in Exmouth. This route also has the potential to support growth in recreational riding demand amongst locals and visitors as it provides connectivity to the north of the cape and to the section of existing gravel trail that connects to Town Beach.

Shire of Exmouth continued

Primary Routes

E2 Completing primary route network gaps Project Type: Construction | Timeframe: Long-term

Action: Following design, deliver path network improvements along Murat Road, between Skipjack Circle (north) and Maidstone Crescent.

Need and Benefit: As per E2.

Secondary Routes

E3 Improving connectivity to Town Beach Project Type: Design and Construction | Timeframe: Short-term

Action: Design and construct a shared path along Truscott Crescent, between Murat Road and Warne Street.

Need: There is currently no path along this route, forcing people walking and riding on to the road with cars. While vehicle volumes are low, Truscott Crescent carries a relatively high proportion of heavy vehicles, and its curved geometry results in poor sight line distance, increasing safety risks.

Benefit: This route functions as a key desire line between areas north of Truscott Crescent, including the town centre, and Town Beach. WABN funding has been successfully secured to design and deliver the path in 2024/25.

E4 Providing access to Exmouth's mixed-use industrial and commercial precinct Project Type: Planning and Design | Timeframe: Short-term

Action: Plan and design a shared path along Reid Street, between Murat Road and Nimitz Street.

Need: There is currently no path along this route, forcing people to walk or ride on the road. This route provides access to and from Exmouth's mixed-use light industrial and commercial precinct, including several popular restaurants/bars such as the Whalebone Brewing Company, Adrift Café and Mutts Café. This area attracts people during all hours of the day, including people walking and riding on the road at night time. This presents a particular safety risk due to limited street lighting along the road.

Benefit: The need to provide safe connectivity for people who work and visit this area was raised as a priority through stakeholder and community consultation. This route will improve safety for people walking or riding to and through the area, particularly at night. It has the potential to replace car trips to and from bars and restaurants in the area by making walking and riding a safe, convenient and viable option. This route will also support safe access for the future residential development planned to the west of Reid Street.

E4 Providing access to Exmouth's light industrial and commercial precinct Project Type: Construction | Timeframe: Medium-term

Action: Following design, deliver a shared path along Reid Street, between Murat Road and Nimitz Street.

Need and Benefit: As per E4.

Shire of Exmouth continued

Secondary Routes

E5 Improving access to Exmouth District Highschool Project Type: Design and Construction | Timeframe: Short-term

Action: Enhance the safety of the existing road crossing and improve route legibility for people walking and riding between Bonefish Street/Carpenter Street and Thew Street, across the existing Lefroy Park active transport bridge. This may include improved signage, line marking and minor kerb improvements to improve path accessibility.

Need: This route is a key access point for students and parents walking and riding to school. While Bonefish Street doesn't permit through-traffic, it attracts an increase in vehicles during school pick-up/drop-off. The route experiences high levels of active transport demand as it provides direct connectivity between the school and Ross Street Mall. A dedicated crossing point is provided across Thew Street, however, people walking and riding are required to traverse through a car park and cross Bonefish Street/Carpenter Street at an uncontrolled crossing point.

Benefit: This route supports safe access to Exmouth District Highschool. The desire to see safety improvements between the active transport bridge and the school was identified through stakeholder and community consultation.

E6 Improving universal accessibility along Krait Street Project Type: Planning and Design | Timeframe: Short-term

Action: Plan and design a pathway upgrade to provide a consistent, continuous and high-quality riding environment suitable for all ages and abilities along Krait Street, between Grayling Way and Maidstone Crescent.

Need: While the existing 2m path on the north side of the road is in relatively good condition, there are several deficiencies which result in severance of the path network. This includes a lack of kerb ramps, the presence of drainage channels as well as the absence of a concrete path along a section of Krait Street, to the west of Fletcher Street.

Benefit: This secondary route connects the north-western residential catchment to the town centre, the school and other key services and facilities in and around Exmouth.

E6 Improving universal accessibility along Krait Street Project Type: Construction | Timeframe: Short-term

Action: Following design, deliver pathway upgrades along Krait Street, between Grayling Way and Maidstone Crescent.

Need and Benefit: As per E6.

Local Routes

E7 Completing gaps in the local path network - Fyfe Street Project Type: Design and Construction | Timeframe: Medium-term

Action: Plan and construct a path on Fyfe Street, between Krait Street and Lyon Street.

Need: The existing path along Fyfe Street currently stops at Lyon Street, forcing people to ride and walk on the road.

Benefit: Completing this gap in the local path network will enable people to walk or ride to access Exmouth Park, Exmouth Hospital and other associated healthcare services, such as PathWest, safely and conveniently.

Shire of Exmouth continued

Local Routes

E8 Completing gaps in the local path network – Stokes-Hughes Street Project Type: Design and Construction | Timeframe: Medium-term

Action: Plan and construct a path on Stokes-Hughes Street, between Lyon Street and Reymond Street.

Need: There is no path along this section of Stokes-Hughes Street, forcing people riding and walking onto the road.

Benefit: Completing this gap in the local path network will enable people to walk or ride to access Exmouth Hospital and other associated healthcare services, such as PathWest, safely and conveniently. This route also provides direct connectivity to the gravel riding and walking trail.

Non-hierarchy specific action

E9 Improving universal accessibility and connectivity of Exmouth's path network Project Type: Design and Construction | Timeframe: Short-term

Action: Plan and design pathway upgrades, applying the Shire's drainage/spillway standard to provide suitable ramp profiles, flush kerbing and tactile surface indicators in various locations identified by the Shire where path continuity is severed due to the presence of drainage/spillway channels.

Need: Several drainage/spillway channels are located around the town. The current design is comprised of kerbing either side of the channel, resulting in a gap/discontinuation of the pathway for a small section across the channel. People riding or using a wheelchair are forced onto the road with cars and required to re-mount the kerb to continue their journey along the pathway.

Benefit: This suite of path improvements will deliver a consistent, continuous and high-quality riding and walking environment. This improvement is essential to ensure that all paths are usable by people using a wheelchair or other mobility aids. Safety will be enhanced for existing users and enable more people to ride and walk by making these modes a more viable and convenient option for people of all ages and abilities.

6.2.3 Shire of Shark Bay

Local Routes SB1 Improving access to Shark Bay School Project Type: Design and Construction | Timeframe: Short-term Action: Construct a shared path on Freycinet Drive, between Stella Rowley Drive and Francis Road. **Need:** There is currently no path along this route. Benefit: This route supports safe access to Shark Bay School. SB2 Improving access to the town centre Project Type: Design and Construction | Timeframe: Short-term Action: Design and deliver a pathway upgrade to provide a consistent, continuous and high-quality riding environment suitable for all ages and abilities along Knight Terrace, between Denham Hamelin Road and Fry Court. Need: The existing path is approximately 1.5m and is too narrow to safely accommodate people walking and riding. Benefit: Improving this section of path to match the standard of the adjoining shared paths will provide a consistent and safe space for people to walk and ride in and around the town, including to key destinations such as Shark Bay School, the recreation centre, the beachfront and the shops. It will reduce the risk of conflict between pathway users and between riders and traffic, particularly during peak holiday periods when Shark Bay experiences high visitation. The improved path can help increase visitor use of active travel, reducing demand for parking during the peak holiday season. SB2 Improving access to the town centre Project Type: Design and Construction | Timeframe: Medium-term **Action**: Undertake planning and design to deliver a consistent, continuous and high-quality riding environment suitable for all ages and abilities along Durlacher Street, between Hughes Street and Knight Terrace. **Need:** There is no path on the east side of the road, while the effective path width on the west side of the road is constrained by the presence of street light poles. The path crosses the road in multiple locations, increasing delay to users and increasing safety risks by forcing riders and pedestrians to cross the road. Benefit: As above (Ref. SB2). SB2 Improving access to the town centre Project Type: Design and Construction | Timeframe: Medium-term Action: Undertake planning and design to deliver a consistent, continuous and high-quality riding environment suitable for all ages and abilities along Denham Hamelin Road, between Hughes Street and Knight Terrace. Need: The existing path is approximately 1.5m and is too narrow to safely accommodate people walking and riding. Denham Hamelin Road functions as a key gateway for people driving

to Denham town centre. This results in a hostile riding environment, particularly during peak holiday periods when increased pedestrian traffic makes it unsuitable for riders of all ages

80 Department of Transport

and ability to use the footpath.

Benefit: As per SB2.

Shire of Shark Bay continued

Transport Trails

SB4 Improving access to Little Lagoon

Project Type: Feasibility and Planning | Timeframe: Medium-term

Action: In collaboration with the relevant stakeholders, including the DBCA, undertake a feasibility study to identify opportunities for providing a transport trail serving Little Lagoon along Stella Rowley Drive, Monkey Mia Road and Denham Hamelin Road, to Oakley Ridge, tying into the local route which links to the town centre.

Need: There are currently no dedicated walking or riding paths providing access to Little Lagoon.

Benefit: A desire to see improved access to Little Lagoon was identified through stakeholder and community consultation. Creating a safer riding environment has the potential to attract more riders, both locals and visitors, resulting in positive public health outcomes and facilitating access to one of Shark Bay's key attractions.

6.2.4 Shire of Upper Gascoyne

Local Routes

UG1 Hatch Street (Scott Street) shared path

Project Type: Design and Construction | Timeframe: Short-term

Action: Design and construct a shared path on Hatch Street, between Scott Street and Gregory Street.

Need: There is currently no path along this route.

Benefit: This connection will provide Hatch Street residents with safe access to key services within the town centre, including the Community Pavilion, Community Resource Centre, Gascoyne Junction Remote Community School.

UG2 Gascoyne Junction Visitor Stop and Community Pavilion link Project Type: Design and Construction | Timeframe: Short-term

Action: Plan and construct a shared path along Pimbee Road, between the new Gascoyne Junction Visitor Stop and Community Pavilion, tying into the existing shared path on corner of Pimbee Road and Scott Street.

Need: There is currently no path along this route. This section of Pimbee Road functions as a through-route carrying high volumes of heavy vehicles and, during the holiday period, caravans, motorhomes etc. The recent addition of the Gascoyne Junction Visitor Stop will attract more people, both residents and visitors, to the area.

Benefit: The proposed shared path will provide for people of all ages and abilities choosing to walk or ride, for safe access to the Visitor Stop and Community Pavilion, where key community facilities are located including an amphitheatre and playground.

Shire of Upper Gascoyne continued

Local Routes

UG3 Providing connectivity to Gascoyne Junction Airport Project Type: Design and Construction | Timeframe: Medium-term

Action: Plan and construct a shared path along Pimbee Road, between Scott Street to the Woodgamia Aboriginal Community boundary extent.

Need: There is currently no path along this route, and it functions as a through-route carrying high volumes of heavy vehicles.

Benefit: Due to limited transport options at Gascoyne Junction Airport (e.g. no public transport), the Shire has plans to install a bike rack at the airport and supply bikes for people to hire. Provision of a safe riding environment is critical to encouraging people to ride to and from the airport and will support successful uptake of the Shire's planned bike hire initiative. The route also provides a safe active transport link serving the Woodgamia Aboriginal Community.

UG4 Providing connectivity to Woodgamia Aboriginal Community Project Type: Advocacy | Timeframe: Short-term

Action: Advocate for, and work with the relevant stakeholders to investigate feasible alignment and design for a shared path serving the Woodgamia Aboriginal Community, and connecting to the planned shared path along Pimbee Road (see UG3).

Need: There is currently no path serving the Woodgamia Aboriginal Community or connecting the Community to the town centre.

Benefit: Improving access to and from the Woodgamia Aboriginal Community was raised through stakeholder and community consultation as important for promoting social inclusion and equity, as well as achieving positive public health outcomes by encouraging people to walk and ride. Completing this gap in the local path network will enable those living within the community to access the town centre safely and conveniently.

6.2.5 Non-hierarchy specific actions (all LGAs)

Ref. **Project name**

GAS1 Facilitating long-distance bike riding opportunities by advocating for improved road cycling safety | Timeframe: Short-term to ongoing

Action: LGAs to advocate for and work with MRWA, and other relevant stakeholders, to undertake a feasibility study to identify opportunities for providing safe road cycling environments along State-owned roads in the region. This includes opportunities to deliver safety improvement for people on bikes as part of planned road projects in the region. Key locations identified through community and stakeholder consultation include:

- Facilitating road cycling opportunities between Denham, Monkey Mia, Ocean Park Aquarium and Eagle Bluff;
- Facilitating road cycling opportunities around the Exmouth Cape; and
- Facilitating long-distance road cycling opportunities to Coral Bay, between Carnarvon and Exmouth.
- Measures may include installing signage and line marking to enhance driver awareness and promote sharing of the road space, as well as providing mid-trip facilities such as shelter/rest points. In high-risk locations there may be a need for road widening to provide space for riders.

Need: There is some existing demand for bike riding along these routes, although minimal. All of the roads facilitating access to these locations are well frequented by high volumes of vehicles, including heavy vehicles, travelling at high speeds, particularly during peak holiday periods. Riders and drivers are required to share the road space, however there is minimal to no infrastructure in place to alert drivers to the presence of people on bikes.

Benefit: A desire to see improved connectivity to the above locations was identified through community and stakeholder consultation. Creating a safer road cycling environment has the potential to attract more riders, both locals and visitors, resulting in positive public health outcomes, and supporting the creation of new cycle tourism industries, delivering positive outcomes for the region's local economy.

GAS2 Improving legibility of the riding network through wayfinding | Timeframe: Ongoing

Action: Develop a town-wide wayfinding strategy.

Need: While there is existing wayfinding signage throughout the towns, a wholesale audit will enable each LGA to identify gaps and deliver a wayfinding system that is legible, with consistency in signage style and form.

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.

GAS3 Providing public bicycle parking | Timeframe: Ongoing

Action: Provide, and/or work with business owners/service providers, to install public bicycle parking in the town centres and other local centres and facilities.

Need: Limited public bicycle parking was identified as an issue through community consultation.

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 region.

Non-hierarchy specific actions (all LGAs) continued

Ref. Project name

GAS4 Supporting the provision of end-of-trip facilities | Timeframe: Short-term

Action: Each LGA to review Local Planning Policies to include appropriate planning requirements for new development or redevelopment to include visitor and employee bicycle end-of-trip facilities suitable for the type and scale of development. These would include secure bicycle parking, lockers, showers and change rooms.

Need: There is a need to review the currency of bicycle end-of-trip facilities provision in the Shire's Local Planning Policies to attract more people to walk and ride to workplaces.

Benefit: End-of-trip facilities are critical in supporting active travel to workplaces for employees.

GAS5 Increasing mobility and access for key user groups in the region | Timeframe: Ongoing

Action: Investigate opportunities to partner with industry, non-for profit or other organisations to support increased mobility and access options for disadvantage communities, temporary working populations and/or visitors to the region.

Need: Limited access to bicycles (and other associated elements such as spare parts and servicing) in the region was identified through community and stakeholder consultation as a barrier to increasing riding uptake in the region, posing challenges for the specific user groups identified above.

Benefit: Increasing access options supports social equity within the region, enabling people to connect to places, and has the potential to support new businesses within the region and increase spending in the region, contributing to the region's local economy.

GAS6 Delivering universal accessibility across the region's path network | Timeframe: Ongoing

Action: Upgrade existing pathway networks and ensure future pathways are delivered in accordance with universal accessibility standards.

Need: Sections of the existing pathway network in the region are non-compliant with universal accessibility standards.

Benefit: Delivers safe access across the region for people of all ages and abilities using the path network.

GAS7 Engaging with Traditional Owners as part of the region's bicycle network development Timeframe: Ongoing

Action: Identify opportunities to engage with the relevant Traditional Owners of each area as part of the development of the region's bike riding. This includes determining specific sites of cultural and heritage significance to provide appropriate levels of bike riding connectivity to, as well as opportunities to embed cultural design elements as part of the planning and design process for nee bike riding projects.

6.3 Social infrastructure and capacity building activities (all LGAs)

Ref.	Project name	
GAS8	Supporting recreational riding and cycling tourism 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 and support cycling tourism in the region. This may include investigating the potential for mountain biking or gravel trails and identifying locations for additional pump tracks and other such facilities in the region. Need: A desire to increase recreational riding opportunities and grow cycling tourism in the Gascoyne region has been identified through stakeholder and community consultation. Benefit: Increasing the recreational riding offering and promoting cycling tourism in the Gascoyne 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.	
GAS9	Your Move Program promotion and participation Timeframe: Ongoing	
	Action: Work in partnership with the DoT to:	
	Collaborate with schools to increase participation in the Your Move schools program and promote the Connecting Schools grant program.	
	Run Shire-wide Your Move community program, targeting households and workplaces.	
	 Participate in the Your Move local government program and continue delivering community events and activities, such as during Bike Month. 	
	Need: Stakeholder consultation identified a desire to increase active travel in and around the region. There are currently no school or workplaces in the Gascoyne region, other than the Gascoyne Junction Community School, subscribed to DoT's Your Move program to promote active transport.	
	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.	
GAS10	Developing partnerships with Aboriginal health organisations in the Gascoyne region Timeframe: Short-term to ongoing	
	Action : The DoT and LGAs to engage with Aboriginal health organisations in the region to identify opportunities for promoting and embedding bike riding activities as part of existing community health programs. Potential organisations were identified during consultation with the Yinggarda Aboriginal Corporation board members including, the Geraldton Regional Aboriginal Medical Services (GRAMS) and the Western Australian Centre for Rural Health (WACRH), with branches located in Carnarvon.	
	Need and Benefit: Consultation with the Yinggarda Aboriginal Corporation board members identified an opportunity for bike riding to support positive health outcomes by encouraging physical activity, and promote equitable access options amongst Aboriginal communities in the region.	

Social infrastructure and capacity building activities (all LGAs) continued

Ref. **Project Name**

GAS11 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:

- Using the Shire'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.
- Organising activities and events, such as hosting bicycle skills workshops and participating in Bike Month.
- Delivering initiatives to increase road user awareness, including working with industry to promote driver awareness of bike riding and safe behaviours.
- Targeting activation events to raise community awareness of new and upgraded bike riding routes.

Need: The importance of creating a culture of riding in the Gascoyne 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.

Benefit: There is significant potential to increase the number of people riding in and around the Gascoyne region 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.

GAS12 Bicycle network monitoring and evaluation | Timeframe: Ongoing

Action: Implement measures to collect data and capture riding demand within the region, in order 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.

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.

Benefit: LGAs 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

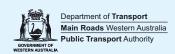
Progress on the priority actions identified in Section 5 of this strategy will be reported to the DoT on an annual basis by local government.

The Gascoyne 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.



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**

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.

2. **SECONDARY ROUTE**

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.

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.

3. **LOCAL ROUTE**

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

An all ages and abilities design philosophy is about creating places and facilities that are safe, comfortable and convenient for as many

By planning for and designing infrastructure that caters for the youngest and most vulnerable users, we create a walking and bike riding

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.

All routes can take a number of different forms and are designed to suit the environment in which they are located.

These forms include:

- · Bicycle only, shared and/or separated paths;
- Protected bicycle lanes (uni or bi-directional, depending on the environment); and

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)

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

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.

TRANSPORT TRAIL

They often support recreational and tourism trips between towns and regions.

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.

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.

These routes support bike riders undertaking challenging longer distance rides by raising awareness and encouraging safe behaviour by all road users.

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.

This is achieved through advisory signage, warning technology and other road safety initiatives.

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 Gascoyne region, in partnership with the local government authorities (LGAs) in the region, which includes the shires of Carnarvon, Exmouth, Shark Bay and Upper Gascoyne. The region is located in the north-west of WA and covers an area of over 137,000 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 Gascoyne 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 were residents (90%), with some responses received from two regular visitors to the region.

B.1.2 Approach

With support from the shires, engagement across the region ran from October 2022 to April 2023.

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

- Carnarvon Shopping Centre 19 October 2022 (15:00pm - 17:00pm)
- Exmouth Ross Street Mall 22 October 2022 (10:00am - 12:00pm)

Community comments were captured from a total of 17 people (7 in Carnarvon and 10 in Exmouth) at the community drop-in sessions as well as capturing comments from community members around town during the site visits.

Online engagement was via the Department of Transport's (DoT) online engagement platform 'My Say Transport' (My Say). The platform page received 155 visits between 6 October 2022 and 2 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. 20 people responded to the online survey.
- Interactive map: This allowed respondents to add comments which were linked to geographical locations. Respondents selfcategorised their comments as 'Issues/pain points,' 'Strengths,' or 'Ideas.' 15 responses were received from one unique respondent.

Information was made available on the website including Frequently Asked Questions covering:

- What is the Gascoyne 2050 Strategy?
- Who is developing the Strategy?
- Why is the Strategy needed?
- Are similar strategies being developed in other regions?
- Where to find more information on the project.

The website also featured a map showing long-term cycling strategies under development in WA, and an information sheet on the WA Cycling Network Hierarchy, which will be used to classify the network.

Hardcopies of project information and surveys were made available on request, however, noting that no hardcopy responses were received.

In addition to the above, a community engagement forum was held online 27 April 2023, 5.30pm, to present on work progressed to date. This included presentation of the refine themes and opportunities for bike riding in the region and on network mapping (the proposed long-term cycle network) for feedback.

B.2 Community comment summary

B.2.1 Carnarvon Community Engagement

Carnarvon Shopping Centre and community members asked for comment around town during site visit. 19 October 2022, 3.00pm to 5.00pm (community drop-in session). Seven community members engaged.

#	Details	Key points raised	
1	Caravan family (asked for comment)	 Just passing through Carnarvon on 6-month round Australia trip with family of primary school kids. They decided not to stay in Carnarvon as there is 'nothing to do' for the kids. Had bicycles but was not aware of any cycling opportunities in Carnarvon. Said that if there was a cycle route with interesting things to see and do they probably would have stayed in Carnarvon. 	
2	Local sports shop manager (approached for comment)	 Carnarvon Sports stocks new bicycles, spares and accessories, and also services bicycles. Most kids in Carnarvon have a bicycle, but there is so much bike theft they tend not to use them. Something needs to be done to reduce bike theft and vandalism. Local perception that the move of the school out of town to the new site on Gascoyne Road made kids unwilling to cycle to school – seen as too far. 	
3	Hospital admin staffer (approached for comment)	 Hospital previously got bicycles to start a community health project, but that never got implemented and now the bikes are in a storeroom. Hospital looking at hiring bikes to short-term FIFO nursing staff to give easy way to get around town. Logistics, insurance and legal issues still to be worked out – will be talking to Geraldton Hospital team who have a similar program. Feels the cycle network is okay but there is a need for better separation from traffic. 	
4	Cycled to shops	 Avid cyclist who rides all over Carnarvon and does long overnight touring rides to Coral Bay and Miaboolya Beach – regular international cycle tourist to Spain. Great potential for great rides in Carnarvon: Would be good to connect Heritage Tramway Walk Trail (stabilised gravel path) to Levee-top trail (stabilised gravel path) along Gascoyne River to Chinaman's Pools and to Cultural Centre; and Great informal mountain biking trails on Old Nasa Carnarvon Tracking Station property – would be great to create formal trails. 	

#	Details	Key points raised	
5	Family with child in pram (walked to shops)	 There are great paths, but missing links: Great shared through Brockman Park but no path on Meiklejohn Crescent and Granberry Drive to link to link to community on David Brand Drive. Levee Path (stabilised gravel path) is great and very popular for locals to get to Chinaman's Pools, but it is not well connected to town. 'The Village' off Boor Street needs a more direct walk and cycle connection to town. Currently use track to Cleveland Street and around top of airport land as shortcut to town – pathway along Robinson Street is too indirect. 	
6	Shopper	 78 year old who no longer rides a bicycle because it is too dangerous – especially traffic. Need to provide cycle route separate from traffic. Thinks Heritage Tramway Walk Trail (stabilised gravel path) is too far and too hot to walk – would be better to cycle. Would be great to have a tourist cycle trail: Heritage Tramway – Cultural Centre – The Fascine. 	
7	Cycled to shops	 Bought electric bike three months ago and has not used her car since then. Parked bike in the shopping centre as she is concerned about bike theft and vandalism. Too much glass and gravel on the paths – need to be swept regularly. 	

B.2.2 Exmouth Community Engagement

Exmouth Ross Street Mall, 22 October 2022, 10:00am to 12:00pm. 10 community members engaged.

#	Details	Key points raised	
1	Local shopper	 Gravel path from Truscott Street to beach and behind dunes to Town Beach is not maintained and is now unusable. Would be great to get a proper cycle path along Murat Road north of Maidstone Corner as the current dirt path is too rough to use. 	
2	Local shopper	 Paths are great but they have too much sand and gravel on them after rains – need to be swept. Track behind dunes from Town Beach to Truscott Street needs maintenance to make usable. Track around back of town and beachfront trail was meant as a recreation and tourist loop trail but it has fallen into disrepair and there is no information for visitors. Needs to be fixed up. 	
3	Local shopper	 The cycle path to the base is very popular, but the creek crossing has been washed away – needs a culvert over the creek. Would be great to extend the cycle path to Bundegi Beach (9km). 	

#	Details	Key points raised	
4	Returned resident after 30 years away	In 1990s it was popular to cycle on-road to beaches along Yardie Creek Road. Lots of traffic makes this too dangerous now.	
		Would like cycle path extended from base to Bundegi Beach (9km).	
5	Mobility scooter user	 Over 90 years old and confined to mobility scooter. Uses shared paths and these are mostly good, but missing kerb ramps on many routes – almost fell out his scooter twice trying to cross road at Kennedy Street and Ningaloo Street as it is missing a kerb ramp. 	
6	Local shopper	Would like cycle path extended from base to Bundegi Beach (9km).	
7	Local shopper	 Shared paths are okay, but they are dangerous at road crossings and the kerb ramps are bad. School kids need better routes to get to school as the shared paths are poor and often have pedestrians. Kids often move between shared path and road without checking for cars. High use cycle routes that could have on-road protected cycle lanes would be Nimitz Street, Krait Street, Learmonth Street, Thew Street and Carpenter Street. Need safer crossing of Kennedy Street at Bonefish Street as this is a popular walking and cycle route to school. Need more and safer crossings of Murat Road. 	
8	Regular visitor	A regular road sports cyclist.Wouldn't bring bike to Exmouth as he comes to fish, not ride a bike.	
9	Mother with junior primary kids	 Live in Preston Street south of Marina. Several families with kids who would like kids to be able to ride bikes to school and town – but not willing to let them use cycle lanes on Murat Road. Would like shared path extended south to Preston Street. 	
10	Local shopper	 Cycle to work on-road early morning as paths are too bumpy and uncomfortable to use. Would like cycle path extended from base to Bundegi Beach (9km). Caravanners all have bikes but there is no information on the cycle routes – need good tourist information and signage. 	

B.2.3 Online Community engagement key discussion points

Community engagement forum attendee 1

Based in Exmouth, member of the Cape Range Riders.

- LTCN shows a good level of coverage, capturing where people are known to ride.
- · Poor lighting was raised along Reid Street, near the brewery.
- From the perspective of the MTB club, it would be good to see tie-ins to potential trail heads as part of the Strategy.

• Noted that the Shire of Exmouth is currently working with Common Ground to investigate trail routes across the cape - suggested potential to collaborate on the two projects.

Community engagement forum attendee 2

Based in Carnarvon, background in elite cycling/ competitive sports cycling, local business owner (Ningaloo Surfaris and café by the waterfront).

- In the process of setting up a bike hire business, which will run out of the café.
- Existing pathways are substandard.
- Directional signage/wayfinding is poor.
- Potential scope to develop mountain bike trails out of Carnarvon.

B.2.4 Interactive Map results – focus is on Gascoyne Junction

Opportunity	Location	Comment
Deliver a safe and high-quality bike riding network serving schools	Wahroonga – Pimbee Road, Gascoyne Junction Western Australia 6705, Australia	There is no Footpath/cycle path to connect the community and it's kids to town and its facilities. Kids often ride on the main road to access the Gascoyne Junction Remote Community School.
Improve rideability to/ from and within town centres	98 Pimbee Road, Gascoyne Junction Western Australia 6705, Australia	There is no footpath/cycle path linking the Gascoyne Junction Aerodrome to the community. Planes/helicopters will often land and are forced to walk on the main road to reach the town.
Improve rideability to/ from and within town centres	23 Hatch Street, Gascoyne Junction Western Australia 6705, Australia	Hatch street currently has no footpath/cycle path. The installation of one would encourage community members to ride to work.
Improve rideability to/ from and within town centres	Pimbee Road, Gascoyne Junction Western Australia 6705, Australia	Pimbee Road (officially known as Smith Street) currently has no footpath/cycle path. The installation of one would encourage community members to ride to work and tourists from the Junction Pub and Tourist Park to utilise the facilities new Two Rivers memorial park.
Provide safe and convenient access to recreational facilities	65 Killili Road, Gascoyne Junction Western Australia 6705, Australia	Killilli Road – currently has no footpath/cycle path. The installation of one would encourage community members access the Water hole and BBQ spot. It would also take current walkers/cyclists off the main road which is often shared with LVs and HVs.
Provide safe and convenient access to recreational facilities	Newton Drive, Gascoyne River Western Australia 6705, Australia	Popular community BBQ spot by the permanent water hole. Shade structure and rope swing.

Opportunity	Location	Comment
Provide safe and convenient access to recreational facilities	72 Killili Road, Gascoyne Junction Western Australia 6705, Australia	Popular community recreation spot. Semi- permanent water hole, bench and rope swing.
Deliver a safe and high quality bike riding network serving schools	36 Gregory Street, Gascoyne Junction Western Australia 6705, Australia	Gascoyne Junction Remote Community School
Improve rideability to/ from and within town centres	Pimbee Road, Gascoyne Junction Western Australia 6705, Australia	Gascoyne Junction Aerodrome – used regularly by private aircraft owners, mining chartered flights, mustering companies, RFDS, exploration aircraft, and is treated as the emergency evacuation airstrip.
Improve rideability to/ from and within town centres	2 Gregory Street, Gascoyne Junction Western Australia 6705, Australia	New Tourist stop – This location hosts a bunch of new and old facilities. These include the community amphitheatre for events and concerts, the local war memorial, a playground, a day stop for tourists passing through, toilets, vast grass areas for kids to play, a netball/tennis court, the community hall, and the community evacuation centre.
Improve rideability to/ from and within town centres	Viveash Way, Gascoyne Junction Western Australia 6705, Australia	Junction Pub and Tourist Park – this is the only local business, often used for community functions, meetings. It hosts an array of facilities, including the local swimming pool, kids' playground, an amazing kitchen for meals, an oasis in the desert.
Improve rideability to/ from and within town centres	57 Killili Road, Gascoyne Junction Western Australia 6705, Australia	Killilli Bridge – This bridge was constructed in 2016, it replaced a low level crossing which when the river flowed would cut the community on the North side of the river off from all facilities on the Southern side for weeks on end. This bridge has a viewing/safety platform halfway for cyclists and walkers, should a vehicle try to cross whilst they are on the bridge.
Improve connectivity between communities	26 Scott Street, Gascoyne Junction Western Australia 6705, Australia	Woodgamia Aboriginal Community
Support improved access to affordable bicycles and maintenance services for disadvantaged communities	Pimbee Road, Gascoyne Junction Western Australia 6705, Australia	Community bike rack – a bike rack with donated/second-hand bikes could be in place at the airstrip. A sign would be in place promoting free use and return of the bikes.
Improve rideability to/ from and within town centres	65 Killili Road, Gascoyne Junction Western Australia 6705, Australia	A cracker dust/gravel path would offer access to the water hole/bbq area. This would remove pedestrians and cyclists from sharing a road with LVs and HVs.

B.3 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 established via background review and stakeholder engagement, particularly:

- Enhancing the region's tourism potential through cycling;
- Improving access to education, employment, retail and recreation; and
- Promoting social inclusion and equity to support happy and healthy communities.

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

- Enhancing the region's tourism potential through bike riding;
- Improve bike riding network connectivity to tourism assets:
- Create a recreational route that highlights the region's unique attractions;

- Formalise and improving sports cycling opportunities (road, trail, MTB);
- Provide clear and consistent wayfinding;
- Improving access to education, employment, retail and recreation;
- Improve rideability to/from and within town centres;
- Provide safe and convenient access to recreational facilities:
- Provide supporting infrastructure;
- Deliver a safe and high-quality bike riding network serving schools;
- Promoting social inclusion and equity to support happy and healthy communities;
- Support improved access to affordable bicycles and maintenance services for disadvantaged communities; and
- Improve connectivity between communities.

Responses received have helped to expand opportunities, including expanding the opportunity 'providing supporting infrastructure (secure parking and end-of-trip facilities)' to include all trip facilities, including consideration for mid-trip facilities such as seating and access to water.



Survey respondents raised that connectivity of the existing network is an issue, as well as universal accessibility and network maintenance in some locations (damaged and degraded pathways), helping to shape the infrastructure, social infrastructure and capacity building actions to be developed in the Strategy's Action Plan.

B.4 Literature review

Shire of Exmouth

- Shire of Exmouth Local Planning Strategy 2015-2025
- Shire of Exmouth Local Planning Scheme No. 4 (2019)
- Shire of Exmouth Strategic Community Plan 2020-2030
- Shire of Exmouth Corporate Business Plan 2016-2022
- Shire of Exmouth Townsite Structure Plan (2011)
- Shire of Exmouth Ningaloo Trails Master Plan (2018)
- Exmouth Town Centre and Foreshore Revitalisation (2012)
- Shire of Exmouth Path Network Planning

Shire of Carnaryon

- Shire of Carnarvon Local Planning Strategy (2017)
- Shire of Carnarvon Local Planning Scheme 13 (2019)
- Shire of Carnarvon Strategic Community Plan 2018-2028
- Shire of Carnarvon Corporate Business Plan 2018-2022
- Shire of Carnarvon Corporate Business Plan 2018-2022
- Shire of Carnaryon Reconciliation Action Plan 2022-2023
- Shire of Carnarvon Structure and Management Plans (various)

Shire of Shark Bay

- Shire of Shark Bay Local Planning Strategy (2013)
- · Shire of Shark Bay Local Planning Scheme No. 4 (2018)
- Shire of Shark Bay Strategic Community Plan 2018-2028
- Shire of Shark Bay Corporate Business Plan 2021-2025

- Strategic Resource Plan 2021–2036
- Shire of Exmouth Ningaloo Trails Master Plan (2018)
- Shire of Shark Bay Path Network Planning

Shire of Upper Gascoyne

- Shire of Upper Gascoyne Local Planning Strategy
- Shire of Upper Gascoyne Local Planning Scheme No. 4 (2018)
- Shire of Upper Gascoyne Strategic Community Plan 2016/17-2026/27
- Shire of Upper Gascoyne Corporate Business Plan 2016-2022
- · Shire of Upper Gascoyne Disability Access and Inclusion Plan 2016–2022Literature review -State, Federal and other
- 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
- Gascoyne Outdoor Recreation Strategy 2021–24
- Relevant State Planning Policies
- Gascoyne Development Commission Strategic Plan 2022-2026
- Gascoyne Development Commission Annual Report 2021-2022
- Gascyone Regional Investment Blueprint 2015
- · Gascoyne Regional Planning and Infrastructure Framework
- Gascoyne Coast Sub-Regional Planning Strategy
- Ningaloo Regional Planning Strategy Carnarvon to Exmouth

Endnotes

- 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
- 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
- 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 Aboriginal Culture Gascoyne Development Commission. Available at www.gdc.wa.gov.au
- 15 Journey to work in Australia. Available at abs.gov.au
- 16 Gascoyne Development Commission (2015). Available at gdc.wa.gov.au
- 17 ABS Census Data. Available at abs.gov.au
- 18 Department of Transport, Pilbara 2050 Cycling Strategy (2021). Available at transport.wa.gov.au
- 19 Dill, J., and McNeil, N. (2016). Revisiting the Four Types of Cyclists: Findings from a National Survey. Transportation Research Record, 2587(1), 90-99. Available at scirp.org
- 20 Shire of Exmouth Investment Prospectus (2021). Available at exmouth.wa.gov.au
- 21 Shark Bay Annual Report 2020–2021. Available at sharkbay.wa.gov.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 Discover healthier, more active ways to get around. Available at yourmove.org.au
- 25 Move over cars, bike parking's coming, Bicycle Network (March 2019). Available at bicyclenetwork.com.au
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- 30 Bike Tourism in Queensland Research Report, Department of Transport and Main Roads (2022). Available at tmr.qld.gov.au
- 31 2021 Evaluation of Nga Haerenga Great Rides of New Zealand, Angus & Associates for Nga Haerenga New Zealand Cycle Trails (2022). Available at mbie.govt.nz
- 33 Global Micromobility Index Available at public.ridereport.com
- 34 Gascoyne Development Commission (2015). Available at gdc.wa.gov.au



Contact us

Department of Transport 140 William Street, Perth WA 6000 Telephone: (08) 6551 6000

Website: www.transport.wa.gov.au