



Garvey Park

Trail Development Plan

City of Belmont

Contents

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



Acknowledgements
The authors of this Garvey Park Trail Development 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.

This project was jointly funded by the Department of Local Government, Sport and Cultural Industries and the City of Belmont.

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Revision	Description	Date
A	Draft for review	10/06/2024
B	Final draft	03/07/2024
C	Final	10/07/2024



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1 Introduction

Garvey Park is located on the land of the Whadjuk people of the Noongar Nation. Whadjuk people have lived on this boodja - country since the Nyittingy – creation times. Today, Garvey Park provides an important recreation space for the community and protects significant remnants of riverside ecosystems.

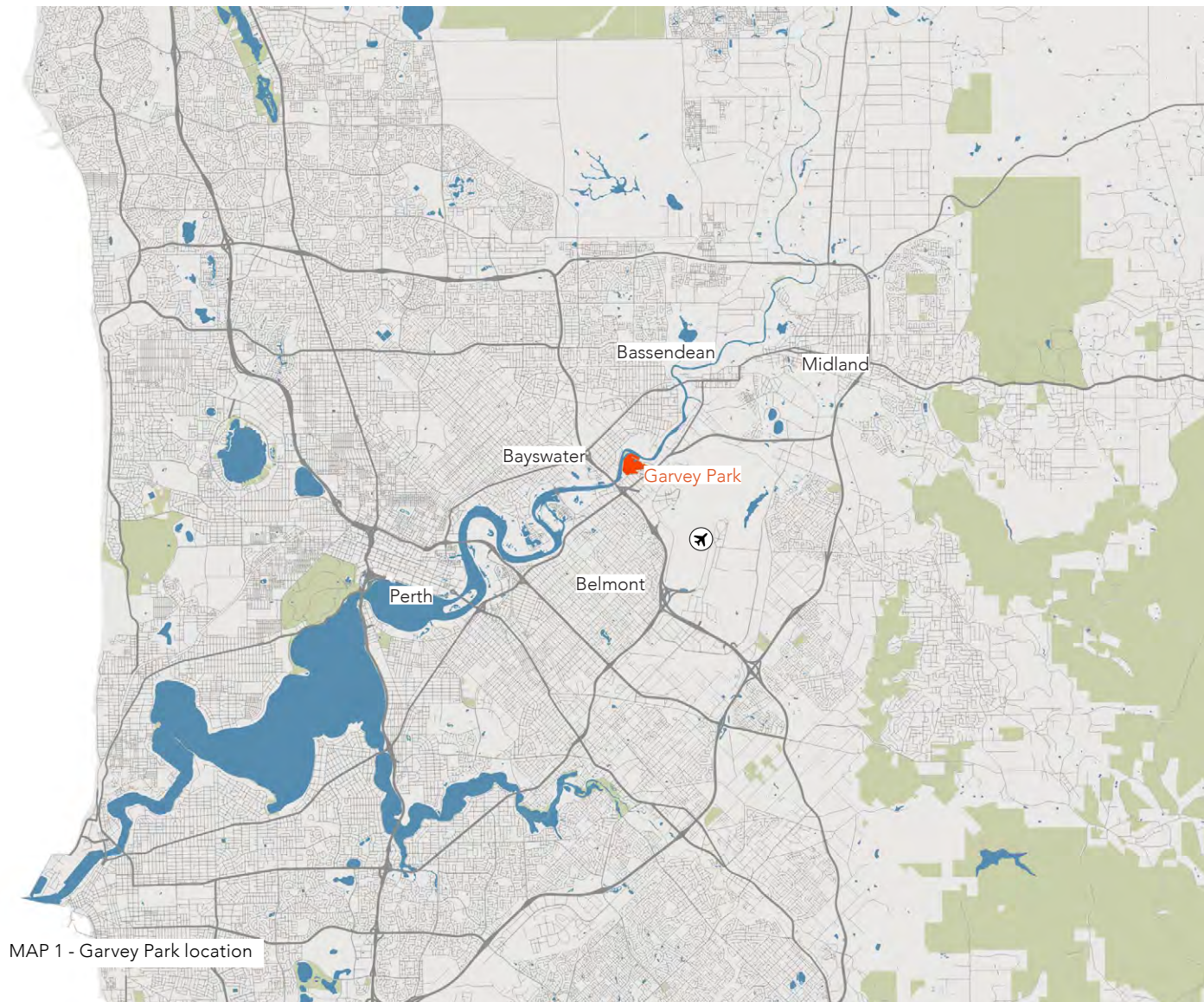


1.1 Project overview

Recreation activities undertaken in Garvey Park (the Park) include kayaking, canoeing, running, walking, horse riding, mountain biking, dog walking, bird watching and passive recreation. Major City of Belmont public events are also held annually at the Park including the Autumn River Festival and Kidzfest which attract crowds of over 5000 people. The Park is located on the southern banks of the Swan River 11km upstream of Perth CBD, offering a significant regional open space asset, refer to MAP 1.

This Trail Development Plan (TDP) seeks to enhance the trail network within Garvey Park, proposing a network of trails that is well planned, protects the natural and cultural assets and meets the needs of the current and future community.

An analysis of the current situation was undertaken looking at the strategic, local and broader context of Garvey Park, refer to Appendix A. Consultation was an integral component of the development of the TDP. Stakeholder and community input has assisted in identifying and determining the Park’s sustainable long-term vision for provision of trail facilities, refer to Appendix B for details regarding consultation methodology and results.



MAP 1 - Garvey Park location

1.2 Project objectives

The objectives of this project, as defined in the framework and project brief, are to:

- Develop a high quality, sustainable and accessible trail experience suitable for a diverse range of users
- Provide a local recreation resource for surrounding residents and a drawcard for residents of the greater Perth region
- Design trail opportunities that encourage riders and walkers to stay on designated trails and reduce the impact to the environmental and cultural heritage values
- Develop a trail experience that maintains the sense of place and is appropriate to the landscape setting
- Develop high quality, low maintenance technical trail features where appropriate
- Consider connections to the broader Perth PSP network
- Ensure trail development implements best practice planning, design and construction standards
- Highlight cultural heritage history and ecological value of the site in interpretation and ensuring minimal impact to values

1.3 Trail system

A Trail Network system has been applied in development of the Garvey Park TDP, with the trail model to incorporate the following design principles:

- A mix of shared use and single use trails
- Stacked loop trail network.
- Trails to focus on natural features/opportunities and blend into the landscape.
- Consider alternate lines and optional technical features to increase the difficulty of trails and allow for progression, where appropriate.

1.4 Scope and scale

The Garvey Park trail network will be a local-regional scale trail network which caters for mountain biking and walkers/trail runners. The network will offer a local recreation resource for surrounding residents and a drawcard for residents of the greater Perth region. The Park is of a size and character that has potential to fill a number of gaps in trail provision within the region.

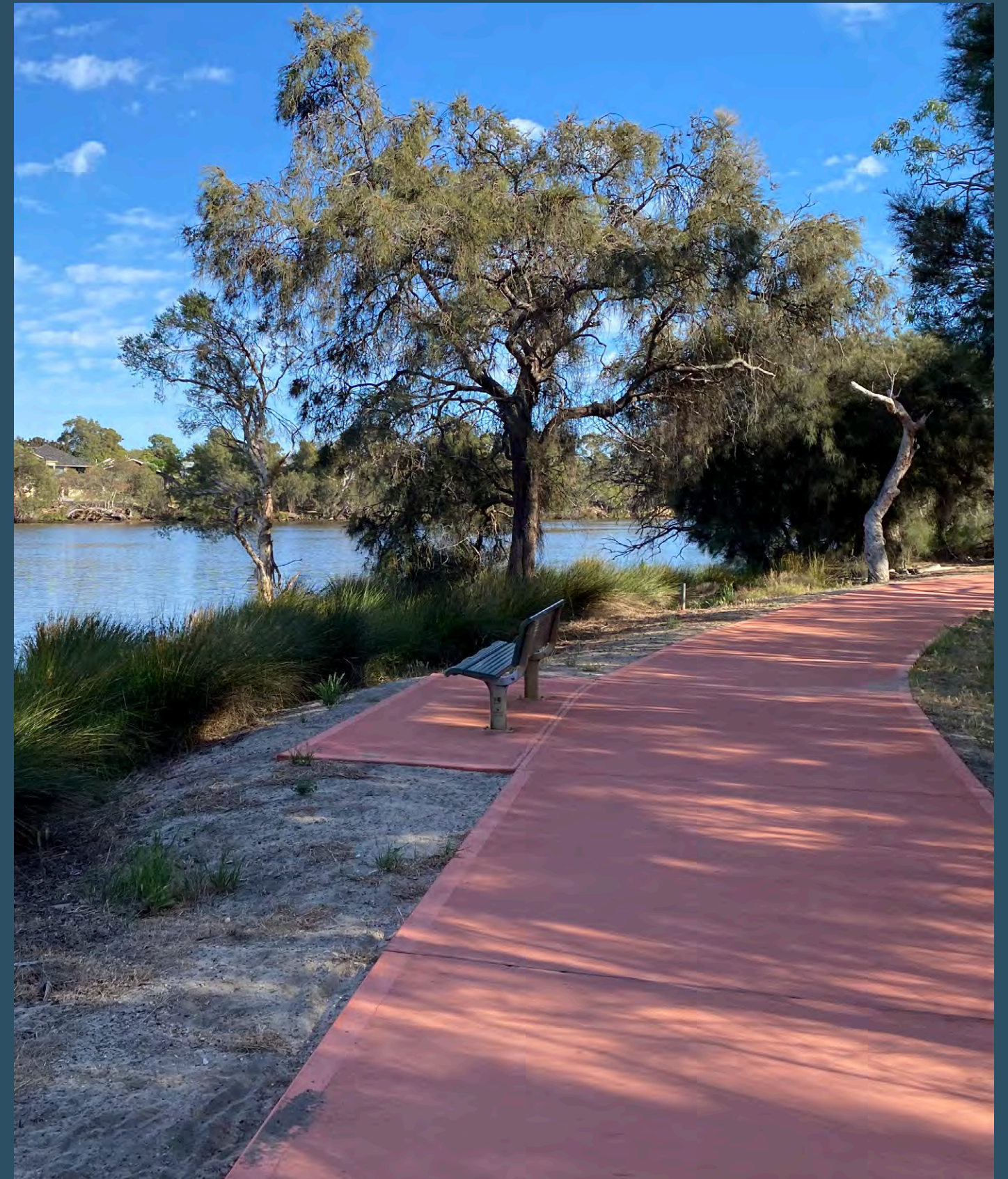
The trails are proposed to make use of existing infrastructure provision within the Park including carparking, toilets, playground, café and old Artist Studio accessed from the Fauntleroy Avenue entrance. Additional infrastructure to support the safe ongoing use of the proposed network has also been proposed.

1.5 Target market and user types

The Garvey Park trails are intended to primarily focus on enthusiast and leisure cohorts within the walk/run and mountain bike user groups. These markets are comprised of a diverse mix of trail users, seeking varied experiences and challenge. The network will provide options for users to vary their route with short and long loop options which also link into the broader Perth trail network via the Principal Shared Path network. Trail types incorporated into the network include cross country (XC) MTB and class 1-3 walk trails. Situation analysis and consultation revealed equestrian use of the park has declined in recent years. The network allows for equestrian use within Garvey Park however doesn't provide specific trails.

2 Concept

Positioned on a southern meander of the Swan River, Garvey Park offers diverse riverside landscapes with a layering of values and stories that highlight its unique natural and cultural evolution. The vision for the trail network is to provide opportunities for users to connect to these values and stories as they traverse through the Park.



2.1 Concept overview

The proposed trail network has considered the diverse character zones within Garvey Park and aims to maintain a sense of place and protect natural and cultural values.

The Primary Trailhead located adjacent the old Artist Studio will be an inclusive hub of activity providing a space to orient within the trail network, gather and socialise. From the Primary Trailhead trail users have a range of options to begin their journey. The network has also considered the urban context and ensures links and access from surrounding residential areas and the Principal Shared Path network.

A secondary access road and carpark off Bulong Avenue (as proposed in the 2014 Park Master Plan) will lead to a secondary trailhead. The network incorporates a variety of trail types to accommodate the diverse users that currently visit the park.

The diversity and scale of the proposals will also appeal to those that don't currently visit Garvey Park and encourage new users to participate in trail based activities.

TABLE 1: Trail breakdown

Trail type	Trail surface	Length (m)	User group
Shared use	Sealed	3,800	Walker, runner, cyclist
	Limestone	830	
	Natural	2,400	
	Boardwalk	85	
Walk/run only	Natural	560	Walker, runner
	Boardwalk	260	
MTB only	Natural	3,400	Cyclist
	Asphalt	880	
TOTAL		11,300	
Bike park (pump track, jump lines)	Asphalt		Cyclist

Equestrian use will be allowed in the open grassed area adjacent the primary trailhead.

- Primary Trailhead
- Secondary Trailhead
- Sealed Trail
- Limestone Trail
- Natural surface (shared use)
- Natural surface (walk/run only)
- Natural surface (cycle only)
- Boardwalk
- Asphalt pump trail
- Bike park
- Interpretation node



MAP 2 - Garvey Park trail network concept

Walkers and trail runners

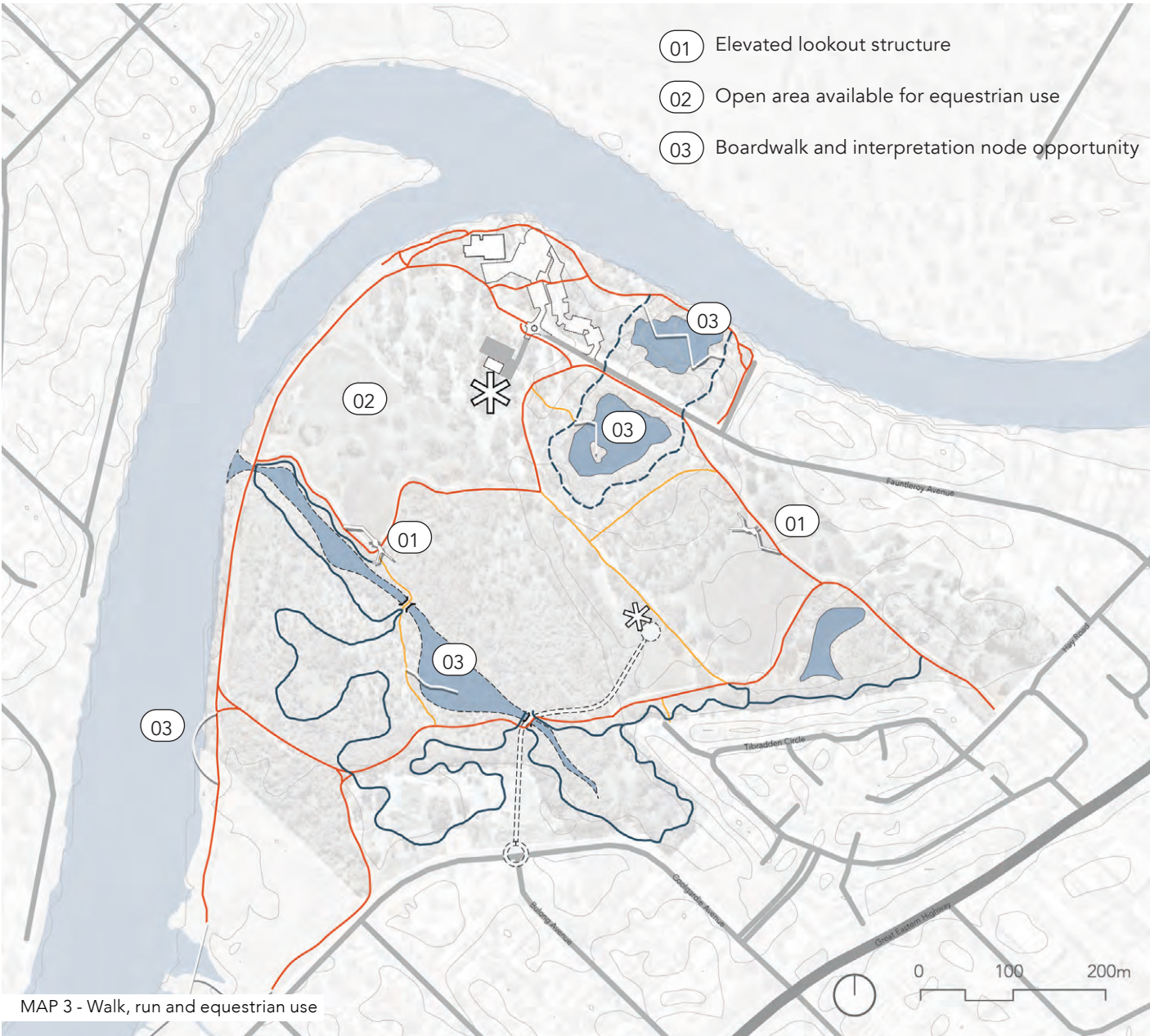
For walkers and trail runners the trail network offers just under 8km of trail, with a diverse mix of trail surface to suit individual preferences. The network offers multiple different access points to enable users to choose their own adventure through the different landscapes. Trail users can also vary the level of challenge through creation of short and long loop routes which take in different trail surfaces and trail features. A series of boardwalk structures are proposed which will allow access to the various waterbodies within the Park including the Swan River, Coolgardie Living Stream and the wetland areas offering opportunity for interpretation nodes. Two elevated lookout structures will enable trail and park users to get a new perspective on the landscape (refer to page 16 for details).

The network allows for a few different 5km route possibilities for the weekly parkrun event including two laps of the outer sealed trail or a route with varied surface.

Equestrian users will be able to utilise the open grass area adjacent the primary trailhead for unstructured horse exercise activities.



- Sealed Trail
- Limestone Trail
- Natural surface (shared use)
- Natural surface (walk/run only)
- Boardwalk



Cyclists

For cyclists, the trail network offers 10km of trail again with a diverse mix of trail surface and challenge. The natural surface trails are proposed to contain a series of technical trail features with zones focussing on different elements such as timber, rocks and berms/rollers.

The trail network has been designed to allow for rider progression. The bike park and asphalt pump trail will entice new riders to the sport and provides opportunity for fundamental skill progression. The broader natural surface trail network then allows riders to explore further afield and engage with a variety of technical trail features. Technical trail features will be provided on optional lines throughout the shared natural surface trails and on both the main line and optional lines along the cycle only natural surface trails. Two elevated platforms will create opportunity for riders to generate a bit of speed entering the natural surface trails. An earth mound in the south of the network is intended to help with rider speed and add interest to the network. (refer to page 16 for details).

For cyclocross events the network and park provides the desired flexibility and features to create unique courses that can vary each event.



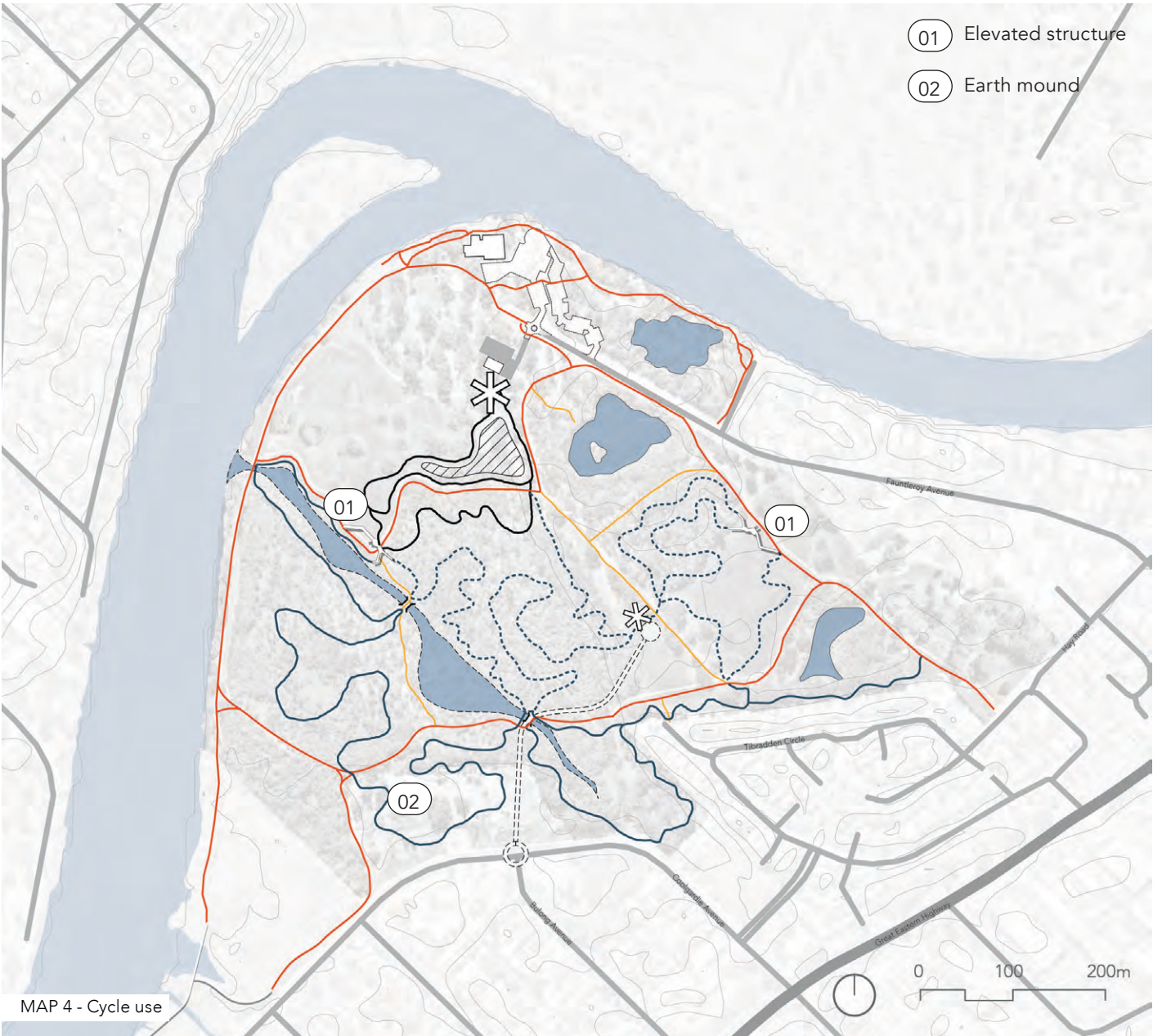
- Sealed Trail

Limestone Trail

Natural surface (shared use)
- Natural surface (cycle only)

Asphalt pump trail

Bike park



Elevated structures

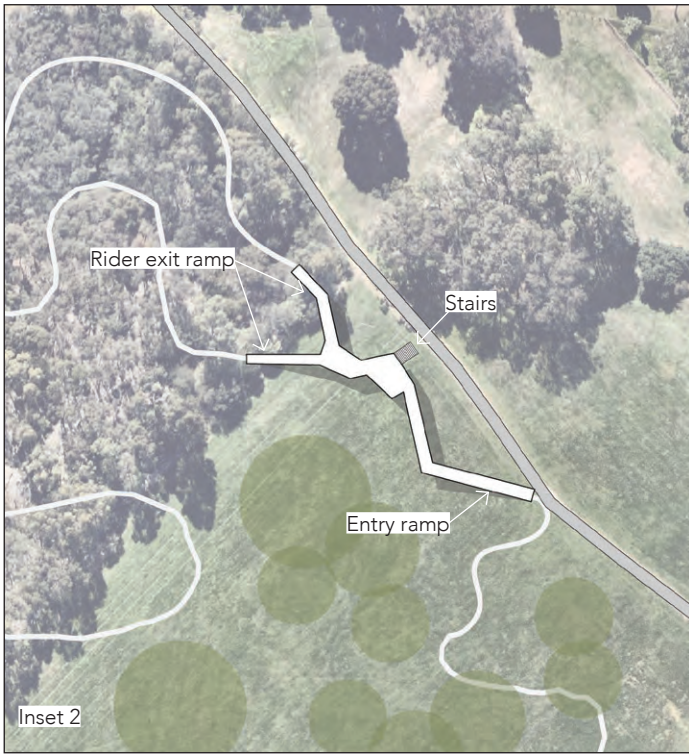
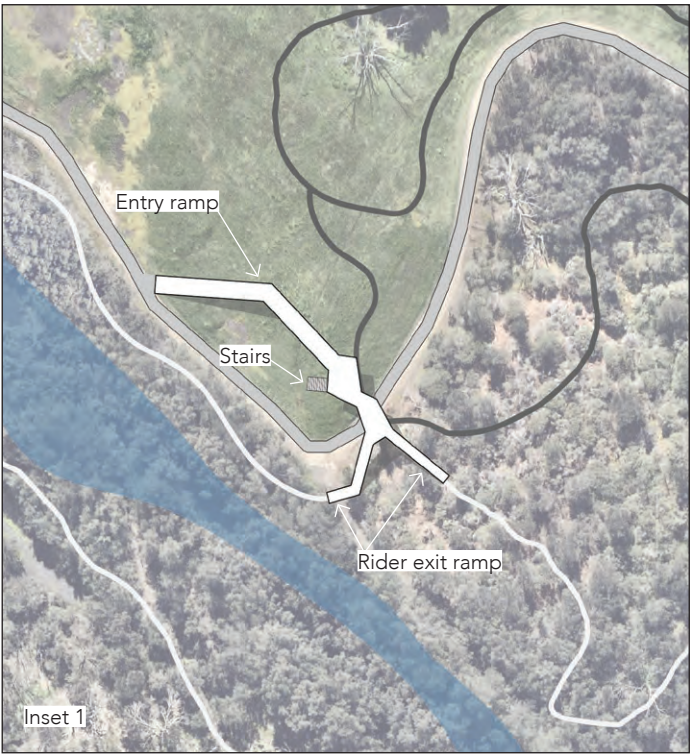
Two elevated structures are proposed which will be unique features of the trail network and the park. The intent of these structures is to enable an elevated perspective of the landscape for trail and park users as well as generation of rider speed heading into the natural surface trails. It is intended to provide ramp and stair access up, with riders able to descend via ramps that lead into the cycle trails and walkers/runners able to descend via the entry ramp or stairs. The design of these structures will be carefully considered to ensure a minimal footprint while achieving appropriate grades for entry and exit. It is also proposed to include an elevated earth mound within the network to add interest to the shared use natural surface trail and enable generation of rider speed. This mound is located to tie into an existing earth bank providing an extended topographic feature to engage trail users.



Precedent image - earth mound.



Precedent images - Elevated structures (The Hub - Collier MTB Park, Bentonville).



2.2 Concept detail

Base park structure

The trail network has been designed around key base park structure proposals outlined in the 2014 Garvey Park Master Plan including:

- Primary park access via Fauntleroy Avenue
- Additional secondary access road and carpark off Bulong Avenue
- Naturalisation of Coolgardie Living Stream including widening, deepening and interpretation opportunities
- Retention of the old Artist Studio for use as interpretive centre/visitor centre, equipment hire facility.

Work undertaken on development of a concept plan for the main carpark and adjacent foreshore in 2017 has also been taken into account in designing the trail network. This design (referred to as Section 2 Carpark) contained a revised parking layout including provision for overflow, realigned foreshore trail and revitalised foreshore landscape area.

The Department of Transport’s Long Term Cycle Plan which proposes to extend the secondary route along the river edge will further enhance the trail network, taking users off roads.

Ongoing revegetation efforts have also been taken into account including the maintenance of existing areas of revegetation and the proposed expanded revegetation proposed to commence in 2024 within the open grassed area in the southeastern corner of the Park.

- 01 Secondary park access off Burlong Avenue
- 02 Naturalised Coolgardie Living Stream
- 03 Section 2 Carpark Concept
- 04 LTCN Secondary PSP proposed alignment
- 05 2024 SCRUF Grant revegetation area

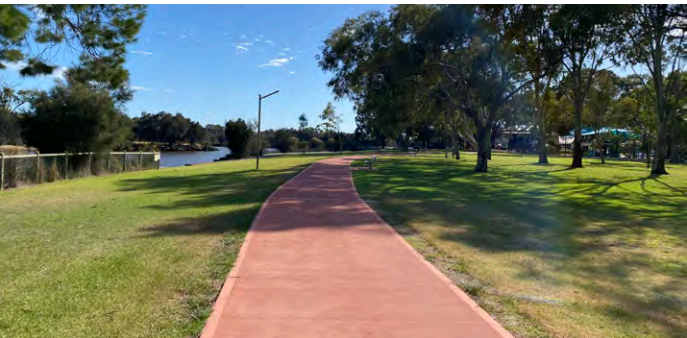
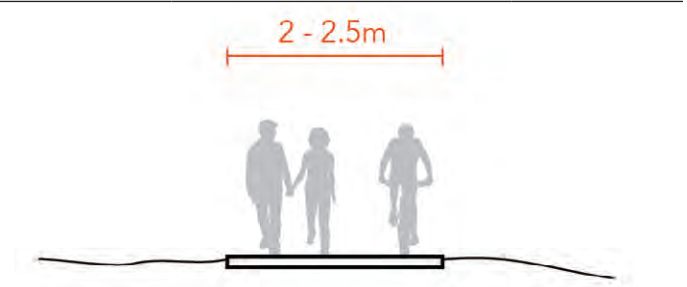


Sealed trail

Creating a longer loop around the park and shorter loops within the sealed trail network is intended to provide trail users with an all weather trail experience through the varied landscape character zones. The sealed trail will also formalise links from surrounding residential areas and provide links into other trails proposed within the Park as well as existing trails that extend beyond the Park. The secondary PSP (Principal Shared Path) along the river will be maintained in the wider red concrete finish to clearly indicate PSP alignment, other sealed trails are proposed to be slightly narrower and non-coloured concrete. The sealed trail will be shared use walk/run and cycle throughout.

TABLE 2: Sealed trail breakdown

Trail type	Trail status	Length (m)
Shared use	Existing	895
	Upgrade required (existing limestone trail)	2,554
	New trail required	1,168
TOTAL		4,617



- Primary Trailhead
- Secondary Trailhead
- Sealed Trail - existing
- Sealed Trail - upgrade existing limestone
- Sealed Trail - new

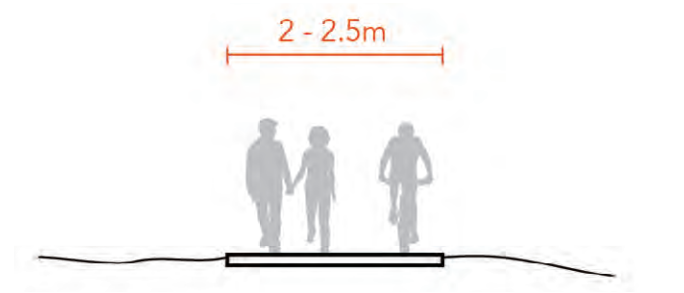


Limestone trail

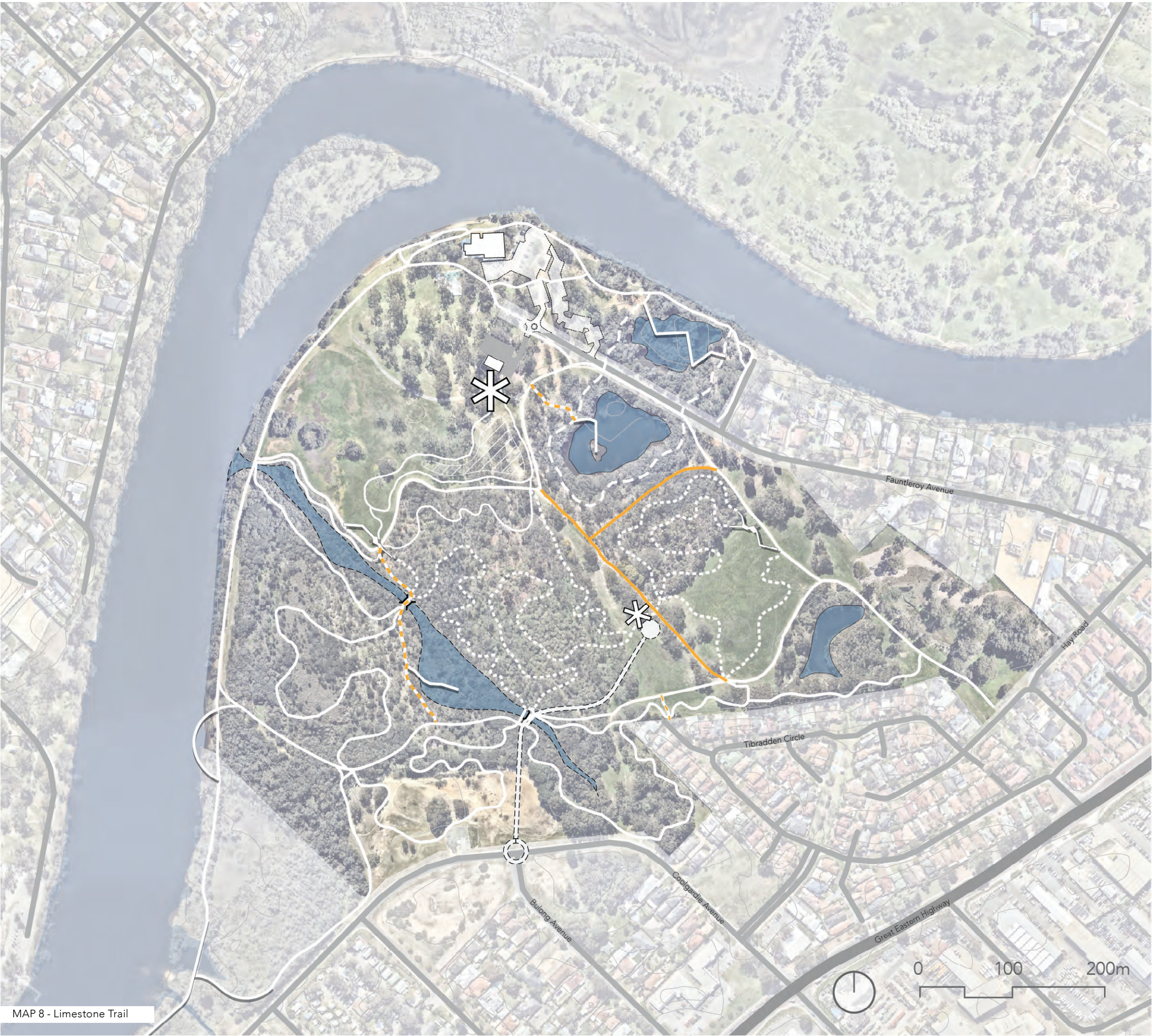
A network of unsealed shared use trail will serve to provide key links within the sealed trail network and provide improved access alongside Coolgardie Living Stream and to the clay pits. Lifted where required to improve drainage, these trails are proposed to be surfaced with a stabilised limestone which will improve the longevity of the trails and provide a more natural aesthetic than the sealed trails.

TABLE 3: Limestone trail breakdown

Trail type	Trail status	Length (m)
Shared use	Existing	466
	New trail required	368
TOTAL		834



- Primary Trailhead
- Secondary Trailhead
- Limestone Trail - existing
- Limestone Trail - new

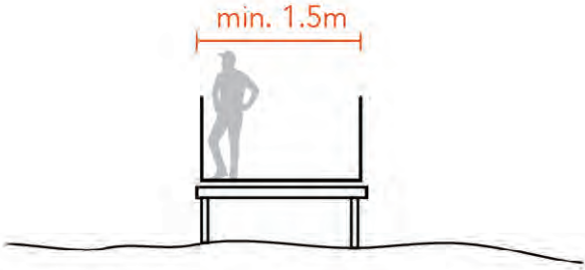


Boardwalks

A series of boardwalk structures are proposed which will allow access to the various waterbodies within the Park including the Swan River, Coolgardie Living Stream and the wetland areas. Boardwalks will be walk only except for the new section through Ayres Bushland connecting the PSP to the proposed sealed trail alongside Coolgardie Avenue. These boardwalks will ensure natural values are protected as well as enable opportunity for interpretation and access through wetter times of the year.

TABLE 4: Boardwalk trail breakdown

Trail type	Trail status	Length (m)
Shared use	New trail required	95
Walk only	New trail required	385
TOTAL		480



- 01 Shared use
- 02 Walk only
- Primary Trailhead
- Secondary Trailhead
- Boardwalk



Bike park

A regional scale bike park facility including a pump track, jump lines and an extended asphalt pump trail is proposed adjacent the primary trailhead. This facility will fill an identified gap in bike park provision within the greater Perth area south of the Swan River (refer situation analysis report - Appendix A). Featuring an asphalt pump track, jump lines with hardened take offs and soft landings and an extended asphalt pump trail, the facility will provide a hub of activity adjacent the primary trailhead. These kind of facilities provide opportunity for riders of all ages and abilities to improve their technical skills and provide a pathway for participation in a range of cycling disciplines. Design of the Bike Park elements will take into account existing trees ensuring they are retained.

TABLE 5: Bike Park breakdown

Trail type	Trail status	Length/Area
Pump track	New	6-800 m2
Jump lines	New	6-800 m2
Asphalt pump trail	New	880m



- Primary Trailhead
- Secondary Trailhead
- Asphalt pump trail
- Bike Park



Bike park

Precedent images - pump tracks



Precedent images - jump lines



Precedent images - asphalt pump trail



Natural surface trail

The remainder of the trail network will be natural surface trail with a narrower footprint intending to allow for a closer connection to the surrounding landscape. This network is intended to be a mix of single use and shared use to allow for inclusion of specific trail features and opportunity for different experiences. Shared use trail should have a minimum width of 1.2m, single use trail can be narrower. A majority of the cycle trail will be classified easy green circle with moderate blue square rated optional features and lines refer to Table 7.

TABLE 6: Natural surface trail breakdown

Trail type	Trail status	Length (m)
Shared use	New trail required	2,425
Walk only	New trail required	566
Cycle only	New trail required	2,293
TOTAL		5,284

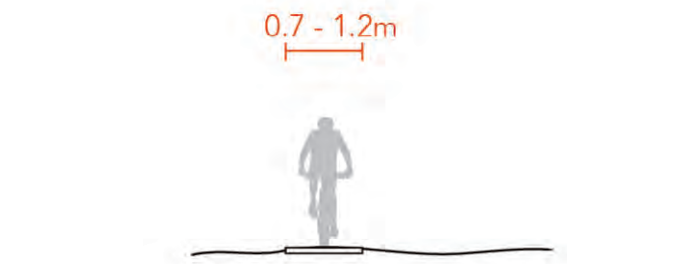


TABLE 7: Mountain bike trail classification (refer to WA MTB Management Guidelines for further detail)

Class	Short description
Easy 	Typically flowing open trail on firm terrain with gentle gradients. Riders may encounter small rollable obstacles and technical trail features.
Moderate 	Typically narrow with loose, soft, rocky or slippery sections and hills with short steep sections. Riders will encounter obstacles and technical trail features.

-  Primary Trailhead
-  Secondary Trailhead
-  Natural surface (shared use)
-  Natural surface (walk/run only)
-  Natural surface (cycle only)



Infrastructure

A range of infrastructure is required to ensure the proposed trails are accessible, safe and enjoyable. The network has been designed and trailheads placed to make use of existing park infrastructure including parking, toilets and café. Proposed options to revitalise the old Artist Studio will help activate the primary trailhead area. An interpretation/education centre and/or equipment hire opportunities will complement the trail network.

The primary and secondary trailheads will require signage to enable trail users to orient themselves within the network. Signage should include a network map and critical information regarding trail types, use, directionality, safety and emergency. Directional signs throughout the network will also be critical in ensuring clear and simple navigation, signs should be placed at trail intersections and at key entry points.

Two bridges are proposed over the Coolgardie Living Stream. One will be adjacent the proposed road off Bulong Avenue with potential to utilise the road bridge for the trails. The second bridge will need to accommodate walkers and cyclists and should be wide enough to allow passing. Design of these structures should be kept simple, with materials chosen to ensure minimal maintenance.



Precedent images - Trailheads and bridges

2.3 Implementation and management

Implementation

The next step for the City is to prepare a business case for approval by Council before funding is allocated to proceed to detailed design and construction.

The next steps in the trail development process include corridor evaluation, detailed design and construction. It is recommended that the detailed design process (which will involve design development for key structures and elements, design documentation and engineering), be completed for the trail network and park as a whole. Construction could then be staged as funding allows. Consultation with Traditional Custodians will take place to ensure design meets any cultural requirements and to identify any further opportunities.

There are a few key elements that will influence the staging of the trail network construction including:

- Metropolitan Region Scheme amendment for Lot 602 to change zoning from Urban to Parks and Recreation, allowing this parcel to be used for recreation development.
- Proposed timing of the main carpark and adjacent foreshore works (refer 2017 concept plan).
- Implementation of naturalisation works to Coolgardie Living Stream.
- Availability of funding taking into account other priorities in the City's Long Term Financial Plan

In regards to staging implementation of trails, the consultation and gap analysis indicated that the following elements should be given higher priority for development:

- Shared use sealed and limestone trails – these loops will cater for all trail users and make the park more accessible year round.
- Bike park and MTB only natural surface trails – these elements will fill an identified gap in provision in the greater Perth Region south of the Swan River.

Trail maintenance/management

It is recommended that a formal trail network management plan be established to ensure the ongoing longevity of the trails and minimise potential for unintended impacts. Well designed trails require less maintenance, but all trails require a certain level of ongoing management and maintenance. The trail maintenance program should consist of:

- A regular trail audit program– to identify any trail surface issues that require maintenance e.g. drainage, vegetation re-growth, condition of signage and condition of any built infrastructure.
- Schedule – The frequency of the maintenance required depends on the level of use that the trail receives and should allow for additional inspections following severe weather or trail events where there has been a concentrated volume of trail users over a short period of time.
- Standards – Trails should be maintained to the original classification, original trail standards and drainage standards. There should be no alteration to technical features or import/ removal of material without extensive review and consultation.

Appendix A

Situation analysis

Appendix B

Engagement outcomes



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