



# City of Armadale Trails Master Plan

September 2025

Prepared by Common Ground Trails Pty Ltd for the City of Armadale



#### Acknowledgements

The authors of this City of Armadale Trails Master Plan respectfully acknowledge that this land on which the trail network is located is traditional land of the Whadjuk Noongar people who have a rich social, spiritual and historical connection to this country, which is as strong today, as it was in the past.

Common Ground Trails wishes to acknowledge the significant contribution from stakeholders, organisation representatives, users and individuals.

Cover image: Timber Cutters Trail in Settlers Common.  
Credit: [www.metrotrekker.com/photos/australia/perth/armadale-settlers-common-perth-012](http://www.metrotrekker.com/photos/australia/perth/armadale-settlers-common-perth-012)

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

Revision	Description	Date
A	Draft for review	27/10/2024
B	Final Draft	20/01/2025
C	Final	17/04/2025
D	Revised Final	24/06/2025
E	Revised Final Version endorsed by Council	25/09/2025



# Contents

Executive Summary	4
1.0 Introduction	8
2.0 Project Area	10
3.0 Trail Planning and Development	18
4.0 Methodology and Consultation	32
5.0 Current situation	36
6.0 Trails vision and objectives	50
7.0 Recommendations	62
References	68
Appendix A	69

# Executive summary

For many years, trails have been flagged as a key area of tourism opportunity for the City of Armadale. Whether for bushwalking, trail running, cycling or urban adventures, trails have provided a portal for locals and visitors alike to enjoy the natural and built beauty of the Perth Hills. This Master Plan has been developed to guide investment in and development of sustainable trail opportunities in the Armadale region. Trail based recreation and trail tourism are growth areas in Australia and globally. With its diverse landscapes and cultural heritage Armadale is poised to develop into a sought after trails destination.

The vision for trails in the Armadale region is:

**Armadale will be recognised as a trails destination with trails that celebrate the unique values of the region, providing captivating and memorable experiences and connections. The City will be recognised as a leader in trail planning, management, and sustainable conservation practices, fostering harmony between trail users and our valuable environment.**

Essential to achieving this vision will be establishing trails and supporting infrastructure that deliver captivating experiences, showcasing the unique and diverse local values. In addition to offering landscape appropriate trail experiences, a well developed trails destination boasts market and trail community creditability and is backed by strong partnerships with government, government agencies, local businesses and the community. A sense of belonging and camaraderie is developed through user appropriate facilities, services, events, volunteer involvement and social engagement.

The City of Armadale is proud of its natural environment and actively works towards protection of natural values in the reserves under its management. Recent work on consolidation and promotion of trails within City managed reserves has been beneficial both for the community and in achieving conservation outcomes. Further development of trails as outlined in this master plan will follow the established 8 stage trail development process ensuring quality and sustainable outcomes for both the community and environment.

The aspiration is for trails to become an important recreational, social and economic resource for Armadale. The Master Plan considers the trail context and involved an assessment of the inherent landscape qualities as well as opportunities and constraints. Trails have the potential to help build the region as an adventure tourism destination, through attracting the destination trail user market. A focus has also been placed on ensuring locals have access to trails, building community, improving physical and mental health and creating stewards for the local environment. Given the target market and assessment of opportunities and constraints presented by the project area it has been determined that the Armadale region has the potential to be a destination of local to regional significance offering a diverse range of trail experiences to meet the needs of local residents and encourage visitors to the area.



View of Perth City from Armadale hills  
Image credit: Experience Perth Hills Facebook

This Master Plan identifies three priority areas or objectives that require consideration and development to support the growth of trails in the Armadale region.

## 1. Develop a cohesive and diverse trail network

With a well established network of hiking trails already existing in the region, an initial focus on enhancing these trails will provide a quick win. Improving trail quality, experience and facilities through maintenance and upgrades will make the existing network of trails more appealing and user friendly. Filling identified gaps in the existing trail offer, providing variety and enticing longer stays and repeat visits several proposed new trail developments including:

### **Armadale Settlers Common Trail Centre**

Proposed as the region's signature hiking trails destination, the Armadale Settlers Common Trail Centre will feature hiking, trail running, all-abilities trails, digital botanical tours and bush tucker experiences which engage users in the pristine bushland, cultural heritage and city views. Armadale Settlers Common has the opportunity to become the Perth and Peel region's prominent trail destination on the doorstep of the Armadale Central Business District.

### **Wungong River trail network**

Expanded trail network around the proposed Wungong Active Path as part of the Wungong River Recreation Reserve Concept. An ideal opportunity for beginner level XC style trails as well as park style trail development. There may also be potential for the XC trails to be designed as shared use providing an ideal trail for entry level trail running and a more immersive trail experience for walkers.

### **Banyowla Trail network**

A proposed local scale MTB network in the southern area of Banyowla Regional Park with a focus on provision of engaging trails that maximise the terrain features. Ideally located close to Kelmscott CBD this will be an easily accessed trail network that will cater for the local riders and should also attract visitors given the terrain offers a distinct challenge not available elsewhere in the Perth Hills currently.

### **Link Trails**

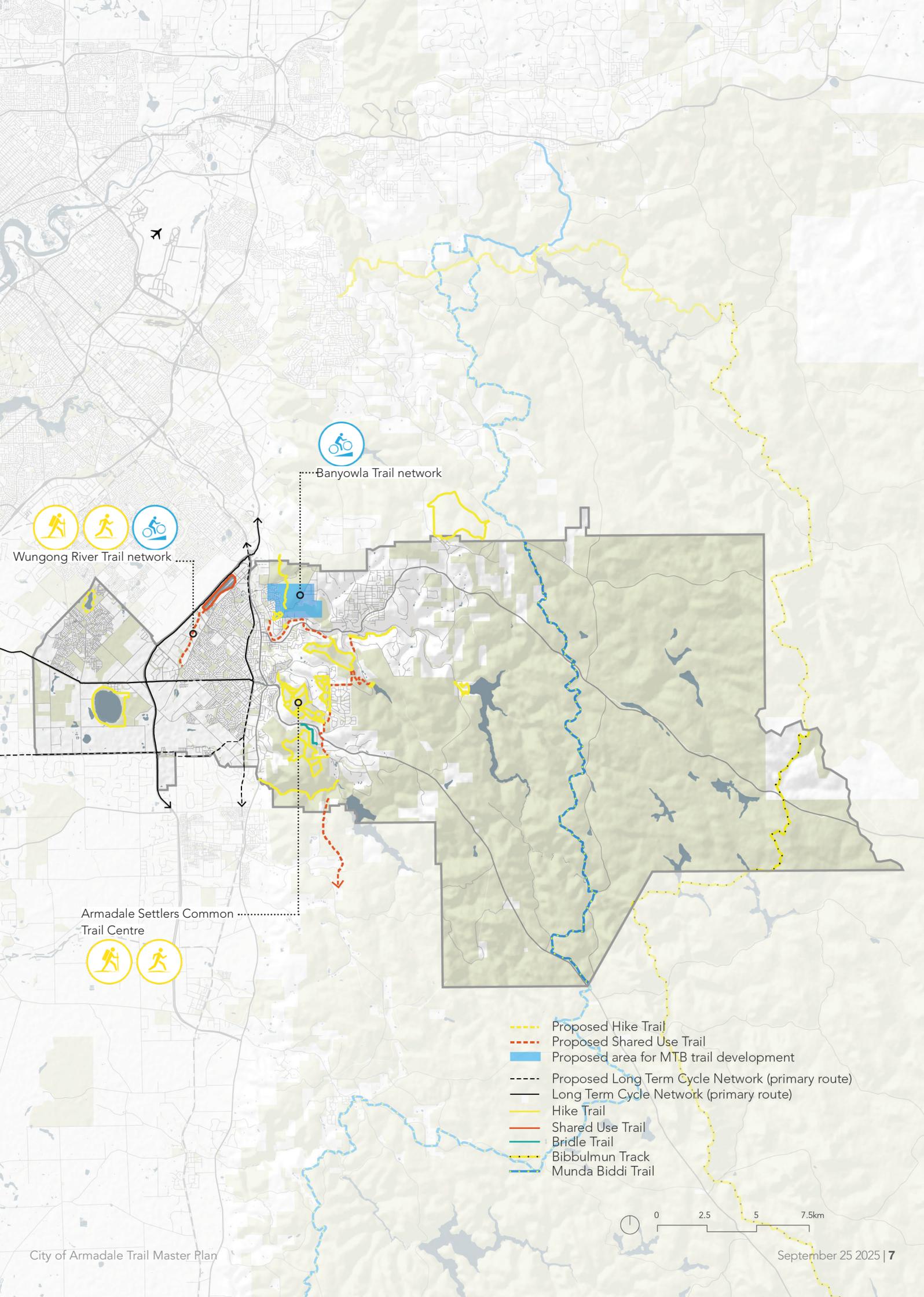
Proposed link trails across the project area and into surrounding areas are intended to offer opportunities for longer trail experiences, improved trail access for locals as well as provide multiple access points for trail networks and spread the load of infrastructure particularly car parking.

## 2. Implement robust governance and management

A successful trail destination is underpinned by robust, sustainable, effective and efficient governance and management structures. Partnerships with landowners, stakeholder groups and key government agencies will be important to achieving this objective and maximising revenue generation opportunities. Implementing clear and effective business or funding models is also important in ensuring resources are available for management, maintenance and promotion. The key recommendation within this objective is appointment of a lead agency for implementation of this Master Plan and establishment of a trails committee to drive development of trails, ensuring a consistent approach across all land tenures.

## 3. Market and promote the experiences on offer

Marketing and promotion of the experience on offer needs to be appropriate to the level of development and to the intended markets. A comprehensive and cohesive strategy looking at how the diversity of experience can be packaged and marketed is needed to entice longer stays and repeat visits.



- Proposed Hike Trail
- Proposed Shared Use Trail
- Proposed area for MTB trail development
- Proposed Long Term Cycle Network (primary route)
- Long Term Cycle Network (primary route)
- Hike Trail
- Shared Use Trail
- Bridle Trail
- Bibbulmun Track
- Munda Biddi Trail



# 1.0 Introduction

Located only 30 kilometers from the CBD in Perth's south-east, the City of Armadale is one of the fastest growing local government areas in Australia. Coming under the regional tourism region of Destination Perth, Armadale's close proximity to Perth City means it's perfect for a day trip, and also a convenient place to live within a short work commute to Perth. Armadale is a vital regional centre for Perth's expanding south-east corridor, playing an important role within the broader geographic and economic development of Perth's southeastern area. As Perth's south-east region grows and develops, Armadale plays a key part in this expansion. It's not just a local hub; its strategic location and growth contribute significantly to the broader development plans for the entire corridor.

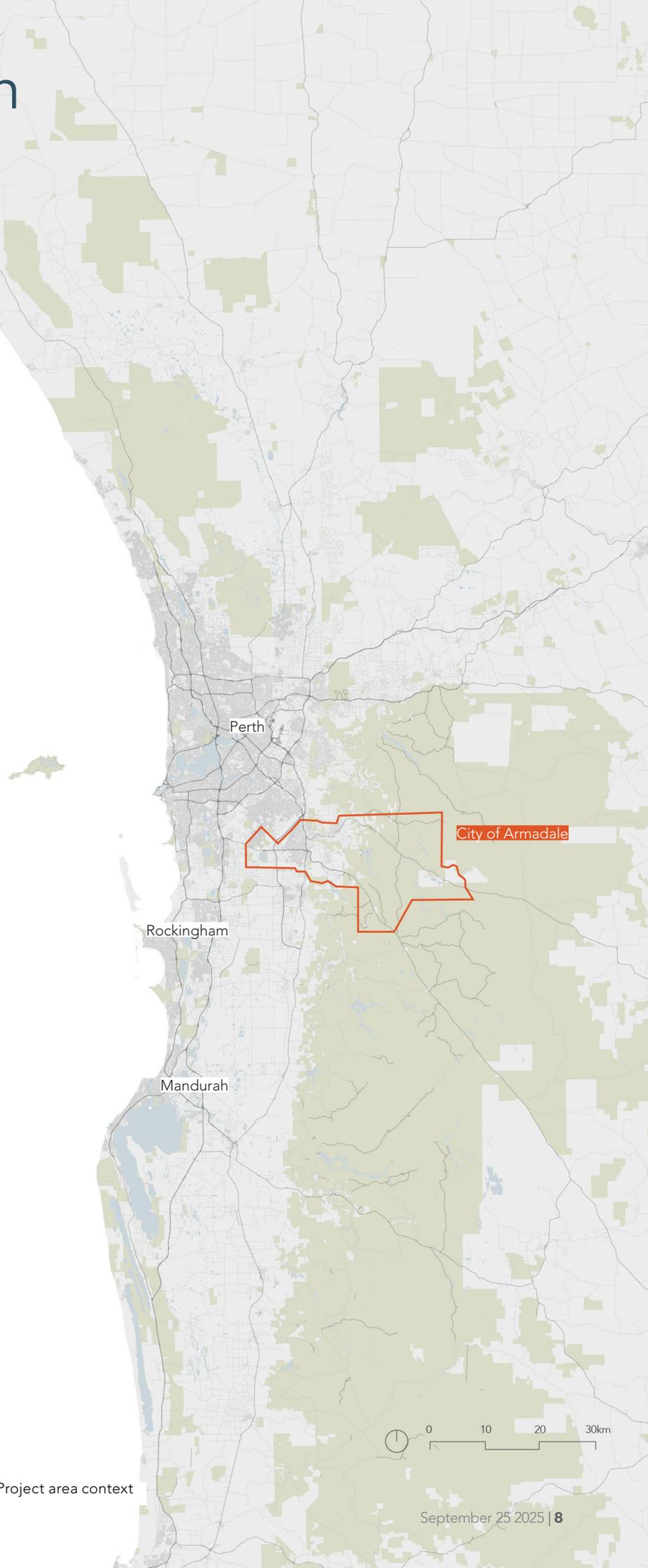
The region is easily accessible from major tourism and population nodes. The City sits at the major junction of the South Western and Albany Highways, which connect Perth with the South West and Great Southern regions of Western Australia respectively. It is also accessible via public transport via the Armadale railway line, one of five major railway lines to service Perth, and bus services.

The City of Armadale is proud of its natural environment and actively works towards protection of natural values in the reserves under its management guided by the Strategic Community Plan and Biodiversity Strategy. Trails are actively managed in the City's bushland reserves as a way for residents and visitors to engage with natural and cultural values in a safe and sustainable manner.

Metropolitan and regional proximity and diverse natural landscapes lend themselves perfectly to the region's ability to capitalise on the growing demand for trails and outdoor adventure. Acknowledging the potential for the City of Armadale to capitalise on trails and the associated benefits, the brief for the City of Armadale Trails Master Plan (the Trails Master Plan) includes a review of a trail opportunities within the region, across multiple trail activities and relevant alignment with the WA Trails Strategic Blueprint 2022-2027 (the Blueprint).

The vision for trails in Western Australia, as defined in the Blueprint, is that

by 2027 Western Australia's trails will connect more people to Country through shared experiences in diverse landscapes, resulting in greater community, social, cultural, economic, environmental, health and wellbeing outcomes for Western Australia.



MAP 2 - Project area context

## 1.2 Project objectives

The City highlighted in its Tourism Strategy that Armadale’s key asset lies in its abundant natural bushland and forests, positioning it favourably to join the network of trail towns in the south west/extending inland and south of Perth. The key objective for this project is to develop a Master Plan which can be used to prioritise, create and sustain a diverse range of trails and trail experiences in the City of Armadale which connect to surrounding trail experiences beyond the City. The Plan will be used to guide future investment in trails and trail experiences.

The City aims to create a diverse array of unique and sustainable trails and adventure experiences to serve both local residents and attract visitors from within the state, across the country, and internationally. This initiative is intended to boost tourism and deliver economic benefits. The main goal of this study is to develop a comprehensive network of recreational tracks and trails throughout the City of Armadale’s diverse landscapes. The focus will be on a range of non-motorised trail experiences and types. The Master Plan focuses on identifying and prioritising sustainable trail experiences for future development and will guide the City in delivery of trail experiences that:

- Captures the rich and diverse history of the region
- Provides outdoor spaces and places for the local community
- Attracts visitors to the region and the associated economic benefits
- Showcase and protect the region’s unique cultural heritage, landscapes and biodiversity
- Disperse visitors across the region

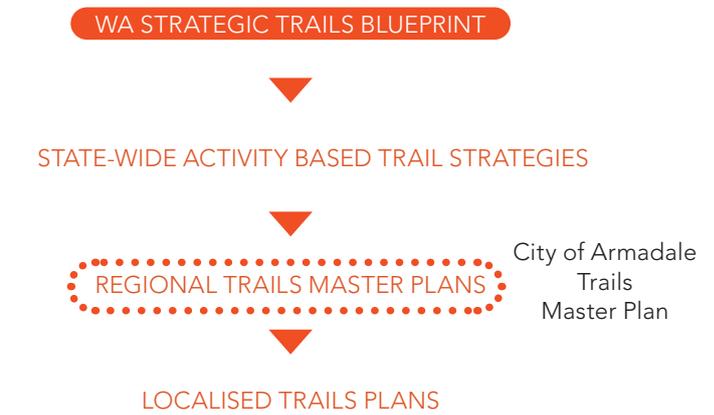


FIGURE 1 - State wide trails planning hierarchy



FIGURE 2 - Trail types considered in this master plan

# 2.0 Project Area

## 2.1 Context

The area historically known as Gargangara (North Armadale) and Goolamrup (Kelmscott) that now makes up the City of Armadale was originally occupied by the Noongar people many thousands of years before European settlement. Prior to 1894, the area was part of the Canning Road District. On 1 July 1979 it became the Town of Armadale and in 1985 it assumed its current name when it attained City status.

Located only 35 kilometers from the CBD in Perth's south-east, the City of Armadale is one of the fastest growing local government areas in Australia spanning 20 suburbs. Situated on the outskirts of several regional and national parks, Armadale offers a diverse mix of urban hills living and diversity of housing and lifestyle choices. Set against the backdrop of the Darling Ranges, there are vineyards and orchards, green open spaces, bushland, undulating hills and picturesque valleys. The City of Armadale has more than 115 reserves comprising 1,080 hectares of bushland. Bushland areas range from Marri/Jarrahdale dominated woodlands on the Darling Scarp to Banksia woodlands on the Swan Coastal Plain.

City managed bushland reserves include;

- Armadale Settlers Common
- Bungendore Park
- Lloyd Hughes Park
- Roley Pools Reserves

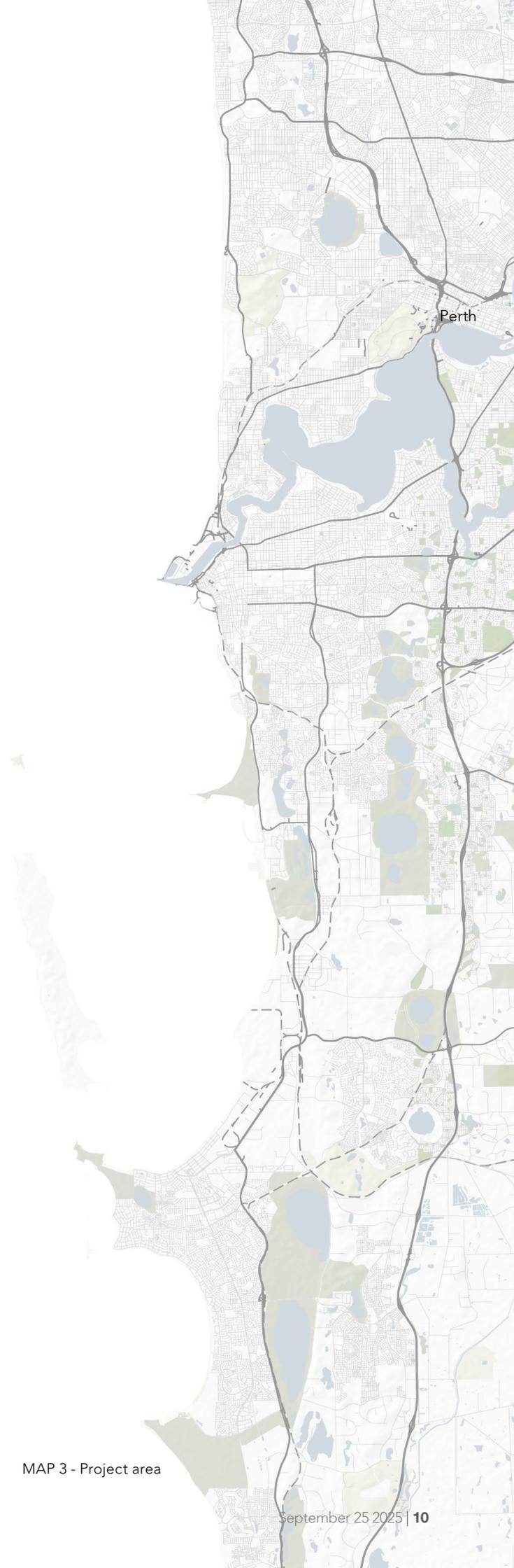
Department of Biodiversity Conservation and Attractions managed reserves include:

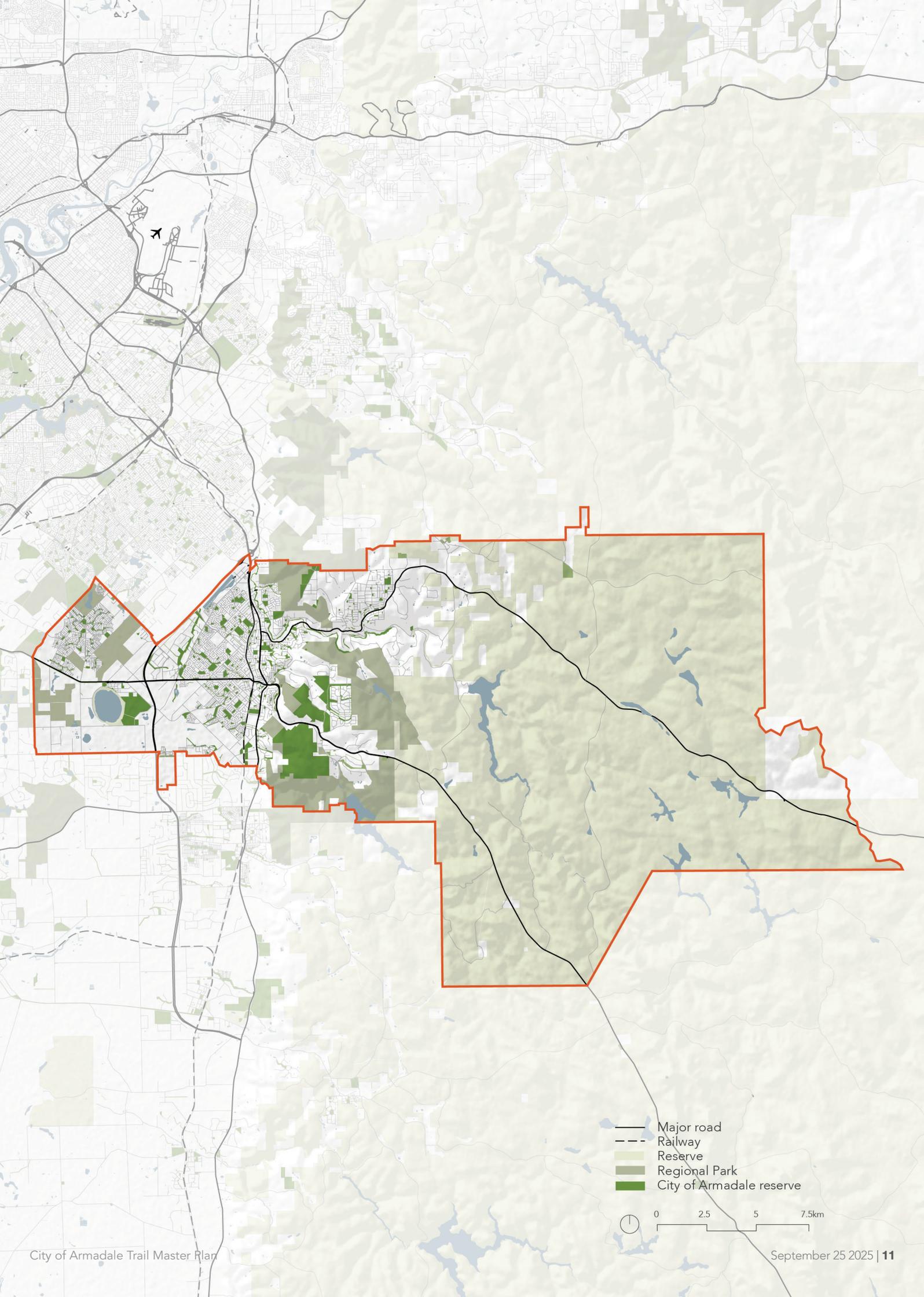
- Banyowla Regional Park
- Wungong Regional Park
- Jandakot Regional Park
- Midgegooroo National Park
- Jarrahdale State Forest
- Forrestdale Lake Nature Reserve

Only 35 km from the Perth CBD and 30 km from Perth Airport, the Armadale City Centre is conveniently located at the crossroads of the Albany and South Western Highways and Armadale Road, and is directly linked to the Perth CBD via the metropolitan rail network (and to numerous other centres on the Armadale railway line), the Tonkin Highway and the Kwinana Freeway (via Armadale Road). The planned extension of the METRONET project to Byford will further increase connection points to and through the City of Armadale.

It is a rapidly growing locality, with the City being one of 26 local government areas in Australia classified as a growth area. By 2040, it is forecast that almost 150,000 people will reside in the area, with the largest demographic group being children aged 0 – 4 years. The Armadale city centre is a designated Strategic Metropolitan Centre in the State Government's metropolitan plan Directions 2031 and beyond. The City is focusing on unlocking its full potential to provide a diversity of land uses and employment opportunities to become a destination of choice for people to live, work, study and explore.

MAP 3 - Project area





- Major road
- Railway
- Reserve
- Regional Park
- City of Armadale reserve



## 2.2 Environmental & cultural values

The project area falls across the Swan Coastal Plain along the coast and inland to the Darling Scarp and Darling Plateau. A range of vegetation types occur across the project area from woodlands, coastal heath and wetland dependent vegetation in the coastal plain, to forests, riparian vegetation and granite outcrop communities in the hills.

The geological stability of southwest 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. It is this geological stability that has also created the landforms that attract trail users to the project area. 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. 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 rugged, rocky and steep terrain with shallow soils and scrubby vegetation. East of the scarp the Darling Uplands develops into a landscape of gentler slopes with rolling hills. The scarp is dominated by forests of Jarrah and Marri, with the valleys supporting Blackbutt and Wandoo. The City of Armadale falls within the wider Upper Canning/Southern River/Wungong catchment. The catchment comprises two major rivers, the Wungong and Canning Rivers, both of which are tributaries to the larger Swan River Estuary. The biodiversity values within the project area are significant, the City and the Department of Biodiversity Conservation and Attractions work to protect these values through implementation of management plans.

The Armadale region is recognised as Whadjuk Noongar country. Whadjuk people have a rich and intimate connection with the country within the project area which includes knowledge of, rights to, and responsibility for sites of significance and a desire to protect and celebrate their culture and heritage values. Sites of significance for Whadjuk people relate to mythological and dreaming stories as well as resource rich areas and pathways through the landscape. Early European settlement in the region dates back to the 1829 when a new settlement was established on the banks of the Canning River.

Trail users are often drawn to the trails seeking immersive nature based experiences. The Armadale region has three distinct landscape character zones – the Swan Coastal Plain, the Darling Scarp and the Darling Plateau, These distinct features offer a multitude of potential for engaging trail experiences with opportunities for challenging experiences where the terrain offers elevation shifts and more leisurely experiences on the flatter areas along waterways and the coastal plain. MAP 4 outlines the distinctive features that have potential to attract trail users.

## 2.3 Tenure

The areas identified within the project area publicly available for recreation are located on a variety of tenures each with their own requirements with regards to trail development. These tenures include;

- Crown land
- City reserves
- Conservation reserves (nature reserves, national parks and conservation parks)
- Regional parks
- State forests and timber reserves
- Freehold land

### Department of Biodiversity Conservation and Attractions

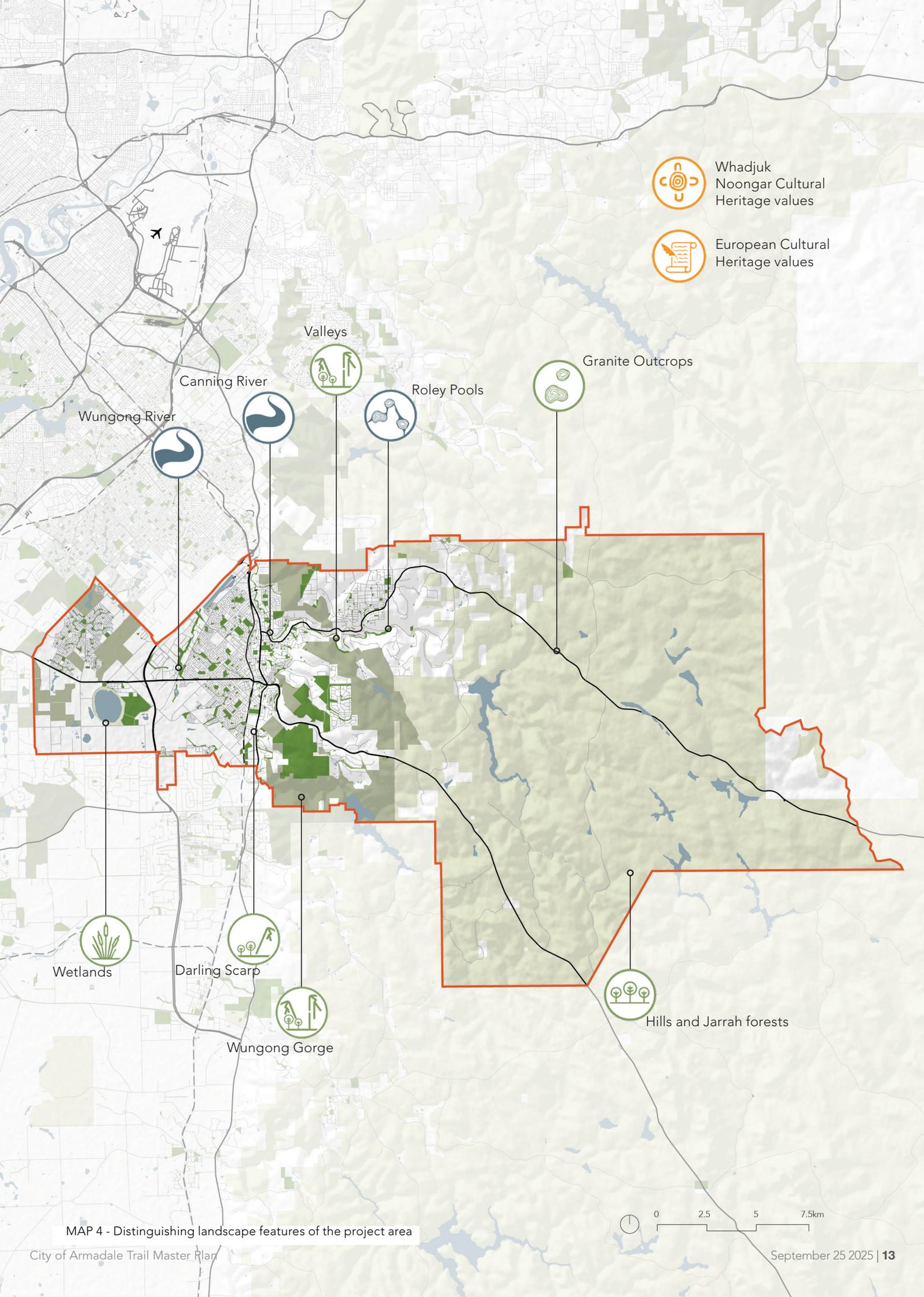
The project area falls within the Swan Region of the Department of Biodiversity Conservation and Attractions (DBCA). DBCA manages National Parks and State Forest within the project area. These landscapes are managed according to approved management plans. DBCA and the Department of Local Government, Sport and Cultural Industries (DLGSC) have developed and published a Trail Development Series which guides the development of trails on land in their tenure.

### Local Government

The City of Armadale manages several reserves and a number of trails as part of their day to day operations. Trail development is a key strategic priority for the City and this is often achieved through partnerships with community or private developers.

### Freehold

Trail opportunities on privately owned land may be developed at the discretion of the land owner and in accordance with Councils's planning scheme.



-  Whadjuk Noongar Cultural Heritage values
-  European Cultural Heritage values

Valleys

Granite Outcrops

Canning River

Roley Pools

Wungong River

Wetlands

Darling Scarp

Wungong Gorge

Hills and Jarrah forests

MAP 4 - Distinguishing landscape features of the project area

## 2.4 Constraints

Constraints include key issues that may affect sustainable trail development and provision, including unique environmental factors, location, access, land use, landscape, ground conditions, soil types, existing recreation use, conflicts, sensitivities, and exclusion zones.

Identified constraints in the area include;

- Conflicting land uses and zoning
- 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 that should be protected
- Tenure constraints, where potential trails traverse differing tenure types
- Conflicts between trail users
- Unsanctioned trails

### Phytophthora dieback

Disease caused by *Phytophthora* species, a soil borne fungal pathogen, is wreaking havoc on susceptible native flora species in the South West of Western Australia, particularly the introduced *Phytophthora cinnamomi*. In an effort to contain its spread; it is essential to follow strict hygiene protocols and avoid moving between infested and uninfested areas. Approximately half of the bushland areas managed by the City of Armadale have been comprehensively mapped for dieback. Almost 700 hectares of bushland is known to be infected. An area of 308 hectares is known to be free of the pathogen. Dieback occurrence in other reserves within the project area is unknown. While detailed disease surveys would be undertaken for any trail development project, the current known extent has been considered when recommending locations for development.

Disease Risk Areas (DRA) are areas of forest quarantined by the State Government to try and prevent further spread of dieback. The eastern edge of the project area is within the DRA. Trail based recreation activities, except walking, are prohibited or restricted within or adjacent to DRA's and this has been considered when recommending locations for development.

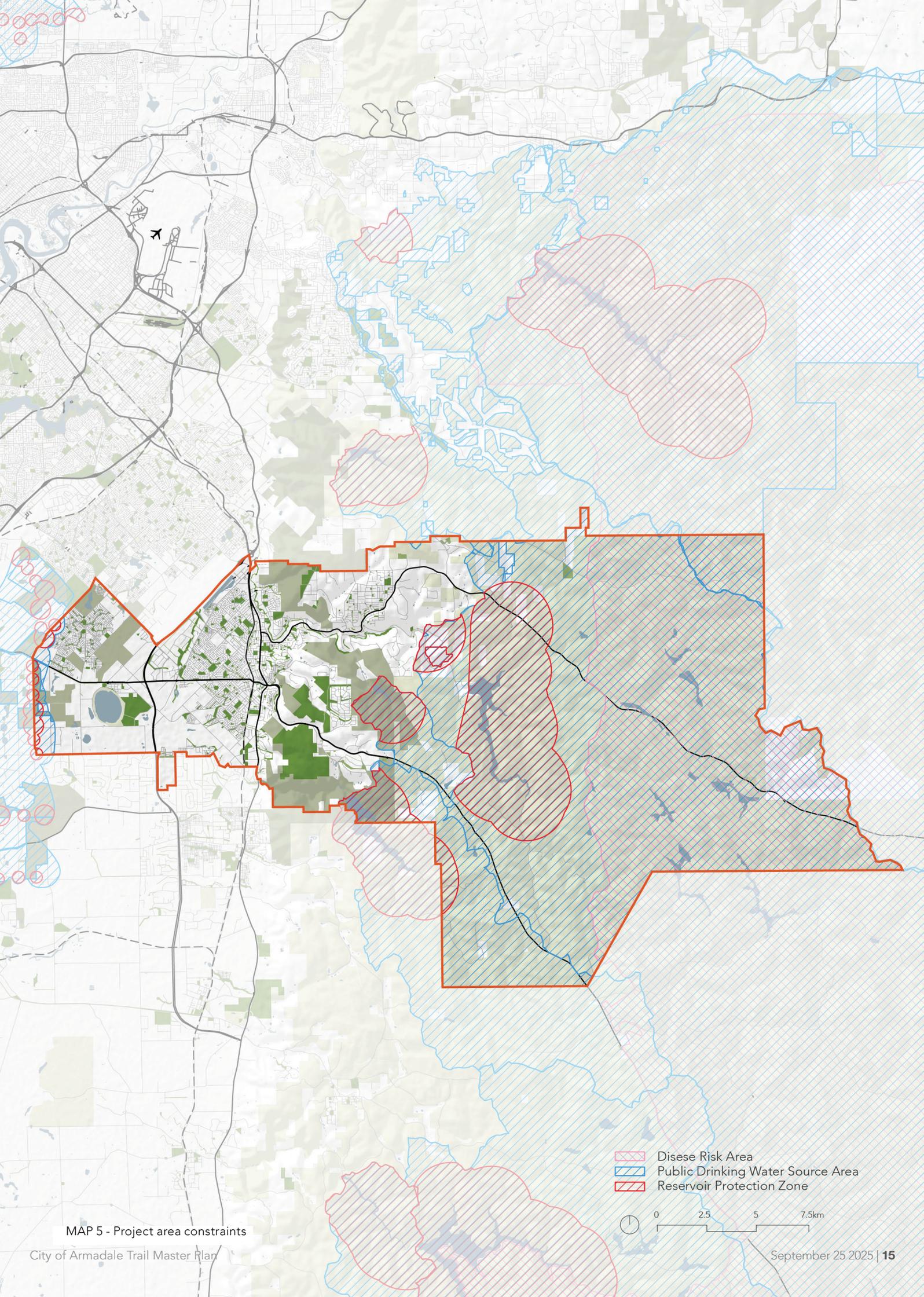
### Environmental and Cultural Values

The natural vegetation and ecosystems that remain in the project area are highly fragmented and susceptible to a range of pressures including ongoing clearing, weeds, feral animals, pollution, erosion, fire and disease. There are a range of reserves with varying levels of conservation significance which need to be accounted for in trail development recommendations. Striking a balance between protection of values and recreation access is critical.

Aboriginal sites include a diverse range of places including archaeological sites associated with past Whadjuk land use, and ethnographic and historical sites of ongoing spiritual, historical and cultural importance and significance to Whadjuk people. The Aboriginal Heritage Act protects all Aboriginal sites in Western Australia, whether or not they are registered. Should detailed site planning progress for any of the locations recommended in this Master Plan, traditional custodians will be consulted in accordance with the relevant legislation and any requirements of the South West Native Title Settlement.

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

- Avoiding sensitive ecosystems and sites of significance
- Keeping users on designated trails
- Reducing fire management risk (i.e. knowing where users will be)
- Applying standard trail widths, minimising the disturbance footprint and associated effects
- Development provides the opportunity to rehabilitate trails that are unsustainable and impact environmentally sensitive areas
- Fostering environmental and cultural stewardship by cultivating a sense of community ownership and engagement with the trails.
- Providing recreation opportunities to improve physical and mental health
- Connecting people to places
- Creating economic development opportunities through tourism and visitor services
- Creating passive surveillance.



-  Disease Risk Area
-  Public Drinking Water Source Area
-  Reservoir Protection Zone



MAP 5 - Project area constraints

## Public Drinking Water Source Areas (PDWSA) and Reservoir Protection Zones (RPZ)

Operational Policy 13 (2019) implements the Government’s response to the 2010 parliamentary committee report on recreation within public drinking water source areas. It is aimed at ensuring recreational activities within 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) needs to be located outside proclaimed PDWSA

Individuals and groups of under 25 people undertaking passive land based recreation activities (not part of organised events) in PDWSA (such as trail based activities) are:

- Not supported in Reservoir Protection Zones (RPZ) - public access in reservoir protection zones is prohibited except along public roads and on the Munda Bididi and Bibbulmun Track

- Supported in PDWSA outer catchments, subject to recreation compatibility requirements noting that recreation cannot exceed 2012 approved levels and new or enhanced recreation needs to be located outside proclaimed PDWSA
- Supported in the wellhead protection zones and outer catchments of groundwater source areas, subject to recreation compatibility requirements.

Recreational trail activities covered by this master plan and their compatibility / incompatibility with PDWSA’s is summarised below.

TABLE 1: Summary of PDWSA and compatibility of recreational activities

Recreation type	Public Drinking Water Source Area Location			
	Surface water - Reservoir protection zone	Surface water – Outer catchment	Groundwater – Wellhead protection zone	Groundwater – Outer catchment
<b>Land based activities</b>				
Off road driving – all motorised vehicles	Incompatible	Incompatible (except at legally designated sites)	Incompatible (except at legally designated sites)	Incompatible (except at legally designated sites)
Bike riding / power-assisted pedal cycling on public roads	Supported	Supported	Supported	Supported
Bike riding / power-assisted pedal cycling within approved designated sites - trails, tracks or areas	Incompatible (except on the Munda Bididi Trail)	Supported in designated sites	Supported in in designated sites	Supported in in designated sites
Bike riding / power-assisted pedal cycling (free range / off-trail)	Incompatible	Incompatible	Incompatible	Incompatible
Bushwalking /trekking / hiking / trail running at approved designated sites - trails, tracks or areas	Incompatible (except on the Bibbulmun Track or Munda Bididi Trail)	Supported	Supported	Supported
Bushwalking / trekking / hiking (free range / off-trail)	Incompatible	Supported	Supported	Supported
<b>Water based activities</b>				
Canoeing / kayaks / buoyancy devices / rowing / sailing / model boating/ windsurfing / kite surfing	Incompatible	Incompatible	Incompatible	Incompatible

## Unsanctioned Trails

The City of Armadale has a significant network of unsanctioned or informal trails, with desktop estimates indicating that over 70 kilometers may exist within the project area. Heatmapping has been employed to pinpoint hotspots, highlighting areas with the highest trail usage. These trails are utilised by mountain bikers, walkers and trail runners.

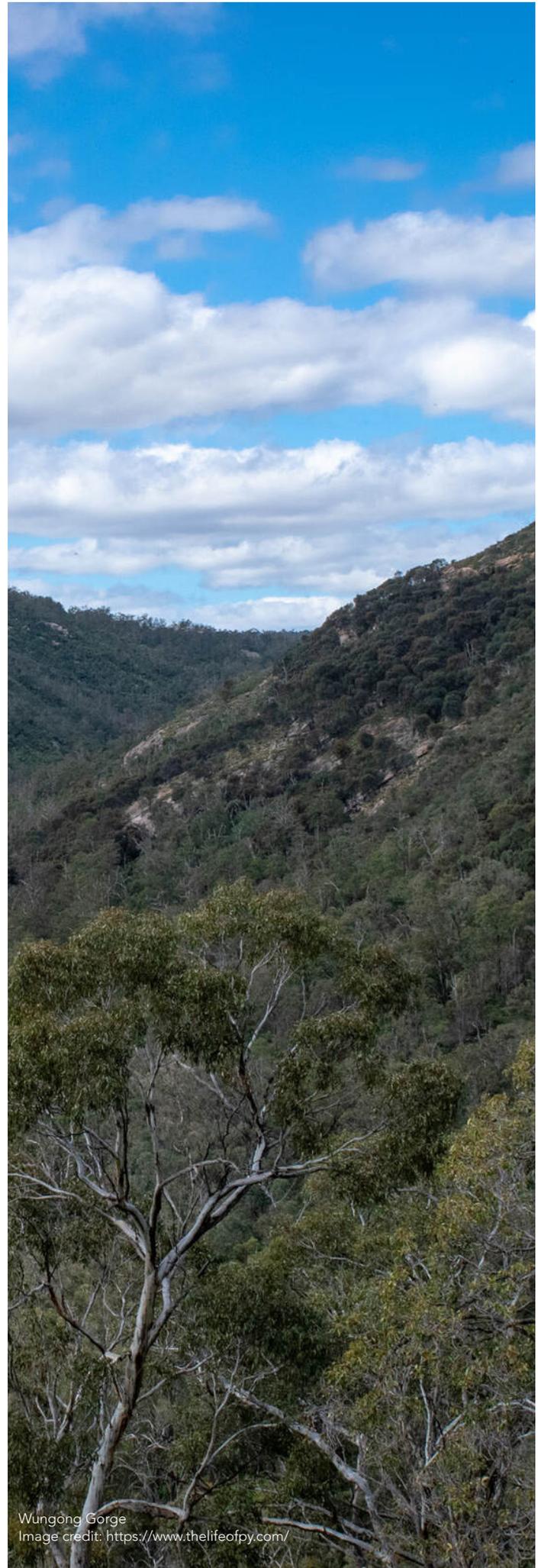
These trails have not been formally planned or designed nor has their construction necessarily been in accordance with best practice. In preparation of this master plan none of the unsanctioned trails have been formally assessed for their sustainability or suitability for use. Continued construction and use of unsanctioned trails can be reflective of demand for a certain trail type/ style or need for increased quantity of trail. These factors have been considered in preparation of this master plan including assessment of the qualities of the trails and terrain in known hotspots.

Implementation of recommendations in this master plan provide the opportunity to investigate locations for potential trail development, which would include a formal assessment of some or all unsanctioned trails within relevant areas. The outcome of the assessment could be the closure, replacement or upgrade of unsanctioned trails as part of a high quality, sustainable trails/ trail network.

From a land manager's perspective, unsanctioned trails present many challenges and issues including:

- An adverse effect on the site due to lack of planning and/ or poor construction or maintenance impacting on flora, fauna and cultural heritage values
- Where unsanctioned trails breach environmental legislation, for example through damage to sensitive habitats or designated wildlife and archaeological/cultural sites, they may constitute criminal offences for which the land managers may be held liable
- Breach planning legislation, leading to enforcement action
- Cause disruption to routine land management practices such as forestry
- Lead to conflict between user groups
- Pose risks to those building or using unsanctioned trails and features if they are not properly designed, constructed and maintained.

There are a few options for managing unsanctioned trails; however, in all instances clear, transparent and effective communication between the land manager and unsanctioned trail builder/s is required to ensure effective implementation.



Wungong Gorge  
Image credit: <https://www.thelifeofpy.com/>

# 3.0 Trail Planning and Development

## 3.1. Strategic context

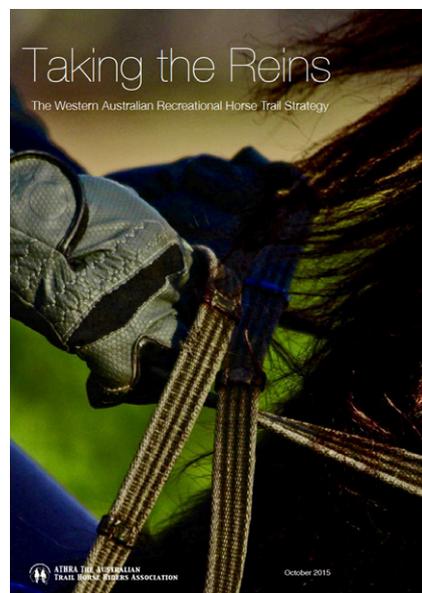
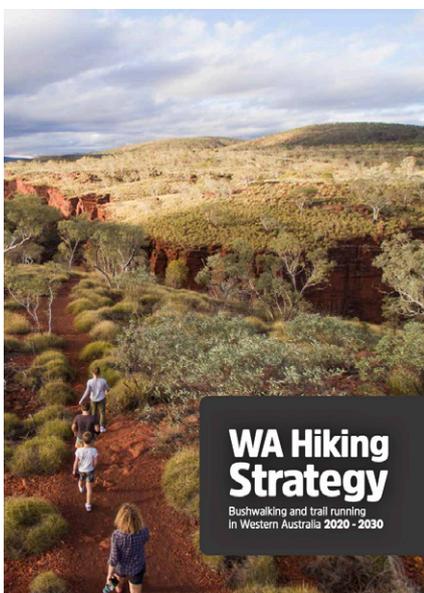
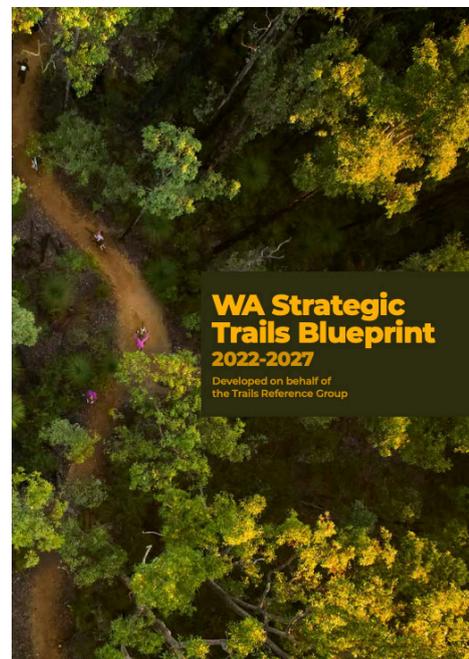
A range of background documents and information has been reviewed to inform the development of this Master Plan and ensure alignment with broader state, region and local objectives. Key documents reviewed are listed below.

### National Level (refer to Appendix A for detailed summary)

- Blueprint for an Active Australia, Heart Foundation (2019)
- The Australian Physical Literacy framework (2019)
- Australian Mountain Bike Management Guidelines (2018)
- Australian Adaptive Mountain Bike Guidelines (2019)

### State Level (refer to Appendix A for detailed summary)

- Western Australian Strategic Trails Blueprint 2022 – 2027
- Western Australian Trail Development Series
- Western Australian Mountain Bike Strategy – Mountain Biking and Off Road Cycling in WA 2022-2032
- Western Australian Mountain Bike Management Guidelines 2019
- WA Hiking Strategy – Bushwalking and Trail Running in Western Australia 2020-2030
- Back on Track: WA State Trail Bike Strategy (2008)
- Western Australian Recreational Horse Trails Strategy 2015
- Forest Management Plan 2024-2033
- More People More Active Outdoors
- WA Hiking Trail Management Guidelines



**Regional Level (refer to Table 2 for summary)**

Perth and Peel Mountain Bike Master Plan  
 Perth and Peel 2050 Cycling Strategy – Long Term Cycle Network

**Local Level (refer to Table 3 for summary)**

City of Armadale Economic Development Strategy  
 City of Armadale Tourism Strategy  
 City of Armadale Strategic Community Plan  
 City of Armadale Biodiversity Study  
 Armadale Settlers Common West Recreation Strategy and Signage Plan  
 Wungong River Concept Plan  
 Roley Pools Recreation Strategy & Infrastructure Plan  
 Jandakot Regional Park Management Plan  
 Forrestdale Lake Nature Reserve Management Plan

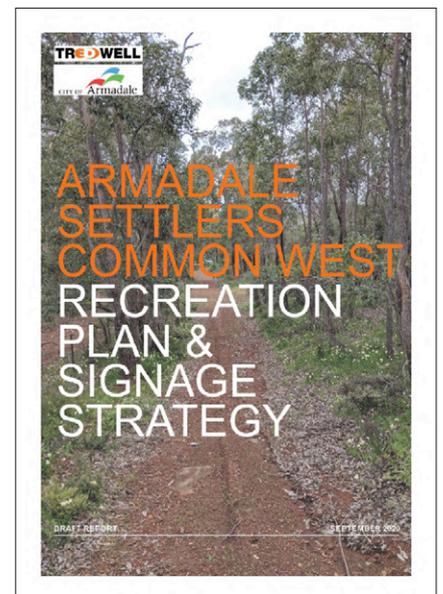
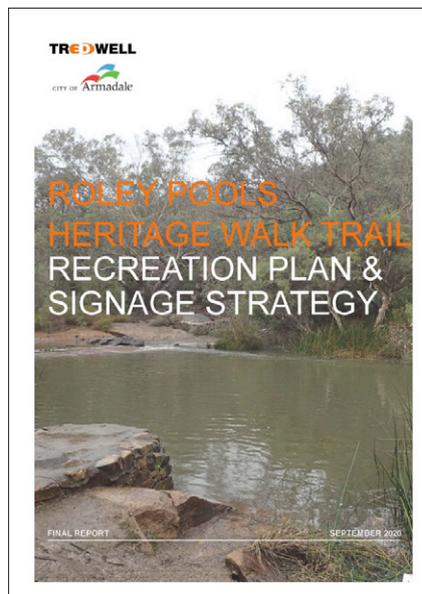


TABLE 2: Regional document summary

Publication	Summary	Key points
Perth and Peel Mountain Bike Master Plan	The vision for this master plan is to enable the world-class hierarchical development of an innovative, high quality and cohesive network of trails, which offer varied experiences, and cater for progression and diverse styles of riding while maintaining local character.	Recommendations and commentary specific to the Armadale region include: <ul style="list-style-type: none"> <li>• Identified Wungong as having the potential to be a destination of national significance and recommended it as a high priority location.</li> <li>• Identified Banyowla Regional Park as a locally significant development</li> </ul>
Perth and Peel 2050 Cycling Strategy – Long Term Cycle Network - Department of Transport	This long-term, aspirational strategy reflects the priorities shared by Local and State Government aimed at ensuring a connect system of safe cycle routes.	The LTCN maps primary, secondary and local routes throughout Armadale noting status and proposed additions. There is a focus on residential and built up areas within the City.

TABLE 3: Local document summary

Publication	Summary	Key points
Economic Development Strategy 2023-2028	This strategy reflects the aspirations and needs of the City's businesses and community, and has been created using the collective wisdom and shared vision for the local government area.	<ul style="list-style-type: none"> <li>The City of Armadale has experienced some of the strongest population growth in Australia over the last decade, and in the last three years has grown at a significantly higher rate than the Greater Perth Metropolitan area in Western Australia.</li> <li>Building visitor economy was one of four priority focus areas identified.</li> <li>The aim is to facilitate product and destination development through advocacy support and connections.</li> </ul>
Tourism Strategy 2023 - 2028	This strategy provides a framework for the City of Armadale to plan and prioritise projects, based on Key Focus Areas.	<ul style="list-style-type: none"> <li>Tracks and trails are listed as a Major area of opportunity particularly in accessing natural assets within the City</li> <li>Noted a strong community appetite for development of additional trails and a trend in tourism towards nature based activities such as trails</li> </ul>
City of Armadale Strategic Community Plan 2016-2031	Provides a blueprint for the future direction of the City and its community. Community Vision:  Armadale: A loveable city that is responsive to community values, appreciative of our natural environment, and provides a choice of lifestyle and work.	Outlines a series of objectives and strategies for the improvement of community, environment, economic development and leadership. Development of trails has the potential to help realise a number of identified objectives.
City of Armadale Biodiversity Strategy 2024-2029	Prepared to guide the City in regards to conservation and restoration of the natural environment. Outlines the values, threats and management actions in regards to natural areas under this City's management.	The City contains significant natural values which are under threat from a number of factors. 31 threats to biodiversity were identified and actions recommended to reduce the impacts. Recommendations will be implemented alongside the City's existing policies, plans, mechanisms and actions to protect and enhance biodiversity.
Armadale Settlers Common West Recreation Strategy and Signage Plan	Provides an overview of the Armadale Settlers Common Trail network including existing condition and recommendations for improvement works.	Aims to enhance recreational opportunities and improve wayfinding through a comprehensive strategy for trail development and signage.
Wungong River Concept Plan	A concept plan outlining proposals for development along the Wungong River from Champion Lakes to Armadale Road	Includes a range of trails including a main shared use path and a network of other trails for various users.
Roley Pools Recreation Strategy & Infrastructure Plan	Provides an overview of the Roley Pools Heritage Trail including existing condition and recommendations for improvement works.	The Roley Pools Recreation Strategy & Infrastructure Plan focuses on developing and upgrading recreational facilities and infrastructure to enhance visitor experience and environmental stewardship at Roley Pools.
Jandakot Regional Park Management Plan 2011  Forrestdale Lake Nature Reserve Management Plan 2003	Outlines the Department of Biodiversity, Conservation and Attractions approach to management of values within each park	Outlines recreation opportunities including walk and horse trails in selected areas of the park. Horse riding is allowed on designated trails and management tracks only.

## 3.2 Trail hierarchy

Establishing the scope and scale of a trail network is essential to new trail developments and ongoing management. Multiple strategies are implemented to ensure that the right type, size, scale and extent of trails and trail networks are established in the right locations. Factors for consideration include location significance, spatial distribution, event requirements and trail model detail.

TABLE 4: Trail significance hierarchy

National	Regional	Local
A trail facility for a large population centre and/or tourism resource that caters for up to a week of unique trail opportunities.	A trail facility for a small population centre or large community and/or a tourism resource that caters for short breaks or weekend trips.	A trail facility for a small community and/or tourism resource that caters for day trips.

### Location significance

Location significance defines the scale, reach and connectedness for trail 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 trail development in the project area have been categorised as being regionally or locally significant. All locations, when being developed, should be consistent with the relevant development procedures and standards outlined in the WA Strategic Trails Blueprint, the Trail Development Series and the WA Mountain Bike Management Guidelines.

Locally Significant locations cater for a 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 may host events if suitable. 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 provide for short breaks or weekend trips. Facilities should be developed within a 15-20km zone and be focused on a primary trail centre or trail town model. They provide a minimum level of services and infrastructure and can host national and regional events. Locations of regional significance should encompass broad trail types and classifications. Regional locations will see demand for trails from surrounding nationally significant locations.

Nationally Significant locations capture the tourism market for at least a week of unique trail experiences 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 on a primary trail town model and can include trail centres, networks or individual trails. 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 for trail users and also have the ability to cater for major international and/or national events.

The Armadale Region is identified as having the potential to be a destination of local to regional significance offering a diverse range of trail experiences to meet the needs of local residents and encourage visitors to the area.

## 3.3 Trail models

A trail model defines how a location's trail offerings can be developed and applies to a population centre or an individual area. The five main trail models, as outlined below, are typically used to plan for development and are not necessarily promoted to the user. This modelling has been developed for multi-model trails. Trail opportunities for local people and visitors are enhanced by the development of clusters of linked trails in localities. 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. The different categories of trail models or clusters are outlined below.

### 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 trail user types through the provision of user-infrastructure at individual sites.

### Trail town

A trail town is a population centre or popular recreation destination that offers a wide range of high quality trails and 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. Trail 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). To be classed as a Trail Town a location/town needs to be assessed and against the following six categories considered critical success factors.

1. Branding and marketing
2. Engaged businesses
3. Partnerships (governance, management, planning and budget)
4. Activities, amenities, attractions, accommodation and access
5. Suitable network of quality trails appealing to diverse markets
6. Landscape setting that is iconic or suitable for proposed trails.

### Trail centre

A trail centre is a single site with dedicated visitor services and trail 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 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 user 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 visitor 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.

### Individual trails

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 or may be a standalone individual trail in a community setting.

#### 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 used 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.

#### Loop Trails

Generally, the same attributes as linear trails except they start and finish in the same location.

TABLE 5: Trail models, significance, scope and extent

	Individual Trails	Trail Network	Trail Centre	Trail Town	Trail Precinct
National Significance	Only as part of a trail town	Only as part of a trail town	✓	✓	✓
Regional Significance	Only as part of a trail town	✓	✓	✓	
Local Significance	✓	✓			
Population centre based user services & facilities				✓	✓
Site-based user services & facilities			✓	✓	✓
Associated infrastructure	✓	✓	✓	✓	✓
Multiple trail models				✓	✓
Multiple trails		✓	✓	✓	✓
Single trail	✓				✓

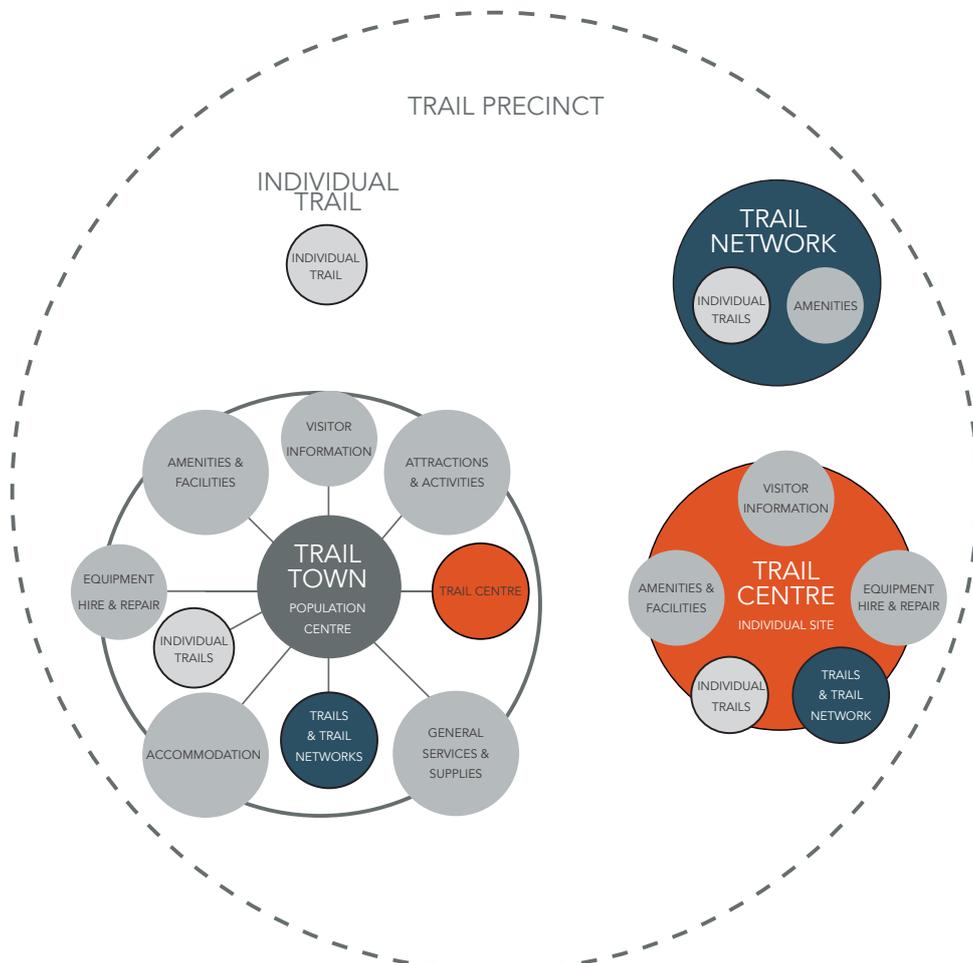


FIGURE 3 - Trail models

### 3.3 Trail development

Ensuring trails are sustainable from both a management and experience perspective requires application of a thorough development process. As outlined in the Trail Development Series (DLGSC, 2019), working within a standardised methodology is important in high value areas where trail planning, design and construction needs to be right the first time. Building rigour into the development process will ensure high quality outcomes on the ground.

Following adoption of the Trails Master Plan, the development of new trail proposals should follow this eight stage Trail Development Process. In addition to focusing on planning, the Trail Development Process encompasses constant evaluation, review and improvement process as trails are developed, maintained, extended or renewed.

#### Development drivers

The needs, motivations, and drivers for participation among different trail users vary and must be considered when selecting trail locations. Trails can serve as a primary reason for travel or an activity undertaken whilst a traveller is visiting an area for another primary purpose. Using trails can also be an activity undertaken by residents of a community that surrounds trail facilities. In addition to primary motivators, the development drivers for a location or site contribute to how attractive the site or location is to visitors. When assessing trail opportunities in the Armadale Region, the development drivers outlined below, were considered.

TABLE 6: Development drivers and considerations

Development driver	Development consideration
Environment	Protection and celebration of natural and cultural values.
Recreation	Located within proximity to or with good access from major population centres. Diversity of trail experiences.
Events	Event specific infrastructure designed to cater to specific racing formats and to industry standards. Emphasis on quality of trails and facilities.
Tourism	Located within proximity to other tourism experiences, accommodation and visitor services. Align to unique landscape and biodiversity experiences.
Community	Located within proximity to or with good access from major population centres. Existing community involvement. Ensure good engagement and involvement of community based trail bodies. Emphasis on quality of trails and facilities.

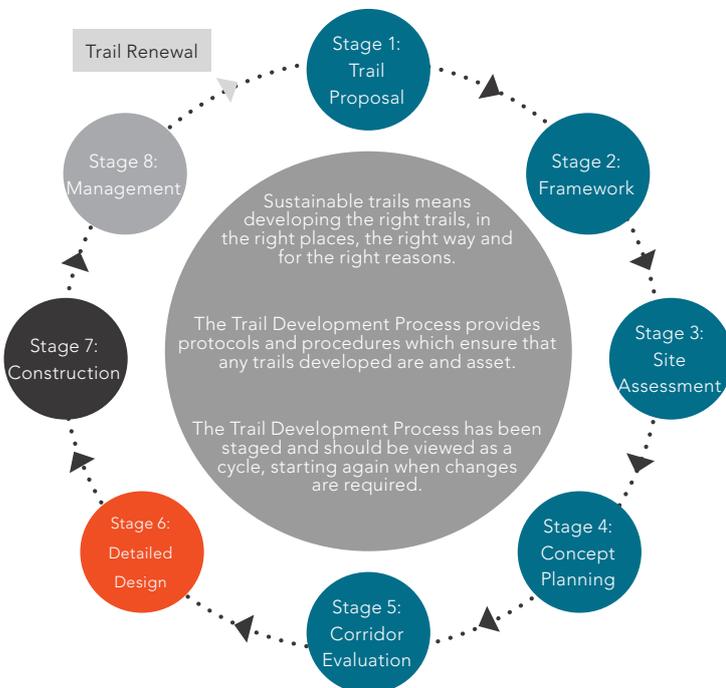


FIGURE 4 - Trail development process (DLGSC, Trail Development Series, 2019)

### 3.4 Management models

Successful trail development is dependent on implementation of an appropriate management model and securing funding for both implementation and ongoing maintenance. Management models need to be given further consideration in future planning, to ensure sustainable growth of trail opportunities within the region. The table below provides a comparison of potential management models.

Trail users are passionate about building and maintaining trails, and typically ‘custodian’ communities naturally form around popular trail networks and parks which can often be leveraged into a volunteer base to assist in trail management. Whilst the responsibility for management generally lies with the trail owner, it is possible to create partnerships to involve volunteers in some trail management tasks, 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 the utilisation of volunteer resources
- Creation of environmental stewards
- Creation of a fun and vibrant community
- Strengthened relationships and networks

TABLE 7: Trail development management models

	Public	Private	Partnership
Description	Government agency has sole management responsibility of the trail facility.  Commercial and event operators may contribute financially to the management of trails.	Private land owner has sole management responsibility of the trail facility.	Multiple stakeholders share management responsibility of the trail facility.  Partners could include non-government incorporated agencies, such as peak bodies, state government bodies, private bodies, foundations or trusts, and volunteer mountain bike bodies.  Volunteers may contribute to the management of trails.
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>• Reduced 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> <li>• Can provide income stream generation opportunities which in turn enable innovative high quality trail provision and services, and trail maintenance revenue and high user satisfaction.</li> <li>• Linga Longa Bike Park is a successful example in the South West.</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>• 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>

## 3.5 Funding models

There are a range of trail management and maintenance revenue generation models that have been trialed or implemented internationally, in other states, and around WA. Some possible revenue sources for consideration in the Armadale Region are summarised below.

TABLE 8: Potential revenue sources

Revenue type	Description	Example
Facility or attraction fees	Pay to enter or use a specific facility or attraction.	Trail passes/ permits.
Parking fees	Payment for timed parking.	
Licence charges	Charges or % of revenue paid by businesses operating on the trails or within reserves.	Charges to operate café, hire facility, tour operator, coaching businesses, event promoters and accommodation.
Leases	Lease fees for operating a business or concession.	Charges to operate café, hire facility or accommodation.
Rates	Proportion of Council rates paid by residents used for maintenance of community facilities.	
Sponsorship	Individual or company sponsorship or donations for specific area or facility.	Trail sponsorships, bequests, donation boxes, other donation facilities such as tap and go.
Partnerships	Partner with others who derive a benefit from the facility, park or program.	Partner with health funds for exercise programs or facilities in parks.
Volunteers	Individuals or groups of volunteers assist with management and maintenance of a trail or trail network.	
Events	A per participant or flat fee is paid to support facilities and trail maintenance.	



Roley Pools  
Image credit: [experienceperthhills.com.au/things-to-do/roley-pool-reserve/](https://experienceperthhills.com.au/things-to-do/roley-pool-reserve/)

## 3.6 Market segments

Trail users come from a variety of backgrounds and are categorised according to whether trail usage was their primary motivation for travel or as an incidental activity. When assessed against the three travelling patterns of the intrastate market identified by Tourism WA (refer Table 1) there are noted similarities between trail users.

There are three distinct trail user markets - locals, 'destination trail users' and 'trail users while on holiday'. Further research needs to be undertaken to determine the size and potential for growth of these markets, as well as the benefits and impacts resulting from increased visitation to the City of Armadale region.

### **Locals**

Trails are key attractions for international and domestic visitors looking for quality nature-based experiences. Equally important are the local users, many of whom have worked hard to drive the development of trails so others may enjoy them and without whose efforts many trails would not exist. The local trail user market includes trail users who reside in or near the Armadale region. This market is spread across the City of Armadale, as well as the surrounding local government areas. There is potential for sustainable growth in local trail user participation by providing well-designed and adequate trails, while also encouraging and supporting community volunteer groups focused on sports and trail care.

### **Destination trail users**

The destination trail user market includes experienced trail users who regularly travel with trails as a primary motivator. They have likely visited other Australian or international trails destinations. They seek high quality trails with good supporting infrastructure in scenic / natural locations. These users are usually found in trails destinations and seek good terrain. Locations that combine desirable terrain with tourist activities and infrastructure have the best market appeal for destination trail users. This group also includes event participants who travel to a destination specifically for the event, typically spending additional time pre or post event to explore the area.

### **Trails users while on holidays**

The trail users while on holidays market includes typically less experienced trail users, whose primary motivator for travel is not the trails. They generally comprise the leisure market and represent the largest market potential. This market views trail use as a secondary motivation for their visit and will participate in trail activities incidentally. They will likely hire equipment as required. They may place less emphasis on the trail and more on accessibility of the facility, the setting and nearby attractions and amenities. These users are usually found in 'holiday' destinations and are seeking a unique holiday experience, relating to either culture, nature, cities, comfort, leisure, cafes/restaurants etc. Locations that combine these tourist attractions with trail opportunities have the best market appeal for this market segment.

## Market Segment Comparison

When assessed against the three trip types identified by Tourism WA and embraced by Destination Perth, the similarities and common traits between the two types of trail tourists is evident.

Tourism WA's Domestic Segmentation study (2023) identified that when travelling within their own state, West Australians are most commonly taking one of three types of trips:

- Relax and Recharge;
- Simple Nature; and
- Family Time

TABLE 9: Tourism market segment comparison

Identified Tourism Market	Destination Trail Users	Trail users while on holiday
<b>Relax and Recharge</b>		
Traditional values	✓	✓
Skewed towards mid-life and older households	✓	✓
Feel financially stable and are medium to big spenders	✓	✓
Enjoy the simple things in life	✓	✓
Like to support local and buy Australian	✓	
They are less likely to buy takeaway but enjoy going out to cafes and restaurants	✓	✓
Like watching sports but are less likely to participate in sports themselves		✓
Most likely to own their own home	✓	
<b>Simple Nature</b>		

Identified Tourism Market	Destination Trail Users	Trail users while on holiday
Typically Gen X and Baby Boomers	✓	✓
More likely to live in regional WA	✓	✓
Mid range socio-economic status	✓	✓
Aren't bothered with latest fashion, trends or technology	✓	✓
Try to avoid crowds and big cities	✓	
They are handy and practical, making choices based on functionality	✓	
Often cook at home but also like to go to the pub	✓	
Prefer nature-based leisure activities or cultural experiences (ie museum, art galleries etc)	✓	
More likely to choose higher end accommodation and have a higher average spend per trip	✓	
<b>Family Time</b>		
Gen X and Gen Y	✓	
More likely to be married with children		✓
Highly likely to be born in NZ, UK or India (representing a flow-on opportunity for international VFR)		✓
They are shoppers and consider themselves medium to big spenders		✓
Value for money is important	✓	✓
They enjoy going out to cafes, restaurants and the pub		✓
They are more likely to go to the zoo and/or theme parks		✓
They value the convenience of services like food delivery and click and collect		✓
They skew towards high usage of technology		✓

### 3.7 Market Motivators and Needs

Depending on the market, different motivators and experiences will be placed as the primary decision for engaging in the activity. Different user groups are driven by varying motivators, depending on whether they are undertaking travel or using the trails for recreation.

Further research is required to understand the primary motivators for travel for all trail activities. The needs of the various markets will be different for different trail user groups and need to be considered when developing a location.

Broadly, the primary motivators are controllable factors that influence destination choice, and can include:

#### **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 purposefully designed track. 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 user group community offering market credibility, a sense of belonging and camaraderie through events, volunteer support and social engagement.

### 3.8 Trail Type Specific Markets



#### **Hiking**

As per the WA Hiking Strategy this master plan will refer to bushwalking and trail running as 'hiking'. Hiking user types fall on a spectrum from recreational to enthusiast or outdoor aware, to outdoor adventure and can be further differentiated based on psychographic characteristics - shared personality traits, interests and lifestyles. Recreational walkers and runners typically use the trails close to home whereas enthusiasts are willing travel to experience specific trails.

According to the WA Hiking Strategy, bushwalkers and trail runners seek experiences in natural environments and access to diverse landscapes. Participants assess elevation, distance, aesthetics, and technical aspects of a trail to decide if it is the experience they desire.

The WA Hiking Trail Management Guidelines ( (DBCA, DLGSC, 2024)) define the following visitor markets:

#### **Destination Trail users**

Active Lifestyle Hiker - represents the largest segment within the Destination Trail User market. Experiences targeted at this group have the potential to become destination drivers by encouraging interstate and international visitors to choose WA for their next hiking trip; and/or extend length of stay and spend of travellers who are already motivated to visit WA.

Luxury Walkers (High Yielding Travellers) - represent a small, high yield segment of the Destination Trail User market. Experiences targeted at this group play an important role in destination and brand awareness by elevating domestic and international awareness of iconic trails.

Independent Hikers - represent a small, low-yield segment of the Destination Trail User market.

#### **Trail users while on holiday**

Holiday Walkers - are walkers who seek out accessible trails for use with family and friends. They enjoy outdoor activities on holiday for socialising, fun, to experience something new and to be immersed in nature.

## Mountain biking



Mountain biking is a diverse activity with mountain bike riders categorised into five trail user types, which are defined by differing trail expectations and the riding experience/s they seek. Understanding the needs, expectations and requirements of different trail users is essential in ensuring the long term sustainability of trails.

Mountain bikers are generally divided into the following types each with differing trail type requirements, however there are also numerous overlaps between some segments. Different user types also have different barriers to participating in mountain biking and require varying levels of trail user friendliness and facilities.

TABLE 10: Mountain bike user types (DBCA, 2015)

Type	Reason for mtb travel	Travel needs & motivators	Recreation needs & motivators	Trail style	Classifications sought	Market potential
Leisure	Secondary	Accessibility & uniqueness	Accessibility & quality	Touring & Cross Country	White to green	Large
Enthusiast	Primary	Diversity & quality	Accessibility & quality	Cross Country, All Mountain & Park	Green to blue/black	Moderate
Sport	Primary	Diversity & quality	Diversity	Cross Country & All Mountain	Green to double black	Small but influential
Independent	Secondary	Uniqueness & diversity	Diversity	Touring, Cross Country & All Mountain	White to blue/black	Small
Gravity	Primary	Community & quality	Accessibility	Free Ride, Down Hill & Park	Blue to double black	Small



MTB in the Perth Hills  
Image credit: [experienceperthhills.com.au/head-to-the-hills-for-was-best-mountain-biking-trails/](http://experienceperthhills.com.au/head-to-the-hills-for-was-best-mountain-biking-trails/)

## Cycling - gravel and road



The peak body for cycling in WA, Westcycle, identifies the following cycling disciplines.

- Commuting
- Road
- Track
- Mountain bike
- Cyclocross/ gravel
- BMX
- Touring
- Race

This Master Plan considers road and gravel under the generic activity cycling.

There is currently no state paddling strategy for Western



Australia and therefore no user types, categories or definitions. For the purpose of this Master Plan, user types have been defined as the leisure paddler, adventure paddler and sport paddler.

## Equestrian



As defined by the Australian Trail Horse Riders Association (ATHRA), horse riders can be divided into four user types based on distance and recreation or event based riding.

TABLE 11: Types of horse riding (ATHRA)

Type	Style
Horse trail riding	Riding outside of enclosed areas for pleasure, challenge, experiences and educational outcomes.
Endurance riding	A more active and intense form of recreational or competitive horse riding Typically involves riding in organised events generally on loop trails with distances of approximately 80km.
Horse trekking	Long distance point to point riding involving either the use of pack horses or support vehicles to carry overnight camping equipment and supplies, or base camp style which involves self-catering and overnight camping.
Harness driving	Hitching the horse to a 2 or 4 wheel vehicle and driving on the trails.

In addition to the above, there are a number of horse riding disciplines with competitive focus that are categorised under 'sports' by Equestrian Australia.

## Paddle

# 4.0 Methodology and Consultation

## 4.1 Methodology

In developing the City of Armadale Trails Master Plan, the following methodology was implemented.

### **Stakeholder and Community Consultation**

Undertook meetings, an online survey and drop in sessions with key stakeholders, members of the community and community groups.

### **Trail and Facility Audit and Gap Analysis**

Site visits to multiple existing and potential trail opportunities was undertaken and an assessment of trail demand and comparison to current supply was completed to identify gaps.

### **Constraint Definition and Opportunity Planning**

Identification and review of the region's opportunities and constraints was completed and included existing and potential trail opportunities, social, cultural, environmental and physical constraints.

### **Prioritisation Framework**

Developed prioritisation framework and assessed identified opportunities.

### **Master Plan Preparation**

The draft Master Plan was prepared documenting process and recommendations. The Draft will be reviewed by the Project Reference Group, DLGSC, DBCA and Council prior to finalisation and distribution of the final Master Plan.

## 4.2 Consultation

Consultation is an integral component in developing this Master Plan. Stakeholder and community input assisted in identifying and determining the region's sustainable long-term vision for provision of trail experiences. In order to ensure the success and longevity of trails and trail experiences it is essential to engage with both the existing and potential trail users and land managers. Through a combination of meetings, workshops and surveys the consultation process aimed to gather input, comments and information to guide the development of the Master Plan.

The consultation undertaken assisted in identifying the following:

- Local trail user profiles
- Existing trails and their demand
- Opportunities and demand for different trail styles
- Local constraints and objectives
- Locations potentially suitable for trail development
- Governance opportunities for on-going management.

To gather information on the above and successfully meet the project objectives, the following mechanisms were employed:

- Project reference group liaison
- User group consultation
- Stakeholder consultation
- Trail user/ community survey.

### **Project Reference Group**

A Project Reference Group was formed to oversee project management and consisted of representatives from:

- City of Armadale
- Department of Biodiversity, Conservation and Attractions
- Department of Local Government, Sport and Cultural Industries

The group met throughout the project to provide guidance and approval.

## Key stakeholder consultation

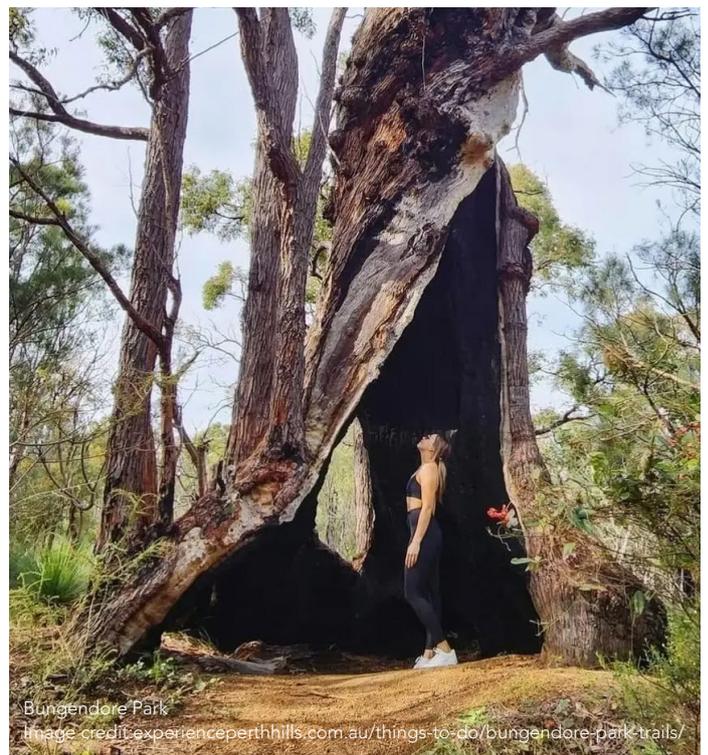
The City of Armadale, project stakeholders and partners have a vested interest in ensuring that outcomes of the Master Plan support their project purpose, objectives and organisations strategic direction. This Master Plan will guide future planning and investment in trail and adventure opportunities in the City of Armadale.

Stakeholders were engaged through various means including email, online survey, meetings and phone calls. Stakeholders consulted included:

- Department of Biodiversity, Conservation and Attractions
- Department of Local Government, Sport and Cultural Industries
- WestCycle
- Hike West
- ATHRA
- Trails WA
- Whadjuk Aboriginal Corporation
- Local Elders (via the Champion Centre)
- Break the Boundary
- Shire of Serpentine Jarrahdale
- City of Kalamunda
- City of Gosnells
- City of Cockburn
- Shire of Beverley
- Shire of Wandering

Key feedback from stakeholder consultation included:

- Opportunity to leverage proximity to Perth, including access by train.
- Focus on diversifying the trail offer, need to clearly define the target market
- Ensure natural and cultural values are protected and celebrated
- Initially, improve existing trail experiences within the region through upgrades, signage and better facilities
- Develop and strengthen key partnerships to assist with trail development and ongoing maintenance
- Ensure the City develops its own unique identity, leveraging the regions natural landscape, cultural and European heritage
- Work with key stakeholders within and adjacent the City boundary to progress potential trail development opportunities and ensure linkages across administrative boundaries
- Ensure region has services and infrastructure to support visitors needs and encourage repeat visitation
- Recognise the challenges and issues land managers face with asset management and provision of recreational / trail experiences.



## User group and community consultation

User group and community consultation identified gaps in current trail supply, issues relating to existing trails and potential trail opportunities.

An online interactive survey and map formed an integral component of the consultation strategy for the Master Plan. The survey targeted at trail users, included an interactive map which enabled identification of specific trail and infrastructure opportunities and issues.

The intention of the interactive survey was to:

- Develop an understanding of the local trail user demographics
- Understand user skill level and frequency of usage
- Understand local trail usage and user location preferences
- Understand user needs and requirements based on their current habits
- Identify potential opportunities and constraints.

The survey and interactive map were open for approximately three weeks and promoted via the Engage Armadale portal, the City's online community hub, social media and trail community networks. A total of 116 survey responses were submitted and 15 comments dropped on the interactive map.

In addition to capturing respondent demographics, the survey provided insights into trail user characteristics, preferences, and potential development locations, while also detailing the trails currently used by respondents, including frequency and duration of visits. A community drop-in session was held at Armadale Council office. Discussions reiterated findings from the survey and provided further insights into current issues and potential trail development opportunities in the region.

Survey respondents and drop-in session attendees broadly recognized the benefits that high-quality trail experiences offer to communities and regions, showing strong support for the development of new trails and trail experiences within the City. Broad survey results are summarised in Figure 5, key feedback from user groups and community included:

- Existing trails need maintenance, improvements to signage and adequate facilities such as carparking
- Existing trail provision is lacking, insufficient and not consistent with demand
- Strong support for a trail/s on the scarp in areas where the terrain offers opportunity for engaging trail experiences
- Opportunity to celebrate the region's natural and cultural values through trails and trail experiences.

Comments and responses highlighted a range of themes, areas for improvement and potential opportunities included:

### Trail Maintenance

General comments suggested improved maintenance, signage, support infrastructure (such as parking) and promotion of existing trails is required.

### Trail Signage & Information

Overall, signage of existing trails was considered average and sourcing information on current trail experiences difficult and not comprehensive enough. Incorporating information on cultural and heritage history, environmental values and significant sites was suggested to enhance trail experiences.

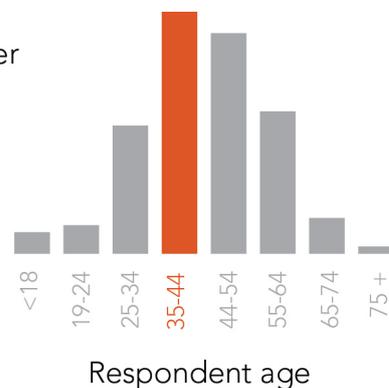
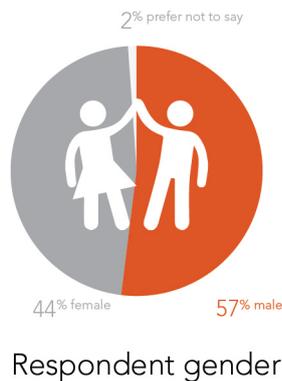
### Trail Types

Consultation highlighted a need to formalise mountain bike trails in the area with a focus on opportunities that provide a point of difference in the existing MTB offering within Perth. While some horse trail use was noted within the area, the development and resources going into horse trails south of Armadale in Serpentine Jarrahdale was highlighted as the better opportunity. Linking into these proposals was considered an opportunity.

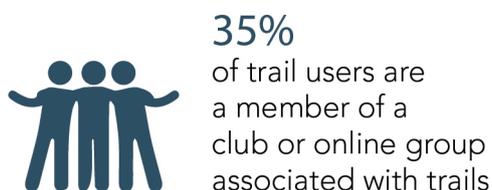
### Connectivity

Trails play an important role in connecting people to where they live, work, learn and play. Consideration of the role existing and future trails can play in providing this connectivity was identified during consultation. Ensuring trails link back to train stations and other key points within the City was highlighted as an opportunity.

Many comments and responses received acknowledged the City's potential to become a unique trails destination, capitalising on the region's topography and proximity to Perth. Consultation undertaken to develop this master plan was an inclusive and valuable process, providing useful information and insights. In general, consultation highlighted the increasing demand for trails and a need to protect natural and cultural values. User feedback reflected a desire to develop sustainable trails catering to all trail user types and abilities, for recreation and tourism. The feedback highlighted the need for the master plan and reinforced the project focus to develop a diverse range of trail experiences in the area, catering for both the local communities and visitors.



fitness, being in nature, and physical challenge are the main reasons people use trails



Top 3 sources of information about trails



FIGURE 5 - Summary of key survey results

# 5.0 Current situation

## 5.1 Demographics

According to the 2023 Census Data (Population ID, 2024) there are 105,094 residents within the Armadale local government area. From 2013 to 2023 the region's population increased by 44.6% representing an average annual population change of 3.76% per year over the period (compared to WA population growth of 15.6% over the same 10 year period). The largest changes in age structure between 2011 and 2021 were increases in the age groups 35-39, followed by children under the age of 14. This is reflective of a growth in families to the area. The City's population is expected to reach 145,843 in 2046 (City of Armadale, 2024).

There is an even split between female (50.5%) and male (49.5%) residents. When compared to Western Australia as a whole, the City of Armadale has a higher proportion of people in the 30-44 year age groups and a higher proportion of people in the younger age brackets (14 years and under). Overall, 23.5% of the population was aged between 0 and 15, and 24.8% were aged 30-44, compared with 19% and 21.7% respectively for Western Australia.

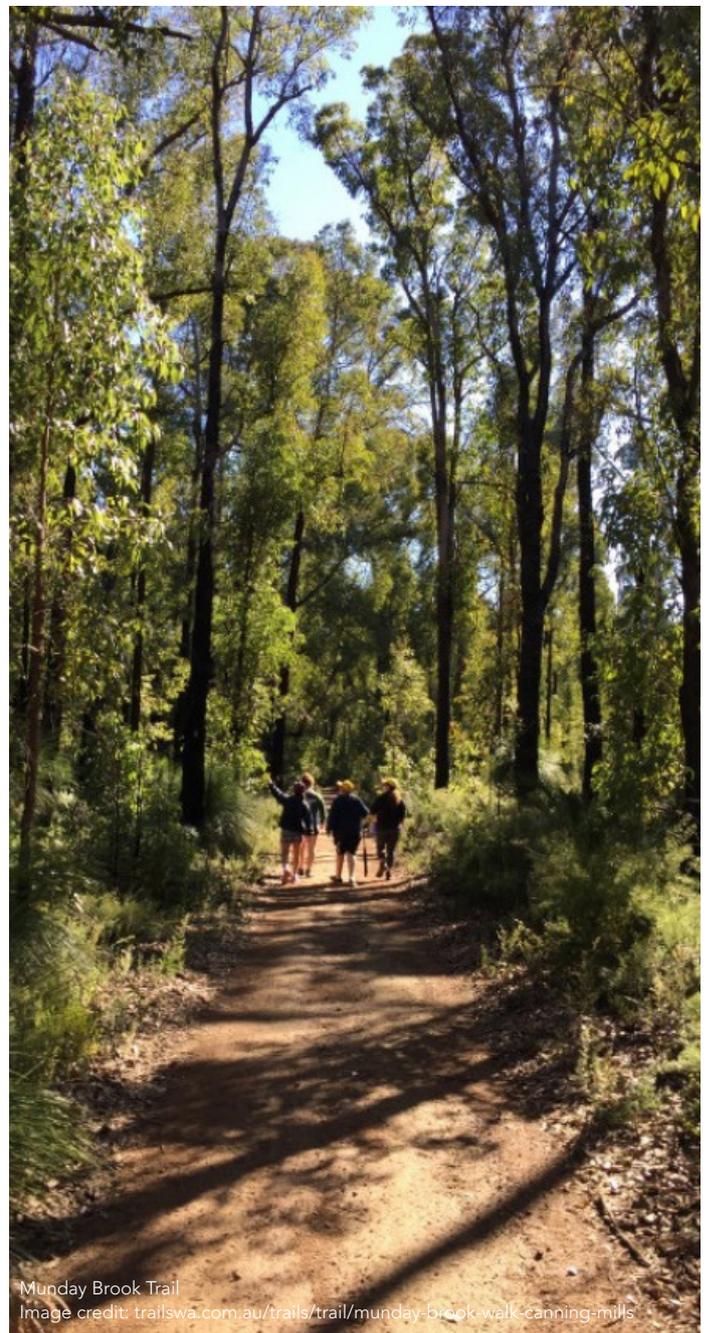
The major differences between the age structure of the City of Armadale and Western Australia were:

- A larger percentage of persons aged 0 to 4 (8.0% compared to 6.1%)
- A larger percentage of persons aged 5 to 9 (8.3% compared to 6.5%)
- A larger percentage of persons aged 10 to 14 (7.2% compared to 6.4%)
- A larger percentage of persons aged 30 to 34 (8.3% compared to 7.4%)
- A larger percentage of persons aged 35 to 39 (9.2% compared to 7.6%)
- A smaller percentage of persons aged 50 to 54 (5.7% compared to 6.5%)
- A smaller percentage of persons aged 55 to 59 (5.2% compared to 6.1%)

The City of Armadale has a moderately affluent population with most household incomes indicating a mid-range level. While there was a lower proportion of households earning a lower income (less than \$650 total household weekly income) at 14.7% compared to WA averages of 16.3%, there was also slightly less earning a high weekly income (more than \$3,000 total household weekly income) of 21.4% compared to WA averages of 25.6%. Indicating the bulk of households earned between these lower and upper thresholds.

The number one employer in the area is Healthcare and Social

Assistance. Of those in the workforce the highest percentage were professionals (7,912 respondents or 17.8%) followed closely by Technicians and Trades Workers (7,445 respondents or 16.7%). 58% of the total labour force are employed full time, 30.1% employed part time, and 6.3% are unemployed. 13% of the City's population engaged in volunteer work in 2021 which is a smaller portion (15.9%) than Western Australia.



Munday Brook Trail  
Image credit: [trailswa.com.au/trails/trail/munday-brook-walk-canning-mills](https://trailswa.com.au/trails/trail/munday-brook-walk-canning-mills)

## 5.2 Visitation and visitor profiles

The region is predominantly a self-drive destination, with most travelling to the region to visit friends or relatives and a number passing through the region on the South Western or Albany highways. Tourism product is centred around national park and bushland self-exploration, sports tourism and a select number of food and wine attractions.

For the period 2020/21 there were 400,000 visitors to the Armadale region, with the vast majority being domestic day trippers of 340,000. Those that stayed in the area accounted for 644,000 total visitor nights. The average trip length was 11 nights, skewed heavily by international visitors staying an average of 35 nights, whereas typical domestic overnight stays averaged 3 nights. TRA (Tourism Research Australia, 2024) noted that the most common used language after English was Punjabi, indicating strong heritage connections with India. There was an average trip spend of \$165, totalling an annual average spend of \$66 million. The bulk of visitors to the region are from the intrastate market (85%) (Tourism Research Australia, 2024).

The City of Armadale boasts a vibrant, culturally diverse population, which is mirrored in the city's international visitation patterns. The predominant reason for travel, both from international visitors and domestic travellers—whether for overnight stays or day trips—is to visit friends and relatives. This trend indicates that personal connections are a major factor driving tourism to the area. Furthermore, local families play a crucial role in generating most of the tourism activity within the city.

In the City of Armadale Economic Development Strategy event tourism is identified as a major contributor to the visitor economy, attracting over 210,000 people to the City in 2022-23 financial year. Key infrastructure such as Champion Lakes Regatta Centre and the surrounding nature reserves and trail networks will continue to drive both formal and informal recreational tourism. In addition, there is significant potential to capitalise on the 'Visiting friends and relatives' market which drives the bulk of tourism visitation, to extend the visitor experience. While VFR will be the primary driver of external visitation, marketing of experiences to existing and new families in the region will build a network of advocates for all that the region has to offer.

In 2022 the top 2 reasons for visitation to the City or Armadale was while on holiday and to visit friends and relatives. (Tourism Research Australia, 2024) While long stay visitor markets are generally high value due to multi-day spend, they require a multitude of varied and established tourism experiences to extend their length of trip beyond a weekend. In this case it is also evident that the long stay visitor markets in the region are staying with friends and relatives, and are likely international visitors looking to reconnect and spend time with family, rather than sight-seeing and trail-tourism based motivators. When they do engage in trail experiences, they are more inclined towards leisurely activities like scenic strolling rather than more intense pursuits such as hiking or mountain biking. They could be targeted as a longer term prospect once more product/experiences have been established within the region, and then only if market indicators show a shift in holiday-based activities and motivators.

For the City of Armadale the two primary markets visiting the area that pose the greatest potential and return on investment for trail development are:

### Day Trippers

- Live within close proximity so will likely undertake multiple trips into the region on an ongoing basis
- Have family and friend connections in the region
- Are sport and adventure enthusiasts and enjoy nature-based activities.

### Short Breaks / Weekenders

- Live within the Perth metropolitan, South West or Great Southern regions
- Will be attracted to camping facilities in the region, which can link to trail and trail networks
- Enjoy food and beverage experiences
- Have family and friend connections in the region.

Based on this understanding of the visitor market to the region the following implications for trail offerings should be considered:

**Diverse Trail Options** - to cater to both the short-term holidaymakers and the long-stay visitors, there should be a mix of trail offerings. While intense activities like hiking and mountain biking are appealing to some, the primary focus should be on developing and promoting trails that offer scenic, leisurely experiences. This aligns with the interests of long-stay visitors who are likely seeking relaxing and enjoyable outdoor experiences rather than high-adrenaline activities. This will also differentiate the offering from dedicated trail offerings located nearby.

**Marketing and promotion** - tailoring marketing efforts to highlight the scenic and leisurely aspects of the trails can attract both long-stay and short-term visitors. Promotional materials should emphasise the relaxing and family-friendly nature of the trails, appealing to those who prioritise visiting friends and family while also enjoying local natural attractions.

The City of Armadale lies within the Destination Perth sub region which in recent years has seen an ever-increasing growth in trail tourism, with hikers and mountain bikers travelling to enjoy new trail and riding experiences. Extensive trail development in neighbouring areas of Dwellingup and Collie provides opportunities to leverage complementary offerings in the Armadale region, particularly as a closer 'gateway' experience to these other destinations.

**Scenic and Accessible Trails** - emphasising trails that showcase the natural beauty of the region and are accessible to a broad audience, including families and less experienced trail users, can enhance the appeal of the region. Trails with scenic views and easy-to-navigate paths will be attractive to those looking for a pleasant, low-intensity outdoor experience.

**Enhanced Visitor Experience** - given that long-stay visitors are often staying with friends and family, creating trail experiences that can be enjoyed in a group setting or as part of a family outing can enhance their overall visit. Developing picnic areas, scenic viewpoints, and family-friendly trail features could make the trails more appealing. Offer amenities and facilities that enhance the short-break experience, such as well-marked trails, rest areas, and scenic spots. Ensure that trails are linked to food and beverage options, such as nearby cafes or picnic areas. Design trails that cater to families and groups, with features such as easy loops, scenic viewpoints, and safe, enjoyable paths for children and non-adventurous participants.

**Camping and Trail Integration** - develop trails that are easily accessible from camping sites, integrating them into the broader outdoor experience. Provide clear information on trails that are close to or connected with camping areas.

**Community Engagement** - engaging local communities in the development and promotion of trails can be beneficial. Since residents play a significant role in driving tourism activity, involving them in trail design and maintenance can ensure that the offerings meet the needs of both locals and visitors. Create opportunities for day trippers to engage with local events or community-driven trail activities. This could involve local volunteer groups or special trail events that align with their interests.

The development of trail and adventure experiences will assist to meet the demand for outdoor recreation and cater to the increasing number of residents seeking trail and experiences and outdoor adventure. Even more important will be the ability to drive intra-regional dispersal and visitation and enable the region to capitalise on the visitation to neighbouring trail centres, and through-region travel between these centres.

## 5.3 Participation and demand

### Participation in active recreation

Across Australia, participation in trail-based activities and outdoor recreation has stabilised since the peak of COVID-19, although overall participation rates in these activities remain higher across the board than pre-pandemic levels. This is evidenced when comparing the Participation in Sport and Recreation (Australia) surveys from 2016/17 to 2020/2021 and then to 2022/23 outlined in the tables below.

Key points of the report released in October 2023 relate to corrections in participation post COVID -19. The trend of Australians aged 15 and over exercising for social or mental health benefits has recently slowed, but these motivations are still stronger now than before the pandemic. This indicates a lasting shift in priorities, requiring continued focus on promoting mental well-being and social connection in exercise programs.

- Regular (1+ per week) participation in sport-related activities fell to its lowest point in 2020-21. Since then, both boys and girls have been gradually returning to sports, though participation rates have not yet returned to pre-pandemic levels.
- When COVID-19 restrictions were in full force, women drove increased participation, especially at higher frequencies. However, the most recent AusPlay data indicates that these elevated participation levels have not been maintained since the easing of restrictions.

TABLE 12: Persons participating in sport and physical activity 2016-2023 (Sport Australia, 2023)

Activity	Adult participants		
	2016/2017	2022/2023	% Change
Bushwalking	1,252,200	2,191,900	+75%
Mountain biking	297,000	472,600	+59%
Cycling	2,284,000	2,810,900	+23%
Canoeing/ kayaking	322,000	423,000	+31%
Equestrian	193,800	235,100	+21%
Walking (recreational)	8,655,600	9,398,500	+9%

The same Participation in Sport and Recreation Survey found that overall males engage in recreational activity at a greater rate than females. Whilst females were more likely to walk or horse ride for exercise than males; males were more likely than females to participate in cycling and mountain biking as shown in the table below.

TABLE 13: Participation rate by gender for sport and physical recreation in 2022/23 (Sport Australia, 2024)

Recreational activity	Participation rate (%)	
	Male	Female
Cycling	16.2	9.6
Mountain biking	3.4	1
Walking (recreational)	33.9	51.6
Bush walking	8.3	11.7
Canoeing/ kayaking	2	1.8
Equestrian	0.4	1.8

People who participate in a trail based activities (walking, bush walking, canoeing, cycling, equestrian and mountain biking) are likely to also participate in other trail based activities.

According to AusPlay data, of an estimated resident population of 100,737, 85.9% of adults (15+ years old) residing in the City of Armadale participated in physical activity in the 2022-2023 financial year. This was below the national and state participation rates of 89.3%. The top sport and recreation activities for adults in the City of Armadale is summarised below. (Clearinghouse for Sport, 2024)

TABLE 14: Top sport and recreation activities for adults in City of Armadale LGA (Clearinghouse for Sport, 2024)

Activity	Participation rate (%)
Walking (recreational)	30.2%
Fitness/Gym	26.5%
Swimming	13.7%
Running/Athletics	10.7 %
Cycling	8.4%
Football/soccer	6%
Australian football	5.4%
Bushwalking	5.3%
Dancing (recreational)	4.5%
Netball	4.2%

## Participation in trail based activities

The COVID-19 pandemic led to a significant surge in trail participation in Western Australia and across the nation. With lockdowns and travel restrictions in place, many Western Australians turned to their local environments, seeking outdoor experiences that offered both recreational opportunities and mental and physical health benefits.

In the last year, there has been a noticeable correction back to pre-COVID participation levels. However, it's important to note that overall participation rates remain higher than those recorded in 2019-2020. This shift highlights a lasting impact from the pandemic, with more people embracing outdoor activities and recognising their benefits. As a result, there may be ongoing opportunities to further develop and promote trails to cater to this sustained interest in outdoor recreation.

Key findings from the AusPlay report show Australians' participation in sport and physical activity is adapting to post COVID- normal. Female participation in physical activities has consistently matched male participation on an annual basis, but women have been more active overall, engaging in these activities more frequently. This trend highlights a growing commitment among women to prioritise physical fitness and wellness, contributing to the overall increase in non-sport activities like fitness classes, walking, and cycling. Over the past 20 years, participation in traditional sports has remained stagnant, while non-sport physical activities have surged, with notable increases in fitness and outdoor activities. Fitness and gym participation has risen by 22.7%, and walking—both recreational and bush walking—along with cycling and mountain biking, ranks among the top ten fastest-growing activities.

During the COVID-19 pandemic, cycling and running experienced the most significant spikes in participation, though these gains saw considerable corrections post-pandemic. This trend is reflected in the surge of bike imports into Australia, which reached nearly 1.7 million in FY21—a remarkable 44.3% increase from 1.17 million in FY20. This influx indicates a strong market of individuals eager to engage with cycling as a primary activity, emphasising a shift towards outdoor and fitness-oriented lifestyles.

The latest AusPlay national sport and physical activity report estimates 146,943 males aged between 35-54 years participated in mountain biking in 2022-2023 (down from 170,000 in 2021-2022) making it the 10th most participated in activity for this group. The same report indicates recreational walking as the most popular non sport related activity in 2022-23 for males aged between 35 – 54 years (1.112M) and over 55 (1.827M), and the third most popular activity for males aged between 15-34 years (0.579M).

Cycling (481,140) was the 5th most popular sport related activity in 2022-23 for females aged 35-54 years (dropping from 3rd place), while bushwalking (333,365) was the 7th. For females aged 55 years and over, cycling was the 4th (265,057) most popular (down from 2nd), with bushwalking coming in 7th (210,419). Walking for recreation was the 2nd most popular non sport related activity in 2022-23 for females aged 15 – 34 years

(1.243M) and the most popular activity for females aged 35-54 years (1.974M) and 55 years and over (2.504M). Bushwalking was the 6th most popular activity for females 15-34 years (296,963) and 7th most popular for 35-54 years (333,365) and for 55 years and over (210,419). According to the 2023 National Walking and Cycling Participation Survey, the vast majority of Australians (89.5%, down from 96.7% in 2021) walk for at least five minutes in a typical week outside their home. This equates to around 23.69 million people walking every week. On average Australians walk for at least ten minutes on 4.8 days, spending a median of 3.5 hours per week walking. Since 2021 although frequency of walking per week had decreased, the time spent walking had doubled.

Around 15 % (down from 18.2% in 2021) of Australians rode a bicycle (including e-bicycles) in the previous week and 36.7% over the previous year. This equates to around 3.97 million Australians riding in a typical week and 9.71 million riding in the past year. Measured over the previous year the Northern Territory, Western Australia and the Australian Capital Territory all have cycling participation rates significantly higher than the national average.

It is estimated that 2.1% (up from 1.5% in 2021) of the Australian population ride an electrically assisted rideable such as an e-scooter, e-skateboard or Segway in a typical week (CWANZ, 2024).

## Local participation

Trails are key attractions for international and domestic visitors looking for quality nature-based experiences. Equally important are the local users, many of whom have worked hard to drive the development of trails and without whose efforts many trails would not exist. The local trail user market includes trail users who reside in the City, neighbouring towns and the broader Perth/Peel and South West regions. There is potential for sustainable growth in participation within the local trail user markets through ensuring sustainable and appropriate trails are provided and community and trail care groups are encouraged and supported.

While detailed cycling and hiking participation data for the City of Armadale is limited, the state and regional trends outlined in this report provide valuable context for the trail market locally. Strava and Trailforks are mobile apps that trail users use to track their activities. Analysis of data and heatmapping from these apps indicate a strong demand and participation locally with key insights including:

- Cycling - road cycling is observed on most major roads in the area. Mountain biking is observed in the Wungong Gorge area, Churchmans Bushland, the southern pocket of Banyowla Regional Park and the eastern outskirts of Byford.
- Hiking - the Wungong Gorge and Bungendore areas stand out as a central hub for hiking, with extensive trail networks showing high activity levels.
- Trail Running - trail running is particularly prominent in the Wungong Gorge and Banyowla areas, surpassing even hiking in terms of evident usage. This suggests a strong preference for running in scenic and challenging terrain

The survey undertaken as part of consultation for the master plan also provided valuable insights as outlined on page 35.

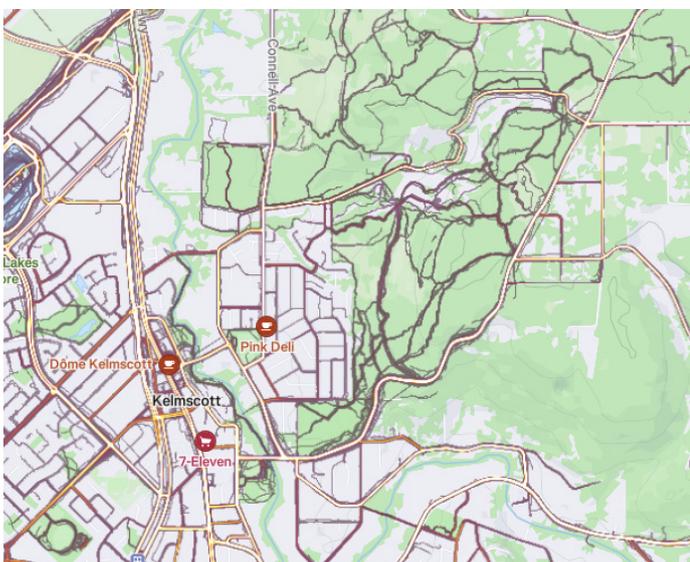


FIGURE 6 - Strava Heatmap of cycling activity in the southern pocket of Banyowla Regional Park in Kelmscott.

## Access and accessibility

The term access has a variety of meanings in trail planning. For the purpose of this Master Plan, the meanings of access and accessibility are as follows:

Access is the means or opportunity to approach or enter a physical place to undertake trail based activities.

Accessibility is the degree to which a trail opportunity is available to as many people as possible.

This Master Plan aims to support and reinforce the implementation of the WA Strategic Trails Blueprint by making trails more accessible in the Armadale Region. Strategies include:

- Improving the availability and attractiveness of trails and trail facilities for a greater number of people
- At trail locations, offer opportunities for people to participate, progress and fine tune skills
- Offering a range of trails that suit different levels of technical ability
- Offering trail and style-specific infrastructure to provide for different trail user types, for example, providing shuttle roads that make gravity mountain bike 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 trail users, such as equipment hire, maps and guides .

Recognising that the region cannot be 'everything to everyone' and not every location can be developed to provide for all trail types, the Master Plan aims to achieve a balance to optimise the above by:

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

## 5.4 Emerging markets and trends

Over the past five years trail use and development within Australia has evolved and matured. Below are a number of noted industry trends and observations.

### Multi-modal long distance trails

There is an emerging trend for multi-modal long distance trails such as rail trails and adventure style trails, offering trail users options to tailor experiences to suit their chosen activity, time available and skill/fitness level. Bikepacking is growing in popularity and is particularly relevant when considering the longer adventure style trail experiences such as the Munda Biddi, and connectivity between towns within the region and neighbouring Local Government Areas and Shires.

### E-rideables and E-bikes

The use of e-bikes, e-scooters and other e-transport on trails and paths has increased in recent years. E-bikes have revolutionised the bicycle market, opening up mountain biking and cycling to a more diverse range of participants. Terrain is becoming less of a barrier and the leisure cyclist can explore over longer distances with greater ease. With increased technology and affordability e-bikes are playing a positive role in improving accessibility to trails for people of varying abilities and backgrounds. Bike shops now include e-bikes in the bike hire range, offering an option for riders to 'try before you buy' and for hire by holiday travellers. The challenge moving forward for trail development is consideration of the trail planning, design, construction and maintenance requirements of e-bikes, potential environmental impacts, safety and regulatory issues and opportunities increased participation provides.

The use of Electric Trail Bikes (eTrail Bikes) is also increasing and presents additional challenges. The blurring of the lines between eTrail Bikes and eMTB's needs to be considered due to the potential impacts eTrail Bikes present to mountain bike trails. (Westcycle, 2022)

### Indigenous storytelling

Indigenous storytelling has the power to bring the natural world to life. Aboriginal tourism in Western Australia continues to be of great interest to visitors, with four in five visitors indicating they would be interested in experiencing Aboriginal tourism in Western Australia if it were easily accessible (Tourism WA, 2020). However, participation levels remain relatively low, with less than one in five visitors actually having an Aboriginal tourism experience in 2019-20; a decline compared to the previous year. Raising awareness and supply of Aboriginal tourism experiences is critical to meet visitor demand and the Armadale region has potential to develop experiences which will help fill this gap.

### Growth in popularity of trails

Outdoor recreation, including trail running, walking, mountain biking and gravel riding, has increased in popularity. Throughout the world there are examples of trail networks that have become significant tourism destinations attracting international and domestic visitors, contributing to the economic sustainability, and providing health and social benefits for regional and local communities.

AusPlay data highlights the shifting trend in people moving away from participation in structured competitive sport to more recreational and socially focused activities. Key findings from the AusPlay report into how Australians' participation in sport and physical activity is adapting to COVID normal, estimated an increase of 99,000 and 82,000 people participated in mountain biking in 2020 and 2021.

The report confirms that physically-distanced of home based activities are continuing to increase in popularity, including mountain biking, walking, bush walking and canoeing/kayaking. (Sport Aus, 2022)

### Trail running

Trail running is an outdoor sport that provides an immersive experience deep in the heart of natural landscapes. Since the mid 1990's, the popularity of trail running has grown at a rate of 15% each year with an estimated 20 million trail runners worldwide. (World Athletics, 2022) Trail runners typically use bushwalking and urban walking trails and in some instances mountain bike trails, vehicle management trails and fire breaks. While trail specifically for trail running are not considered necessary, considering of the needs of trails runners in the development of walking and shared use trails is important particularly in terms of offering a range of technical difficulty.

### Inclusion and accessibility

The need to develop inclusive trails and trail experiences for people of all abilities is becoming more widely recognised, with trails catering to a range of abilities being incorporated into trail projects. Additional infrastructure and equipment including high contrast signage, accessible canoe launches, all terrain and back wheelchairs and adaptive mountain bikes are just some of the equipment in use improving accessibility of the outdoors and trails. (DSR, 2022)

## Digital apps

Social media and the use of apps is commonplace within the outdoor recreation and trails industry. Digital apps are available for navigation, performance monitoring, training, marketing and promotion. Trail users are increasingly using digital apps in preference to paper maps and guidebooks as a source of information. Apps present an opportunity to assist in promotion of trails, awareness of environmental and cultural heritage values, capture important participation data, allow users to report maintenance issues, and improve safety on trails. Emergency services and navigation apps are increasing being used to share trail issues and emergency information with trail users.

Other emerging trends include increasing popularity of soft-adventure trails and guided or self-guided experience packages that provide information, accommodation, transport and equipment; use of digital technologies (such as smart phones and apps) and social media to access information about trails and record their trail activities.

## Gravel riding

The popularity of gravel-specific bicycles has surged in recent years, driven by users seeking versatile bikes capable of crossing disciplinary boundaries. Traditionally, road cyclists were restricted to smooth, paved surfaces. Gravel bikes have emerged as a solution, offering a single bike that suits various terrains and reducing barriers to entry for cycling overall. By eliminating the “paved only” constraint, riders can now pedal out their front doors and explore a mix of terrains without being limited by surface type.

## Blurring the sub categories of cycling

Contemporary cyclists are pushing the bike industry to create versatile bikes capable of handling various terrains and delivering enhanced user experiences. There’s a noticeable trend away from manufacturing bikes designed for singular purposes like climbing or descending. Instead, modern bikes are expected to excel in pedalling efficiency, descending prowess, and durability to withstand years of rigorous use. This shift in focus has made trails of all kinds more accessible to riders of all levels.



Bungendore Park  
Image credit: [www.alltrails.com/parks/australia/western-australia/bungendore-park](http://www.alltrails.com/parks/australia/western-australia/bungendore-park)

## 5.5 Current trail supply

The Armadale area currently has a range of trails largely focussed on hike trails. Experiences vary from short walks (less than 1km), to half day walks/trail runs with a few short horse trail options. The region as a whole contains 122km of designated sanctioned trails (walk, MTB, cycle, horse) which includes 33km of the Munda Bididi Trail and 11km of the Bibbulmun track both established long distance trails from Perth to Albany. The City has recently developed a theme and consistency in signage across Armadale Settlers Common, Bungendore and Roley Pool. This approach has improved wayfinding and branding significantly and should continue to be applied across the City.

A broad trail audit was undertaken on sanctioned trails in the project area including an assessment of trail quality and visitor services. Quality of trail considers the visitor experience and physical condition of the trail itself, the ratings applied (excellent, good, average, poor) compare the trails against best practice international standards. Visitor services assesses trail related infrastructure such as parking, signage, amenities, accessibility and information, the ratings applied (excellent, good, average, poor) compare these services against world best practice for local level trail networks. Note these assessments were of a broad nature and intended only to provide a snapshot of the current situation, a more thorough assessment of trail condition and visitor services is

recommended. Refer to Table 15, Figure 6 and Map 6 for details of existing trails.

### Trail significance

To achieve a consistent approach to the assessment of trail developments each trail has been classified according to their significance at a state, regional and local level. Classifications for trails and trail networks in Western Australia as per the Blueprint are as follows:

**State trails** – An extended trail or trail network that is of sufficient quality and with appropriate facilities, products and services to be recognised beyond the State and to attract visitors to Western Australia.

**Regional trails** – A major trail or trail network that services a population centre or large regional community, with facilities and services of a standard and appeal that could attract visitors from outside the region.

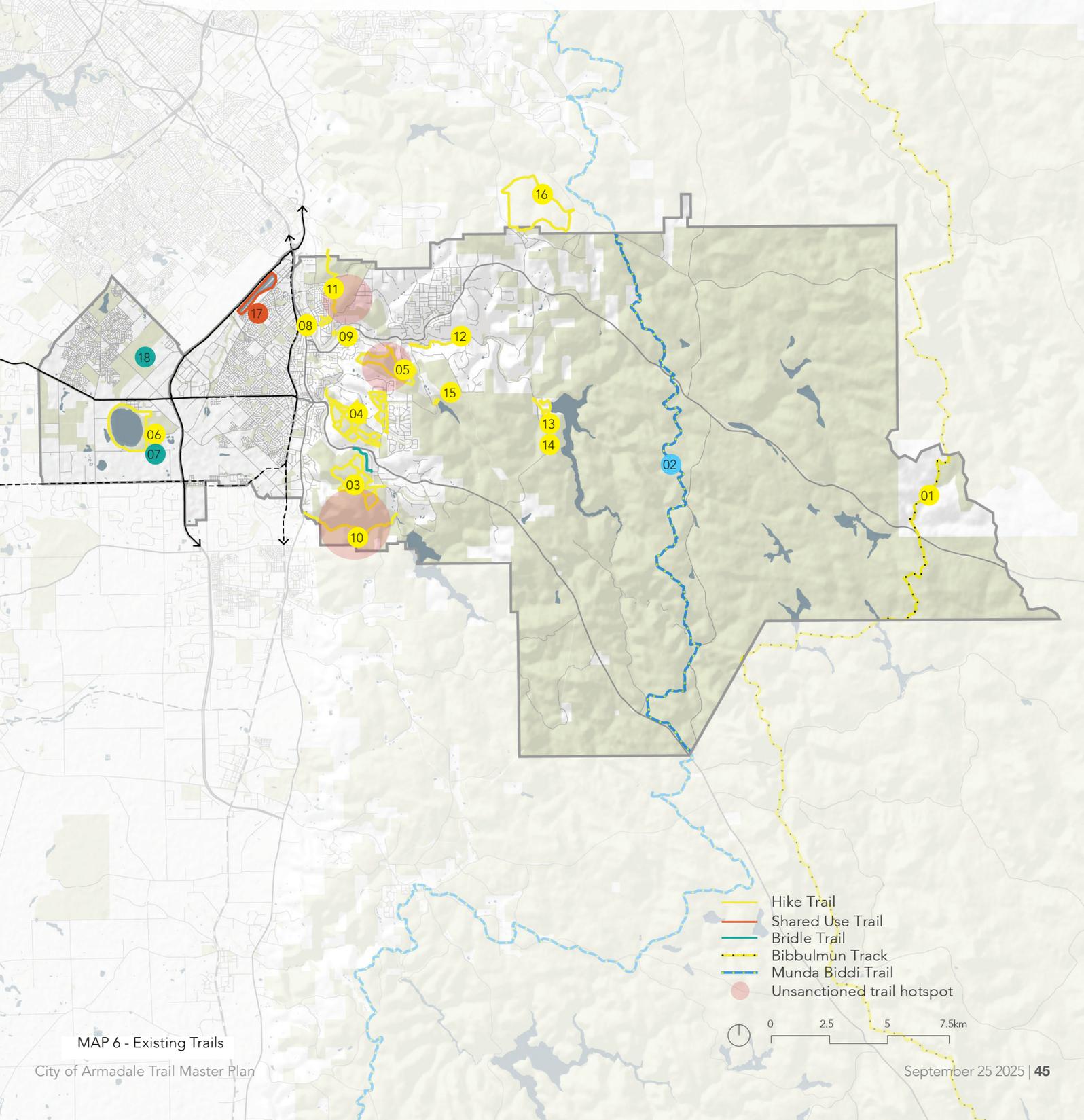
**Local trails** – A trail that services the local community and provides facilities suited to local use. Some local trail may have potential for development to regional status.

TABLE 15: Existing trails

Map ID	Name	Type	Length (km)	Grade	Land manager	Trail manager	Trail significance
01	Bibbulmun Track	Hike	11.2	Grade 4	DBCA	DBCA	State
02	Munda Bididi	MTB	32.6	Intermediate	DBCA	DBCA	State
03	Bungendore Park Trails	Hike/ horse	11.1	Grade 2-3	City of Armadale	City of Armadale	Local
04	Armadale Settlers Common Trails	Hike	10	Grade 1-3	City of Armadale	City of Armadale	Local
05	Churchman Bushland Trails	Hike	15.5	Grade 3	DBCA	DBCA	Local
06	Forrestdale Lake Walk Trail	Hike	6.9	Grade 3	DBCA	DBCA	Local
07	Forrestdale Lake Horse Trail	Horse	3.8	-	DBCA	DBCA	Local
08	Lloyd Hughes Park	Hike	1.7	Grade 3	City of Armadale	City of Armadale	Local
09	Goolamrup Reserve	Hike	0.6	Grade 3	City of Armadale	City of Armadale	Local
10	Wungong Gorge Trail	Hike	5.5	Grade 4	DBCA	DBCA	Local
11	Contour Channel Walk	Hike	3.5	Grade 3	DBCA	DBCA	Local
12	Roley Pool Reserve Walk	Hike	2.4	Grade 2-3	City of Armadale	City of Armadale	Local
13	Canning Dam Loop	Hike	2	Grade 3	Water Corporation	Water Corporation	Local
14	Historic Walk trail Canning Dam	Hike	1	Grade 3	Water Corporation	Water Corporation	Local
15	Churchman Dam Loop	Hike	0.7	Grade 2	Water Corporation	Water Corporation	Local
16	Munday Brook	Hike	10	Grade 3	DBCA	City of Kalamunda	Local
17	Champion Lakes Trail	Shared	5	Grade 2/Easy	VenuesWest	VenuesWest	Local
18	Jandakot Regional Park horse trail (management tracks only)	Horse	10	-	DBCA	DBCA	Local



FIGURE 7 - Existing trails breakdown



## 5.6 Governance and management

The stakeholders involved in trail development can be very diverse. State government departments and agencies, local governments, regional councils, community advisory committees, development commissions, tourism organisations and user group organisations all play a vital role in the governance of trails and trail networks. Involvement of Traditional Custodians is critical at all stages of trail development.

Typically, organisations involved in trail development across the state have worked in isolation, however, more recently there has been a movement towards cooperative governance structures. Current trail governance bodies are outlined in table 16.

TABLE 16: Governance bodies in WA

Governance body	Role
WA Trails Reference Group	Advises on implementation of State trail strategies and monitors progress and proposed actions and outcomes reporting back to government and industry.
Local Government	Development and management of trails on local government estate for recreation and tourism benefit.
Department of Biodiversity, Conservation and Attractions	Development and management of trails on State Government estate for recreation and tourism benefit.
Tourism WA	Promotion and marketing of trail experiences.
Peak industry body	
HikeWest	Promotion of bushwalking and the interests of bushwalkers in WA.
WestCycle	Peak body for bike riding in WA and a representative voice for all bike riders.
Australian Trail Horse Riders Association	Supports clubs and members in all states and territories within a non-competitive leisure environment.
Recreational Trailbike Riders Association	Peak body representing recreation trail bike riding in WA.
Paddle WA	Peak body in WA for all forms of paddling including as a sport, adventure, recreation and competition.
The Western Australian Four Wheel Drive Association Inc.	Peak body for 4WD clubs in WA.
Trail WA	Established to advocate for the development of trails and marketing of trails and trail experiences in WA.

Many of these organisations have an interest in both trail advocacy and events. They have or aspire to have formal governance and management structures and are capable of assisting the trail development process. Trails in a number of locations rely heavily on volunteer trail bodies for sustainable development and management of the activity. While significant progress has been made in recent years in the administration and coordination between agencies

There is an opportunity to further establish robust governance structures from the outset to support trails within the Armadale region by establishing partnerships responsible for effective trail governance, management and maintenance, currently organisations are working in relative isolation.

### Volunteer trail management

There are a number of active community groups in the City of Armadale such as the Bushcare Environmental Working Group, the Armadale Gosnells Landscare Group and many informal trail based groups organised through social media. These groups are an asset to the City and are actively involved across a number of reserves.

Trail users 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

## 5.7 Events

Events are an important part of boosting participation in trail based recreation. Social and competitive events contribute to the creation of strong trail communities. Racing events are a major motivator for some key target markets and are beneficial for getting a destination known about helping to drive repeat visitation.

There are few trail based events currently on offer within Armadale region. Perth Trail Series host Qi Gong trail running event as part of their summer series and the Hike Collective host a number of social walking events.



Perth Trail Series - Qi Gong trail running event  
Image credit: [www.outdoorswa.org.au/event/perth-trail-series-qi-gong/](http://www.outdoorswa.org.au/event/perth-trail-series-qi-gong/)

## 5.8 Promotion and marketing

Promotion is a vital part of establishing trail destinations and can increase both recreation, tourism and event markets. The best marketing for a trails destination is achieved through inspiring advocates amongst existing users through the creation of desirable and marketable trails. Generally the marketing of trails in Armadale is through Trails WA and the City channels, however there are inconsistencies in information and not all existing trails are covered. The survey indicated word of mouth was also a key source of trails information.

State, regional and local tourism organisations, and visitor centres play an important role in marketing and promoting regions and destinations. Typically, promotion is focused on local signage, websites, social media and printed material such as visitor guides.

Various tourism organisations are responsible for promoting regions within Western Australia. Destination Perth, the Regional Tourism Organisation funded by Tourism WA, provides marketing opportunities to its members and has a focus of attracting interstate and intrastate visitors to the region. The City of Armadale has a number of partnerships with tourism bodies and neighboring local governments in the area such as the Perth Hills Tourism Alliance, working towards providing more localised promotion with a focus on attracting Perth residents to the region and encouraging those passing through to stop for a day or overnight.

The WA Strategic Trails Blueprint 2022-2027 outlines a number of strategies for a coordinated and supportive approach to the effective promotion and marketing of trails, including collaborating with local government and others to ensure a two-way flow of trail information, marketing and promotion.

## 5.9 Gap analysis

The following table summarises identified gaps based on assessment of the current situation.

TABLE 17: Gaps and potential improvements

Issue	Gaps	Potential improvements
Market	The current trail offer lacks diversity in trail type and style missing opportunity to attract key trail user markets such as enthusiast and sport MTB and active lifestyle hikers.	Increase provision of purpose built trails in strategic locations, with a focus on diversity of trail style and classification
Market	National and state-wide participation rates for trail based recreation activities have been growing.  The current trail supply in Armadale doesn't cater for the diversity of trail based pursuits with MTB, gravel cycling, trail running and horse trails notable gaps.  The scale of unsanctioned trail development in the project area indicates desirable terrain for trail styles that aren't currently catered for.	Improve supply of trails (particularly MTB, trail running and horse) that provide quality experience.
Demand	National and state-wide participation rates for trail based recreation activities have been growing.  The current trail supply in Armadale doesn't cater for the diversity of trail based pursuits with MTB, trail running and horse trails notable gaps.  The scale of unsanctioned trail development in the project area indicates desirable terrain for trail styles that aren't currently catered for.	Improve supply of trails (particularly MTB, gravel cycling, trail running and horse) that provide quality experience.
Participation	The City's population is expected to reach 145,843 in 2046, an increase of 38.8%. Therefore, it is likely that participation in trail based activities by local residents, will increase.  A sustainable trails community requires a strong leisure and beginner cohort but only 8% of those surveyed said they were beginner level in their preferred activity (noting the survey bias towards trail enthusiasts means beginner trail users not typically captured in survey data).  A vast majority of those surveyed were male.	Improve accessibility and growth in beginner and female participation, with a focus on engaging local youth in trail based pursuits.
Trail significance	There are currently no, nationally or regionally significant trail locations within the region apart from the Munda Biddi and Bibbulmun which traverse the eastern edge of the City.	Prioritise investment in fewer trails with a focus on providing quality experiences and facilities that emphasise the key points of interest in the landscape.  Identify locations where a potential trail experience and quality could be high and focus on developing opportunities in these locations.
Infrastructure and Facilities	Successful trails require infrastructure such as carparks, toilets and signage all of which are currently lacking. Just 15% of the current network offered good rated visitor services.	Future trail developments have adequate infrastructure relevant to scale of development proposed.  Develop trail opportunities focused on trail centres and visitor servicing.
Quality	In order to attract trail users and increase participation quality trail experiences are required, however only 46% of current trail were assessed as being good quality	Focus investment on consolidation of existing trails and provision of high quality trails.

Issue	Gaps	Potential improvements
Quantity	<p>There is a lack of day (approx. 20km) and multi-day hike options.</p> <p>Longer walking opportunities are required if the region desires to attract bushwalking and hiking visitors in significant numbers from Perth and further afield.</p> <p>There are no formal MTB trails apart from the Munda Biddi</p>	<p>Improve variety of trail type, style and length options in the region, possibly looking at connecting existing trails to offer longer experiences.</p>
Uniqueness and Experience	<p>The trail experiences are dispersed across the region and while trails are typically well located in terms of scenic quality and natural attractions, trail alignment often doesn't make the most of the opportunity or maximise the trail user experience.</p> <p>There are areas of desirable terrain (steep and rugged) for trail running and mountain biking that currently don't contain formal trails.</p>	<p>Improve quality of existing trails and develop new trails in desirable terrain ensuring outcomes are sustainable through a rationalisation program which prioritises unique experiences.</p>
Usability	<p>Trail systems should be easy to navigate and intuitive, consultation noted trail information and signage was insufficient for some existing trails</p>	<p>Improve existing trail cohesiveness, signage and pre-visit trail information.</p>
Trail Classification	<p>A majority of existing trails are grade 2-3, provision of easier and more challenging trails will provide a more diverse network attracting a broader range of users.</p>	<p>Improve diversity of trail classification to achieve a more suitable mix of trail diversity and technicality allowing for skill progression and challenge.</p>
Trail Information	<p>Current trail information and maps are available from a range of sources, such as land managers, Trails WA, clubs and other trails resources, but there is inconsistency in detail, content and accuracy. Signage and way-finding on trail networks is often inconsistent, lacking or absent.</p> <p>The survey indicated a majority of trail information is currently sourced from social media, Trails WA and word of mouth. There is a need to have a central resource to link back to with accurate information.</p>	<p>Consolidate accurate information on trails and make available via Trails WA and local tourism bodies. Ensure trailhead and trail directional signage is up to date.</p>
Accessibility	<p>Inability to find trails, trail information or trails with appropriate facilities prohibits many from using trails as often as they would like.</p>	<p>Set appropriate quality standards, improve management models and ensure existing and future trail facilities are well signed with adequate visitor services where appropriate.</p>
Tourism	<p>There are currently limited marketable trail based tourism products.</p>	<p>Establish world class trail facilities, and a value proposition that can be promoted to engage and attract trail tourists and general tourists.</p>
Promotion	<p>Trail based activities are promoted as a key attraction in the region however specific information on how or where to undertake trail based activity is limited.</p>	<p>Clarify and coordinate responsibilities for marketing and branding to improve understanding and promotion of all trail opportunities in the Region.</p>
Destinations & Experiences	<p>Unique destinations are more likely to attract international and interstate tourists. The Armadale Region contains characteristics and values that set it apart from other trail destinations yet these are not promoted well.</p>	<p>Create unique trail experiences, utilising the regions positioning, landscapes, culture and biodiversity values. Balancing development with environmental values.</p>

# 6.0 Trails vision and objectives

## 6.1 Vision

The vision for trails in the Armadale region is:

Armadale will be recognised as a trails destination with trails that celebrate the unique values of the region, providing captivating and memorable experiences and connections. The City will be recognised as a leader in trail planning, management, and sustainable conservation practices, fostering harmony between trail users and our valuable environment.

Supporting this vision are 3 key objectives which are critical in ensuring development of Armadale as a vibrant and sustainable trails destination.

- 1. Develop a cohesive and diverse trail network**
- 2. Implement robust governance and management**
- 3. Market and promote the experiences on offer**

Key to achieving the vision for Armadale will be the establishment of trails and infrastructure which deliver captivating and memorable experiences showcasing the unique local values. In addition to offering landscape appropriate trail experiences, a well-developed trails destination boasts market and trails community credibility. This is developed through a sense of belonging and camaraderie through user appropriate facilities, services, events, volunteer support and social engagement. Market and community credibility, and social engagement are based on the following factors;

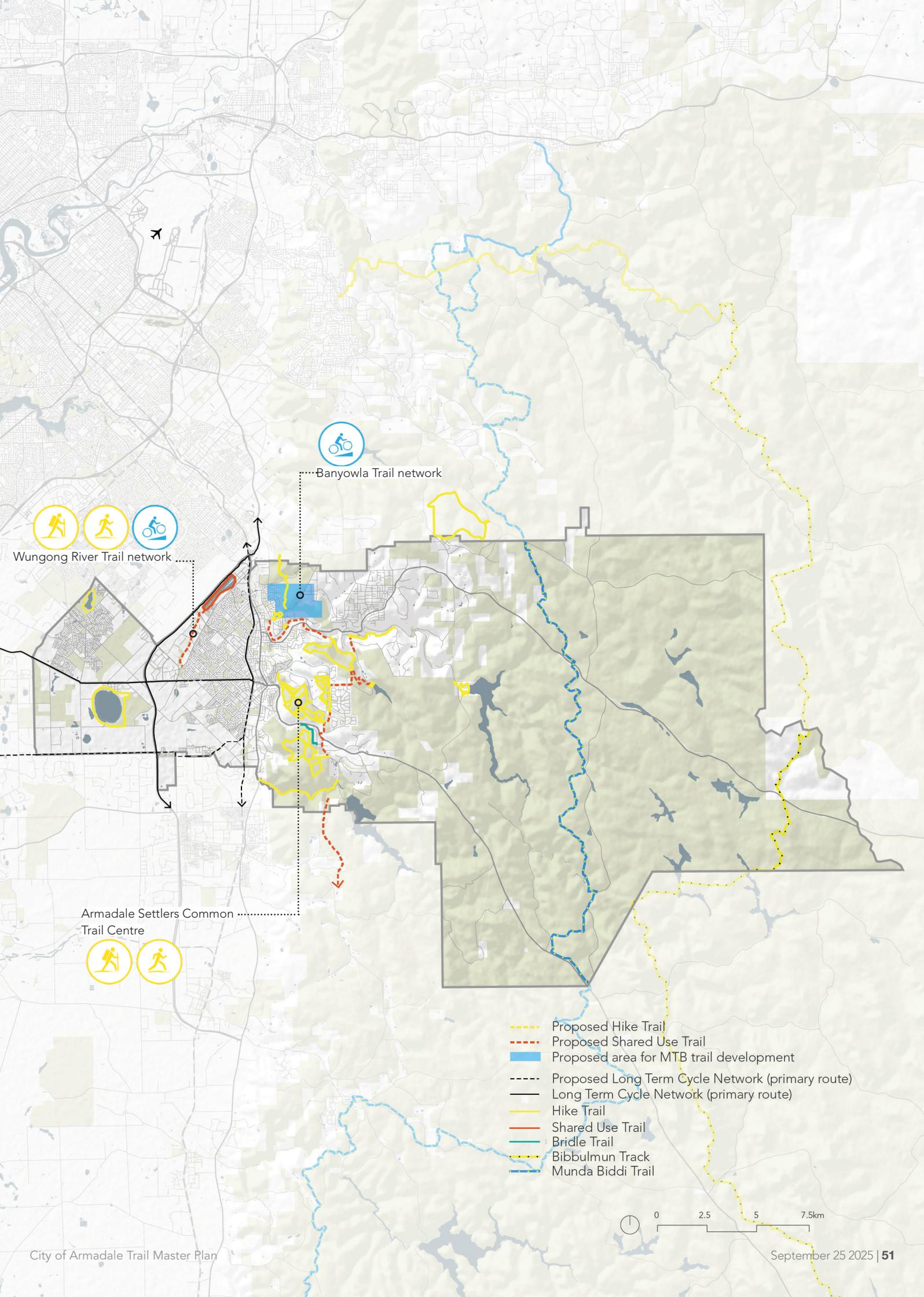
- Good reputation within the various trail fraternities, typically gained through on-brand marketing and word of mouth
- Provision of diverse, well built, managed and maintained trail experiences
- A local community of trail users who have a history of engaging friendly and professionally with other users of their trails
- Facilities and services which cater to the trail user community and their typical travel habits in a friendly atmosphere, such as breweries, casual dining (pizza & burgers), thoughtful accommodation touches such as bike racks and knowledgeable equipment stores with locally branded apparel

Armadale has the opportunities, which are spread across the region, the diversity of the experiences and the landscapes which provide a compelling destination to visit. It is ideally positioned to reap the many and varied benefits of trail development.

It is recommended that Armadale focus on hiking and mountain biking trail types as these experiences have emerged as having the most potential given the landscape opportunities and the insights gained through consultation. Horse trails are a focus in Jarrahdale currently (south of the project area) rather than duplicate offer it is proposed to promote these trails and provide a link from Wungong to Jarrahdale. There are limited opportunities for paddle trails within the project area, Champion Lakes is the only waterbody where paddling is permitted.

With a well establish network of hiking trails already existing in the region, an initial focus on enhancing these trails will provide a quick win. Improving trail quality, experience and facilities through maintenance and upgrades will make the existing network of trails more appealing and user friendly. Establishing Armadale Settlers Common as a key Trail Centre for hikers and trail runners is a key recommendation. Filling identified gaps in the existing trail offer, providing variety and enticing longer stays and repeat visits several proposed new trail developments include a the Wungong River Trail Network, Banyowla MTB Trail network and link trails between networks. Trails proposed and recommended upgrades to existing trails will provide key connections and recreation experiences for local communities and provide the unique experiences that visitors are seeking.

Delivering captivating trail experiences should be a focus for development in the coming years. Secondary to trail development will be ensuring Armadale offers an engaging trails destination, with facilities and services that cater for trail users. Marketing and promotion of the experience on offer needs to be appropriate to the level of development and to the intended markets. A comprehensive and cohesive strategy looking at how the diversity of experience can be packaged and marketed is needed to encourage local participation, and entice longer stays and repeat visits from visitors. Equally important is getting the governance and management right with the key recommendation being establishing partnerships and determining which agency will drive the project and creation of a trails committee or body that informs the development of trails, ensuring a consistent approach across all land tenures.



- Proposed Hike Trail
- Proposed Shared Use Trail
- Proposed area for MTB trail development
- Proposed Long Term Cycle Network (primary route)
- Long Term Cycle Network (primary route)
- Hike Trail
- Shared Use Trail
- Bridle Trail
- Bibbulmun Track
- Munda Biddi Trail



## 6.2 Objectives

### 1. Develop a cohesive and diverse trail network

Building on the established hike trail network within the region, a series of new proposals make the most of the engaging terrain available and will fill the identified gaps in trail experiences. Key proposal for new trail development include:

#### **Armadale Settlers Common Trail Centre**

Proposed as the region's signature hiking trails destination, the Armadale Settlers Common Trail Centre will feature hiking, trail running, all-abilities trails, digital botanical tours and bush tucker experiences which engage users in the pristine bushland, cultural heritage and city views. Armadale Settlers Common has the opportunity to become the Perth and Peel region's prominent trail destination on the doorstep of the Armadale Central Business District.

#### **Wungong River trail network**

Wungong River Trail is a proposal currently in development as part of the Wungong River Recreation Reserve Concept. The Concept proposes a central shared use trail (defined as Wungong Active Path) with some informal trails coming off this into surrounding areas. It is recommended that expanded purpose built MTB trails be considered for incorporation into the Wungong River Detailed Design as there is an ideal opportunity for beginner level XC style trails as well as park style trail development. There may also be potential for the XC trails to be designed as shared use providing an ideal trail for entry level trail running and a more immersive trail experience for walkers.

#### **Banyowla trail network**

A proposed local scale MTB network in the southern area of Banyowla Regional Park with a focus on provision of engaging trails that maximise the terrain features. Ideally located close to Kelmscott CBD this will be an easily accessed trail network that will cater for the local riders and should also attract visitors given the terrain offers a distinct challenge not available elsewhere in the Perth Hills currently. Up to 10km of purpose built MTB trail with a focus on all mountain and cross country styles is proposed. Development of the network will be considerate of natural and cultural values as well as other trail users. This proposal will need to be a jointly managed and driven project with DBCA and the City of Armadale key partners.

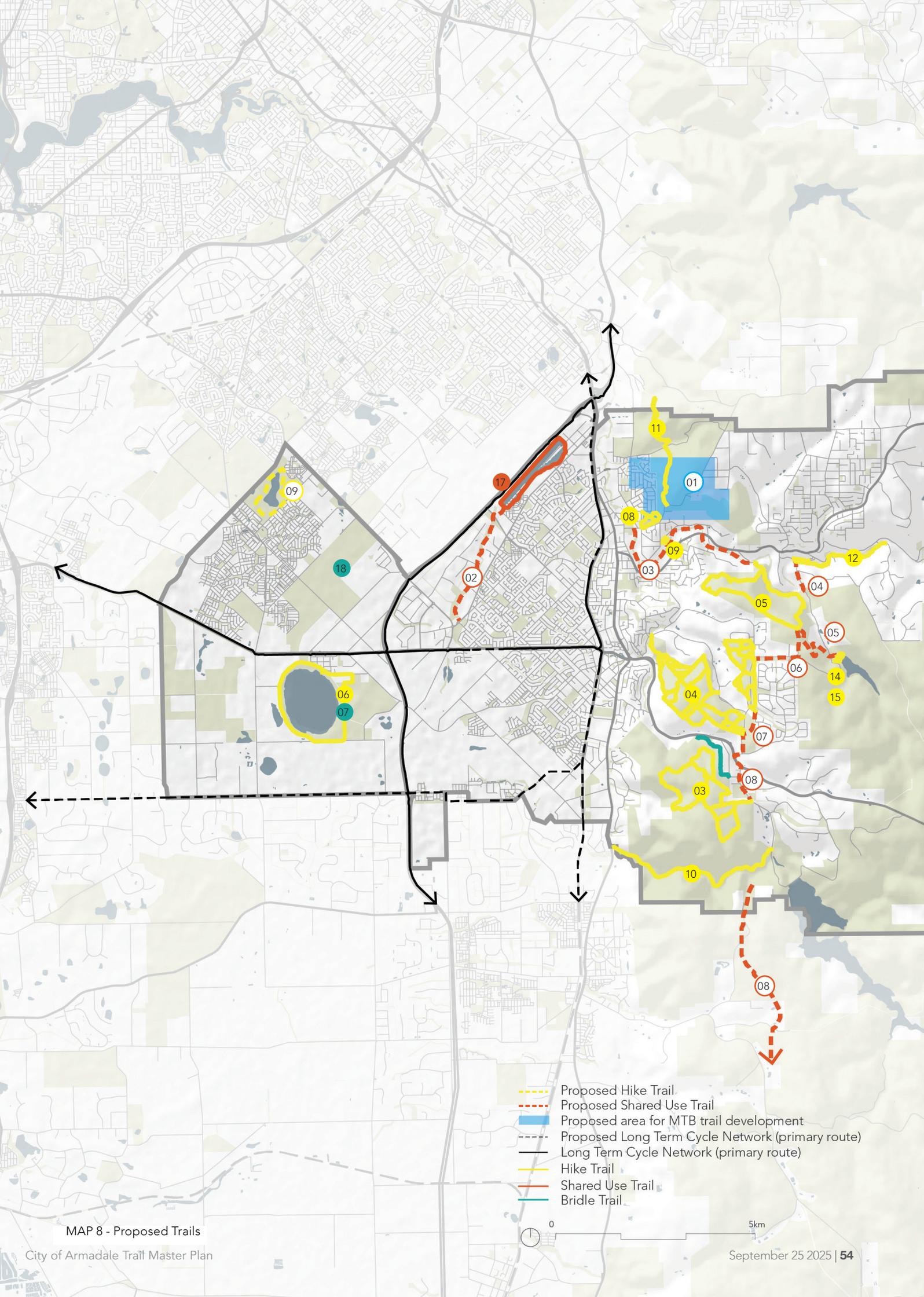
## Link trails

Proposed link trails across the project area and into surrounding areas are intended to offer opportunities for longer trail experiences, improved trail access for locals as well as provide multiple access points for trail networks and spread the load of infrastructure particularly car parking. Trails are proposed to be off road where possible along river corridors and in some cases with road reserve. The proposed links include:

1. Canning River Trail (Kelmscott to Banyowla Regional Park / Churchmans Bushland) – traversing alongside the Canning River this trail will connect Kelmscott CBD with the existing trails at Churchmans Bushland. This connection will also provide a valuable connection for residents in the area to the shopping precinct and improve access to the River for management.
2. Soldiers Rd Link (Roley Pools to Churchmans Bushland) – Utilising road reserve this trail will link Roley Pools Walk trails with Churchmans Bushland Trails. An alternative to Soldiers road may be to investigate road reserve between Thompson Road and Albany Lane then through Wungong Regional Park.
3. Churchmans Brook Link (Churchmans Dam to Churchmans Bushland and Settlers Common) – Trail linking Churchmans Dam up to Churchmans Bushland trail and Settlers Common via Wungong Regional Park and Churchmans Brook Road. Steep terrain will require switchbacks to navigate.
4. Settlers Common Link– Trail link between Settlers Common East and West via Grieve Way (refer Settlers Common Recreation Strategy).
5. Settlers Common to Bungendore (Admiral Rd) – Trail linking Settlers Common West to Bungendore via Admiral Road reserve.
6. Wungong link south to Byford and Jarrahdale along Admiral Road connecting to the proposed horse trail centre in Jarrahdale and MTB links into the Byford area.
7. Banyowla link north – Link into proposed Iconic Scarp MTB trail (ref Perth Peel MTB Master Plan) connecting proposed trail centres along the scarp.

With these link trails implemented there then becomes opportunities for hikers and riders to create longer loops including day and multilight duration. Connecting to public transport and the proposed Long Term Cycle Network there is opportunity for creation of varied routes accessible for weekend trips appealing to the greater Perth trail user base. Accommodation and camping offer has potential to be developed on the established route, with the opportunities for private development of these facilities.

Trails proposed and recommended upgrades to existing trails will provide key connections and recreation experiences for local communities and provide the unique experiences that visitors are seeking. Refer to Table 18 and 19 for a summary of recommendations per trail, for a summary of priority trail projects including responsible agency and next steps for development refer to recommendations section.



- Proposed Hike Trail
- Proposed Shared Use Trail
- █ Proposed area for MTB trail development
- Proposed Long Term Cycle Network (primary route)
- Long Term Cycle Network (primary route)
- Hike Trail
- Shared Use Trail
- Bridle Trail



MAP 8 - Proposed Trails

TABLE 18: Existing trail recommendations

Map ID	Name	Type	Length (m)	Grade	Target market
01	Bibbulmun Track	Hike	11.2	Grade 4	Active Lifestyle hiker, independent hiker
	The Bibbulmun is a key long distance trail for the State and traverses the eastern edge of the City of Armadale. It is recommended that access to the Bibbulmun from Brookton Highway be promoted as an access point for hikers looking for longer experiences in a more remote location.				
02	Munda Bididi	MTB	32.6	Intermediate	Leisure, independent MTB
	The Munda Bididi is a key long distance trail for the State and traverses the eastern edge of the City of Armadale. It is recommended that access to the Munda Bididi from Brookton Highway be promoted as an access point for riders looking for a touring style trail experience.				
03	Bungendore Park Trails	Hike/ horse	11.1	Grade 2-3	Locals, Active Lifestyle hiker, Holiday Walkers
	A key bushland reserve within the City Bungendore trail network offers opportunity for hikers to immerse themselves in the Jarrah forest and experience the darling scarp with opportunity to take in views over the coastal plains. It is recommended to proceed with continued implementation of the Bungendore Recreation and Signage Strategy.				
04	Armadale Settlers Common Trail Centre	Hike	10	Grade 1-3	Locals, Active Lifestyle hiker, Holiday Walkers
	A key bushland reserve within the City the Armadale Settlers Common trail network offers opportunity for hikers to immerse themselves in the Jarrah forest and experience the darling scarp with opportunity to take in views over the coastal plains. It is recommended to proceed with continued implementation of the Settlers Common Recreation and Signage Strategy with intention to establish the network as a key Hiking Trail Centre in the Perth Region.				
05	Churchman Bushland Trails	Hike	15.5	Grade 3	Locals, Active Lifestyle hiker, Holiday Walkers
	These trails provide opportunity to experience the valleys of the Darling Plateau taking in Churchman Brook and elevated views of surrounding areas. Improve existing trail offer with improvements to signage and trails, investigate development of shared use and MTB trails. A detailed trail audit is recommended to understand the maintenance and upgrade works required to lift the quality of the experience.				
06	Forrestdale Lake Walk Trail	Hike	6.9	Grade 3	Locals, Active Lifestyle hiker, Holiday Walkers
	This trail offers an opportunity to be immersed in the wetlands and surrounding ecological values of the Swan Coastal Plain. Improve existing trail offer with improvements to signage and trails. A detailed trail audit is recommended to understand the maintenance and upgrade works required to lift the quality of the experience.				
07	Forrestdale Lake Horse Trail	Horse	3.8	-	Trail riders
	This trail is one of few horse trails within the project area offering an important local experience and an introductory bush trail for equestrians. A detailed trail audit is recommended to understand the maintenance and upgrade works required to lift the quality of the experience.				
08	Lloyd Hughes Park	Hike	1.7	Grade 3	Locals, Holiday walkers
	These trails offer opportunity to experience the edge of the darling scarp providing a link from the swan coastal plain up into the scarp. A detailed trail audit is recommended to understand the maintenance and upgrade works required to lift the quality of the experience. Integration with the proposed local scale MTB network (refer proposed trail table item 02) should also be considered.				
09	Goolamrup Reserve	Hike	0.6	Grade 3	Locals, Holiday walkers
	Small reserve offering short trails for local recreation. Maintain and look at potential to link into proposed Canning River Trail (refer proposed trail table item 04)				
10	Wungong Gorge Trail	Hike	5.5	Grade 4	Active Lifestyle hiker, Holiday Walkers
	This trail traverses through the base of the gorge along a vehicle track. As part of the proposed Wungong Trail Centre (refer proposed trail table item 01) , it is recommended to upgrade this trail to improve the experience.				

Map ID	Name	Type	Length (m)	Grade	Target market
11	Contour Channel Walk	Hike	3.5	Grade 3	Active Lifestyle hiker, Holiday Walkers
	Perched on the edge of the scarp this trail offers spectacular views over the Swan Coastal Plain towards Perth CBD. Signage and trailhead access need addressing. A detailed trail audit is recommended to understand the maintenance and upgrade works required to lift the quality of the experience.				
12	Roley Pool Reserve Walk	Hike	2.4	Grade 2-3	Locals, Active Lifestyle hiker, Holiday Walkers
	A popular hike along the Canning River including Roley Pools. It is recommended to proceed with continued implementation of the Roley Pools Recreation and Signage Strategy.				
13	Canning Dam Loop	Hike	2	Grade 3	Holiday Walkers
	A short walk from the picnic area. Maintain as an option suited to holiday walkers.				
14	Historic Walk trail Canning Dam	Hike	1	Grade 3	Holiday Walkers
	A short walk from the picnic area taking in historic features. Maintain as an option suited to holiday walkers.				
15	Churchman Dam Loop	Hike	0.7	Grade 2	Holiday Walkers
	A short walk from the picnic area. Maintain as an option suited to holiday walkers.				
16	Munday Brook	Hike	10	Grade 3	Active Lifestyle hiker, Holiday Walkers
	Taking in the jarrah forest on the Darling plateau, this trail offers a longer hike experience. A detailed trail audit is recommended to understand the maintenance and upgrade works required to lift the quality of the experience.				
17	Champion Lakes Trail	Shared	5	Grade 2/Easy	Locals, Holiday Walkers
	A popular shared use trail around Champion Lakes. Great option to be promoted for locals and holiday walkers looking for an easy hike.				
18	Jandakot Regional Park horse trail (management tracks only)	Horse	10	-	Trail riders
	This trail is one of few horse trails within the project area offering an important local experience and an introductory bush trail for equestrians. As outlined in the Jandakot Regional Park Management Plan access for horses on designated tracks will be maintained for the short – medium term while surrounding rural land uses continue. In the event these rural areas are rezoned in the MRS and there is no longer a demand for horse riding from local residents, the activity will be prohibited.				

TABLE 19: Proposed trail recommendations

Map ID	Name	Type	Length (m)	Grade	Target market
01	Banyowla Trail Network	MTB,	Up to 10km MTM	Green, Blue, Black	Enthusiast, Sport and Gravity MTB
	Featuring significant topography, bushland, city views and immediate connection to Kelmscott CBD, the southern portion of Banyowla Regional Park offers potential to host a local scale MTB network containing All Mountain and XC trail styles				
02	Wungong River Trail	Hike, MTB	Up to 5km	Grade 1-2, Green, Blue	Active lifestyle hiker, holiday makers Leisure and enthusiast MTB
	Wungong River Trail is a proposal currently in development as part of the Wungong River Recreation Reserve Concept. It is recommended that expanded purpose built MTB trails be incorporated into the Concept as there is an ideal opportunity for beginner level XC style trails as well as park style trail development. There may also be potential for the XC trails to be designed as shared use providing an ideal trail for entry level trail running and a more immersive trail experience for walkers.				
	Link Trails	Hike, MTB, Horse	Varies	Grade 2-3, Green	Active lifestyle hiker, independent hiker Leisure and enthusiast MTB
03	Canning River Trail (Kelmscott to Banyowla/Churchmans)				
04	Soldiers Rd Link (Roley Pools to Churchmans)				
05	Churchmans Brook Link (Churchmans dam to Churchmans bushland and Settlers Common)				
06	Settlers Common Link ( via Grieve Way refer Settlers Common Recreation Strategy)				
07	Settlers Common to Bungendore (Admiral Rd)				
08	Wungong link south to Byford and Jarrahdale for MTB and horse				
09	Harrisdale Swamp trail	Hike	3km	Grade 2-3	Active lifestyle hiker, holiday makers
	Proposal to develop hike trail within Harrisdale Swamp area, with interpretive signage to introduce visitors to the diversity of vegetation types and the importance of conserving the area. If necessary at a later stage, parking facilities could be provided. This recommendation is outlined in the Jandakot Regional Park Management Plan.				
N/A	Road and gravel cycle routes	Cycling	Varies	N/A	Cyclists - road and gravel
	Establish a suite of road and gravel cycling routes throughout the City and in the broader region (in partnership with neighbouring LGAs and DBCA). These routes should be vetted and promoted with GPX files available online. Marketing may involve establishing a series of themed routes which showcase the values of the area.				

## Objective 2. Implement robust governance and management

Optimise governance and management structures across trail landowners, stakeholder groups and regional partners to ensure the Armadale region is positioned as a sustainable and viable trail and adventure destination.

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 trails, 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 implemented to a high standard, a governance hierarchy should be formally adopted by all relevant stakeholders.

Characteristics of effective governance models include:

- Structure and accountability which is clear and simple to implement in the long term
- Clearly defined and allocated responsibilities and authority for each stakeholder
- A focus on ensuring quality visitor experience, product development and marketing
- Robust range of funding sources with revenue raising avenues established to ensure cash flow and enable self-generated investment into maintaining and enhancing trails, facilities and services
- Risk management protocols and processes are considered and implemented to reduce risks to staff, volunteers and trail users
- Direct liaison and involvement of user and community groups to build support within the local community.

The desired outcomes of governance need to be determined in order to undertake an assessment of the most appropriate governance model for Armadale.

To maintain sustainability and consistency across the Region it is recommended that either a single agency or a committee of key stakeholders/landmanagers take ownership / responsibility for driving implementation of the vision for trails in Armadale. The sole agency needs to have a sustainable business model and ideally a local perspective, the City of Armadale is ideally suited to take on this role. For the committee option to be viable there needs to be broad agreement on direction, responsibilities and purpose.

Supporting the lead agency/s it is recommended that a trails committee be formed and given responsibility for implementation of the Master Plan. The Trails Committee should contain director level representatives from local government, as well as representatives from, DBCA, DLGSC and trail type peak bodies and Traditional custodians. The role of the committee would be to oversee all strategic trail development and management, with a particular focus on seeking funding for high priority proposals. The group should meet quarterly to coordinate key stakeholders and project priorities.

Of particular importance is the involvement of trail user group peak bodies (Westcycle, HikeWest), and other local trail organisations/clubs and volunteers who have driven the advocacy and management of trails in the Region. 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. The recommended governance hierarchy is outlined in Figure 7.

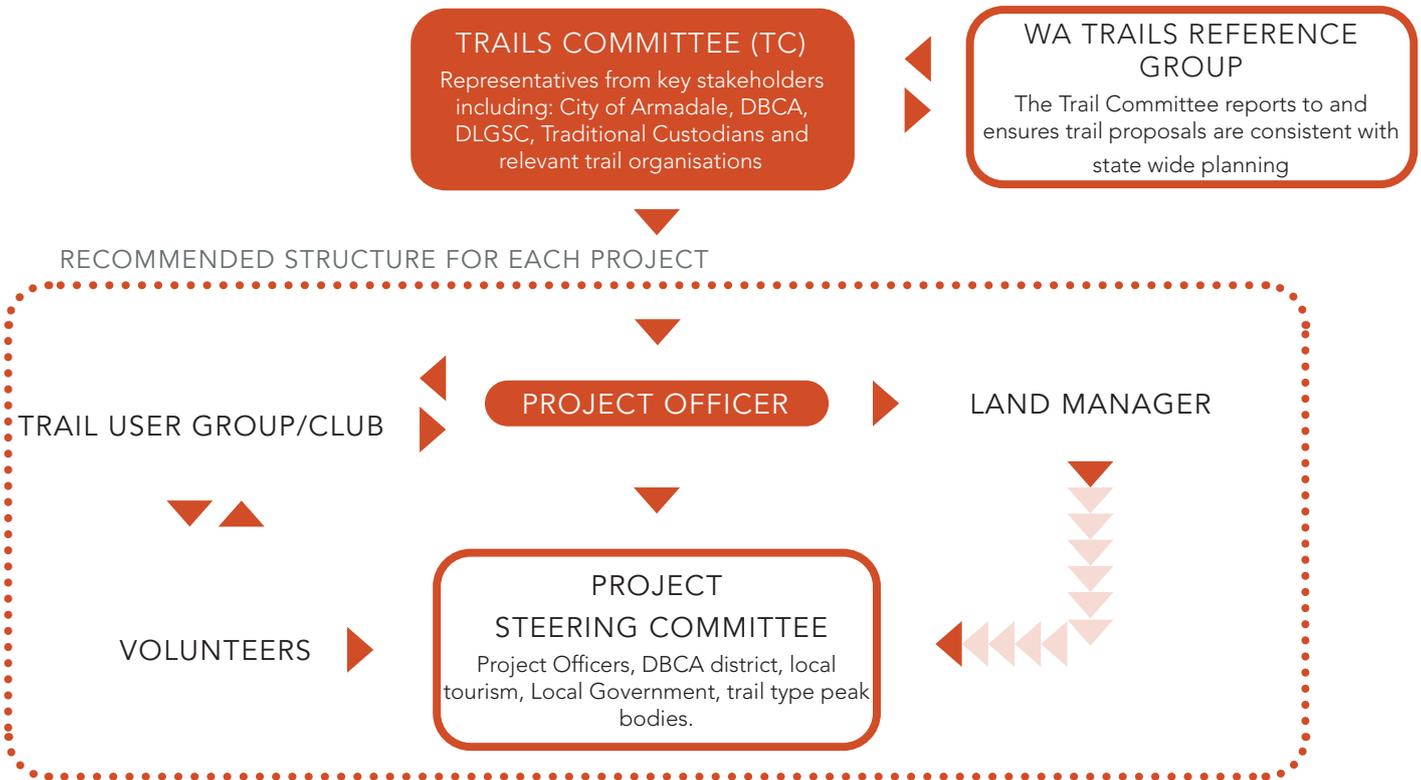


FIGURE 8 - Recommended governance structure



## Funding and partnership opportunities

There are a range of current funding sources available for trail development. Given many of the proposed and existing trail developments in the Armadale Region are on DBCA Parks and managed estate, it is critical that long term partnerships between stakeholders and agencies are developed to ensure the trails vision is achieved. Partnerships are integral to trail development but may also extend to trail management for example City of Armadale managed trails on DBCA estate, volunteer management of trails or lease arrangements where trails are managed in a public-private partnership. Public-private partnerships also have potential to deliver services and infrastructure to support trails experiences.

Some of the government organisations that provide funding for trail planning, design and construction include:

Department of Local Government, Sport and Cultural Industries - Sport & Recreation

The Department is the key driver in developing the WA Strategic Trails Blueprint and a key supporter of Trails WA. They also support Local Governments and community organisations with sourcing trail planning and construction funding.

Department of Biodiversity, Conservation and Attractions - Parks and Wildlife Services

Parks and Wildlife is a key agency in setting standards for trails in the State and works with a large number of stakeholders to provide quality trails that meet the needs of trails users and protect the environment. A collaborative and productive partnership with Parks and Wildlife will be critical in realising the vision for trails in Armadale.

Department of Transport

The West Australian Bicycle Network (WABN) grants program is one of the key actions detailed in the Western Australian Bicycle Network Plan 2014-2031 which sets out a framework for the provision of a safe and sustainable cycling network across WA. Funding is available to local government authorities in WA, for a percentage of the total project cost, for the design and implementation of bicycle network infrastructure and programs in accordance with State Government priorities set out in the WABN Plan.

Regional Development Australia

Nationally, Regional Development Australia managed the now discontinued Building Better Regions Fund (BBRF) Infrastructure Projects Stream. The BBRF has been a source of funding for many trail development projects throughout Australia. The BBRF is to be replaced in mid 2023 with the Growing Regions Program.

Business and community 'buy-in'

Establishing the Armadale region as a key trail destination will require a collective ownership of the trails identity by local businesses and the community. Potential initiatives to encourage businesses and community to support the trails and trail users include:

- Encouraging businesses to promote trail use and opportunities
- Encouraging businesses to provide cycling infrastructure (bike racks etc)
- Host workshops with the community to keep them informed of the progress with the development of trails and listen and respond to concerns and ideas
- Charging stations for electric bikes at strategic locations throughout the region, particularly at the adventure hub trailhead, cafes and accommodation
- Mobile phone charging capacity at cafes
- Priority to cyclists and pedestrians in the main street
- Extended opening hours to include weekend trading, cafes open later in the afternoon and evening. More options during the evening for families and the younger demographic
- Support location appropriate accommodation developments such as trail side glamping and cabin accommodation
- Deliver workshops on the economic and business opportunities provided through trail development and increased visitation - equipment hire, shuttles, tours, accommodation and food and beverage services - and support appropriate new business ventures.

A sustainable trails destination and trail experiences require good management models, a governance hierarchy with clear responsibilities, a comprehensive understanding of the market, strong partnerships between key stakeholders including the community, and diverse revenue generating pathways.

### 3. Market and promote the experiences on offer

Marketing and promotion of the experience on offer needs to be appropriate to the level of development and to the intended markets. A comprehensive and cohesive strategy looking at how the diversity of experience can be packaged and marketed is needed to entice longer stays and repeat visits.

It is important to ensure promotion of trail opportunities and 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 accurate communication and accessibility for users. Content development and management (including continual updates) is often the biggest challenge for destinations as no one agency takes the lead. It will be vital the City to invest in a resource (either in-house or external) who will be responsible for generating or commissioning editorial and imagery and management of the brand. This will ensure consistency of the messaging, inspirational content development and that the key messages are adapted by the industry and promoted through external partners and networks.

Promotion of trails 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. The recently adopted City of Armadale Tourism Strategy recognizes the value of trails in regards to tourism. Trails should continue to feature in promotion of the City as a destination of choice.

Itineraries are an effective marketing tool in educating visitors on how to travel to and through the region, and the broader experience offering. Expansion of experiences into other areas (cultural and community events, food & beverage experiences, staying overnight, shopping locally) provides incentive for trail tourists to come more often, stay longer and spend more money. Creating a resilient tourism industry depends on diversification with the sector and encouraging operators to connect and explore the ways in which they can link with other operators and expand their offerings. There are business opportunities for travel and tour companies locally to partner with accommodation providers in developing itineraries, offering airport pick-up and drop-off services and on trail support.

Events can provide considerable economic benefit to the local communities in which they are hosted. With implementation of this strategy, there will be a multitude of trail opportunities to create new events, improve existing events and support the development of the high performance environment. These opportunities will be of interest to organisations already running events as well as the existing and emerging private event promoters market. It will be important to manage the increase in competition in the events market, and to grow it sustainably, ensuring adequate infrastructure and support.

# 7.0 Recommendations

## Objective 1. Develop a cohesive and diverse trail network

Area	Action	Responsible agencies	Timeframe	
Trail development and delivery	1.1	Develop an implementation plan that includes identifying top priority projects, assigning a lead agency and a timeline for delivery consistent with Table 21 below.	City of Armadale DBCA	Short
	1.2	Progress recommendations identified for priority trail projects. Refer to Table 21.	City of Armadale DBCA	Short
	1.3	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 and supporting facilities at iconic locations.	City of Armadale	Medium
	1.4	Identify opportunities to create public-private partnerships for trail development and prepare a strategy and steps to form these partnerships.	City of Armadale	Medium
	1.5	Ensure appropriate engagement with Aboriginal stakeholders is undertaken in all stages of trail development, consistent with the relevant legislation, DBCA policy requirements, the WA Strategic Trails Blueprint and the South West native title settlement.	All	Ongoing
	1.6	Develop a signage plan to help deliver a regionally consistent approach to trail signage, covering the full hierarchy of signage from trailhead to wayfinding and interpretation. Ensure consistency with the branding and marketing strategy.	City of Armadale	Short
	1.7	Develop a maintenance plan for proposed trails as part of trail development process and investigate and implement the most sustainable and suitable management and revenue model for each development, including investigating public - private partnerships.	City of Armadale DBCA	Short

## Multi-criteria analysis

Existing and proposed trails have been assessed on an individual basis against the following criteria and assigned a priority rating. It is important to note that assessment has been undertaken with a 'tourism lens' to align with the purpose of the master plan and provision of a diverse range of unique and sustainable trail and adventure experiences, that will attract intrastate, interstate and international visitors, driving visitation, tourism and economic benefits.

## Economic Impact

Economic impact refers to the potential for the trail to have an economic impact for the region. It also assess the potential for the trail to generate revenue to contribute to ongoing management of the trail/s. The higher the rating the more economic value the trail potentially has.

## Community - Tourism

Community - Tourism rating refers to the nature of the trail opportunity being primarily related to community recreation value or tourism value. The higher the rating the more potential for tourism value the trail has.

## Opportunity

The opportunity rating refers to the potential value of the trail experience, taking into consideration the landscape features, scope and scale of the trail/s, accessibility and support infrastructure.

## Redevelopment Need/ Deliverability

For existing trails, this criteria refers to the need for redevelopment to bring the quality of the trail in line with the opportunity. The higher the rating the less need for redevelopment.

For proposed trails, the deliverability rating refers to the general location of the trail considering trail supply, management, environmental factors, planning and land use. The higher the rating the easier to deliver the trail improvements/ development.

## Prioritisation Outcomes

Proposed trail and adventure recommendations have been assigned, a high, moderate or low priority based on outcomes of applying the above criteria and level of demand.

High priority projects offer the most significant opportunity and prompt deliverability and are recommended as the focus of initial resource investment and development. Initial delivery of this Master Plan should focus on progressing these opportunities generally within a two year timeframe.

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

Low priority projects offer limited opportunity and deliverability, and resource investment to assist development is recommended within a ten year timeframe.

A summary of proposed trail projects are listed in Table 25. For each project the following have been identified:

- Responsible agencies - lead agency and supporting agencies
- Priority for development - high, moderate, low
- Timeframe for implementation of recommendation
- Next steps as per the Trail Development Process outlined in Table 20

It should be noted that some projects assigned a lower priority rating may not provide a tourism opportunity or benefits. However, they may provide a significant local community recreation benefit, improve connectivity to services and infrastructure and can be developed within the short term. With this in mind, some projects have been assigned a shorter timeframe.

TABLE 20: Trail Development Process. (DLGSC, 2019)

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

Like any other community facility, a trail needs to be well planned and may be subject to various approval requirements. Trail proposals outlined in this Master Plan need to progress through the eight stage development process and navigate land tenure, cultural and environmental assessments and other potential constraints.

TABLE 21: Trail proposal recommendations

Map ID	Trail project	Type	Responsible agencies	Priority	Timeframe	Next steps
01	Bibbulmun Track	Hike	DBCA, BTF	High	Ongoing	Management
02	Munda Bididi	MTB	DBCA, MBTF	High	Ongoing	Management
03	Bungendore Park Trails	Hike/horse	City of Armadale	High	Ongoing	Management
04	Armadale Settlers Common Trail Centre	Hike	City of Armadale	High	Ongoing	Management
05	Churchman Bushland Trails	Hike	DBCA	Medium	Long	Site assessment for redevelopment potential
06	Forrestdale Lake Walk Trail	Hike	DBCA	High	Ongoing	Management
07	Forrestdale Lake Horse Trail	Horse	DBCA	High	Ongoing	Management
08	Lloyd Hughes Park	Hike	City of Armadale	High	Ongoing	Management
09	Goolamrup Reserve	Hike	City of Armadale	Medium	Ongoing	Management
10	Wungong Gorge Trail	Hike	DBCA	Medium	Ongoing	Management

Map ID	Trail project	Type	Responsible agencies	Priority	Timeframe	Next steps
11	Contour Channel Walk	Hike	DBCA, Water Corporation	High	Ongoing	Management
12	Roley Pool Reserve Walk	Hike	City of Armadale	High	Ongoing	Management
13	Canning Dam Loop	Hike	Water Corporation	Medium	Ongoing	Management
14	Historic Walk trail Canning Dam	Hike	Water Corporation	Medium	Ongoing	Management
15	Churchman Dam Loop	Hike	Water Corporation	High	Ongoing	Management
16	Munday Brook	Hike	City of Kalamunda	Medium	Ongoing	Management
17	Champion Lakes Trail	Shared	Venues West	High	Ongoing	Management
18	Jandakot Regional Park Horse Trail	Horse	DBCA	Low	Ongoing	Management
01	Banyowla Trail Network	MTB,	DBCA, City of Armadale	High	Short	Proposal (Master planning)
02	Wungong River Trail Network	Hike, MTB	City of Armadale	Medium	High	Concept revision
03	Canning River Trail (Kelmescott to Banyowla/ Churchmans)	Hike, MTB	City of Armadale/DBCA	Medium	High	Proposal
04	Soldiers Rd Link (Roley Pools to Churchmans)	Hike, MTB	City of Armadale, Main Roads	Medium	Medium	Proposal
05	Churchmans Brook Link (Churchmans dam to Churchmans bushland and Settlers Common)	Hike, MTB	DBCA, City of Armadale	Medium	Medium	Proposal
06	Settlers Common Link (via Grieve Way refer Settlers Common Recreation Strategy)	Hike, MTB	City of Armadale, Main Roads	Medium	Medium	Proposal
07	Settlers Common to Bungendore Link (Admiral Rd)	Hike, MTB	City of Armadale, Main Roads	Medium	Long	Proposal
08	Wungong link south to Byford and Jarrahdale for MTB and horse	Hike, MTB horse	DBCA	Low	Long	Proposal
09	Harrisdale Swamp trail	Hike	DBCA	Low	Long	Proposal
N/A	Road and gravel routes	Cycling	City of Armadale/DBCA	High	Short	Proposal

## Objective 2. Implement robust governance and management

Area	Action	Responsible agencies	Timeframe	
Governance	3.1	Establish a Armadale Region Trails Committee with representatives from the City, DBCA, Water Corporation, Whadjuk Noongar Traditional Custodians and other key stakeholders and trail type peak bodies.	City of Armadale	Short
	3.2	Determine preferred/ most suitable governance model for the Armadale Region as a trails destination including investigating creation a permanent trails coordinator position for the City of Armadale to fit in the recommended governance structure.	City of Armadale	Short
	3.3	Conduct an annual audit and review of the Master Plan recommendations to monitor progress, ensure outcomes are achieved and carry out a review of the Master Plan within 10 years.	City of Armadale	Ongoing
Management	3.4	Expand the volunteer program involving local clubs and community organisations to assist with the ongoing management and maintenance of trails across tenures. Formalise roles and responsibilities and ensure the program is accessible, well promoted, coordinated and adequately resourced.	City of Armadale DBCA	Medium
	3.5	Record and analyse trail usage data and market visitation for all existing trail facilities. Establish a central reporting system to provide information for industry.	City of Armadale DBCA	Medium
Partnerships	3.6	Support community led formation of local clubs with a focus on trail activities. Eg. mountain bike/ off road cycling club, hiking.	City of Armadale DBCA	Short
	3.7	Investigate the opportunity for a partnership for LGA management of trails on DBCA estate.	City of Armadale DBCA	Short
	3.8	Encourage and support new trail business opportunities and identified gaps in service provision. Explore opportunities for Aboriginal enterprise and interpretation.	City of Armadale DBCA	Short
	3.9	Strengthen partnerships with DBCA and other agencies to facilitate delivery of trail development outcomes.	City of Armadale DBCA	Short / Ongoing
	3.10	Identify opportunities to create public-private partnerships to deliver services and infrastructure to support trail experiences and trail users, and deliver workshops on the economic, business and community opportunities and benefits.	City of Armadale DBCA	Short
Revenue	3.11	Investigate establishing and implementing a diverse range of revenue raising pathways to support development, management and ongoing maintenance of trail developments.	City of Armadale	Short

## Objective 3. Market and promote the experiences on offer

Area	Action		Responsible agencies	Timeframe
Strategy	4.1	Develop a cohesive, hierarchical marketing and promotion strategy for the Armadale Region that incorporates a trails brand and identifies promotional opportunities through partnership with tourism agencies.	City of Armadale	Short/ Ongoing
	4.2	Develop a coordinated marketing presence, linking signage, maps and other marketing collateral to increase awareness of trails and services in the Armadale Region. Use Trails WA as the online platform.	City of Armadale	Short/ Ongoing
Itineraries	4.3	Develop a range of multi-day itineraries which demonstrate how trail users can experience the Armadale Region (including travel distances, times, complementary experiences).	City of Armadale	Medium
	4.4	Work with neighbouring LTO's to develop cycle-touring itineraries across the broader south west.	City of Armadale	Medium
Packages	4.5	Develop packages which appeal to the identified target markets to increase awareness of trail opportunities and for marketing and promotional purposes.	City of Armadale	Long
Events	4.6	Where appropriate, encourage the creation of new events in consideration of the potential impacts on established events and recreation participation.	All stakeholders	Ongoing

# References

- Angus and Associates. (2013). New Zealand Cycle Trail Evaluation: four cycle trail case studies. Ministry of Business, Innovation and Employment.
- Australian Sports Commission. (2019, November). Clearing House for Sport. Retrieved from Sport Aus - Aus Play Survey: [www.clearinghouseforsport.gov.au/](http://www.clearinghouseforsport.gov.au/)
- City of Armadale. (2024, July). Retrieved from <https://www.armadale.wa.gov.au/community-and-economic-profiles>
- Clearinghouse for Sport. (2024, August). Retrieved from <https://www.clearinghouseforsport.gov.au/research/ausplay/results>
- CWANZ. (2024, September). NATIONAL Walking and Cycling Participation Survey 2023. Retrieved from <https://www.cwanz.com.au/national-walking-and-cycling-participation-survey-2021/>
- DBCA. (2015). WA Mountain Bike Management Guidelines. Perth, WA.
- DBCA, DLGSC. (2024). Western Australia Hiking Trail Management Guidelines.
- Department of Biodiversity Conservation and Attractions. (2015). WA Mountain Bike Management Guidelines. Perth: DBCA.
- DLGSC. (2019). Trail Development Series. Perth: Department of Local Government Sport and Cultural Industries.
- DSR. (2022). WA Strategic Trails Blueprint. Perth: Department of Sport and Recreation.
- Population ID (2024). City of Armadale Profile. Retrieved from <https://economy.id.com.au/armadale/population>
- Sport Aus. (2022). AusPlay: How Australians participation in sport and physical activity is adapting to COVID normal - July 2022 Update.
- Tourism Reserach Australia. (2024, July). Retrieved from <https://www.tra.gov.au/en/regional/local-government-area-profiles>
- Westcycle. (2022). WA Mountain Bike Strategy 2022-2027.
- World Athletics. (2022). Trail Running disciplines. Retrieved from <https://www.worldathletics.org/disciplines/trail-running/trail-running>
- Zovko, I. (2013). The value of cycle tourism: opportunities for the Scottish economy. Sustrans Scotland.

# Appendix A

## Background document review

Publication	Summary	Key Points
Australian Adaptive Mountain Bike Guidelines (2019)	The guidelines were developed to help improve the accessibility and inclusion of mountain biking in Australia. The intent of the guidelines is to establish the entry level requirements for inclusive and effective eMTB programs, events, races, equipment, support and riding.	Provides a trail rating system, signage information, supporting facility requirements, trail design criteria specifically for adaptive mountain bike trails. Mountain bike trails designed with a basic and essential level of access for adaptive riders creates trails which riders of all abilities can ride. Trails designed or being upgraded for use by adaptive handcycles must consider, trail width, turning radius, gradient, camber, berms, log rolls, drops and rock gardens, jumps, tabletops, rollers and other undulations, tread surfaces, demarcations and alternative riding lines.
Australian Mountain Bike Trail Guidelines (2018)	The aim of the guidelines is to ensure a consistent approach to planning, design, construction and management of sustainable mountain bike trails, including alignment with landholder expectations, meet the needs of riders, minimise environmental impacts and provide opportunities for the public to connect with the environment.	<ul style="list-style-type: none"> <li>• Trails cannot be developed in isolation, they must 'fit' within a strategic and legislative context.</li> <li>• The trail owner is the entity that owns the physical structure of the trails and is usually the owner or manager of the land. The trail owner carries the liability for health and safety of all trail users.</li> <li>• The trail operator is the entity that maintains the trails to the agreed standards of the owner.</li> <li>• Sustainable trails align with user's needs, provide social and economic benefits, minimise environmental impact and require less maintenance.</li> <li>• To achieve sustainable trails, land managers must develop the right trail, in the right area, the right way and for the right reasons.</li> <li>• Sustainable in mountain bike trail development refers to, trails users, social, economic, environment, trails and infrastructure and land use</li> </ul>
More People More Active Outdoors	Provides the framework for outdoor recreation in Western Australia to guide local and regional outdoor recreation planning by government, corporate and community stakeholders.	Outlines the significant benefits of outdoor recreation, and tracks and trails through natural environments are key to creating lifelong connections with outdoor recreation. Highlights investment in trails as integral to the journeys that outdoor activities take users on and re-enforces that well-planned and well-designed tracks and trails provide access, attract visitors, reduce environmental damage and encourage uptake in outdoor recreation.
Western Australian Strategic Trails Blueprint 2022 – 2027	An overarching guide for consistent and coordinated planning, development and management of quality trails and trail experiences throughout the state. It outlines a vision, guiding principles, strategic directions and actions for consideration across the state by government, landholders, trail managers, trail organisations, tourism operators and the community.	Emphasises the larger and more significant role tourism is playing in the development of trails, as trail users' look for interesting, challenging, authentic and unique experiences. It also recommends that in the future, there is an increased focus on ensuring trails are inclusive, accessible, have robust funding and management models, and are developed through engagement with all stakeholders including Traditional Custodians.

Publication	Summary	Key Points
Western Australian Trail Development Series	<p>Provides best practice guidance covering the trail development process, community consultation, multi-criteria decision analysis and checklists and templates, to assist groups developing a trail project to:</p> <ul style="list-style-type: none"> <li>• follow a standardised process</li> <li>• consider all issues and approvals</li> <li>• develop an approach to gather support from the local community and relevant government agencies.</li> </ul>	<p>Acknowledges the social, economic and environmental values associated with recreational trails and the need to understand and consider these values throughout the Trail Development Process.</p> <p>Outlines the eight stage Trail Development Process for developing trails in Western Australia.</p>
Western Australian Mountain Bike Strategy – Mountain Biking and Off Road Cycling in WA 2022-2032	<p>The purpose of this Strategy is to provide an updated strategic direction for mountain biking in Western Australia outlining strategies and recommendations under five focus areas.</p>	<p>Recommends:</p> <ul style="list-style-type: none"> <li>• Master planning to identify and prioritise locations for mountain biking trails</li> <li>• Mountain bike trail developments are strategically coordinated by applying the significance hierarchy</li> <li>• Applying the eight stage Trail Development process to trail developments</li> <li>• Foster and encourage community engagement and involvement at commencement of planning for mountain bike trail developments</li> <li>• Establish governance models addressing management and maintenance</li> <li>• Determine costs of ongoing management and maintenance upfront to ensure included in trail business model</li> <li>• Actively support Local Government to overcome barriers to develop urban trails, pump tracks and skills park improving accessibility to mountain bike experiences</li> <li>• Encourage new mountain bike trail developments to cater for a variety of user riding preferences with an emphasis on trails for beginners and families</li> <li>• Review and continue to improve long distance off-road cycling trails</li> <li>• Support Local Government to identify and develop transport and recreation trails such as gravel trails and trails that connect to mountain bike trails</li> <li>• Continue to develop iconic and unique mountain bike experiences that capitalise on the diversity and unique features of West Australian landscape</li> <li>• Support the appropriate development of Aboriginal cultural experiences within the WA mountain bike experience</li> </ul>

<b>Publication</b>	<b>Summary</b>	<b>Key Points</b>
Western Australian Mountain Bike Management Guidelines 2019	Provides guidelines for development and management of mountain bike trails in WA. Aspires to be adopted by all land managers.	Outlines guidelines for the management of mountain bike trails.
Western Australian Hiking Trail Management Guidelines 2024	Provides guidelines for development and management of hike trails in WA. Aspires to be adopted by all land managers.	Outlines guidelines for the management of hike trails.
WA Cycle Tourism Strategy	This strategy identifies four priority areas that require consideration and development to support the growth of cycle tourism in Western Australia, investing in the industry, marketing and events, and delivering a great riding experience.	Identifies three types of cycle tourists, recreation, events and touring and that the travel behaviours of cycle tourists indicate they are a highly valuable visitor market due to their propensity to stay longer, travel outside of urban centres and spend more.
WA Hiking Strategy – Bushwalking and Trail Running in Western Australia 2020-2030	Provides a strategic direction bushwalking and trail running in Western Australia. Addresses existing challenges and provides guidance and structure for decision makers, land managers, trail planners and the community. Advises on infrastructure and facilities, trail classifications, code of conduct, management and governance. It seeks to maximise the opportunity for all Western Australians and visitors to benefit from access to an appropriate range of hiking experiences and will guide the sustainable development of hiking activities and associated trails’ infrastructure.	Outlines the health, social, cultural, environmental and economic benefits of bushwalking and trail running and strategies to maximise participation outcomes, grow the visitor economy, for sustainable trail development and maintenance and effective governance and advocacy.
Western Australian Recreational Horse Trails Strategy 2015	Addresses existing challenges and provides guidance and structure for decision makers, land managers, trail planners and the community. Advises on infrastructure and facilities, trail classifications, code of conduct, management and governance.	Proposes opportunities and benefits of horse trail riding for Western Australia.  Priority 2: Trails Access - Develop easily located trails with accurate and accessible information  Priority 3: Facilities and infrastructure - Develop facilities appropriate for horse use and well maintained  Priority 5 Trails management and governance - Establish a strong sustainable and coordinated approach



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