

# PERTH & PEEL

# MOUNTAIN BIKE

# MASTER PLAN



# PERTH & PEEL MOUNTAIN BIKE MASTER PLAN

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The authors of this Perth & Peel Mountain Bike Master Plan respectfully acknowledge that this land on which we live and work is Noongar country, and that the Noongar people are the traditional custodians who have a rich social, spiritual and historical connection to this country, which is as strong today, as it was in the past.

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## PHOTOGRAPHY:

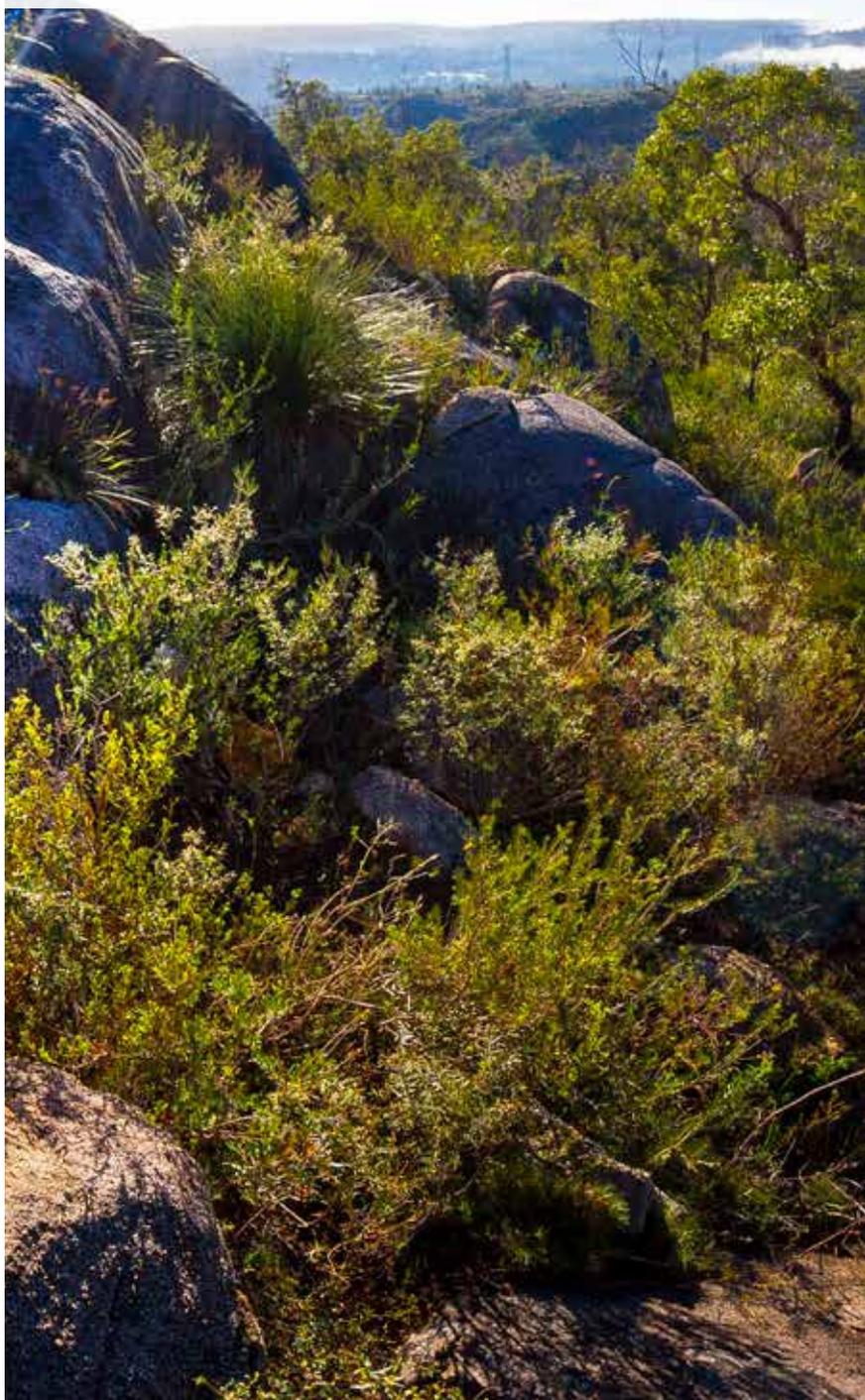
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# CONTENTS

<b>1. EXECUTIVE SUMMARY</b>	<b>4</b>
<b>2. INTRODUCTION</b>	<b>8</b>
Planning Context	8
Project Area	9
<b>3. CONSULTATION</b>	<b>13</b>
Steering Committee Liaison	13
Stakeholder Consultation	13
User Group Consultation	15
<b>4. DEVELOPMENT</b>	<b>16</b>
Significance Hierarchy	16
Trail Models	18
Market Motivators & Needs	22
Trail User Types & Markets	22
Trail Types	23
Trail Classifications	23
<b>5. ANALYSIS</b>	<b>26</b>
Participation & Demand	26
Product Supply	30
<b>6. PRIORITY LOCATIONS</b>	<b>38</b>
Multi-Criteria Analysis	38
MCA Outcomes	38
Location Detail	41
<b>7. RECOMMENDATIONS</b>	<b>94</b>
Trail Delivery, Timing & Phases	94
Governance & Management	96
Sustainable Event Development	98
Promotion Development	99
<b>REFERENCES &amp; ACRONYMS</b>	<b>100</b>
<b>APPENDIX</b>	<b>102</b>
Project Brief & Methodology	102
General Trail Planning Principles	102
MCA Framework	104
Case Studies	106
Product Supply	112

# EXECUTIVE SUMMARY



The Perth and Peel Mountain Bike Master Plan (PPMP) has been developed to guide future strategic investment in mountain bike recreation, tourism and event development across the combined Perth Metropolitan (Perth) and Peel regions of Western Australia (WA).

The PPMP reflects the aspirations of a number of key stakeholders and the Western Australian mountain biking community for the Metropolitan Perth and Peel regions to become an economically, environmentally and socially sustainable international mountain biking destination.

Historically, community-led development of mountain bike trails has catered for the more extreme cohort of riders, resulting in a perceived image of the typical mountain biker. With the growth in popularity of mountain biking in recent years, the demand for more trails and greater diversity in styles has led to further trail development. To date, there has not been a strategic, well planned development process, which has the potential to negatively impact the environment in the long term. The majority of mountain bike riders value and respect the environment, and the efforts required to build and maintain trails. Many riders volunteer their time to contribute to their local trails through advocacy groups and clubs. The community and land managers have formed good working relationships, which has assisted with educating new riders, land owners and managers, local governments and other stakeholders, and demonstrating that mountain biking can be developed sustainably and responsibly to enhance the environment.

The PPMP provides direction for key stakeholders and agencies to develop facilities of varying scales that cater for a diverse range of rider types in appropriate locations. Proposed priority locations across the Perth and Peel regions are shown in Figure 1.

This master plan was developed in partnership with key land managers, community groups, tourism agencies, by assessing the existing supply of trails and infrastructure, events, tourism and commercial products, governance, management and promotion of mountain biking in WA. Development models and processes derived from world's best practice in international mountain biking destinations will provide a clear framework to guide actions and responsibilities of key agencies.

The PPMP supports the key objectives of the Western Australian Mountain Bike Strategy (WestCycle, 2015) (State Strategy) to develop a statewide network of sustainable trails, facilities and associated infrastructure; to raise the recreational and tourism profile of Western Australian mountain biking; and to develop a diverse revenue stream to ensure economic sustainability. The State Strategy was endorsed and partly funded by the WA State Government in 2015.

## DELIVERY OF SUSTAINABLE, HIGH QUALITY MOUNTAIN BIKE FACILITIES

### 575KM OF PURPOSE-BUILT MOUNTAIN BIKE TRAILS PROPOSED ACROSS 24 SITES

This master plan proposes the existing trail network of around 125km across nine sites to be expanded to create an international mountain biking destination that:

- Is highly accessible to most metropolitan population centres
- Caters for growing demand caused by an increase in the popularity of mountain biking in the Perth and Peel regions
- Ensures high quality infrastructure and facilities
- Encourages user groups away from using and further developing unsanctioned trails which create environmental, social and management issues

### NATIONALLY AND REGIONALLY SIGNIFICANT MOUNTAIN BIKE DESTINATIONS FOR PERTH RIDERS

This master plan proposes development of a diverse mix of trail types in a range of reserves, prioritising:

- The Perth Hills, to host a mountain bike precinct of at least 120km of high quality, cohesive and accessible recreational mountain biking trails.
- The addition of 80km of all mountain, cross country, gravity and touring trails, transforming Dwellingup into a trail town.
- The creation of Western Australia's premier international mountain bike events facility in Wungong Regional Park, with 80km of accessible trails, including gravity, downhill and shuttle uplift services.
- The potential to establish a number of trail centres in the locations of Perth Hills Precinct, Dwellingup, Wungong, Swan

## MAJOR IDENTIFIED GAPS

- Less than 9% of residents have good access (less than 15 minutes driving time) to purpose-built mountain bike trails
- No locations meet the requirements of national or regional significance
- Over 120km of unsanctioned trails are actively used in the Perth Hills
- Only one formal location (Kalamunda) provides enough trail to cater for a mountain bikers desired ride length
- The high majority of trail is on DBCA managed estate
- Over 90% of people drive a car to go ride their mountain bike
- There are no permanent facilities that cater for events
- Very limited commercial investment or business involvement in trails
- Currently no tangible and marketable mountain bike product exists

Valley and Yanchep, providing dedicated on site services and visitor information and at least 30km of quality mountain bike trails at each location. The exact locations of trail centres will be determined in further stages of planning.

- Development of Jarrahdale as a regionally significant mountain bike trail town with at least 30km of mountain bike trails, to attract the recreation and tourism markets from the nearby nationally significant locations.

These developments are intended to:

- Focus investment on providing high quality key infrastructure and trails, considering the need for rehabilitation of existing trails and sites
- Improve diversity of trail types and classifications
- Improve access and achieve growth in local participation, health and economic benefits and opportunities

## URBAN & COMMUNITY TRAILS

To meet the high demand for facilities closer to home, a range of bushland reserves in proximity to suburban areas will realise the potential for:

- Pump track and jump park facilities
- Short distance cross country trail networks that are accessible by bike and link to public transport
- Increasing the availability of urban trails, and encouraging community participation and associated health benefits

## BUSINESS OPPORTUNITIES & ECONOMIC IMPACT

The development of appropriate mountain bike facilities in strategic locations will encourage visitation and expenditure, resulting in a tangible economic impact for the surrounding communities and the regions. It is imperative that revenue-based sustainable management models are established for ongoing facility management and development.

This will:

- Provide opportunities to establish and grow businesses that complement mountain biking activities
- Encourage public and private investment in trails and associated facilities
- Diversify trail development and management to include public-private partnerships

## TOURISM & PROMOTION OF MOUNTAIN BIKING

### WESTERN AUSTRALIAN MOUNTAIN BIKING BRAND

Mountain biking is already recognised as a major contributor to the Peel region's 'Anytime Adventures' branding. The plan recommends the establishment of a recognisable Western Australian mountain biking brand, which metro and regional tourism organisations can use to:

- Increase awareness of opportunities to target local, domestic and international visitor markets
- Develop the regions as a premier mountain bike tourism destination to meet the growing demand for adventure tourism experiences

## GOVERNANCE & SUSTAINABLE MANAGEMENT

### PERTH PEEL REFERENCE GROUP

A simple, streamlined governance structure is recommended that brings together representatives and stakeholders from relevant organisations that will:

- Ensure all key stakeholders work in partnership with clear roles and responsibilities
- Encourage mountain bike bodies and volunteer workforces to strengthen, grow and prosper
- Encourage private sector involvement and sponsorship
- Ensure appropriate trail maintenance practices are applied and improved
- Create a self-sustaining industry with less reliance on government funding

## EVENTS & EVENT FACILITIES

### ANNUAL NATIONAL & INTERNATIONAL LEVEL EVENTS

A range of national level events should be secured within the two regions for at least three years and at least one prominent international level event within 10 years, which will:

- Support, facilitate and deliver events that cater to different rider abilities and styles
- Improve the quality of trails and infrastructure to support a strong WA high performance environment
- Raise the profile of WA as a world class mountain biking destination

### EVENT FACILITIES

Locations of national and regional significance have been identified that have the potential to host national and international mountain bike events. The plan will deliver venues with trails, facilities and associated infrastructure with this capability, which will:

- Ensure event venues are accessible and sustainable
- Help secure regular national championships and international events

**CONSULTATION**

A steering committee, comprising representatives of key project partners and user group representatives from the two regions provided guidance and endorsement for the prioritisation of locations and the outcomes.

Consultation was targeted to inform community user groups and key stakeholders of the master planning process and objectives, and to seek information on local goals, opportunities and issues to identify priority locations.

**PARTNERSHIPS**

Many potential partners were engaged through the consultation process. Collaboration of key stakeholders – State and local governments, tourism organisations, mountain bike clubs and representative bodies, local businesses, commercial operators and event promoters, will ensure the sustainable development of the combined Perth and Peel regions as a mountain bike destination. This will also involve further exploration of opportunities for public, private and community sector investment in infrastructure.

**THE NEXT STEPS**

The proposed level of development is beyond the capacity of the agencies involved.

Additional funding, detailed location planning and land manager support is required to progress the recommendations of the PPMP.

The plan sets standards, processes and structures to address the challenges of governance, funding and long term management, which will support all relevant land owners and stakeholders to implement the Master Plan.

Area planning for the three nationally significant and three regionally significant locations will identify priorities, constraints and opportunities that will inform sustainable development. Adoption of the Draft Western Australian Mountain Bike Management Guidelines (WAMTBMG) (Biodiversity, Conservation and Attractions, 2015) will ensure the process is implemented consistently, relevant stakeholders are consulted, and other land uses and potential conflicts are considered and managed.

All priority locations are aspirational only and have not been subject to detailed assessments. Recommending a location for development does not guarantee the development will proceed. Nor does a recommendation assume that existing formal trails will be used or unsanctioned trails will be formalised.

It is anticipated that a review of unsanctioned trails in future planning stages will lead to a rationalisation and replacement with high quality, sustainably designed and constructed trails.

Building on the existing reputation and character of each priority location will be key to their success and it is important that they are developed collaboratively with the local mountain biking community.

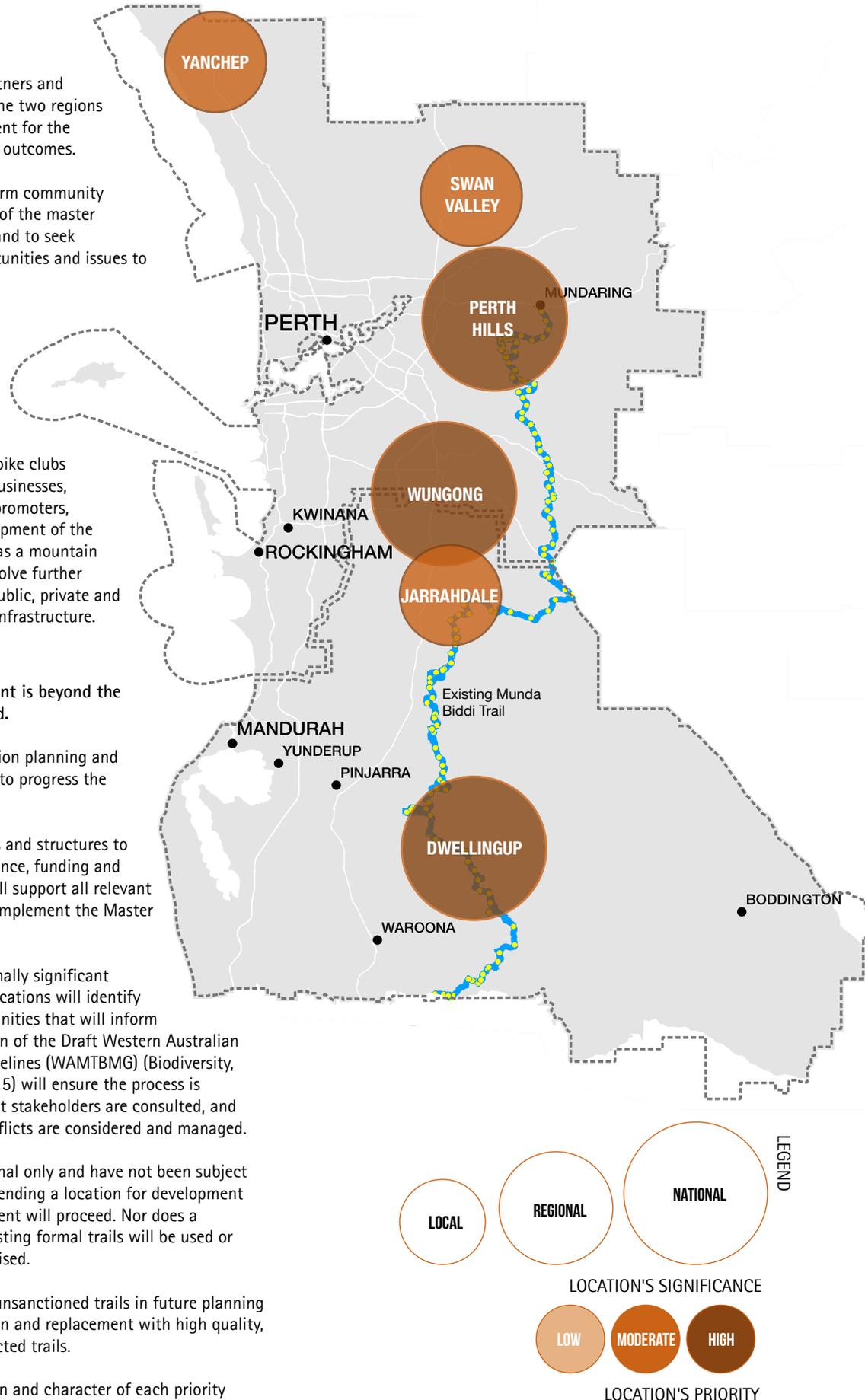


Figure 1: Priority Mountain Bike Locations

ID	LOCATION	SIGNIFICANCE	PRIORITY	INDICATIVE DELIVERY TIMEFRAME	REGION	DEVELOPMENT SCALE	RECOMMENDED DEVELOPMENT
<b>NATIONAL SIGNIFICANCE</b>							
1	Perth Hills Precinct	National	High	Short	Perth	> 80km	120km
2	Dwellingup Trail Town	National	High	Short	Peel	> 80km	80km
3	Wungong Trail Centre	National	High	Short	Peel	> 80km	80km
<b>REGIONAL SIGNIFICANCE</b>							
4	Swan Valley Trail Centre	Regional	Moderate	Medium	Perth	20km - 80km	30km
5	Jarrahdale Trail Town	Regional	Moderate	Medium	Peel	20km - 80km	30km
6	Yanchep Trail Centre	Regional	Moderate	Long	Perth	20km - 80km	30km
<b>LOCAL SIGNIFICANCE</b>							
14	Perth	Local	High	Long	Perth	< 20km	10km
18	Joondalup	Local	Moderate	Short	Perth	< 20km	20km
7	Cockburn	Local	Moderate	Short	Perth	< 20km	10km
10	Rottneest	Local	Moderate	Medium	Perth	< 20km	10km
20	Avon	Local	Moderate	Long	Perth	< 20km	20km
9	Yalgorup	Local	Moderate	Medium	Peel	< 20km	20km
12	West Coast	Local	Moderate	Long	Perth	< 20km	10km
21	Chidlow	Local	Low	Short	Perth	< 20km	15km
23	Sunset Coast	Local	Low	Medium	Perth	< 20km	10km
8	Rockingham	Local	Low	Long	Perth	< 20km	10km
11	Boddington	Local	Low	Long	Peel	< 20km	15km
13	Canning	Local	Low	Long	Perth	< 20km	5km
15	Kwinana	Local	Low	Long	Perth	< 20km	10km
16	Perth Eastern	Local	Low	Long	Perth	< 20km	10km
17	Melville	Local	Low	Long	Perth	< 20km	5km
19	Wanneroo	Local	Low	Long	Perth	< 20km	5km
22	Gosnells	Local	Low	Long	Perth	< 20km	10km
24	Mandurah	Local	Low	Long	Peel	< 20km	10km
<b>TOTAL OPPORTUNITY</b>							<b>575KM</b>

Table 1: Proposed Mountain Bike Locations

# INTRODUCTION



Mountain biking is one of the world's fastest growing recreational, sport and tourism activities and WA is following this global trend, experiencing continued growth over the past decade. With almost 120,000 mountain bikes purchased every year in WA, 19% of Western Australians own a mountain bike. There are over 50 competitive mountain bike events every year, with more than 1000 people taking part in the Dwellingup 100 MTB Classic each year. Trails within the Perth region are increasing in popularity. Two of the trails within the 40km+ Kalamunda Mountain Bike Trail Network have been ridden over 50,000 times per year since 2012.

More people are mountain biking in WA than ever before, and demand for mountain bike opportunities is high across the state. Existing formal mountain bike trails and facilities in the Perth and Peel regions are experiencing increasing environmental, social, cultural and management pressures that are typically associated with heavy trail use.

The project area has been identified as a significant mountain biking hot spot and the State Strategy recommended that master planning be undertaken as an immediate priority to guide sustainable mountain bike development.

The PPMP provides an opportunity to create a diverse and sustainable, internationally recognised mountain bike destination through the planned and strategic investment in new facilities that foster community participation and strengthen regional economies. It provides an aspirational hierarchy of strategic locations that together form an internationally recognised mountain biking destination and will be used to guide public and private investment in the future development of mountain bike facilities in the project area.

As the capital city and tourism gateway to WA, Perth has the potential to attract visitors to statewide mountain biking opportunities, and plays a major role in their promotion. A significant commitment of vision and resources is required to create a successful mountain biking destination that provides economic, tourism, environmental, health, social and community benefits.

## PLANNING CONTEXT

The State Strategy provides the overarching framework and hierarchy of planning and development for mountain biking in WA, under which sits the PPMP and other regional-scale planning documents such as the South West Mountain Bike Master Plan (WestCycle, 2015). Regional level master planning provides guidance for prioritising more detailed levels of site planning.

Trail terminology is varied and no single system is universally adopted. The terminology used in this Master Plan is consistent with the Draft WAMTBMG.

The following strategies, policies, guidelines and plans have been considered in the preparation of the PPMP. This plan is not necessarily consistent with all of these documents, and where relevant justification is provided for consideration of mountain biking development (Refer the Location Detail Section).

## STATE

- State Planning Strategy 2050 (WAPC, 2014)
- Directions 2031 and Beyond (WAPC, 2010)
- Draft Perth and Peel @ 3.5 Million (WAPC, 2015)
- Draft Perth and Peel Green Growth Plan for 3.5 Million (Department of the Premier and Cabinet, 2015)
- South West Native Title Settlement (Department of Premier and Cabinet, 2015 )
- Western Australian Trails Strategy 2009–2015 (DLGSC, 2009)
- Our Bike Path 2014–2020 (WestCycle, 2014)
- Western Australian Mountain Bike Strategy (WestCycle, 2015)
- Draft Western Australian Cycling High Performance Vision 2016–2020 (WestCycle, 2016)
- Draft Western Australian Mountain Bike Management Guidelines (Biodiversity, Conservation and Attractions, 2015)
- Western Australian Bicycle Network Plan 2014–31 (Department of Transport, 2014)
- World Class Trails Hub Strategy for Western Australia (DLGSC)
- Future Direction of Trails Development in WA (DLGSC, 2004)
- Tourism 2020 (Tourism Western Australia, 2012)
- Forest Management Plan 2014–2023 (Conservation Commission of Western Australia, 2014)

**REGIONAL**

- Peel Regional Investment Blueprint (Peel Development Commission, 2015)
- Peel Tourism Economic Development Infrastructure Strategy 2016-20 (Peel Development Commission, 2016)
- Destination Perth (Tourism Council WA, 2014)

**LOCAL**

- Statutory conservation reserve management plans prepared by DBCA
- Perth Hills Trails Master Plan (Tredwell Management Services, 2013)
- Perth Hills Trails Loop Concept Design Report (Tredwell Management, 2016)
- Local town planning schemes
- Local town planning policies

**OTHER**

- Operational Policy 13: Recreation within Public Drinking Water Source Areas on Crown Land (Department of Water, 2012)
- Policy Statement 18: Recreation, Tourism and Visitor Services (Parks and Wildlife, 2006)
- Australian National Cycling Strategy 2011-2016 (Australian Bicycle Council, 2010)
- Healthy Spaces and Places (Planning Institute of Australia, 2009).

**PROJECT AREA**

The project area encompasses the Perth and Peel regions of WA, bound by the DBCA Swan region, which includes the Perth Hills and Swan Coastal districts (see Figure 2). There are 34 local government authorities within the project area, hosting a total population of over 2 million people (WAPC 2016) across an area of approximately 9,975 square kilometres.

Characterised by the unique formations and topography of the Swan Coastal Plain and Darling Scarp, the project area provides the ideal characteristics for world-class natural outdoor adventure experiences.

**LEGEND**

- Major Population Centre
- Minor Population Centre
- ▭ DBCA Regions
- ▭ DBCA Districts
- ▭ Local Government Area
- Highway, Freeway
- - - Region Boundary

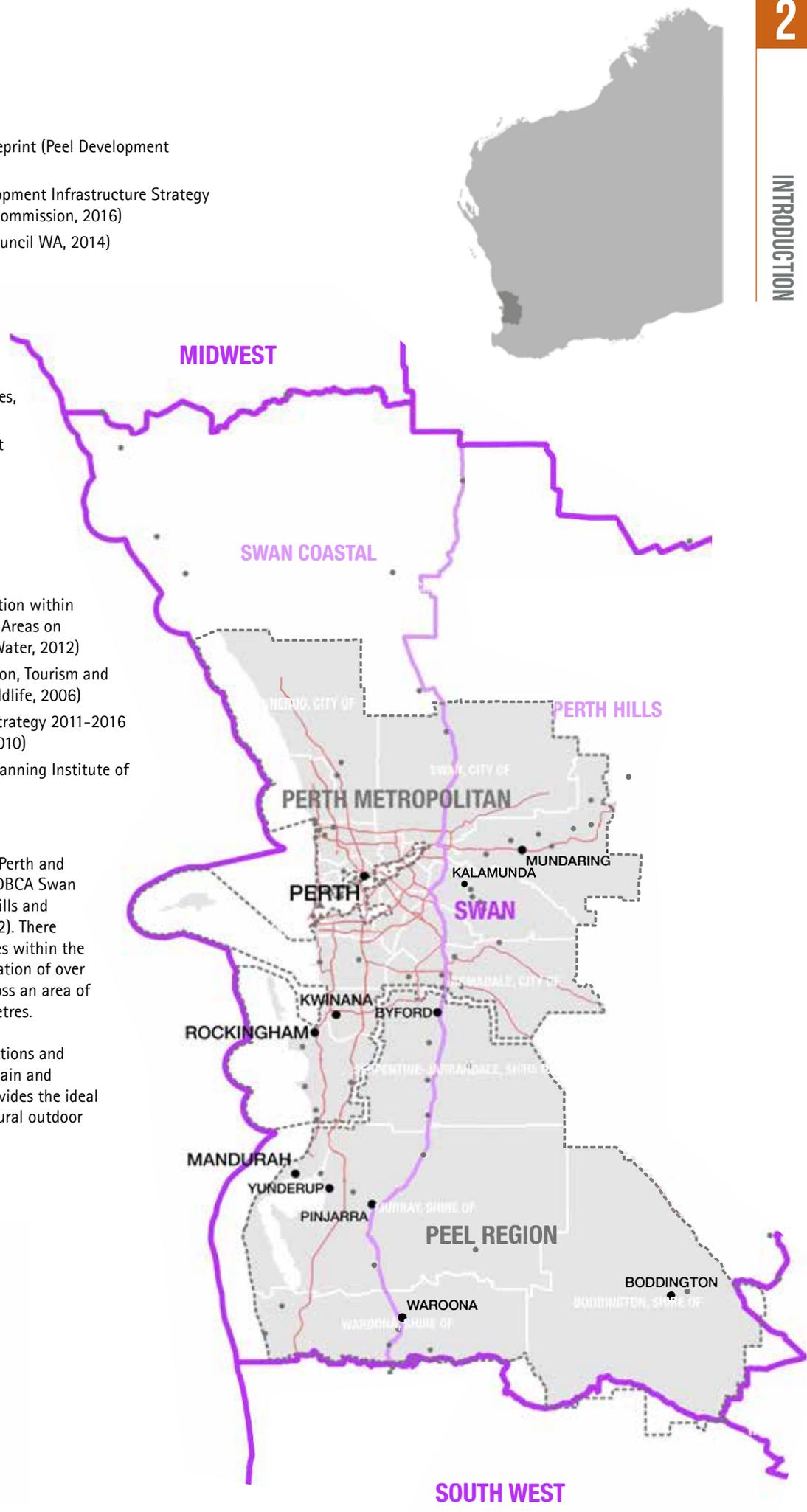


Figure 2: Project Area

## TENURE

The mountain bike locations identified within the project area are situated on a variety of tenures including state forest, national park, bushland reserves, local parks and recreation reserves and some freehold land. DBCA manage over 761,000 hectares of land in the project area (Parks and Wildlife, 2015), with additional land managed by other agencies such as local government, Water Corporation, Department of Water, the DBCA. Whilst not all supported by their respective land managers, notable sites considered in the PPMP include John Forrest, Serpentine, Kalamunda, Greenmount and Beelu National Parks as well as Lane Poole Reserve, Yellangonga, Rockingham Lakes and Beeliar Regional Parks, and Bold, Manning and Kings Parks.

Anticipated tenure changes across the Perth and Peel regions are identified in the Draft Green Growth Plan (WAPC, 2015), including the proposed addition of 170,000 hectares of land into the conservation reserve system. Changes in tenure may affect the type of mountain bike trails that can be developed in a particular location and this has been considered in the site assessment process.

In some instances, privately owned, or freehold land has been identified within the project area as locations for potential mountain biking development. Although it represents a small proportion of the assessed area, some broad recommendations for development are included in this plan. Privately owned sites have not been specifically identified as, due to the nature of land ownership, it has the potential to change. Where private land is proposed for mountain bike trail development, it should be supported. If mountain bike facilities are proposed for private development, private-public-partnerships should be considered.

## PROJECT CONSTRAINTS

All areas with the potential for mountain bike development were considered in the project area, with constraints being part of the assessment process. The primary constraints include the following:

- Conflicting land uses and zoning, such as public drinking water source areas and their protection zones
- Environmental constraints, such as disease risk areas, the presence of threatened species or ecological communities, topography and hydrography
- Aboriginal and non-Aboriginal heritage registered sites and sites of known significance
- Tenure and management considerations
- Potential conflicts with other recreational users such as bush walkers, horse riders, four wheel drives and motorised trail bikes.

### Public drinking water source areas and Reservoir Protection Zones

Operational Policy 13 (Department of Water, 2012) is aimed at ensuring recreational activity in public drinking water source areas (PDWSA) is conducted in ways which maximise water quality to protect public health. It identifies that:

- Existing approved recreation (i.e. events and facilities) should be maintained at September 2012 approved levels. New or enhanced recreation (i.e. events and facilities) should be located outside proclaimed PDWSAs
- Individuals undertaking passive land based recreation activities (not part of organised events) in PDWSAs (such as mountain biking) are:
  - Not supported in Reservoir Protection Zones (RPZ) – public

access in RPZs is prohibited except along public roads

- Supported in PDWSA outer catchment areas
- Supported in the wellhead protection zones and outer catchments of groundwater source areas.

This approach is aimed at establishing new and enhanced recreation in the many areas that exist outside proclaimed PDWSAs. In order to provide additional recreation areas, the Department of Water has investigated the abolition (or removal of by-laws) that restrict recreation in PDWSAs which are no longer required in the Perth Hills and South West. Since the policy's introduction in 2012, thirteen PDWSAs have been abolished.

A number of the thirteen are located in the Perth and Peel regions; these relevant PDWSAs that have been abolished (or had their by-laws removed) include Bickley Brook catchment area, Gooralong Brook water reserve, Dirk Brook water reserve and Boddington Dam catchment area. Active proclaimed PDWSAs have been shown on all opportunity mapping, and include Middle Helena, Mundaring Weir, Victoria, Canning, Churchman Brook, Wungong, Serpentine, Serpentine Pipehead, North Dandalup, Conjurunup, South Dandalup, Lower South Dandalup, Samson Brook, Samson Brook Pipehead PDWSAs and the Perth Coastal and Gnaragar underground water pollution control areas.

Figure 5 of Operational Policy 13 outlines the extent of the PDWSAs in the project area as at September 2012. It should be noted the above listed PDWSA have not yet been removed from this figure.

### Disease Risk Areas

Disease caused by Phytophthora species, a soil borne fungal pathogen, is leading to significant decline of susceptible native flora species in south western WA, particularly the introduced Phytophthora cinnamomi. In an effort to contain its spread, areas of forest have been set aside and managed as disease risk areas (DRA) with strict hygiene protocols and access management. Some activities, such as mountain biking, are prohibited or restricted within or adjacent to DRAs and this has been taken into account when recommending locations for development.

### Aboriginal Culture, Heritage and Native Title

Locations that are popular for mountain biking can sometimes coincide with sites of significance for traditional owners, given they can both occur in natural, relatively undisturbed areas. Should detailed site planning progress for any of the locations recommended in this Master Plan, traditional owners will be consulted in accordance with the relevant legislation and any requirements of the South West native title settlement.

### Tenure Constraints

Consideration must be given to land use, tenure and management in identifying constraints for proposed mountain bike trail development. For DBCA managed lands, the tenure compatibility in the Draft WAMTBMG will be referenced.

Nature reserves, due to their high conservation value are not compatible with most types of mountain biking. Other parks and reserves have some level of compatibility with different types of mountain bike trails.

The PPMP considers land tenure as part of the assessment process, but may make recommendations for mountain bike trail development on sites where the current tenure is not compatible but there is a unique opportunity that is not available elsewhere.



### Existing Recreation Use

Locations identified as having potential for mountain biking development within the PMP have broadly considered the potential impact on and conflict with other recreational user groups. The future planning stages for mountain bike development, in accordance with the process recommended in the Draft WAMTBMG (Biodiversity, Conservation and Attractions, 2015), will review existing recreational uses in locations proposed for development with consideration given to:

- Potential conflict with other recreation users
- Visitor safety
- Increased demand for facilities and services
- Commercial operations
- Events held in the area

Consultation with the community and other recreational user groups (e.g. equestrian) will be undertaken. There may be opportunities to capitalise on existing facilities, share infrastructure and develop shared use trails.

### ENVIRONMENTAL CONSIDERATIONS

The project area falls across the Swan Coastal Plain along the coast and inland to the Darling Scarp and Darling Plateau, (or the Perth Hills). Together these ancient physiographic units form part of the south western WA biodiversity hotspot, one of only 35 around the world. The hotspot contains an estimated 5,700 species of vascular plants, of which around 79% are endemic (Parks and Wildlife, 2016). A range of vegetation types occur across the project area from woodlands, coastal heath and wetland dependant vegetation on the coastal plain to forests, riparian vegetation and granite outcrop communities in the hills.

The geological stability of south western WA has led to deeply weathered, infertile soils that have contributed to the amazing diversity of flora species (and fauna species) that have evolved to survive in difficult and unique conditions, in relative isolation from the rest of Australia. The Swan Coastal Plain is characterised by flat, sandy terrain with some undulation and limestone features close to the coast. The coastal plain contains a number of wetlands

including swamps, lakes and estuaries. By contrast, the Darling Scarp rises sharply from the coastal plain, from a fault line that extends for over 1,000km from north to south. It contains steep topography, granite and gneiss features and gravelly soil.

More than 80% of the wetlands on the Swan Coastal Plain have been lost or irreversibly degraded and more than 97% of the eastern side of the coastal plain has been cleared (Parks and Wildlife, 2016). The natural vegetation that remains is highly fragmented and susceptible to a range of pressures including ongoing clearing, weeds, feral animals, pollution, erosion, fire and disease. The vegetation of the Perth Hills is more intact and significant areas are protected in conservation reserves.

Mountain biking is inherently a nature-based activity and protection of environmental values is essential for delivering enjoyable trail experiences. By applying sustainable planning, design and construction principles, mountain bike trails can protect these values, by:

- Avoiding sensitive ecosystems
- Keeping users on designated and appropriate trails
- Reducing fire management risk (i.e. knowing where riders will be)
- Applying standard trail widths, minimising the disturbance footprint and associated effects
- Rehabilitating unsanctioned trails
- Creating stewards for the environment through facilitating a sense of community ownership of the trails
- Creating passive surveillance

Environmental impacts caused by poorly designed trails, as well as sustainable planning, design and construction principles and techniques are detailed further in Appendix 2.

### UNSANCTIONED TRAILS IN THE PROJECT AREA

Approximately 75% of the existing trails used by mountain bikers in the Perth and Peel region are unsanctioned or informal. These comprise fire management access tracks, walk tracks and informal user-created trails. These trails have not been formally planned

or designed nor has their construction necessarily been in accordance with best practice. None of the unsanctioned trails have been formally assessed for their sustainability or suitability for use by mountain bikers.

Whilst it can be argued that the continued construction and use of unsanctioned trails is reflective of the demand amongst the riding community, it must be acknowledged that the continued construction and use of unsanctioned trails may lead to further degradation and in some cases irreversible impacts on the environment.

The PMP provides the opportunity to investigate locations for potential mountain bike trail development, which would include a formal assessment of some or all unsanctioned trails within the relevant development zones. The outcome of the assessment could be the closure, replacement or upgrade of unsanctioned trails as part of a high quality, sustainable mountain bike facility.

**DEMOGRAPHICS**

The population of Perth and Peel is just over 2 million, which is over three-quarters (78%) of the total population of WA (Australian Bureau of Statistics, 2016).

Forecasts indicate that by 2050, the combined population of the Perth and Peel regions will reach 3.5 million. In response to the expanding population and a need to prevent further urban sprawl, the Draft Perth and Peel @ 3.5 million (WAPC, 2015) proposes a hierarchy of strategic metropolitan centres that will focus urban development in specific areas.

The median age of residents in the project area is similar to the national average of 36.3 years (Profile.id, 2016). Within Greater Perth, children aged 0 to 14 years account for 19% however overall, the population is ageing and living longer. While in 2011, 12% of people in Perth and Peel were aged over 65, this is expected to rise to 22% by 2050 (WAPC, 2015).

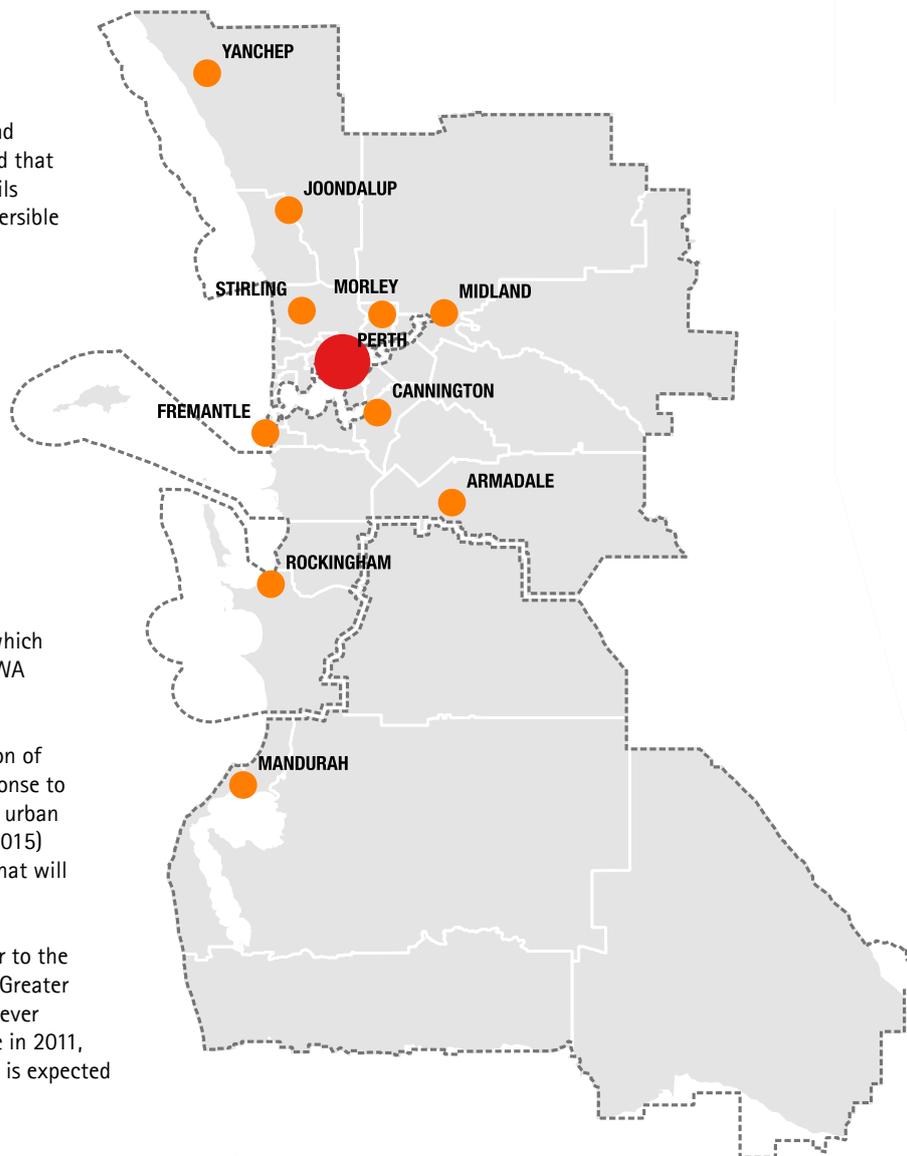
**TOURISM IN THE PROJECT AREA**

In 2015 the Experience Perth tourism region had an estimated 17 million visitors (including both overnight and day trips), with the majority travelling for holidays or visiting friends or relatives. Visitor expenditure in 2015 was an estimated \$5.425 billion (Tourism Western Australia, 2016). Nature based activities are undertaken by 21% of visitors to the region.

Intrastate visitors account for 57% of the visitors to Perth and tend not to stay as long as interstate and international visitors, with an average length of stay of 2.8 nights. Interstate visitors account for 25% of the visitors to Perth with around 1,075,000 visitors staying in the region for an average 5.9 nights.

International visitors account for 18% of the visitors to WA and at an average stay of 27 nights, account for 62% of visitor nights. The largest international markets to the Experience Perth region are the United Kingdom (17%), Singapore (10%), Malaysia (9%), New Zealand (9%) and United States (7%).

The primary purpose for intrastate visitors to travel is holiday, followed by visiting family and relatives, closely followed by business.



**LEGEND**

- Local Government Area
- Region Boundary
- Capital City
- Strategic Metropolitan Centre

Figure 3 Strategic Metropolitan Centre

# CONSULTATION



Consultation undertaken on the Master Plan was an inclusive and valuable process, which greatly informed the project outcomes. Stakeholder and community input assisted in developing a long-term vision for mountain biking in the project area and contributed toward a better understanding of the following issues:

- Existing trails and their levels of use
- Local constraints and aspirations
- Potential locations suitable for trail development
- Opportunities for ongoing management

Overall, consultation highlighted the increasing demand for places to ride, compounded by a lack of formal trails in the project area, particularly in close proximity to residential areas. Recreational riders and stakeholders also shared a common desire to develop sustainable trails for all riding styles and abilities within the recreation, competitive and tourism sectors.

## STEERING COMMITTEE LIAISON

A steering committee, led by WestCycle, determined the overall priorities for the project and provided guidance throughout the development of the Master Plan, including the Multi-Criteria Analysis and its outcomes. The committee comprised representatives from WestCycle, Department of Biodiversity, Conservation and Attractions (DBCA), Department of Local Government, Sport and Cultural Industries (DLGSC), West Australian Mountain Bike Association (WAMBA), Munda Biddi Trail Foundation (MBTF) and the City of Cockburn as well as representatives from

local mountain bike clubs.

The steering committee identified the following aspirations for mountain bike development in the Perth and Peel regions:

- Residents of the Perth and Peel regions will live within 10km (Perth) or 20km (Peel) of a naturally surfaced trail
- An optimal network of trails to service the two regions is developed, that includes trails of national, regional and local significance
- Trails facilitate riding for at least twice the amount of time as the travel time to get there
- Strategic trail locations are identified, as well as strategic zones for local level trails
- The entire project area is considered, including locations with constraints
- Areas containing unsanctioned trails are identified and characteristics and user demand are noted
- Specific sites are identified for national and regional level trail development and stakeholder buy-in is achieved
- The risk of providing too many trails, with the associated effects of land management pressures, diluting trail quality and the potential development of unsustainable trails is recognised and taken into account

## CONSULTATION PROCESS

STEERING COMMITTEE MEETINGS

USER GROUP WORKSHOPS & MEETINGS

STAKEHOLDER MEETINGS & WORKSHOPS

USER SURVEY

CONSULTATION DRAFT PERIOD

Figure 4: The Consultation Process

### ASPIRATIONAL OBJECTIVES

The strategic objectives for the Master Plan fall within six areas:

#### Economic benefits

- Identify the economic outcomes to meet with the wider objectives of the Perth and Peel regions
- Identify the right trail models to generate income and potentially secure significant economic benefits
- Identify diversity of land tenure (including private)

#### Tourism

- Develop mountain biking experiences to meet with the wider objectives for the Perth and Peel regions
- Provide product to cater for domestic tourism – day visitors and short breaks

#### Environmental

- Maintain a sense of place
- Conduct a best practice trail demonstration project
- Build a sustainable gravity-focused trail project with land manager support to demonstrate mitigation measures and what can be achieved
- Reduce the impacts of unsanctioned trails in the region

#### Social

- Provide trail diversity, enabling access for all
- Consider heritage (Indigenous and non-Indigenous) and local culture
- Consider integration with and potential conflict with other user groups
- Facilitate broad societal community benefits
- Provide suitable and accessible facilities for underrepresented groups including young people and families

#### Recreation

- Provide a diversity of accessible trails types and experiences
- Increase trail quality
- Provide trail networks accessible by bike
- Identify locations and networks that facilitate community ownership (both local and club)

#### Events

- Identify sites suitable for national and international events, and any associated constraints
- Identify suitable locations for local events
- Provide accessible facilities for events.



## STAKEHOLDER CONSULTATION

The purpose of stakeholder consultation was to inform the relevant parties of the Master Plan process and objectives, seek information on local and regional opportunities and constraints, review priority locations and identify potential governance structures.

Meetings were held with stakeholder representatives and a number of forums were organised in locations where riders are not represented by formal bodies. A group workshop for local governments was attended by representatives from five different local government authorities, plus other key stakeholders. Individual meetings were also held with local governments surrounding priority locations.

The following organisations, groups and individuals provided input into the Master Plan:

- Department of Biodiversity, Conservation and Attractions (DBCA)
- Department of Local Government, Sport and Cultural Industries (DLGSC)
- Department of Water (DoW)
- Water Corporation
- Perth Region Tourism Organisation (Experience Perth)
- Mandurah and Peel Tourism Organisation (MAPTO)
- Peel Development Commission (PDC)
- Local Government Authorities
- West Australian Mountain Bike Association (WAMBA)
- WestCycle
- Private land owners
- Commercial operators
- Event coordinators

### Key Stakeholder Outcomes

- There are significant opportunities to attract tourists and visitors, with associated economic benefits to local communities
- Trail planning processes need to consider necessary supporting infrastructure along with trails
- Focus on quality over quantity
- There are opportunities to connect more people with the natural environment
- The majority of existing trails are on public land and there is a lack of classification diversity
- Trail developments should not rely on land managers funding from existing budgets, and new opportunities and models to generate income should be explored
- Trail development needs to consider potential conflicts with other recreational users and land uses
- Further discussion will be required where locations recommended for development are not currently supported by the land manager
- Trail development should consider the use of degraded areas and rationalisation of existing trails to minimise environmental impacts
- Further planning is required to demonstrate protection of the environmental values.

## USER GROUP CONSULTATION

The following user groups were consulted in the preparation of the Master Plan:

- Goat Farmers Mountain Bike Group
- Kalamunda Mountain Bike Collective (KMBC)
- Munda Biddi Trail Foundation (MBTF)
- Peel Districts Mountain Bike Club (PDMBC)
- Perth Mountain Bike Club (PMBC)
- WAMBA

User group consultation identified club member engagement activities, gaps in the supply of trails, desirable locations for club-based activities, club capacity to assist in the trail development process, key relationships and stakeholders as the core issues they would like addressed in the Master Plan.

An online user survey was distributed to the wider mountain bike community as part of the information gathering process. It was promoted through user group membership databases, websites and social media. The comment period was one month, after which 544 responses were received.

The survey proved a useful tool in providing an insight into rider characteristics and preferences for trails and development locations. It also identified where respondents ride, how often and in some cases, barriers to participation. The demographics of the survey respondents are reviewed in the Analysis section.

### Key User Consultation Outcomes

- There is high existing demand and the potential for Perth and Peel to capitalise on a rapidly growing market
- Many locations have the potential for encouraging and attracting new people to the activity, through developing mountain bike facilities, including in urban settings
- There is a lack of existing trails, and variety in trail type and classification
- There is a lack of trails and facilities close to population centres and urban areas
- There needs to be more advanced trails to challenge aspiring and professional athletes that WA is renowned for producing
- Insufficient high quality trails in the Peel region to encourage use by Perth residents
- There are no high quality facilities suitable to host state or national events
- More information needs to be made available on where to ride
- The appropriate development and improvement of trails at existing facilities will potentially increase visitation and economic benefits for the local community.

# DEVELOPMENT



Successful and sustainable trails require strategic location planning, which involves an understanding of trail hierarchies, types, users and classifications. Trail terminology is varied and no single system is universally adopted. The terminology used in this Master Plan is consistent with the Draft WAMTBMG.

## SIGNIFICANCE HIERARCHY

A number of strategies are employed to ensure the appropriate trail models and trail types are developed in the appropriate locations. Factors for consideration include location significance, spatial distribution, event requirements and trail model detail. Figure 5 provides an overview of the significance hierarchy.

### LOCATION SIGNIFICANCE

Location significance defines the scale, reach and connectedness for mountain bike development in a given location. It also identifies the supporting services and infrastructure that is required to meet the significance rating. The location significance indicates a population centre or area's opportunity, including the desired recreation and tourism outcomes.

Priority locations for mountain bike development in the project area have been categorised as being nationally, regionally or locally significant. All locations, when being developed, should be consistent with the relevant development procedures and standards.

**Locally Significant** locations cater for community based trail use with tourism demand limited to day visits. Facilities are developed within a 10-15km zone from population centres unless servicing existing recreation and camp sites, or significant population centres where alternate opportunities do not exist. Locally significant locations can develop around the trail town and trail centre models, but can also be stand-alone individual and networked trail systems.

They contain limited services and infrastructure but can still host events. Excluding long distance trails, up to 20km of trail may be developed with the majority being singletrack forming at least two loops. Locations of local significance may develop limited trail types and classifications and can expect demand from surrounding regional and national locations.

**Regionally Significant** locations cater for small population centres or large communities and/or tourism resources that cater for short breaks or weekend trips. Facilities should be developed within a 15-20km zone, and be focused around a primary trail centre or trail town model.

They provide a minimum level of services and infrastructure and can host national and regional events. Excluding long distance trails, regionally significant locations contain at least 30km of trail with the majority being singletrack, forming at least two major loops. Locations of regional significance should encompass broad trail types and classifications. Regional locations will see demand for trails from surrounding national locations.

LOCAL SIGNIFICANCE	REGIONAL SIGNIFICANCE	NATIONAL SIGNIFICANCE	INTERNATIONAL SIGNIFICANCE
A mountain bike facility for a small community and/or a tourism resource that caters for day trips	A mountain bike facility for a small population centre or large community and/or a tourism resource that caters for short breaks or weekend trips	A mountain bike facility for a large population centre and/or a tourism resource that caters for at least a week of unique riding opportunities	A combination of locally, regionally and nationally significant locations that cater for visitors across a broad spectrum of markets and a range of unique riding opportunities

## INTERNATIONAL MOUNTAIN BIKING DESTINATION

Figure 5: Significance hierarchy

**Nationally Significant** locations capture the tourism market for at least a week of unique riding and can provide a large recreation resource for a major population centre. They are developed to cater for international, interstate and intrastate tourism as a priority and facilities fall within a 20–25km zone, or 30 minutes driving. Trail development is focused around a primary trail town model and can include trail centres, networks or individual trails as part of the hub.

Excluding long distance trails, locations should contain over 80km of trail with the majority being singletrack, forming at least four major loops. Locations of national significance should develop all trail types and classifications where appropriate.

These locations will experience very high demand and should provide a high level of services and infrastructure to riders and also have the ability to cater for major international and national events.

**Internationally Significant Destinations** combine a number of strategic nationally, regionally and locally significant locations within a single region, or across a number of neighbouring regions. These destinations cater for visitors from across a broad spectrum of markets and a wide variety of mountain biker user types.

## REGIONAL DISTRIBUTION OF LOCATIONS

To ensure priority locations see focused development, and there is a coherent regional distribution, a minimum distance needs to separate national and regional locations. Exclusion zone and development zone strategies are employed to assess this.

### EXCLUSION ZONES

Exclusion zones indicate the recommended minimum distance between locations of equal or greater significance. Spatially separating locations at the regional scale maintains location integrity through preventing duplication and location saturation.

This ensures accessibility and prevents broad scale trail development, which in turn minimises pressures on environmental values.

Perth has a sufficient population size and distribution to justify nationally significant locations being situated in relatively close proximity to each other. The Peel region has a more sparsely distributed population and the greater exclusion zones reflect this.

Where two locations fall within the same exclusion zone, the higher rated location will prevail and the lesser location will be downgraded to a lower significance rating.

The recommended exclusion zones between significant locations in the project area are listed in Tables 2 and 3.

### DEVELOPMENT ZONES

The development zone defines the extent to which trail facilities should spread from the centre of a location, which is generally a population centre or preferred trail town location. Development zones are recommended to occupy no more than half of a location's affiliated exclusion zone to ensure a concentration of trails and to limit broad scale development.

In some instances, the development zone concept allows separately assessed locations to be combined into a higher rating location to become a clustered development zone.

Sites that fall within an exclusion zone or outside a development zone are not precluded from development, should there be the opportunity, demand, stakeholder support and a sustainable management model.

The recommended development zone radius for each significance level in the project area is listed in Tables 2 and 3.

PERTH REGION SIGNIFICANCE				
SIGNIFICANCE	SCALE OF DEVELOPMENT	LENGTH OF STAY	EXCLUSION ZONE	PREFERRED DEVELOPMENT ZONE RADIUS
National	Over 80km trails with 4+ loops	Holiday of over 1 week	30km or 30 mins driving time from alternate National	7.5km
Regional	At least 30km trails with 2+ loops	Short break 2–3 days	20km or 20 mins driving time from alternate National or Regional	5km
Local	Up to 20km with 2+ loops	Day trip	N/A	3.5km

Table 2 Summary of Exclusion and Development Zones - Perth Region

PEEL REGION SIGNIFICANCE				
SIGNIFICANCE	SCALE OF DEVELOPMENT	LENGTH OF STAY	EXCLUSION ZONE	PREFERRED DEVELOPMENT ZONE RADIUS
National	Over 80km trails with 4+ loops	Holiday of over 1 Week	80km or 1 hour driving time from alternate National	20km
Regional	At least 30km trails with 2+ loops	Short break 2–3 Days	40km or 30 mins driving time from alternate National or Regional	10km
Local	Up to 20km with 2+ loops	Day trip	N/A	3.5km

Table 3 Summary of Exclusion and Development Zones - Peel Region

## TRAIL DEVELOPMENT



## TRAIL MODELS

A trail model defines the extent of development for a mountain bike facility. Depending on a number of factors, the scale of trail model can vary significantly from individual trails up to trail centres and trail towns. The type of trail model should be appropriate to the significance rating of the mountain bike facility and where possible, allow for opportunities to generate revenue that can sustain the development. Refer Figure 6 for a summary of trail models relating to significance level.

Case studies describing examples of each model are provided in Appendix 4.

Development of a mountain biking facility based on a trail model does not preclude other types of trails from being developed within or nearby the location. The potential integration and conflict management associated with user groups in the area would be managed through further stages of planning, as per the Draft WAMTBMG.

### INDIVIDUAL TRAILS

Trails come in a variety of types and configurations and are defined by their model, system, use, direction and classification. They can accommodate a range of user types and mountain bike user types. Further detail on the types of trails, classifications, users and mountain bike user types is at Appendix 2.

Individual linear or looped trails are generally not considered as a development model for a destination. Long distance trails can link individual trails and can also be the precursor to developing a destination. Small individual trails typically form part of a trail town, centre or network model.

#### Short Linear Trails

These are linear, marked routes which can be completed in under a day and are of varying lengths. They are generally marked in two directions as they need to be ridden as a return journey. Short linear trails are often associated with key visitor attractions such as summits, vistas, headlands and beaches, and may include campgrounds or huts.

#### Long Distance Linear Trails

Long distance trails often connect towns or locations. These are long multi-day routes which start and finish in different locations and may be broken up into smaller sections. They can be iconic tourism products however the market for end to end use is relatively limited and often specialised.

### TRAIL NETWORK

A trail network is a single site with multiple signed and mapped trails of varying type and classification, with no visitor centre and limited mountain bike facilities. A trail network may be standalone within a population centre or individual location, or form part of a trail centre or trail town. If not part of a trail town, trail networks are often located away from population centres, or in a location that does not provide essential mountain bike services.

Trail networks suit locations where demand does not exist for significant development and there is no supporting population centre. They also suit locations close to residential population centres as passive recreation facilities for community use.

With careful planning, trail networks can be designed to accommodate staged development with a view to becoming a trail centre as demand increases.

### TRAIL CENTRE

A trail centre is a single site with dedicated visitor services and mountain bike facilities, provided by a single trail provider. It includes multiple signed and mapped trails of varying type and classification.

A trail centre can be part of a trail town and incorporates a trail network. They are typically located close to major population centres or iconic locations.

### TRAIL TOWN

A trail town is a population centre or popular recreation destination that offers a wide range of high quality trails as well as related services, facilities, businesses, strong branding and supportive governance. They can incorporate trail centres and typically have multiple trail networks. A trail town may consist of a number of sites, hosting several signed and mapped trails of varying type and classification.

Mountain bike facilities such as car parking and visitor services are available within the vicinity, typically provided by independent businesses. In order to appeal to the market majority, it is important trail towns are user friendly and have high quality directional signage and maps.

Trail towns benefit from having a single central information and service centre to promote and provide access to trails. Although different, these can act similarly to a trail centre.

Trail towns should have at least one cohesive trail network offering multiple classifications and trail types within a single uninterrupted area (for example, with no major road crossings).

### TRAIL PRECINCT

A precinct may be designated where there are a number of major opportunities within close proximity to each other and a major population centre. Models can be linked strategically through physical infrastructure or promotion and marketing to create a large and diverse trail destination.

Due to its scale, a precinct has the capacity to serve a variety of different mountain bike user types through the provision of user-infrastructure at individual sites.

	INDIVIDUAL TRAILS	TRAIL NETWORK	TRAIL CENTRE	TRAIL TOWN	TRAIL PRECINCT
National Significance	Only if part of trail town	Only if part of trail town	✓	✓	✓
Regional Significance	Only if part of trail town	✓	✓	✓	✗
Local Significance	✓	✓	✗	✗	✗
Population centre based user services & facilities	✗	✗	✗	✓	✓
Site-based user services & facilities	✗	✗	✓	✓	✓
Associated infrastructure	✓	✓	✓	✓	✓
Multiple trail models	✗	✗	✗	✓	✓
Multiple trails	✗	✓	✓	✓	✓
Single trail	✓	✗	✗	✗	✓

Table 4: Trail models significance, scope and extent

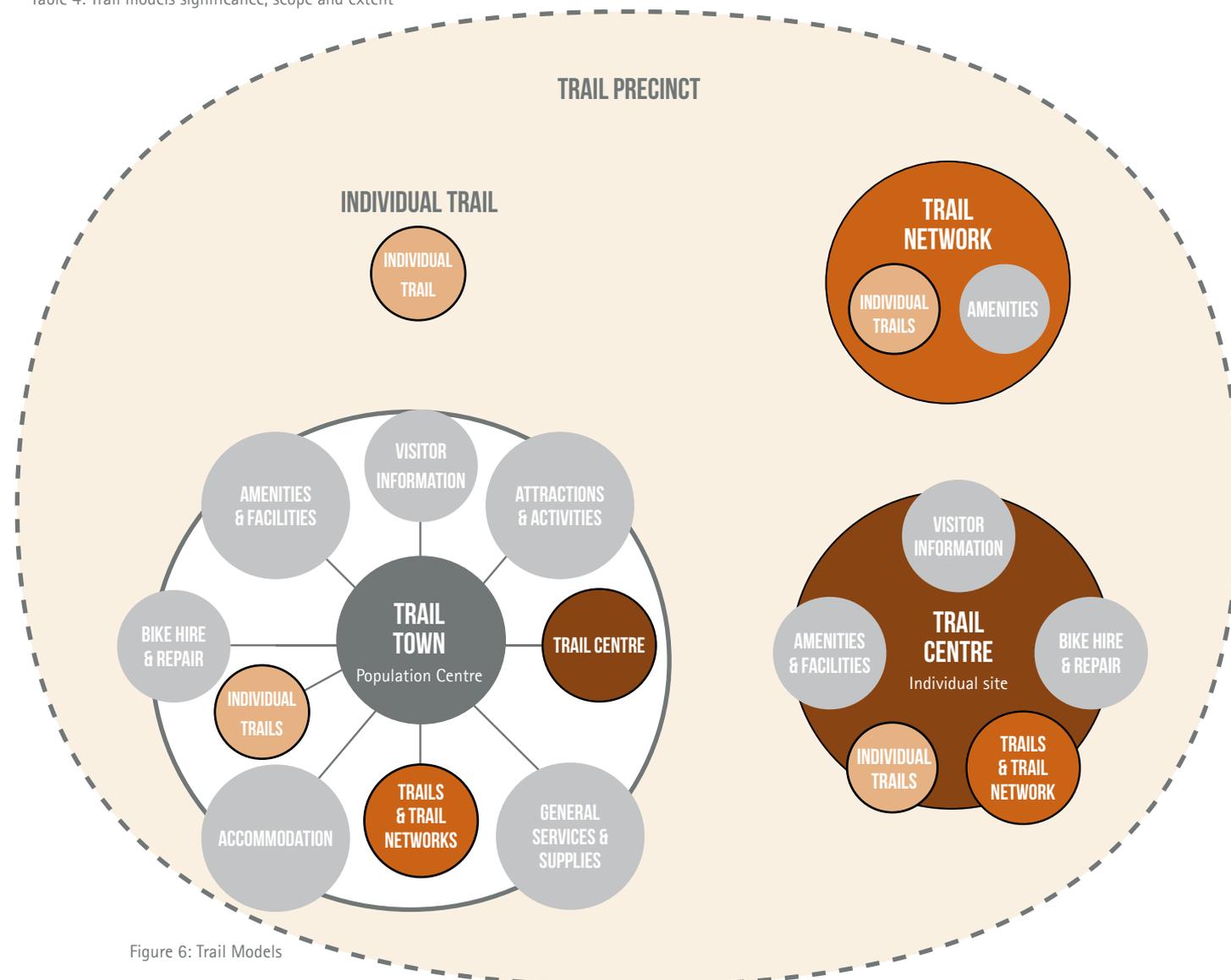


Figure 6: Trail Models

<b>LINEAR TRAILS</b>			
	<b>SHORT LINEAR TRAILS</b>	<b>LONG DISTANCE LINEAR TRAILS</b>	<b>TRAIL NETWORK</b>
<b>Services</b>	Toilets, parking, trail information, accommodation on or nearby trail.	Parking, trail information, accommodation and toilets on or nearby trail.	Toilets, parking, trail information.
<b>Market</b>	Day trip tourism markets.	Short break tourism markets if accommodation is provided.	Day trip tourism markets.
<b>User Types</b> <i>(refer user type definitions on page 22)</i>	Depending on the type of trail and points of interest, users include enthusiast, sport and gravity.	Appeals to more experienced, independent or enthusiast user types who actively seek this type of experience.	Generally lacking visitor services, serves more experienced enthusiast, sport, and gravity.
<b>Potential Revenue Generation and Economic Impact</b>	<ul style="list-style-type: none"> <li>• A potential marketable 'epic trail' or 'epic ride' product that can attract sponsorship and be promoted alongside similar international experiences.</li> <li>• Achieving IMBA Epic Ride status would attract international enthusiast market.</li> <li>• Potential for concessions to commercial operators with revenue being returned to trail management.</li> </ul>	<ul style="list-style-type: none"> <li>• Potential for economic benefit for businesses and accommodation providers along the trail.</li> <li>• Potential to link a number of established trail towns, enhancing economic impact.</li> <li>• Potential for concessions to commercial operators with revenue being returned to trail management.</li> </ul>	<ul style="list-style-type: none"> <li>• Clearly identifiable recreation product that can attract sponsorship for ongoing management and maintenance.</li> <li>• Scale manageable by volunteer and not-for-profit organisations.</li> <li>• Potential for concessions to commercial operators with revenue being returned to trail management.</li> </ul>
<b>Advantages</b>	<ul style="list-style-type: none"> <li>• Facilitates important access to key landscapes.</li> <li>• They can provide important access to sensitive habitats and landscapes.</li> <li>• Relatively easy to signpost and mark trails.</li> </ul>	<ul style="list-style-type: none"> <li>• Can have iconic status and be tourism assets.</li> <li>• May bring economic benefits to communities along the route.</li> <li>• Can be a valuable local recreation resource.</li> </ul>	<ul style="list-style-type: none"> <li>• Can cater for a range of abilities.</li> <li>• Accessibility can be significantly enhanced.</li> <li>• Single trailhead makes it easier to manage visitors and trail users.</li> <li>• A number of loops can be focused on one trailhead.</li> <li>• Can be consolidated in a single location with minimal external influences.</li> <li>• Ability to manage trail quality and standards and user experience.</li> </ul>
<b>Disadvantages</b>	<ul style="list-style-type: none"> <li>• The linear nature of the trails can deter some users.</li> <li>• May experience intense physical and user pressure due to linear trails receiving twice the use.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of visitor services and facilities deter the market majority.</li> <li>• The market for end to end use is relatively small and often specialised.</li> <li>• The linear nature can deter some recreational users.</li> <li>• Requires significant investment to achieve very high quality and to succeed as a tourism asset.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of visitor services and facilities deter the market majority and make networks less accessible to leisure markets.</li> <li>• Difficult to generate income for management.</li> <li>• Can limit overnight stay and community economic benefit.</li> <li>• More remote trail networks can lack community development, activation and stewardship.</li> </ul>

Table 5: Trail Model Requirements

**TRAIL CENTRE**

Visitor information, trail information, cafe, car parking, toilets, showers, bike hire and repair and sometimes accommodation.

Day trip tourism market, but can include short break if accommodation is provided nearby or within vicinity.

Very user friendly, they can serve all types including leisure, enthusiast, sport, and gravity.

- Clearly identifiable and marketable recreation and/or tourism trail products.
- Focusing trails on a single trailhead with support facilities makes it possible to generate income directly from trail users.
- Accessible to a wide range of users including those with low levels of expertise.
- Use as an important marketing tool for other trail models and opportunities.

- They produce a clearly identifiable and marketable recreation or tourism trail product.
- Focusing the trails on a single trailhead with support facilities makes it possible to generate income directly from trail users.
- The trail model is accessible to a wide range of users including those with low levels of expertise.
- The accessibility of the trail model to a range of markets can have a significant effect on increasing levels of participation in trail activities.
- Can be key iconic trail products with recreational and tourism strategic significance.
- Can be important marketing tools for other trail models and opportunities and a number of strategic levels.

- Popularity and high usage can create management issues.
- Can limit overnight stays and community economic benefit.
- Capital investment to develop infrastructure and services can be significant.
- Lack of community development, activation and stewardship.
- Increased management to maintain consistency, quality and trail status information.
- Additional costs for development and management of trail centre infrastructure.
- If the scope and scale of trail centres is inappropriate, visitor pressures can exceed capacity.
- Accommodation and other visitor services must be provided by local communities.
- Direct economic benefits can be restricted to the trail centre and its associated facilities if the trail centre is developed to more than local significance.

**TRAIL TOWN**

Attractions, accommodation, restaurants, bars, cafes, visitor information, trail information, car parking, toilets, showers, bike sales, hire and repair.

Holiday, short breaks and day visit tourism markets.

Can be user friendly and serve all mountain bike user types including leisure, enthusiast, sport, and gravity.

- Possible to package a local area as a trail-based destination.
- Wide range of visitor services can be provided by the greater trail town, spreading economic impact wider and more effectively.

- Ability to package a local area as a trail-based destination.
- A wide range of visitor services and facilities can be provided by the greater trail town which can distribute economic impacts more widely and effectively.
- Utilising existing infrastructure and services can reduce capital investment.
- Community development, activation and stewardship.
- Overnight stays increase community economic benefit.
- Accessible trails especially for the community, families and young people.
- Diversity of trail provider and tenure.
- Multiple stakeholders typically involved.

- Poor execution may result in negative user experience.
- More barriers to generating revenue for management.
- Potentially confusing for new users if there are limited visitor services and trail information.
- Inability to manage quality of services.
- Limit to scale of population centre that is appropriate.
- Unless the trail models are suitably market focused, they may not be effective at targeting key markets.
- Where there are multiple providers, trail provision can be haphazard, inconsistent and differ between differing owners and/or tenures unless centrally coordinated, impacting on trail quality, maintenance standards and experiences.

**MARKET MOTIVATORS & NEEDS**

Mountain biking can be both a primary motivator for travel and an activity undertaken whilst a traveller is visiting an area for another primary purpose. The needs of the various markets are different and need to be considered when developing a location. Depending on the type, different motivators and experiences will be placed as the primary decisions for engaging in the activity. Different rider types are driven by varying motivators, depending on whether they are undertaking travel or riding for recreation. Primary motivators are controllable factors that influence destination choice:

**DIVERSITY**

A large quantity and variety of trail types and classifications located in varied terrain and topography.

**UNIQUENESS**

Iconic, memorable and fun experiences in a unique setting. Typically in a natural landscape, with high visual and emotional value and often connected to an attraction.

**QUALITY**

A range of high quality experiences, predominantly on purpose designed singletrack. Also relates to the provision of quality information, services and infrastructure.

**ACCESSIBILITY**

Trails located within close proximity of residences and short stay accommodation. Also relates to the provision of cohesive, well signed, mapped and promoted trails. Connectivity to other trails, transport, services and infrastructure increase accessibility from the trails. Visitor services to improve accessibility for less experienced users.

**COMMUNITY**

An established mountain bike community offering market credibility, a sense of belonging and camaraderie through events, volunteer support and social engagement.

**TRAIL USER TYPES & MARKETS**

For management purposes, mountain bikers can be divided into five user types, based on trail requirements and expectations (Biodiversity, Conservation and Attractions, 2015).

**LEISURE (LS)**

Cyclists of all ages and abilities who ride infrequently, often have limited technical skills and require very accessible trails. They are not members of clubs and they are more likely to use accessible routes close to home, or make the journey to trail facilities with amenities and services such as bike hire, cafes and toilets.

**ENTHUSIAST (EN)**

Recreational riders with moderate skills and variable fitness who ride weekly. Typically aged 29-49, they form the existing market majority (WestCycle, 2015), don't compete in events and they possess limited outdoors experience. Enthusiast riders prefer trails with good trail signage, seek technical but not too challenging trails and are the most likely to take short breaks to different areas.

**SPORT (SP)**

Competitive riders who ride regular routes multiple times a week and are members of clubs. They are a small but influential market who seek less accessible trails, have a high fitness level and are

technically proficient, but may have limited outdoor skills. They ride a very wide variety of trails and generally prefer higher classifications.

**INDEPENDENT (IN)**

Skilled outdoor enthusiasts who ride at least once a week and are technically proficient with good level of fitness. Often involved in other outdoor activities, they are capable of planning rides and prefer a very wide variety of trail classifications. The adventurous aspect is more important than the technical challenge and they seek more remote trails.

**GRAVITY (GR)**

Highly skilled technical riders who seek very challenging trails, ride at least once a week and are often members of clubs. They represent a small market that requires purpose built trails, which are repeatedly used in a concentrated manner. Gravity riders seek specific trails with the highest classifications.

Figure 7 shows user types, their potential market segments, motivators and needs.

TYPE	REASON FOR MTB TRAVEL	TRAVEL NEEDS & MOTIVATORS	RECREATION NEEDS & MOTIVATORS	TRAIL TYPE	CLASSIFICATIONS SOUGHT	MARKET POTENTIAL
Leisure	Secondary	Accessibility & Uniqueness	Accessibility & Quality	TO & XC	WH & GN	Large
Enthusiast	Primary	Diversity & Quality	Accessibility & Quality	XC, AM, PK	GN to BL	Moderate
Sport	Primary	Community & Diversity	Diversity	XC, AM	GN to DB	Small but influential
Independent	Secondary	Uniqueness & Diversity	Diversity	TO, XC, AM	WH to BL	Small
Gravity	Primary	Community & Quality	Accessibility	FR, DH, PK	BU to DB	Small

Figure 7: User types and market segments

## TRAIL TYPES

There are six trail types used for mountain biking. Each type is generally suited to a particular style of riding and can consist of varying classifications.

### CROSS COUNTRY (XC)

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 (AM)

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 (DH)

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 (FR)

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 (PK)

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 (TO)

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.

### ADAPTIVE MOUNTAIN BIKE (AMTB)

This is not a formally recognised trail type in itself however other trail types may be suitable for adaptive mountain biking, which caters to riders who require adapted equipment to suit their physical, intellectual, neurological and sensory abilities. In WA many sanctioned mountain bike trails have been assessed for their suitability to cater for off-road hand cycles. Break the Boundary is a not for profit volunteer-based community group that advocates for accessibility and inclusion for off-road hand cyclists and people with mobility challenges. Break the Boundary have developed a draft inclusive trail rating system, which was under development at the time of writing this Master Plan.

## TRAIL CLASSIFICATIONS

Mountain biking trail classifications are guided by the WAMTBMG. 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.



### DEVELOPMENT DRIVERS

Mountain biking is both a sport and a recreational activity. The needs and drivers of the various markets are different and need to be considered when developing a location.

Mountain biking can be both a primary motivator for travel and an activity undertaken whilst a traveller is visiting an area for another primary purpose. It can also be an activity undertaken by residents of a community surrounding trail facilities.

Apart from the primary motivators described in Appendix 2, development drivers for a location or site will make it attractive to visitors. When assessing the locations in the Perth and Peel regions, the development drivers were considered, as outlined in Table 6.

### TRAIL DEVELOPMENT AND MANAGEMENT MODELS

There are numerous case studies from around Australia and the world that demonstrate public and private investment in trails and associated facilities provides a significant, sustainable benefits to local communities, and local and regional economies (Angus and Associates, 2013; Zovko, 2013). These benefits include local community engagement and enjoyment, increased participation in recreational activity, the ability to attract a dedicated trails market, business and sponsorship opportunities and economic benefits for the local areas as well as the broader regional and State economies. Appendix 4. Case Studies contains a summary of some established and successful trail models.

Investment returns are indicated by:

- The successful, long term diversification of local economies via expansion in the tourism sector
- Measurable increases in visitation through vehicle counts, overnight stays and visitor spending
- An increase in the local population and a decrease in the local unemployment rate

Trails may be located on public or private land, and may be managed by public or private entities exclusively or by both in partnership arrangements.

A variety of development and management models need to be given further consideration to ensure sustainable growth of the Perth and Peel region as a mountain bike destination. See Table 7 for a comparison of possible management models. Consistent with the experience of successful trail models worldwide, the following revenue models should be investigated during the planning stages to ensure sustainable management is achievable:

- Park entry fees
- Trail access fees
- Vehicle parking fees
- Shuttle uplift user fees
- Lease of space to commercial operators
- Café, retail and/or rental income



DEVELOPMENT DRIVER	DEVELOPMENT CONSIDERATIONS	POTENTIAL MARKETS AND USER TYPE FOCUS
Recreation	<ul style="list-style-type: none"> <li>• Located within proximity to or with good access from major population centres</li> <li>• Diversity of trail experiences</li> </ul>	Enthusiast, Sport, Leisure
Events	<ul style="list-style-type: none"> <li>• Event-specific infrastructure designed to cater for mountain bike racing particular to specific styles and formats to industry standards</li> <li>• Emphasis on quality of trails and facilities</li> </ul>	Sport, Gravity
Tourism	<ul style="list-style-type: none"> <li>• Located within proximity to other tourism experiences, accommodation and visitor services</li> <li>• Align to unique landscape and biodiversity experiences</li> </ul>	Leisure, Independent, Enthusiast
Community	<ul style="list-style-type: none"> <li>• Located within proximity to or with good access from major population centres</li> <li>• Existing community involvement</li> <li>• Ensure good engagement and involvement of community mountain bike bodies</li> <li>• Emphasis on quality of trails and facilities</li> </ul>	Enthusiast, Sport, Gravity

Table 6: Potential Drivers for Trail Development

	PUBLIC	PRIVATE	PARTNERSHIP
Description	<ul style="list-style-type: none"> <li>• Government agency has sole management responsibility of the trail facility.</li> <li>• Commercial and event operators may contribute financially to the management of trails.</li> </ul>	<ul style="list-style-type: none"> <li>• Private land owner has sole management responsibility of the trail facility.</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple stakeholders share management responsibility of the trail facility.</li> <li>• Partners could include non-government incorporated agencies, such as peak bodies, state government bodies, private bodies, foundations or trusts, and volunteer mountain bike bodies.</li> <li>• Volunteers may contribute to the management of trails.</li> </ul>
Advantages	<ul style="list-style-type: none"> <li>• Clarity on roles and responsibilities.</li> <li>• Majority of tenure is Crown land.</li> <li>• Consistent approach to development processes and standards.</li> </ul>	<ul style="list-style-type: none"> <li>• No political interference with decision making.</li> <li>• Can be flexible and responsive to market preferences and trends.</li> <li>• Can provide a specific and unique experience to fill a gap without consideration of broader priorities.</li> </ul>	<ul style="list-style-type: none"> <li>• Leverage a broad support base for maintenance, development, funding, events and promotion.</li> <li>• Multiple funding contributors.</li> <li>• Risk can be shared.</li> <li>• Funding can come from a range of partners.</li> <li>• Single management entity to take responsibility on behalf of stakeholders.</li> </ul>
Disadvantages	<ul style="list-style-type: none"> <li>• Maintaining the status quo will mean limitations on resourcing.</li> <li>• Political pressures lead to uncoordinated priorities.</li> <li>• Grants not always available to government bodies.</li> </ul>	<ul style="list-style-type: none"> <li>• No examples in Perth and Peel region to date.</li> <li>• Decisions can be made, such as trail closures, with no public consultation.</li> <li>• Caters to a limited market.</li> </ul>	<ul style="list-style-type: none"> <li>• Larger number of stakeholders.</li> <li>• Potential for political pressures to influence decision-making.</li> </ul>

Table 7: Comparison of Management Models

# ANALYSIS



This section analyses participation in mountain biking by using available data and reviewing the existing product supply.

## PARTICIPATION & DEMAND

While community participation in mountain biking is well established in the project area, formal data on actual use is limited to information collected by the user survey as part of the master plan consultation process. The same can be said for mountain bike tourism in the Perth and Peel regions – anecdotally, visitors are known to use existing mountain bike facilities but there is little specific data available. While mountain bike participation statistics are limited for the project area, information on general visitor numbers, demographics and expenditure has been drawn from a number of sources to ascertain current participation levels and predict expected demand in the future.

### Barriers

Around the world there is a consistent profile for the typical mountain biker. He is most likely male, between 25 and 45 years old, earning an above average to high income, is willing to travel to experience trails and has a high participation rate over the long term. Participation amongst some sections of the population is low with females, young people and beginners or less skilled riders underrepresented. This is likely due to barriers that can include perceptions about mountain biking, limited understanding of

the benefits, undersupply and inaccessibility of appropriate trails and restricted opportunities for skill-building and progression. In Canada and the USA, which have considerably more established mountain biking industries, research suggests that females represent approximately 25% of the market. It is a key objective of the State Strategy (WestCycle, 2015) to broaden the appeal of mountain biking to different demographics.

### High Performance

The Draft Western Australian Cycling High Performance Vision 2016-2020 (WestCycle, 2016) has been developed to guide strategic decisions and investment into the growth of the high performance development environment for all cycling disciplines. The overall target is to increase the number of West Australian cyclists winning medals at National Championships, and to be the number one ranked state across all disciplines by 2020. Among the number of barriers to high performance mountain biking identified in the plan are:

- Lack of quality infrastructure and trails suitable to service high performance athletes
- Lack of major competitions held in WA

## ACCESS & ACCESSIBILITY

The term 'access' can have a variety of meanings in trail planning. For the purpose of the PPMP, the meanings of access and accessibility are as follows:

Access is the means or opportunity to approach or enter a physical place to undertake mountain biking activities, or to use or benefit from mountain bike opportunities (trails and activities).

Accessibility is the degree to which a mountain bike opportunity (trail or activity) is available to as many people as possible.

The PPMP aims to support and reinforce the implementation of the State Strategy by making mountain biking more accessible in the Perth and Peel regions. Strategies include:

- Improving the availability and attractiveness of trails and trail facilities to a greater number of people
- At trail locations, offer opportunities for people to participate, progress and fine tune skills and training
- Offering a range of trails that suit different riding styles or levels of technical difficulty
- Offering style-specific infrastructure to provide for different rider types, for example, providing shuttle roads that make gravity riding opportunities more accessible
- Linking facilities with and advocating for other means of access than private vehicle (for example, public transport and bike paths)
- Offering visitor services to inexperienced riders, such as equipment hire, maps and guides

Recognising that not every location can be developed to provide for all riding styles, the PPMP achieves a balance to optimise all of the above by:

- Providing certain types of opportunities in the most appropriate locations and sites
- Focusing development on a select number of locations and sites
- Delivering high quality infrastructure and trails where development occurs, to ensure high utilisation with minimal maintenance

## THE PERTH & PEEL MASTER PLAN USER SURVEY

The survey that was undertaken as part of the preparation of this Master Plan provided information on current mountain bike usage and engagement in the Perth and Peel regions. Of the 544 respondents:

- 97% use the existing mountain bike trails in the Perth and Peel regions
- 84% were male
- 68% were aged between 30 and 49 years old
- 40% of riders identified themselves as being advanced, 42% as intermediate and 8% as beginner
- 60% had engaged in social events, a third of which were regular attendees

Common responses from the survey indicated:

- By developing trails and facilities, many locations throughout the project area (including in urban settings) have the potential to encourage and attract new people to mountain biking.
- The larger and more popular trail networks are too congested during peak times, resulting in many riders abandoning

formally sanctioned trail networks in search of quieter, often unsanctioned trails.

- Congested trails discourage recreational riders, particularly beginners and families, and result in less enjoyable experiences.
- Many existing locations are perceived as underutilised and unrealised opportunities. For example, if Dwellingup was developed in the right way, it would entice more people to stay in the town longer than a day trip. The regular events in Dwellingup have the potential to grow and bring further economic opportunity to the town.
- There is a lack of advanced trails to challenge the aspiring and world class athletes that WA is renowned for.
- There is a preference for trails in scenic locations and unique environments.
- Respondents requested each location offer a unique riding experience, noting a lack of trails in many desirable areas.
- Trail quality and experience were identified as the most important attributes to individuals and families. Other important attributes included purpose built singletrack, trail accessibility and proximity to residential areas.
- Appropriate trail development in the Peel region could encourage Perth riders to travel away from the heavily used Perth Hills trails, reducing pressure and impacts on the existing trails, like that occurring at Kalamunda.

## WESTERN AUSTRALIA

Recreational participation in mountain biking has been rapidly increasing in WA. According to the State Strategy (WestCycle 2015), around 405,000 people ride at least once a week and one million people ride at least once a year. Almost 120,000 mountain bikes are purchased every year in WA and 19% of the population own a mountain bike. From a study undertaken by the KMBC, it was found that over 50,000 rides were undertaken on two trails in the Kalamunda network (there are over 30 trails) over a 12-month period.

It is also useful to consider general cycling statistics, as they are relevant to and include mountain biking. The Australian Cycling Participation report (Austroads, 2013) gives an insight into cycling in WA:

- 13.2% of Perth residents ride weekly for recreation.
- Although there was an overall reduction in participation from 2011, 2013 saw positive increases in cycling participation with 2% new to cycling and 20% returning to cycle again in Perth, and in Australia 7% new and 22% returning.
- Perth has participation rates of youth riding at 35.3% in the 2-9yo and 30.7% in the 10-17yo age bracket, which is slightly lower than average Australian participation rates.

## INTERNATIONAL TRENDS

Mountain biking demand, participation and development are booming globally. Many destinations have established mountain bike trail towns, trail centres and trail networks, which have been successfully operating for many years. These facilities are becoming commonplace throughout the USA, Canada and Europe, and are now seeing significant development in New Zealand and more recently in Australia.

Detailed case studies of the impact resulting from such facilities are provided in Appendix 4.

**THE TOURISM MARKET**

International visitors to Australia spent over \$36 billion in the year ending December 2015, which is an 18% increase from the previous year (Tourism Research Australia, 2015). WA is well-positioned to increase its market share in this growth industry. During the significant growth of the mining sector in the past it was difficult to find available hotel rooms in Perth, and more recently with the downturn this situation has reversed. In 2016, the state government announced a renewed focus on tourism and attracting a larger market share of the international visitor market.

This presents an opportunity to promote mountain bike destinations in Perth as drivers for visitation, or as reasons for visitors to extend their stay in the area.

Tourism Australia visitor surveys have provided the following trends of visitors to WA who participate in cycling while on holiday (Tourism Research Australia, 2014):

- Cycle tourists make a significant economic contribution with 331,000 annual visitors spending an estimated \$486.1 million.
- WA residents account for over two thirds of cycle tourists with 233,300 undertaking intrastate visitation and day trips.
- The top four countries of origin for international cycle tourism visitation are United Kingdom, USA, New Zealand and Germany, all of which have established mountain bike markets.
- International cycle tourists spend an average of \$5,005 per person, almost double the typical average spend of an international tourist at \$2,870.
- Cyclists have a higher average spend across the board, which can be linked to their propensity to travel light and partake in a wider range of additional activities.

<b>CYCLE TOURISM MARKET</b>	<b>YE JUNE 2011/12/13 AVERAGE ANNUAL VISITORS</b>	<b>YE JUNE 2011/12/13 ESTIMATED VISITOR SPEND</b>
International	79,800	\$399.4 million
Interstate	18,700	\$11.9 million
Intrastate	114,300	\$13.0 million
Day trips	119,000	\$61.8 million
<b>Total</b>	<b>331,800</b>	<b>\$486.1 million</b>

Table 8 Cycle Tourists and Visitor Spend

Over four years from 2009–13, there was a 38% increase in cycle tourism related trips, with around 258,500 overnight trips in 2013. A jump between June 2012 and June 2013 of over 28% indicates a significant increase in the popularity of cycle tourism. The domestic market has seen a 36% increase in cycle tourism. There has been no data collected on cycle tourism in WA since 2013.

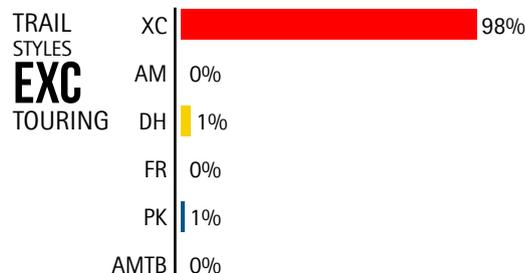
<b>OVERNIGHT TRIPS</b>	<b>INTERNATIONAL</b>	<b>DOMESTIC</b>	<b>TOTAL</b>
YE Jun-09	81,900	105,000	186,900
YE Jun-10	70,200	69,000	139,200
YE Jun-11	76,700	109,000	185,700
YE Jun-12	71,300	122,000	193,300
YE Jun-13	91,500	167,000	258,500

Table 9 Overnight Trips by Cycle Tourists in WA



## PARTICIPATION & DEMAND – GAPS & DESIRED IMPROVEMENTS

ISSUE	GAPS	DESIRED IMPROVEMENTS
Market	An estimated 264,000 (13.2%) Perth residents ride for recreation in a typical week. With an estimated population of just over 2 million, Perth is one of the fastest growing capital cities in the country, but less than 180,000 (9%) of residents have good access (less than 15 minutes driving time) to purpose-built mountain bike trails.	Increase provision of purpose-built trails in strategic locations in alignment with and to service strategic activity centres within the Perth and Peel regions, such that within 10 years, everyone in Metro Perth is within 10km, and everyone in Peel is within 20 minutes of a naturally surfaced trail.
Demand	The Kalamunda mountain bike trail network receives an estimated 50,000 trail passes per year on one of its most popular trails, but only has 40km of average quality singletrack trails, with average signage and inadequate visitor services. These trails have a number of informal access routes from the Kalamunda township that have been illegally constructed within crown reserves.	Provide purpose-built trails to service the Perth population and visitors, as the primary recreation resource to the Perth population, with an initial focus on provision of trails to meet current demand.
Participation	International experience suggests a sustainable mountain bike community requires 60% beginners, but 82% of surveyed riders identified themselves as having intermediate or advanced riding ability.	Improve access barriers and growth in beginner participation.
Research	Of the locations with purpose built singletrack in the Perth and Peel regions, 56% collect usage data, and no destinations collect data on market visitation.	Gather and analyse accurate trail usage and market visitation data on all existing and new mountain bike opportunities. Establish reporting mechanisms to generate information for the industry.
Female Participation	Females represent only 15% of surveyed riders, and typically 15% of participants in events in the Perth and Peel regions.	Increase female participation to meet or exceed current worldwide levels of 25%.
Youth Participation	Perth has less than the Australian average participation rates for young people cycling each week with 35.3% in the 2-9yo and 30.7% in the 10-17yo age brackets. At events, juniors typically represent 15-20% competitors, although this number has been increasing in recent years.	Improve access and remove barriers in beginners and families.
Junior Development	Junior competitors are underrepresented at events. Feedback from parents indicates that lack of beginner level race tracks and inadequate facilities for families at event venues prohibits their children from competing in the state level events.	Provide pathways for new junior riders to compete, including beginner level race tracks at all event venues.
High Performance	There has been significant demand for and investment in high performance development in recent years. However, there are currently no suitable trail facilities to support development programs or host national or international level competitions.	Provide facilities suitable to support high performance development programs.
Disability and Inclusion	18.3% (Australian Bureau of Statistics, 2015) of all Australians live with disability. Currently there are no specific mountain bike programs or events and limited facilities that cater for people with disability.	Improve pathways for participation and inclusion in development of mountain bike programs, events, accessible facilities, trails and amenities.



**PRODUCT SUPPLY**

There are various existing trail, events and commercial opportunities in the Perth and Peel regions. An inventory of those existing opportunities has been collected; and they have been analysed to establish their suitability and the current gap in supply across the Perth and Peel regions.

Due to the popularity of mountain biking, the supply of mountain bike opportunities is constantly evolving. The following information is intended as a snapshot of the opportunities at the time of consultation.

**EXISTING TRAILS**

**SANCTIONED TRAILS**

The provision of purpose-built trails is a fundamental requirement of mountain biking. Sanctioned purpose-built trails in the project area are characterised by small-scale trail networks and long distance individual trails, generally located in the Darling Range. Many are somewhat linked by the long distance Munda Biddi trail running north to south between Mundaring and Albany. The largest

existing facility is the Kalamunda mountain bike trail network, located midway between Kalamunda and Mundaring townships. The above figures show an overrepresentation of cross country style trails. While the munda biddi is classified as a green classification trail, the majority of this is not accessible to the relevant user markets.

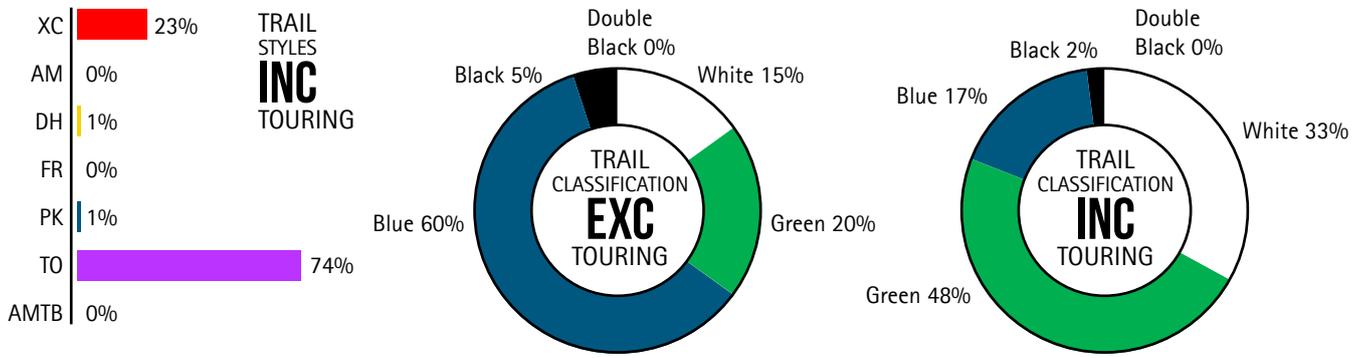
None of the existing purpose-built trails in the project area are characterised by formalised trail towns or trail centres.

Many existing trails in the project area are of average or below average quality, have poor signage and no visitor services. Visitor

LOCATION	Land Manager	Trail Type	White	Green	Blue	Black	Double Black	Visitor Services	Quality	Adequate Signage	Total Trails
<b>PERTH</b>											
1	Kalamunda Mountain Bike Trail Network	DBCA	XC, PK	5km	34km	5km		Yes	Avg	Avg	44km
2	Carinyah trail circuit	DBCA	XC	16km				No	B/Avg	Poor	16km
3	Forsyth Mill circuit	DBCA	XC		6km			No	Avg	B/Avg	6km
4	Goat Farm Mountain Bike Park	DBCA	XC, DH, PK		8km	3km		No	B/Avg	Poor	11km
5	Lake Leschenaultia, Chidlow	SoM	XC	5km				Yes	B/Avg	Avg	5km
6	Kwinana Loop Trail	ToK	TO	21km				No	Avg	Avg	21km
<b>PEEL</b>											
7	Langford Park, Jarrahdale	DBCA	XC	2km	17km			No	B/Avg	Poor	19km
8	Marrinup trail circuit, Dwellingup	DBCA	XC		8km			No	Avg	Avg	8km
9	Turner Hill circuit, Dwellingup	DBCA	XC		11km			No	Avg	Avg	11km
10	South Shore circuit, Dwellingup*	DBCA	XC			(5km)		No	B/Avg	B/Avg	(5km)
<b>SUB TOTAL</b>				21km	28km	84km	8km	0km			141km
<b>TOURING TRAILS</b>											
11	Waterous Trail, Dwellingup	DBCA	TO	62km				No	B/Avg	Avg	62km
12	Munda Biddi (Part of)	DBCA	TO	150km				No	B/Avg	B/Avg	150km
13	Railway Reserves Heritage Trail	SoM	TO	59km				No	Avg	B/Avg	59km
14	Kep Track	NTWA	TO	75km				No	Avg	B/Avg	75km
15	Kalamunda Rail Trail	SoK	TO	11km				No	Poor	Poor	11km
<b>SUB TOTAL</b>				145km	212km	0km	0km	0km			357km
<b>TOTAL TRAILS</b>				166km	240km	84km	8km	0km			498km

\* South Shore trail in Dwellingup was destroyed in a bushfire in early 2016, therefore is not counted in the quantity of current supply

Table 10: Existing Sanctioned Trails in the Project Area



services have been assessed on whether a location has on site people providing services, information and assistance to visitors. The ratings given in the table below (Poor, Below Average, Average, Good, Excellent) compare these components against world best practice for local level trail networks. Quality of trail networks considers the overall structure of the trail system, contiguousness, associated facilities and amenities and its general ease of use. Pump track and jump park facilities can be accessible to a wide variety and number of users, due to their small scale, and can help to build demand for mountain bike facilities. There are very few of these facilities established in the Perth and Peel regions, and generally these are average quality. Their development within the region is characterised as random and uncoordinated.

Table 10 summarises the supply of existing sanctioned trails and trail networks. An inventory and overview of existing individual trails and networks, as well as currently planned and proposed trails is outlined in Appendix 5.

**UNSANCTIONED TRAILS**

Approximately 75% of the existing trails used by mountain bikers in the Perth and Peel region are unsanctioned trails. These comprise some fire management access tracks, walk tracks, and informal user-created trails. These trails have not been formally planned or designed nor has their construction necessarily been in accordance with best practice. None of the unsanctioned trails have been formally assessed for their sustainability or suitability for use by mountain bikers. It is also noted that a portion of the existing unsanctioned trails in the Perth Hills are the subject of review as part of the Perth Hills Trail Loop Concept Design (Tredwell Management, 2016).

While there is a significant quantity of unsanctioned trails, these are not recognised as existing supply and have therefore not been identified in Table 10.

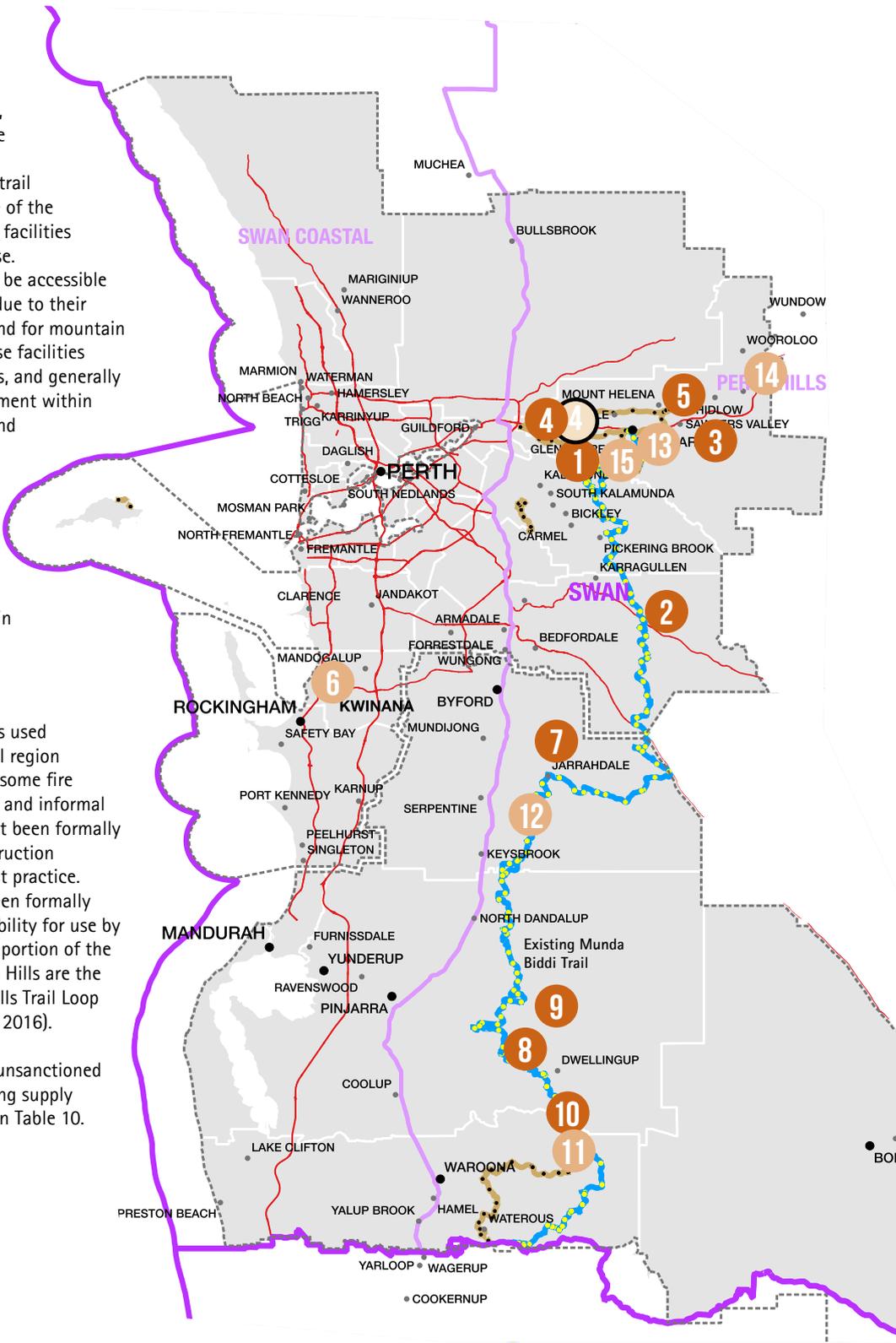


Figure 8: Existing Supply of Sanctioned Trails

## TRAILS – GAPS &amp; DESIRED IMPROVEMENTS

ISSUE	GAPS	DESIRED IMPROVEMENTS
Infrastructure & Facilities	National, regional and local locations have critical key criteria, including minimum trail and facilities requirements, but none of the locations assessed meet critical requirements.	Increase trail quantities in high demand locations, ensure trail developments have adequate infrastructure relevant to scale of development and applicable model.
Quantity	The typical mountain biker's ride length is 20km – 30km, but only one location in the Perth and Peel regions caters for this without repeating trail.	Increase the quantity of sustainable purpose built mountain bike trails in strategic locations.
Quality & Experience	Mountain bikers identified trail quality and experience as the most important attribute. None of singletrack trail in the regions is considered good quality.	Focus investment on consolidation and provision of high quality world class trails, considering the need for rehabilitation of existing.
Environmental Impact	Sustainably planned, designed and constructed mountain bike trails will be used to manage and prevent environmental impact. Currently there are an estimated 120km of unsanctioned singletrack mountain bike trails in the Perth Hills area, which have not undergone a formal planning, design and construction process.	Reduce unsanctioned trails within development zones of priority locations.
Tenure	The majority of purpose built singletrack is provided on DBCA managed lands.	Support mountain bike facility development on other land tenures, including privately owned land
Development & Management Diversity	100% of the existing trail facilities located on DBCA managed tenure, are managed and maintained by DBCA, some with assistance from volunteer bodies. World's best practice examples utilise a combination of private and public developed and managed facilities.	Diversify trail development and management to other arrangements, such as public-private partner-ships, on all land tenures.
Access by Bike	25% of users would prefer to access mountain bike trails by bike or public transport, but currently 93% of users access mountain bike trails by private vehicle.	Ensure provision of trail facilities that are accessible by bike. Ensure links to public transport (train stations) are available where possible.
Trail Classifications	81% (Green 48%, White 33%) of existing singletrack trail is suitable for beginners, but much of this is part of long distance touring trail that beginners are unlikely to use. Over 40% of users identified themselves as being advanced, but only 2% (and 6% if excluding touring trails) of purpose built singletrack trails cater for advanced riders.	Improve diversity of classifications in the accessible trail networks in the Perth and Peel regions, to achieve a suitable mix of all classifications of trail.
Trail styles	Excluding touring trail, the majority of existing singletrack trail is cross country (98%) style trail. <1% is downhill trail. The user survey indicated that while 77% desire cross country trails, 70% also desire all mountain style trails, and 30% also desire downhill trails.	Increase the variety of purpose built mountain bike opportunities to achieve a suitable mix of all styles of trail to ensure all user types and markets are adequately catered for.
Pump Tracks & Jump Parks	Only eight local governments (of a total 34) and two DBCA managed facilities contain existing park facilities.	Provide park facilities in strategic locations aligned with local government bike and trail plans, and as part of all mountain bike trail developments.

## EVENTS

Social and competitive events contribute to the creation of strong mountain bike communities. Racing events are a major motivator for the sport user type, and to an extent a motivator for enthusiasts, but do not typically appeal to the leisure market.

Approximately half of the state and national level events are held within the Perth and Peel regions. WA has had a strong event scene for many years, and recently there has been significant growth in the variety of mountain bike events in the market, with 52 events on the calendar in 2016 (West Australian Mountain Bike Association Inc, 2016), including disciplines of cross country, downhill, gravity enduro, cyclocross and mountain bike orienteering. The majority of these events are targeted at the 'state' level, run by mountain bike clubs and private promoters. The remainder are club (or local) level events.

A summary of events held in WA from 2012-2015 is below (MTBA, 2016):

- There were 3 Clubs and 5 Private Promoters that held events in WA over the 2012-13 season with a total of 4166 participants.
- There were 4 Clubs and 2 Private Promoters that held events in WA over the 2013-14 season with a total of 3528 participants.
- There were 7 Clubs and 4 Private Promoters that held events in WA over the 2014-15 (to June 2015) season with a total of 4504 participants.

The majority of state and national level events attract approximately 100-200 competitors and the demographic is very similar to the typical rider with approximately 90% males. The intrastate market has the highest participation. A number of junior riders travel from other parts of the state to race in the Perth and Peel regions. There is generally a significant underrepresentation of junior and female participants in all types of racing events.

A summary of current events, including locations, facilities, participation levels, demographics and markets, are included in Appendix 5.

User survey respondents generally rated the events they had participated in as above average or good, but not excellent. Quality of downhill racing facilities were rated as significantly lower than cross country or gravity enduro events. There are no existing trails that cater for events without temporary amenities being brought in, and ad-hoc event specific trail modifications. National Cross Country and Downhill events have not been held in Perth since 2012. MTBA has approached WestCycle and Local Governments in the Perth and Peel regions to host a national cross country event in the Perth or Peel regions, but there are currently no suitable venues available in these regions.

## EVENTS – GAPS & DESIRED IMPROVEMENTS

ISSUE	GAPS	DESIRED IMPROVEMENTS
Events	Event promoters indicated that a significant proportion of expenses for events held in the Perth and Peel regions are attributed to temporary infrastructure, such as toilets, drinking water, food and drink, and bike wash facilities.	Ensure developments suitable for hosting national and international race events have appropriate trails and permanent infrastructure for a range of disciplines.
Event Facilities	The Perth and Peel regions lack suitable trails and supporting infrastructure for state, national and international events. There are no events with permanent on-site accommodation or close to a range of accommodation types.	Create a purpose built international event facility within proximity to good amenities and infrastructure.

## COMMERCIAL PRODUCTS

Commercial products are vital to mountain bike tourism and can include tours, training, bike hire, accommodation and other services. Some commercial products make mountain biking accessible to people whose primary travel motivator is not mountain biking, and other commercial products are essential to mountain bike specific tourism. While limited, there are a number of commercial products available in the Perth and Peel region and the offerings are constantly evolving. The following information is intended as a snapshot of the opportunities at the time of consultation.

With the exception of Rock and Roll Mountain Biking's offerings, the commercial products available to visitors and recreational riders in the Perth and Peel region are extremely limited. Rock and Roll Mountain Biking's product is well established and highly regarded, and includes tours, guiding, clinics, shuttles, coaching, school camps and bike hire.

The supply of commercial products currently available in the Perth and Peel region are summarised in Appendix 5.

## COMMERCIAL PRODUCTS – GAPS & DESIRED IMPROVEMENTS

ISSUE	GAPS	DESIRED IMPROVEMENTS
Economic Growth	There are a limited number of commercial businesses offering mountain bike specific services or within proximity to mountain bike trails. There are few commercial products available, and they are currently focused around the trails in the Perth Hills. There is potential for new and different products to be provided if the quantity and variety of trail facilities are increased.	Increase business opportunities to complement mountain bike development by identifying revenue-based models and facilities that support trail development and secure economic benefits.

## GOVERNANCE & MANAGEMENT

### EXISTING GOVERNANCE

The stakeholders involved in trail development can be very diverse. Local Governments, Regional Councils, Community Advisory Committees, Development Commissions, Tourism Bodies, Government Departments and user group bodies all play a vital role in the governance of trails. These bodies all work in various formats and governance structures, many of which are not directly relevant to mountain biking.

Typically, mountain bike bodies across the state have worked in isolation, however more recently there has been a movement towards cooperative governance structures. The emerging hierarchy of mountain biking governance includes the following key bodies:

- WestCycle is the peak body for cycling and oversees all variations of cycling including mountain biking in WA.
- WAMBA, which is a member of WestCycle, is the state representative body for the mountain biking community. WAMBA is primarily a volunteer body, with affiliated member clubs. WAMBA provides advice to WestCycle's mountain bike operations department on behalf of the mountain biking community.
- The three largest mountain bike bodies affiliated with WAMBA are based within the Perth and Peel regions, including KMBC, PDMBC and PMBC. Additionally, there are a number of small informal groups, such as the Goat Farmers Mountain Bike Group and the Manning Park Mountain Bikers.

Each of these bodies typically has an interest in both trail advocacy and events. They have or aspire to have formal structures and are capable of assisting the trail development process. Trails in a number of locations rely heavily on volunteer mountain bike bodies for sustainable development and management of the activity.

Other community-based trails groups include Trails WA, the Western Australian Trails Reference Group, the Serpentine-Jarrahdale Trails Inc. and the Peel Trails Group.

There is opportunity to improve governance structures supporting mountain biking within the Perth and Peel regions by combining representatives from relevant organisations based on geographic distribution of mountain biking development. Headquarters of both

Departments of Local Government, Sport and Cultural Industries and Biodiversity, Conservation and Attractions are located in Perth, which is a potential advantage to progress projects in these regions.

### EXISTING MANAGEMENT

Many trails in the Perth and Peel regions have a simple management structure where the land owner is also the operator. (Refer to the Draft WAMTBMG for further explanation of trail management models.) In these cases, insurances are held by the owner, maintenance is carried out as required, and resourcing comes from ongoing maintenance budgets.

Within the Perth and Peel region there are a number of situations where the owner and operator may be different entities. The majority of singletrack trail networks on DBCA estate, including at Kalamunda, Dwellingup and Jarrahdale, remain under DBCA's ownership but rely on maintenance from mountain bike bodies who are the trail operators. DBCA have invested in building capacity of volunteers and contractors through formal agreements and guidance to create structured maintenance schedules. Mountain bike bodies who are trail operators have or are working toward having formal Trail Adoption agreements in place with DBCA, in accordance with the Draft WAMTBMG. Some case studies of volunteer management programs are detailed below.

The management of the Munda Biddi Trail is undertaken through a partnership between DBCA and the Munda Biddi Trail Foundation (MBTF), with maintenance undertaken by both the department and volunteers from the MBTF who 'adopt' sections of the trail. Adopted sections are subject to the agreed structured maintenance schedules in place, with tasks shared between volunteers and DBCA staff. DBCA undertakes a yearly inspection of the infrastructure on the complete trail as part of its visitor risk management requirements and identified issues are scheduled for maintenance. There is no existing agreement for race organisers to provide funding for maintenance or reinstatement of trails before and after competitions. However, most race organisers provide some funding to the relevant mountain bike bodies, as a proportion of event revenue to reinstate or enhance the trails on which they run events. The State Strategy identified the lack of resources for trail maintenance and the pressures placed on volunteers and land managers who undertake this work. As part of the Strategy



**"MOUNTAIN BIKERS ARE PASSIONATE ABOUT BUILDING AND MAINTAINING TRAILS, AND TYPICALLY 'CUSTODIAN' COMMUNITIES NATURALLY FORM AROUND POPULAR TRAIL NETWORKS"**

implementation, WestCycle is tasked with establishing a volunteer workforce management plan. The strategy also recognises the opportunities to develop a recognised professional trail building qualification and volunteer trail worker training accreditation.

#### VOLUNTEER TRAIL MANAGEMENT PROGRAM CASE STUDIES

Mountain bikers are passionate about building and maintaining trails, and typically 'custodian' communities naturally form around popular trail networks and parks.

Good facility management is key to ensuring a sustainable and consistent product which can be promoted confidently. Whilst the responsibility for management generally lies with the trail owner, it is possible to create partnerships to involve volunteers in some of these activities, such as:

- Trail auditing inspections and condition reporting
- Trail building initiatives
- Event support
- Emergency response

Incorporating clear roles and responsibilities for volunteer bodies in the ongoing management of trails can yield a number of positive outcomes, including:

- Reduced management costs through using volunteer resources
- Creation of stewards for the environment
- Creating a fun and vibrant community
- Strengthened relationships and networks

### VOLUNTEER PROGRAMS & OUTCOMES

The following key points summarise the outcomes achieved by volunteer trail management programs:

**Kalamunda Mountain Bike Collective, Perth**  
Over the trail building season of 2012/13, KMBC recorded:

- 2000+ volunteer hours contributed
- Valued at \$200,000
- In addition, the agreement has attracted in corporate sponsorship for maintenance of the trail network to date (worth approximately \$24,000 per year)

**Northern Ireland Volunteer Ranger Program**

- 175 volunteers recruited
- 8,658 volunteer hours valued at £259,740
- Contributed to annual auditing and maintenance of over 1700km of trails
- Rangers contribute free manpower worth an estimated £93,000 per year (Mountain Bike Strategy for Northern Ireland 2014–2024, 2013)

## GOVERNANCE & MANAGEMENT – GAPS & DESIRED IMPROVEMENTS

ISSUE	GAPS	DESIRED IMPROVEMENTS
Governance	Structural hierarchical governance with single authority responsibility and paid employees is identified as a critical success factor in development and sustainability, but the Perth and Peel region's volunteer mountain bike bodies and individuals work in relative isolation with minimal leadership.	Establish a governance hierarchy, including steering committees comprised of stakeholder representatives, and identify lead roles and responsibilities.
Management & Maintenance	56% of existing singletrack trail networks are maintained by volunteers or individuals with formal service agreements with the land manager. The volunteer bodies are sometimes unable to meet the requirements to the timeframes and quality required.	Set appropriate quality standards, improve management models and reduce pressure on volunteer bodies.
Resourcing	The proposed level of development is beyond the capacity of the agencies involved.	Seek additional funding to provide additional resources for agencies to progress recommendations of the Master Plan.
Funding	DLGSC and LotteryWest joint funding is one of the only avenues for trail funding currently, with only \$1 million available across all trail types statewide. Typically trails have not been developed to an agreed standard to date. The Peel Development Commission is also a potential funding resource for trails.	Campaign for appropriate funding of mountain bike infrastructure, with a focus on planning, design and construction of the priority locations in accordance with the Draft WAMTBMG.

## EXISTING PROMOTION

Promotion of mountain biking can increase recreation, tourism and event markets. Trail destinations that can harness the power of word-of-mouth marketing will build a strong brand and market presence. Generally, the promotion of mountain biking in Perth and Peel is very limited and the following information is intended as a snapshot of initiatives at the time of consultation.

Key government agencies and major cycling bodies promote the activity and benefits of cycling in general. Typically, this is focused on the benefit of urban and on road cycling, and mountain biking is not well represented in this marketing.

State, Regional and Local tourism organisations, and visitor centres are the bodies which market and promote the region and its destinations. Typically, promotion is focused on local signage, websites, social media, media familiarisations, and printed material such as visitor guides, but can include television commercials and travel documentaries.

Various tourism bodies are responsible for promoting the regions. Experience Perth Tourism Organisation provides marketing opportunities to its members in the greater Perth region as a whole, including Perth, Fremantle and Rottnest, Peel and Rockingham, Sunset Coast, Swan Valley and Darling Range and Avon Valley. Perth Tourism promotes the eastern region, including Bassendean, Bayswater, Belmont, Kalamunda, Mundaring and Whiteman Park. Mandurah and Peel Tourism Organisation (MAPTO) is the tourism body for the Peel region.

Experience Perth depicts mountain biking on its website, but the information is very limited, with few details on accessing trails. It contains no details relating to the Kalamunda mountain bike trail network, which is the largest existing formal mountain bike trail network in the region.

Perth Tourism highlights three main areas of tourism under the titles Events, Trails and Experiences. Mountain biking trails feature

under the trails section, but not all trails in the region have been included, and contains limited information relating to the trails. The information provided is generally not sufficient to encourage the mountain bike tourism market to visit the area for the trails. The Perth Hills visitor centre provides links to the Perth Tourism website under the references to trails.

MAPTO provides marketing opportunities to operators in the region to promote the Peel Region as the adventure gateway under their brand 'Anytime Adventures'. The Visit Peel website provides information to visitors about mountain biking specifically, within the Adventure & Sports category. The marketing efforts of MAPTO are very well aligned with mountain biking promotion. However, the information describing the trail networks is out of date.

Generally, tourism marketing collateral in the regions references and depicts mountain biking, but other than some promotion of the trails and the Munda Biddi, there is very little mountain bike trail promotion and no targeted marketing being undertaken.

Local tourism organisations and visitor centres also typically depict mountain biking but have limited trail information or direct marketing. Many of the local government visitor centres depict mountain biking online, in TV commercials and in visitor guides, however information on the activity and where it can be undertaken is limited.

The MBTF undertakes marketing to promote the trail and encourage people to use it. A series of commercial maps are available and the website features comprehensive information on the trail including listing cycle friendly businesses.

A number of other websites and social media promote the trail networks including Trails WA, mountain bike bodies and DBCA, commercial operators and event promoters.

A commercial entity produces a WA Mountain Bike Trail Guide promoting formal and informal trails throughout the state,



including the Perth and Peel regions. The trail guide is popular within the mountain bike community and the third edition was recently released. The same entity now produces maps for popular trail networks, and these are sold in bike shops.

Most of the events in Perth and Peel also generate advocates who promote the regions. Many of the region's events are well promoted nationally to the mountain bike community including through magazines and on mountain bike community websites.

Trails have been sporadically featured within magazines however typically are not well represented on industry and community trail databases.

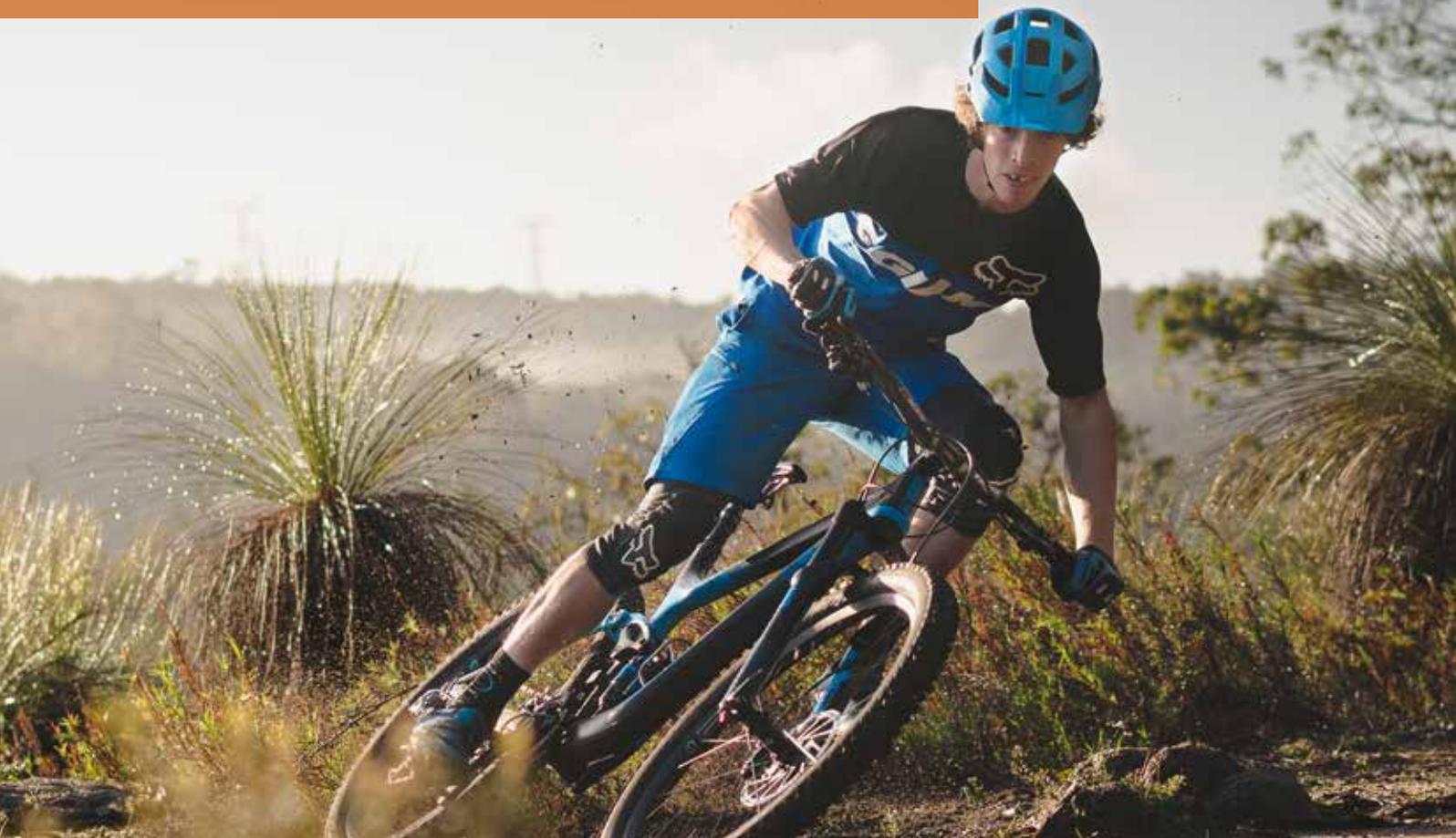
The promotion of mountain biking and trails in the Perth and Peel regions is generally informal and characterised by mountain biking being depicted, but with no coordinated approach to branding or promotion of mountain biking as an activity that is available to be undertaken.

## PROMOTION – GAPS & DESIRED IMPROVEMENTS

ISSUE	GAPS	DESIRED IMPROVEMENTS
Visitor Information	There is limited visitor information available regarding existing mountain bike facilities in the Perth and Peel regions.	Ensure developments include provision of information to visitors and potential visitors via appropriate media.
Accessibility	54% of mountain bikers indicated that being unable to find trails, trail information or trails with appropriate facilities prohibits them from riding as often as they would like.	Set appropriate quality standards, improve management models and reduce pressure on volunteer bodies.
Tourism	There are currently no mountain bike-specific marketable tourism products.	Establish world class mountain bike facilities, and a value proposition that can be promoted to engage and attract cycle tourists and general tourists.
Promotion	Some local governments and tourism organisations depict mountain biking in promotional material and user group bodies provide some basic promotion, but information on how or where to undertake the activity is limited. Over 54% of survey respondents identified that lack of information was prohibiting them from mountain biking more often.	Clarify and coordinate responsibilities for marketing and branding to improve understanding and promotion of opportunities in the Perth and Peel regions.
Destinations & Experiences	Unique destinations are more likely to attract international and interstate tourists. Perth is the most remote capital city in the world with internationally significant biodiversity. It is unique to other international mountain biking destinations, and its characteristic values should be promoted.	Create unique mountain biking destinations that attract international visitors (within 2 hours travel time from accommodation), utilising Perth's positioning, landscapes and biodiversity values.



# PRIORITY LOCATIONS



The Perth and Peel regions boast a range of development opportunities with countless desirable riding environments. The success of mountain biking in Perth and Peel will rely on offering a variety of trails in appropriate locations.

Over 160 potential locations were identified through a user survey and extensive site assessments. The survey assisted in determining the demand for trails at these locations, with respondents indicating their top preferences.

An initial assessment was undertaken to determine the overall potential of each of the 160 locations identified, and to consolidate the list down to a reasonable number of locations. The scoring of potential was based on broad scale, access and location parameters derived from the Draft WAMTBMG. The assessment also considered the major constraints, including DRA, RPZ and PDWSA affecting each location. The steering committee agreed that locations affected by major constraints, except for those with significant mountain bike potential, should be removed from further assessment. The resulting list was reduced to 21 locations, which were considered to have either regional or national significance. It was also agreed that other sensitive, but iconic, locations of Bold Park and Kings Park, should be identified as long term aspirational locations and documented within the PPMP.

## MCA OUTCOMES

The MCA and subsequent detailed consultation with land managers and stakeholders has delivered a structured aspirational hierarchy of trails in the Perth and Peel regions.

The MCA initially delivered results favouring development of

trails in desirable locations where there was the best possible opportunity.

It has been established that some of the identified high priority locations are not supported by their respective land managers and are not necessarily easily achieved projects. It is anticipated that the Master Plan will be used to demonstrate the potential opportunities in these locations.

The Master Plan does not pre-empt the need to seek approval for development of identified sites in these locations. As part of the consultation process, land managers and other key stakeholders were consulted to seek in-principle support for potential locations and sites identified, potential partnerships for the future development of mountain bike opportunities, and to identify key issues and concerns. It is intended that investment is made on trail development that will provide trail to meet existing and future demand and discourage further unsanctioned trail development in desirable locations.

The proposed delivery phases are not intended to preclude any locations from development, should there be opportunity, stakeholder support, available funding and a sustainable management model. This Master Plan has identified priority sites within each of the locations, which are detailed in the location tables. Future development processes may lead to additional opportunities or constraints being identified.

Building on the existing demand, desirability, reputation and character of these locations will be key to their success and it is important that they are developed collaboratively with the established local mountain biking community.

## MULTI-CRITERIA ANALYSIS

A Multi-Criteria Analysis (MCA) was developed to assess the 24 potential locally, regionally and nationally significant locations within the project area. The MCA framework and category scoring are further defined in Appendix 3. The categories were broadly, as follows:

### OPPORTUNITY

Opportunity assessed the Connectivity, Value, Scope and Profile of a location. Locations are categorised as having Excellent, Good or Average opportunity, and should guide investment of resources into unique riding environments that reflect the region's objective.

### DELIVERABILITY

Deliverability assessed the Supply, Management, Planning and Land Use of a location. Locations are categorised as having a Short, Medium or Long term deliverability rating; identifying the potential development timeframe.

### LOCATION PRIORITY

Location Priority was calculated by combining the Significance and Opportunity of a location. Locations are identified as being of High, Moderate or Low priority.

## PRIORITY AND DELIVERABILITY OF LOCATIONS AND SITES

Through the MCA process, all three nationally significant locations were recommended as high priority locations. All three regionally significant locations were recommended as moderate priority. Locally significant locations vary from low to moderate and high priorities.

Within each location, a number of individual sites have been identified and prioritised. For example, within the Perth Hills Precinct, ten individual sites have been identified. Sites A, B, C & D are shown in a darker shading, to highlight the higher priority. Lighter shades have been used to indicate lower priority sites.

The priority and deliverability of individual sites vary within a location. A low priority site within a high priority location is different to a high priority site within a low priority location. For example, within the Perth Hills Precinct, which is a high priority location, Sites E, F, K & J have been recommended as low priority; And within a low priority location, such as Boddington, Site A is recommended as high priority.

The location priority takes precedence over the site priority. Investment should be focused on the high priority location first. Therefore, as Perth Hills Precinct is a higher priority than Boddington, Perth Hills Precinct should be developed as a location before Boddington.

Funding availability may influence short, medium and long term development of locations. For example, regional funding may become available sooner for a regional location, such as Dwellingup, placing Perth lower down the list.

Within a location, a high priority site should be developed over a site with a shorter timeframe within the same location. For example, in the Perth Hills Precinct, high priority Site D has a medium timeframe, while low priority Site F has a short timeframe; Site D should be developed before Site F, due to its higher priority.

If a high priority site, such as Perth City, currently does not have land manager support, the deliverability is generally recommended as long term.

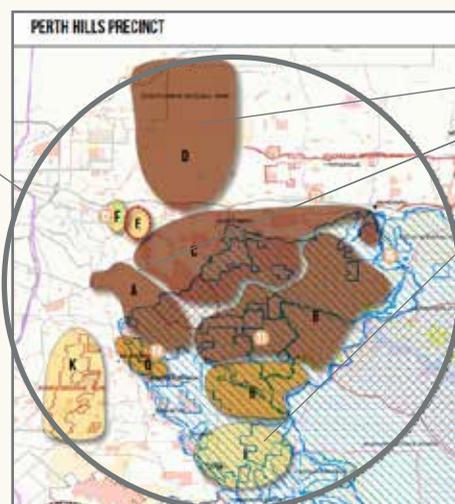
Mountain bike facilities can be delivered in the priority locations identified, providing there is stakeholder support, constraints and opportunities are assessed in further detail, plans are developed and funding is secured.

If there are resources, and commitment, and funding becomes available for any location, development should go ahead.

## LOCATION DETAIL GUIDE (PERTH HILLS PRECINCT EXAMPLE)

PERTH HILLS PRECINCT IS A NATIONALLY SIGNIFICANT LOCATION

HIGH PRIORITY LOCATIONS SHOULD BE DEVELOPED BEFORE MODERATE AND LOW PRIORITY LOCATIONS



THERE ARE 10 INDIVIDUAL SITES WITHIN THIS LOCATION

HIGH PRIORITY SITES, SHADED DARKER, SHOULD BE DEVELOPED BEFORE MODERATE AND LOW PRIORITY SITES, SHADED LIGHTER

Full details of the perth hills precinct are provided on page 44-46

**NATIONALLY & REGIONALLY SIGNIFICANT LOCATIONS**

Development of the Perth and Peel regions has the potential to offer high quality experiences for a number of development drivers, including recreation, tourism, events and community. The most appropriate terrain exists in the Perth Hills, while there are some desirable locations close to populated metropolitan areas. Exclusion zone and development zone strategies were employed to focus development and provide a cohesive regional distribution. The exclusion zone has been used as a tool, and does not preclude a location to develop in the future should demand exist. Application of the exclusion and development zone strategies resulted in the following outcomes. (Refer Figure 9 & Table 11).

**575KM OF PURPOSE-BUILT MOUNTAIN BIKE TRAILS PROPOSED ACROSS 24 SITES**

This master plan proposes the existing trail network of around 125km across nine sites to be expanded to create an international mountain biking destination that:

- Is highly accessible to most metropolitan population centres
- Caters for growing demand caused by an increase in the popularity of mountain biking in the Perth and Peel regions
- Ensures high quality infrastructure and facilities

- Encourages user groups away from using and further developing unsanctioned trails which create environmental, social and management issues

**NATIONALLY AND REGIONALLY SIGNIFICANT MOUNTAIN BIKE DESTINATIONS FOR PERTH RIDERS**

This master plan proposes development of a diverse mix of trail types in a range of reserves, prioritising:

- The Perth Hills, to host a mountain bike precinct of at least 120km of high quality, cohesive and accessible recreational mountain biking trails.
- The addition of 80km of all mountain, cross country, gravity and touring trails, transforming Dwellingup into a trail town.
- The creation of Western Australia's premier international mountain bike events facility in Wungong Regional Park, with 80km of accessible trails, including gravity, downhill and shuttle uplift services.
- The potential to establish a number of trail centres in the locations of Perth Hills Precinct, Dwellingup, Wungong, Swan Valley and Yanchep, providing dedicated on site services and visitor information and at least 30km of quality mountain bike trails at each location. The exact locations of trail centres will be determined in further stages of planning.
- Development of Jarrahdale as a regionally significant

Table 11 provides a summary of each location's significance, priority, region and scale.

ID	LOCATION	SIGNIFICANCE	PRIORITY	REGION	DEVELOPMENT SCALE	RECOMMENDED DEVELOPMENT
<b>NATIONAL SIGNIFICANCE</b>						
1	Perth Hills Precinct	National	High	Perth	> 80km	120km
2	Dwellingup Trail Town	National	High	Peel	> 80km	80km
3	Wungong Trail Centre	National	High	Peel	> 80km	80km
<b>REGIONAL SIGNIFICANCE</b>						
4	Swan Valley Trail Centre	Regional	Moderate	Perth	20km - 80km	30km
5	Jarrahdale Trail Town	Regional	Moderate	Peel	20km - 80km	30km
6	Yanchep Trail Centre	Regional	Moderate	Perth	20km - 80km	30km
<b>LOCAL SIGNIFICANCE</b>						
14	Perth	Local	High	Perth	< 20km	10km
18	Joondalup	Local	Moderate	Perth	< 20km	20km
7	Cockburn	Local	Moderate	Perth	< 20km	10km
10	Rottnest	Local	Moderate	Perth	< 20km	10km
20	Avon	Local	Moderate	Perth	< 20km	20km
9	Yalgorup	Local	Moderate	Peel	< 20km	20km
12	West Coast	Local	Moderate	Perth	< 20km	10km
21	Chidlow	Local	Low	Perth	< 20km	15km
23	Sunset Coast	Local	Low	Perth	< 20km	10km
8	Rockingham	Local	Low	Perth	< 20km	10km
11	Boddington	Local	Low	Peel	< 20km	15km
13	Canning	Local	Low	Perth	< 20km	5km
15	Kwinana	Local	Low	Perth	< 20km	10km
16	Perth Eastern	Local	Low	Perth	< 20km	10km
17	Melville	Local	Low	Perth	< 20km	5km
19	Wanneroo	Local	Low	Perth	< 20km	5km
22	Gosnells	Local	Low	Perth	< 20km	10km
24	Mandurah	Local	Low	Peel	< 20km	10km
<b>TOTAL OPPORTUNITY</b>						<b>575KM</b>

Table 11: Proposed Mountain Bike Locations in the Project Area

mountain bike trail town with at least 30km of mountain bike trails, to attract the recreation and tourism markets from the nearby nationally significant locations.

These developments are intended to:

- Focus investment on providing high quality key infrastructure and trails, considering the need for rehabilitation of existing trails and sites
- Improve diversity of trail types and classifications
- Improve access and achieve growth in local participation, health and economic benefits and opportunities

### URBAN & COMMUNITY TRAILS

To meet the high demand for facilities closer to home, a range of bushland reserves in proximity to suburban areas will realise the potential for:

- Pump track and jump park facilities
- Short distance cross country trail networks that are accessible by bike and link to public transport
- Increasing the availability of urban trails, and encouraging community participation and associated health benefits

### PERTH HILLS MOUNTAIN BIKE TRAILS PRECINCT

Given the primary opportunities that exist in multiple sites in the Darling Range to service a variety of markets, the structure of the Perth Hills precinct is different to other trail town developments. Whereas a trail town would normally have a single central town to promote information and services and provide access to trails, a Precinct may comprise multiple trail towns.

The development zone of a nationally significant trail town in the Perth region was set with a radius of 7.5km. It has been recommended that the development of the Perth Hills Mountain Bike Trails Precinct be extended in the north-south direction, to service and provide adequate access to the Perth and Peel populations, as the primary mountain bike recreation facility.

### LOCALLY SIGNIFICANT LOCATIONS

A key objective of this Master Plan was to provide guidance on the provision of facilities throughout the metropolitan area, to enable access to trails closer to peoples' homes. Provision can be less than 5km and up to 20km of trail. All local government areas in the Perth and Peel regions were assessed, and this Master Plan recommends the provision of park facilities in every Local Government area. Selection of appropriate sites should be referred to the relevant land manager, and in many cases will need to align with existing Local Government cycle, trail or recreation master plans and management plans.

### BIKE PARKS & URBAN BIKE PARKS

A Bike Park, for the purpose of this document, is consistent with the meaning given within the Draft WAMTBMG. That is, "a built feature environment with emphasis on manoeuvres, skill development 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."

Where bike parks have been identified as potential opportunities

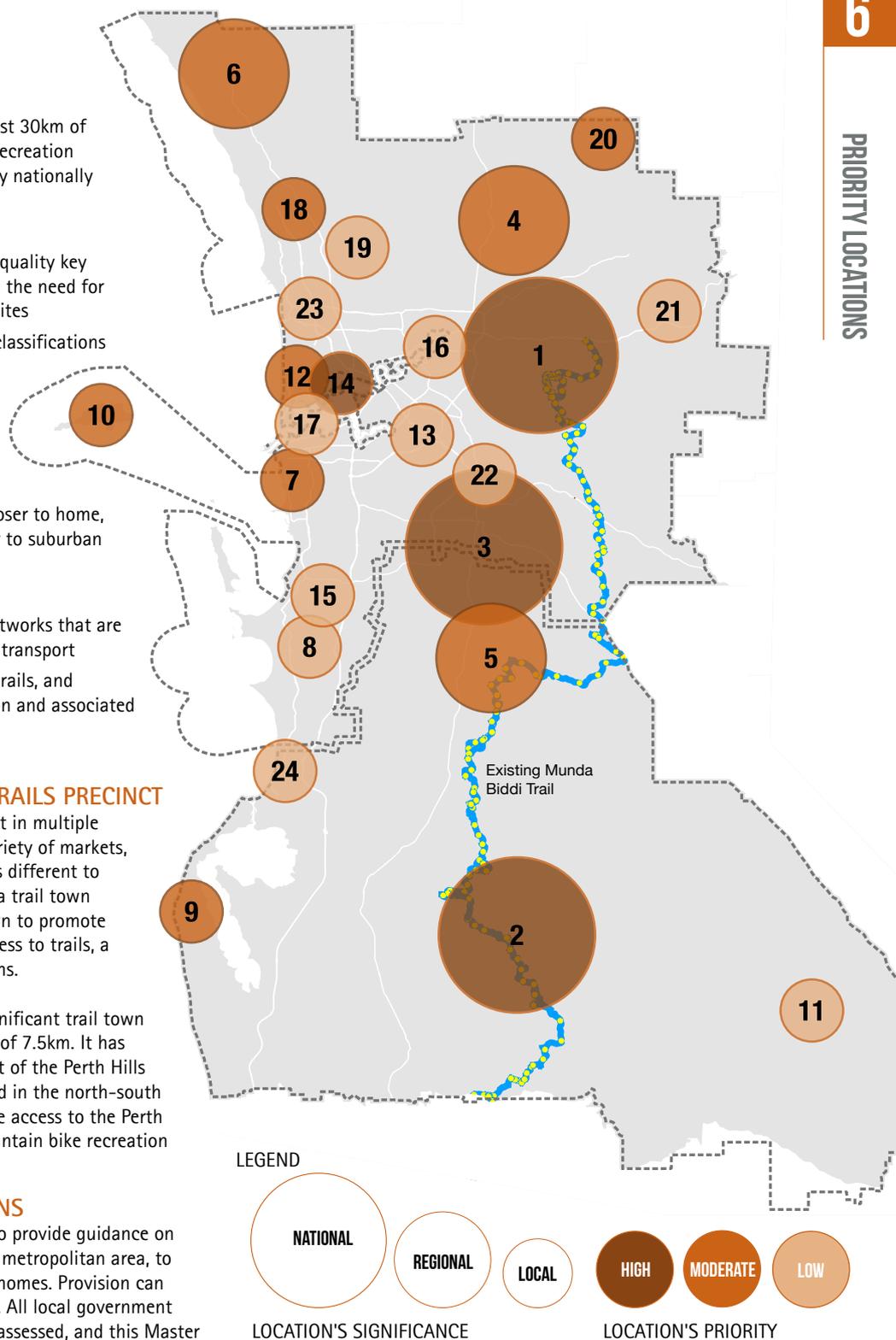


Figure 9: Priority Locations

on individual sites, these generally imply small scale high quality facilities as a component of a trail network or other trail model. Where there is potential for a larger scale bike park to be developed as the primary focus of a site, this will be described within the relevant location tables.

There are many international examples where the term 'Bike Park' refers to a commercial facility located on a parcel of land that is reserved solely for mountain biking and includes a large number or variety of trails. While this type of facility has the potential to be developed in future at a location identified within this Master Plan, the terminology may differ.

## LINEAR TRAILS

A number of opportunities were identified within the region for long distance linear singletrack trails, including a Perth Hills to Wungong trail, and an Avon Valley trail. A link between Perth Hills and Wungong Regional Park would utilise parts of the planned Perth Hills Loop trail, and an Avon Valley descending focussed trail would traverse the Avon Valley region. These large scale projects should be considered in the review of relevant land management plans.

Large scale point to point trails are typically developed in locations where sufficient accommodation, transportation, tours, equipment hire and other attractions are available. Due to their iconic nature, they have the potential to attract a range of businesses and stakeholders as potential partners in their development and promotion. Where appropriate, shorter linear trails could be developed within existing location development zones and should form part of a trail town or trail centre. Long and short distance linear trails outside of development zones should only be prioritised once the regional and national locations reach their identified minimum scale of development to ensure critical mass is achieved first.

## LOCATION DETAIL

The priority locations identified have been assessed in consultation with relevant land managers and key stakeholders to guide future planning and development. The most appropriate trail model types and key priority sites for each priority location are identified and their recommended development timeframes are listed. The location tables on the following pages provide an overview of potential sites and recommended models within each location. Some of the identified locations also offer potential secondary trail models within their development zone, which are identified in the location tables.

The priority sites and trail models recommended in the location tables are aspirational only and while they have been investigated, they have not had detailed site assessments completed. While development should follow the recommendations, funding and land manager support, management model, governance structure and staging will be required to develop as set out in the Draft WAMTBMG. Where a trail centre is identified as the primary model, a trail network could and most likely would precede the trail centre as the initial stage of development. The trail centre facilities should however be considered during the initial development process.

In the future as locally significant locations develop trail beyond the minimum recommended development, there may be potential for trail centre and trail town facilities to be developed. Where practical, development in these areas should consider this future growth as part of their local planning.

## LOCATION TABLES

Each individual location has been assessed and had the following detailed:

**Overview** – General summary of the location's significance, priority, deliverability, recommended primary, if appropriate secondary trail model, scale and key stakeholders

**Development** – Description of the location, demand, visitor services and infrastructure, landscape, priority, opportunities, complementary infrastructure and related services in the area, and how it should be developed.

**Existing Trails** – Identifies the location, type, category and infrastructure of existing sanctioned trails. It does not identify unsanctioned trails. The Munda Biddi Trail is not detailed for each location, but is shown on mapping.

**Priority Sites** – Identifies key priority sites within the location. Each key priority site has preliminary opportunities and constraints, appropriate potential trail model, trail types, and classifications identified. It also addresses the compatibility to existing planning, the importance of the site and the timeframe in which it may be able to be delivered. A key priority site's individual importance and timeframe are relevant to the location's priority and deliverability. The timeframe for development of key priority sites will be determined through further levels of planning.

## LOCATION MAPS

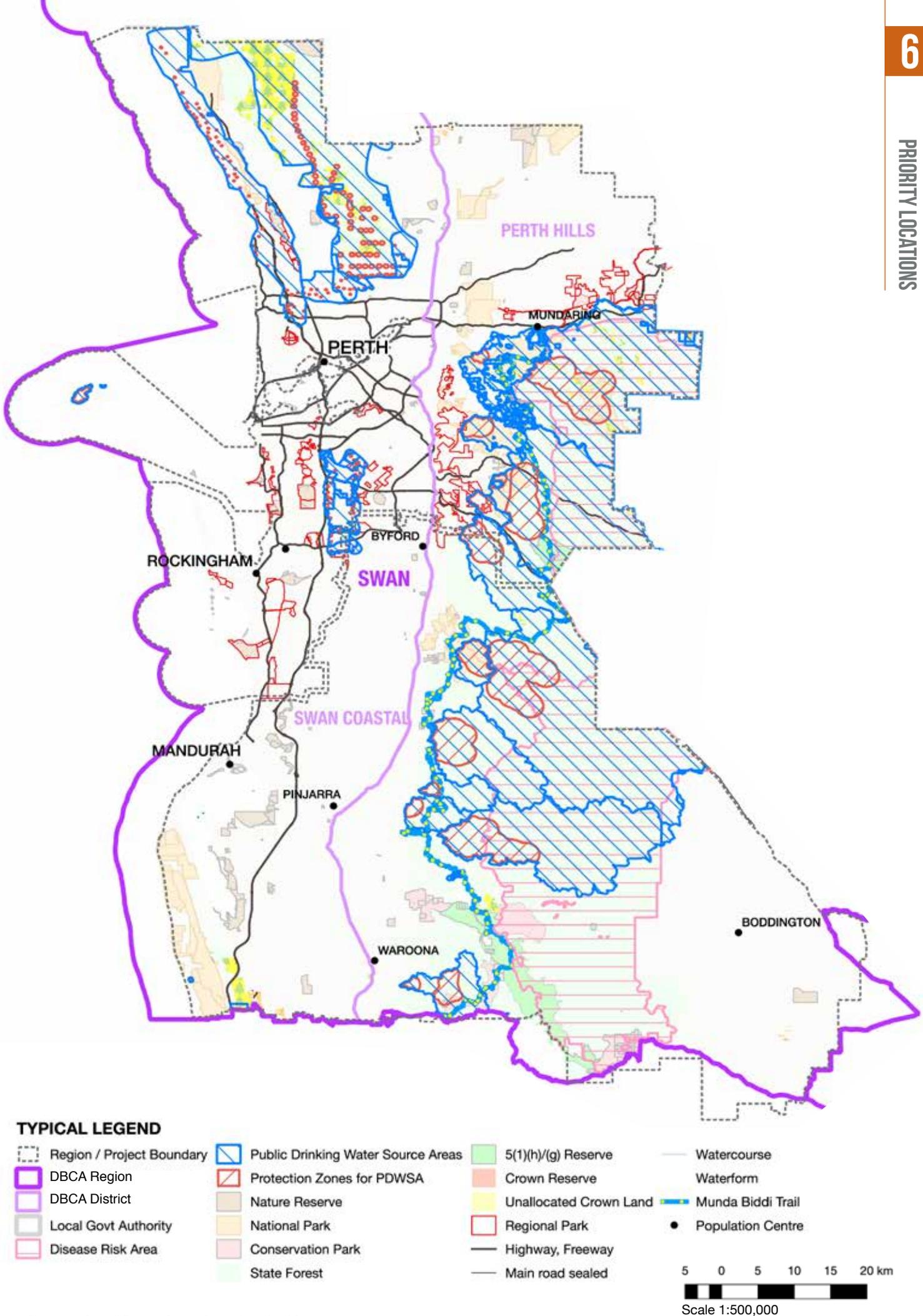
The individual location maps overleaf identify the recommended development zones, locations of priority sites and locations of existing trails. Where possible, facilities should be focused on the centre of the development zone, creating a critical mass of trails within a highly accessible area.

Long distance trails could be developed outside of the development zones as long as the trailhead is within the development zone and is accessible. Where an identified potential site or location exists within reasonable distance of the recommended development zone, it should be assessed on its ability to provide an experience, trail type or classification, which can not be achieved within the development zone or surrounding locations.

Table 12 provides suggested phases for development of all locations.

TIMELINE	RECOMMENDED DEVELOPMENT	TOTAL
PHASE 1	Perth Hills (50km) Dwellingup (30km) Wungong (30km) Joondalup Trail Network (10km) Cockburn Trail Network (15km)	135KM
PHASE 2	Perth Hills Precinct (70km) Dwellingup (50km) Wungong (50km) Swan Valley (30km) Jarrahdale (30km) Rottneest Island (10km) Yalgorup (10km)	250KM
PHASE 3	Yanchep (30km) Perth City (20km) Avon (20km) West Coast (20km) Chidlow (10km) Sunset Coast (10km) Rockingham (10km) Boddington (15km) Canning (5km) Kwinana (10km) Perth Eastern (10km) Melville (5km) Wanneroo (5km) Gosnells (10km) Mandurah (10km)	190KM
<b>TOTAL TRAIL DEVELOPMENT</b>		<b>575KM</b>

Table 12: Recommended Development Delivery Schedule



**TYPICAL LEGEND**

- Region / Project Boundary
- DBCA Region
- DBCA District
- Local Govt Authority
- Disease Risk Area
- Public Drinking Water Source Areas
- Protection Zones for PDWSA
- Nature Reserve
- National Park
- Conservation Park
- State Forest
- 5(1)(h)/(g) Reserve
- Crown Reserve
- Unallocated Crown Land
- Regional Park
- Highway, Freeway
- Main road sealed
- Watercourse
- Waterform
- Munda Biddi Trail
- Population Centre

Figure 10: Overall Tenure, Constraints Et Location Map

# PERTH HILLS PRECINCT

## MODEL

Significance	Priority	Deliverability	Primary Trail Model	Secondary Trail Model	Scale
National	High	Short	Trail Precinct	Trail Towns & Trail Centres	120km
Region	Biodiversity, Conservation and Attractions Body		Local Government	Other Stakeholders	
Perth Metropolitan	Perth Hills District		Shire of Kalamunda Shire of Mundaring	Kalamunda Mountain Bike Collective, Munda Biddi Trail Foundation	

## EXISTING TRAILS

ID	Name	Model	Type	Length	Quality	Classification	Parking	Trailhead/Signage
T1	Kalamunda	Network	XC PK	44km	Avg	GN BU BL	Below Avg	Avg
T2	Goat Farm	Network	XC DH PK	11km	Poor	BU BL	Below Avg	Poor
T3	Railway Res Heritage (Single)		TO	59km	Avg	WH	Avg	Below Avg
T4	Kalamunda Rail Trail (Single)		TO	11km	Poor	WH	Avg	Poor
T5	Munda Biddi Trail		TO	-	Poor	GN / BU	Avg	Avg

## DEVELOPMENT

### Overview

The Perth Hills, lying within the Shires of Kalamunda and Mundaring, are located on the Darling Scarp, 27km from the centre of Perth. Renowned for their steep valleys, granite outcrops, gravelly soil and biodiversity, the area has significant demand for mountain bike trails. The Perth Hills Precinct has the opportunity to become the Perth and Peel Regions prominent mountain bike recreation destination. Trail Centre development should be made a priority to support ongoing management and maintenance, as income generation opportunities are essential for further development of the precinct. The opportunities surrounding both Shires, and the existing infrastructure and services provided make the area suited to development of a Precinct that can include multiple trail models. The Precinct will provide a significant opportunity to capture all segments of the tourism and recreation markets, with potential for a number of future trail centres to be developed. The excellent opportunities in Kalamunda, Mundaring and John Forrest National Parks should be the primary focus, with the development of trail networks in surrounding reserves establishing the location as a key provider as a day trip destination for the enthusiast. Nearby developments at Swan Valley and Avon would provide additional unique day trip opportunities for visitors. There is opportunity to connect with the Wungong Trail Centre via a unique back-country technical trail experience. Due to its proximity to Perth and potential scale of development, the Precinct could attract the interstate tourism market which have mountain biking as a primary motivator. Development of challenge parks and pump tracks within the Shire reserves would provide accessible recreation resources for families and enthusiasts. PDWSA, RPZ, community value and competing recreation demands are identified as the location's largest constraint. **At the time of writing, the land manager does not support the development of mountain bike trails within Greenmount National Park.**

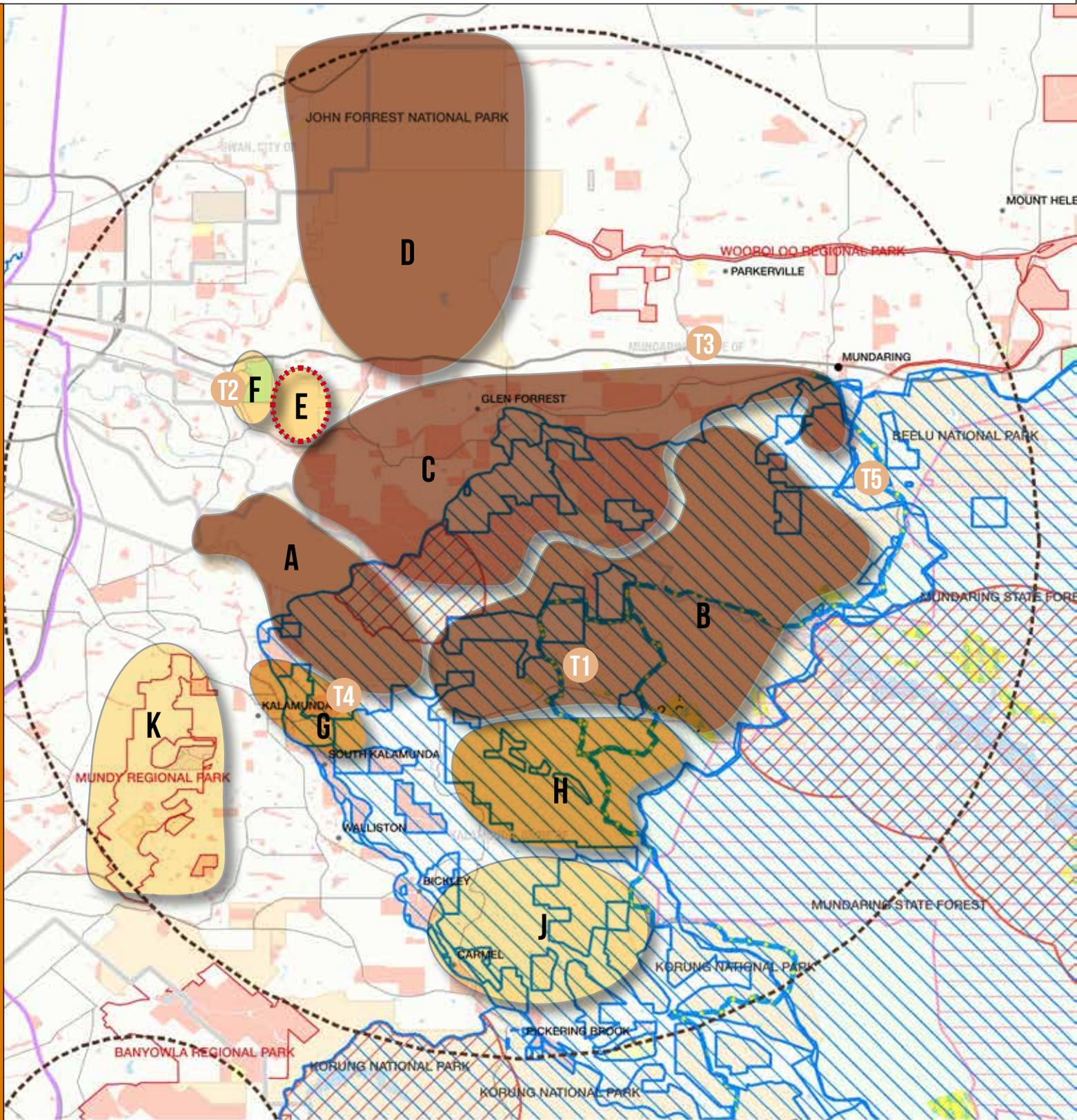
Key Features	Complementary	Opportunities	Existing Infrastructure
Significant Topography, Diverse Vegetation and Landform, Watercourses	Accommodation Providers, Day use sites, Commercial Operations	John Forrest National Park Trail Centre, Kalamunda / Helena Valley Trail Centre, Kalamunda / Mundaring Trail town, Link Trails from Key sites to town centres, Darling Scarp Epic Trail to Wungong	John Forrest National Park, Kalamunda and Mundaring townships

ID	PRIORITY SITE	OPPORTUNITY	CONSTRAINTS	
A	KALAMUNDA NATIONAL PARK Land Tenure National Park Land Manager Biodiversity, Conservation and Attractions	Trail centre located in Piesse Brook / Helena Valley connected to Kalamunda township. Revenue based model. Manage existing use.	Conservation reserve, PDWSA, RPZ, competing recreation demands, surrounding land owners, social impacts, community value, permeable site.	
			Trail Model	Trail Centre (part of)
			Priority	High
			Timeframe	Short
			Trail Types	XC AM TO
B	BEELU NATIONAL PARK Land Tenure National Park Land Manager Biodiversity, Conservation and Attractions	Integral part of trail centre featuring incised valley and unique granitic landscape and variable landform. Manage existing use.	Conservation reserve, PDWSA, RPZ, competing recreation demands, surrounding land owners, social impacts, community value.	
			Trail Model	Trail Centre (part of)
			Priority	High
			Timeframe	Short
			Trail Types	XC AM TO
			Classifications	GN BU BL DB
			Compatibility	Medium

# PERTH HILLS PRECINCT

<b>C</b>	<b>HELENA VALLEY RESERVES</b>	Integral part of trail centre. Trail connector to John Forrest National Park and Greenmount opportunities.	Land manager support, PDWSA, RPZ, surrounding land owners.	Trail Model	Trail Centre (part of)
	Land Tenure Reserve Land Manager Various			Priority	High
				Timeframe	Short
				Trail Types	XC AM TO
				Classifications	GN BU BL DB
				Compatibility	Medium
<b>D</b>	<b>JOHN FORREST NATIONAL PARK</b>	Highly accessible trail centre utilising rejuvenated existing facilities. Significant elevation and topography variation. Strong family based experience opportunity.	Conservation reserve, environmental, flora, competing recreation demands, established recreation, surrounding land owners, community value, site exposure, aging infrastructure, viewshed impacts.	Trail Model	Trail Centre
	Land Tenure National Park Land Manager Biodiversity, Conservation and Attractions			Priority	High
				Timeframe	Medium
				Trail Types	XC AM TO
				Classifications	GN BU BL
				Compatibility	Medium
<b>E</b>	<b>GREENMOUNT NATIONAL PARK</b>	Link trail only, linking southern and northern developments	<b>Not supported by land manager</b> , Suitability of site, conservation reserve, surrounding land owners, social impacts, community value, scale of site.	Trail Model	Linear Trail
	Land Tenure National Park Land Manager Biodiversity, Conservation and Attractions			Priority	Low
				Timeframe	Medium
				Trail Types	XC
				Classifications	GN
				Compatibility	Medium
<b>F</b>	<b>GREENMOUNT RESERVE (GOAT FARM)</b>	Development of significant park (PK) facility with potential for higher than usual impact due to landscape value. Additional XC, AM & DH network.	Suitability of site, scale of site.	Trail Model	Trail Network
	Land Tenure 5G Reserve Land Manager Biodiversity, Conservation and Attractions			Priority	Moderate
				Timeframe	Short
				Trail Types	XC AM DH PK
				Classifications	GN BU BL DB
				Compatibility	High
<b>G</b>	<b>KALAMUNDA RESERVES</b>	Launching platform of trails from town centre connecting to precinct offerings. Development of park (PK) facilities and introductory trail network.	Competing recreation demands, established recreation, community value, scale of site, safety & road user conflict.	Trail Model	Trail Network
	Land Tenure Reserve Land Manager Shire of Kalamunda			Priority	Moderate
				Timeframe	Short
				Trail Types	XC TO PK
				Classifications	GN BU BL
				Compatibility	High
<b>H</b>	<b>GREENMOUNT STATE FOREST</b>	Improvement of existing trail network, limited further potential for nationally significant high quality trail development.	Conservation reserve, suitability of site, DRA, PDWSA, RPZ, safety & road user conflict.	Trail Model	Trail Network
	Land Tenure State Forest Land Manager Biodiversity, Conservation and Attractions			Priority	Moderate
				Timeframe	Short
				Trail Types	XC TO
				Classifications	GN BU BL
				Compatibility	High
<b>J</b>	<b>KORUNG NATIONAL PARK</b>	Linear connection and link trails between Kalamunda and Pickering Brook.	Suitability of site, conservation reserve, PDWSA, RPZ, surrounding land owners, site fragmentation, safety & road user conflict, permeable site.	Trail Model	Linear Trail
	Land Tenure Conservation Reserve Land Manager Biodiversity, Conservation and Attractions			Priority	Low
				Timeframe	Long
				Trail Types	XC TO
				Classifications	BU
				Compatibility	Medium
<b>K</b>	<b>MUNDY REGIONAL PARK</b>	Darling Scarp long distance linear trail connecting Perth Hills Precinct to Wungong Trail Centre.	Land manager support, established recreation, surrounding land owners, community value.	Trail Model	Linear Trail
	Land Tenure Reserve Land Manager Biodiversity, Conservation and Attractions			Priority	Low
				Timeframe	Long
				Trail Types	XC AM
				Classifications	GN BU BL
				Compatibility	Medium

# PERTH HILLS PRECINCT



- LEGEND**
-  Site not supported by land manager
  -  High priority site
  -  Moderate priority site
  -  Low priority site



# DWELLINGUP TRAIL TOWN

## MODEL

Significance	Priority	Deliverability	Primary Trail Model	Secondary Trail Model	Scale
National	High	Short	Trail Town	Trail Centre	80km
Region	Biodiversity, Conservation and Attractions Body		Local Government	Other Stakeholders	
Peel Region	Perth Hills District		Shire of Murray Shire of Waroona	Peel Districts Mountain Bike Club, Munda Biddi Trail Foundation	

## EXISTING TRAILS

ID	Name	Model	Type	Length	Quality	Classification	Parking	Trailhead/Signage
T1	Marrinup Circuit	Network	XC	8km	Avg	BU	Below Avg	Avg
T2	Turner Hill	Network	XC	11km	Avg	BU	Below Avg	Avg
T3	South Shore*	Network	XC	5km	B/Avg	BL	Below Avg	Below Avg
T4	Waterous Loop	Individual	TO	61km	B/Avg	GN	Avg	Avg
T5	Munda Biddi Trail		TO	-	Poor	GN / BU	Avg	Avg

\*South Shore trail network was destroyed in bushfires early in 2016. At the time of writing this master plan the trials had not been reinstated.

## DEVELOPMENT

### Overview

Dwellingup is situated 43km from Mandurah, the Peel region's most populous location. A picturesque country town surrounded by jarrah forest and watercourses, the area has significant demand for outdoor and adventure experiences, and could be developed to national significance. Lane Poole Reserve is the largest park in the jarrah forest, covering 50,000 hectares. The Murray River is one of the area's most popular destinations for visitors who utilise campgrounds and day use facilities such as picnic areas and BBQs. Dwellingup has the opportunity to become the Peel Region's prominent mountain bike tourism destination. The short term focus should be to develop a trail centre in the reserve. The opportunities surrounding the Dwellingup township, and the existing infrastructure and services provided make it suited to trail town development. Initial development of downhill trails with potential shuttle uplifts, which can be connected to the future trail centre would establish a unique recreation resource and day trip destination for the enthusiast. Development of park facilities and trails within the town shire reserves would provide a recreation resource for the broader community including families and enthusiasts visiting the area. The Dwellingup Trail town has the potential to become a major trail provider for significant events in the region. Conservation reserve, mining and suitability of site are identified as the location's largest constraints. **At the time of writing, the land manager does not support the development of mountain bike trails within the conservation reserve of Lane Poole Reserve.**

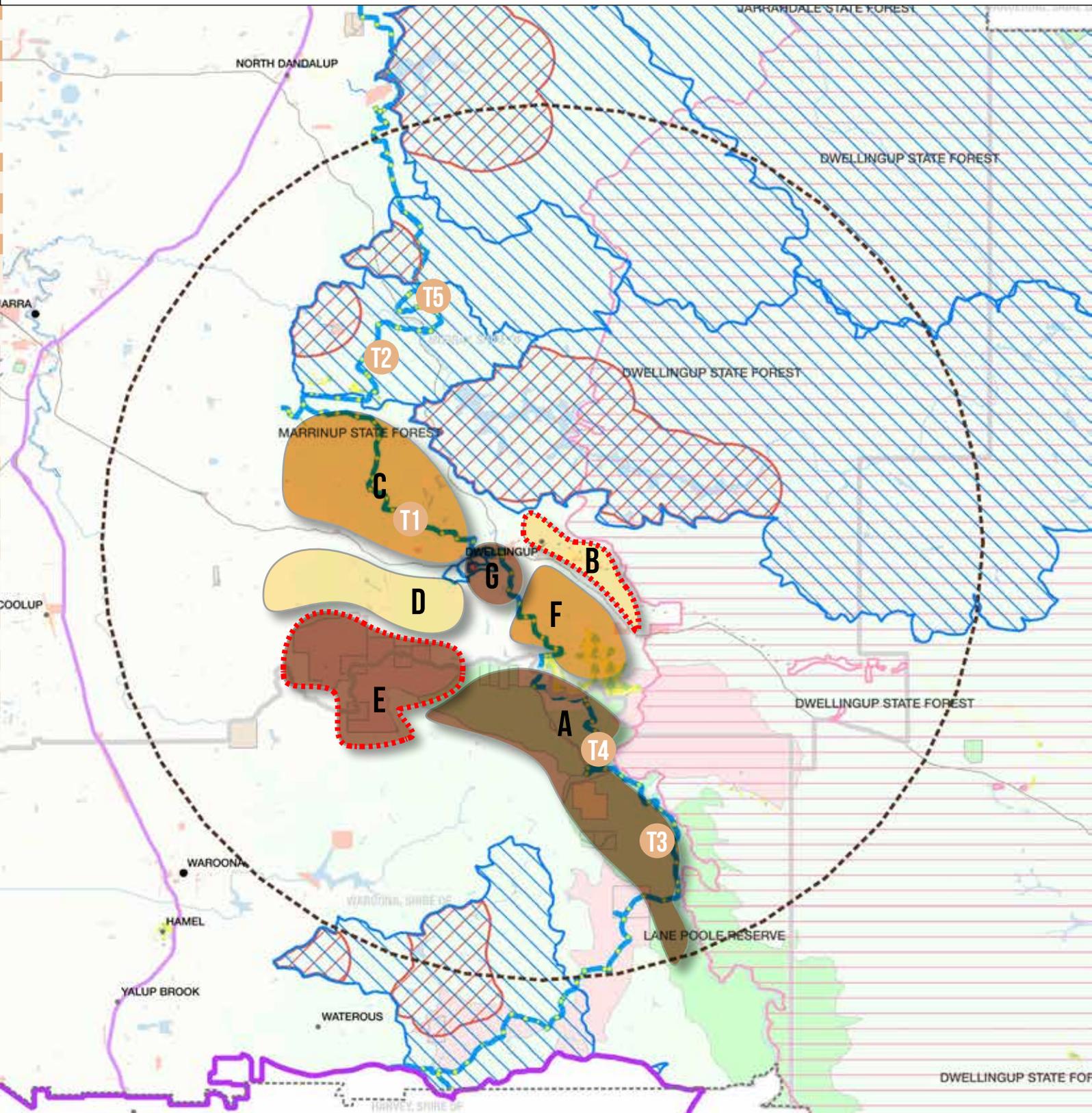
Key Features	Complementary	Opportunities	Existing Infrastructure
Significant Topography, Diverse Vegetation and Landform, Watercourses, Connectivity to Township	Campgrounds, Day use sites, Commercial Operations, Natural Attractions	Dwellingup Trail town, Lane Poole Trail Centre, Marrinup Trail Network, Town Centre Facilities and MTB Park (PK), Murray River Epic Backcountry Trail, Hotham Valley Train Trail	Lane Poole Reserve Campgrounds and Day Use sites, Township Infrastructure

ID	PRIORITY SITE	OPPORTUNITY	CONSTRAINTS	Trail Model	Trail Centre
A	LANE POOLE RESERVE Land Tenure Recreation Reserve Land Manager Biodiversity, Conservation and Attractions	Revenue based trail centre model emanating from Lane Poole Reserve with connections to campgrounds and day use sites.	Conservation Reserve, competing recreation demands, established recreation.	Trail Model	Trail Centre
				Priority	High
				Timeframe	Short
				Trail Types	XC AM DH TO
				Classifications	GN BU BL DB
				Compatibility	High
B	DWELLINGUP STATE FOREST Land Tenure State Forest Land Manager Biodiversity, Conservation and Attractions	Part of connection from townsite to Lane Poole Reserve. Future Hotham Valley Train Trail and Rail Trail.	<b>Not supported by land manager</b> , Suitability of site, Conservation Reserve, DRA, PDWSA, RPZ, limited revenue generation, mining encroachment, existing lease over rail easement.	Trail Model	Linear Trail
				Priority	Low
				Timeframe	Long
				Trail Types	XC TO
				Classifications	WH GN BU
				Compatibility	High

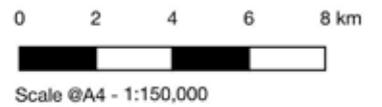
# DWELLINGUP TRAIL TOWN

<b>C</b>	<b>MARRINUP STATE FOREST</b>	Trail from town centre connecting to forest, existing network, and to Marrinup falls.	Conservation Reserve, PDWSA, RPZ, land use conflict, intensive land management, mining impacts, mining rehabilitated.	Trail Model	Trail Network
	Land Tenure Conservation Reserve Land Manager Biodiversity, Conservation and Attractions			Priority	Moderate
<b>D</b>	<b>MARRINUP STATE FOREST</b>	Alternate connection from Dwellingup to trail network in Lane Poole Reserve and trail along Murray River.	Suitability of site, Conservation Reserve, surrounding land use, site fragmentation.	Trail Model	Trail Network
	Land Tenure State Forest Land Manager Biodiversity, Conservation and Attractions			Priority	Low
<b>E</b>	<b>LANE POOLE RESERVE</b>	Murray River long distance linear back country trail with connection to Scarp Lookout from Trail Centre featuring deeply incised granitic landscape.	<b>Not supported by Land Manager</b> , Conservation Reserve, environmental, fauna, flora, mining encroachment.	Trail Model	Trail Centre
	Land Tenure Conservation Reserve Land Manager Biodiversity, Conservation and Attractions			Priority	High
<b>F</b>	<b>DWELLINGUP STATE FOREST</b>	Trails connected to trail centre and connecting Lane Poole Reserve to Dwellingup townsite. Downhill trails with potential commercial shuttle uplift.	Conservation Reserve, surrounding land use.	Trail Model	Trail Network
	Land Tenure State Forest Land Manager Biodiversity, Conservation and Attractions			Priority	Medium
<b>G</b>	<b>TOWNSHIP RESERVES</b>	Accessible trails for recreation, park (PK) facilities, connection from town centre to Lane Poole Reserve.	Suitability of site, competing recreation demands, surrounding land owners, scale of site, site fragmentation, safety & road user conflict.	Trail Model	Trail Network
	Land Tenure Reserve Land Manager Shire of Murray			Priority	High

# DWELLINGUP TRAIL TOWN



- LEGEND**
-  Site not supported by land manager
  -  High priority site
  -  Moderate priority site
  -  Low priority site



# WUNGONG TRAIL CENTRE

## MODEL

Significance	Priority	Deliverability	Primary Trail Model	Secondary Trail Model	Scale
National	High	Short	Trail Centre	Trail Network	80km
Region	Biodiversity, Conservation and Attractions Body		Local Government	Other Stakeholders	
Perth Metropolitan Peel	Regional Parks & Perth Hills District	City of Armadale Shire of Serpentine-Jarrahdale	Peel Districts Mountain Bike Club		

## EXISTING TRAILS

ID	Name	Model	Type	Length	Quality	Classification	Parking	Trailhead/Signage
NIL								

## DEVELOPMENT

### Overview

Wungong Regional Park is situated on the western edge of the Darling Scarp. Renowned for its dramatic slopes, gorges and seasonal waterways, it provides spectacular views over Perth City and the Swan Coastal Plain. Wungong has the opportunity to become the Perth and Peel Regions prominent mountain bike event destination. The area has significant demand for mountain bike trails and considered development of the area will provide an opportunity to capture all segments of the mountain bike tourism market. To ensure sustainable management a trail centre with revenue model such as shuttle uplift is required. The trail centre should promote a high level of accessibility focused around gravity trails with potential international level event facilities and a wide range of visitor services. Commercial private land surrounding Byford offers potential to develop higher impact trails on significant topography in open farming land and areas impacted by past or present quarry operations. Development of introductory cross country trails would provide a recreation resource for families and enthusiasts. Competing recreation demands and the scale of site are identified as the location's largest constraints. Funding mechanisms and land owner support is identified as the largest constraint for development of private land.

Key Features	Complementary	Opportunities	Existing Infrastructure
Excellent Connectivity, Significant Topography, Diverse Landform and Vegetation Condition	Open space, Commercial and retail product	Wungong Regional Park Revenue Based Trail Centre, Potential Naturebank* Development, Darling Scarp Epic Trail to Perth Hills Precinct, Private tenure Mountain Bike park, Recreation Reserve Participation Facility.	NIL

\*Naturebank is a WA Government initiative that aims to prepare sites for development of quality ecotourism experiences in the State's national parks.

ID	PRIORITY SITE	OPPORTUNITY	CONSTRAINTS	Trail Model	Trail Centre
A	WUNGONG REGIONAL PARK Land Tenure Reserve / Freehold Land Manager DBCA / City of Armadale	Highly accessible revenue based trail centre model with international level event facilities and visitor servicing (potentially via Nature Bank). Lift assisted gravity trails.	Competing recreation demands, surrounding land use, surrounding land owners, community value, scale of site.	Trail Model	Trail Centre
				Priority	High
				Timeframe	Short
				Trail Types	XC AM DH PK
				Classifications	GN BU BL DB
B	JARRAHDAL STATE FOREST Land Tenure State Forest Land Manager DBCA	Trail network connected to Wungong Trail Centre expanding trail offerings in to state forest.	Conservation Reserve, environmental.	Trail Model	Trail Centre (part of)
				Priority	Moderate
				Timeframe	Medium
				Trail Types	XC AM DH
				Classifications	GN BU BL DB
C	WUNGONG REGIONAL RECREATION RESERVE Land Tenure Freehold Land Manager Department of Lands	Sporting precinct entry point participation based facility surrounding playing fields. Introductory cross country trails providing accessible recreation resource for young people and enthusiasts.	Suitability of site, competing recreation demands, scale of site, safety & road user conflict, soil types.	Trail Model	Trail Network
				Priority	Low
				Timeframe	Long
				Trail Types	XC PK
				Classifications	GN BU BL
D	PALOMINO RESERVE Land Tenure Reserve Land Manager City of Armadale	Introductory cross country network of trails providing accessible recreation.	Suitability of site, competing recreation demands, surrounding land use, surrounding land owners, social impacts, scale of site.	Trail Model	Trail Network
				Priority	Low
				Timeframe	Long
				Trail Types	XC
				Classifications	GN BU
				Compatibility	High

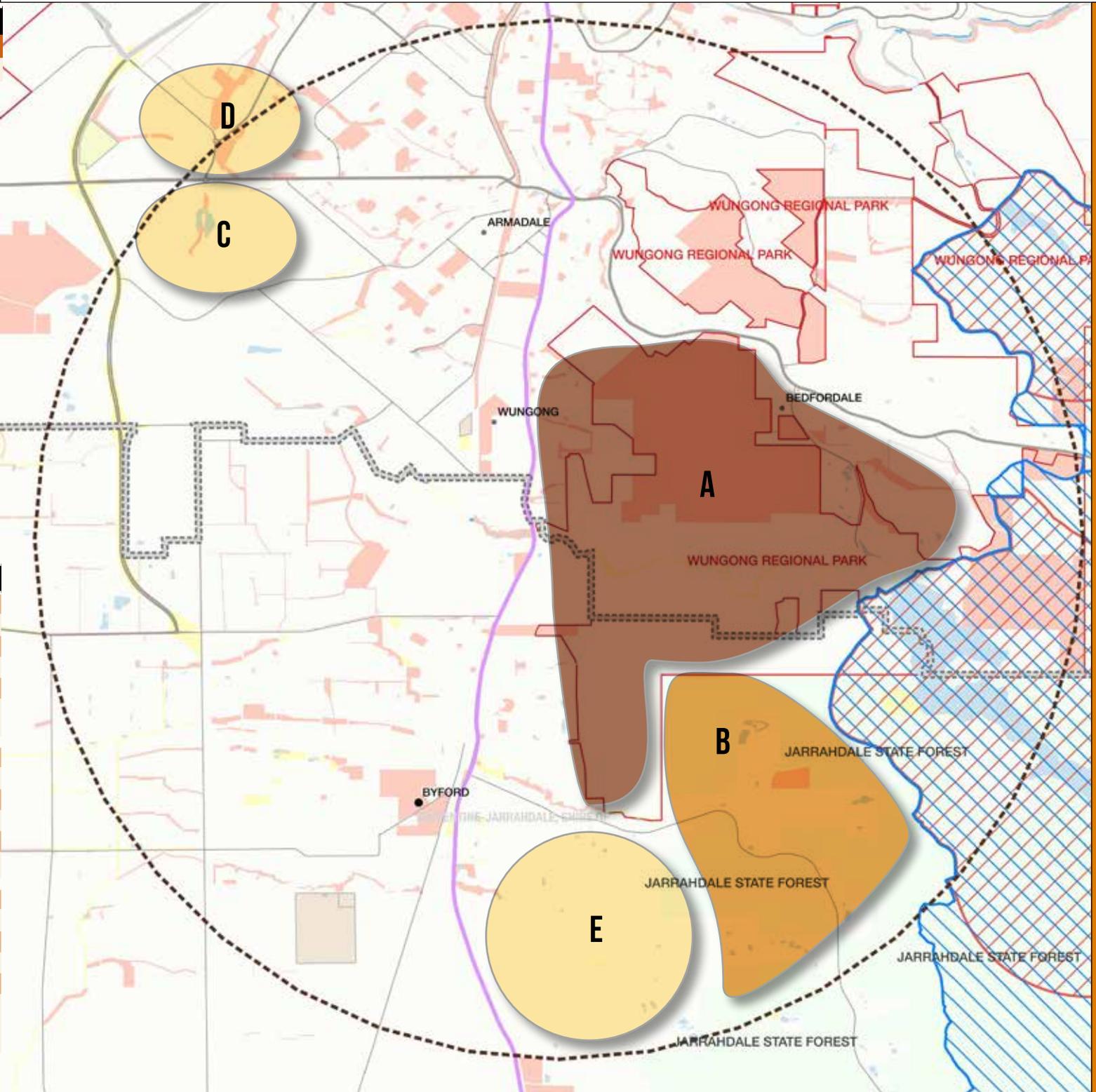
# WUNGONG TRAIL CENTRE

**E** COMMERCIAL PRIVATE LAND  
 Land Tenure  
 Freehold  
 Land Manager  
 Private / Commercial

Private gravity focus trail centre model located on private land surrounding Byford.

Land owner support, land use conflict, governance structure, private land access, funding mechanisms, mining impacts, mining encroachment.

Trail Model	Trail Network
Priority	Low
Timeframe	Long
Trail Types	XC
Classifications	GN BU
Compatibility	High



**LEGEND**  
 Site not supported by land manager  
 High priority site

Moderate priority site  
 Low priority site

0 0.5 1 1.5 2 2.5 km



Scale @A4 - 1:50,000

# SWAN VALLEY TRAIL CENTRE

## MODEL

Significance	Priority	Deliverability	Primary Trail Model	Secondary Trail Model	Scale
Regional	Moderate	Medium	Trail Centre	Trail Town	30km
Region	Biodiversity, Conservation and Attractions Body		Local Government	Other Stakeholders	
Perth Metropolitan	Perth Hills District	City of Swan		Department of Lands, WA Planning Commission, Peel Districts Mountain Bike Club	

## EXISTING TRAILS

ID	Name	Model	Type	Length	Quality	Classification	Parking	Trailhead/Signage
NIL								

## DEVELOPMENT

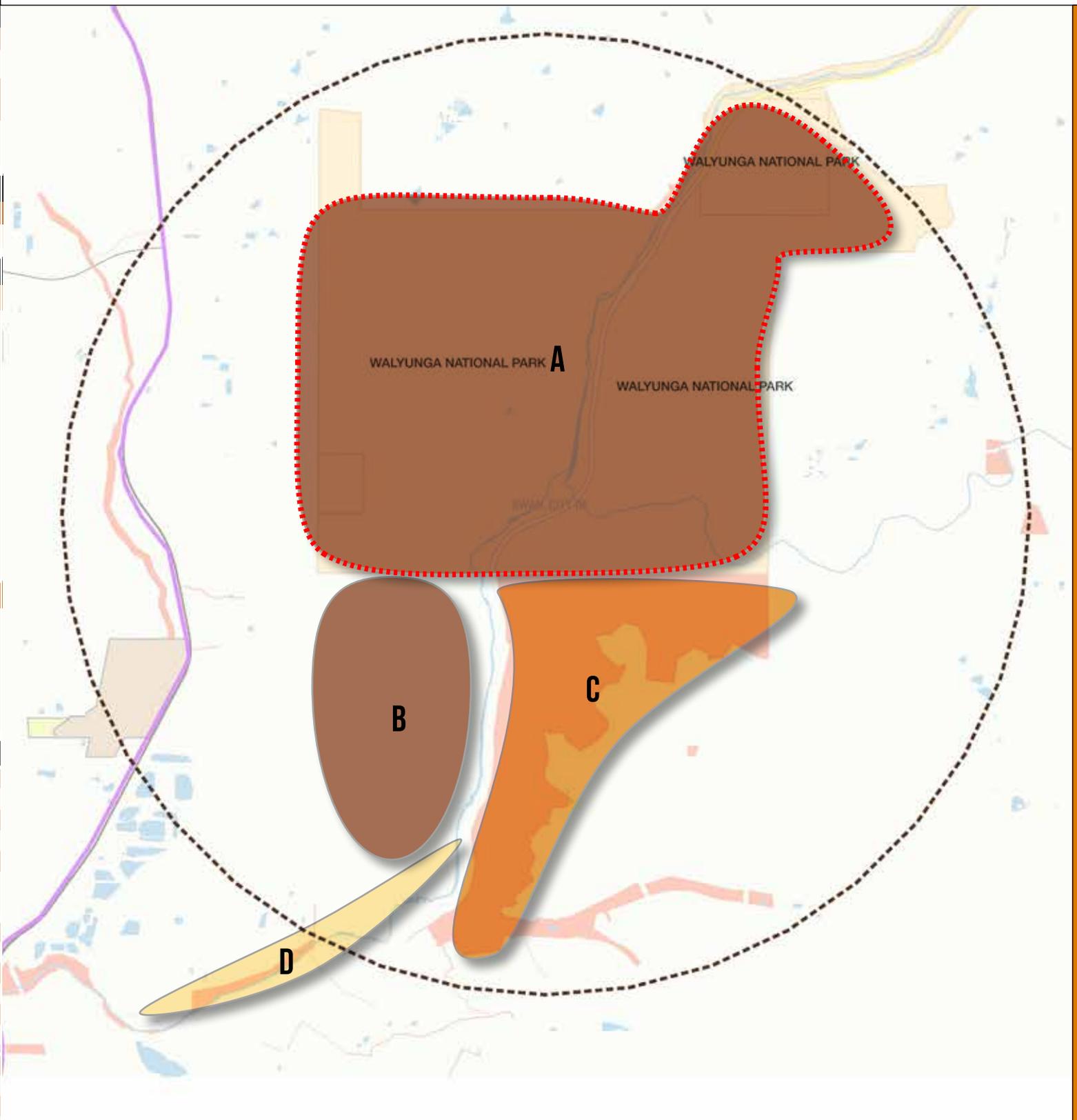
### Overview

The Swan Valley is located within the City of Swan, and covers the upper reaches of the Swan River between Guildford and Bells Rapids. It is bordered by Walyunga National Park, which is situated 35km to the north east of the Perth Metropolitan region on the Darling Range, and this location could be developed to regional significance. Due to its steep valley and large granite outcrops, there is significant potential for the area to become an iconic mountain bike destination. Development of Walyunga will provide a recreation resource for a growing population. The National Park combined with the surrounding wine and food attractions of Ellenbrook and the Swan Valley provide a unique experience for tourists. Initial development of a trail centre with visitor services including gravity trails with potential shuttle uplifts that descend to the Avon River would establish the Swan Valley as an accessible day trip destination for the enthusiast. There is opportunity for development of existing infrastructure and facilities to capture revenue from additional park visitation or commercial and retail licensees. A medium to long term focus should be on the potential connections to backcountry all mountain trails and cross country trails on the banks of the Avon and Swan rivers linking to Ellenbrook and other suburbs. Land Manager Support and Aboriginal Heritage are identified as the location's largest constraints. **At the time of writing, the land manager supports the development of a trail centre within Walyunga National Park but does not support the development of mountain bike trails within Walyunga National Park.**

Key Features	Complementary	Opportunities	Existing Infrastructure
Significant Topography, Watercourse, Unique Landscape, Diverse Landform and Vegetation Condition	Wine and Food, Attractions, Commercial and retail product, Aboriginal Interpretation	Walyunga Revenue Based Trail Centre, River reserve trail connecting to Ellenbrook, Jumbuck Lift Assist Gravity Trails, Backcountry Trails	Walyunga National Park, Bells Rapids

ID	PRIORITY SITE	OPPORTUNITY	CONSTRAINTS	Trail Model	Trail Centre
A	WALYUNGA NATIONAL PARK Land Tenure National Park Land Manager Biodiversity, Conservation and Attractions	Accessible revenue based trail centre model featuring unique landscape and watercourse. Connected to gravity and backcountry trails.	<b>Not supported by land manager</b> , Conservation Reserve, Aboriginal heritage, site exposure, train Line, operating times. River crossing, size of National Park, seasonality.	Trail Model	Trail Centre
				Priority	High
				Timeframe	Medium
				Trail Types	XC AM
				Classifications	GN BU BL DB
B	JUMBUCK HILL FREEHOLD Land Tenure Freehold Land Manager Department of Lands	Additional trail centre trail network with shuttle uplift gravity trails descending to river. Part of future river trail connecting trail centre to Ellenbrook.	Land Manager Support, Proposed Conservation Reserve, Land Use Conflict, Aboriginal Heritage.	Trail Model	Trail Centre (part of)
				Priority	High
				Timeframe	Short
				Trail Types	XC AM DH PK
				Classifications	GN BU BL DB
C	BRIGADOON RESERVE Land Tenure Reserve Land Manager Department of Lands	Trail network connected to Walyunga Trail Centre and River Trail Reserve featuring exposed granitic landscape and Bells Rapids and watercourse.	Land manager support, proposed Conservation Reserve, Aboriginal heritage, competing recreation demands, community value, surrounding land owners, river crossing and train line.	Trail Model	Trail Network
				Priority	Moderate
				Timeframe	Short
				Trail Types	XC AM
				Classifications	GN BU BL
D	RIVER RESERVES Land Tenure Reserve Land Manager Various	Future river trail connecting Walyunga Trail Centre to Ellenbrook and Swan Valley attractions.	Land manager support, suitability of site, Aboriginal heritage, surrounding land owners, scale of site, site fragmentation, hydrology.	Trail Model	Linear Trail
				Priority	Low
				Timeframe	Long
				Trail Types	XC
				Classifications	GN BU
				Compatibility	Medium

# SWAN VALLEY TRAIL CENTRE



- LEGEND**
-  Site not supported by land manager
  -  High priority site
  -  Moderate priority site
  -  Low priority site

0 0.25 0.5 0.75 1 1.25 km



Scale @A4 - 1:35,000

# JARRAHDALE TRAIL TOWN

## MODEL

Significance	Priority	Deliverability	Primary Trail Model	Secondary Trail Model	Scale
Regional	Moderate	Medium	Trail Town	Trail Network	>30km
Region	Biodiversity, Conservation and Attractions Body		Local Government	Other Stakeholders	
Peel Region	Perth Hills District		Shire of Serpentine-Jarrahdale	Munda Biddi Trail Foundation	

## EXISTING TRAILS

ID	Name	Model	Type	Length	Quality	Classification	Parking	Trailhead/Signage
T1	Langford Park	Trail Network	XC	19km	B/Avg	GN BU	Avg	Poor

## DEVELOPMENT

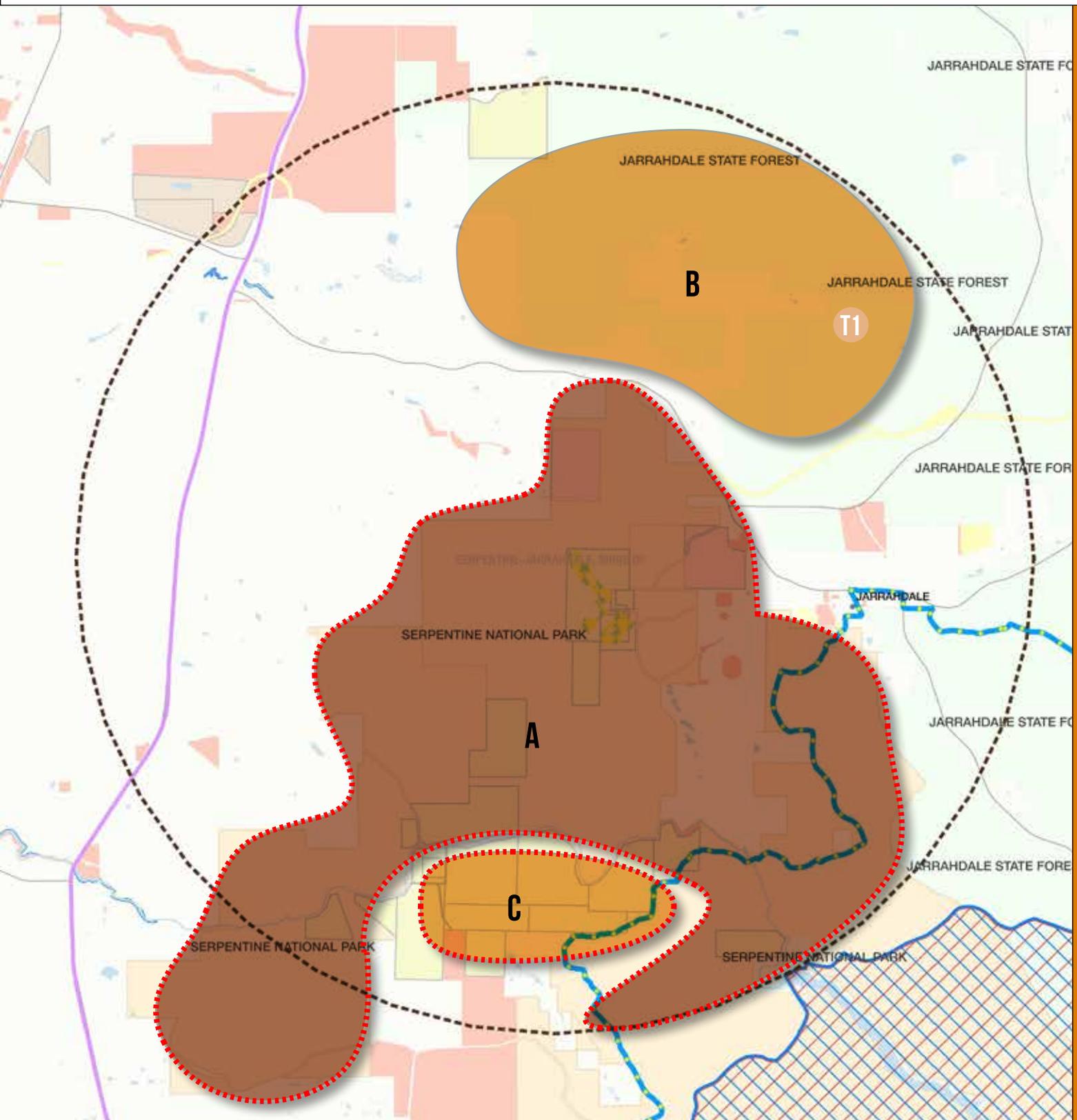
### Overview

Jarrahdale is a small historic timber milling town located 45km south east of Perth in the Darling Range. The area has existing mountain bike demand due to Langford Park and the Munda Biddi Trail being located in the area, and it could be developed to regional significance. Although there is good opportunity for development it is significantly constrained by conservation reserve and limited infrastructure. Should the constraints be overcome, the area would be capable of hosting a high quality trail network serving the southern Perth Metropolitan and Peel recreation market as well as the tourism market from nearby national locations, including the Perth Hills Precinct, Wungong Trail Centre and Dwellingup Trail town. The opportunities surrounding the township, and the existing infrastructure and services provided make Jarrahdale suited to trail town development in the future and this should be considered in all planning. Lack of land manager support is identified as the location's largest constraint. **At the time of writing, the land manager does not support the development of mountain bike trails at Serpentine National Park.**

Key Features	Complementary	Opportunities	Existing Infrastructure
Connectivity to Township, Diverse Landform, Gorges and Granitic Landscape, Minor Watercourses,	Day use sites, Natural Attractions, Accommodation	Jarrahdale Trail town, Serpentine Valley Trail Network, Back Country Trail to Serpentine	Jarrahdale Township, Serpentine Dam, Serpentine Falls (at capacity), Basic trail network at Langford Park

ID	PRIORITY SITE	OPPORTUNITY	CONSTRAINTS		
A	SERPENTINE NATIONAL PARK Land Tenure National Park Land Manager Biodiversity, Conservation and Attractions	Trail network with connection to Townsite, Serpentine Falls and Serpentine Dam Day Use Site. Back Country descent focused trail to Serpentine following Gorge.	<b>Not supported by land manager</b> , Conservation Reserve, PDWSA, RPZ, Competing Recreation Demands, Established Recreation, Aging Infrastructure constrained site, Operating Times	Trail Model	Trail Centre
				Priority	High
				Timeframe	Medium
				Trail Types	XC AM
				Classifications	GN BU BL DB Medium
B	JARRAHDALE STATE FOREST Land Tenure State Forest Land Manager Biodiversity, Conservation and Attractions	Trail network with potential future connection to Mundijong.	Suitability of Site, Conservation Reserve, Established Recreation, Limited Revenue Generation, Mining Impacts, Mining Rehabilitated.	Trail Model	Trail Network
				Priority	Moderate
				Timeframe	Long
				Trail Types	XC PK
				Classifications	GN BU BL High
C	FREEHOLD Land Tenure Freehold Land Manager Department of Lands	Part of trail network and back country trail within Serpentine National Park.	<b>Not supported by land manager</b> , Proposed Conservation Reserve, Scale Of Site, Site Fragmentation, Private Land Access, Leaseholders.	Trail Model	Trail Network
				Priority	Moderate
				Timeframe	Medium
				Trail Types	XC AM
				Classifications	GN BU BL DB Medium

# JARRAHDALE TRAIL TOWN



- LEGEND**
-  Site not supported by land manager
  -  High priority site
  -  Moderate priority site
  -  Low priority site



# YANCHEP TRAIL CENTRE

## MODEL

Significance	Priority	Deliverability	Primary Trail Model	Secondary Trail Model	Scale
Regional	Moderate	Long	Trail Centre	Trail Network	30km
Region	Biodiversity, Conservation and Attractions Body		Local Government	Other Stakeholders	
Perth Metropolitan	Swan Coastal District	City of Wanneroo	Northern Beaches Cycling Club		

## EXISTING TRAILS

ID	Name	Model	Type	Length	Quality	Classification	Parking	Trailhead/Signage
NIL								

## DEVELOPMENT

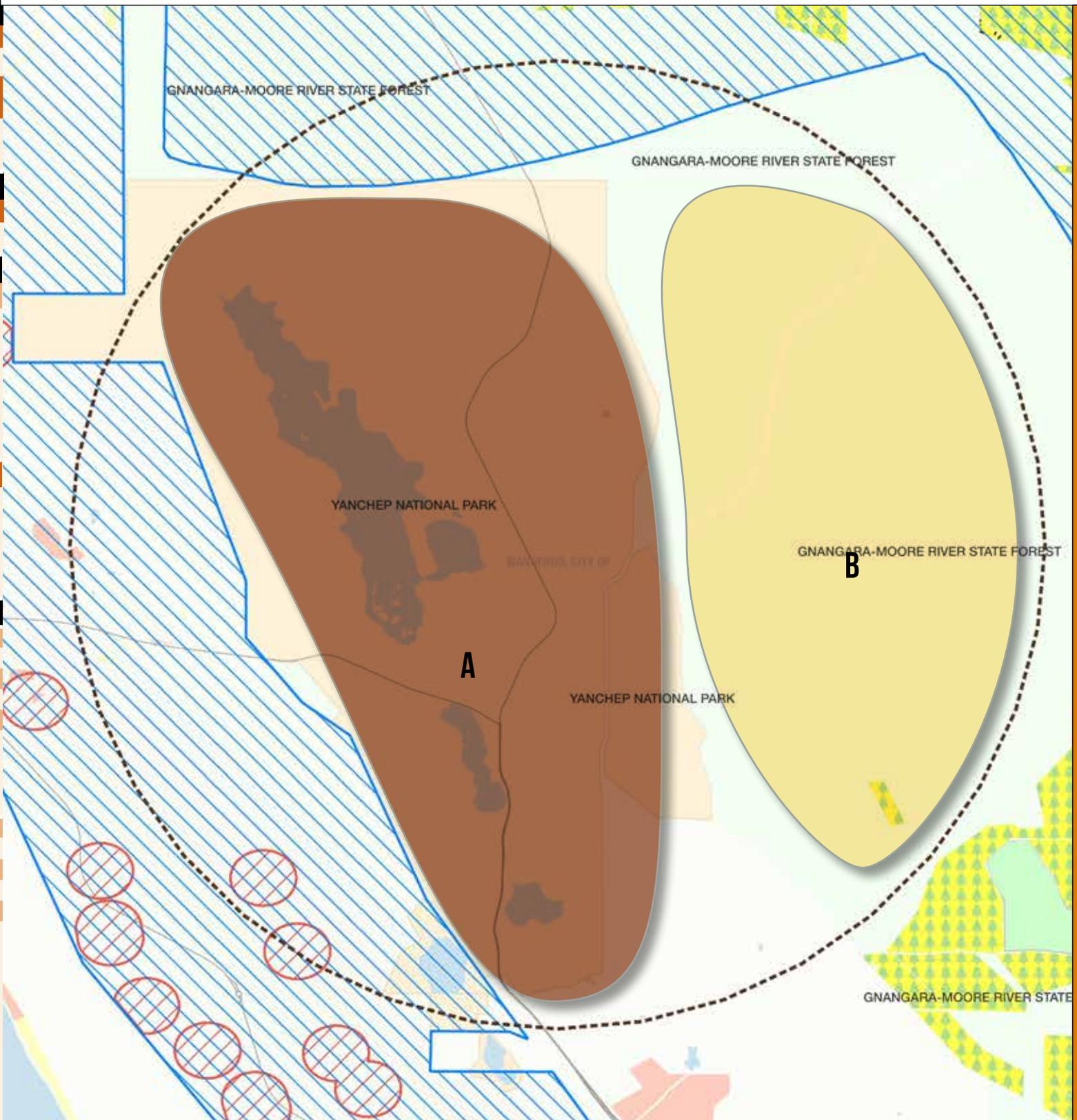
### Overview

Yanchep is an outer coastal suburb of Perth, located 56km north of Perth City. The location already has high demand for mountain bike trails within the local cycling community and could be developed to regional significance. With the current visitor services available and the camping trial within the National Park, there is excellent opportunity for colocation of a trail centre. Yanchep National Park should be the primary focus to develop a key recreational resource for the northern suburbs population. Development of a trail network featuring the limestone ridges and wetlands has the potential to attract intrastate visitors. Combined with established attractions, commercial operators and retailers, Yanchep provides opportunities for day trips and short stays in the area. Distance from population centre and competing recreation demands are identified as the location's largest constraints.

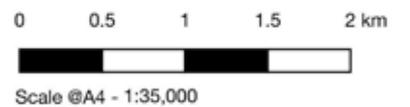
Key Features	Complementary	Opportunities	Existing Infrastructure
Connectivity to Existing Infrastructure, Coastal Limestone Landform, Caves and Wetland	Day use sites, Commercial Operations	Trail Centre / Network utilising extensive facilities within Yanchep National Park, Limestone Ridge Trail connecting to wetland	Day Use Sites, Yanchep Inn, Cafes, Parking, Yanchep Crystal Caves, Yaberoo Budjara Walk Trail

ID	PRIORITY SITE	OPPORTUNITY	CONSTRAINTS	Trail Model	Trail Network
A	YANCHEP NATIONAL PARK Land Tenure National Park Land Manager Biodiversity, Conservation and Attractions	Trail network featuring limestone ridges and wetland, connected to existing park facilities. Upgrade of the Yaberoo Budjara to Shared use Trail for Walkers and Mountain Bikers.	Threatened Ecological Communities, Conservation Reserve, Competing Recreation Demands, Established Recreation, Safety & Road User Conflict, Soil Types, Distance From Population Centre, Operating Times.	Trail Model	Trail Network
				Priority	High
				Timeframe	Short
				Trail Types	XC PK
				Classifications	GN BU BL
				Compatibility	Medium
B	GNANGARA-MOORE RIVER STATE FOREST Land Tenure State Forest Land Manager Biodiversity, Conservation and Attractions	Trail Network connected to Yanchep National Park Facilities.	Competing Recreation Demands, Basic Raw Material Extraction, Potential Sand/Limestone Quarries Suitability of Site, Conservation Reserve, Safety & Road User Conflict, Soil Types, Longevity, Distance From Population Centre, Limited Revenue Generation, Site Exposure.	Trail Model	Trail Network
				Priority	Low
				Timeframe	Long
				Trail Types	XC
				Classifications	GN BU BL
				Compatibility	High

# YANCHEP TRAIL CENTRE



- LEGEND**
-  Site not supported by land manager
  -  High priority site
  -  Moderate priority site
  -  Low priority site



# AVON VALLEY

## MODEL

Significance	Priority	Deliverability	Primary Trail Model	Secondary Trail Model	Scale
Local	Moderate	Long	Trail Network		20km
Region	Biodiversity, Conservation and Attractions Body		Local Government	Other Stakeholders	
Perth Metropolitan	Perth Hills District		City of Swan	Moondyne Convention Centre	

## EXISTING TRAILS

ID	Name	Model	Type	Length	Quality	Classification	Parking	Trailhead/Signage
NIL								

## DEVELOPMENT

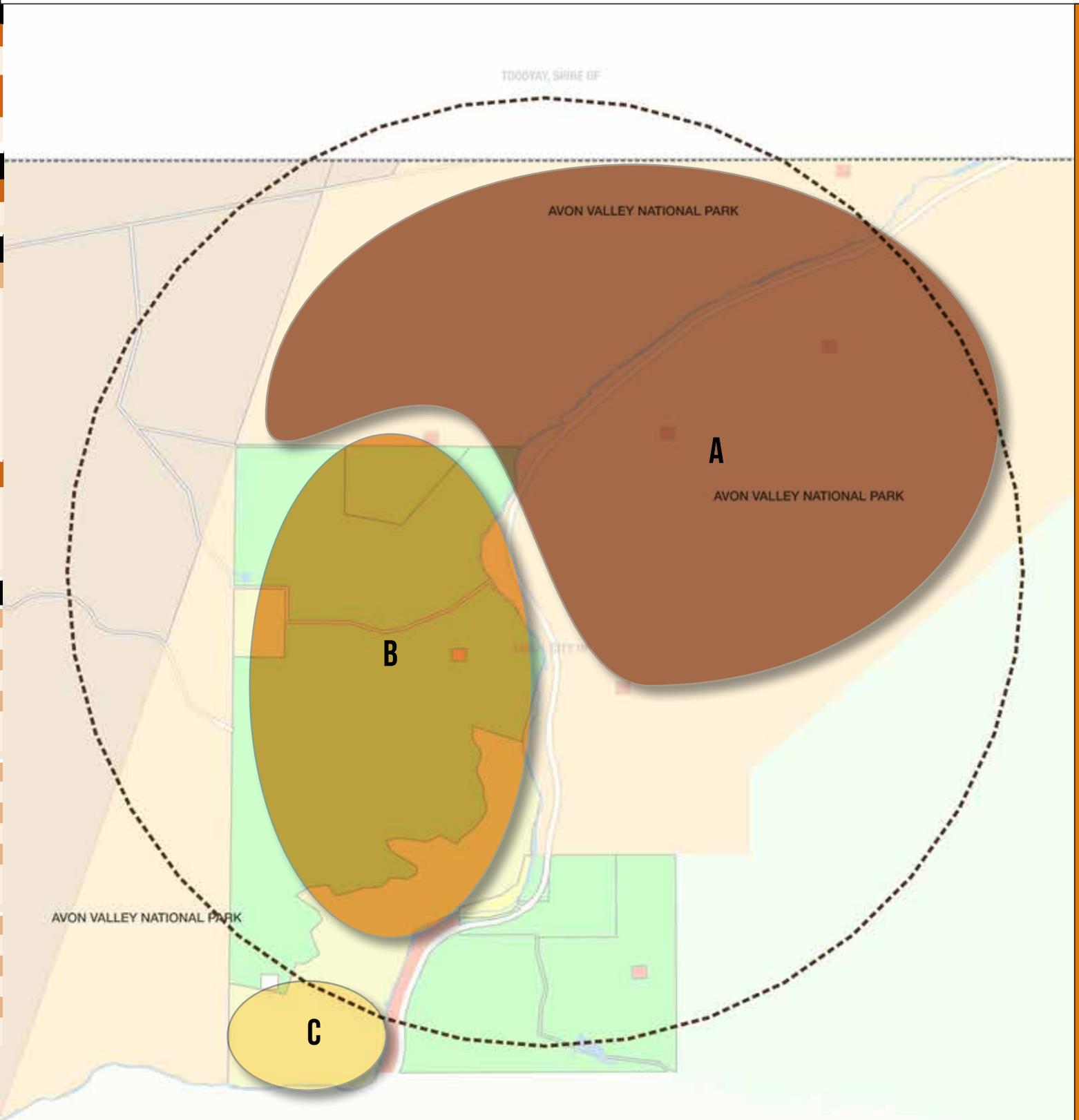
### Overview

The picturesque Avon Valley, with large rolling hills and close proximity to the Avon River, could be developed to local significance. While the opportunities surrounding the location are significant, development should be focused towards the Swan Valley Trail Centre as a neighbouring regionally significant location. With the combined locations of Swan Valley and Avon Valley the development opportunities have the potential to become a major trail provider in the Perth Metropolitan region. The development could offer connections to and commercial shuttle uplift operations within the Moondyne Convention Centre for local, back country descending and gravity focused experiences. A medium to long term focus should be on the potential trail network within the Avon Valley National Park and connections to the Avon River. Unexploded ordnance and train line are identified as the largest constraints within the National Park. Land manager support and distance from the population are identified as the largest constraints on development.

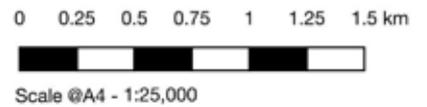
Key Features	Complementary	Opportunities	Existing Infrastructure
Significant Topography, Watercourse, Unique Landscape, Diverse Landform and Vegetation Condition	Accommodation, Camping	Moondyne Gravity Trails, Avon Epic Back Country Descent Trail	Avon Valley National Park Day Sites, Moondyne Convention Centre

ID	PRIORITY SITE	OPPORTUNITY	CONSTRAINTS	Trail Model	Trail Network
A	AVON VALLEY NATIONAL PARK Land Tenure National Park Land Manager Biodiversity, Conservation and Attractions	Trail network featuring Back Country Epic Descent style trails featuring exposed unique landscape and Avon River. Potentially connected to Moondyne Convention Centre.	Conservation Reserve, Fauna, Distance From Population Centre, Unexploded Ordnance, Train Line, Site Exposure, River Crossing, Seasonality, Fire Danger	Trail Model	Trail Network
				Priority	Moderate
				Timeframe	Long
				Trail Types	XC AM
				Classifications	GN BU BL DB
B	MOONDYNE Land Tenure Reserve Land Manager Biodiversity, Conservation and Attractions	Lift assisted gravity focused trails connected to Avon Valley National Park Trails. Potential commercial operations assisting back country descent experiences.	Proposed Zoo Site, Land Manager Support, Distance From Population Centre, Private Land Access, Funding Mechanisms, Site Exposure, Leaseholders.	Trail Model	Trail Network
				Priority	High
				Timeframe	Long
				Trail Types	XC AM DH PK
				Classifications	GN BU BL DB
C	CROWN FREEHOLD Land Tenure Freehold Land Manager Department of Lands	Expansion of other trail networks with additional connection to river.	Land Manager Support, Proposed Conservation Reserve, Surrounding Land Use, Surrounding Land Owners, Distance From Population Centre.	Trail Model	Trail Network
				Priority	Low
				Timeframe	Long
				Trail Types	XC AM
				Classifications	GN BU BL DB
				Compatibility	Medium

# AVON VALLEY



- LEGEND**
-  Site not supported by land manager
  -  High priority site
  -  Moderate priority site
  -  Low priority site



# BODDINGTON

## MODEL

Significance	Priority	Deliverability	Primary Trail Model	Secondary Trail Model	Scale
Local	Low	Long	Trail Network	-	15km
Region	Biodiversity, Conservation and Attractions Body		Local Government	Other Stakeholders	
Peel	Perth Hills District		Shire of Boddington	Water Authority, Department of Lands	

## EXISTING TRAILS

ID	Name	Model	Type	Length	Quality	Classification	Parking	Trailhead/Signage
NIL								

## DEVELOPMENT

### Overview

Boddington is a small rural township situated on the banks of the Hotham River, 120km south east of Perth, and could be developed to local significance. The area has existing demand for mountain bike trails. If development is well considered, the cluster of Dwellingup, Boddington and Jarrahdale could become a major trail provider for the Peel region, capturing all segments of the tourism market. The most unique and highest priority opportunity is along the Hotham River including development of private land with potential for gravity focused trails. Development of a river foreshore trail and bike park facilities within the Shire reserves would provide a recreation resource for families and enthusiasts. A long term focus should be on the potential long distance railway reserve trail connecting Boddington to Dwellingup via the historic railway line. Land manager support and land use conflict are identified as the location's largest constraints.

Key Features	Complementary	Opportunities	Existing Infrastructure
Watercourse, Connection to Townsite, Historic Railway alignment	Accommodation, Camping, Parkland, Amenities	River Valley Trail, Timber Reserve Trail Network, Private Trail Network, Foreshore Open Space Bike Park	Boddington Townsite

ID	PRIORITY SITE	OPPORTUNITY	CONSTRAINTS	Trail Model	Trail Network
A	<b>TIMBER RESERVE</b> Land Tenure Timber Reserve Land Manager Biodiversity, Conservation and Attractions	Trail Network featuring natural bush land and significant rolling topography. Connection to townsite via Foreshore Reserves Trail, Private Land and Reserves.	Land Use Conflict, Intensive Land Management, Surrounding Land Use, Mining Impacts, Mining Encroachment.	Trail Model	Trail Network
				Priority	High
				Timeframe	Medium
				Trail Types	XC
				Classifications	GN BU BL
B	<b>WILLIAMS RESERVE</b> Land Tenure Reserve Land Manager Water Authority	Extension of Timber Reserve Trail Network.	Land Manager Support, Land Use Conflict.	Trail Model	Trail Network
				Priority	Moderate
				Timeframe	Medium
				Trail Types	XC
				Classifications	GN BU BL
C	<b>FORESHORE RESERVES</b> Land Tenure Reserve Land Manager Shire of Boddington	River Foreshore trail emanating from townsite and traversing river banks and featuring significant pools and remnant vegetation. Bike Park facilities adjoining sporting / youth precinct.	Competing Recreation Demands, Established Recreation, Community Value, Scale Of Site, Site Fragmentation, Hydrology.	Trail Model	Trail Network
				Priority	High
				Timeframe	Short
				Trail Types	XC PK
				Classifications	WH GN BU BL
D	<b>PRIVATE LAND</b> Land Tenure Freehold Land Manager Private / Commercial	Private Trail Network connected to townsite with potential for gravity focused trails with shuttle uplift access.	Land Manager Support, Land Use Conflict, Intensive Land Management, Governance Structure, Private Land Access, Funding Mechanisms.	Trail Model	Trail Network
				Priority	Moderate
				Timeframe	Short
				Trail Types	XC AM PK DH
				Classifications	GN BU BL DB
				Compatibility	Low

# BODDINGTON

## E TOURISM RESERVE

Land Tenure  
Reserve  
Land Manager  
Shire of Boddington

Connection of trail network and rail trail touring trail into townsite.

Suitability of Site, Surrounding Land Use, Surrounding Land Owners, Community Value, Scale Of Site.

Trail Model	Individual Trail
Priority	Low
Timeframe	Long
Trail Types	TO
Classifications	WH GN
Compatibility	High

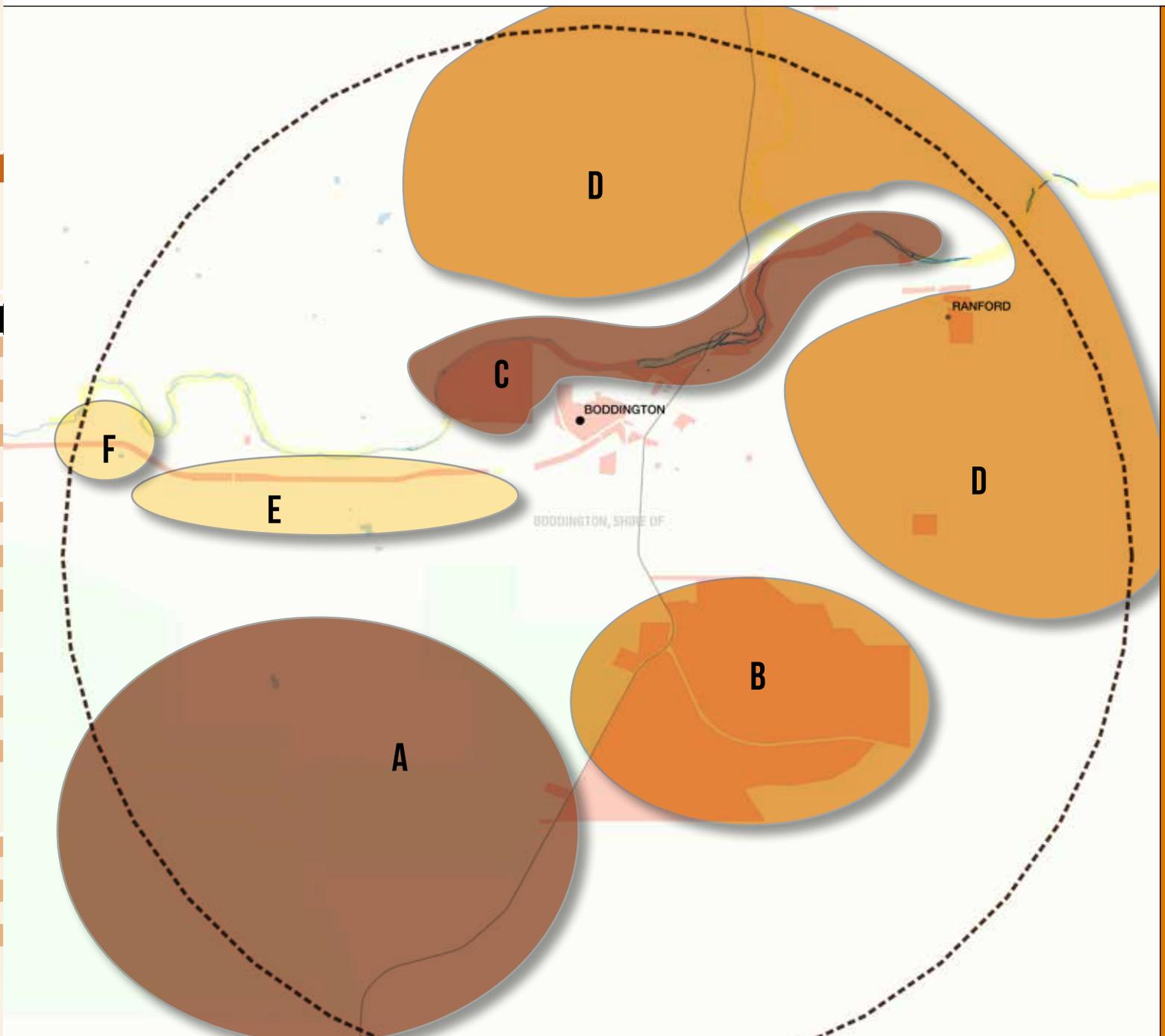
## F RAILWAY RESERVE

Land Tenure  
Unallocated Crown Land  
Land Manager  
Department of Lands

Long Distance Touring trail connecting Boddington to Dwellingup along historic railway line.

Limited Deman, Land Manager Support, Suitability of Site, Land Use Conflict, Surrounding Land Use, Surrounding Land Owners, Scale Of Site, Site Fragmentation, Limited Market.

Trail Model	Individual Trail
Priority	Low
Timeframe	Long
Trail Types	TO
Classifications	WH GN
Compatibility	Medium



**LEGEND**  
 Site not supported by land manager  
 High priority site

 Moderate priority site  
 Low priority site

# CANNING RIVER

## MODEL

Significance	Priority	Deliverability	Primary Trail Model	Secondary Trail Model	Scale
Local	Low	Long	Trail Network	-	5km
Region	Biodiversity, Conservation and Attractions Body		Local Government	Other Stakeholders	
Perth Metropolitan	Regional Parks	City of Canning City of Gosnells	Department of Lands, Canning River Regional Park Community Advisory Committee and Volunteers, South East Regional Centre for Urban Landcare, Wilson Wetlands Action Group, Water Bird Conservation Group		

## EXISTING TRAILS

ID	Name	Model	Type	Length	Quality	Classification	Parking	Trailhead/Signage
NIL								

## DEVELOPMENT

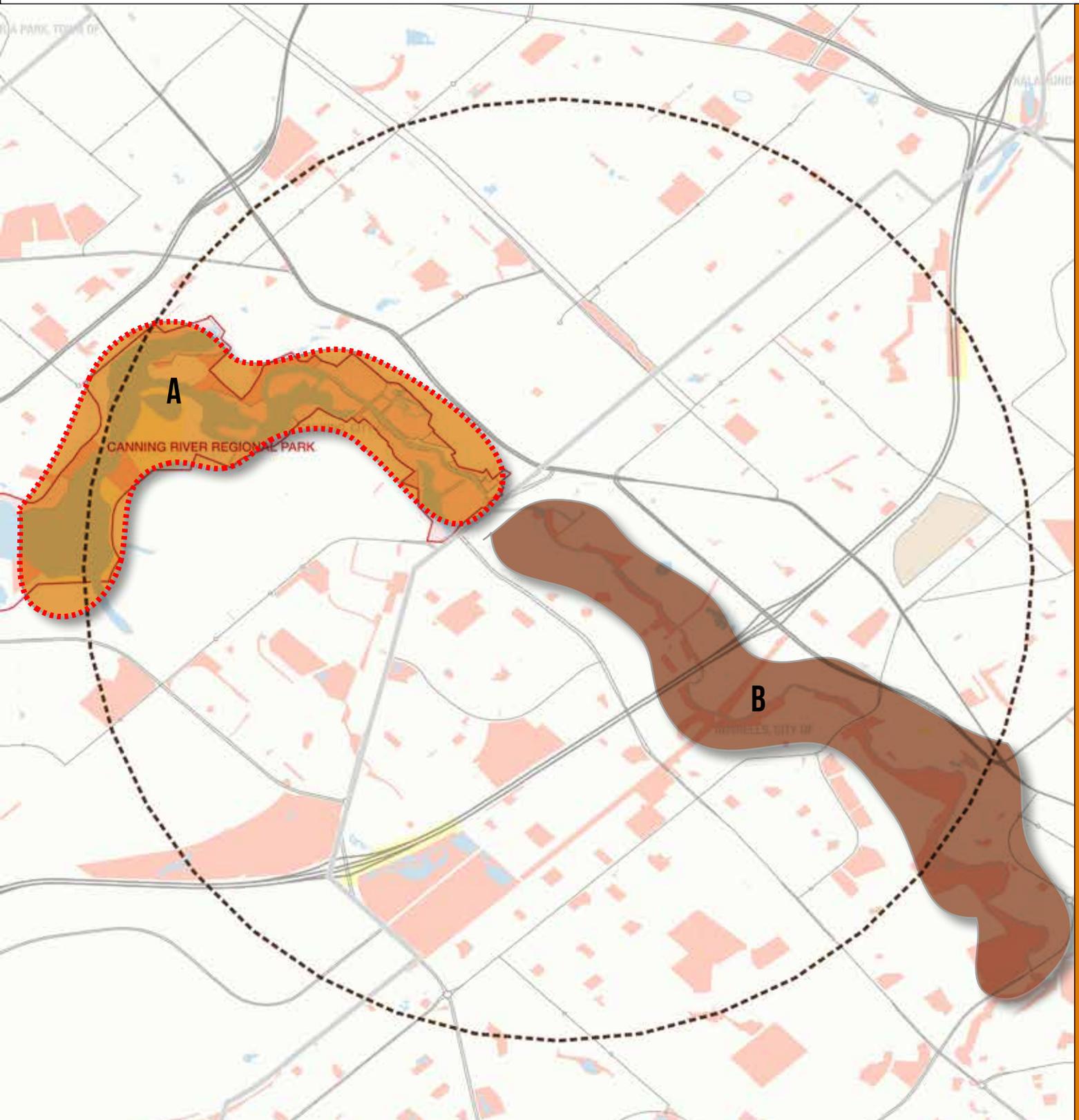
### Overview

The Canning River Regional Park is renowned for its biodiversity and vegetation, providing a rare sense of remoteness and isolation within the urban context. The area has existing demand for mountain bike trails, and could be developed to local significance, with initial focus on enhancing a small scale accessible urban trail network with connection to the regional park. The medium term focus should be provision of an individual trail traversing the river bank, connecting to the existing shared use path. The developments would provide a recreation resource for families and enthusiasts in the surrounding area. If development is well considered the cluster of Perth Eastern, Perth, Canning and Point Walter has the potential to become a major interconnected river bank trail provider for Perth City. Land manager support and land tenure are identified as the location's largest constraints. **At the time of writing, the land managers do not support the development of mountain bike trails at Canning River Regional Park.**

Key Features	Complementary	Opportunities	Existing Infrastructure
Watercourse, Quality Vegetation, Gentle Topography, Urban Context	Café, Open Space, Amenities, Parkland, Existing Walk Trails, Existing Shared Use Path	Canning River Trail Network, Urban Bike Park	Café, Parking, Picnic & BBQ Area, Public Toilets, Canning River Eco Education Centre, Kent Street Weir

ID	PRIORITY SITE	OPPORTUNITY	CONSTRAINTS
A	CANNING RIVER REGIONAL PARK Land Tenure Reserve, UCL Land Manager Biodiversity, Conservation and Attractions, City of Canning	Upgraded Park facility	<b>Not supported by land manager</b> , Conservation Reserve, Competing Recreation Demands, Established Recreation, Surrounding Land Owners, Community Value, Scale Of Site, Site Fragmentation, Safety & Road User Conflict, Hydrology.
B	RESERVES & PROPOSED CONSERVATION RESERVE Land Tenure Reserve & Conservation Reserve Land Manager City of Gosnells	Accessible urban trail network with connection from Canning River Regional Park. Introductory cross-country trails and bike park featuring open space and bush land, Connection to Shared use Path.	Land Manager Support, Proposed Conservation Reserve, Competing Recreation Demands, Surrounding Land Owners, Community Value, Safety & Road User Conflict, Hydrology.
C	CENTENARY PARK Land Tenure Reserve Land Manager City of Canning, Biodiversity, Conservation and Attractions, Christian Brothers	Accessible urban facility with connection from Canning River Regional Park. Highly accessible bike park catering for all levels and abilities. Connection to Shared use Path and bike network.	Land Manager Support, Suitability of site, Competing Recreation Demands, Surrounding Land Owners, Community Value, Safety & Road User Conflict, Hydrology.

# CANNING RIVER



- LEGEND**
-  Site not supported by land manager
  -  High priority site
  -  Moderate priority site
  -  Low priority site



# CHIDLOW

## MODEL

Significance	Priority	Deliverability	Primary Trail Model	Secondary Trail Model	Scale
Local	Low	Long	Trail Network	-	15km
Region	Biodiversity, Conservation and Attractions Body		Local Government	Other Stakeholders	
Perth Metropolitan	Perth Hills District, Regional Parks		Shire of Mundaring		

## EXISTING TRAILS

ID	Name	Model	Type	Length	Quality	Classification	Parking	Trailhead/Signage
	Lake				Below			
T1	Leschenaultia	Individual	XC	5km	Average	GN	Average	Average
T2	Forsyth Mill	Individual	XC	6km	Average	BU	Average	Below Average
T3	Kep Track	Individual	TR	75km	Average	WH	Average	Below Average

## DEVELOPMENT

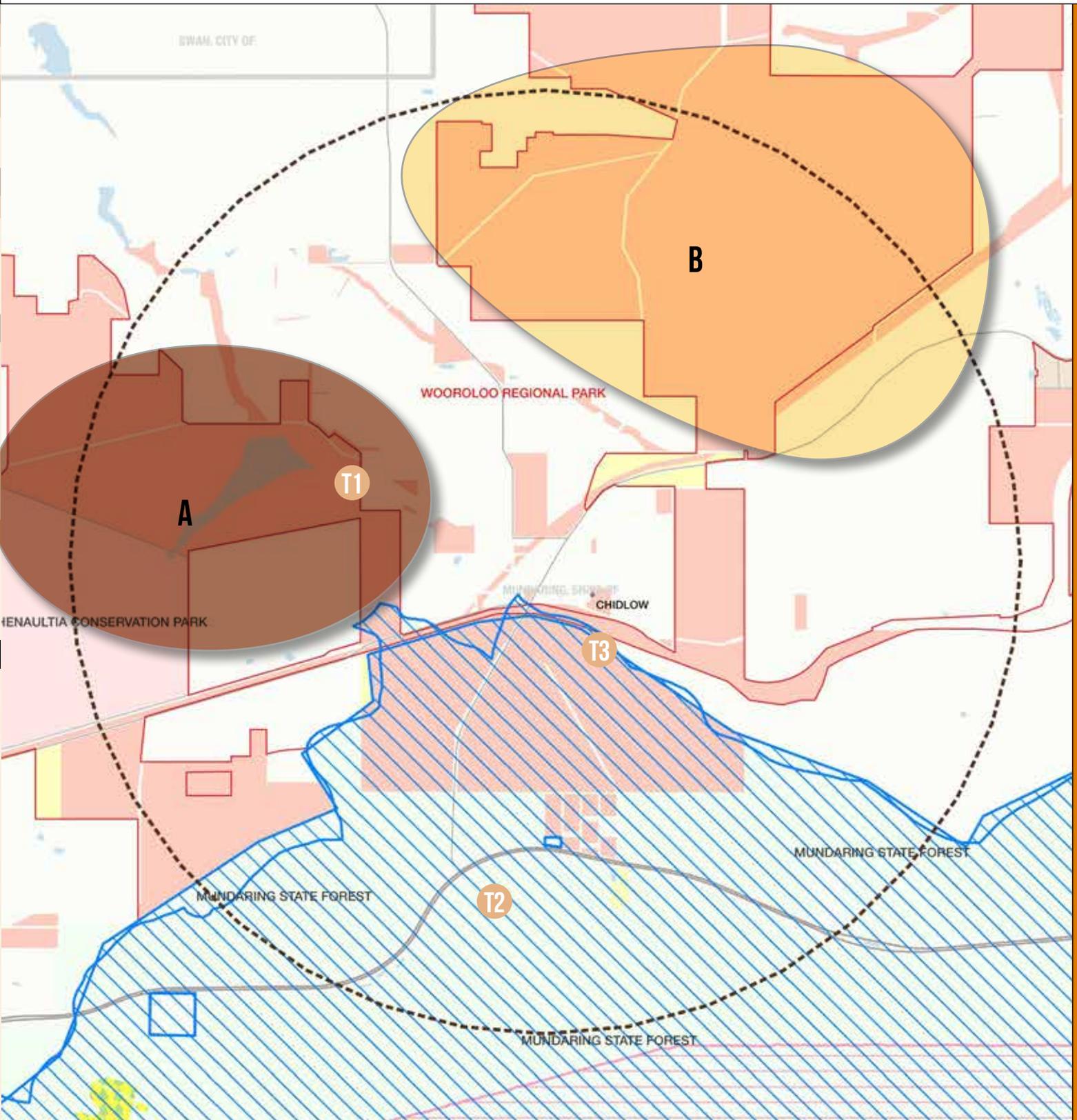
### Overview

Chidlow is a small community within Mundaring, a Perth Hills suburb located 34km east of Perth City on the Great Eastern Highway, and could be developed to local significance. The opportunities surrounding the location, and the access to existing services and facilities, the trail network has the potential to colocate with the existing infrastructure. The historic Lake Leschenaultia is a popular recreation destination for families and outdoor enthusiasts residing in the area, and development of the excellent opportunity there should be the primary focus. A trail network in the surrounding bushland with connection to Chidlow township would establish the location as a key recreation resource for both the local community and the larger day trip tourism market from the nearby nationally significant Perth Hills Precinct. Scale of site and land manager support are identified as the location's largest constraints.

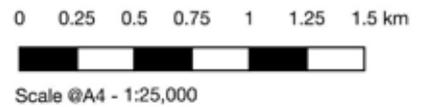
Key Features	Complementary	Opportunities	Existing Infrastructure
Connection to Town Site, Lake Leschenaultia, Quality Vegetation, Kep Track	Accommodation, Camping, Café, Existing trails, Activities	Lake Leschenaultia Trail Network, Trail Connection to Town Site, Wooroloo Regional Park Trail network	Chidlow Town Site, Lake Leschenaultia Recreation Area, Existing Mountain Bike Trail Network, Existing Link Trail between the Lake and Shire of Mundaring Railway Reserves Heritage Trail

ID	PRIORITY SITE	OPPORTUNITY	CONSTRAINTS
A	LESCHENAULTIA RESERVE	Trail Network featuring Lake Leschenaultia and surrounding bushland with connection to township.	Established Recreation, Scale Of Site, Incompatible activity for conservation park
	Land Tenure Reserve & Conservation Reserve		Trail Model: Trail Network Priority: High Timeframe: Short Trail Types: XC PK
	Land Manager Biodiversity, Conservation and Attractions, Shire of Mundaring		Classifications: GN BU BL Compatibility: High
B	WOOROLOO REGIONAL PARK	Trail Network featuring natural bushland and rolling topography. Connection to townsite.	Land Manager Support, Land Use Conflict, Intensive Land Management, Surrounding Land Owners.
	Land Tenure Timber Reserve		Trail Model: Trail Network Priority: Low Timeframe: Long Trail Types: XC
	Land Manager Biodiversity, Conservation and Attractions		Classifications: GN BU BL Compatibility: High

# CHIDLOW



- LEGEND**
-  Site not supported by land manager
  -  High priority site
  -  Moderate priority site
  -  Low priority site



# COCKBURN

## MODEL

Significance	Priority	Deliverability	Primary Trail Model	Secondary Trail Model	Scale
Local	Moderate	Short	Trail Network	-	10km
Region	Biodiversity, Conservation and Attractions Body		Local Government	Other Stakeholders	
Perth Metropolitan	Regional Parks		City of Cockburn, City of Fremantle	DLGSC	

## EXISTING TRAILS

ID	Name	Model	Type	Length	Quality	Classification	Parking	Trailhead/Signage
NIL								

## DEVELOPMENT

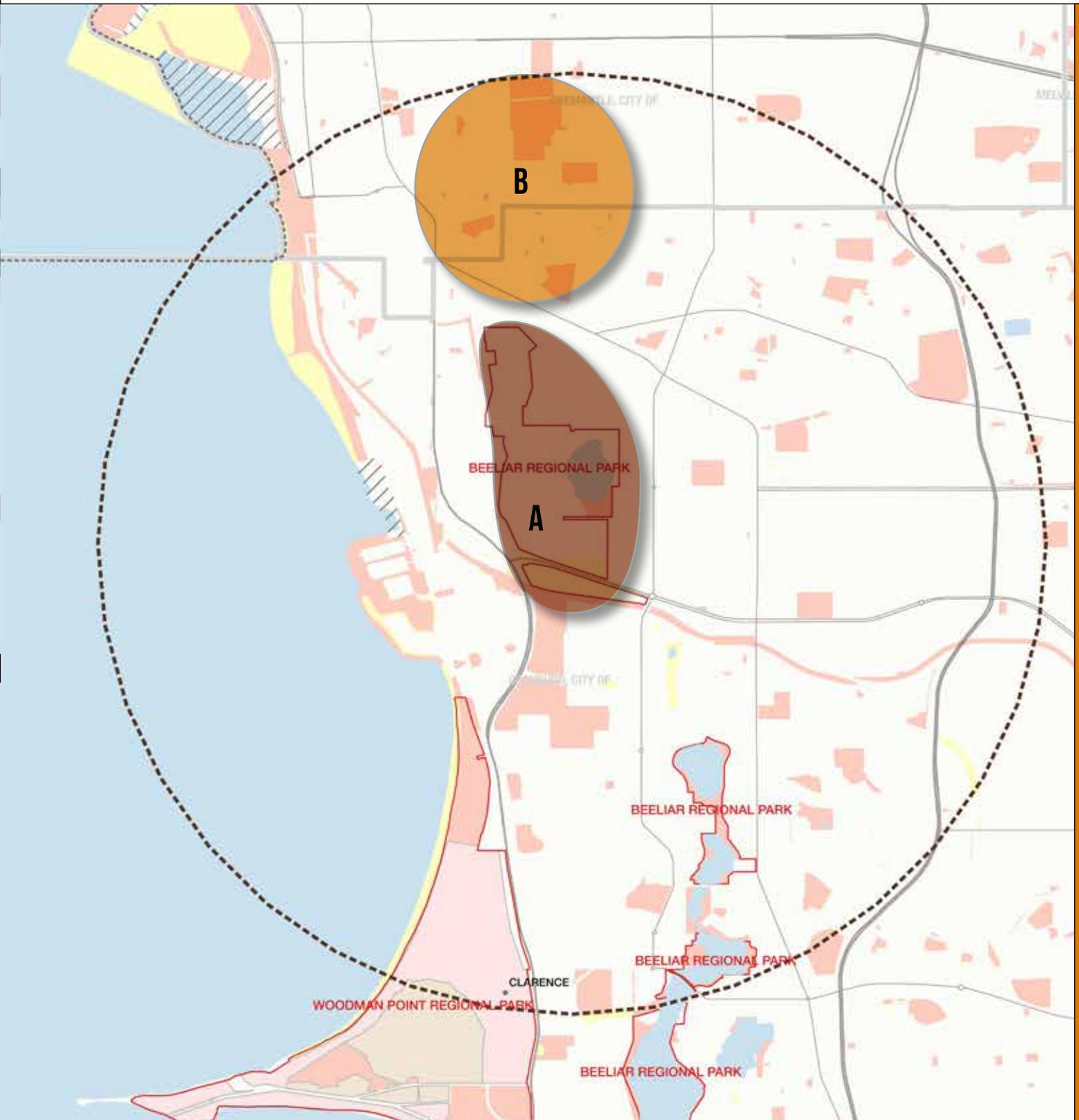
### Overview

The City of Cockburn is a coastal peri urban Council located approximately 15km south of Perth City, directly to the south of City of Fremantle, and could be developed to local significance. The area has significant demand for mountain bike trails, particularly within the Manning Lake Reserve, and development of the area will provide a significant opportunity to capture the day trip tourism market from nearby proposed regionally and nationally significant locations. The existing infrastructure, connections and services provided within the City make it suited to trail network development and should be considered in all planning. The excellent opportunity within Manning Lake Reserve should be the primary focus development of a cross country trail network and bike park facility would establish an accessible recreation resource for young people and enthusiasts. If development is well considered a long term focus should be on the potential railway reserves trail connecting to the City of Mandurah. Competing recreation demands and surrounding land owners are identified as the location's largest constraints.

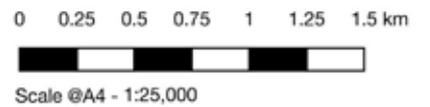
Key Features	Complementary	Opportunities	Existing Infrastructure
Coastal Views, Limestone Ridge, Quality Vegetation, Significant Topography	Manning Lake, Amenities, Parkland, Existing Walk Trails, Playground	Manning Park and surrounds Trail Network and Bike Park, Connection to Proposed Railway Reserve Trail, Woodman Point Camp School Individual Trail	Manning Park, Parking, Picnic & BBQ Area, Playground, Amenities

ID	PRIORITY SITE	OPPORTUNITY	CONSTRAINTS	Trail Model	Trail Network
A	MANNING LAKE RESERVE	Trail Network featuring limestone ridge, manning lake with and significant coastal topography. Connection to Proposed Railway Reserve Trail. Bike Park Facilities.	European Heritage, Established Recreation, Surrounding Land Owners, Community Value, Safety & Road User Conflict, Soil Types, Operating Times.	Trail Model	Trail Network
				Priority	High
				Timeframe	Short
				Trail Types	XC PK
				Classifications	GN BU
				Compatibility	High
B	FREMANTLE RESERVES	Extension of Manning Lake trail network including Bike Park facility.	Suitability of Site, Surrounding Land Owners, Scale Of Site, Site Fragmentation, Safety & Road User Conflict, Soil Types.	Trail Model	Trail Network
				Priority	Moderate
				Timeframe	Medium
				Trail Types	XC PK
				Classifications	GN BU BL
				Compatibility	Low

# COCKBURN



- LEGEND**
-  Site not supported by land manager
  -  High priority site
  -  Moderate priority site
  -  Low priority site



# GOSNELLS

## MODEL

Significance	Priority	Deliverability	Primary Trail Model	Secondary Trail Model	Scale
Local	Low	Long	Trail Network	-	10km
Region	Biodiversity, Conservation and Attractions Body		Local Government	Other Stakeholders	
Perth Metropolitan	Regional Parks		City of Gosnells City of Armadale	Department of Lands	

## EXISTING TRAILS

ID	Name	Model	Type	Length	Quality	Classification	Parking	Trailhead/Signage
NIL								

## DEVELOPMENT

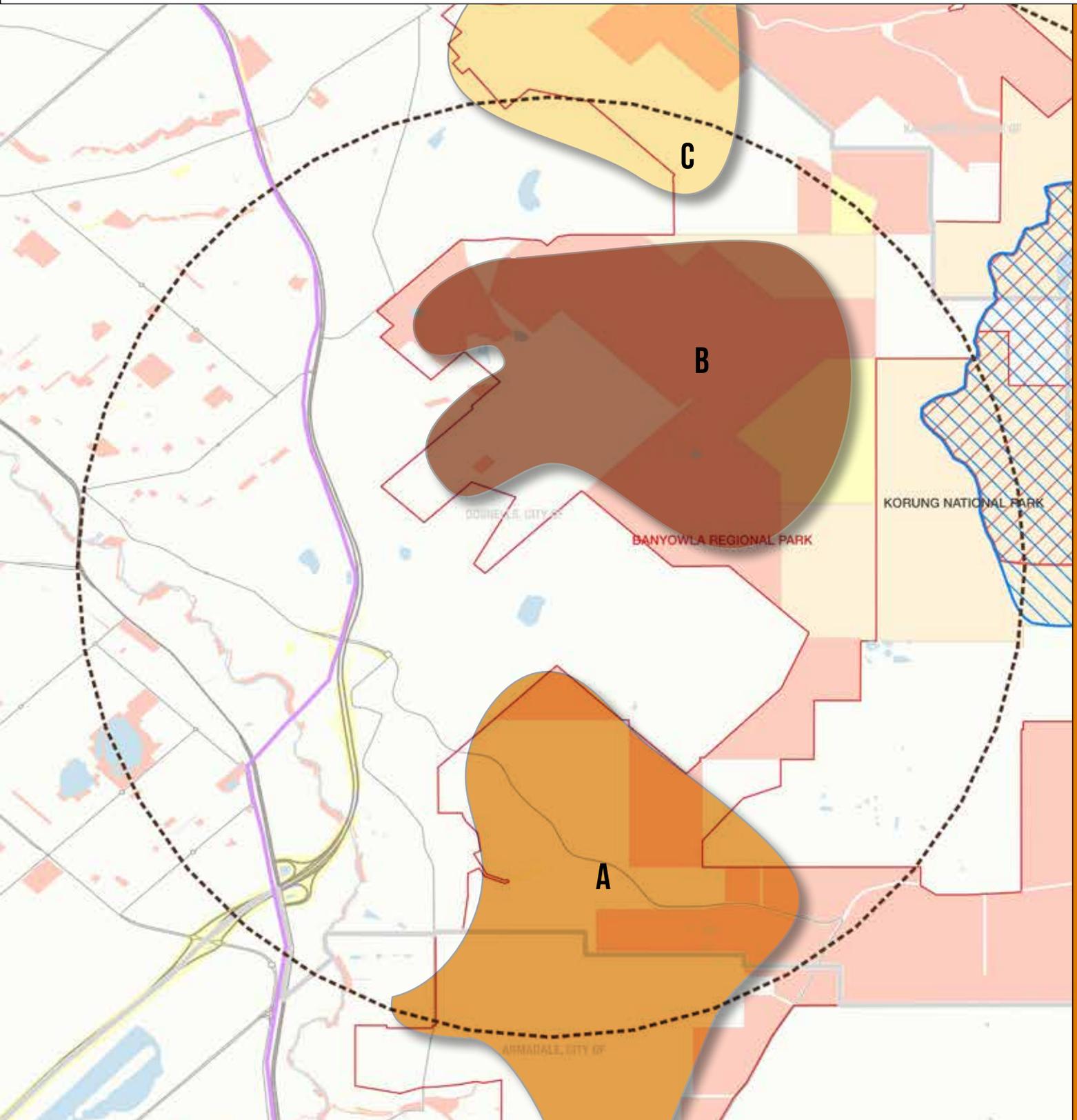
### Overview

Gosnells is a southeastern city situated near to the Albany Highway, bound to the east by the Darling Scarp and Banyowla Regional Park. The area has significant demand for mountain bike trails due to its desirable topography and landscape, and could be developed to local significance. The area has excellent connectivity to the services and amenities in City of Armadale (planned as a future Strategic Metropolitan Centre), and there is opportunity to connect a trail network to these services, including the Kelmscott train station. The excellent opportunity in Ellis Brook Valley to utilise existing infrastructure as a trailhead site should be the primary focus, and development of cross country and all mountain trails will establish the location as a potential day trip destination for enthusiasts. Development of an urban challenge / jump park with views over Perth City would provide a recreation resource for young people, families and visitors from the nearby nationally significant Wungong Trail Centre. Land Manager support and future land tenure are identified as the location's largest constraints.

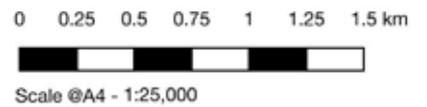
Key Features	Complementary	Opportunities	Existing Infrastructure
Excellent Connectivity, Urban Context, Significant Topography, Ellis Brook Valley, Watercourse, Quality vegetation	Train Line, Amenities, Accommodation	Banyowla Local Trail Network, Part of Darling Scarp Epic Trail to Wungong, Wildflower observing	Kelmscott Townsite, Ellis Brook Valley car parking, Bickley Outdoor Recreation Camp, Hardinge Park, Picnic & BBQ Area, Accessible Amenities, Walk Trails

ID	PRIORITY SITE	OPPORTUNITY	CONSTRAINTS	Trail Model	Trail Network
A	BANYOWLA REGIONAL PARK Land Tenure Reserve / Freehold Land Manager Various	An accessible Local Trail Network featuring significant topography, bushland and city views. Connection to Kelmscott CBD.	Land Manager Support, Proposed Conservation Reserve, Competing Recreation Demands, Established Recreation, Surrounding Land Use, Surrounding Land Owners, Community Value, Mining Encroachment.	Trail Model	Trail Network
				Priority	Moderate
				Timeframe	Long
				Trail Types	XC AM
				Classifications	GN BU BL
B	ELLIS BROOK VALLEY Land Tenure Reserve Land Manager City of Gosnells	Trail network utilising existing infrastructure. Event potential with existing uplift road. Historic quarry and significant topography.	Land Manager Support, Proposed Conservation Reserve, Surrounding Land Owners, Community Value, Mining Encroachment.	Trail Model	Trail Network
				Priority	High
				Timeframe	Medium
				Trail Types	XC AM PK
				Classifications	GN BU BL
C	HARDINGE PARK Land Tenure Reserve / Freehold Land Manager Various	Connection to Bickley Outdoor Recreation Camp, Hardinge Park and existing infrastructure and bickley brook reservoir.	Land Manager Support, Proposed Conservation Reserve, Community Value, Mining Encroachment.	Trail Model	Individual Trail
				Priority	Low
				Timeframe	Short
				Trail Types	XC AM
				Classifications	GN BU
				Compatibility	Medium

# GOSNELLS



- LEGEND**
-  Site not supported by land manager
  -  High priority site
  -  Moderate priority site
  -  Low priority site



# JOONDALUP

## MODEL

Significance	Priority	Deliverability	Primary Trail Model	Secondary Trail Model	Scale
Local	Moderate	Short	Trail Network	-	20km
Region	Biodiversity, Conservation and Attractions Body		Local Government	Other Stakeholders	
Perth Metropolitan	Swan Coastal District Regional Parks	City of Joondalup, City of Wanneroo	Department of Lands		

## EXISTING TRAILS

ID	Name	Model	Type	Length	Quality	Classification	Parking	Trailhead/Signage
NIL								

## DEVELOPMENT

### Overview

The City of Joondalup is located 27km north of Perth City. Bounded by lakes to the east and the Indian Ocean to the west, the area boasts high quality landscapes and biodiversity. Development of the area should focus on creating a trail network featuring bushland and lake views within the Yellagonga Regional Park. The network should cater for beginner and intermediate classifications of cross country trails, with strategic connections to existing surrounding bike paths and businesses. In addition, there is also an opportunity to locate a bike park including skills development features. Initial development focus within the Regional Park will establish an accessible recreation resource for families and enthusiasts. Land tenure and WHPZ are identified as the location's largest constraints.

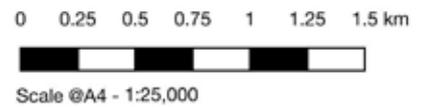
Key Features	Complementary	Opportunities	Existing Infrastructure
Lake Joondalup, Significant coastal topography, Urban Context, Quality Vegetation	Open Space, Café, Playgrounds, Train Line, Bike Path	Yellagonga Trail Network and Bike Park, Neerabup Trail Network, Connection to Yaberoo Budjara, Café & Bike hire development	Joondalup City, Neil Hawkins Park, Yaberoo Budjara Walk Trail, Shared use path network

ID	PRIORITY SITE	OPPORTUNITY	CONSTRAINTS	Trail Model	Trail Network
A	<b>YELLAGONA REGIONAL PARK</b> Land Tenure Various - Proposed Conservation Reserve Land Manager Biodiversity, Conservation and Attractions, City of Joondalup, City of Wanneroo	Accessible Trail Network featuring bushland and lake views. Connection to existing bike path, future café and City Centre. Bike Park facilities including skills development.	Proposed Conservation Reserve, PDWSA, Established Recreation, Social Impacts, Community Value, Safety & Road User Conflict, Soil Types.	Trail Model	Trail Network
				Priority	High
				Timeframe	Short
				Trail Types	XC PK
				Classifications	GN BU
Compatibility	Medium				
B	<b>NEERABUP NATIONAL PARK</b> Land Tenure Conservation Reserve Land Manager Biodiversity, Conservation and Attractions	Extension of Yellagonga Trail Network featuring more remote and natural bush land and significant rolling topography. Connection to City Centre via bike path.	Threatened Ecological Communities, PDWSA, Conservation Reserve, Environmental, Community Value, Safety & Road User Conflict, Soil Types.	Trail Model	Trail Network
				Priority	Moderate
				Timeframe	Medium
				Trail Types	XC
				Classifications	GN BU
Compatibility	Medium				
C	<b>NEERABUP FREEHOLD</b> Land Tenure Freehold - Proposed Conservation Reserve Land Manager Department of Lands	Extension of trail network into Proposed Conservation reserve featuring significant coastal topography.	Land Manager Support, PDWSA, Proposed Conservation Reserve, Soil Types.	Trail Model	Trail Network
				Priority	Low
				Timeframe	Long
				Trail Types	XC PK
				Classifications	GN BU
Compatibility	Low				
D	<b>NEERABUP NATIONAL PARK</b> Land Tenure Conservation Reserve Land Manager Biodiversity, Conservation and Attractions	Trail network featuring more remote, natural bushland and significant rolling topography. Connection to recently upgraded Yaberoo Budjara Trail and new 10th Light Horse carpark.	Threatened Ecological Communities, PDWSA, Conservation Reserve, Environmental, Community Value, Safety & Road User Conflict, Soil Types.	Trail Model	Trail Network
				Priority	High
				Timeframe	Short
				Trail Types	XC
				Classifications	GN BU
Compatibility	Medium				

# JOONDALUP



- LEGEND**
-  Site not supported by land manager
  -  High priority site
  -  Moderate priority site
  -  Low priority site



# KWINANA

## MODEL

Significance	Priority	Deliverability	Primary Trail Model	Secondary Trail Model	Scale
Local	Low	Long	Trail Network	-	10km
Region	Biodiversity, Conservation and Attractions Body		Local Government	Other Stakeholders	
Perth Metropolitan	Swan Coastal District	City of Kwinana	Department of Lands		

## EXISTING TRAILS

ID	Name	Model	Type	Length	Quality	Classification	Parking	Trailhead/Signage
T1	Kwinana Loop	Individual Trail	TO	21km	Average	WH GN	Average	Good

## DEVELOPMENT

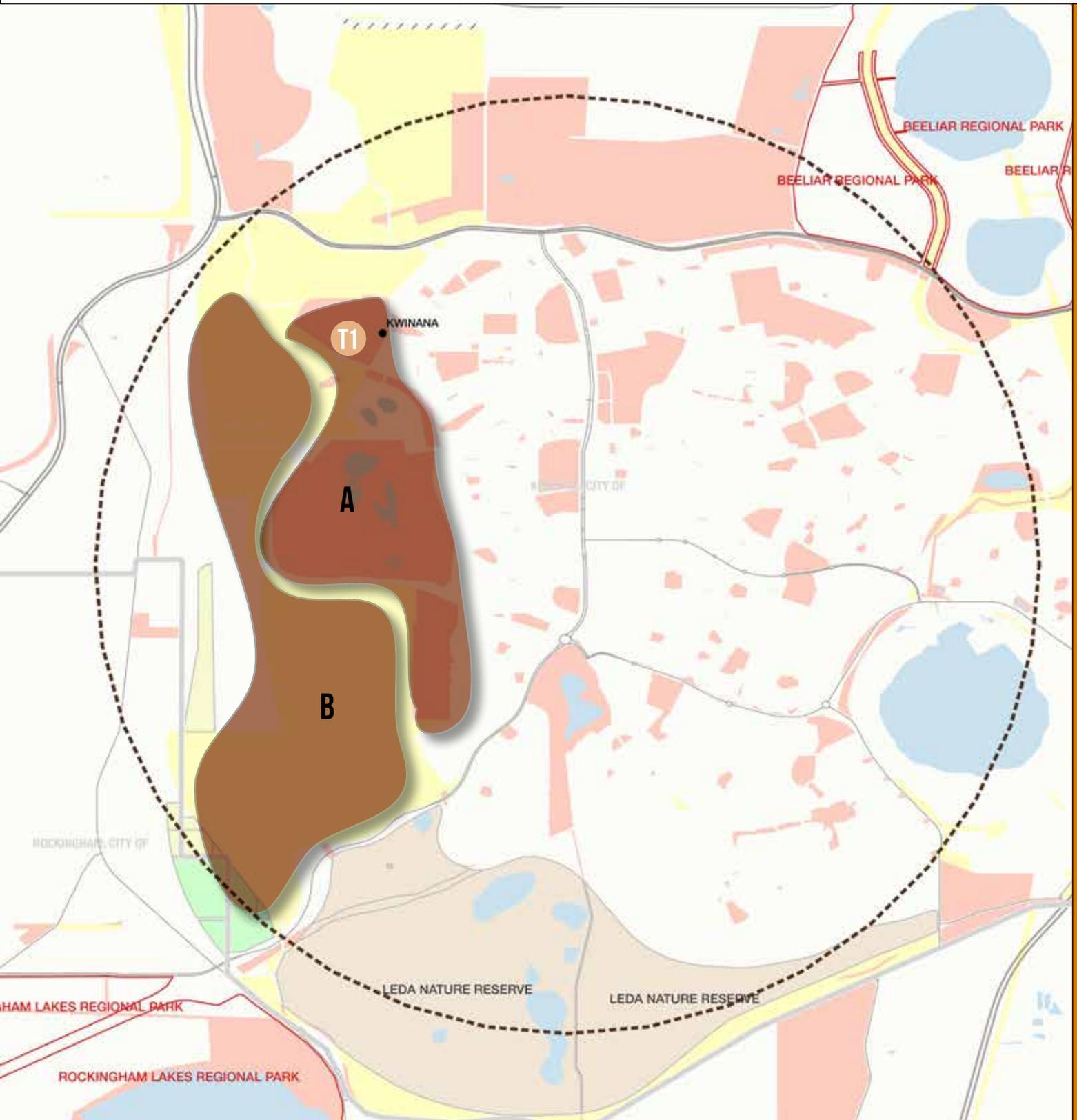
### Overview

The City of Kwinana is a diverse local government area with a significant population, port and industrial facilities and many natural attractions, and is located 38km south of Perth City. The location has significant opportunity to provide entry points into mountain biking, which will encourage usage of larger facilities in surrounding areas. The development of urban challenge parks providing a variety of opportunities including pump tracks, jump tracks and skill development facilities would provide well-utilised recreation resources, especially for families. Consideration should be given to locating parks adjoining existing sports complexes and recreational facilities. Extensions to the existing loop trail catering for beginner and intermediate mountain bike specific trails should be considered where topography is appropriate. If development is well considered a long term focus should be on the potential railway reserves trail connecting the City of Cockburn to the City of Mandurah. Land manager support and future tenure are identified as the location's largest constraints.

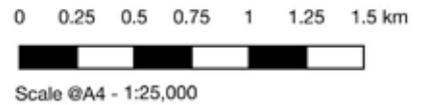
Key Features	Complementary	Opportunities	Existing Infrastructure
Limestone Ridge, Quality Vegetation, Rolling Topography, Urban Setting	Sports Complex, Playground, Open Space, Existing Loop shared use trail	Kwinana Trail Network, Connection to existing loop shared use trail	Kwinana Golf Club, Thomas Oval, Kelly Park, Sloans Reserve

ID	PRIORITY SITE	OPPORTUNITY	CONSTRAINTS												
<b>A</b>	<b>SLOANS RESERVE &amp; OTHER RESERVES</b> Land Tenure Reserve Land Manager City of Kwinana	Accessible Trail Network featuring limestone ridge, coastal views. Connected to Sports Complex and Existing loop trail. Bike Park facilities including skills development.	Land Manager Support, Proposed Conservation Reserve, Competing Recreation Demands, Established Recreation, Community Value, Scale Of Site, Site Fragmentation, Safety & Road User Conflict, Soil Types.												
			<table border="1"> <tr><td>Trail Model</td><td>Trail Network</td></tr> <tr><td>Priority</td><td>High</td></tr> <tr><td>Timeframe</td><td>Short</td></tr> <tr><td>Trail Types</td><td>XC PK</td></tr> <tr><td>Classifications</td><td>GN BU</td></tr> <tr><td>Compatibility</td><td>High</td></tr> </table>	Trail Model	Trail Network	Priority	High	Timeframe	Short	Trail Types	XC PK	Classifications	GN BU	Compatibility	High
Trail Model	Trail Network														
Priority	High														
Timeframe	Short														
Trail Types	XC PK														
Classifications	GN BU														
Compatibility	High														
<b>B</b>	<b>UNALLOCATED CROWN LAND</b> Land Tenure Proposed Conservation Reserve Land Manager Department of Lands	Extension of Reserves Trail network featuring Rolling topography and connections to existing loop trail.	Conservation Reserve, PDWSA, RPZ, Competing Recreation Demands, Established Recreation, Aging Infrastructure constrained site, Operating Times												
			<table border="1"> <tr><td>Trail Model</td><td>Trail Network</td></tr> <tr><td>Priority</td><td>High</td></tr> <tr><td>Timeframe</td><td>Short</td></tr> <tr><td>Trail Types</td><td>XC PK</td></tr> <tr><td>Classifications</td><td>GN BU</td></tr> <tr><td>Compatibility</td><td>Medium</td></tr> </table>	Trail Model	Trail Network	Priority	High	Timeframe	Short	Trail Types	XC PK	Classifications	GN BU	Compatibility	Medium
Trail Model	Trail Network														
Priority	High														
Timeframe	Short														
Trail Types	XC PK														
Classifications	GN BU														
Compatibility	Medium														

# KWINANA



- LEGEND**
-  Site not supported by land manager
  -  High priority site
  -  Moderate priority site
  -  Low priority site



# MANDURAH

## MODEL

Significance	Priority	Deliverability	Primary Trail Model	Secondary Trail Model	Scale
Local	Low	Long	Trail Network	-	10km
Region	Biodiversity, Conservation and Attractions Body		Local Government	Other Stakeholders	
Peel	Regional Parks		City of Mandurah, City of Rockingham	Department of Lands	

## EXISTING TRAILS

ID	Name	Model	Type	Length	Quality	Classification	Parking	Trailhead/Signage
NIL								

## DEVELOPMENT

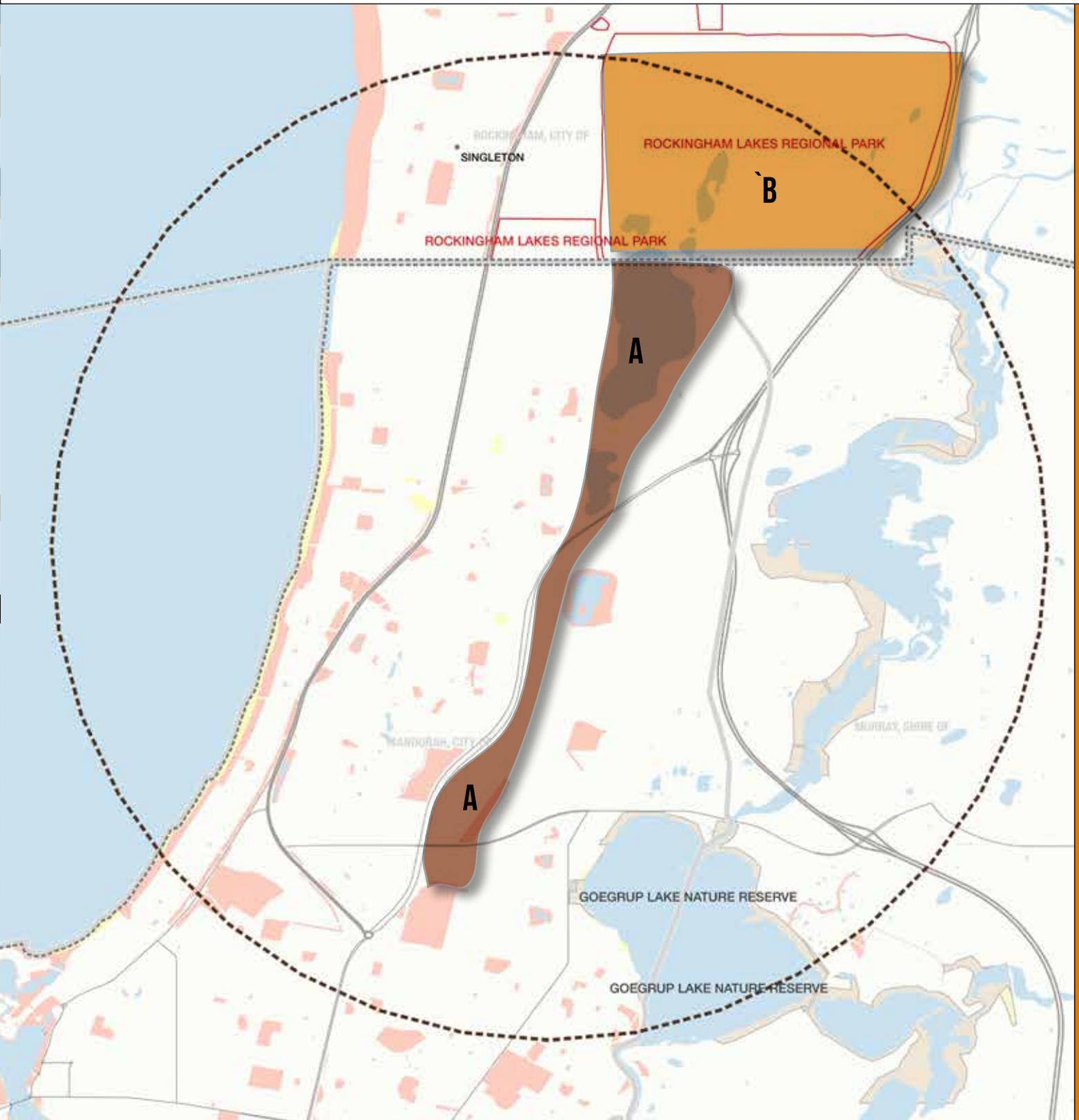
### Overview

Mandurah is the second largest City in Western Australia, situated on the southwest coast of the Peel region approximately 70km south of Perth City. International visitors are attracted to the natural landscape, waterways and wildlife attractions, and there is excellent opportunity to develop mountain bike facilities to connect with these tourist experiences. Using existing infrastructure, the primary focus should be on developing a cross country trail network surrounding Paganoni with connection from the City Centre. The network should cater for beginner and intermediate classifications, to provide an accessible recreation resource for families and enthusiasts of the local community. In order to develop this opportunity, a number of stakeholders across multiple tenures will need to work together, and planning should consider connectivity with the existing bike path network within the City. The long term development focus should be on the potential railway reserves trail connecting to the City of Cockburn. Surrounding land owners and land manager support are identified as the location's largest constraints.

Key Features	Complementary	Opportunities	Existing Infrastructure
Paganoni Lake, Black Swan Lake, Coastal topography, Urban Context, Quality Vegetation	Open Space, Playgrounds, Road Underpass	Mandurah Individual Trail, Paganoni Trail Network	Black Swan Lake Parking

ID	PRIORITY SITE	OPPORTUNITY	CONSTRAINTS		
A	MANDURAH FREEHOLD	Individual trail connecting Mandurah to Paganoni Trail Network featuring remnant bushland.	Surrounding Land Owners, Scale Of Site, Site Fragmentation, Safety & Road User Conflict, Soil Types, Site Exposure.	Trail Model	Trail Network
				Priority	High
				Timeframe	Short
				Trail Types	XC
				Classifications	GN BU
	Compatibility	Medium			
B	ROCKINGHAM LAKES REGIONAL PARK	Accessible Trail network featuring coastal topography, quality vegetation, lakes and low lying areas.	Land Manager Support, Proposed Conservation Reserve, Environmental, Surrounding Land Owners, Safety & Road Hydrology, Soil Types, High conservation values	Trail Model	Trail Network
				Priority	Moderate
				Timeframe	Long
				Trail Types	XC
				Classifications	GN BU
	Compatibility	Medium			

# MANDURAH



- LEGEND**
-  Site not supported by land manager
  -  High priority site
  -  Moderate priority site
  -  Low priority site



# MELVILLE

## MODEL

Significance	Priority	Deliverability	Primary Trail Model	Secondary Trail Model	Scale
Local	Low	Long	Trail Network	-	5km
Region	Biodiversity, Conservation and Attractions Body		Local Government	Other Stakeholders	
Perth Metropolitan	-		City of Melville	DLGSC	

## EXISTING TRAILS

ID	Name	Model	Type	Length	Quality	Classification	Parking	Trailhead/Signage
NIL								

## DEVELOPMENT

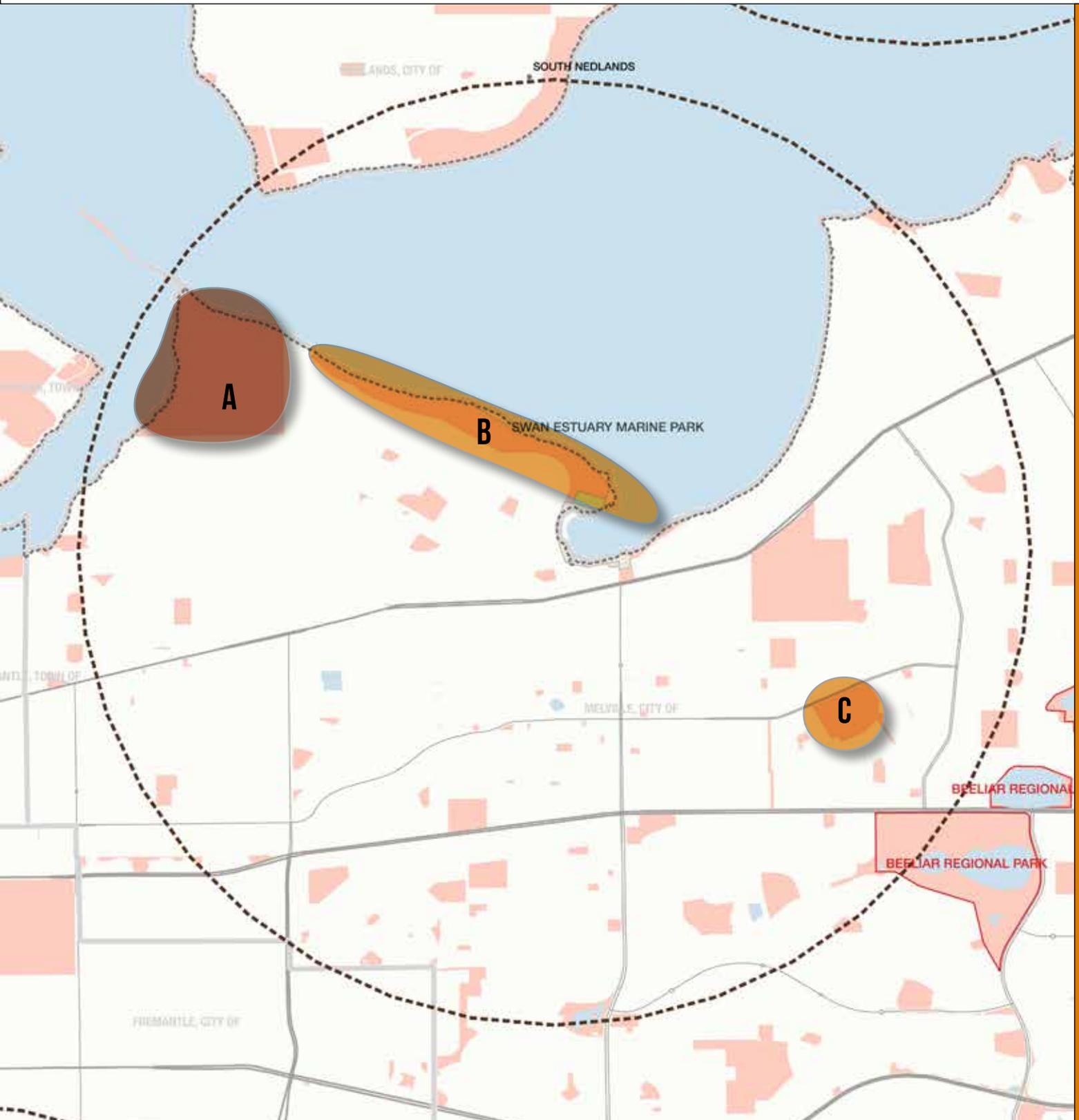
### Overview

The City of Melville is a riverside suburb located southwest of Perth City, along the popular cycling route connecting Perth City to Fremantle. The area has existing demand for mountain bike facilities and could be developed to local significance. Development of small scale trail networks with pump tracks / jump parks would provide an accessible recreation resource for the surrounding local communities. Development should be focussed on a pump track / jump park in Point Walter Reserve, with strategic connections to the Point Walter Camp School and the Point Walter Golf Club. A long term focus should be the development of riverside trails connecting the park with the greater Perth Bicycle Network. Existing recreation infrastructure and services provided within the City have the potential for colocation and should be considered in all planning. Land manager support and tenure are identified as the location's largest constraints.

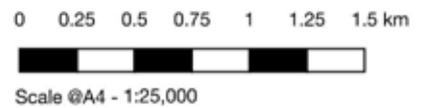
Key Features	Complementary	Opportunities	Existing Infrastructure
River Views, Limestone Cliffs, Quality Vegetation, Significant Topography	River, Amenities, Café, Parkland, Existing Walk Trails, Playground, Foreshore, Camp School	Point Walter Trail Network, Foreshore Individual Trail, Bike Park, Point Walter Camp School Trail	Golf Course, Café, Foreshore Parking, Point Walter Park, Len Shearer Reserve, Melville Aquatic Centre

ID	PRIORITY SITE	OPPORTUNITY	CONSTRAINTS
A	POINT WALTER RESERVE  Land Tenure Reserve - Proposed Conservation Reserve Land Manager City of Melville	Trail Network featuring river and bushland. Potential to integrate with Golf Club. Bike Park facilities. Individual trail within Point Walter Camp School and providing access to Trail Network.	Proposed Conservation Reserve, Environmental, Competing Recreation Demands, Established Recreation, Surrounding Land Use, Surrounding Land Owners, Community Value, Scale Of Site, Site Fragmentation, Soil Types.
			Trail Model: Trail Network
			Priority: High
			Timeframe: Short
			Trail Types: XC PK
B	FORESHORE RESERVE (EXCLUDING ALFRED COVE NATURE RESERVE)  Land Tenure Reserve - Proposed Conservation Reserve Land Manager City of Melville	Individual Trail providing connection to Point Walter Trail network. River Connection.	Land Manager Support, Proposed Conservation Reserve, Environmental, Competing Recreation Demands, Established Recreation, Community Value, Scale Of Site, Safety & Road User Conflict, Hydrology, Soil Types.
			Trail Model: Individual Trail
			Priority: Moderate
			Timeframe: Long
			Trail Types: XC
C	LEN SHEARER RESERVE  Land Tenure Reserve Land Manager City of Melville	Len Shearer Reserve Bike Park facilities. Existing infrastructure at Aquatic Centre.	Suitability of Site, Scale Of Site.
			Trail Model: Individual Trail
			Priority: Moderate
			Timeframe: Short
			Trail Types: PK
			Classifications: GN BU BL
			Compatibility: Medium
			Compatibility: Low
			Classifications: GN BU BL
			Compatibility: High
			Compatibility: High

# MELVILLE



- LEGEND**
-  Site not supported by land manager
  -  High priority site
  -  Moderate priority site
  -  Low priority site



# PERTH CITY

## MODEL

Significance	Priority	Deliverability	Primary Trail Model	Secondary Trail Model	Scale
Local	High	Long	Trail Network	-	10km
Region	Biodiversity, Conservation and Attractions Body		Local Government	Other Stakeholders	
Peel Metropolitan	-		City of Perth	Biodiversity, Conservation and Attractions	

## EXISTING TRAILS

ID	Name	Model	Type	Length	Quality	Classification	Parking	Trailhead/Signage
NIL								

## DEVELOPMENT

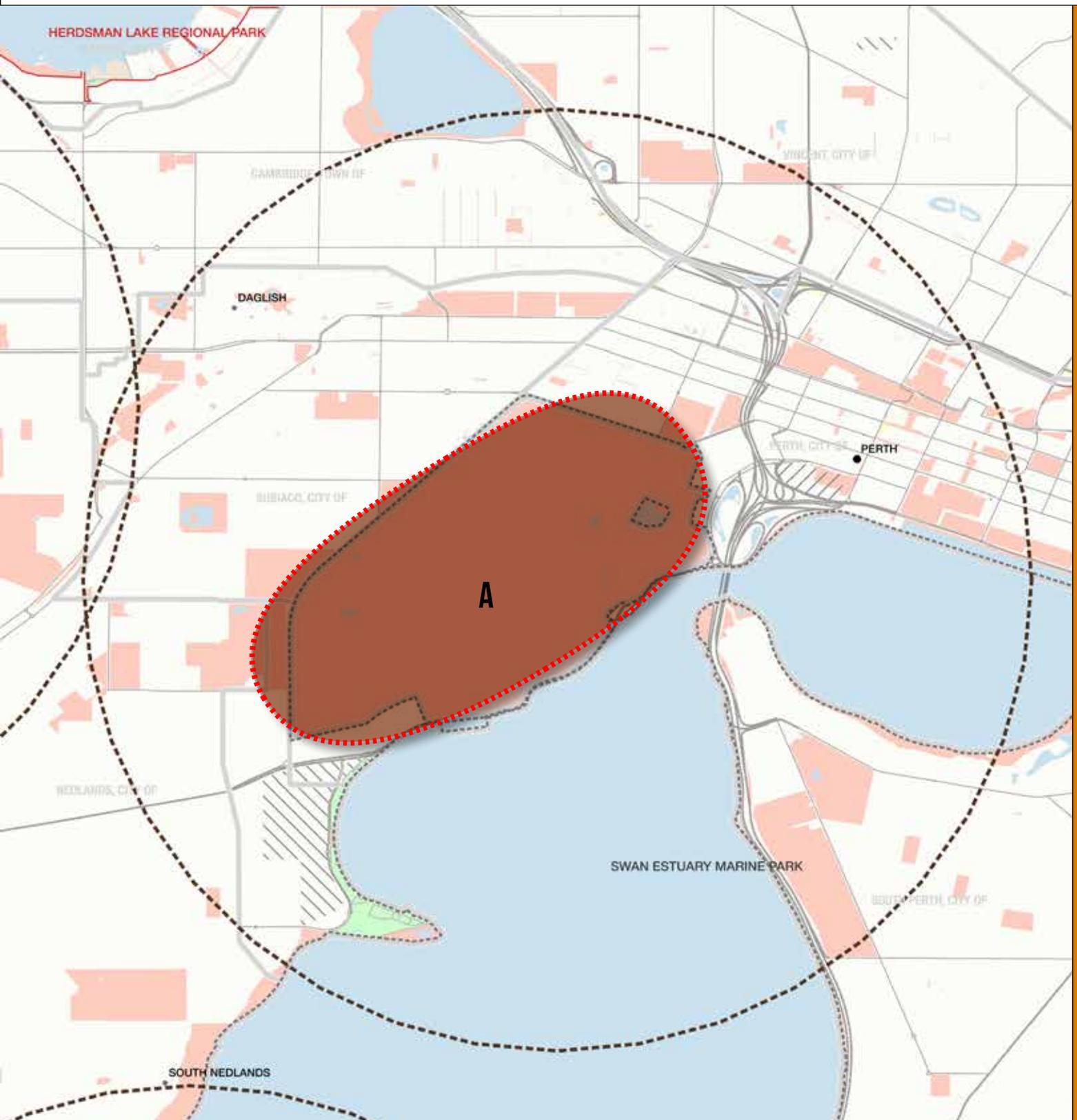
### Overview

The iconic Kings Park is situated in West Perth, a short walk from Perth City, and is renowned for its spectacular Botanic Garden displays. Already a popular location for trail walking, running and road cycling, there is significant demand and opportunity for mountain bike trails, and it could be developed to local significance. The trail network has the potential to increase visitation to areas of the park that are less accessible via walking trails or vehicles. There is future opportunity to connect the trail network with the City Centre bike paths and existing recreation facilities within the Park. Development of the location will provide a significant opportunity to capture all segments of the tourism market. The main focus should be a cross country style trail network featuring the natural bush and botanic gardens, including easy to intermediate classifications to cater for the leisure market, while keeping with the environmental and conservation values of the Park. Land manager support and land tenure are identified as the location's largest constraints. **At the time of writing, the land manager does not support the development of mountain bike trails at Kings Park.**

Key Features	Complementary	Opportunities	Existing Infrastructure
River Views, High quality Vegetation, Significant Topography, Urban Context	Amenities, Parkland, Existing Walk Trails, Botanic Gardens	Kings Park Trail Network	Café, Amenities, Parking, Open Space, Shelters, Picnic & BBQ Area

ID	PRIORITY SITE	OPPORTUNITY	CONSTRAINTS
A	KINGS PARK Land Tenure Reserve Land Manager Botanic Gardens & Parks Authority	Trail Network featuring natural bush and significant topography. City centre trail connection and linkages via proposed shared path.	<b>Not supported by land manager</b> , Conservation Reserve, Environmental, Flora, Land Use Conflict, Competing Recreation Demands, Established Recreation, Community Value, Site Fragmentation, Safety & Road User Conflict, Soil Types.
			Trail Model Trail Network Priority High Timeframe Long Trail Types XC Classifications GN BU Compatibility Low

# PERTH CITY



- LEGEND**
-  Site not supported by land manager
  -  High priority site
  -  Moderate priority site
  -  Low priority site



# PERTH EASTERN

## MODEL

Significance	Priority	Deliverability	Primary Trail Model	Secondary Trail Model	Scale
Local	Low	Long	Trail Network	-	10km
Region	Biodiversity, Conservation and Attractions Body		Local Government	Other Stakeholders	
Perth Metropolitan	City of Bayswater, City of Belmont, City of Swan, Town of Bassendean				

## EXISTING TRAILS

ID	Name	Model	Type	Length	Quality	Classification	Parking	Trailhead/Signage
NIL								

## DEVELOPMENT

### Overview

Perth's iconic Swan River is a stunning natural watercourse with opportunity for long term development of a shared use River Bank Trail. Forming a conduit from the Perth Hills through the CBD to the coastline, the river provides an array of route choices for recreational cyclists and commuters, as well as cycle tourists. There is high demand for mountain bike trails and pump track facilities in the surrounding suburbs. The cycle tourism opportunities provided by the Swan River have been recognised in Department of Transport's Cycling Network Plan. There is future opportunity to create a series of small urban based interconnected trail networks, based on the existing and planned visitor services, attractions and infrastructure. Combined with Perth's growing coffee culture, development of a variety of facilities with connections to the shared use river bank trail would provide an urban based recreation resource catering for families and enthusiasts. If development is jointly coordinated, the cluster of Perth Eastern, Perth, Canning and Point Walter areas has the potential to become a major interconnected river bank trail provider for Perth City. Land manager support and competing recreation demands are identified as the location's largest constraints.

Key Features	Complementary	Opportunities	Existing Infrastructure
Urban Network, Riverbank, Gentle Topography	Café, Playground, Open Space	Multiple small Urban based trail networks, Interconnected via existing and future shared use paths creating a River Bank Trail	Café, Parking, Picnic & BBQ Area, Boardwalks

ID	PRIORITY SITE	OPPORTUNITY	CONSTRAINTS
A	<b>GARVEY PARK</b>	Accessible urban trail network. Introductory cross-country trails featuring open space and bushland, River Bank Trail. Connection to Shared use Path.	Competing Recreation Demands, Established Recreation, Surrounding Land Owners, Social Impacts, Community Value, Scale Of Site, Site Fragmentation.
	Land Tenure Reserve Land Manager City of Belmont		
B	<b>CLAUGHTON RESERVE</b>	Individual Trail through bushland and Continuation of River Bank Trail. Connection to Shared use Path.	Land Manager Support, Suitability of Site, Competing Recreation Demands, Surrounding Land Owners, Community Value, Scale Of Site, Site Fragmentation, Safety & Road User Conflict, Hydrology, Soil Types.
	Land Tenure Reserve Land Manager City of Bayswater		
C	<b>ASHFIELD FLATS</b>	Urban Bike Park and Small Trail Network with Introductory cross-country trails, Continuation of River Bank Trail. Connection to Shared use Path.	Land Manager Support, Suitability of Site, Competing Recreation Demands, Community Value, Scale Of Site, Hydrology, Soil Types.
	Land Tenure Reserve Land Manager Town of Bassendean		
D	<b>GUILDFORD RESERVES</b>	Urban Trail Network with Bike Park and Continuation of River Bank Trail featuring watercourse and remnant bushland. Connection to Shared use Path.	Land Manager Support, Aboriginal Heritage, Competing Recreation Demands, Established Recreation, Surrounding Land Owners, Community Value, Site Fragmentation, Hydrology, Soil Types.
	Land Tenure Reserves Land Manager City of Swan & Various Others		

# PERTH EASTERN

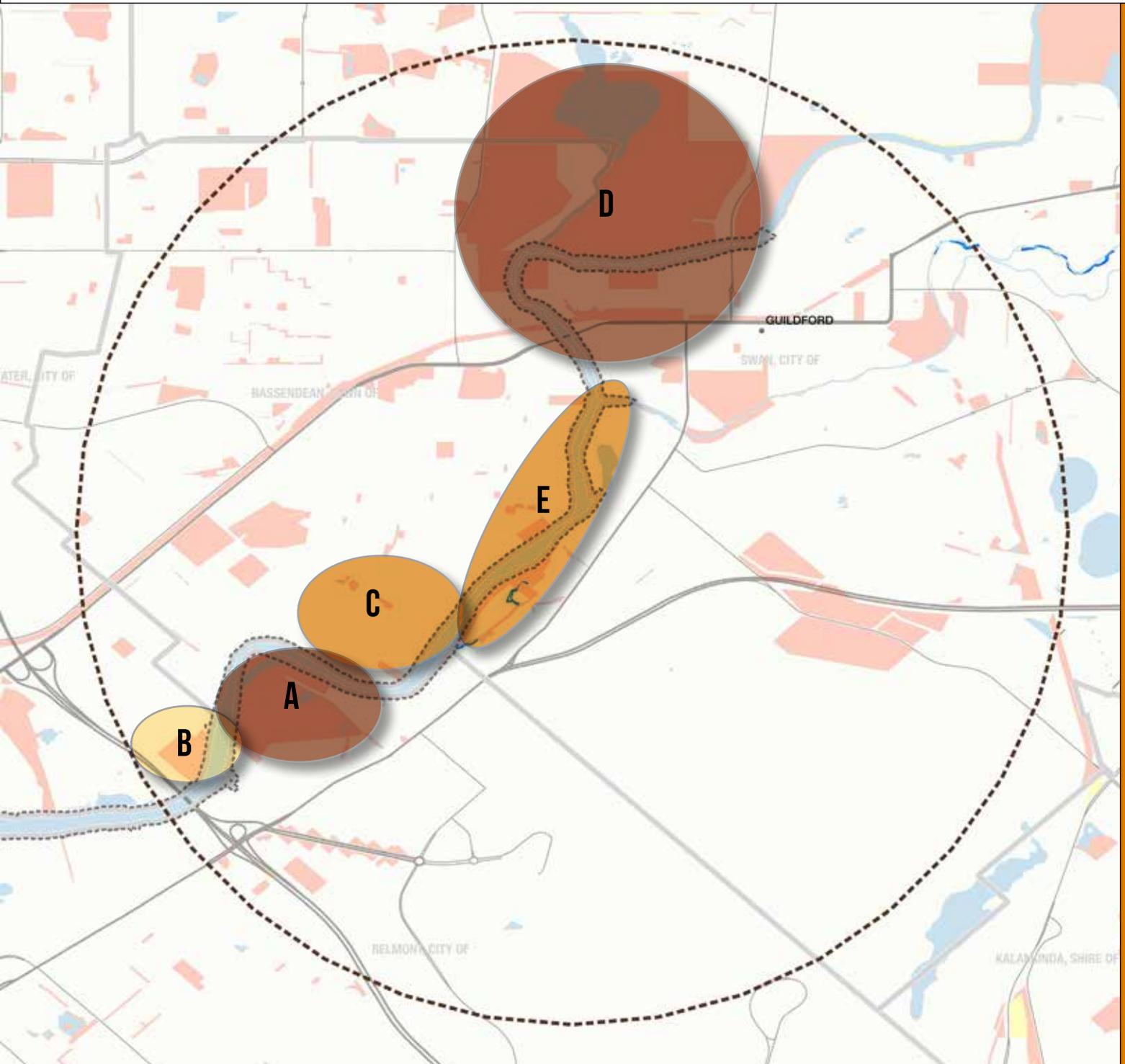
## E RIVER RESERVES

Land Tenure  
Reserves  
Land Manager  
Various

Continuation of River Bank Trail. Connection to Shared use Path.

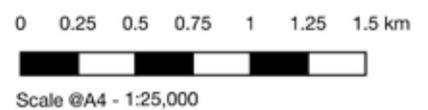
Land Manager Support, Competing Recreation Demands, Established Recreation, Surrounding Land Owners, Social Impacts, Community Value, Scale Of Site, Site Fragmentation, Hydrology.

Trail Model	Trail Network
Priority	Medium
Timeframe	Long
Trail Types	XC PK
Classifications	WH GN BU
Compatibility	Medium



**LEGEND**  
 Site not supported by land manager  
 High priority site

 Moderate priority site  
 Low priority site



# ROCKINGHAM

## MODEL

Significance	Priority	Deliverability	Primary Trail Model	Secondary Trail Model	Scale
Local	Low	Long	Trail Network	-	10km
Region	Biodiversity, Conservation and Attractions Body		Local Government	Other Stakeholders	
Perth Metropolitan	Regional Parks	City of Rockingham	Department of Lands		

## EXISTING TRAILS

ID	Name	Model	Type	Length	Quality	Classification	Parking	Trailhead/Signage
NIL								

## DEVELOPMENT

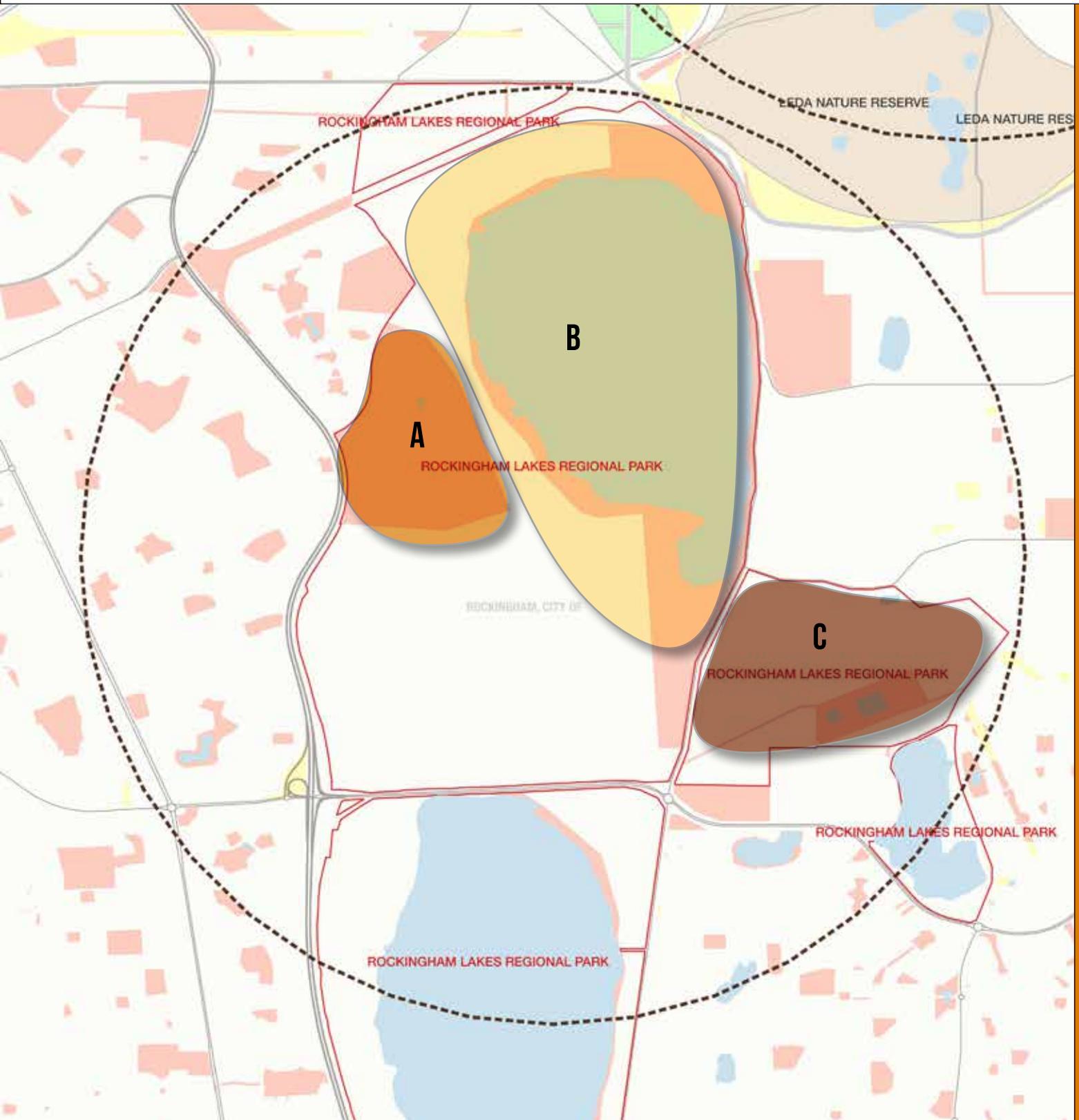
### Overview

The City of Rockingham is a beachside City located on the southwest corridor approximately 30km south of Fremantle. There is existing demand for mountain bike trails in the area, and it could be developed to local significance with the initial focus on a trail network at Tamworth Hill. Significant coastal topography and native bushland provide an attractive setting for picturesque trails catering for all segments of the tourism market. There is opportunity to co-locate facilities with the established recreation infrastructure in the area. Development of an urban trail network connecting with the Rockingham Golf Club and nearby suburbs would establish a key recreation resource for the surrounding communities and enthusiasts. The long term development focus should be on the potential railway reserves trail connecting the City of Mandurah and the City of Cockburn. Land manager support and tenure are identified as the location's largest constraints.

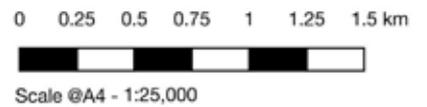
Key Features	Complementary	Opportunities	Existing Infrastructure
Lake Cooloongup, Urban Context, Quality Vegetation, Rolling Landform	Golf Course, Amenities	Frank Brown Reserve Trail Network and Bike Park, Rockingham Lakes Regional Park Individual Trail, Tamworth Hill Trail Network and Bike Park	Golf Course, Baldivis Town Site

ID	PRIORITY SITE	OPPORTUNITY	CONSTRAINTS	Trail Model	Trail Network
<b>A</b>	<b>FRANK BROWN RESERVE</b>	Trail Network featuring bushland. Potential to integrate with Golf Club. Bike Park Facilities. Connection to Rockingham.	Land Manager Support, Suitability of Site, Proposed Conservation Reserve, Established Recreation, Community Value, Scale Of Site, Hydrology, Soil Types, Leaseholders.	Trail Model	Trail Network
	Land Tenure			Priority	Moderate
	Reserve - Proposed Conservation Reserve			Timeframe	Short
	Land Manager			Trail Types	XC PK
	City of Rockingham			Classifications	GN BU
			Compatibility	Medium	
<b>B</b>	<b>ROCKINGHAM LAKES REGIONAL PARK</b>	Individual Trail providing connection from Frank Brown Reserve Tamworth Hill trail network.	Threatened Ecological Communities, Land Manager Support, Conservation Reserve, Environmental, Community Value, Hydrology, Soil Types, Unexploded Ordnance.	Trail Model	Individual Trail
	Land Tenure			Priority	Low
	Various - Proposed Conservation Reserve			Timeframe	Long
	Land Manager			Trail Types	XC
	Biodiversity, Conservation and Attractions			Classifications	GN BU
			Compatibility	Medium	
<b>C</b>	<b>TAMWORTH HILL (REGIONAL PARK)</b>	Accessible Trail network featuring significant coastal topography and quality vegetation. Connection to Baldivis.	Land Manager Support, Proposed Conservation Reserve, Community Value, Hydrology, Soil Types.	Trail Model	Trail Network
	Land Tenure			Priority	High
	Various - Proposed Conservation Reserve			Timeframe	Short
	Land Manager			Trail Types	XC
	Biodiversity, Conservation and Attractions			Classifications	GN BU
			Compatibility	Medium	

# ROCKINGHAM



- LEGEND**
-  Site not supported by land manager
  -  High priority site
  -  Moderate priority site
  -  Low priority site



# ROTTNEST ISLAND

## MODEL

Significance	Priority	Deliverability	Primary Trail Model	Secondary Trail Model	Scale
Local	Moderate	Medium	Trail Network	-	10km
Region	Biodiversity, Conservation and Attractions Body		Local Government	Other Stakeholders	
Perth Metropolitan	Regional Parks	City of Cockburn	Biodiversity, Conservation and Attractions		

## EXISTING TRAILS

ID	Name	Model	Type	Length	Quality	Classification	Parking	Trailhead/Signage
NIL								

## DEVELOPMENT

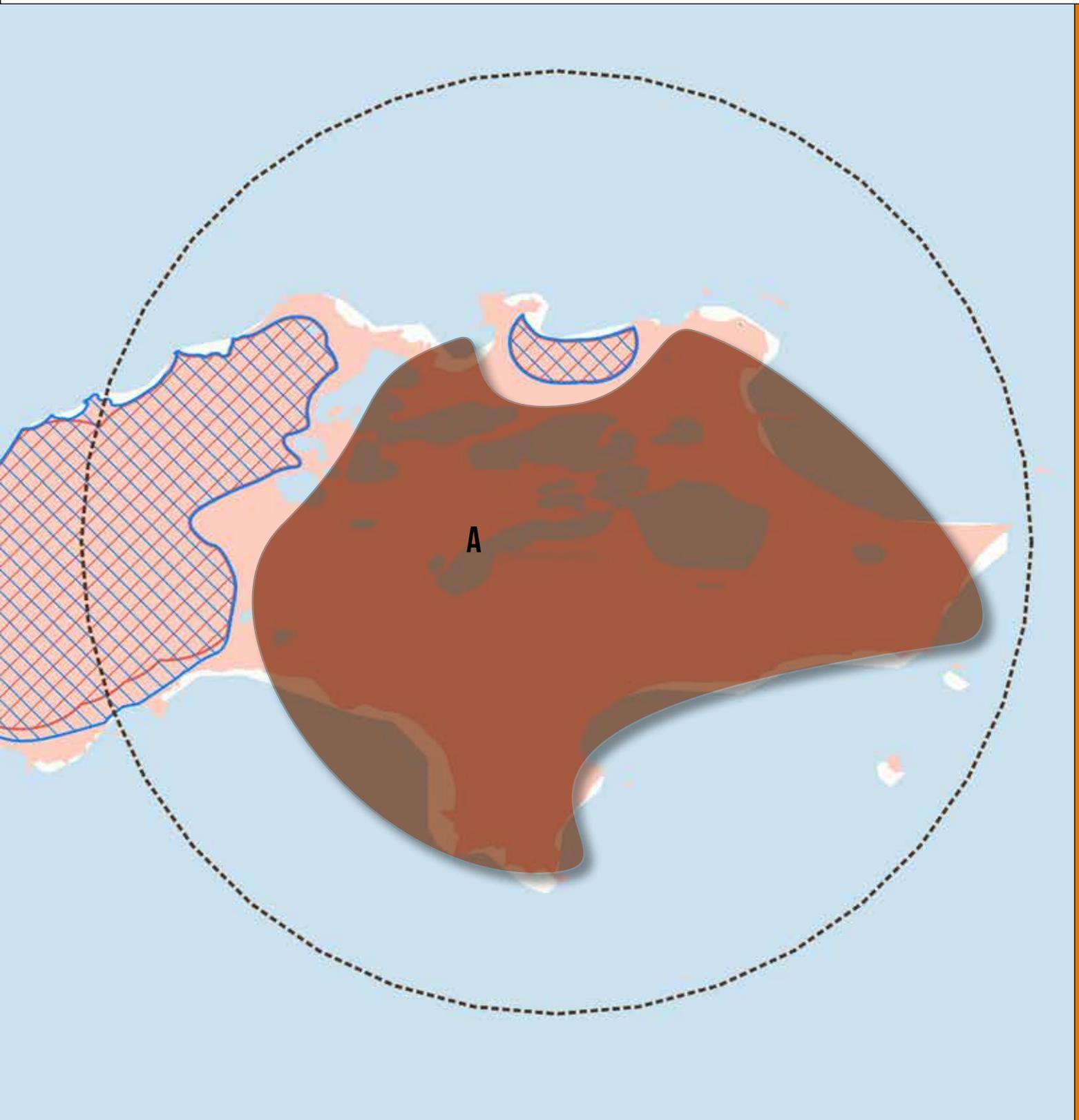
### Overview

The iconic Rottnest Island is a prominent destination for international visitors to Perth and is renowned for its biodiversity, beaches, and adventure activities including cycling. The Island has significant demand for the development of a mountain bike trail network featuring the pristine coastline, beaches and viewpoints will provide an opportunity to capture all segments of the tourism market year-round. Existing visitor services available include commercial bike hire, which can be expanded into mountain bike offerings, with the potential future development opportunity of a bike park close to the hire location. The trail network should cater for beginner and intermediate riders whilst providing a day trip destination for the enthusiast. Environmental, flora and fauna are identified as the location's largest constraints.

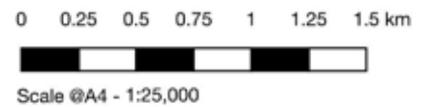
Key Features	Complementary	Opportunities	Existing Infrastructure
Ocean Views, Car Free Environment, Significant Topography, Tourism Destination	Accommodation, Attractions, Beaches, Amenities, Existing Walk Trails	Rottnest Island Trail Network and Bike Park	Café, Bike Hire, Restaurants, Open Space, Play grounds, Ferry Service

ID	PRIORITY SITE	OPPORTUNITY	CONSTRAINTS
A	ROTTNEST ISLAND	Trail Network featuring coastal trails, natural bush connection to beaches, viewpoints, amenities, and accommodation. Bike Park close to hire location. Commercial hire model.	Environmental, Fauna , Flora, PDWSA, WHPZ, Aboriginal Heritage, European Heritage, Competing Recreation Demands, Established Recreation, Hydrology, Soil Types, Distance From Population Centre, Viewshed Impacts.
	Land Tenure Reserve		Trail Model Priority Timeframe Trail Types
	Land Manager Biodiversity, Conservation and Attractions		Trail Network High Short XC PK Classifications GN BU Compatibility Medium

# ROTTNEST ISLAND



- LEGEND**
-  Site not supported by land manager
  -  High priority site
  -  Moderate priority site
  -  Low priority site



# SUNSET COAST

## MODEL

Significance	Priority	Deliverability	Primary Trail Model	Secondary Trail Model	Scale
Local	Low	Medium	Trail Network	-	10km
Region	Biodiversity, Conservation and Attractions Body		Local Government	Other Stakeholders	
Perth Metropolitan	-	City of Stirling, City of Joondalup			

## EXISTING TRAILS

ID	Name	Model	Type	Length	Quality	Classification	Parking	Trailhead/Signage
NIL								

## DEVELOPMENT

### Overview

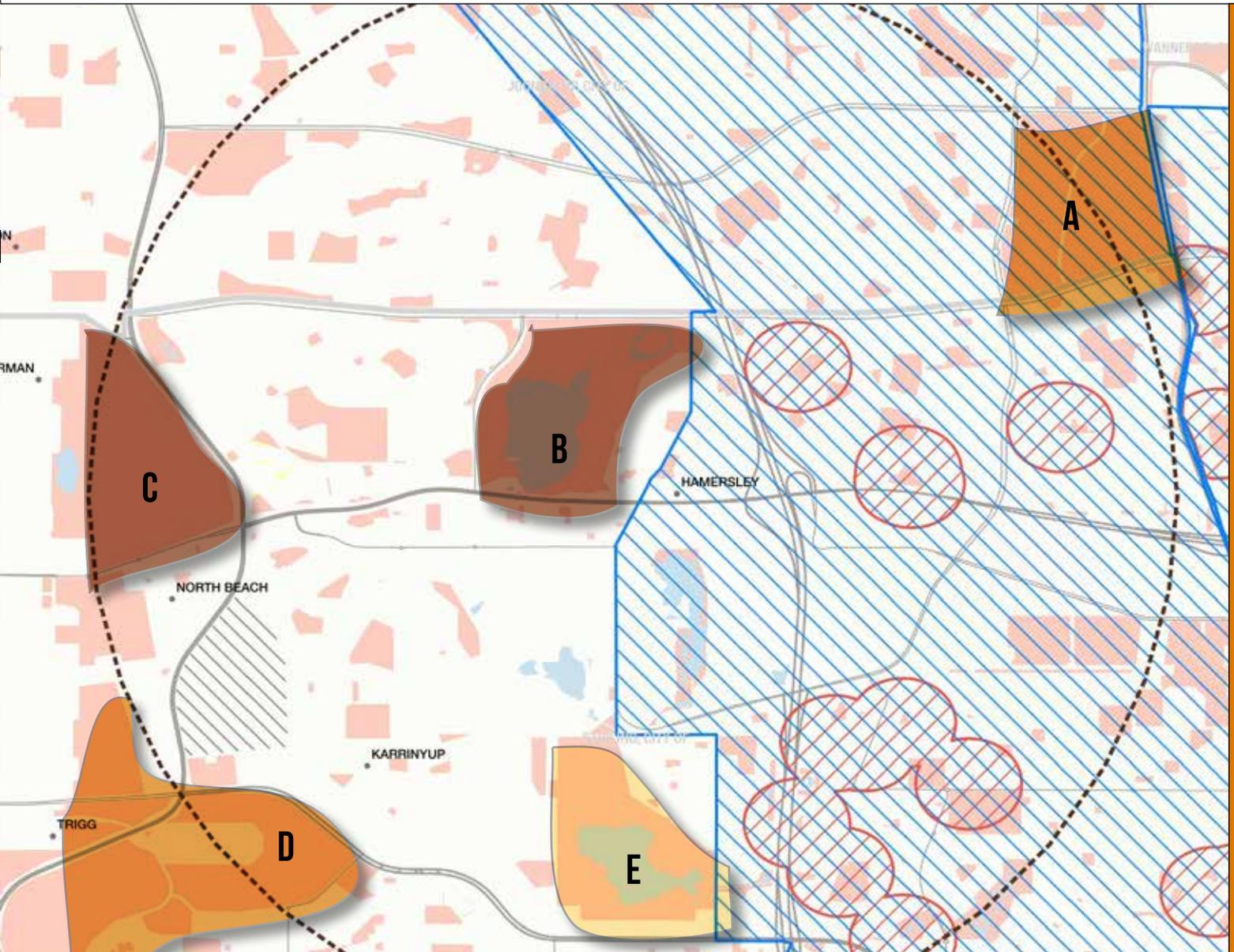
The Sunset Coast encapsulates an urban area between the City of Stirling and the City of Joondalup. The City of Stirling is renowned for its coastal views and topography and could be developed to local significance. Existing infrastructure, such as car parking, pockets of bushland and public open space provide opportunities to develop trailheads and strategic connections within the proposed network. While there are multiple opportunities within the area, initial development should focus on Carine Open Space, which is located in an existing sporting precinct. Introductory cross country trails and bike park would provide an accessible recreation resource for both families and enthusiasts in the surrounding communities. Proposed development including the cluster of Sunset Coast, Joondalup, Wanneroo and Yanchep could be established as a major mountain bike trail and park provider for the northern suburbs. Land manager support and tenure are identified as the location's largest constraints.

Key Features	Complementary	Opportunities	Existing Infrastructure
Coastal Views, Quality Vegetation, Significant Coastal Topography, Urban Context	Beaches, Parkland, Open Space, Existing Walk Trails, Playground, Pathways	Warwick Trail Network, Carine Trail Network and Bike Park, Star Swamp Trail Network, Trigg Bushland Trail Network, Lake Gwelup Individual Trail	Trigg Beach Parking, Highway Underpass, Lake Gwelup, Carine Open Space, Warwick Leisure Centre

ID	PRIORITY SITE	OPPORTUNITY	CONSTRAINTS	
A	WARWICK OPEN SPACE  Land Tenure Reserve - Proposed Conservation Reserve Land Manager City of Joondalup	Trail Network featuring natural bush and rolling topography. Connection to Warwick Leisure Centre.	Trail Model	Trail Network
			Priority	Moderate
			Timeframe	Medium
			Trail Types	XC
			Classifications	GN BU
			Compatibility	Medium
B	CARINE OPEN SPACE  Land Tenure Reserve - Proposed Conservation Reserve Land Manager City of Stirling	Sporting precinct entry point participation based Trail Network surrounding playing fields. Introductory cross-country trails and bike park providing accessible recreation resource for young people and enthusiasts.	Trail Model	Trail Network
			Priority	High
			Timeframe	Short
			Trail Types	XC PK
			Classifications	GN BU
			Compatibility	High
C	STAR SWAMP BUSHLAND RESERVE  Land Tenure Reserve - Proposed Conservation Reserve Land Manager City of Stirling	Urban context Trail Network featuring rolling topography and bushland.	Trail Model	Trail Network
			Priority	High
			Timeframe	Long
			Trail Types	XC
			Classifications	GN BU
			Compatibility	Low

# SUNSET COAST

<b>D</b>	<b>TRIGG BUSHLAND RESERVE</b>	Coastal Trail Network featuring bushland and significant coastal topography. Connection to Trigg Beach and School.	Land Manager Support, Suitability of Site, Conservation Reserve, Environmental, Fauna, Flora, Competing Recreation Demands, Established Recreation, Surrounding Land Owners, Social Impacts, Community Value, Safety & Road User Conflict, Soil Types.	Trail Model Priority Timeframe Trail Types	Trail Network Moderate Long XC
	Land Tenure Reserve - Proposed Conservation Reserve Land Manager City of Stirling			Classifications Compatibility	GN BU Low
<b>E</b>	<b>LAKE GWELUP RESERVE</b>	Individual Trail Surrounding Lake Gwelup featuring bushland.	Land Manager Support, Suitability of Site, Conservation Reserve, Competing Recreation Demands, Established Recreation, Social Impacts, Community Value, Scale Of Site, Hydrology, Soil Types.	Trail Model Priority Timeframe Trail Types	Trail Network Low Long XC
	Land Tenure Reserve - Proposed Conservation Reserve Land Manager City of Stirling			Classifications Compatibility	GN BU Medium



**LEGEND**

- Site not supported by land manager
- High priority site

- Moderate priority site
- Low priority site

# WANNEROO

## MODEL

Significance	Priority	Deliverability	Primary Trail Model	Secondary Trail Model	Scale
Local	Low	Long	Trail Network	-	5km
Region	Biodiversity, Conservation and Attractions Body		Local Government	Other Stakeholders	
Perth Metropolitan	-		City of Wanneroo City of Swan	Department of Lands	

## EXISTING TRAILS

ID	Name	Model	Type	Length	Quality	Classification	Parking	Trailhead/Signage
NIL								

## DEVELOPMENT

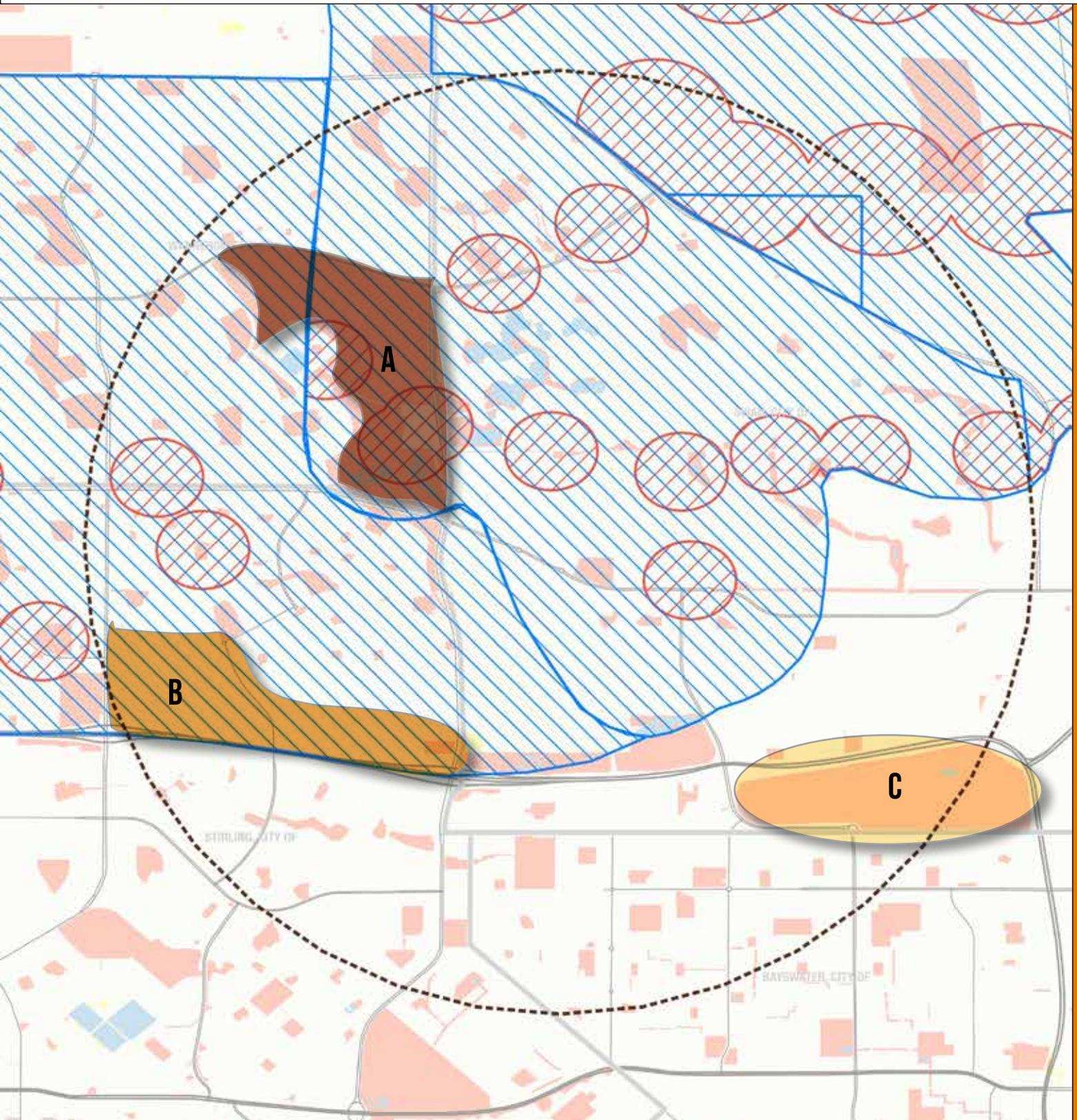
### Overview

The City of Wanneroo is located in the northern suburbs of Perth, approximately 25km north of Perth City. The area has significant demand for mountain bike trails and could be developed to local significance. There is opportunity to co-locate facilities within existing parklands, Local Government, Sport and Cultural Industries centres and schools. Initial development focus should be on providing a trail network and challenge park in the Koondoola Regional Bushland connecting with the Warwick Leisure Centre, and potentially sharing amenities as a trailhead site. Proposed development including the cluster of Sunset Coast, Joondalup, Wanneroo and Yanchep could be established as a major trail and challenge park provider for the northern suburbs. Land manager support and PDWSA are identified as the location's largest constraints.

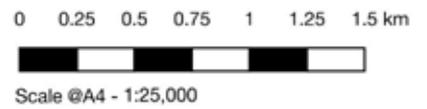
Key Features	Complementary	Opportunities	Existing Infrastructure
Quality Vegetation, Rolling Topography, Urban Context	Parkland, Open Space, Pathways, Sports Grounds, Recreation Centre	Koondoola Trail Network connected to sports ground. School based trail network. Lightning Park Trail Network and Bike Park	Koondoola Sport Park, Lightning Park Recreation Centre, School

ID	PRIORITY SITE	OPPORTUNITY	CONSTRAINTS		
A	<b>KOONDOOLA REGIONAL BUSHLAND</b> Land Tenure Reserve - Proposed Conservation Reserve Land Manager City of Wanneroo	Trail Network featuring natural bush and rolling topography. Connection to Warwick Leisure Centre.	Land Manager Support, Proposed Conservation Reserve, Environmental, PDWSA, WHPZ, Competing Recreation Demands, Community Value, Soil Types.	Trail Model	Trail Network
				Priority	High
				Timeframe	Short
				Trail Types	XC PK
				Classifications	GN BU
				Compatibility	Medium
B	<b>FREEHOLD</b> Land Tenure Reserve - Proposed Conservation Reserve Land Manager Department of Lands	Accessible Trail network featuring rolling topography and quality bushland. Connection to Mirrabooka and School.	Land Manager Support, PDWSA, Proposed Conservation Reserve, Environmental, Surrounding Land Use, Soil Types, Longevity.	Trail Model	Trail Network
				Priority	Moderate
				Timeframe	Medium
				Trail Types	XC
				Classifications	GN BU
				Compatibility	Low
C	<b>LIGHTNING SWAMP BUSHLAND</b> Land Tenure Reserve - Proposed Conservation Reserve Land Manager City of Swan	Participation based Trail Network connected to recreation centre. Introductory cross-country trails and bike park.	Land Manager Support, Proposed Conservation Reserve, Competing Recreation Demands, Established Recreation, Community Value, Soil Types.	Trail Model	Trail Network
				Priority	Low
				Timeframe	Short
				Trail Types	XC PK
				Classifications	GN BU BL
				Compatibility	High

# WANNEROO



- LEGEND**
-  Site not supported by land manager
  -  High priority site
  -  Moderate priority site
  -  Low priority site



# WEST COAST

## MODEL

Significance	Priority	Deliverability	Primary Trail Model	Secondary Trail Model	Scale
Local	Medium	Long	Trail Network	-	10km
Region	Biodiversity, Conservation and Attractions Body		Local Government	Other Stakeholders	
Perth Metropolitan	-		City of Claremont Town of Cambridge	Botanic Gardens & Parks Authority, Department of Lands, WA Sports Centre Trust	

## EXISTING TRAILS

ID	Name	Model	Type	Length	Quality	Classification	Parking	Trailhead/Signage
NIL								

## DEVELOPMENT

### Overview

The Town of Cambridge on Perth's West Coast is one of the region's most densely populated metropolitan areas, with significant parklands and recreational areas. The location includes Bold Park which is one of Perth's most iconic reserves renowned for its biodiversity and 360 degree views over Perth and the coastline, and it could be developed to local significance. The area already has significant demand for mountain bike trails. The opportunities surrounding the area include existing infrastructure and services within the Town of Cambridge, City of Claremont, and Perth City. There is opportunity to co-locate high performance facilities through establishment of cross country training and skills development facilities. The initial focus on development would establish an accessible recreation resource as well as short stay or day trip destination for the Local Government, Sport and Cultural Industries markets. Land manager support and community value are identified as the location's largest constraints. **At the time of writing, the land manager does not support the development of mountain bike trails at Bold Park.**

Key Features	Complementary	Opportunities	Existing Infrastructure
Coastal Views, Quality Vegetation, Significant Topography, Sports Complex, Urban Context	Sport Facilities, Amenities, Parkland, Existing Walk Trails, Playground	Urban based trail network, Cross Country Racing, Event and High Performance Facility, Skills Development Bike Park	Sport Centre, Parking, Shelter, Amenities

ID	PRIORITY SITE	OPPORTUNITY	CONSTRAINTS		
A	BOLD PARK  Land Tenure Reserve Land Manager Biodiversity, Conservation and Attractions	Trail Network featuring natural bush and significant rolling topography. Coastal Trail Connection.	<b>Not supported by Land Manager</b> , Conservation Reserve, Environmental, Flora, Land Use Conflict, Competing Recreation Demands, Established Recreation, Community Value, Site Fragmentation, Safety & Road User Conflict, Soil Types.	Trail Model	Trail Network
				Priority	High
B	PERRY LAKES RESERVE  Land Tenure Freehold Land Manager Department of Lands	Trail Network connecting to Bold Park and Sports Park.	Suitability of Site, Established Recreation, Surrounding Land Owners, Community Value, Scale Of Site, Site Fragmentation, Safety & Road User Conflict, Soil Types.	Timeframe	Long
				Trail Types	XC
C	SPORTS CENTRE  Land Tenure Reserve & Freehold Land Manager WA Sports Centre Trust	Sporting precinct high performance race and skills development facility.	Land Manager Support, Competing Recreation Demands, Established Recreation, Scale Of Site, Site Fragmentation, Safety & Road User Conflict, Governance Structure, Soil Types, Private Land Access.	Classifications	GN BU
				Compatibility	Low

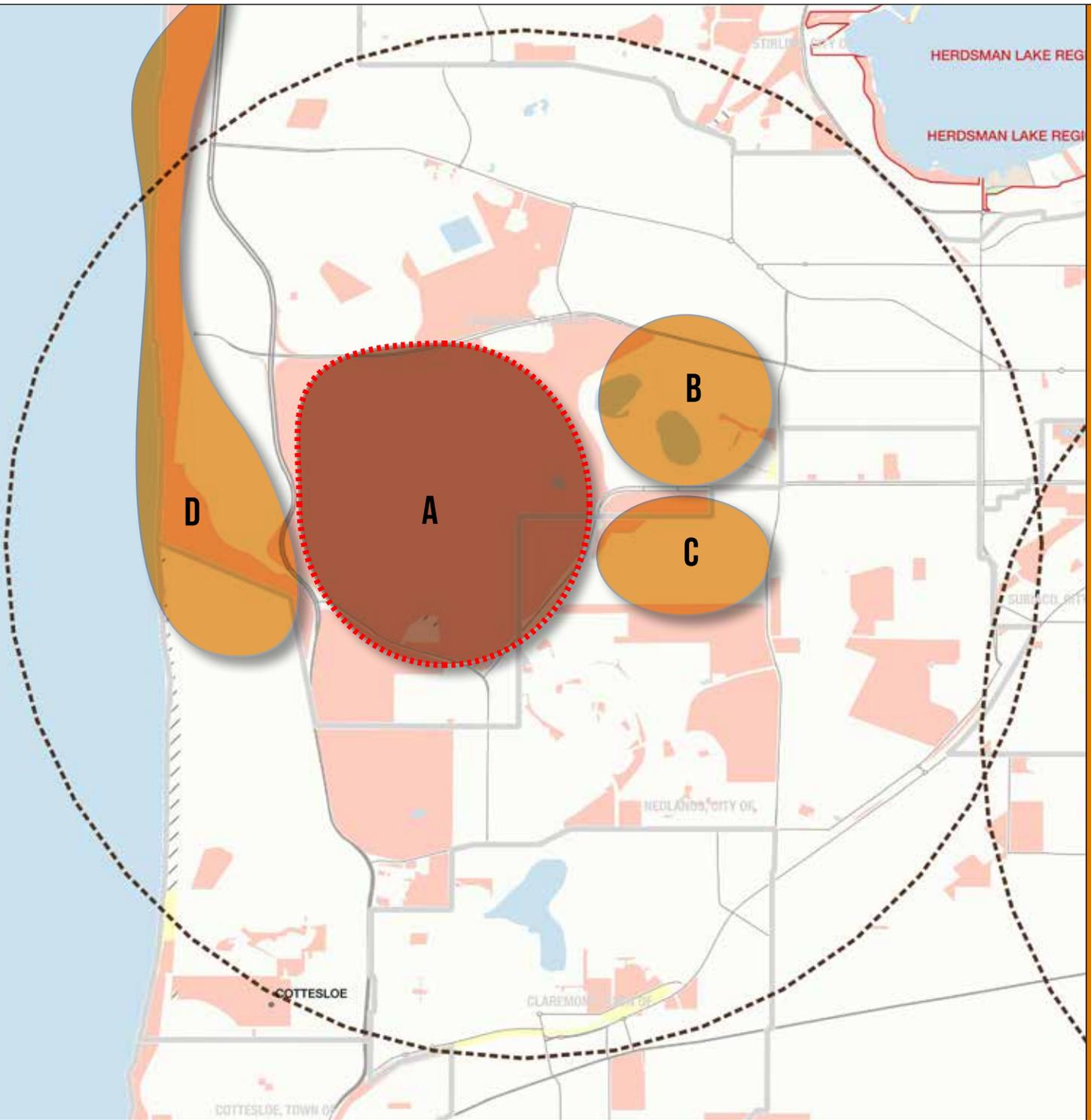
# WEST COAST

**D** COASTAL RESERVES & FUTURE RESERVE  
 Land Tenure Reserve & Freehold  
 Land Manager Various

Coastal Trail Network, Connection to Bold Park and Sports Centre.

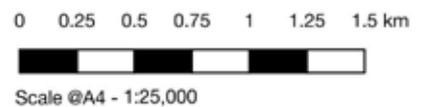
Land Manager Support, Surrounding Land Owners, Community Value, Scale Of Site, Site Fragmentation, Soil Types, Unexploded Ordnance, Viewshed Impacts.

Trail Model	Trail Network
Priority	Moderate
Timeframe	Long
Trail Types	XC
Classifications	GN BU
Compatibility	Low



**LEGEND**  
 Site not supported by land manager  
 High priority site

 Moderate priority site  
 Low priority site



# YALGORUP

## MODEL

Significance	Priority	Deliverability	Primary Trail Model	Secondary Trail Model	Scale
Local	Moderate	Long	Trail Network	-	20km
Region	Biodiversity, Conservation and Attractions Body		Local Government	Other Stakeholders	
Peel	Swan Coastal District		City of Mandurah	Department of Planning & Infrastructure	

## EXISTING TRAILS

ID	Name	Model	Type	Length	Quality	Classification	Parking	Trailhead/Signage
NIL								

## DEVELOPMENT

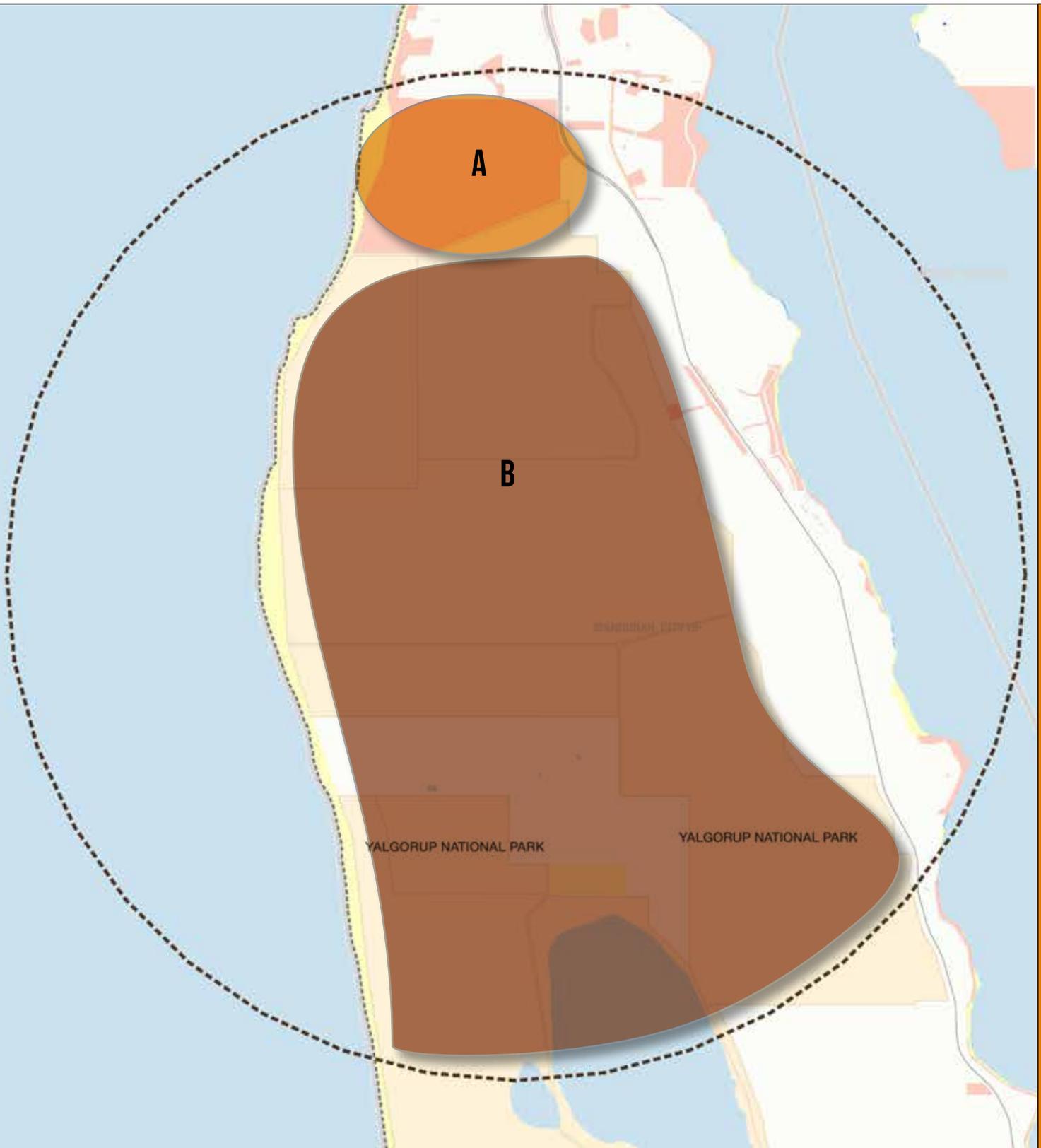
### Overview

Yalgorup National Park is situated directly south of Mandurah and is renowned for Lake Clifton and Lake Preston, as well as its abundant wildlife, being part of the significant Peel-Yalgorup wetland system. Characterised by woodlands and tuart forests, there is high demand for mountain bike trails. There is an excellent opportunity to develop an accessible trail network following the stunning coastline and connecting with the existing coastal bike path from Mandurah. The proposed development has the potential to include the future construction of a challenge / jump park in the open quarry area north of the National Park, that could establish the location as a recreational resource for the surrounding community and day trip destination for enthusiasts. Soil types and distance from population centre are identified as the location's largest constraints.

Key Features	Complementary	Opportunities	Existing Infrastructure
Coastal Setting, Limestone Ridge, Quality Vegetation, Significant Rolling Topography	Beaches, Accommodation, Amenities, Playground	Yalgorup and Dawesville Trail Networks connected to beach and coastal path	The Cut, Melros Reserve Parking

ID	PRIORITY SITE	OPPORTUNITY	CONSTRAINTS	Trail Model	Trail Network
A	DAWESVILLE RESERVE Land Tenure Reserve - Proposed Conservation Reserve Land Manager Department of Planning & Infrastructure	Trail Network featuring natural bush and rolling topography. Significant Future Bike Park in Refuge/ Quarry area. Connection to Dawesville.	Land Manager Support, Proposed Conservation Reserve, Land Use Conflict, Soil Types.	Trail Model	Trail Network
				Priority	Moderate
				Timeframe	Short
				Trail Types	XC PK
				Classifications	GN BU
				Compatibility	Medium
B	YALGORUP NATIONAL PARK Land Tenure Conservation Reserve Land Manager Biodiversity, Conservation and Attractions	Accessible Trail network featuring significant topography and quality bushland, coastal views and limestone ridge.	Threatened Ecological Communities, Conservation Reserve, Environmental, Soil Types, Distance From Population Centre, Site Exposure.	Trail Model	Trail Network
				Priority	High
				Timeframe	Short
				Trail Types	XC
				Classifications	GN BU BL
				Compatibility	Low

# YALGORUP



- LEGEND**
-  Site not supported by land manager
  -  High priority site
  -  Moderate priority site
  -  Low priority site



# RECOMMENDATIONS



The PPMP provides a framework to guide the strategic development of mountain biking in the project area, focusing on the key areas of trail development, governance, event and promotion management. The recommendations include mutually reinforcing actions for which multiple agencies are responsible. The scale of proposed trail development is beyond the capacity of the agencies involved and additional committed funding is required to commence implementation of the recommendations.

## TRAIL DELIVERY, TIMING & PHASES

WestCycle will establish a central 'Perth Peel Reference Group', comprised of representatives of relevant stakeholder organisations,

to seek funding and oversee the implementation of the Master Plan, ensuring a well-coordinated approach and efficient delivery. It is anticipated that throughout the implementation, priorities will change, as will relevant stakeholders. From time to time, new stakeholders may be brought in to the Reference Group. The role of the Reference Group is further explained within the Governance & Management Recommendations.

Figure 11 outlines the process for trail facility development. Further detail on each stage is provided within the Draft WAMTBMG.

	TRAIL DEVELOPMENT AND DELIVERY RECOMMENDATIONS	MAJOR STAKEHOLDERS	TIMEFRAME
1	Adopt the Draft WAMTBMG as the guiding document for all trail development and management in the project area.	All stakeholders	Immediate
2	Secure funding and commence development of high priority locations.	DBCA, DLGSC, LGAs, Local Mountain Bike Organisations, MBTF, WAPC, DoLA, CACs	Short
3	Develop an operational plan which includes a timeline for the delivery of trail projects in priority locations, consistent with the process defined in Figure 11.	All stakeholders	Short
4	Prepare area plans for nationally and regionally significant locations, ensuring a revenue based, sustainable management model is established.	DBCA, DLGSC, LGAs, MBTF, WAPC, DoLA, CACs, Local Mountain Bike Organisations,	Short
5	Develop locally significant trail networks.	As per Location Tables	Ongoing
6	Ensure mountain biking facilities, including trails and pump tracks are included within local government trails master plans.	Local Governments, Other Land Managers	Ongoing
7	Review Policy 13 in relation to: <ul style="list-style-type: none"> <li>• Yellagonga Regional Park</li> <li>• Neerabup National Park and surrounds</li> <li>• Areas within the Perth Hills mountain bike precinct development zone</li> </ul> Liaising with the Department of Water, propose amendments to exempt the Perth Coastal and Gwelup Underground Water Pollution Control Area PDWSA and Middle Helena Catchment PDWSA from any limitations that restrict mountain biking.	DBCA, DLGSC, DoW	Short
8	Prepare a policy and process to guide access to private land, with consideration given to lease or licensing arrangements. Work with private land owners to develop public trails at iconic locations which may be identified in the planning process.	DLGSC, Private Landowners	Medium
9	Ensure appropriate engagement with Aboriginal stakeholders is undertaken in all stages of trail development, consistent with the relevant legislation, DBCA policy requirements and the South West native title settlement.	DAA, All Stakeholders	Ongoing
10	Prepare a strategy encouraging the creation of public-private partnerships, identifying market opportunities and steps to form partnerships.	DBCA, WestCycle	Medium

Table 13: Trail Development and Delivery Recommendations

DEVELOPMENT PHASE	DEVELOPMENT STAGE	TRAIL DEVELOPMENT PROCESS FROM THE DRAFT WAMTBMG
Planning	1. Proposal	<ul style="list-style-type: none"> <li>A location is proposed as per the PPMP</li> <li>The proposed area is either supported in principle for trail development, or is not supported due to environmental, social or cultural constraints. Or proposal to identify suitable areas.</li> </ul>
	2. Framework	<ul style="list-style-type: none"> <li>A project outline developed by the steering group (stakeholders), including: project objectives, project management model, stakeholders, roles, target market, requirements, execution, and ongoing management model.</li> </ul>
	3. Site Assessment	<ul style="list-style-type: none"> <li>Undertake a broad scale study of the area and identify constraints, soil types, vegetation etc.</li> </ul>
	4. Concept Planning	<ul style="list-style-type: none"> <li>Identify opportunities and develop a conceptual trail plan including broad trail corridors and infrastructure requirements.</li> </ul>
	5. Corridor Evaluation	<ul style="list-style-type: none"> <li>Detailed assessment of corridor.</li> </ul>
Construction	6. Detailed Design	<ul style="list-style-type: none"> <li>Detailed trail design produced and alignments physically flagged in the field. Includes detail on the trail classifications, technical trail features (TTFs), construction methods and specifications.</li> </ul>
	7. Construction	<ul style="list-style-type: none"> <li>Trail is constructed in line with the detailed design.</li> </ul>
Management	8. Management	<ul style="list-style-type: none"> <li>Management plan implemented detailing maintenance and monitoring requirements.</li> </ul>

Figure 11: Perth Peel Master Plan Priority Location Development Process

### GOVERNANCE & MANAGEMENT

Key to the sustainability and longevity of any trail development is an effective and efficient governance and management structure. Given the range of stakeholders with an interest in mountain biking in the project area, it is important to ensure management arrangements have broad representation and a willingness by all parties to accept some level of responsibility. To ensure these roles and responsibilities are understood and carried out to a high standard, a governance hierarchy should be formally adopted by all relevant stakeholders.

To maintain sustainability and consistency across the project area, a Perth Peel Reference Group will be established. The role of the Reference Group is to oversee all strategic trail development and

management, with a particular focus on seeking funding for high priority locations. The group will meet periodically to coordinate key stakeholders and project priorities. The Reference Group is not an approving body. Should there be stakeholder support and available funding, projects may proceed without the control of the Reference Group.

Of particular importance is the involvement of WAMBA and other mountain bike organisations and volunteers who have driven the advocacy and management of trail facilities in the project area. The successful delivery and ongoing management of trail developments will depend on the participation and awareness activities generated by these groups, as well as the communities they have created.

	<b>GOVERNANCE &amp; MANAGEMENT RECOMMENDATIONS</b>	<b>MAJOR STAKEHOLDERS</b>	<b>TIMEFRAME</b>
11	Establish steering committees to oversee the preparation and implementation of area plans for nationally and regionally significant locations. The committees should comprise representatives from key local stakeholders.	WestCycle, WAMBA, Local Mountain Bike Bodies, DBCA, DLGSC, Experience Perth, PDC, SWALSC, Local Government, Other Government Agencies and Land Owners/Managers	Short
12	Establish new roles to project manage trail developments, reporting to the Perth Peel Reference Group.	WestCycle, DBCA, DLGSC	Short
13	Develop or adopt a volunteer program to assist in the ongoing management of trails across tenures, involving local mountain bike bodies. Formalise roles and responsibilities and ensure the program is accessible, well promoted, coordinated and adequately resourced.	WestCycle, DBCA, Other Land Owners/Managers, Local Mountain Bike Bodies	Short
14	Undertake ongoing advocacy with stakeholders to realise high priority, longer term projects, which do not have current support or resources.	WestCycle	Short
15	Install single standard research tools and data collection devices at all existing and new locations to create a database to aid in management and future planning. Develop or improve an existing system for collecting tourism visitation data.	DBCA, Other Land Owners/Managers	Short
16	Conduct an annual review of the PPMP recommendations to monitor progress and ensure outcomes are achieved and carry out a complete review of the Master Plan within 10 years.	WestCycle	Medium – Long

Table 14: Governance and Management Recommendations

### RECOMMENDED GOVERNANCE HIERARCHY

The recommended governance hierarchy is similar to the South West Mountain Bike Master Plan (WestCycle, 2015) steering committee and reference group roles for the duration of the planning process, with additional positions in the future which would manage the project body and working groups.

committee and reference group roles for the duration of the planning process, with additional positions in the future which would manage the project body and working groups.

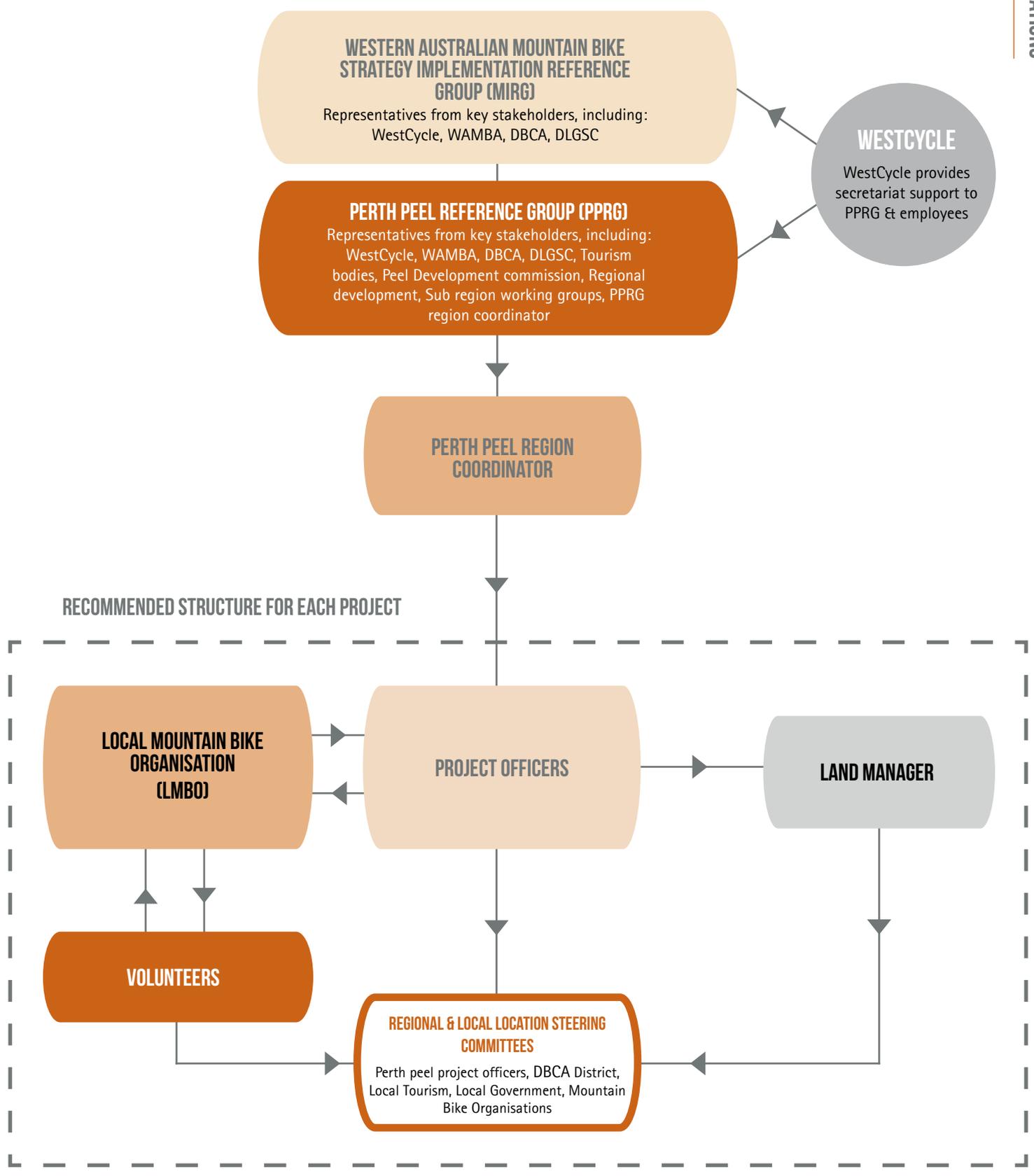


Figure 12: Governance Hierarchy

## SUSTAINABLE EVENT DEVELOPMENT

Events assist in building location awareness, however in isolation they do not develop a location. Events can provide considerable economic benefit to the local communities in which they are hosted.

With the implementation of this Master Plan, and development of at least 570km of new mountain bike trails, there will be a multitude of opportunities to create new events, improve existing events and support the development of the high performance environment. These opportunities will be of interest to the mountain bike bodies currently running them, as well as existing and emerging private event promoters in the market. It will be important to manage the increase in competition in the events market, and to grow it sustainably.

The Master Plan has identified the locations that are most suitable for focussed investment due to their potential for hosting events. Where possible and appropriate these priority locations should cater for a variety of event types, including the development of event specific facilities and infrastructure.

To host national and international level events in WA, it will be important to build and maintain good relationships with the national and international bodies for mountain biking and cycling. A single organisation should be the conduit between these bodies and the relevant WA stakeholders, which should also be considered in the governance hierarchy.

	SUSTAINABLE EVENT DEVELOPMENT RECOMMENDATIONS	MAJOR STAKEHOLDERS	TIMEFRAME
17	Support and review the value of existing events, and provide event infrastructure to enhance their ongoing value.	WestCycle, Event Promoters, Mountain Bike Bodies, WAMBA	Short
18	Ensure priority locations identified with high potential for hosting events consider the requirements for event infrastructure and sustainable revenuebased models for hosting events.	DBCA, Other Land Owners/Managers, Event Promoters, Mountain Bike Bodies, WAMBA, WestCycle	Short
19	Work with race orientated clubs, event promoters, land managers, local governments and MTBA to secure a range of national series events within the project area for a period of at least three years and a high profile international event within 10 years.	WestCycle, Mountain Bike Bodies, WAMBA, MTBA, LGAs	Short
20	Develop a website showcasing events in the project area.	WestCycle, WAMBA, Event Promoters, Mountain Bike Bodies	Medium
21	Develop a fee structure in consultation with event organisers for hosting events, with proceeds going toward the ongoing management and improvement of the facility.	DBCA, Other Land Owners/Managers, Event Promoters, Mountain Bike Bodies, WAMBA	Medium
22	Deliver at least one venue with trails, facilities and associated infrastructure capable of staging UCI sanctioned national and international mountain bike events.	DBCA, LGAs, Mountain Bike Bodies, Event Promoters	Long
23	Assess existing facilities for potential improvements to meet event requirements as a part of any redevelopment.	DBCA, Mountain Bike Bodies, Event Promoters	Ongoing
24	Where appropriate, encourage the creation of new events with consideration being given to the potential impacts on established events and recreation participation.	WestCycle	Ongoing

Table 15: Event Development Recommendations

## PROMOTION DEVELOPMENT

Promotion is closely linked with the ongoing governance and management of trail development. It is important to ensure promotion of mountain biking experiences is appropriate to the level of development and the intended markets. On an ongoing basis, it will be

important to maintain up to date, accurate trail information to ensure good communication with and accessibility for users. The recommendations regarding promotion should be considered by the PPRG, ensuring all stakeholders are identified and understand roles and responsibilities.

	PROMOTION DEVELOPMENT RECOMMENDATIONS	MAJOR STAKEHOLDERS	TIMEFRAME
25	Develop a cohesive, hierarchical marketing and promotion strategy that establishes the mountain bike brand and identifies promotional opportunities through partnerships with Experience Perth, MAPTO and Tourism WA, and targets mountain bike trail products to intrastate, interstate and international markets.	WestCycle, DBCA, LGAs, Tourism WA, Experience Perth, MAPTO	Short
26	Facilitate the inclusion of trail information on Trails WA and links to other prominent online resources for national and regional locations, including but not limited to, local government websites, tourist information centres.	Trails WA, WestCycle, Tourism WA, LGAs	Short
27	Promote mountain biking as an affordable and accessible recreational activity through local governments surrounding all priority locations.	WestCycle, LGAs	Short
28	Collaborate with Tourism WA and Tourism Research Australia to conduct research into cycle tourism in WA, focusing on interstate and international visitation and economic impacts from mountain biking.	WestCycle, Tourism WA, Tourism Research Australia	Short
29	Develop a regionally consistent approach to signage, including adequate directional signage from roads.	DBCA, Other Land Owners/ Manager, Tourism WA, Experience Perth, MAPTO	Medium
30	Develop a world class mountain biking destination brand for WA	WestCycle, Tourism WA	Medium

Table 16: Promotion Development Recommendations

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## ACRONYMS

AM	All mountain (trail type)
AMTB	Adaptive mountain bike (trail type)
BL	Black diamond (trail difficulty classification)
BU	Blue square (trail difficulty classification)
CAC	Regional Parks Community Advisory Committee
CALM	Conservation and Land Management (Superseded by Biodiversity, Conservation and Attractions)
CX	Cyclocross
DAA	Department of Aboriginal Affairs
DB	Double black diamond (trail difficulty classification)
DH	Downhill (trail type)
DoLA	Department of Land Association
DoW	Department of Water
DRA	Disease Risk Area
DLGSC	Department of Local Government, Sport and Cultural Industries
DPAW	Department of Parks and Wildlife
EN	Enthusiast (mountain bike rider type)
FPC	Forest Products Commission
FR	Freeride (trail type)
GN	Green circle (trail difficulty classification)
GR	Gravity (mountain bike rider type)
IMBA	International Mountain Bike Association
KMBC	Kalamunda Mountain Bike Collective
IN	Independent (mountain bike rider type)
LGA	Local Government Authority
LS	Leisure (mountain bike rider type)
MAPTO	Mandurah and Peel Tourism Association
MBTF	Munda Bidli Trail Foundation
MTBA	Mountain Bike Australia
NRW	Natural Resources Wales
NTWA	National Trust of WA
DBCA	Department of Biodiversity, Conservation and Attractions (Formerly Department of Parks and Wildlife, Botanic Gardens and Parks Authority and Rottnest Island Authority)
PDC	Peel Development Commission
PDMBC	Peel District Mountain Bike Club
PDWSA	Public Drinking Water Source Area
PK	Park (trail type)
PMBC	Perth Mountain Bike Club
PPMP	Perth Peel Master Plan
PPRG	Perth Peel Reference Group
RPZ	Reservoir Protection Zone
SoM	Shire of Mundaring
SoK	Shire of Kalamunda
SP	Sport (mountain bike rider type)
SSC	State Supply Commission
SWALSC	South West Aboriginal Land and Sea Council
TO	Touring (trail type)
ToK	Town of Kwinana
UCL	Unallocated Crown Land
UCI	Union Cycliste Internationale
UWPCA	Underground Water Pollution Control Area
WAMBA	West Australian Mountain Bike Association
WAMTBMG	Western Australian Mountain Bike Management Guidelines
WAPC	Western Australian Planning Commission
WH	White circle (trail difficulty classification)
WHPZ	Wellhead Protection Zone
XC	Cross country (trail type)

## APPENDIX 1 PROJECT BRIEF & METHODOLOGY

### PROJECT BRIEF

The project brief sought to address a number of issues relevant to the future of mountain biking in the Perth and Peel regions, including:

- Establish an inventory of all sanctioned and unsanctioned mountain bike trails, facilities and associated infrastructure
- Identify the styles, difficulty classifications and locations of mountain bike trails and facilities that are needed and/or desired and what associated infrastructure is required
- Identify the demand for recreational and competitive events and what associated infrastructure is required at potential event locations
- Determine opportunities, sensitivities and constraints for the development of mountain bike trails, facilities, events and associated infrastructure
- Identify locations where mountain bike trails and facilities could be developed, including potential event locations
- Determine priorities for mountain bike trail, facility, event and associated infrastructure development
- Outline the roles and responsibilities of key stakeholders in the marketing and promotion of mountain bike experiences and opportunities
- Outline the roles and responsibilities of key stakeholders in governance and in the ongoing management, implementation and monitoring of the Master Plan.

### PROJECT METHODOLOGY

To fulfil the project brief and objectives identified by the steering committee, the following steps were undertaken:

#### Project Definition

In consultation with the steering committee, identify the project's visions, underlying philosophy, goals and aspirations. Relevant facilities both nationally and internationally were benchmarked for their characteristics, and relevant literature was reviewed.

#### Stakeholder and Community Consultation

Contacted and undertook meetings and workshops with mountain bike bodies and DBCA, local government agencies, tourism organisations, other land managers and stakeholders to gain an understanding of existing trail networks, aspirations, partnerships and opportunities.

#### Trails Audit & Detailed Gap Analysis

Performed an on-ground audit of existing trails and potential locations, including assessment of associated infrastructure and marketing. Assessment of statistics on existing use and potential demand for trails that cater for the varied disciplines and ability. Assessment of demand for mountain bike events and infrastructure and resources required at locations used for racing.

#### Constraint Definition, Opportunity Planning

Identified and assessed the region's opportunities and constraints including potential facilities, existing trail networks and social, cultural, environmental and physical constraints.

#### Preliminary Findings Report & Review

Preparation and presentation of preliminary findings report identifying constraints, opportunities and proposed facility

locations to steering committee. Report workshopped by steering committee.

#### Multi-Criteria Analysis

Developed Multi-Criteria Analysis framework and assessed identified opportunities. Determined the location significance hierarchy and priorities for development. Recommended hierarchies and prioritised trail development projects in the regions.

#### Strategic Framework for Marketing, Promotion and Governance

Identified strategies for governance, marketing, promotion and events. Developed governance hierarchy detailing the relationships between stakeholders.

#### Master Plan Review & Handover

Drafted documentation, targeted review and final documentation and distribution of Master Plan.

## APPENDIX 2 GENERAL TRAIL PLANNING PRINCIPLES

The information provided here is an overview of the terminology and principles used in the planning, design and construction of mountain bike facilities and is a summarised version of what can be found in the State Strategy and Draft WAMTBMG.

### SUSTAINABLE TRAIL DEVELOPMENT PRINCIPLES

#### ENVIRONMENTAL PROTECTION AND REHABILITATION

Every visit to the bush causes an environmental impact. Construction and use of mountain bike trails is no exception. The challenge for land managers is balancing the environmental impact while helping people maintain a connection with nature.

Mountain biking is inherently a nature-based activity and protection of environmental values is essential for delivering enjoyable trail experiences. Mountain biking is an increasingly popular and enjoyable way to access, explore and appreciate nature, which can result in less user impact, e.g. from littering or user built unsanctioned trails. In close proximity to urban environments, this is particularly important.

Mountain bike trails have a similar impact on flora, fauna and ecological communities to walking trails. Mountain bikers seek narrow trails (1 m or less) and the impact of trail development is significantly less than clearing for access tracks and fire breaks. Disturbance and impacts on important, rare and protected flora, fauna and ecological communities are mitigated through a stringent planning, design and construction process that includes multiple environmental assessments and reviews. This rigorous process results in sustainable trails in appropriate locations. Uncontrolled access by mountain bikes, either through inappropriate use of walk trails or unauthorised building of trails, jumps or structures has serious and sometimes irreversible impacts on these values. Unauthorised, or unsanctioned, building sets a poor example of responsible stewardship of public lands and does not consider a comprehensive planning process to ensure environmental impacts are minimised through developing a trail.

Rationalising and upgrading existing unsanctioned trails can successfully control access through careful planning, design and construction strategies. The Draft WAMTBMG have been developed to combine best practice trail development and management from around the world to guide the sustainable development and management of mountain bike trails in WA.

### ENVIRONMENTAL DEGRADATION FROM POORLY DESIGNED TRAILS

Approximately 75% of the existing trails used by mountain bikers in the Perth and Peel region are unsanctioned or informal. These comprise fire management access tracks, walk tracks and informal user-created trails. These trails have not been formally planned or designed nor has their construction been in accordance with best practice. None of the unsanctioned trails have been formally assessed for their sustainability or suitability for use by mountain bikers.

The increased demand for trails in Perth and Peel region will lead to greater intensity of usage, and further degradation of the trails and impacts on the surrounding natural environment.

The potential long term impacts created by these trails include:

- Erosion and soil displacement along steep gradient trails that are sloped along the fall-line. Continued use of these trails can create deep ruts, which increase the rate of erosion and create hazards for trail users.
- Widening can occur where poor drainage has caused water to pool on the trail surface, and trail users have avoided travelling through the water. Widening causes the trail to encroach on surrounding vegetation.
- When the alignment of a trail has not been properly designed, or passes over undesirable obstacles such as rocks or tree roots, users may create their own alternative lines or shortcuts, called 'desire lines'. The creation of multiple desire lines can result in trail widening and significant impact on surrounding vegetation.
- Structures that are constructed from unsuitable or old materials can deteriorate over time creating the potential for serious injury to users, and risk to the environment. Poorly built structures can also impact negatively on the aesthetic value of the surrounding natural environment.
- Where trails exist without appropriate facilities, users may seek privacy and relieve themselves in areas of sensitive vegetation that cannot sustain damage from shoes or human waste. Seeds from invasive plants can also be introduced by dirt carried on shoes and bike tyres. The inadvertent discovery of such locations can also be an unpleasant experience for other trail users.
- Lack of signage can lead to risk management issues, such as potential injury to individual users and conflict between users. Visitor safety may be compromised without clear understanding and communication of trail etiquette, especially at intersections and on narrow singletrack with tight corners.
- Fire management can be difficult if the whereabouts of users is unknown. Land managers typically communicate planned fire management activities via formal communication media to user groups who use sanctioned trails in those areas. Damage caused to sanctioned trails by unplanned bushfires can typically be repaired under insurance arrangements.

For the reasons listed above, it is important that proper planning, design and construction processes are implemented to prevent further construction and usage of poorly designed trail.

### PREVENTION OF ENVIRONMENTAL IMPACT THROUGH IMPLEMENTING THE WESTERN AUSTRALIAN MOUNTAIN BIKE MANAGEMENT GUIDELINES

The formal planning, design and construction processes prescribed in the Guidelines are designed to prevent and minimise environmental impacts from mountain bike trail development. The Guidelines advise on:

- Compatibility with land tenure; depending on the purpose and value of a reserve type, some types of mountain biking activities may be conditionally compatible or incompatible
- Permit requirements for clearing of vegetation for the construction of mountain bike trails as per Australian environmental protection legislation
- Detailed site assessments and surveys required to identify environmental constraints, such as sensitive or poorly represented vegetation, threatened fauna and habitats, and Aboriginal heritage sites
- Consultation practices to identify or better understand constraints
- Mapping and detailed documentation standards and level of detail to be used in consultation and to obtain approvals and permits
- Appropriate drainage design to remove water from trails effectively
- Design methods to ensure a high quality user experience to keep users on the trail alignment
- Appropriate construction techniques to minimise impacts during construction and to ensure trails in unstable areas are adequately supported

### EVENT REQUIREMENTS

There are specific event requirements to cater for mountain bike racing. All styles of mountain bike racing require particular infrastructure design. Of particular importance is the need for trail networks to be designed to cater for different racing formats.

Consideration should also be given to the need for group starting areas, event villages, overflow parking, spectator viewing, and provision of essential services such as power and water. Typically, if planned for, these event requirements can form part of the facility development with minimal additional investment, however if not planned for, the ability to cater for events can be severely restricted.

Mountain Bike Australia (MTBA) sets and maintains the regulations (MTBA, 2011) for club, state and national level mountain biking events. The Union Cycliste Internationale (UCI) is the world governing body for cycling competition, and oversees all international cycling races, including the World Cup Series, World Championships and the Olympic Program. The UCI sets and maintains the rules and regulations for all cycling disciplines.

The capacity of the Perth and Peel region to hold UCI sanctioned events has been reviewed broadly in this Master Plan. In line with

the objective of this Master Plan and the State Strategy, sites suitable for international events have been identified. However, the viability of holding an event at the site would be subject to further detailed review of a number of factors, such as market demand, capacity of event organisation to run event, and host city visitor amenities.

### EVENT VENUE REQUIREMENTS

For state level events, riders should expect a higher level of competition than for local club-run races. By aspiring to provide facilities suitable for national level events, state level events should benefit from these facilities.

National event venues are generally considered with regards to:

- Preferably within 90 minutes' drive of a major airport, sufficient access to car hire services and easy access for freight deliveries.
- Wide range of accommodation options located at or near the venue (min. 1000 beds).
- Attractive accommodation, travel and service to riders and teams.
- Wide range of visitor services and facilities at venue location (supermarket, restaurants, take away food, tourist services, medical services, garages, chemists and bike stores).
- On site venue facilities must include mains or generator power, adequate parking, bike wash, close access to running water or tank, public toilets, internet coverage and a village area.
- On site venue services and additional benefits must include access to office accommodation or close and economical supply of site sheds, hire companies, bus and driver rentals, crowd control fencing, security services, parking, first aid and medical services, timing, public toilets, fire and emergency service and State Emergency Service nearby.
- Venue should be family friendly and include village activities.
- Local mountain bike club located at the venue location.
- Local hospital within a 30-minute drive.
- Event layout as per MTBA / UCI guidelines.
- Shuttle uplift service for downhill races.

### ADAPTIVE MOUNTAIN BIKING

In order to promote mountain biking as an inclusive sport, where there is demand, events must cater for riders of all abilities, including those with mobility challenges who require modified or specialised riding equipment to participate, such as hand cycles. In Australia (particularly WA), there is an emerging group of people who use off-road hand cycles (or mountain trikes) to participate in mountain biking events. Other adaptive off-road cycles identified in the Perth-Peel Region include tandem bikes and leg-powered trikes.

To improve accessibility of events for those who wish to use adaptive cycles, the following considerations should be taken into account by the event organiser:

Suitable trail selection for continuous flow of adaptive riders,

- Minor trail modifications or additions such as B-lines
- Suitable distances for adaptive rider safety and enjoyment
- Including adaptive categories with other categories where possible
- Different average speeds compared to bike riders
- Allowances for electric assist for open adaptive categories
- Need for carer and or personal assistance during an event

- Registration concessions for adaptive riders and any support riders
- Maximising the independence of adaptive riders while decreasing reliance on support riders
- Alternative and clear signage for any course detours
- Facilities for competitors and spectators with mobility challenges, including accessible toilets, access ways and parking

## APPENDIX 3 MCA FRAMEWORK

### OPPORTUNITY

A location's opportunity identifies the capacity, accessibility and uniqueness of a location's potential. Opportunity reviews aspirational development of trails within the location and should guide the investment of resources into unique riding environments within the region. Each identified location was assessed on the following opportunity criteria.

**Connectivity** assessed the location's immediate existing and predicted population catchment pool, proximity to Perth City Centre or Mandurah (hours driving from closest), proximity to Main Roads Primary Distributor, proximity to major public transport, Munda Biddi access, proximity to existing or proposed WA Bicycle Network, available short stay accommodation types, proximity to population centre with tourism services (accommodation, fuel, food), nature and extent of road access to site, existing infrastructure.

**Value** assessed the nature, character, landscape condition, Aboriginal heritage, topography, landform, vegetation, water form and soil types.

**Scope** assessed the location's scale of land available, scale of individual land parcels (unbroken by sealed roads), types of land ownership, trail type compatibility, existing services and facilities, existing tourism market, capacity to host National and International events, and alternate recreation and activities.

**Profile** assessed the location's engaged mountain bike business and tourism operators (stores, tours etc.), existing events (local, regional, national), extent of unsanctioned trail, landmark locations, compatible local character, sub region priority from user survey, sub region predicted demand from user survey, location priority from user survey and location existing demand from user survey.

### OPPORTUNITY RATING

Each of the criteria achieved a percentage rating on the assessment framework and the overall averaged percentage set the location's opportunity rating. Locations were identified as having excellent, good or average opportunity. The benchmark for excellent opportunity was above 70%, the benchmark for good opportunity was above 60%, and the benchmark for average opportunity was above 50%.

Excellent Opportunity locations possess a significant range of tenures available for development, have good access and are within close proximity to tourism services, existing infrastructure and public transport. The high value and quality of the landscape offers a very unique environment for trail development.

Good opportunity locations possess multiple tenures available for

development, have reasonable access and are within proximity to tourism services, existing infrastructure and public transport. The moderate value and quality of the landscape may offer some unique environment for trail development.

Average Opportunity locations possess some tenure available for development, which may have average access and may not be within close proximity to tourism services, existing infrastructure and public transport. The value and quality of the landscape may not offer a unique environment for trail development.

### DELIVERABILITY

A location's deliverability defines the timeframe for the development of a location. Each identified location was assessed on the following deliverability criteria.

Supply assessed the legality of existing trails, scale of existing sanctioned trail network, nature and effectiveness of existing trails, existing facilities for trail centre or trail town, existing services for users, existing parking (scale) and opportunity for improved facilities and infrastructure.

Management assessed the existing governing body (management, maintenance, funding, marketing), existing overarching trails advisory, cultural integration and community support, revenue based management model, state planning support, local planning support and private support.

Planning assessed the compatible land use to existing Management Plans, compatible to existing recreation, Master or Strategic Planning, Public Drinking Water Source Area (DoW Policy 13) Constraints, Disease Risk Area (DRA) constraints, and local flora and fauna constraints.

Land Use assessed the intensity of land use, neighbouring landowners, need to manage impact and existing mountain bike activities and intensity of existing recreational use.

Each of these criteria achieved a percentage rating on the assessment framework and the overall averaged percentage set the location's deliverability rating. Locations were identified as having short, medium or long-term deliverability. The benchmark for short-term deliverability was above 70%, the benchmark for medium-term deliverability was above 60%, and long-term deliverability achieved under 60%.

### DELIVERABILITY RATING

The significance of the deliverability ratings are:

Short Term deliverability locations are capable of being developed within a zero to four-year period.

Medium Term deliverability locations are capable of being developed within a four to seven-year period.

Long Term deliverability locations are capable of being developed within a seven to ten-year period.

Location deliverability guides the timeframe of stakeholder and community group investment in trail development. It also guides each location's priority which sets the recommended timelines for development.

### PRIORITY

In order to identify the overall priorities for Perth and Peel the opportunity and deliverability categories were reviewed. The

significance of the priority ratings are:

High priority locations offer the most significant opportunity and immediate deliverability and should be the focus of initial resource investment and development. Initial delivery of this Master Plan should be focused on developing these locations. Generally high priority locations should be fully developed within a four-year timeframe.

Moderate priority locations offer good opportunity and deliverability and resource investment is recommended to assist development following high priority locations. Generally moderate priority locations should be fully developed within a ten-year timeframe.

Low priority locations offer limited opportunity and deliverability, and resource investment to assist development are not recommended to be relied upon. Generally low priority locations are not recommended to be developed during the ten-year lifespan on the plan.

The deliverability category is utilised to rank the priority of the three priority sub categories. A moderate priority short-term location is a higher priority than a moderate priority medium-term location, irrespective of the opportunity percentage score. This ensures locations with stronger management model criteria such as existing demand, and stakeholder and planning support are developed as a priority.

Some locations with good opportunity are not prioritised for development due to having long-term deliverability. These locations still offer significant opportunity and should the constraints that resulted in the lower deliverability rating be resolved they could be developed to realise the opportunity.

A location's priority guides state and federal investment in mountain bike trail development within Perth and Peel. In order to establish the region as a renowned destination it is important that funding and development is prioritised on high priority locations, developing national and regional locations to their minimum scale of development prior to developing moderate priority locations. This strategy will establish the region's reputation through the promotion of core experiences and will encourage future resource investment.

## APPENDIX 4 CASE STUDIES

The following case studies include details of world class trail products, including their models, ownership and management, visitation and economic impact.

CASE STUDY	MOAB, UTAH, USA	COED Y BRENIN, WALES
TRAIL MODEL	TRAIL TOWN	TRAIL CENTRE
Services	<ul style="list-style-type: none"> <li>• Range of natural, cultural and manmade attractions.</li> <li>• Variety of accommodation available from camping to motels, hotels, bed and breakfasts and resorts, across all price points.</li> <li>• Vehicle rental, shuttle uplifts and taxi services.</li> <li>• 4 key trailheads, each within 20km of town.</li> <li>• Car parking.</li> <li>• Trail information at town visitor centre.</li> <li>• Retail shops and equipment hire.</li> <li>• Access to networks and iconic individual trails.</li> <li>• Secondary trailheads in the township provide access to other trail opportunities.</li> <li>• Minimal signage and way marking.</li> <li>• Flexible networks.</li> <li>• Maps, guidebooks and guides available in town's visitor centre.</li> <li>• Some prescribed linear and looped hiking trails at key iconic locations and landmarks, associated with trailhead parking, trail information and toilets.</li> </ul>	<ul style="list-style-type: none"> <li>• Trail centre located in Snowdonia National Park, 13km north of Dolgellau in Northern Wales.</li> <li>• Visitor centre.</li> <li>• Trail head supports, manages and enhances mountain bikers' visits.</li> <li>• Trailhead provides important hub for mountain bikers to 'hang out' with like-minded people before and after rides.</li> <li>• Good quality café and facilities for non-mountain bikers, such as a children's play area and all ability trail.</li> <li>• Car parking for up to 200 cars with overspill for an additional 60.</li> <li>• Trail information.</li> <li>• Bike shop and hire.</li> <li>• Toilets.</li> <li>• Coin operated showers.</li> <li>• Coin operated bike wash.</li> <li>• Commercially operated high ropes course (Go Ape).</li> </ul>
Market	<ul style="list-style-type: none"> <li>• Local population of Moab: 5,130.</li> <li>• Estimated population within 200km of Moab: 370,659.</li> <li>• Short break and day visit tourism market.</li> <li>• International holiday visitors.</li> </ul>	<ul style="list-style-type: none"> <li>• Extensive, flexible system of trails makes it attractive for weekend visitors.</li> <li>• Small local market, due to location.</li> <li>• Developed to provide a marketable product to the mountain bike market.</li> </ul>
User Types	<ul style="list-style-type: none"> <li>• Caters for mountain bikers, hikers, four wheel drivers, canoeists, kayakers, rafters.</li> <li>• Includes 450km mountain bike trail.</li> <li>• Includes seven prescribed walking trails between 1 and 5km with elevation gains between 73m in 3km and 300m in 3km.</li> <li>• Un-prescribed nature of majority of trails makes it necessary for prospective trail users to access trail information from a centre location, provided by the visitor centre.</li> </ul>	<ul style="list-style-type: none"> <li>• Caters for a range of users including walkers, trail runners, mountain bikers and general family day use.</li> <li>• The mountain bike trails are based around a visitor centre with a trail network consisting of 8 loops ranging from 5km to 38km.</li> <li>• Site includes a number of walk and running trails of varying lengths and degrees of difficulty including an all ability trail.</li> </ul>

## STROMLO FOREST PARK, ACT, AUSTRALIA

## AUSTRALIAN ALPINE EPIC, MT BULLER, VICTORIA, AUSTRALIA

## NORTH EASTERN REGION OF TASMANIA

### TRAIL NETWORK

- Purpose built event pavilion.
- Toilets.
- Parking.
- Trail information at trail head.
- During major events, temporary facilities are brought in such as food and merchandising vendors, spectator seating and tent accommodation.

### LONG DISTANCE LINEAR TRAIL

- Located at the Mount Buller Ski Resort, Victoria, approximately 300km north east of Melbourne.
- Visitor facilities are centred upon the Mt Buller Alpine Village, where the following are available:
  - Trail information
  - Car parking
  - Chairlift-assisted & shuttle uplift gravity tracks
  - Clinics, tours and camps
  - Bike friendly accommodation
  - Alpine Village with rental and retail stores and food and drink outlets
  - A shuttle uplift service operates mainly on weekends to provide transport for people and bikes to the summit of Mt Buller

### MOUNTAIN BIKE TRAIL DESTINATION

- Located in North Eastern Tasmania.
- Three trail network totalling approximately 90km of world class, purpose built singletrack mountain bike trails and associated infrastructure, signage and ancillary facilities, such as bike wash stations.
- Already an established tourism and destination for outdoor enthusiasts, there are a number of attractions and visitor amenities in place.

- Local recreation market.
- Intrastate, interstate and international visitors for major events.

- All tourism markets.

- Local day trip, as well as the short stay and holiday intrastate and interstate markets.

- Caters for mountain bikers, BMX riders, road cyclists, horse riders, runners and walkers.

#### Includes:

- 1.2km road cycling criterium circuit.
- 2.5km grass cross country running track.
- Network of equestrian trails.
- Over 40km of mountain bike trails suitable for riders of all abilities.

- IMBA awarded Mt Buller 'IMBA Ride Centre' status in 2012, which identifies it as a world class mountain bike facility that offers something to suit all types and levels of riders.
- Alpine Epic Trail is a long-distance cross country linear trail, which provides a half day to full day 56km ride through stunning backcountry alpine land, featuring water falls, remote huts and lookouts with spectacular views, as well as cafes and toilet facilities.

- Caters for all types of mountain bike riders.

CASE STUDY	MOAB, UTAH, USA	COED Y BRENNIN, WALES
TRAIL MODEL	TRAIL TOWN	TRAIL CENTRE
Revenue Generation and Economic Impact	<ul style="list-style-type: none"> <li>• No accurate data on visitor numbers or trail usage available.</li> <li>• Assessment of economic impacts of trails based tourism has been assessed as part of larger 2007 survey (Headwaters Economics, March 2015) looking at the value of public lands to the Grand County Economy.</li> <li>• Non-local visitors who reported their primary activity was mountain biking (13.5% of those interviewed) contributed more than \$8.4 million in labour income and stimulated 312 local jobs.</li> <li>• More than one third of families have a member that works in a tourism and recreation business.</li> <li>• Nearly two thirds of local residents indicated that public lands are 'extremely important' to their businesses.</li> <li>• Annual state and local tax impacts of non-local recreation visitation are estimated at nearly \$11 million (United States Department of The Interior, Bureau of Land Management, February 2012).</li> </ul>	<ul style="list-style-type: none"> <li>• Record visitation, bike visitation in 2014 (96,778 visits) up 248% from 2005 (38,901 visits).</li> <li>• Reflects trend of record visitation across all mountain bike trail sites managed by National Resources Wales (NRW), with increase of 205% from 166,590 in 2005 to 341,684 in 2014. This can be attributed to an increase in mountain bike market participation as well as a significant increase in product developed by NRW.</li> </ul> <p>The 2014 Coed y Brenin Quality of Visitor Experience Survey and Evaluation of Eryri Centre of Excellence identify that:</p> <ul style="list-style-type: none"> <li>• 72% of visitors come from outside Wales, mainly from England (68%). Of those who were visiting from Wales only 21% were from the north Wales region.</li> <li>• 67% of visitors were overnight visitors and 66% of visitors were repeat visitors.</li> <li>• Average group size 3.3 people.</li> <li>• Length of time on site averaged at 3 hours and 35 minutes.</li> <li>• Activities undertaken on site included cycling (72%), walking (34%), and using café (57%).</li> <li>• 94% of visitors spent money on site with an average of £31.15 (approx. AUD55).</li> <li>• Average trip spend for all visitors (taking into account daily spend by day visitors and overnight visitors) £237 (approx. AUD417).</li> <li>• 67% (22,388) of visitors overnight visitors.</li> <li>• Average length of stay in the area 2 nights.</li> <li>• Average spend per head per day of overnight visitors £101 (approx. AUD178).</li> <li>• Estimated spend in area by overnight visitors £4,522,376 (approx. AUD7,962,540) (2014).</li> <li>• Average spend for all visitors (taking into account daily spend by day visitors and overnight visitors) £237 (approx. AUD418).</li> <li>• Estimated total visitor spend in the area - £33.55 million (approx. AUD59 million) per annum.</li> </ul>

## STROMLO FOREST PARK, ACT, AUSTRALIA

## AUSTRALIAN ALPINE EPIC, MT BULLER, VICTORIA, AUSTRALIA

## NORTH EASTERN REGION OF TASMANIA

### TRAIL NETWORK

- The recently updated Master Plan aims to create a wide range of opportunities to attract private investment in the park, based on the success of such facilities in New Zealand and Canada.
- Additions in the coming years (pending funding) include a new pool, tourist accommodation, enclosed oval, district playing fields, a 12km road cycling circuit and extension of the criterium track and adventure gravity sport facility (such as luge, flying fox, para-gliding).

### LONG DISTANCE LINEAR TRAIL

- In summer 2014-15, Mt Buller received just over 89,000 visitors, a 10% increase from 2013-14. Mountain bike trail usage, measured by trail counters on key trails, has increased by 26% in the same period, indicating that growth in general summer resort visitation is largely attributed to recreational and competitive mountain biking.
- While the resort has a strong branding and marketing focus, it has not resulted in extremely high overall levels of visitation for mountain biking. This may be attributed to gaps in provision of beginner trail suitable for less experienced riders and families, and The IMBA Epic trail not being completed to its full scale. The visitor experience may result in less desire to return or to recommend to others, which is otherwise a powerful marketing tool.
- Mt Buller hosts a number of mountain bike events each summer, which are good examples of collaboration with sponsors. There has been significant growth in the number of retail and accommodation providers involved in mountain bike events hosted by Mt Buller.
- Resort management recognises the value of mountain bike trails as part of their strategic management plan, and are subsequently investing in their ongoing promotion and development to create a sustainable summer destination. While entry is currently free to the resort during summer, the resort is not currently self-sustaining through summer, and the potential for entry fees is under investigation by resort management.

### MOUNTAIN BIKE TRAIL DESTINATION

- Stimulate new activity for the economy, to assist with transition of the regional economy through targeted investment using the region's natural resources.
- Assist regional communities to achieve economic growth.
- Councils significantly impacted by downturn in Tasmania's forestry industry employment.
- Expected to create new economic activity in recreational activities and eco-tourism.
- Expected to address social disadvantage.
- Market research was undertaken as part of business case development, including cost/benefit analysis and infrastructure investment and projected returns. It was forecast that the region would attract an additional \$12 million of expenditure across Tasmania as a result of 4000 visitors to the trail network by 2018.

CASE STUDY	MOAB, UTAH, USA	COED Y BRENIN, WALES
TRAIL MODEL	TRAIL TOWN	TRAIL CENTRE
Development and Management Models	<ul style="list-style-type: none"> <li>• 87% land surrounding Moab is publicly owned by either Bureau of Land Management (BLM), National Parks Service or Forest Service.</li> <li>• Trail product associated with Moab is entirely within public lands and one of the three federal bodies own and manage the trails.</li> <li>• Development of trails has been organic over time, combining jeep trails, game trails, paths, informally developed singletrack trails and purpose built trails.</li> <li>• Considered a social network of mountain bike and hiking trails.</li> <li>• Promotion of trails online via <a href="http://www.discovermoab.com">www.discovermoab.com</a>.</li> </ul>	<ul style="list-style-type: none"> <li>• First example of the trail centre model in the world.</li> <li>• Owned and operated by Natural Resources Wales (NRW).</li> <li>• One of eight trail centres in Wales.</li> <li>• One of over 50 trail centres in the UK.</li> <li>• Developed to provide a marketable product to the mountain bike market.</li> <li>• NRW runs all trail centre facilities, apart from the bike hire, bike shop and high ropes course, which are let out to private operators.</li> <li>• Two employees manage the recreational facilities and an additional two employees manage the forest area, including trail management.</li> <li>• Most maintenance work is contracted out, at a cost of 80,000 / year (approx. AUD141,000).</li> </ul>

## STROMLO FOREST PARK, ACT, AUSTRALIA

### TRAIL NETWORK

- Owned and operated by the ACT Government.
- Vision of updated Master Plan is to evolve the park into a specialist centre for recreational and professional sports in Canberra.

## AUSTRALIAN ALPINE EPIC, MT BULLER, VICTORIA, AUSTRALIA

### LONG DISTANCE LINEAR TRAIL

- Over a period of 7 years from 2007, Mount Buller Resort Management invested nearly \$2 million on the development of over 120km of cross country trails (60km of singletrack) and a dedicated gravity network.
- The first and only destination in Australia to achieve IMBA Ride Centre status.
- Resort management recognized the need to diversify the resort's bike offerings to maintain its position as a mountain bike market leader, and in 2014 launched the Australian Alpine Epic trail.
- Mount Buller Resort Management has developed and promoted its summer product through the branding Bike Buller and Mt Buller Bike Park to increase visitation to the resort, hosting major events such as the annual Australian Mountain Bike Summit in 2014–2016. The summit provides a forum for specialists worldwide to network and collaborate.
- The trails are maintained by a combination of companies. The downhill mountain biking trails, serviced by the Northside Express Chairlift, are operated by Buller Ski Lifts (BSL). Trails are maintained by BSL and a team of volunteers. The cross country trails are constructed and maintained by Mt Buller Mt Stirling Resort Management.

## NORTH EASTERN REGION OF TASMANIA

### MOUNTAIN BIKE TRAIL DESTINATION

- Development and management models.
- Partnership between three local government areas (Dorset Council – lead applicant, Launceston City Council, Break O'Day Council) and Northern Tasmania Development, Tourism Northern Tasmania and East Coast, Tourism Tasmania, Forestry Tasmania, Natural Resource Management (NRM) and Local Government, Sport and Cultural Industries Tasmania (Tasmanian Government Agency).
- Trail concepts under development since 2007.
- Concept of mountain bike tourism proposed in 2012, supported by numerous regional studies.
- Trail locations were assessed, and Hollybank, Blue Tier and Cascade Forest (Derby) were decided upon.

## APPENDIX 5 PRODUCT SUPPLY

### SANCTIONED TRAILS INVENTORY

#### TRAIL NETWORKS

The Kalamunda Mountain Bike Trail Network is a network of over 40km of singletrack trail, located near Kalamunda township. Having been developed in an ad hoc manner over many years, the network caters for predominantly intermediate classification trails and includes a skills loop and small pump track. The main trail head is located at the Calamunnda Camel Farm, a privately owned property, where there are a range of facilities and services available, such as a large unsealed car park, a café, a bike shop that includes hires and repairs, mountain bike coaching, guiding and skills instructing. The secondary car parks and trail heads are very basic and have limited facilities.

The network is not easily accessible from Kalamunda township, with only several unsanctioned trails providing the connection. The Perth Hills Trail Loop Concept Design Report (Tredwell Management, 2016) addresses this issue by identifying a proposed link trail between Kalamunda township and the Kalamunda Trail Network.

Trail desirability is high, but the network suffers due to poor accessibility, lack of good car parking, no clear primary trail head location and facilities, and much of it is not contiguous due to the roads crossing through many of the trails. While the Kalamunda Mountain Bike Collective does a good job of maintaining the quality of the trails, the overall quality of the trail system is average.

While the majority of the network is suited to the cross country market, several of the newer sections, particularly those from the summit of Mt Gunjin, cater for some of the gravity market. Demand is very high and is primarily an intrastate and local market

**Carinyah mountain bike circuit** is a basic 15km loop trail, classified as easy, but consisting of steep grade gravelly climbs. The trail head is basic and it is difficult to locate the beginning of the track. The circuit is outdated and no longer caters for the desired mountain biking experiences.

**Forsyth's Mill** was formerly a popular cross country racing circuit. Due to road developments in the area and other constraints, there are now limited car parks, which makes it less desirable for events.

The **Goat Farm mountain bike park** is located in Greenmount, and can be accessed from the Great Eastern Highway by vehicle, or by bike via the Railway Reserves Heritage Trail. It consists of several downhill tracks, 4X track, cross country trails, skills track, and jumps track. All trails are classified as moderate to difficult with only the small skills track suitable for novice riders. There are some

basic amenities provided at the Goat Farm, such as an unsealed car park, long-drop toilets and sheltered picnic area. There is limited passive surveillance, as there are no other reasons for people to utilise the area, and it is prone to anti social behaviour. The Goat Farm has been used for the Downhill State Championships each year. There is no shuttle uplift facility at the Goat Farm, which makes it less desirable to the majority of the gravity market.

**Lake Leschenaultia mountain bike trail** is a 5km loop trail for beginners, located near Chidlow in the Leschenaultia conservation park. It is ideal for families, due to its proximity to Lake Leschenaultia, picnic facilities, camping, car parking, a café (open seasonally), excellent phone reception, drinking water, toilets, canoe hire. The Shire of Mundaring has plans to further develop the network.

**Kwinana Loop Trail** is a 21km shared use trail designed for both walkers and mountain bikers, located in natural bushland, with multiple entry points from surrounding suburban areas, including at the Kwinana train station. It includes directional and interpretive signage for visitors.

**Langford Park**, located near Jarrahdale township, is a small network with approximately 19km of singletrack. While most of the trails are classified as intermediate, they are considered suitable for novice riders, due to the terrain type and relatively low grade of the area. The signage at Langford Park is poor, making it less desirable to return to or recommend. The facilities are below average, apart from the surfaced access road and car park. While the trails themselves are highly desirable for the novice rider, they are not considered highly accessible, due to their misleading classifications and poor quality signage.

**Marrinup** is a very small cross country loop trail, consisting of 8km focusing on beginner to moderate classifications. The trail is relatively flat, and includes several alternative advanced lines and trail features. It can be accessed via the Munda Biddi trail or an unsealed road from Dwellingup, or the campsite at the trail head.

**Turner Hill** is a small cross country loop trail, consisting of 11km of purpose built singletrack. The trail is predominantly intermediate classification, with several alternative lines and trail features of advanced classification. Overall the trail is good quality, but some sections are below average quality. The trail is well signed, and there is an unsealed car park and drop toilet provided. Access to the trail head is via an unsealed road, approximately 10km north of Dwellingup township.

**South Shore** is a single loop black diamond trail, consisting of some double-black diamond man-made features. It is riding distance from Lane Poole reserve in Dwellingup. Early in 2016

bushfires destroyed the trail. It is likely that the land manager will reinstate the trail once insurance processes have concluded.

### TOURING TRAILS

The **Waterous Trail** in Dwellingup is a 62km cycling loop located in Lane Poole Reserve, offering basic facilities for overnight camping. Early in 2016 bushfires destroyed the trail. It is likely that the land manager will reinstate the trail once insurance processes have concluded.

The **Munda Biddi Trail** is a long distance touring trail stretching 1,030km from Mundaring to Albany. The trail passes through or nearby several smaller trail networks in the Perth Hills through the Perth and Peel region, including Kalamunda Mountain Bike Trail Network, Carinyah Trail in Armadale (Midgegoroo National Park), and Turner Hill, South Shore and Marrinup in Dwellingup.

The **Railway Reserves Heritage Trail** is a 59km shared use trail, retracing 59km of the former Eastern Railway that linked Fremantle to York in the 1880s. The trail is located between Bellevue and Wooroloo, passing through several small towns with accommodation and basic tourism services.

The **Kep Track** is a 75km shared use trail, aligned to the Golden Pipeline Drive Trail. It starts and finishes at trail heads in Mundaring and Northam, passing through many smaller towns with accommodation and basic tourism services. A train service is available daily between Midland and Northam.

The **Kalamunda Rail Trail** is an 11km shared use trail originating in Kalamunda township. There is limited information available to visitors about the trail, and signage is poor. Quality of the trail is below average in some areas.

### SMALL SCALE BIKE PARKS

Various small scale formal and informal dirt jump, BMX jumps and pump tracks exist in suburban areas. There are currently at least eight local governments in the Perth and Peel regions that have existing formal and informal facilities (based on website information and consultation). These facilities provide a recreation resource for the community. However, barriers for constructing further facilities include lack of strategic planning and perceived lack of demand due to underutilisation of current facilities which have been constructed in isolation.

### ADAPTIVE MOUNTAIN BIKING (AMTB)

Adaptive mountain biking encompasses a broad range of riders who require adapted equipment to suit their physical, intellectual, neurological and sensory abilities.

There are no dedicated trails for adaptive mountain biking, but there are several existing trails in the Perth and Peel regions that

have been assessed for their suitability and accessibility for some adaptive mountain bike users and equipment such as the 'mountain trike' or 'off-road hand cycle'. A trail guide and "Wheely-friendly" rating system is available on the website of Break the Boundary.

### ELECTRIC BICYCLES

Electric bicycles (e-bikes) have not been considered in the development of this Master Plan.

### PROPOSED TRAIL PROJECTS

The following presents a brief summary of the major trail development projects which have undertaken some level of planning. The formal planning process undertaken on these projects to date is in alignment with the Guidelines.

**Murray Valley Trail Network Concept Plan** is underway to establish a trail network, including cross country and gravity focussed trails in the recently logged Murray Valley pines area, within the Lane Poole Reserve and surrounding State Forest. A concept plan for the project was nearing completion at the time of writing this Master Plan.

**Manning Park Mountain Bike Plan** is currently under development for Manning Park, which is located within the Beeliar Regional Park in the City of Cockburn. The Strategy will identify mountain bike opportunities and provide a concept design for a state-of-the-art metropolitan mountain bike trail network.

**Perth Hills Link and Loop Trail Plan** is currently undergoing concept planning to improve the link between Pickering Brook, the Kalamunda town centre, Munda Biddi Trail and the Mundaring Railway Reserve Heritage Trail for walkers and cyclists.

**Goat Farm Mountain Bike Park Redevelopment** is current undergoing planning, led by WestCycle. A framework is currently being drafted, in accordance with the Guidelines trail development process.

### MOUNTAIN BIKE EVENTS HELD IN THE PROJECT AREA

Table 17 summarises the supply of existing competitive events, club and commercial promoted. The table details the extent of each event including the location, type, details, demographics and markets.

In addition, several community, social and participation events are held in the region by mountain bike organisations and local governments. social rides and community events are essential to the sustainability of the mountain biking community.

EVENT & LOCATION/S	DETAILS	PARTICIPANT DEMOGRAPHICS	MARKETS
Dwellingup 100 Trievents (Private)  Dwellingup	Popular 100km cross country marathon race in Dwellingup (part of MTBA National series), with 64km and 14km options. The course uses a number of existing formal and informal trail networks, as well as fire access roads and sections of the Munda Bidli Trail. The majority of the course is repeatable, but not signed. The event also supports charities and volunteering organisations through partnerships.	1,100 Competitors 84% Male 21% 100km marathon race 55% 64km race 24% 14km race 15% Juniors	4 International 13 Interstate Predominantly Intrastate
Trek D50 Duo Tony Tucknott (Private)  Dwellingup	The Trek D50 Duo, which has been run for 3 years, is a fundraiser to support WA local, Reece Tucknott, who regularly competes at world level. The course utilises existing formal and informal trails surrounding Dwellingup, but is not repeatable.	300 Competitors	Predominantly Intrastate
Cross Country State Series Perth MTB Club (Club)  Dwellingup Kalamunda	Club run cross country events with six state series and one state championship, with three events held in the Perth and Peel regions. The race courses utilise existing formal trail networks on DBCA estate. They are repeatable and signed, with the exception of Kalamunda, where sections of the circuit are used in reverse direction. The XC Series are the most suitable and popular with adaptive MTB riders however trail selection is limited in the Perth-Peel region.	120-250 Competitors 95% Male	International Interstate Intrastate Perth/Peel
PMBC Sprockets junior cross country race series Perth MTB Club (Club)	Supported by the Perth mountain bike club, the PMBC Sprockets series is a clinic and cross country race series run alongside the club-run state series, for junior riders aged 6-12 years old. The program has grown from 13 participants in 2012, and has now been capped at 50, with demand exceeding the capacity of coaches.	50 Participants 100% Juniors	All Intrastate
Dusk til Dawn 12 Hour Perth MTB Club (Club)  Dwellingup	This event is a multi lap cross country endurance race, run overnight over 12 hours. The race course utilises an existing formal trail network on DBCA estate and is repeatable. Alcoa is a major corporate sponsor of this event, having formed a strong partnership with the club over many years of its running.	250-450 Competitors 95% Male 6-65 years	Predominantly Intrastate
Jorgensen Park 4 Hour Single Track Minds (Private)  Kalamunda	Endurance cross country event with multiple lap format that allows for team categories. The race course utilises a circuit of informal trails surrounding a disused golf course, which are also heavily used by walkers and dog walkers, resulting in some user conflict on event days. The course is not repeatable.	200-300 Competitors 86% Male <20yo 3% 20-30yo 15% 30-40yo 41% 40+ 41%	International Interstate Predominantly Intrastate
Kalamunda 50 Single Track Minds (Private)  Kalamunda	A 50km point to point style race utilising at least 50% singletrack on formal and informal trail networks, with permission to use some trails within PDWSA areas. Due to the restrictions normally in place, the course is not repeatable.	400-500 Competitors 91% Male <20yo 2% 20-30 15% 30-40 41% 40+ 42%	Predominantly Intrastate
Kalamunda Classic  KMBC (Club)  Kalamunda	The Kalamunda Classic, established in 2015, is a participation event run by KMBC as a fundraising event to support trail development in the network, the purpose being community togetherness and fun. It is run over two consecutive days, based at the Mundaring Weir Hotel, utilizing the existing formal trail network on DBCA estate.	250-300 Participants	Predominantly Intrastate
Downhill State Series and State Championship  Peel District MTB Club (Club)  Goat Farm	The PDMBC runs a DH state series of six rounds, with one run at the Goat Farm on DBCA estate. The facilities are poor, with push-up tracks utilised in the absence of shuttle uplift infrastructure. PDMBC maintains downhill specific categories to cater for riders using downhill-specific bikes, but there are no facilities close to Perth and Peel that cater for shuttle-able events.	100-140 Competitors 7% Women 15% Juniors	Predominantly Intrastate

EVENT & LOCATION/S	DETAILS	PARTICIPANT DEMOGRAPHICS	MARKETS
WA Gravity Enduro National Round  WAGE (Private)  Goat Farm Kalamunda	WAGE runs a state round of the gravity enduro series at the Goat Farm and Kalamunda on formal and informal trails on DBCA estate. The race courses are set for the events only and are not repeatable.	190 Competitors 11% Female	Predominantly Intrastate
Hardwood 50 Perth MTB Club (Club)  Jarrahdale	Run by the Perth MTB Club, the Hardwood 50 is a 50km multi-lap XC race utilizing the existing formal trail network. There is desire to transform the course into a point to point, to avoid the need for multiple laps. The course also accommodates Off Road Hand Cyclists, through appropriate course design and amenities at the event village.	150 Competitors	Predominantly Intrastate
Numbat Cup Cyclocross Series Perth MTB Club (Club) / BrewCX (Private)  Various Perth Metro locations	The state level CX courses run in Perth are usually a mix of informal trails or areas of council or private land bunted to appear like a trail. There are a number of additional sites across Perth that would be suitable for CX racing. These events attract a large number of participants and spectators, having grown in popularity in recent years.	100 Competitors 85% Male Average age 35yo	90% Intrastate 10% Interstate / International

Table 17: Mountain Bike Events in the Project Area

## COMMERCIAL PRODUCTS IN THE PROJECT AREA

TYPES OF PRODUCTS POTENTIALLY AVAILABLE	EXTENT OF PROVISION IN REGION CURRENTLY
Professionally Guided Tours	<ul style="list-style-type: none"> <li>Tours offered year round on the Kalamunda mountain bike trail network only.</li> <li>Ad-hoc tours offered in limited locations.</li> </ul>
Shuttle Uplift Service	<ul style="list-style-type: none"> <li>Limited trails and shuttle roads in the area.</li> <li>No suitable shuttle-able trails for gravity market.</li> <li>No suitable shuttle-able trails for downhill racing.</li> <li>Limited shuttles for drop off and pick up points on long distance trails or events.</li> </ul>
Coaching	<ul style="list-style-type: none"> <li>Few professional coaching providers in area.</li> <li>Individual and group coaching courses are offered for beginners through to advanced aimed at improving cross country rider ability.</li> <li>Junior development programs focussed on cross country, ages 6–12.</li> </ul>
School Camps	<ul style="list-style-type: none"> <li>DLGSC maintains four school camp facilities in the Perth and Peel regions. Located in Bickley, Ern Halliday, Point Walter and Woodman Point, the camps offer special places where Western Australians of all ages can participate in unique outdoor activities.</li> <li>Currently, there are limited opportunities for mountain biking within or nearby the camp sites.</li> </ul>
Bike and Equipment Hire	<ul style="list-style-type: none"> <li>A number of commercial providers.</li> <li>Quality mountain bikes for use on singletrack trails at the Kalamunda Trail Network only.</li> <li>Mountain bikes, trailers and other equipment are available for hire for long distance treks on touring trails, such as the Munda Biddi Trail.</li> </ul>
Sales and Service	<ul style="list-style-type: none"> <li>The majority of major population centres in the region offer a level of service and sales through dedicated bike shops and outdoor oriented retailers.</li> <li>Kalamunda Trail Network is the only existing mountain bike facility offering sales and service on site.</li> </ul>
Cycle Friendly Businesses	<ul style="list-style-type: none"> <li>Generally, cycle friendly businesses are welcoming to cyclists, providing drinking water for refilling water bottles, having space to park bikes, and space to park vehicles whilst out riding.</li> <li>Businesses range from accommodation, breweries, wineries, restaurants and other attractions across the region.</li> </ul>

Table 18: Commercial Mountain Bike Products Available in the Project Area

**PERTH & PEEL**

**MOUNTAIN BIKE**

**MASTER PLAN**

