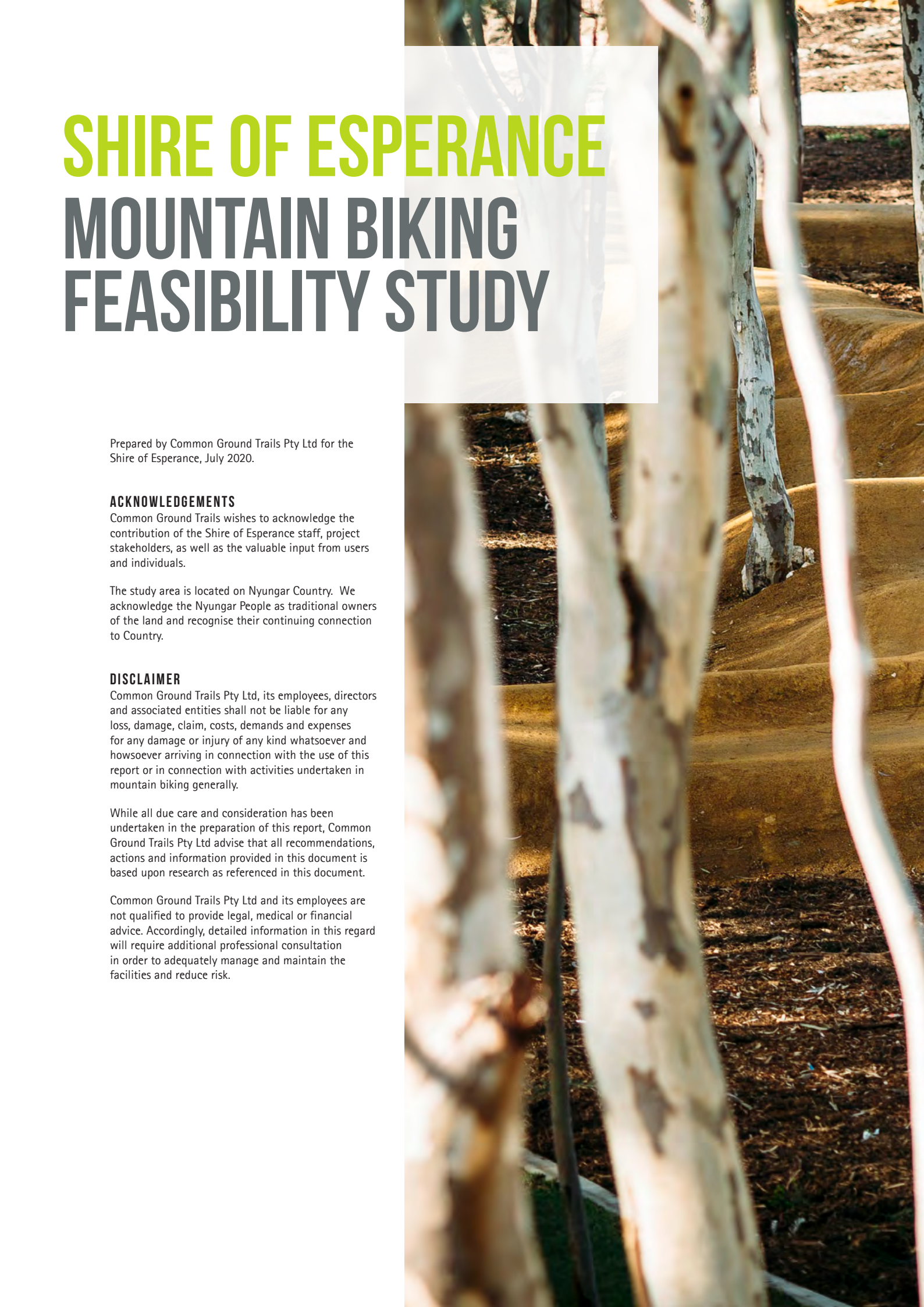


SHIRE OF ESPERANCE MOUNTAIN BIKING FEASIBILITY STUDY

JULY 2020





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Prepared by Common Ground Trails Pty Ltd for the
Shire of Esperance, July 2020.

ACKNOWLEDGEMENTS

Common Ground Trails wishes to acknowledge the contribution of the Shire of Esperance staff, project stakeholders, as well as the valuable input from users and individuals.

The study area is located on Nyungar Country. We acknowledge the Nyungar People as traditional owners of the land and recognise their continuing connection to Country.

DISCLAIMER

Common Ground Trails Pty Ltd, its employees, directors and associated entities shall not be liable for any loss, damage, claim, costs, demands and expenses for any damage or injury of any kind whatsoever and howsoever arriving in connection with the use of this report or in connection with activities undertaken in mountain biking generally.

While all due care and consideration has been undertaken in the preparation of this report, Common Ground Trails Pty Ltd advise that all recommendations, actions and information provided in this document is based upon research as referenced in this document.

Common Ground Trails Pty Ltd and its employees are not qualified to provide legal, medical or financial advice. Accordingly, detailed information in this regard will require additional professional consultation in order to adequately manage and maintain the facilities and reduce risk.



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EXECUTIVE SUMMARY



Almost 20% of the Western Australian population identifies as a bike rider. Recreational cycling is growing in popularity and the development of recreational cycling facilities are becoming more common, not just across Australia, but across the world.

Cycling facilities vary in their purpose, scale, design, material, cost and popularity.

The Shire of Esperance has identified a desire for recreational cycling facilities within the Shire to service the youth population and existing bike riders. Development of facilities within close proximity to the town will allow the resident population to benefit from the physical, mental and social benefits of cycling.

The Shire of Esperance is a vibrant coastal community on the south coast of Western Australia. There are a range of demographics, an extensive youth population and a large influx of seasonal visitors. The Shire has many key attractors, drawing visitors from across the State, interstate and overseas.

The development of sustainable recreational cycling facilities within the Shire of Esperance is in line with the Vision outlined in the current Strategic Community Plan 2017-2027 outlined below. Furthermore, the priority areas identified in this feasibility study are in line with these Strategic Themes and Aspirations.

Vision:

"The Esperance Community is vibrant, welcoming and supportive and values its social connections and natural landscape"

Themes:

Community Connection

Connecting our community to achieve a healthy, inclusive, active and safe place to live.

Built Environment

Maintaining, upgrading and planning for present and future infrastructure to service the community.

Natural Environment

Exploring alternative renewable energy, minimising waste and protecting our natural environment for everyone to enjoy.

Growth & Prosperity

Promoting Esperance as a place to live, work, invest and visit to encourage growth in our region ensuring we have a prosperous future.

Community Leadership

Fostering leadership and accountable decision making.

An online survey was undertaken to gain a clear understanding of desire for recreational cycling facilities within the Shire of Esperance. The survey identified preferred trail type, preferred facility type, preferred locations, and gave an indication of demand for opportunities within the Shire and around the Esperance townsite.

The Survey results were analysed and assessed against areas identified by Shire of Esperance Officers. Each site was assessed for suitability and then priority sites were identified for a development of either community, local, or regional scale. Final recommendations were made based on:

- Accessibility and connectivity
- Existing facilities and infrastructure
- Existing land use
- Land availability
- Land tenure
- Social, economic and environmental values

INTRODUCTION

Esperance has a lack of diverse cycling opportunities to meet the needs of the community; all ages and all abilities. Existing infrastructure has had a lot of valuable volunteer input but is fatigued and could benefit from support for upgrades. Existing works along the Esplanade could see inclusion of excellent cycling skills progression opportunities and there are additional accessible sites that could meet the needs of growing participation in mountain biking and provide exciting cycling opportunities for the Shire of Esperance residents and seasonal visitors.

All identified sites required further planning, consultation and concept design. All mountain bike trails should be developed to meet the specifications outlined with the Western Australian Mountain Bike Management Guidelines and recreational cycling facilities should be designed in line with current and future predicted trends.

BACKGROUND

The Shire of Esperance is a thriving coastal community with active residents and visitors alike. The Shire has a population of over 14,000, with over 10,000 individuals residing within the Esperance townsite. The Shire sees an influx of over 220,000 annual visitors, visiting family and friends, and holiday making in the iconic Western Australian destination.

Cycling as a sport, and cycle tourism are increasing. Cycling is the second most popular sport and recreation activity in Australia after swimming, with 10.8% of the population participating in cycling. Participation levels are even higher in Western Australia with 18.5% of the population riding a bike regularly. Young Western Australians have one of the highest levels of cycling participation in the country. Across the state, 47% of 0–9 year old's and 37% of 10–17 year old's ride a bike at least once in a typical week. Participation is even higher in regional Western Australia, with 63% of 0–9 year old's and 42% of 10–17 year old's riding at least weekly. Around 61% of households in Western Australia have access to at least one working bike, significantly above the national average of 56%.¹

There is currently one sanctioned mountain bike trail network in the Shire of Esperance – 'The Piggery'. Development of unsanctioned trails within the Shire indicates a keen desire for additional riding areas or varying technical difficulty. Mountain biking is one of the world's fastest growing recreational, sport and tourism activities. The recent rapid rise of mountain biking now provides Western Australia with a unique opportunity to grow and evolve into a world class mountain bike destination. The continued growth in the sport has led to a situation where the demand for mountain biking experiences significantly exceeds supply. Unsanctioned trail creation

and usage is an issue and may negatively affect sensitive landscapes and the environment, cause conflict with other land uses and activities, and increase risk and liability for landowners and land managers.

The Shire of Esperance spans over 42,000 square kilometres, and comprises of 6 National Parks, 63 Nature Reserves and 38 Shire managed Public Open Spaces. This study will identify the level of demand for mountain biking facilities, areas that are deemed suitable for sustainable development and feasible projects which are in line with the Strategic Community Plan and the Esperance community's wishes and expectations.

The development of mountain bike trails within the Shire should ideally connect into the cycle network identified in the Esperance 2050 Cycling Strategy. Cycling can facilitate new industries (such as cycle-tourism) and more generally, it enables people to live happier, healthier and more active lives.

PURPOSE

The purpose of the Shire of Esperance Mountain Bike Site Feasibility study is to identify areas within close proximity to the Esperance townsite that would be suitable for sustainable mountain bike facility development and are in line with the Vision and Themes outlined in the Shire of Esperance Strategic Community Plan 2017–2027 which are outlined below.

Vision:

The Esperance Community is vibrant, welcoming and supportive and values its social connections and natural landscape.

Themes:

Community Connection (C)

Connecting our community to achieve a healthy, inclusive, active and safe place to live.

Built Environment (B)

Maintaining, upgrading and planning for present and future infrastructure to service the community.

Natural Environment (N)

Exploring alternative renewable energy, minimising waste and protecting our natural environment for everyone to enjoy.

Growth & Prosperity (G)

Promoting Esperance as a place to live, work, invest and visit to encourage growth in our region ensuring we have a prosperous future.

Community Leadership (L)

Fostering leadership and accountable decision making



Figure 1. Esperance location

Table 1. Applicable aspirations outlined in the Shire of Esperance Strategic Community Plan

THEME	OUTCOME STRATEGY	STRATEGY	APPLICABLE ASPIRATIONS
C1	A community where everyone feels welcome, involved and connected to each other	Create a social environment that is accessible and inclusive for all ages and abilities	Provide accessible community facilities Contribute a range of services to cater for the diverse needs of our community Partner with a range of stakeholders to build self-sustainable community groups Encourage a range of programs and services that promote community safety, health and well-being
C3	A variety of accessible sport and recreation opportunities and activities	Develop and promote active and passive sport and recreation opportunities for all ages and abilities	Advocate and partner with State agencies to improve services available in Esperance Provide quality sporting grounds and open spaces Ensure recreation opportunities meet changing needs
C5	Active and growing volunteers and community groups that facilitate and support activities, bringing the community together	Encourage and support volunteers and community groups	Continue to provide support through Esperance Volunteer Resource Centre Support training opportunities for all types of volunteers Develop and support a Youth Advisory Council
C6	A resilient and proactive youth community	Increase participation and engagement of youth in the community	
B1	Services, infrastructure and public places that meet and adapt to community needs and changing priorities	Ensure services, infrastructure and public places are aligned to community needs now and, in the future	Provide facilities that are utilised and highly regarded by our community Maintain our network of parks, open spaces and natural features
B2	Active, attractive and affordable town which the community is proud of	Create a vibrant, modern and safe built environment that reflects the community's identity	
B5	Sustainable, high quality assets which meet the needs of the community	Maintain the Shire's robust asset management practices and maintenance programs	Continuously review and update our asset management plan Scheduled asset maintenance program
B6	New developments enhance the existing built environment	Facilitate and guide high quality, compliant and efficient building and development across the Shire	Encourage innovation and support new ideas
N1	A community that values and protects our natural environment while recognising Esperance's diverse environment includes the coast, Recherche Archipelago, Wetlands and the Greater Western Woodlands	Develop community awareness of environmental opportunities, challenges and impacts	Develop a hierarchy of reserves, identifying zoning and uses Partner with groups on rehabilitation projects and research possibilities Identify and honour culturally significant areas
N2	A community that works together as custodians of a pristine environment	Maintain and improve condition of natural assets and reserves sustainably, taking into consideration recreational, environmental, cultural and economic values	
G1	Esperance is seen as destination of choice to live, work, invest and visit	Leverage our environment, built, cultural and social assets in the promotion of Esperance	Develop and promote tourism investment Support initiatives that promote working together and assist local business
G3	Esperance is a vibrant and welcoming tourism town	Promote awareness in Esperance on the value of tourism	
L5	Work together to enhance trust, participation and community pride	Actively engage and communicate with the community to ensure informed decision-making	Maximise opportunities for the community to be involved in key decisions regarding Esperance's future Seek information and strengthen relationships with representative service and community groups Highlight how community involvement has been utilised in decision making

PROJECT OBJECTIVES

The objectives of this feasibility study include:

- Identify mountain bike facility types and current trends in design and management
- Identify current and anticipated user trends in mountain biking
- Identify community demand for mountain bike facilities in the Shire of Esperance
- Assess areas and sites within the Esperance landscape against the Western Australian Mountain Bike Guidelines, to inform the selection of potential sites, ensuring recommendations are both in line with the guidelines, and current and future community desire and needs
- Identify planning and legislative approval processes required to enable development of identified facilities
- Determine lifecycle costs – capital, operational and replacement – of identified facilities
- Identify funding opportunities (internal and external)
- Propose actions to ensure facility designs meet the needs of local residents, engender buy-in, stewardship and expected participation rates

APPROACH

To meet the project objectives the following approach has been employed:

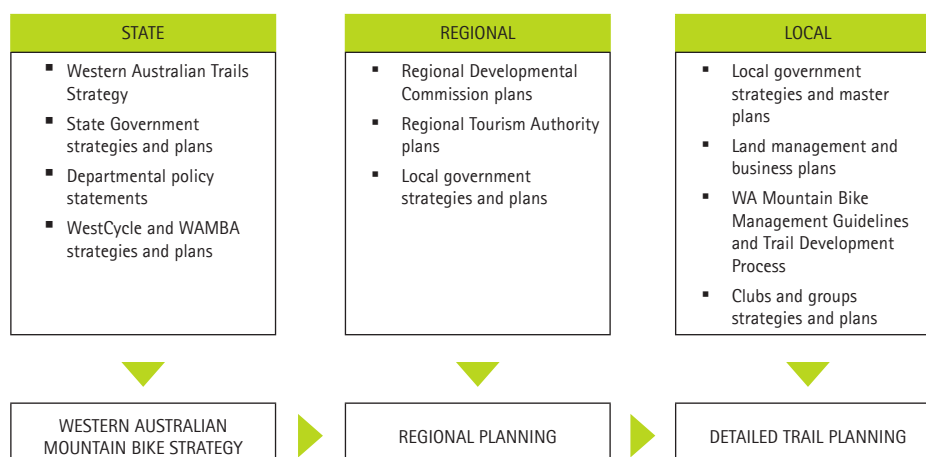
- Developing an understanding of who are the local community and what facilities do they currently have access to? Establish local community context including demographics, existing facilities, gaps in provisions and identify opportunities for facilities which can integrate into existing services and infrastructure.
- Establish what is happening elsewhere. Facility trends are evolving, therefore consideration of successes and failures of facilities in similar communities regionally and nationally is wise.
- Understanding what the local community want. Consultation is critical for success. A community survey and stakeholder liaison assisted in determining what is required to meet current demand and expectations.
- Where should the facilities be located? The online survey component included an interactive mapping tool, which allowed survey responders to place a pin on a map to identify their preferred location for a particular facility type. The pins were rationalised and areas feasible and suitable for sustainable development were visited for on ground inspections and form the recommendations in this document.
- Can the Shire of Esperance support the development in the short and long term? The project lifespan costs are considered to ensure there is a clear picture of initial and ongoing financial and human resourcing commitments. The useful life of facilities is also considered, which can build a business case determining return on investment.

WA MOUNTAIN BIKE PLANNING DOCUMENTATION - HEIRARCHY

There is a suite of documentation developed to guide strategic mountain bike facility development across Western Australian.

The intention of this document is to identify suitable sites to meet the needs of the local community and visitors to the Shire of Esperance. It is in line with recommendations within the Western Australian Mountain Bike Strategy and is intended to guide the Shire of Esperance in selecting sites for sustainable mountain bike facility development.

A suite of sites has been recommended to cover the recreation opportunity spectrum, creating experiences for beginners through to advanced riders. Once priority projects have been identified further local planning will be required, including land management and business plans, and clubs and groups strategies. Trail development should follow the WA Mountain Bike Management Guidelines and the trail development process outlined within the Guidelines and the Trail Development Series. This is outlined on page 46.



CONTEXT



THE SHIRE OF ESPERANCE OVERVIEW

The Shire of Esperance is a vibrant coastal community in the Great Southern region of Western Australia with a population of over 14,200.² The Shire spans over 42,000 square kilometres, with over 430 kilometres of coastline and over 5,900 square kilometres of National Parks and Reserves. There are 6 national parks, and 63 Nature Reserves.³

The town of Esperance is 700 kilometres east-southeast of Perth, the States capital, and almost 200km from its closest population centres of Ravensthorpe, to the west, and Norseman, to the north. There are several small townsites scattered throughout the Shire but most of the population is concentrated around the Esperance townsite (10,421). The Shire is divided into 32 localities, 8 of which are considered to be the Esperance townsite:

- Bandy Creek
- Castletown
- Chadwick
- Nulsen
- Pink Lake
- Sinclair
- West Beach, and
- Windabout

Esperance Airport is located 22 kilometres north of the townsite on the Coolgardie–Esperance Highway. The airport operates flights daily between Esperance and Perth. Trans Perth operates buses to Esperance from Perth via Wagin and Ravensthorpe, and offers connecting services from Kalgoorlie and Albany.

The Shire has a mixed economy with the main employing industries being agriculture, forestry and fishing. In 2018 there were 1,750 businesses operating in the Shire, and an employment rate of 95.5%.²

There are 35 sports clubs outlined in the Shire of Esperance Sports Facilities and Services Plan, with recognised growing participation in many, in line with increased participation in sports across Australian.

DEMOGRAPHIC ANALYSIS

The current residential population of the Shire of Esperance is just over 14,200 . There is an equal representation of males and females, and the median age of Shire residents is 40 years old. The most populous age group is 50–54 years, representing 7.6% of the population, followed by 5–9, 10–14, 15–19, and 45–49 year old's, each representing 7.1% of the Shire of Esperance Population. It is noted that there is a large percentage of youth, with 32.7% of the Shires population under 24 in 2016.²

Table 2. Shire of Esperance age breakdown

Age Group	Percentage of Population	Age Group	Percentage of Population
0–4	6.4	45–49	7.1
5–9	7.1	50–54	7.6
10–14	7.1	55–59	6.8
15–19	7.1	60–64	5.7
20–24	5.0	65–69	5.3
25–29	5.8	70–74	4.2
30–34	5.7	75–79	3.1
35–39	5.6	80–84	1.8
40–44	6.7	85+	1.8

TOURISM & VISITORS

Esperance was nominated for the 2019 GWN7 Top Tourism Town Award and claimed the Bronze Award behind Exmouth and south coast neighbours Albany. The Shire sees considerable seasonal fluctuations of visitor numbers, with annual visitor numbers calculated at 223,400 between 2016–2018. Almost 16 times the population of the Shire. The average length of stay is 4 days and 63% of domestic visitors, and 90% of international visitors are holiday makers. The most popular age group to visit the Shire of Esperance is 20–34 years old, 32% of domestic visitors and a huge 50% of international visitors fall into this age group.⁵

Research between 2017–2019 discovered 7% of Australians had a cycle holiday experience in WA. In addition, 26% of Western Australians undertook a daytrip in WA involving cycling.⁶ Cycling facilities and dedicated mountain bike trails in the Shire of Esperance will further enhance Western Australia's cycle tourism offerings.

CURRENT YOUTH FACILITY PROVISION

SCHOOLS

There are currently five primary schools (including two non-government), two secondary schools (including one non-government), and one tertiary campus South Regional TAFE, located in the town of Esperance. Two additional primary school sites have been identified, with a site reserved in West Beach and a site to be reserved in the Flinders Estate in Bandy Creek. There are also primary schools located within Cascade, Salmon Gums, Scaddan, Gibson and Cundinup, which are towns within the Shire.

COMMUNITY & LEISURE CENTRES

There are a range of community facilities available within the Shire of Esperance including:

- Bay of Isle Aquatic Centre
- Esperance Civic Centre
- Esperance Museum
- Esperance Scout Hall
- Indoor Sports Stadium
- Kindergartens and pre-schools
- Public Library

PUBLIC OPEN SPACES

There is 67.4ha of Public Open Space in the Shire of Esperance, comprising of 38 individually identified areas, including 36 developed playgrounds. These areas have been classified as Regional, District and Neighbourhood facilities using the current Western Australian standards and Department of Local Government, Sport and Cultural Industries (Sport and Recreation) framework of identification.⁷

CURRENT MOUNTAIN BIKING FACILITIES

There are very little designated recreational cycling facilities within the Esperance townsite. There is a skate park at The Esplanade, which is also utilised by bike riders and scooters. A compact learn to ride track is located in Adventureland Park, 400 metres south of the skate park facility. Additionally, there is an unused 250 metre velodrome circuit located at Skroly Park, 3 kilometres south west of the townsite.

There is a designated cross-country mountain bike facility, called The Piggery, located 13 kilometres north of town, off of Myrup Road. The Piggery is located on a section of crown reserve 35037, with a management order with the Shire of Esperance for the purpose of recreation. The Shire has a license agreement with Esperance Mountain Bike Association (EMBA) to manage and maintain the cross-country mountain bike facility. The facility has been designed, built and maintained by volunteers. The site while degraded, contains intact native bushland and hosts 14.5 kilometres of winding cross country trails, catering for beginners and intermediate riders. There are an array of constructed trail features and a mixture of compacted gravel and sandy trail surfaces. The site is relatively flat and lacks sufficient elevation which is a major constraint in meeting the needs of riders seeking a more challenging mountain biking experience.

There are notable number of unsanctioned mountain biking trails throughout the Shire on crown and private land. The unsanctioned trails provide an experience which is currently not catered for within the sanctioned trail network at The Piggery and existing recreational cycling facilities, notably often containing what would be considered intermediate to advanced trail features.

COMMUNITY REQUESTS

The Shire received a formal letter of request for mountain bike trails within the Dempster Head Reserve in 2015.⁸ Following the receipt of this letter a report was developed which investigated the request and outlined that the Shire could not commit to developing a Shire managed asset in this area at that time.

Subsequently the Shire invested in the development of the Dempster Head Management Plan 2018. The Plan identifies that all forms of mountain biking were prohibited by the Shire of Esperance within Dempster Head, identified that the site did not meet the minimum criteria outlined in the Western Australian Mountain Biking Guidelines and for mountain biking

to be deemed as a compatible land use there would be a requirement for significant Shire of Esperance investment and strategic planning to align with other recreation users and values of the site.

RELEVANT DOCUMENT REVIEW

A number of documents were reviewed and referenced during this study, including:

- Shire of Esperance Asset Management Strategy 2015
- Shire of Esperance Coastal Management Plan 2014
- Shire of Esperance Community Waste Strategy 2018-2023
- Shire of Esperance Corporate Business Plan 2019/2020-2022/2023
- Shire of Esperance Dempster Head Management Plan 2018
- Shire of Esperance Playgrounds & Public open Space Strategic Plan 2015-2025
- Shire of Esperance Long Term Financial Plan 2019-2029
- Shire of Esperance Strategic Community Plan 2017-2027
- Shire of Esperance Ralph Bower Adventureland Park Implementation Plan 2018
- Esperance Coastal Hazard Adaptation Strategy, BMT JFA Consultants, 2016
- Esperance Trails Masterplan 2007-2017, AWI environmental, October 2007
- Esperance 2050 Cycling Strategy, Department of Transport
- Western Australian Mountain Bike Strategy 2015-2020
- Western Australian Strategic Trails Blueprint 2017-2021

SUMMARY

The Shire of Esperance has a large number of youth and families that would benefit from recreational cycle facilities. There are numerous sites that could support the sustainable development of facilities within the townsite. Development of such facilities would complement existing recreational nodes, such as the skate park on the Esplanade and the Learn to Ride track at Adventure Land park.

There is an appetite for mountain biking in the region, as identified in the public survey, and additionally supported by the development of unsanctioned trails within the Shire. The existence of unsanctioned mountain bike trails indicates there is demand for facilities, there is demand for varying experience and there is demand for skills development and progression opportunities.

Currently there is a large gap in provisions for more experienced riders, riders wanting to progress their skill levels and in-town safe recreational cycling opportunities for children and families.

Through review of the above documentation it can be concluded that there has been minimal inclusion of recreational cycling facilities and mountain bike trails in strategic planning to date. The Esperance Trails Masterplan 2007-2017 is aimed at connecting the community via dual use paths and does not address mountain biking specifically. The Esperance 2050 Cycling Strategy outlines "Tourist Trail" routes. These are practical suggestions and will be discussed further later in this document.

The Western Australian Strategic Trails Blueprint 2017-2021 and the Western Australian Mountain Bike Strategy 2015-2020 have a shared strategic direction for increased sustainable trail development across the state, improving trail facilities, interpretations and safety to increase the appeal of trail experiences. Mountain bike trail planning and design within the Shire of Esperance should follow the 8 Steps of Trail Development outlined in Part A of the Trails Development Series, A Guide to the Trail Development Process.⁹ Additionally, mountain bike facilities should meet the specifications outlined with the Western Australian Mountain Bike Management Guidelines.

INDUSTRY REVIEW & CURRENT TRENDS



BENEFITS OF CYCLING FACILITIES

It is widely recognised that participation in activities in the outdoors is beneficial for general wellbeing. There are recognised physical, social and emotional benefits in participation in cycling. It is a fun, cheap (after initial outlay costs) and good for the environment. Once mastered, cycling is an easy activity to participate in and can be as intense a workout, or challenge, as is desired.

Recreational cycling facilities create fun and positive atmospheres within communities. Specifically designed facilities introduce a level of challenge into cycling, allowing children through to adults to develop new skills. All ages and all skill levels can generally learn and progress in the same location, gradually building up challenge and intensity. Very young riders can establish competency within a variety of recreational cycling facilities and can be introduced to road safety and traffic controls signals in a safe artificial environment on Learn to Ride tracks. Suburban recreational cycle facilities such as challenge parks can assist in meeting the needs of those seeking opportunities to develop new skills and can be designed specifically to fit into underutilised public open spaces. These facilities create safe local riding environments and can attract new users to participate in cycling sports.

CURRENT PARTICIPATION TRENDS

Cycling is one of the most popular sport and recreation activities in Australia. In Western Australia, nearly 500,000 people (18.5% of the population) ride a bike regularly, with 85% of these people (425,000) riding for sport or recreation rather than transport.¹⁰

Wheeled sports have recently shown to be growing in popularity over organised sports. Research, undertaken by the Australian Bureau of Statistics, into children's participation in sport and physical recreation found that participation rates for physical recreation activities such as skateboarding, bike riding and roller blading were much higher than organised sports (refer table 3). The research also indicated increasing participation rates for both males and females (refer table 4). Note data relating to skateboarding and roller blading in the years 2009 and 2012 also incorporates scooter riding.¹¹ More recent data is yet to be released, however in the years since this study anecdotally the popularity of wheeled sports has continued to grow.



Table 3. Comparison of organised sport vs wheeled sports 2012.

Males	No ('000)	Participation (%)
Soccer	309.7	21.7
Bike riding	998.8	69.9
Skateboarding or roller blading	857.8	60.0
Females	No ('000)	Participation (%)
Dancing	367.4	27.1
Bike riding	770.6	56.8
Skateboarding or roller blading	640.0	47.2

Table 4. Growth in wheeled sports participation rates across Australia 2009-2012.

Males	No ('000)		Participation (%)	
	2009	2012	2009	2012
Bike riding	992.5	998.8	66.1	69.9
Skateboarding or roller blading	780.4	857.8	55.9	60.0
Females	No ('000)		Participation (%)	
	2009	2012	2009	2012
Bike riding	721.1	770.6	54.4	56.8
Skateboarding or roller blading	562.2	640.0	42.4	47.2

Participation in BMX racing has increased dramatically since the discipline made its Olympic debut at the 2008 Beijing Games and Australia is now the second largest BMX nation in the world. Membership of BMX Sports Western Australia has more than doubled since 2005 (1,156 members in 2005 2,810 members in 2017).¹² BMX club membership in Western Australia has a young demographic, with 72% of riders under 17.¹³ BMX and pump track facilities are widely recognised as a primary gateway into cycling for young people, with participation building skills, physical attributes and tactical knowledge transferrable to other cycling disciplines.

The sport of mountain biking has continued to see sustained and exponential growth both in Australia and overseas. Anecdotal evidence shows a continuing growth in mountain biking in Western Australia. The current market is dominated by dual suspension all-mountain riders, seeking a broad range of experiences from local urban tracks to more adventurous experiences in natural environments.

There is a notable increase in mountain bike tourism. There are those who travel specifically for mountain biking (enthusiasts), and those that mountain bike whilst on their travels (leisure). The Shire of Esperance does not have the terrain to develop a network to encourage enthusiast visitors, but there is certainly an opportunity to capture the leisure market, and additionally provide great recreational experiences for local residents.

The Western Australian Mountain Bike Strategy identified young people as being underrepresented in mountain bike participation. Increasing availability and accessibility of different styles of trail offering different levels of technical difficulty is one of the recommendations aimed at reducing barriers to participation.¹⁴ A spectrum of recreational riding facilities close to town will assist in breaking down participation barriers and make mountain biking more accessible in Esperance.

CURRENT TRENDS IN FACILITY PROVISION

Recreational facilities are trending towards youth precincts and challenge parks. Accessible, multi-faceted and exciting facilities are providing recreational opportunities for participants of all ages. Dedicated facilities for sport and recreation cycling can:

- Provide an environment for recreation, training and events that is not affected by other users or activities
- Help raise the profile of cycling
- Be a home to clubs, organisations and community groups
- Host events using simplified event approvals, logistics and management processes
- Provide enhanced spectator opportunities
- Cater for bike education and skill building

FUTURE TRENDS

It is hard to predict long term trends in facilities, but short-term trends can be hypothesized based on current global developments.

Tasmania is actively producing concept plans for mountain biking facilities across the state, to meet local and visitor demand. These trails vary from wilderness trails, aimed at showcasing the natural environment and creating challenging wilderness cycling experiences, through to city mountain bike parks. The mountain bike parks are focusing on a mixture of XC and downhill trails, designed to meet the increased demand for skills progression and challenging experiences. Downhill trails, that require an uplift service create business opportunities. Bike park concepts are also featuring cafes, bike hire and bike shops, showing there is a demand for facilities where trails are being constructed.

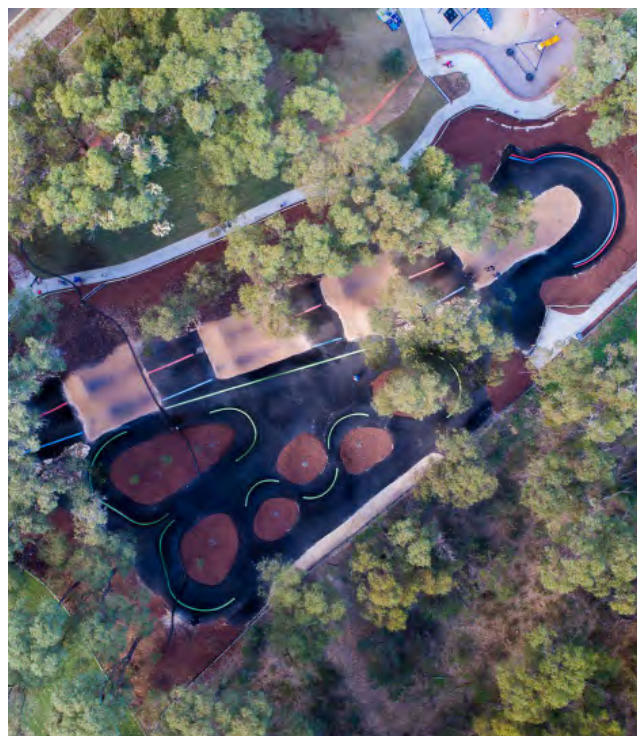
Freestyle BMX is about to debut at the next Olympics, expanding on the current BMX racing, which was introduced in 2008. The subsequent growth in BMX since the introduction of racing in 2008 would indicate that there will likely be an increased uptake in freestyle BMX. A pump track facility is the ideal environment to create freestyle BMX opportunities. The likely increase in freestyle BMX participation should be taken into account when designing future pump tracks.

Freestyle BMX competitions may increase in popularity and facility design should take this into account, allowing for clear spectator viewing and a sizeable track with an abundance of optional lines and transferable features.

CASE STUDY #1

KINGSLEY PUMP AND JUMP, JOONDALUP, WA

Kingley Pump and Jump is a small facility (0.34ha) that contains a pump track, jump lines and a safety track. Open in early 2017 the facility has become a regional attraction with riders travelling large distances to use the facility. The park is often crowded on weeknights and weekends, attracting all ages. This style of facility is easily accessible, attractive to users of all abilities and is an ideal suburban opportunity for skills progression.



CASE STUDY #2

CITY BIKE PARK, ADELAIDE, SA

City Bike Park is located in Adelaide's CBD. Hand built and maintained by a dedicated crew of volunteers, the park is one of the best known dirt jump trail spots in Australia. This facility is a good example of how the riding community can be effectively engaged to activate and enhance public space.

Originally built in 2004, the park has been through a number of phases of redesign, coming from a competition based facility to more of an all-inclusive recreation facility with jumps to suit beginners, intermediate and advanced riders. The park has been designed, built and managed by a dedicated group of volunteers, until 2017 when the Adelaide City Council raised some concerns regarding insurance. Negotiations resulted in the volunteer crew being retained and a third party trail building company engaged for safety assessment/auditing and an operational framework put in place. Adelaide City Council provide ongoing support in the form of tools and supplies.

Management of the jumps also involves watering before use, covering and chaining when not in use and restricting and monitoring use after rainfall events; all tasks which are undertaken by volunteers.

The success of City Bike Park is primarily due to the enthusiasm and dedication of a few individuals within the community and also the support from the City of Adelaide. For further information on the history of City Bike Park refer to www.citydirtcrew.com.

While the level of community interest in a cycle facility in Esperance would suggest that a similar community led jumps line could be feasible, ongoing commitment to maintain is unknown.



City Bike Park.
Image source: www.citydirtcrew.com

CASE STUDY #3

CHAPMAN RIVER, GERALDTON, WA

Spalding Park Mountain Bike Hub is situated on the Chapman River, 6km north of Geraldton CBD. The hub consists of a variety of riding experiences catering for riders of all ages and all abilities.

There is a jump track, with progressive jump lines from green through to black. The jump track connects onto a large figure-eight pump track with multiple lines and transferable features. A skills loop connects straight into the jump and pump track area.

The skills loop has plenty of features to keep repeat visitors entertained. There are log rollers, log rides, rock drops, rock gardens, elevated drops, descending turns and climbing turns with inside technical lines to challenge the more advanced rider.

The tracks and skills loop are complemented by a connecting 12km blue XC trail, allowing riders to take their skills out onto the open trail. The trail is dual direction and technical features along the trail keep riders engaged, and distance provides the exercise challenge that many are seeking. The trail is also utilised by walkers and there is clear trail etiquette signage.

This trail hub is a volunteer maintained all rounder, servicing a large proportion of the local mountain biking community and visitors to Geraldton.



EXISTING CYCLING FACILITIES

The Great Southern has very little existing designated recreational cycling facilities. Apart from The Piggery, the nearest sanctioned mountain bike trails are in Albany, 480km to the west. Mount Clarence has a small network of XC and downhill trails, and the City of Albany are currently working towards a youth precinct, incorporating a pump track, mountain bike jump lines, community managed dirt jump lines, a skate bowl, skate plaza, and picnic and playground amenities.

The Denmark to Nornalup Heritage Rail Trail is a multi-use 54km trail connecting Nornalup to Denmark along an easy coastal trail. This is a family friendly experience and is considered a touring trail, rather than a challenging mountain biking experience.

To find a more challenging experience riders are required to travel outside of the Great Southern to Northcliffe, Margaret River, Dunsborough, Pemberton and further afield to the Perth and Peel region.

Albany is the southern terminus for the Munda Bidi trail, which spans 1,060km to Mundaring, Perth. The Esperance Cycle Plan 2050 identifies an opportunity to continue the Munda Bidi trail from Albany to Esperance, and then extend the touring trail from Esperance townsite out to Cape le Grande National Park. This long term aspiration would be an excellent addition to the already successful trail between Perth and Albany. Planning and financing long distance trails can be a lengthy process, as there are many difficult constraints to navigate. A project of this magnitude will take many years to come to fruition.

Urban recreational cycling facilities are becoming a popular choice for small regional communities. Many small communities are building pump track facilities alongside skate parks and identifying suitable locations for mountain bike trails within their jurisdiction. Popular recently constructed examples include Dwellingup and Boddington. Beverly, York, Exmouth and Tom Price are additional regional Western Australian examples of small communities developing recreational cycling facilities. Regional master planning is a recommendation within the Western Australian Strategic Blueprint. This level of planning identifies region wide mountain biking opportunities. Localised trails masterplans then assist with developing sustainable interlinked trail networks within local communities.

Table 5. Existing cycling facilities

FACILITY	SCALE	SITE SIZE	TYPE	LOCAL GOVERNMENT
MTB TRAILS/ NETWORKS				
Munda Biddi	1060km	N/A	Touring/ XC	Numerous
Albany – Mt. Clarence	0.7km	~ 242Ha	Downhill	City of Albany
Denmark – Nornalup Rail Trail	54km	N/A	Rail Trail	Shire of Denmark
The Piggery	14.5km	~ 87Ha	XC	Shire of Esperance
Northcliffe – Aroundtu-it	5.7km	~ 134Ha	XC	Shire of Manjimup
Pemberton – MTB Park	30km	~ 120Ha	XC, Skills Loop, Dirt Jumps	Shire of Manjimup
REGIONAL RECREATIONAL CYCLING FACILITIES				
Adventureland Park		~ 0.15Ha	Learn to ride	Shire of Esperance
Skröly Park - decomised		~ 1Ha	Velodrome	Shire of Esperance

GAPS IN FACILITY PROVISION IN ESPERANCE

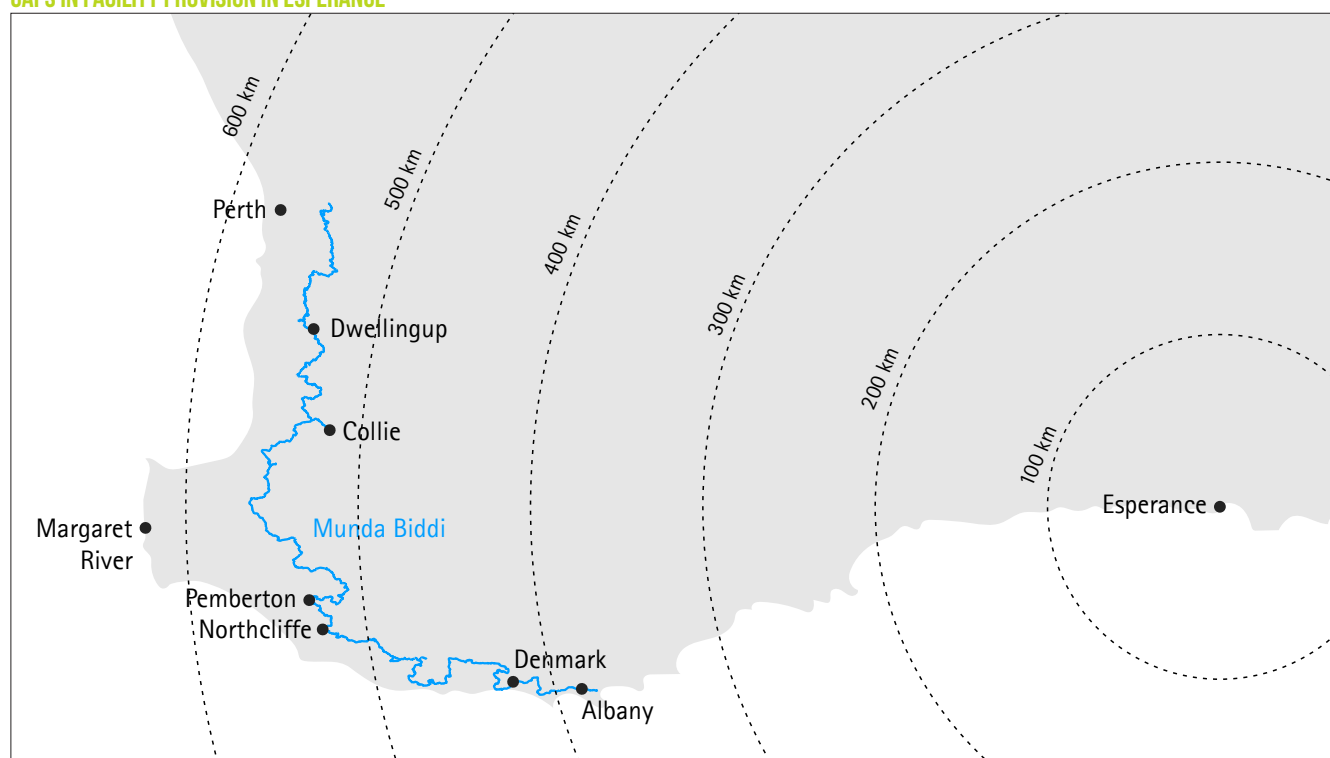


Figure 2. Existing cycle facility locations in relation to Esperance

Table 6. Gap in Shire of Esperance cycle facility provisions

FACILITY	GAP IN PROVISION
XC	The existing facility, The Piggery, is not meeting the needs of the broader mountain biking community and the current trends in XC riding. There is a desire for XC trails that provide progressive challenge and integrate with other elements such as jump tracks, and/ or skills loops. The Piggery site offers opportunity to re-assess the alignment of trails to make better use of the sites elevation range. Alternative sites with larger elevation changes will allow for more advanced features and further skills development.
BMX	There are no facilities for BMX racing in Esperance. The public survey and community consultation did not uncover a large desire for BMX facilities, but riders were known to use the old skate park facility and would benefit greatly from a cycle friendly pump track inclusion in the Esplanade Youth Precinct development.
Downhill	There are un-sanctioned trails displaying a desire for this style of riding in Esperance. The current location of Dempster Head is not appropriate in its current form and only provides a very short steep single descent. An alternative location that can be developed to meet the needs of the broader community is recommended. A location that allows for introductory trails through to advanced downhill riding is advisable.
Pump Track	There are currently no pump track facilities in Esperance. There are considerations within the Esplanade Youth Precinct concept design. Common Ground recommend investing in a facility that will meet the growing demand for recreational cycling facilities and the growing desire to increase bike handling skills. Investing in larger pump tracks with multiple transfer features, optional lines and spectator access will allow for inclusion of all wheeled sports within the facility and keep regular visitors engaged. Options for hosting events in these spaces should also be considered in design.
Jump Track	There is evidence of unsanctioned jumps being constructed in isolated pockets around the townsite. Inclusion of jump track facilities into recreational cycling facilities should be considered. Jump tracks offer skills progression opportunities and exhilarating riding experiences for thrill seekers.
Skills Track	There was evidence within the survey results and community consultation that there is a desire for opportunities to increase skill levels. The new "learn to ride" facility next to Adventure Land Park is a good introductory experience for small children learning how to ride a bike, and learning about riding bikes on public roads, including lane discipline and traffic signals. There is very little beyond this facility that encourages progression in cycling skills.
Touring	Research and recent online surveys show that there are many people utilising the road networks in Esperance for cycling. There are currently no off-road longer distance options for cycling and mountain biking. The upgrades to Pink Lake Rd dual use path would allow for the consideration of a longer riding route, where mountain biking trail options could be incorporated into the design. As outlined in the Esperance 2050 Cycle Strategy, a touring trail connecting Cape Le Grande to town, and the eventual extension of the Munda Biddi from Albany through to Esperance would fill the gaps in longer distance riding opportunities within the Shire.

SUMMARY

Cycle participation is increasing, and demand for more recreational cycle facilities is evident from existing facility use across Western Australia, interstate and globally. There is a desire within the local Esperance community for a range of facilities to accommodate beginners through to advanced riders, with facilities that allow for skills progression and additional challenge.

Esperance has a wide demographic, with many seasonal visitors, that would benefit from a variety of cycling opportunities spread across the townsite and interlinked by cycle paths and dual-use trails.

The Great Southern region lacks opportunities for participation in cycling sports. As identified in the Esperance Cycle Plan 2050, cycling should be incorporated into strategic planning.

Three basic objectives to consider in future planning include, the provision of safe cycling routes, a variety of skills development options and mountain biking trails to meet the ranging abilities of the growing mountain biking population.

CONSULTATION

THE CONSULTATION PROCESS

The consultation process was vital to build an understanding of the demand for cycling facilities within the Shire of Esperance, and to gain an understanding of local preference and expectations. Consultation with Shire of Esperance Officers identified areas deemed suitable for sustainable development and allowed for a correlation to be drawn between the wishes of the general public and the areas deemed suitable by the Shire. The consultation process involved a background review, an online public survey, direct consultation with Shire of Esperance employees and stakeholder engagement discussions with key stakeholders and the local mountain biking community.

COMMUNITY SURVEY

The Shire of Esperance Mountain Bike Survey was an integral component of the consultation process. The survey provided insight into the local community's desires and expectations. It allowed informed assessment of the proposed development sites, in the best interest of the Shire of Esperance and the wishes of the local community.

The following areas were identified within the public survey as possible sites for recreational cycling facility development. Areas that were more than 20 km from the town were deemed as inaccessible for the purpose of this study. Additionally, sites within nature reserves not specified as recreation sites were additionally removed from further investigation.

The online survey identified that there is a varied profile of rider within the Shire of Esperance. There is a broad spectrum of rider ability, varying from adrenalin seekers, who are keen on fast paced downhill riding with multiple advanced level trail features and a high level of technical challenge, through to leisure riders, who ride with their families and are looking for safe accessible experiences. A larger proportion of riders are seeking engaging cross country experiences, for exercise, skills development and generally enjoying mountain biking in a natural environment.

There was a clear willingness to travel for mountain biking experiences. It is assumed from the responses that facilities within the townsites will be well received, but should a suitable location be established that offers an alternative riding experience, people would be willing to travel. Almost one quarter of respondents would be willing to travel up to 100km for a good mountain biking experience. The ideal outcome is that they would not be required to.

The survey received 57 individual responses and 72 comments. There was healthy discussion around conflicting user groups in the Dempster Head area, and 100% support for all other suggested areas within the Shire.

Table 7. Areas identified in the public survey with potential for cycling facility development.

FACILITY TYPE	AREA IDENTIFIED IN SURVEY	DISTANCE TO CBD	UNSUPPORTED VOTES
XC MTB	Piggery MTB Trails	14.7 km	
XC MTB	Piggery MTB Trails – Link to town	14.7 km	
XC MTB	Helms Arboretum	18 km	
XC MTB	Munglinup	107 km	
XC MTB	Outside Stokes National Park (South Coast Hwy)	80 km	
XC MTB	Reserve No. 23043, Keenan Rd	9.8 km	
XC MTB	Whitenoom Hills	55 km	
XC MTB	Woody Lake Nature Reserve	6.7 km	
XC MTB	Dempster Head	2.8 km	1
DOWNHILL MTB	Private Land	14.2 km	
DOWNHILL MTB	Dempster Head	2.8km	4
JUMP TRACK	Wind Farm – Wind Farm Road	18 km	
LEARN TO RIDE TRACK	Skroly Park (around old velodrome and BMX track)	3 km	1
PUMP TRACK	Lalor Park	3.5 km	1
PUMP TRACK	Skroly Park (around old velodrome and BMX track)	3 km	
TOURING	Cape Arid National Park	150 km	

COMMUNITY INTERVIEWS

Due to the Covid-19 outbreak and subsequent social distancing requirements implemented by the Australian Federal Government and Western Australian government, public open workshops were not an option during this project. Alternatively, stakeholders were contacted and offered a telephone or face to face outdoor meeting to discuss mountain biking in the Shire of Esperance and discuss any particular areas of concern.

Meetings and discussions were held with the Esperance Mountain Biking Association, Local Environmental Action Forum, members of the local mountain biking community and Shire of Esperance Officers.

SUMMARY

It can be concluded that survey respondents, and all community members consulted with, are largely in favour of the development of sustainable recreation cycling facilities within the local community. Mountain bike trails are the most sought after development, followed by a pump track facility.

A recurrent theme in the community interviews was the lack of opportunity for progression. The existing facilities are not meeting the needs of the community. The skill level between The Piggery and unsanctioned downhill trails is currently too high. The Piggery is limited in terms of challenge. A review of the current network could identify skills progression opportunities and new features that could meet the demand for more challenging cross country mountain biking experiences. This view was shared by most mountain bike riders that were consulted with.

There was valuable input highlighting areas of concern, largely for environmental and social reasons. These have been taken into consideration when making recommendations.

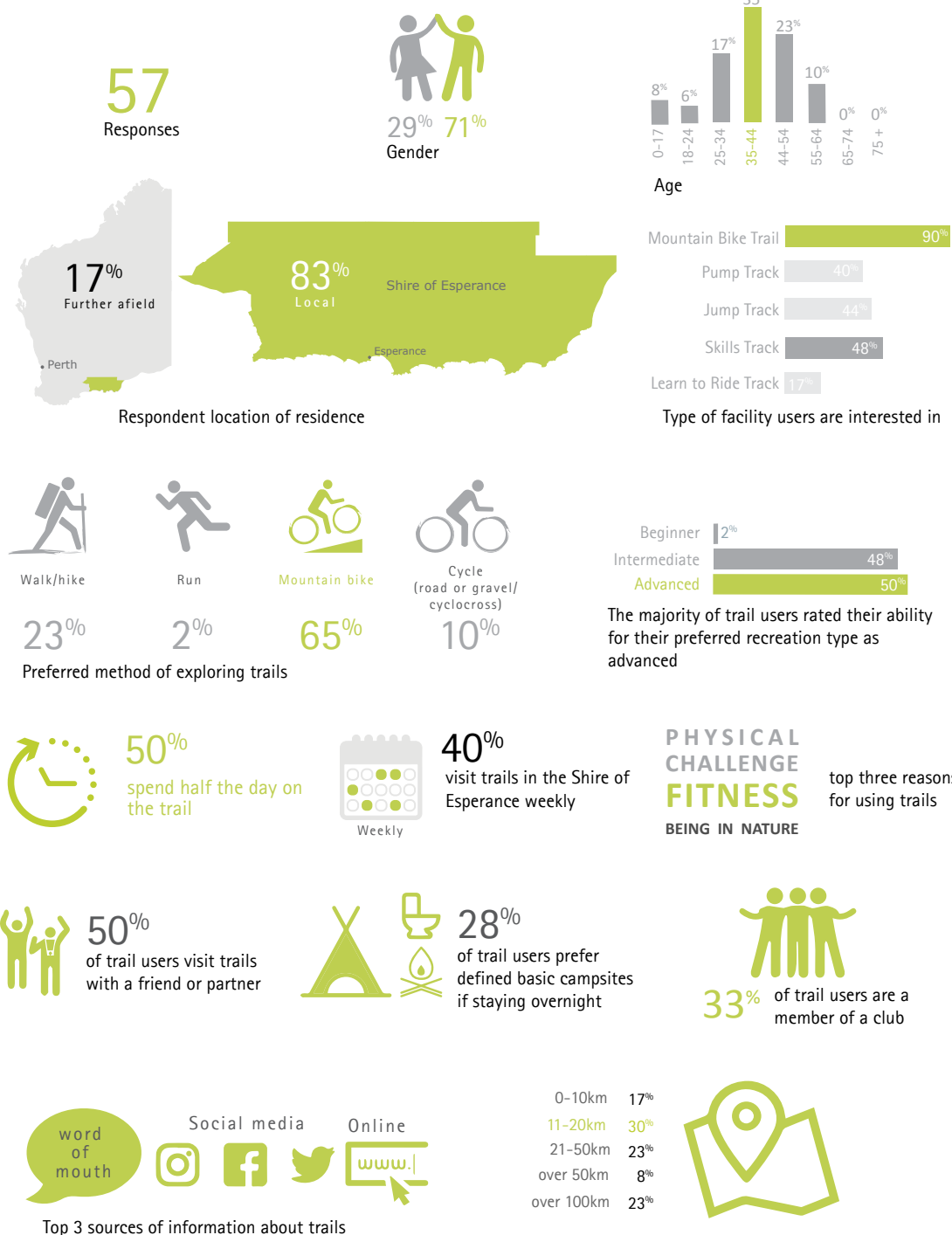


Figure 3. Community survey results summary

FACILITIES PROVISIONS

CREATING VARIETY

The recommendations within this report are directed at servicing the Shire of Esperance residents first, but at the same time creating facilities that are exciting, create a desire for continual use and are an attractive recreational activity for visitors.

Distributing facilities across the townsite will create variety and provide a differing challenge and experience across the town. Depending on the level of investment, there are opportunities to design and construct facilities that do not just meet growing demand, but also encourage new users to participate.

Challenge Parks are the most rewarding for the user and generally the most successful facility. Multi-disciplinary sites allow for introductory experiences and skills progression. Alternatively, a single discipline community facility is well placed with non-cycling activities to provide an alternative experience whilst other family members are participating in activities such as playparks and skate parks.



FACILITY CLASSIFICATION

COMMUNITY

Community facilities are designed to service the community in the immediate vicinity or are supplementary to existing experiences offered at a site. They are small scale, minimal budget projects that create opportunity for introductory experiences and skills development for beginners.

LOCAL

A local level facility is intended to service the town of Esperance residents. Users may travel within the town to access the facility. Facilities incorporate basic design, simple detail and are value for money. They generally should allow for skills development for beginners and intermediate riders. Local facilities should be constructed next to existing infrastructure and recreation spaces and are capable of holding small local events, competitions and workshops.

REGIONAL

A regional level facility will be attractive to a wider market and will attract users from outside the immediate area. Additionally, these facilities will provide a greater level of satisfaction and desire to return to the site for local residents. These facilities incorporate more technical design elements, increased detail and will be of varying greater cost depending on technical features and supporting infrastructure. Development around existing supporting infrastructure greatly reduces the cost of regional facilities. There will be opportunity to host larger events, competitions and workshops and they spaces will become thriving community spaces.

STATE

State level facilities capture a much broader market, with individuals travelling great distances to participate. These facilities will attract all user groups from beginners and new participants through to elite riders. Significant capital expenditure is required to develop a State level facility, but there are major opportunities for return on investment. Competitions will draw spectator crowds, create opportunity for facility and equipment hire. State facilities also provide many opportunities for private enterprise in areas such as hospitality, coaching and private sporting clubs.

State facilities require a significant investment in supporting infrastructure such as car parking, ablutions and shower facilities, food and beverage; therefore, require a significant parcel of land.

It is recognised that the topography and land availability within the Shire of Esperance does not suit the development of State facilities.

FACILITY CLASSIFICATION DESIRED REQUIREMENTS

Table 8. Desired site facilities

	COMMUNITY	LOCAL	REGIONAL	STATE
KEY REQUIREMENTS				
Ablutions				
Changing facilities and showers				
Drinking water				
Designated emergency access				
Designated spectator viewing and seating				
Food and beverage outlets				
Lighting				
Parking and drop-off				
Proximity to major community centre				
Public transport access				
Rubbish bins				
Shelter/ shade				



FACILITY TYPES AND TRENDS

In order to assess the suitability and the appropriateness of cycling facilities within the Shire of Esperance, it is important that a sound understanding of the potential facilities is established. Within urban interface sites there are a range of facilities that can be developed including; Bike Playparks, BMX tracks, Jump Tracks, Pump Tracks, Learn to Ride Tracks and Skills Tracks. Where there is appropriate land available longer purpose built mountain bike trails may also be appropriate.

BIKE PLAYGROUND

Bike playgrounds include features such as tunnels, ramps, walls, and balance planks and are designed to suit a more playful riding style, incorporating tricks and highly skilled riding. Typically bike playgrounds have a more urban character, with constructed elements rather than more natural features.



BMX TRACKS

BMX tracks typically consist of a single lap track usually between 300-400m, constructed from compacted dirt and asphalt, with a start ramp and features such as tabletops, gap jumps and rhythm sections. BMX racing rewards strength, speed, and bike handling. BMX tracks are typically used in a structured and organised setting rather than unstructured play.



PUMP TRACKS

A pump track is a 1-3 metre wide track that can be used for bicycle, skateboard, in-line skates and scooter riders to practice skills on a series of features, such as berms and rollers placed in quick succession. Essentially they are scaled down BMX tracks which do not require pedaling. 'Pump' refers to the action made by riders pushing down with their arms and legs to manoeuvre the bike or board over features to maintain momentum without pedaling or pushing-off the ground. Typically, tracks can be ridden continuously, and different combinations of features can be linked to provide a varied challenge. Bike handling skills can be transferred to other mountain bike tracks. Well designed pump tracks cater for all abilities, with all features being roll-able for beginners, and allowing for progression to pumping, and even jumping for more advanced riders. Riding a pump track is easy and children are typically comfortable using them within 10-20 minutes.

A well designed pump track provides enough challenges to stay attractive for years, because the rollers and berms can be combined and transitioned in different directions, creating opportunity for skilled riders to do jumps and maneuvers. Pump tracks can be made from natural soil, hardened surfaces, wood, fibreglass, concrete or asphalt. Historically pump tracks were constructed from natural soil blends and required significant ongoing maintenance. More recently, world's best practice is tending toward lower maintenance surfacing techniques and materials, such as asphalt, which are inclusive for a larger user base of wheeled-sports including skateboarding, scooters, in-line skates and non-off road bikes.



JUMP TRACKS

Jump tracks typically feature a series of jumps of various size and technicality in multiple lines. Provision of jump tracks is a vital inclusion allowing for progression for young people through to adults who seek an alternate and often more challenging experience than a pump track. Jumps are developed so that they allow for progression while always keeping safety in mind. Featuring all types of jumps, including tabletops, gaps, step-ups, step-downs and hips, with features linked so riders flow immediately from one to the next. Ideally, a rider will not have to brake between jumps. Well designed jump tracks offer a wide variety of challenges, from easy rollers to big jumps. A diversity of lines will allow riders to build their skills gradually and will create a park that is fun for all abilities. Typically, jump lines are arranged side-by-side in increasing difficulty, all starting at a common roll-in hill and traveling in the same direction. Jump tracks are primarily constructed of soil, however increasingly jump take offs and entire jump lines are being made from hardened surfaces, such as wood, concrete and asphalt. This significantly reduces ongoing maintenance and improves rideability.



SKILLS TRACKS

Skills tracks feature man-made technical trail features that test the skills of a rider and allow them to try features that they may encounter on trails in the region. Typical features may include log rollovers, log rides, balance planks, rock drops and other technical features. They can also incorporate street features such as rails and wall rides, or freeride stunts like ladder bridges, skinnys, teeters and drops. Importantly all features are built with progression allowing users to start small and build their confidence up to larger features. Successfully executed skills park areas feature a diverse range of materials and can look like well landscaped areas or 'nature play' areas with natural features such as timber, logs and rocks.



LEARN TO RIDE/ SAFETY TRACKS

Learn to ride, also known as safety tracks, make learning road rules fun for young people on bikes and scooters. A safety track features a miniature road network giving real life experiences while learning essential safety skills. Safety tracks are designed to enable reading traffic signals, crossing railways and school crossings, negotiating roundabouts and gutters, recognising traffic signs and line marking, and cycling on roads or footpaths. Safety tracks are typically constructed using materials and features as they would be encountered in the real world including asphalt and concrete combined with various line marking and road safety signage. To improve the enjoyment of these tracks, features like fuel stations and parking areas can be included for diversity



CHALLENGE PARKS

Pump, jump, skills and learn to ride tracks are often integrated into one, larger-scale, seamless facility under the banner of challenge parks. Challenge parks are larger scaled developments featuring multiple bike related facilities and are used to improve riding skills. Their combined facilities provide an excellent entry point into bike riding while offering technical riding features for more advanced riders all within one convenient and safe location.

Challenge parks are typically developed with soft landscaping, hardscaping and site improvements turning the area into an aesthetically pleasing community hub and making them suitable for urban interface developments. Due to their offerings, challenge parks also often act as a trailhead or hub for the area's greater trail networks. Urban interface challenge parks provide significant community benefit with extensive use from youth, but also recreation enthusiasts and, when of significant scale, tourists. Such facilities have proven extremely successful nationally and internationally.



MOUNTAIN BIKE TRAILS

Mountain Bike Trails are purpose built trails in varying terrain. The terrain available will typically dictate the style of trail built. Typically a mountain bike trail or network of trails requires larger areas.

Trail type defines the style of trail and its typical attributes. Different trail types suit different styles of riding and typically each trail type will have a specific kind of mountain bike designed to suit. Different cohorts use different types of trails and all trail types can have varying classifications. Not all environments are suitable to host all trail types and any mountain bike trails developed within the Town of Cambridge will require thorough consideration and planning to ensure long term sustainability.

CROSS COUNTRY

Primarily singletrack, with a combination of climbing and descending trails and natural trail features of varying technicality. They appeal to the majority market and are suitable for timed competitive events. Cross country trails can include cyclo-cross tracks.



ALL MOUNTAIN

Similar to cross country, primarily singletrack with greater emphasis on technical descents and non-technical climbs. All mountain trails are suitable for timed competitive events.



DOWNHILL

Descent only trails with an emphasis on speed and technical challenge. They appeal to more experienced riders; however lower-classification trails are emerging to cater for all experience levels. Downhill trails usually require shuttle uplift to the trailhead via chairlift or vehicle shuttle. These trails are suitable for timed competitive racing.



FREERIDE

Descent focused trails with an emphasis on technical challenge and skill development. Trails feature both built and natural technical features with a focus on drops and jumps. Appeals to more experienced riders and caters for competitions judging manoeuvres and skills.



PARK

Built feature environment with emphasis on manoeuvres, skills and progression. Appeals to wide market including youth and can cater for competitions judging aerial manoeuvres. Can include jump and pump tracks and skills parks. Typically, dirt surfaced but can include hardened surfaces.



TOURING

Long distance riding on reasonably uniform surface conditions and lower grades. Touring trails are dual direction linear trails or long distance circuits with a focus on reaching a destination. Touring trails can include rail trails, access/fire roads and singletrack. While there is a limited market, touring trails can be ridden in sections making them accessible to all.



TRAIL CLASSIFICATION

Trails are rated from easiest through to extremely difficult. The difficulty rating system outlines the ratings, which are determined by trail width, tread surface, average trail gradient, maximum trail gradient and natural obstacles and technical trail features. The mountain bike trail classifications in Western Australia are:

EASIEST - WHITE CIRCLE (WH)

Wide trails with smooth terrain and low gradients. Surface may be uneven, loose or muddy at times but free from unavoidable obstacles. Recommended for novice riders.



EASY - GREEN CIRCLE (GN)

Flowing open trails on firm terrain with gentle gradients. Surface may be uneven, loose or muddy at times. Riders may encounter small rollable obstacles and technical trail features. Recommended for beginner mountain bikers.



MODERATE – BLUE SQUARE (BU)

Narrow trail with loose, soft, rocky or slippery sections and hills with short steep sections. Riders will encounter obstacles and technical trail features. Recommended for riders with some technical mountain biking experience.



DIFFICULT - BLACK DIAMOND (BL)

Trails with variable surfaces and steep gradients. Riders will encounter large obstacles and technical trail features. Recommended for experienced riders with good technical skill levels.



EXTREME - DOUBLE BLACK DIAMOND (DB)

Trails may contain highly variable surfaces, very challenging terrain and/or very steep sections. Riders will encounter unavoidable obstacles and technical trail features. Recommended for very experienced riders with high technical skill levels.



ADDITIONAL BUSINESS OPPORTUNITIES

The addition of recreational cycling facilities within a community can bring with it additional business opportunities. The following are examples of business opportunities that anecdotally appear to be successful following an increase in cycling across Western Australia communities:

- Cycle Tourism
- Bike shops/ Hire/ apparel
- Local Bike Tours
- Hospitality ventures on cycle routes
- Social Media presence – knock-on destination marketing

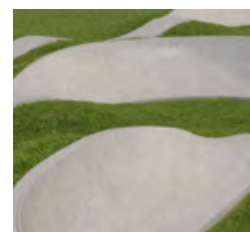
MATERIAL SELECTION

Material selection will determine the ongoing management requirements and user experience. A range of surface treatments exist for various components of recreational cycle facilities. While natural materials can be more affordable and are often desired by the community, they can create significant ongoing management requirements and often fall into disrepair. Conversely hardened materials can be a larger capital investment, but typically see higher participation and far less management requirements.

Ultimately a successful facility often has a range of materials within different facility components. The following table identifies the advantages and disadvantages with each material.

Table 9. Facility construction material advantages and disadvantages

	NATURAL EARTH	MODULAR	ASPHALT	CONCRETE
ADVANTAGES	- Low material cost - Involvement of local volunteers - Flexibility (layout and design can be changed any time) - Natural look and feel - Construction possible in bushland - Softer surface	- Unskilled labour - Relocatable - Suitable for bikes, skateboards, inline skate, scooters	- Moderate cost - Low maintenance, durable & sustainable - Low rolling resistance - High traction - Year round usability in any weather - Suitable for bikes, skateboards, inline skate, scooters - Consistent surface quality - Neat look & resistant against vandalism	- Durable, sustainable - Low rolling resistance - Year round usability in any weather - Surface structure choice (smooth, grippy, rough) - Colour choice - Usable for bikes, skateboards, inline skate, scooters - Resistant against vandalism - Neat look
DISADVANTAGES	- High and frequent maintenance - Only usable in good weather conditions - Suitable for off road bikes only - Susceptible to peak weather damage - Typically falls into disrepair - Often looks dilapidated	- High cost - Moderate maintenance - Highly susceptible to damage and to vandalism - Low repairability - Damage irreparable - Limited customisation	- High material cost - Abrasive surface - Skilled labour	- Very high construction cost - High material cost - Abrasive surface - Skilled labour
MANAGEMENT REQUIREMENTS	High	Medium	Low	Low
APPROPRIATE MANAGER	Volunteer Groups	Event Promoter	Local Government / Developer	Local Government / Developer
RECOMMENDED FACILITY	Dirt Jump landings, Skills Park	Relocatable Pump Track	Pump Track, Jump Tracks, Safety Track	Jump Lips
APPROPRIATE SETTING	Bushland	Temporary Sites	Urban Parkland	Urban Parkland



SUMMARY

There are a broad range of recreational cycling facilities, with varying complexity, purpose and accompanying price tag. Innovative designs and materiality are ever changing, with more and more Local Governments seeking sustainable recreational cycling facility options.

There are facilities to accommodate all user groups, from complete beginners through to advanced riders, and there is demand for opportunities across the recreational opportunity spectrum. Normally availability of space will dictate the level of development and the span of the facility, but many recreational cycle facilities can be designed to fit within existing built and natural environments, ensuring space is used optimally, the surrounding area is preserved, and user experience is maximised.

The Shire of Esperance has suitable locations and local demand for community, local and regional level facilities. The most sought after experiences are opportunities to further develop skill levels. Currently the experiences in Esperance are not offering skills development opportunities to the mountain biking community, which in turn leads to individuals creating their own facilities.



SITE ASSESSMENT RECOMMENDATIONS



All areas identified by the Shire of Esperance, highlighted through the community survey and identified by on ground investigations were considered. The following attributes were deemed priority attributes:

- Accessibility and connectivity
- Existing facilities and infrastructure
- Existing land use
- Land availability
- Land tenure
- Opportunity to create skills development experiences
- Social, economic and environmental values

A desk top analysis of all sites was carried out and then on ground confirmation of findings. There were multiple sites that would be suitable for sustainable mountain bike facility development across the Shire, but these were rationalised to provide fewer facilities of higher quality, to meet the needs of a wider user group, a growing interest in mountain biking and a growing population. Creating a connected network of trails within the Shire, meeting the needs of multiple user groups will provide the local community and visitors with experiences encouraging outdoor recreation. It is also recognised that there is a need for facilities that meet the growing demand of more experienced riders and offer growth and development opportunities for mountain bikers in the region.

The Shire of Esperance is relatively flat, limiting mountain biking experiences that may be easier to develop in more varied terrain. Most notable elevation variances can be seen in Cape le Grande National Park. The distance to the park does not create a local mountain biking facility to meet the growing needs of the local mountain biking population. During online and onsite investigations, a parcel of freehold land adjacent to crown land was noted as suitable for the development of a diverse range of trails. The area would support a regional level riding facility and could host longer downhill trails creating a much more rewarding riding experience in comparison to the unsanctioned downhill trail at Dempster Head. It is a recommendation that the Shire open discussions with the landowner and investigate the possibility of access to the land, in the form

of a lease or access agreement. Alternatively, if they Shire was to acquire this parcel of land, the site could be developed into an excellent long term facility, which would be an asset to the Shire and local mountain biking community. The site has intentionally been omitted from this report until investigations into accessing it for the purpose of mountain biking has been negotiated with the landowner.

East of the town was not considered high priority due to high density of freehold land. If this constraint can be overcome the recommendation for a touring style trail from the town to Cape le Grande should be investigated, as suggested in the Esperance 2050 Cycle Plan.



Figure 4. Site's assessed as providing opportunity for cycle facility development.

COMMUNITY FACILITIES

ID 1

SITE/LOCATION: Lalor Park

FACILITY: Pump Track & Jump Lines

SITE SIZE: ~1.6Ha

RECOMMENDED SCALE: ~500m²

CURRENT SITUATION:

Small community playground with open green space.

WHERE WE WANT TO BE:

A local scale facility for the north eastern end of town to encourage recreational cycling for users of all age and ability.

HOW WE GET THERE:

Design a pump track with jump lines to fit into the existing space. There is opportunity to utilise the elevation to the north of this site for jump lines. Community consultation should guide the concept design process in this area to meet the needs of the immediate community members.

POSITIVES	CONSTRAINTS	RECOMMENDATION	LAND INFORMATION
- Existing underutilised space - Creates a recreational cycling opportunity for the eastern end of town - Small amount of elevation on site suitable for jump lines	Financial	- Allocate capital budget for concept design, community consultation, detailed design and construction of small facility for the eastern end of town - Playpark facilities to be maintained, to ensure there are facilities for riders and non-riders, creating an inviting space for a variety of age groups and families	Tenure: Crown Land Manager: SOE Management Plan: Shire of Esperance Playgrounds & Public Open Space Strategic Plan 2015-2025





Figure 5. Site 1 Lalor Park

LOCAL FACILITIES

ID 2

SITE/LOCATION: Dempster Head

FACILITY: XC, Downhill, Walk Trail

RECOMMENDED SCALE: 3km XC, 0.6km Downhill, 1.5km Walk Trail

SITE SIZE: ~70Ha

ELEVATION RANGE: ~ 60m

STEEPEST SLOPE: ~11%

CLASSIFICATION: Green and Blue XC, Black Downhill, Grade 2 Walk Trail

CURRENT SITUATION:

Dempster Head is an exposed fragile environment with many ad-hoc trails traversing the area. Erosion is clearly visible, and the area is continually accessed by anglers, walkers, cyclists and beach goers. The site is smaller than the recommended area for a mountain bike facility of local significance, as outlined in the WA MTB Management Guidelines.

MTB is a prohibited activity at Dempster Head as per the Shire of Esperance Dempster Head Management Plan.

WHERE WE WANT TO BE:

An accessible sustainable public open space for use by all local residents and visitors to Esperance. An area that multiple recreational users can access safely, and environmentally and culturally responsibly.

HOW WE GET THERE:

Shire of Esperance commission a detailed landscape masterplan of the area and undertake extensive remediation works.

POSITIVES	CONSTRAINTS	RECOMMENDATION	LAND INFORMATION
▪ Accessible site ▪ Good elevation for mountain biking ▪ Site able to host a small number of very high quality mountain biking trails designed specifically to sit in existing disturbed area with minimal to no impact on surrounding vegetation ▪ If designed responsibly it could be a recreational asset to the town ▪ Opportunity for remediation of site	▪ Environmentally sensitive site ▪ Very short downhill trail experience ▪ Limited XC trail network opportunity ▪ Site could potentially be a site of cultural significance ▪ The site in its current state is not suitable for MTB, and consideration of closure of access tracks to all users until remedial actions are carried out would protect the site from further erosion issues	▪ Consider other areas within the Shire, including private property, that allow for more extensive riding experience, with longer descents, and more scope for XC trail network ▪ If proceeding with trail development at Dempster Head there will be requirement to create a detailed landscape masterplan of the area which outlines detail design of the area with professionally designed walk trails, XC mountain bike loop and Downhill track. Masterplan also to incorporate remedial actions for erosion issues, track rationalisation and subsequent closures, native revegetation and interpretational signage. ▪ Progression of any works at this site should be remedial focused, and should be fully supported by the Shire and community members ▪ Carry out further community consultation to ensure needs of the local community are met	Tenure: Crown Land Manager: SOE Management Plan: Shire of Esperance Dempster Head Management Plan 2018





Figure 6. Site 2 Dempster Head

SITE/LOCATION: The Piggery Et Piggery Link

FACILITY: XC Trail Network and Jump Track

RECOMMENDED SCALE: ~14km

SITE SIZE: ~87Ha

ELEVATION RANGE: ~25m

STEEPEST SLOPE: ~3%

CLASSIFICATION: Green and Blue XC, Blue and Black Jump Track

CURRENT SITUATION:

The Piggery was established in 2008, it is situated on crown land, but under agreement is managed by the Esperance Mountain Biking Association. There is 13.5 km of XC trail and 2.5km of 'family' trail. The network provides mountain biking options attractive to beginner and intermediate riders. The network has many built features using manmade objects. The trail signage is weathered and difficult to follow. No emergency signage and limited topography to work with.

WHERE WE WANT TO BE:

A network of trails that require minimal maintenance and provide an enjoyable MTB experience to a range of users of all ages and all abilities. A facility that allows for skills development. Inclusion of a jump track to meet the needs of wider mountain biking community and provide a level of thrill and challenge.

HOW WE GET THERE:

Carry out a professional review of the current network and develop an upgrade plan. Apply for external funding for planning and upgrade works.

Carry out further community consultation to ensure needs of the local community are met

POSITIVES	CONSTRAINTS	RECOMMENDATION	LAND INFORMATION
- Established mountain biking infrastructure - Managed and maintained by volunteers - Designated mountain biking area, minimal planning constraints - Site could be easily reconfigured to meet current trends	- Financial constraints - Managed and maintained by volunteers – financial limitations - Trails do not meet the needs of current mountain biking trends - Limited elevation on site	- Develop a site management plan endorsed by the Shire of Esperance - Carry out a professional evaluation of the current network and develop concept design for upgrades to meet all users needs - Consider realignment of existing trails to take advantage of changes in elevation across the site - Develop concept for jump lines within network - Grow membership of the EMBA - Gain Shire commitment to assist with events (volunteer build days and fundraisers) and funding opportunities and grant applications	Tenure: Crown Land Manager: SOE (EMBA by agreement) Management Plan: No current management plan (last plan 2010-2013)





Figure 7. Site 3 The Piggery

SITE/LOCATION: Piggery Link

FACILITY: XC Trail

SCALE: ~ 15km

CURRENT SITUATION:

The Piggery network lies 14.7km north of town, currently there is no safe cycling facilities linking The Piggery and Esperance town. There is a gradual elevation change between the site and town that would support the development of a flowy green cross country trail that would be enjoyable to ride in both directions.

WHERE WE WANT TO BE:

An enjoyable connecting trail allowing mountain bikers in Esperance to ride from town to a mountain biking facility. A safe designated trail connecting the network to town would also allow for riders to get a lift out to site and ride home, or vice versa. The trail would additionally be an exercising route to provide for a broader group of riders.

HOW WE GET THERE:

The current visitation levels at the Piggery may not support the investment in this trail. This trail should be factored into upgrades to The Piggery, creating a high quality accessible mountain biking experience.

Carry out community consultation to ensure needs of the local community are met. A well designed trail could be dual purpose and safely provide an exercise experience for both trail runners and walkers.

POSITIVES	CONSTRAINTS	RECOMMENDATION	LAND INFORMATION
- Creates a link to an existing site - Allows for safe travel between The Piggery and town - Creates a trail running experience which is not currently available directly from the townsite - If additional mountain bike sites are identified this connecting trail could form part of a connective network	- Financial - Restricted choice of alignment due to land tenure	- Connecting trail is factored into upgrades at The Piggery - A green, dual purpose flow cross country trail is constructed with technical trail features incorporated, which is appealing to mountain bikers and trail runners	Tenure: Crown and road reserve Land Manager: Shire of Esperance



Figure 8. Site 4 The Piggery Link

SITE/LOCATION: Adventure Trail – Town to 11 Mile Beach via coast, linking round to Pink Lake Rd and back via shared use path.

FACILITY: Touring and XC

SCALE: ~20KM

CLASSIFICATION: Green and Blue

CURRENT SITUATION:

There is a dual use trail that heads west out of town along the coast. This is a family friendly trail but does not meet the need of the more adventurous rider.

The substrate is sandy and the coastline is a fragile dune environment. Importation of material for a hardened surface would be required.

WHERE WE WANT TO BE:

Encourage participation, provide a fitness option for the local community including MTB community. Create an extension of trails out from the Esplanade, Dempster Head and Skroly Park and create a sustainable experience for both locals and visitors to Esperance. This could be an excellent cycling experience taking in the scenic vistas and unique coastal heath vegetation communities.

HOW WE GET THERE:

Create an alternative off-road XC route. Link the XC experience to the existing dual use trail system and create a loop back into town.

The Public Drinking Water Source Area (PDWSA) is a constraint. It is feasible to create a trail on the north side of Twilight Beach Rd, but a much better recreational experience could be created if the constraints around the PDWSA could be overcome.

Carry out community consultation to ensure needs of the local community are met.

POSITIVES	CONSTRAINTS	RECOMMENDATION	LAND INFORMATION
▪ Excellent experience for locals and visitors ▪ Opportunity for local bike hire business ▪ Exercise opportunity for local residents ▪ Options to extend into greater experience in the long term	▪ Financial constraints ▪ Fragile coastal environment ▪ Restricted choice of alignment due to PDWSA	▪ Develop a concept for a longer distance XC adventure trail that allows riders to depart and return on a loop from town ▪ Link trail to existing dual use infrastructure ▪ Establish alignment outside of the PSWSA ▪ Harden trail for longevity and enjoyable user experience	Tenure: Crown Land Manager: SOE

REGIONAL FACILITIES





Figure 9. Site 5 Adventure Trail

ID 6

SITE/LOCATION: Skroly Park

FACILITY: Skills Loop and Jump Track

SCALE: 2km Skills Loop and 2 x Jump Lines

SITE SIZE: ~ 43Ha

ELEVATION RANGE: ~ 15m

STEEPEST SLOPE: ~ 4%

CLASSIFICATION: Blue Skills Loop, Blue and Black Jump Track

CURRENT SITUATION:

There is a derelict velodrome situated out at Skroly Park. The area is quite removed from town and is visually isolated.

WHERE WE WANT TO BE:

The area to be utilised productively, a presence in the area to activate it and provide a space for community managed dirt jumps and a skills tracks. A skills loop to be designed and constructed with local input and the space generally re-activated as a recreational area, including upgrades to existing velodrome facilities.

HOW WE GET THERE:

Develop a concept plan for the area in collaboration with local riders and encourage youth participation in concept design. Seek funding opportunities and create a youth riding precinct.

POSITIVES	CONSTRAINTS	RECOMMENDATION	LAND INFORMATION
- Underutilised site suitable for recreation cycle facility development - Could satiate local desire to construct challenging MTB features	- Is on the outskirts of town (presently) and is quite isolated - Dirt bike access to site presently. Conflict would need to be managed - Sandy terrain would require material import	- Undertake further targeted community consultation to determine if there is a group interested in managing a set of dirt jumps through a formal agreement - Develop a concept plan identifying scale and scope of dirt jump area and skills track	Tenure: Crown Land Manager: SOE





Figure 10. Site 6 Skroly Park

ID 7

SITE/LOCATION: The Esplanade

FACILITY: Pump Track

SCALE: 500-600m²

SITE SIZE: ~ 0.5Ha

CURRENT SITUATION:

The Esperance Esplanade has undergone significant upgrades over the past few years. Recent concept design works include the development of a Youth Precinct. The previous Esperance skate park, utilised additionally by BMX riders, has been decommissioned.

WHERE WE WANT TO BE:

A multi-faceted recreation precinct for all wheeled sports on the Esplanade, which provides opportunities for participation in recreational cycling and skills progression.

HOW WE GET THERE:

Incorporate a regional scale pump track into the Youth Precinct concept design. Carry out community consultation to ensure needs of the local community are met.

POSITIVES	CONSTRAINTS	RECOMMENDATION	LAND INFORMATION
- A fit for purpose track incorporating optional jump lines and transition features, attractive to wide range of users and keeping users engaged - Central location for local residents and visitors - Will further enhance and complement existing wheeled sports facilities in the area - Opportunity for freestyle BMX events to be held on Esperance Esplanade	- Financial - Consultant has been engaged to develop concept design and inclusion of regional scale pump track may be an additional design cost	Work with design consultants to incorporate full scale regional pump track into existing concept design	Tenure: Crown Land Manager: SOE Management Plan: Shire of Esperance Playgrounds & Public Open Space Strategic Plan 2015-2025





Figure 11. Site 7 The Esplanade

RECOMMENDATIONS & STAGING

Staging of sustainable recreational cycling facilities will be dependent on available funding. It is recommended that Stage 1 includes:

- Site confirmation
- Concept designs
- Business case development
- Budget and funding confirmation and commitment

The pump tracks at Lalor Park and the Esplanade are straight forward projects and could be delivered within a 3-6 months period with sufficient funding.

The Piggery upgrades could be progressed quickly with Shire investment or could take a longer period of time if external funding is to be sought. It is recommended that the Shire assists in this process. The connecting trail should be incorporated into planning.

Dempster Head, Skroly Park and the Adventure Trail are much larger projects and will require detailed project planning prior to commencement.

PRIORITIES EXPLAINED

The Esplanade Pump Track and investigation into utilising the parcel of private land are deemed high priority as they would both meet the current needs of local mountain bikers in Esperance, and would also support continued growth in participation numbers and skills progression.

Lalor Park and The Piggery network and Connecting Trail are deemed medium priority, as these would not meet the immediate needs of the mountain biking community. These projects will enhance Esperances mountain biking offering.

The Lalor Park facility will provide local mountain biking opportunities to residents at the eastern end of town, but will be supplementary to the larger pump track at the Esplanade.

Upgrades to The Piggery will create an inviting mountain biking facility for existing users, individuals new to the sport and visitors to the Shire. The site is limited due to elevation, and more technical advanced mountain bike facilities could be constructed on a site with more varied terrain.

Dempster Head is deemed low priority due to the sensitivity of the site and should only be progressed once other options are exhausted.

Skroly Park has been identified as an underutilised parcel of crown land. This site is low priority as it would require a high investment to create an excellent mountain bike facility.

The Adventure Trail is primarily a tourism product and deemed low priority as it does not meet the immediate needs of the local community.

Table 13. Priority of proposed sites

ID	SITE	PRIORITY	RATIONALE BEHIND PRIORITY RATING
1	Lalor Park Pump Track	MEDIUM	Quick win project providing facilities for the eastern end of town.
2	Dempster Head XC and Downhill	LOW	This site should only be progressed if there are no alternative options.
3	The Piggery XC	MEDIUM	Quick win project with existing community support. Good return on investment.
4	The Piggery Link XC	LOW	The priority of this concept is directly related to upgrades at The Piggery. Upgrading The Piggery network will see an increase in visitation and merit the development of a trail connecting the network to the town.
5	Adventure Trail Touring and XC	LOW	Good project to enhance cycle options and tourism product within the Shire of Esperance but does not meet the existing skills progression needs of the Esperance mountain biking community.
6	Skroly Park Skills Loop and Jump Lines	LOW	This is an alternative site that could provide mountain biking experiences should other sites not be progressed. It is noted it is out of town, would require a large investment and may have management issues due to the remote nature of the site.
7	Esplanade Pump Track	HIGH	Meets desire for suburban skills development opportunities and can be incorporated into existing capital project.
	Private Property	HIGH	The parcel of private land that has been identified offers a far superior mountain biking opportunity in comparison to the limited area at Dempster Head for downhill, and the limited elevation at The Piggery for more advance XC riding.

COSTS

Costing has been determined based on previous Common Ground Trails design and construct contracts, and industry knowledge. It should be noted that these costs are indicative and subject to large changes based on scope, materials, additional site furniture, re-location of overhead or underground services, de-contamination of land, upgrades to existing parking, toilets and roads, and many other influencing factors.

A management plan should be developed for each site prior to development. This will outline required maintenance, resources, annual budgets and asset lifespan information.

The following costings are displayed in thousands and are indicative costs for the facilities concept design, detailed design and construction.

Table 14. Indicative costings of facilities

	JUMP TRACK	MTB TRAILS	PUMP TRACK	SKILLS TRACK
COMMUNITY	\$50-75	5-10KM \$200-400	\$50-100	\$25-50
LOCAL	\$75-100	10-20KM \$400-800	\$100-200	\$50-100
REGIONAL	\$150-500	20-80KM \$800	\$200-400	\$100-300
STATE	\$500+	80km+ \$3.6M+	\$400+	\$300+

FUNDING

Additional to Shire of Esperance capital investment there are a number of potential funding options and partnerships available for the facilities suggested in this report. The following funding partners and grant opportunities are aimed at the improvement of community health, youth health, or increasing active recreational opportunities, and have potential to be supportive of a facility such as that proposed:

- Lotterywest – Community spaces outdoor www.lotterywest.wa.gov.au/grants
- Lotterywest – Trails: www.lotterywest.wa.gov.au/grants/grant-types/trails
- Sport Australia – Community Sport Infrastructure Grant: www.sportaus.gov.au/grants_and_funding/community_sport_infrastructure_grant_program
- Commonwealth Bank Staff Community Fund: www.commbank.com.au
- Department of Local Government, Sport and Cultural Industries – Youth engagement Grants Program, Community Sporting and Recreation Facilities Fund (CSRFF): www.dlgc.wa.gov.au/GrantsFunding/Pages/Youth-Engagement-Grants-Program www.dsr.wa.gov.au/funding/facilities-csrff
- Healthway Health Promotion Project Grants and Sport and Racing sponsorship: www.healthway.wa.gov.au
- RAC Sponsorship – Community Partnerships: www.rac.com.au
- Telstra Foundation Social Innovation: exchange.telstra.com.au
- Philanthropic investment and corporate sponsorship

DELIVERY

There are three delivery methods which can be considered for the development of mountain biking facilities within the Shire of Esperance; professional, professional with volunteer assistance and volunteer lead. Delivery methods are often determined by location of the development and the quality of facility required. Facilities developed in urban and urban fringe are typically led or undertaken by professional designers and contractors. Developments located in the natural landscape have a higher potential for volunteer development. The following outlines the benefits and constraints with each of the delivery methods.

PROFESSIONAL

Professional design, by industry specific designers, typically yields high quality and accurate documentation enabling competitive and accurate pricing. Professional design can be costly but typically ensures successful and highly desirable facilities. Typically, professional designers will host workshops to foster community participation and ownership. Professional construction, by industry specific contractors, ensures high quality with a high level of accountability. Professional construction is most appropriate when the project incorporate hardened surfaces and landscaping requirements. It does however have higher capital costs and can lead to reduced ownership if not successfully delivered. Development progress is typically fast.

PROFESSIONAL AND VOLUNTEER ASSISTANCE

Community lead design with professional documentation can yield high quality and accurate documentation and community ownership. It remains costly and can have compromised design outcomes if not successfully managed.

Professional lead construction, by industry specific contractors, with volunteer assistance can yield high quality but with a reduced level of accountability. Volunteer assisted construction is most appropriate when the project incorporates a combination of natural and hardened surfaces. Volunteer assisted projects can be difficult to price and unless volunteer involvement is significant, it can increase the cost of development through increased management requirements.

VOLUNTEER

Community lead design with minimal input from professionals can be low cost but can often lead to lower quality documentation and potentially less useable facilities. Volunteer lead construction is most appropriate for natural surface developments in urban fringe and natural landscape settings. Accountability of the final outcome is significantly reduced, and development progress is typically slow. Volunteer lead construction can lead to significant community ownership, if the final product is desirable.

SUMMARY OF RECOMMENDATIONS

Table 15. Summary of recommendations

ID	LOCATION	CLASSIFICATION	TYPE	MATERIALITY	DELIVERY	ESTIMATED BUDGET (\$000)
1	Lalor Park	Community	Pump Track & Jump Lines	Asphalt	Professional	\$50-100
2	Dempster Head	Local	XC, Downhill & Walk Trail	Gravel and Natural Earth	Professional	\$400-800
3	The Piggery	Local	XC	Gravel and Natural Earth	Professional and Volunteer	\$400-800
4	The Piggery Link	Local	XC	Gravel and Natural Earth	Professional and Volunteer	\$400-800
5	Adventure Trail	Local	Touring and XC	Gravel and Natural Earth	Professional and Volunteer	\$400-800
6	Skroly Park	Local	Skills Loop and Jump Track	Gravel and Natural Earth	Professional and Volunteer	\$125-200
7	Esplanade	Regional	Pump Track	Asphalt	Professional	\$200-400

NEXT STEPS

The sites identified within this study are recommendations based on professional opinion, the identified needs and desires of the local community, and consideration into social, economic and environmental impacts of sustainable mountain bike facility development. The sites are identified as suitable for specific types of mountain biking facility development, but still require substantial planning utilising the 8 Step Trail Development Process.

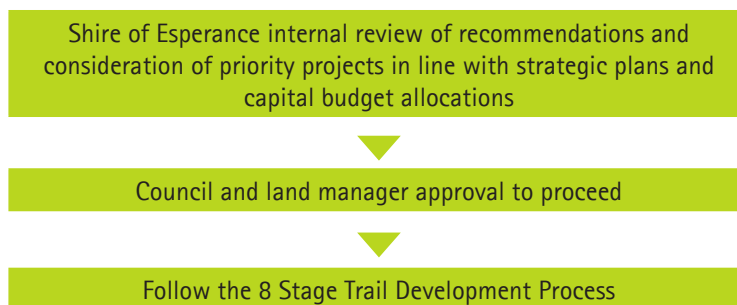


Table 16. Trail development process.

	STAGE	OUTCOME		
PLANNING	1. PROPOSAL	The trail development is either supported in principle for trail development, or is not supported due to environmental, social or cultural constraints. The purpose of the proposal could be to identify suitable areas for consideration.	DESKTOP	FIELD
	2. FRAMEWORK	A project outline, developed by project steering group (stakeholders), including: project objectives, project management model, stakeholder roles, target market, requirements, standards, execution, and ongoing trail management model.		
	3. SITE ASSESSMENT	Undertake a broad scale study of the area and identify constraints, soil types, vegetation etc.		
	4. CONCEPT PLANNING	Identify opportunities and conceptual trail plan including broad trail corridors and infrastructure requirements.		
	5. CORRIDOR EVALUATION	Detailed assessment of trail corridors for use in determining the final trail alignment.		
	6. DETAILED DESIGN	Detailed trail design produced and physically flagged in the field, including: trail classifications, technical trail features (TTFs), construction types and specifications.		
CONSTRUCTION	7. CONSTRUCTION	Trail is constructed in line with the detailed design.		
MANAGEMENT	8. MANAGEMENT	Management plan implemented detailing maintenance and monitoring requirements.		

Source: Trail Development Series



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