



Potential Regional Cycling and Walking Trails in Moira Shire





About this document

This is the report of an investigation of potential regional cycling and walking trails in Moira Shire.

This document presents the key issues and opportunities for the provision of regional trails with regard to the location of the Shire, visitor attractions and potential users.

Acknowledgments

@leisure acknowledges the contribution made by staff of Moira Shire Council, particularly Lonnie O'Dwyer and Geoff Hay (Economic Development), and a range of stakeholders in providing information and comments that have contributed to this report.

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Executive Summary

Context

The purpose of this project is to determine the potential for cycling and walking trails in Moira Shire that can enhance the visitor experience to the Shire and provide additional activities for local residents.

The key attractions of Moira Shire are centred on the Murray River and based on natural features. These include:

- Barmah National Park
- Lake Mulwala
- A multitude of beaches along the river, particularly between Cobram and Yarrawonga
- The confluence of the Ovens River with the Murray River (at Bundalong)
- Other State forests and park reserves along the river.

Most visitors to the Shire are principally attracted by water-based recreation opportunities such as boating, fishing, camping and kayaking / canoeing.

Moira Shire's tourism sector is a major driving force in the Shire's economy, as it is relatively large, has strong linkages in the local economy, and earns a substantial proportion of its income from outside the Shire.

Tourism also provides qualitative benefits to the Shire in terms of enhancing the attractiveness of the Shire as a place to live in the provision of enhanced recreational activities, entertainment, eating-out and the appealing qualities of the built environment.

The Shire also has connections with trails, attractions or recreational activities in adjoining municipalities, including:

- Rutherglen area
- Murray to Mountains Rail Trail
- Echuca
- Ovens Valley area
- King Valley area
- Dookie and Mt Major
- Benalla
- Shepparton
- Wangaratta
- New South Wales border towns of Barooga, Mulwala and Tocumwal
- Ned Kelly Touring Route.

Potential regional trails

Trails offer a range of benefits to individuals, communities and the environment. These include promotion of physical and social health and wellbeing opportunities, education about natural and cultural environments, and economic returns to local communities.

There are a number of regional communities in Australia who have significantly benefitted from the establishment of regional trails.

Whilst there are numerous walking and cycling trails that have been developed or are informally used in Moira Shire, none are considered to have regional significance.

The Murray Valley Trail was proposed in the Victorian Trail Strategy 2005-2010 to be a multi-use trail along the length of the Murray River. This will extend 1,800km from the mountains in northeast Victoria to the mouth in South Australia.

Fourteen potential regional trails were investigated as part of this project. A two-stage approach was used to assess potential trails. Stage 1 determined the regional significance of a potential trail and Stage 2 determined its priority for construction.

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General issues relating to trails

The success of a regional trail in Moira Shire will depend on the establishment of ongoing partnerships between relevant stakeholders to coordinate trail related activities and ensure trails can be funded, promoted, serviced and maintained.

Trails must be well-designed and maintained. Adequate facilities also should support users at trail heads and along the route.

A high quality visitor experience will help assure return visits and longer stays. This in turn will contribute more to the local economy.

The majority of the preferred trail routes can be located on existing public land, such as foreshore areas, road reserves and railway corridors. In some sections, however, the preferred routes pass through private land.

Regional trails need to be supported by quality on-site and off-site information. This is required for strategic planning, asset management, promotion, and user choice and safety.

Key findings

Analysis has found a number of potential cycling and walking trail routes in Moira Shire that could be regionally significant. These largely follow the Murray River, which is the primary attraction in the area. Maps 3-5 illustrate these trails.

The highest priority trail should be Cobram to Yarrawonga. This would be approximately 40km in length. It is proposed that different reaches of the trail be developed to provide for a range of users and user experiences.

The medium priority trails are:

- a) Yarrawonga to Bundalong (approximately 20km)
- b) Cobram to Tocumwal (approximately 19km, with a potential side loop to Koonoomoo).

The long-term desirable outcome is a continuous cycle and walking trail along the Murray River between the tourist areas of Rutherglen and Echuca, as well as the Murray to Mountains Rail Trail. This route also provides connections to the major attractions and visitor services in Moira Shire.

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The lower priority trails along the Murray River are:

- a) Bundalong to Wahgunyah (approximately 30km), and connecting with the Murray to Mountains Rail Trail and Rutherglen
- b) Tocumwal to Barmah (approximately 66km)
- c) Barmah to Echuca (approximately 30km).

There are also opportunities to create circuit trails and different user experiences, including:

- a) Along the Ovens River from Bundalong to Wangaratta
- b) Along Broken Creek from Barmah to Tungamah (via Nathalia, Numurkah and Katamatite)
- c) Along rail corridors between Yarrawonga and Benalla (via Tungamah), Katamatite and Shepparton (via Dookie), and Numurkah and Picola (via Nathalia).

A number of other actions are also recommended to improve opportunities to establish regional cycling and walking trails in the Shire and address current issues. These can be found in Section 7.



1. Introduction

Purpose of report

The purpose of this report is to determine the potential for cycling and walking trails in Moira Shire that can enhance the visitor experience to the Shire and provide additional activities for local residents.

The project objectives are:

- Undertake a comprehensive audit of the existing and identified potential regional trails within the Moira Shire including those that intersect with other Shire boundaries
- Provide comprehensive mapping of these trails
- Classify existing and potential regional trails throughout the Shire
- Prioritise potential trail tourism, economic and social values
- Consider the implications of regional trails passing through private land
- Provide indicative costs to develop trails
- Prepare a report that contains the above information.

The outcomes of this project will support any future regional trail projects in the Shire.

Definitions

In this report, a **regional trail** is defined as:

- a terrestrial path, route or track that has significance and/or connections beyond the Moira Shire and which is used by residents and visitors for non-motorised recreation.

This project focuses on trails to accommodate walking and cycling (including mountain biking), however these trails may also be used for other recreation activities such as skating, dog walking, or, where appropriate, equestrian activities. People may also use them with mobility aids such as wheelchairs and motorised scooters.

This report primarily considers off-road trails, which are provided in a road verge or other public land. Footpaths and on-road bicycle routes may, however, be a consideration in providing regional walking and cycling trails where off-road trails are not feasible due to site constraints.

Methods

Literature review

This report has been produced following the review of the following documents:

- Moira Shire Cycling and Walking Strategy (2005)
- Moira Shire Economic Development Strategy 2008-2013
- Moira Shire Council Plan 2009-2013
- Moira Shire Strategic Resource Plan 2008-2018
- Moira Shire Economic Profile 2013
- 2011/12 Regional Tourism Profiles
- Victorian Trail Strategy 2005-2010
- North East Victoria Tourism Board Industry Sector Plan – Cycle
- Cobram Strategy Plan (2007)
- Yarrawonga Growth Management Strategy (2008)
- Yarrawonga to Bundalong Foreshore Master Plan (2008)
- Yarrawonga Strategy (2004)
- Yarrawonga Urban Design Framework (2000)



- Community Action Plans for Barmah, Bearii, Bundalong, Burramine, Cobram, Invergordon, Kaarimba, Katamatite, Katunga, Koonoomoo, Kotupna, Lake Rowan, Naring, Nathalia, Numurkah, Picola, St James, Strathmerton, Tungamah, Waaia, Wilby, Wunghnu, Yarrawonga and Yarroweyah (2011-2013).

Site inspections

Two days were spent inspecting existing and potential trails.

Stakeholder engagement

Telephone interviews were conducted with representatives from the following organisations:

Moirá Council staff:

- Staff from planning, recreation, community development, assets and operations sections of the Council.

Neighbouring Councils:

- Greater Shepparton City Council
- Benalla Shire Council
- Rural City of Wangaratta
- Campaspe Shire Council
- Berrigan Shire Council.

Tourism / business groups:

- Tourism North East
- Sun Country on the Murray
- Tourist Information Centres – Cobram and Yarrawonga
- Yarrawonga Mulwala Chamber of Commerce
- Cobram Barooga Business and Tourism Development
- Numurkah Chamber of Commerce
- Cobram Barooga Golf Resort.

Trail user groups:

- Bicycle Network Victoria
- Cobram Barooga Cycle Club
- Artavilla Emporium Bike Shop
- Hume Riding Develops Abilities
- Mulwala Waterski Club.

State agencies:

- Goulburn Broken Catchment Management Authority
- Goulburn-Murray Water
- Parks Victoria
- Cobram District Community Health Centre
- Community Vibe (consultant for the Hume Regional Tracks and Trails Strategy).

Notes from those interviews were provided to Council on 18 April 2013.

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Evaluation of potential routes

Fourteen potential trails were investigated as part of this project. These were identified from review of previous studies, stakeholder consultation and site inspections. Descriptions of these routes are provided in [Section 4.1](#).

The method for evaluation of potential routes is outlined in [Section 4.2](#).



2. Benefits of trails

Trails offer a range of benefits to individuals, communities and the environment. These include promotion of physical and social health and wellbeing opportunities, education about natural and cultural environments, and economic returns to local communities.

Individual and community social health and wellbeing

Benefits of off-road trails include:

- Provision of a diversity of recreational activities for a range of users, regardless of age or ability. Trail activities, such as walking, cycling, dog walking and running are the most common physical activity participated in by people over 15 years of age
- A broad range of health benefits from cycling and walking, including improved coordination, muscle tone improvement, lower risk of heart disease and higher energy levels
- Provision of safe settings for undertaking individual or group activities, including opportunities for social interaction
- Opportunities for communities to connect through recreation and tourism

- Choices for people to gain access to an active lifestyle at low cost
- Affordable and accessible connections to towns and associated community facilities and services
- Opportunities to increase accessibility and exposure of smaller rural townships
- Promotion of exercise, independence and self-confidence in children, as well as enhancement of way-finding skills and safety awareness
- Developing and fostering partnerships between landowners, local government, community and user groups. Involving communities in the construction of trails can provide social capital and personal benefits through volunteerism and a sense of achievement, as well as helping contribute to the equitable distribution of resources amongst communities.

Protection and promotion of natural and cultural heritage

Benefits of trails include:

- Promotion of and increased opportunities to experience and appreciate valuable environmental and cultural heritage features and character
- Provision of trails that support green' recreation activities and that can have minimal impact on the environment, as compared to motorised recreation and road-based activities
- Planned trail design, landscaping and habitat protection or enhancement during construction, and management can reduce fragmentation and incremental degradation of the natural environment and cultural features through uncontrolled use, and manage access to sensitive areas
- Reusing and maintaining existing infrastructure such as tracks along river corridors and disused rail corridors.



Economic Benefits

Economic benefits of trails can include:

- Increasing numbers of visitors and resultant expenditure in smaller rural communities surrounding trails
- Local employment opportunities and increased income through the provision of facilities and services such as food, accommodation, transport, equipment, entertainment and guided tourism products
- Flow-on economic benefits to the health, tourism, retail and transport sectors
- Creating business partnership opportunities through packaging of services and cooperative relationships
- Reducing community health costs through active community participation and time spent outdoors
- Opportunities to attract or develop major sporting or recreation events such as triathlon, cycling or multisports. This includes expanding current events such as Yarrowonga Triathlon, Splash 'n' Dash or Cycle Salute, and Charity walk-runs
- Stimulation of local employment opportunities related to trail construction and maintenance
- Boosting property values near trails.

As an example of the economic benefits of trails, a study in 2009 found that bike riders on the Murray to Mountain Rail Trail in north-eastern Victoria spent an average of \$244/day compared to the \$159/day average spend of other travellers in the region¹.

In 2006, research found that the 8,500 bike riders who rode on this trail over the Easter weekend brought \$2.3m to the local economy and created the equivalent of 21 full-time jobs².

¹ Cycling in Regional Communities: A Longitudinal Study of the Murray to Mountains Rail Trail, Victoria, Australia (S. Beeton; 2009)

² Regional Communities and Cycling: The case of the Murray to Mountains Rail trail, Victoria, Australia (S.Beeton; 2006)



3. Context

3.1 Moira Shire

Physical context

Moira Shire is located on the southern banks of the Murray River, bordering New South Wales. It is about 250km from Melbourne. The Shire encompasses a total land area of 4,057km², which is predominantly rural. The main townships are Cobram, Numurkah, Yarrowonga and Nathalia, and there are also several smaller townships.

The Shire is bounded by Corowa, Berrigan and Murray Shires (NSW) in the north and west, Indigo Shire and the Rural City of Wangaratta in the east, and Benalla Rural City, the City of Greater Shepparton and the Shire of Campaspe in the south.

The Shire is located on the alluvial floodplains of the Murray, Goulburn and Ovens Rivers. The natural systems of these rivers are the core natural assets of the Shire providing fertile farming land, a desirable tourist attraction and important habitat for native species and ecosystem services.

More than two-thirds of the Shire is used for agriculture. Other rural land uses include horticulture and viticulture, with the region being a major fruit, dairying and beef district.

Moira Shire's tourism sector is a major driving force in the Shire's economy (otherwise known as a 'propulsive' sector), as it is relatively large, has strong linkages in the local economy, and earns a substantial proportion of its income from outside the Shire.

Population

In 2011, the population of Moira Shire was 31,126. This is projected to rise to approximately 39,900 by 2031³. The population of the Shire is aging – in 2011 approximately 29% of the population was aged over 60 and by 2031 this is projected to increase to over 35%. There are also high proportions of people aged under 15 and 35-49 years.

³ i.d. Population Forecasts for Moira Shire (Profile i.d.)

Tourism

Moira Shire's tourism sector has strong linkages in the local economy, and earns a substantial proportion of its income from outside the Shire.

It is estimated that the tourism sector contributed the following to the economy of Moira Shire⁴:

- Is the ninth largest sector in the Shire's economy by output with \$85.3m worth of output (3.2% of total output) and \$37.3m of added value (3.6% of total value added)
- Attracted visitation of 475,000 domestic visitors in the year to September 2012, of which nearly 60% were overnight visitors. Visitors spent 1.04 million nights in the Shire, with an average stay of 3.8 nights. Expenditure per visitor was \$428 and \$74 for overnight stays and daytrips respectively
- Is responsible for generating 510 direct jobs, which account for 4.2% of the total jobs in the Moira Shire.

⁴ Moira Shire Economic Profile 2013 (Moira Shire Council; March 2013)



When considering the wider area along the Murray River⁵, tourism in 2011/12 had the following economic attributes:

- \$754m expenditure from domestic visitors, of which 75% was from those staying at least one night
- Nearly 3.5 million visitors, consisting of 1.9 million for domestic day, 1.57 million for domestic overnight and 30,000 for international
- 4.75 million nights for domestic overnight visitors and 581,000 nights for international visitors
- Average stay – 3 nights per domestic overnight visitor and 19 nights for each international visitor
- Expenditure per visitor was \$362 and \$99 for overnight stays and daytrips respectively

Tourism also provides qualitative benefits to the Shire in terms of enhancing the attractiveness of the Shire as a place to live in the provision of enhanced recreational activities, entertainment, eating-out and the appealing qualities of the built environment.

⁵ This area is a combination of The Murray Region of New South Wales and the Central Murray region of Victoria (Campaspe and Moira Shires). Tourism data has been sourced from the 2011/12 Regional Tourism Profiles (Tourism Research Australia; Canberra)

3.2 Visitor attractions

The key attractions of Moira Shire are centred on the Murray River and based on natural features. These include:

- Barmah National Park
- Lake Mulwala
- A multitude of beaches along the river, particularly between Cobram and Yarrawonga (approximately 90 beaches, including Thompsons Beach at Cobram)
- The confluence of the Ovens River with the Murray River (at Bundalong)
- Other State forests and park reserves along the river.

Most visitors to the Shire are principally attracted by water-based recreation opportunities such as boating, fishing, camping and kayaking / canoeing.

The Murray Valley Trail was proposed in the Victorian Trail Strategy 2005-2010 to be a multi-use trail along the length of the Murray River. This will extend 1,800km from the mountains in northeast Victoria to the mouth in South Australia.

The Murray Valley Trail will link the 109 existing trails along the Murray River, and will be accessible by car, bicycle and foot.

One-or two-day walking or cycling loops around key towns using existing trails are considered most likely to attract significant usage.

The Murray Darling Association is currently managing the project, and it was proposed that it be developed between 2002 and 2012.

Other attractions in the Shire identified by stakeholders include:

- Waterways and wetlands, such as Broken Creek, Broken-Boosey State Park and Kinnairds Wetlands, Ovens River and the Lower Goulburn River
- The country / rural character
- The flat terrain of the area
- The sand hills and trees along the Murray Valley Highway
- Golf courses, particularly around Cobram and Yarrawonga
- Disused railway lines
- Rural townships. Many townships, such as Numurkah, Barmah and Nathalia, have interesting local histories, character and buildings. Main streets are generally the focal points of the towns, with community facilities, pubs, eateries and parks
- The different landscape towards Dookie.

Key visitor attractions are shown on Map 1.



3.3 Existing trails

There are numerous walking and cycling trails that have been developed or are informally used in Moira Shire. None are considered to have regional significance. Existing trails include:

- **Yarrowonga to Bundalong**, either via the numerous informal tracks along the Murray River (some of which are used for vehicle access to the river) or along the Murray Valley Highway
- Within **Yarrowonga** township, including:
 - Along the foreshore of Lake Mulwala from the skate park to Chinamans Island. This trail is proposed to be extended east to Hogans Road through the Silverwood Golf Course development
 - Within Yarrowonga Regional Park along the Murray River, from Yarrowonga Holiday Park to Chinamans Bend
 - From South Road to James Lillis Drive and back along Benalla-Yarrowonga Road
- Within **Cobram** township, including:
 - To Ulupna Island
 - Along River Road to Quinn Island and around the island

- A circuit along Mookarii Street, Broadway Street Murray Valley Highway and Campbell Road
- A shared off-road trail from **Cobram to Barooga**, along Mookarii Street / Vermont Street. There are connecting tracks to the Murray River, including to Thompsons Beach / GJ Kennedy Park
- **Cobram to Tocumwal**, either via informal tracks along the Murray River or along roadsides via Koonoomoo
- **Cobram to Yarrowonga**, either via the numerous informal tracks along the Murray River (some of which are used for vehicle access to the river) or along River Road / Murray Valley Highway
- Numerous informal tracks within **Barmah National Park** (some of which are used for vehicle access to the Murray River)
- A shared pathway within **Numurkah** township, along Broken Creek to Kinnairds Wetland including around Lake Numurkah
- Walking tracks along sections of **Broken Creek** between Tungamah and Nathalia, within Broken-Boosey State Park
- Sealed walking trail along the Broken Creek levee bank in **Nathalia**

The key existing trails in the Shire are shown on Map 1.

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3.4 Issues and opportunities of potential cross-boundary trail connections

There are several opportunities to connect with trails, attractions or recreational activities in adjoining municipalities. These include:

- The major tourist area of **Rutherglen** (Indigo Shire), which includes historical townships, tourist attractions, recreation facilities, wineries, fresh produce, the Murray to Mountains Rail Trail and some on-road cycle routes. The township provides services and facilities for visitors. This area has connections with Moira Shire via the Murray Valley Highway and the Murray River corridor
- **Echuca** (Campaspe Shire), which is a major tourist centre based on the Murray River. This township has connections with Moira Shire via the Murray Valley Highway and the Murray River corridor (including Barmah National Park)
- The **Ovens Valley** area extends south east from Wangaratta and includes the major tourist towns of Bright and Beechworth, as well as other historical towns, the Murray to Mountains Rail Trail, and fresh produce and wineries



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- The **King Valley** area extends south to south east from Wangaratta, and includes wineries, fresh produce and the Murray to Mountains Rail Trail
- **Dookie** (City of Greater Shepparton), including the Dookie Rail Trail, trail up Mt Major (the only mountain in the area) and wineries. This area has connections with Moira Shire via local roads and the disused rail corridor to Katamatite
- **Benalla** (Rural City of Benalla) – the township includes tourist attractions, recreation facilities and walking and cycling trails along Broken Creek, and there are the nearby Winton Wetlands, wineries and some on-road cycle routes. The township provides services and facilities for visitors. This area has connections with Moira Shire via Benalla-Tocumwal Road, Benalla-Yarrawonga Road, the Yarrawonga rail corridor and the Broken Creek corridor
- **Shepparton** (City of Greater Shepparton) – the township includes tourist attractions, recreation facilities and walking and cycling trails along the Goulburn River, and there are nearby historical towns, fresh produce, wineries and some on-road cycle routes (such as to Dookie, Nagambie and Tatura). The township provides services and facilities for visitors and cycle sports facilities such as a velodrome and BMX racing track. This area has connections with Moira Shire via the Goulburn Valley Highway and the Goulburn River corridor
- **Wangaratta** (Rural City of Wangaratta) – the township includes tourist attractions and recreation facilities, and starting points to the Murray to Mountains Rail Trail and some on-road cycle routes. The township provides services and facilities for visitors, and cycle sports facilities including a velodrome. This area has connections with Moira Shire via Yarrawonga-Wangaratta Road and the Ovens River corridor
- The New South Wales border towns of **Barooga** (Berrigan Shire), **Mulwala** (Corowa Shire) and **Tocumwal** (Berrigan Shire), which include tourist attractions, recreation facilities, and services and facilities for visitors. The Murray River separates Barooga and Mulwala from Cobram and Yarrawonga respectively, whilst Tocumwal has easy connections with Cobram and the remainder of Moira Shire via the Goulburn Valley Highway, local roads and the Murray River corridor
- The **Ned Kelly Touring Route**, which includes townships in northern Victoria such as Euroa, Benalla, Glenrowan, Wangaratta and Beechworth, as well as Jerilderie in southern New South Wales.

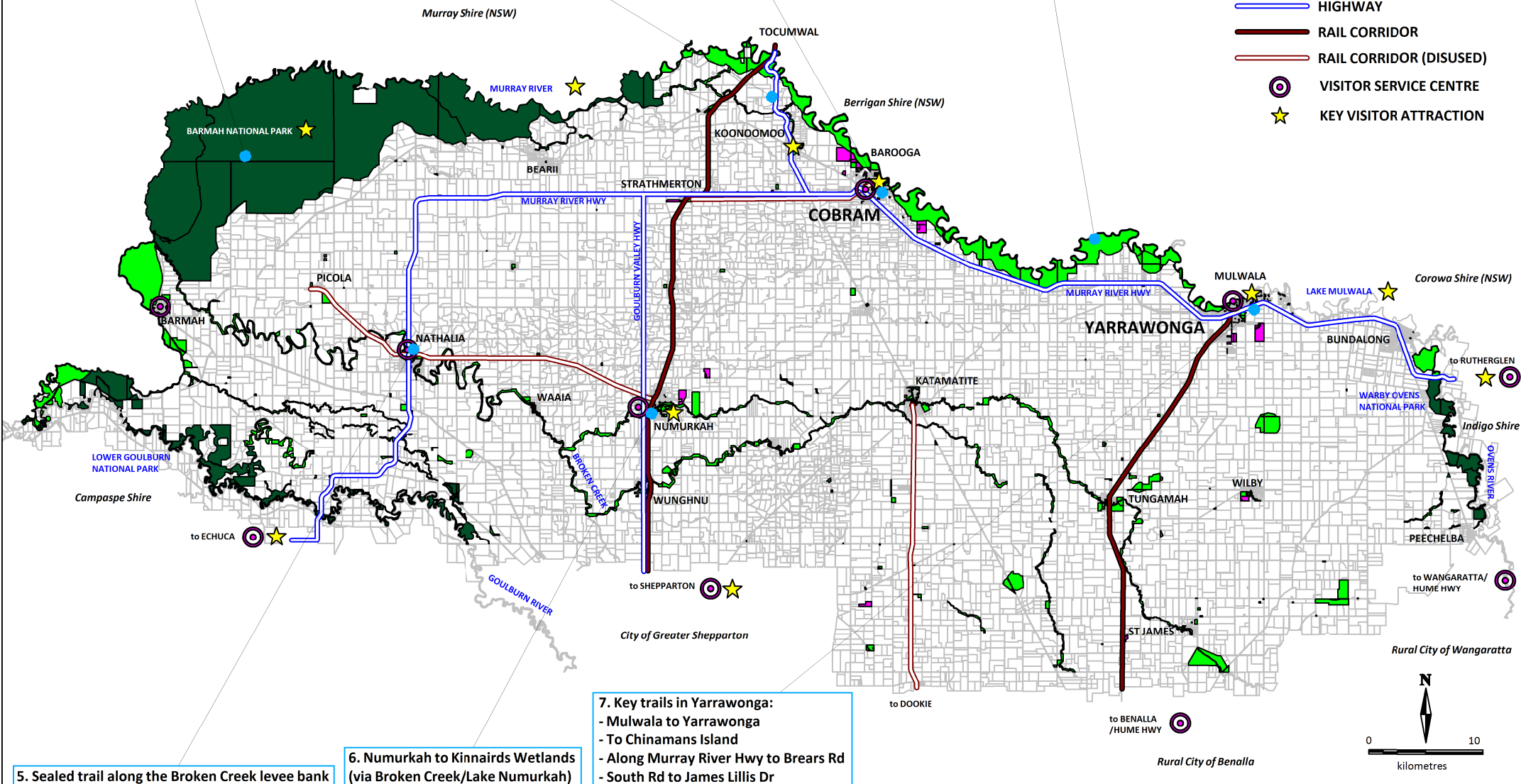
1. Network of trails within Barmah National Park

2. Trail between Tocumwal and Koonoomoo
(via Goulburn Valley Hwy and Murray River)

3. Key trails in Cobram:
- Between Cobram and Barooga
- Murray River Hwy/Campbell Rd
- Cobram Regional Park
- Barooga State Forest

4. Network of trails along the Murray River corridor

- NATIONAL PARK
- OTHER CROWN OPEN SPACE
- COUNCIL OPEN SPACE
- HIGHWAY
- RAIL CORRIDOR
- RAIL CORRIDOR (DISUSED)
- VISITOR SERVICE CENTRE
- KEY VISITOR ATTRACTION



5. Sealed trail along the Broken Creek levee bank

6. Numurkah to Kinnairds Wetlands
(via Broken Creek/Lake Numurkah)

7. Key trails in Yarrowonga:
- Mulwala to Yarrowonga
- To Chinamans Island
- Along Murray River Hwy to Brears Rd
- South Rd to James Lillis Dr



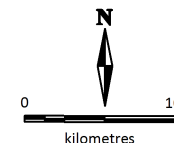
Map 1: Key existing trails in Moira Shire

POTENTIAL REGIONAL CYCLING AND WALKING TRAILS

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Date: 03 June 2013
Drawn: GH
Scale: 1:380,000





4. Identification and assessment of potential regional trails

4.1 Potential regional trails

Fourteen potential trails were investigated as part of this project. These were identified from review of previous studies, stakeholder consultation and site inspections. These potential regionally significant trails are:

1. Route A: Numurkah town centre to Kinnairds Wetlands
2. Route B: Numurkah to Nathalia / Picola
3. Route C: Nathalia to Barmah / Barmah National Park (Dharnya Interpretation Centre)
4. Route D: Cobram to Barmah / Barmah National Park (Dharnya Interpretation Centre) via Tocumwal / Murray River
5. Route E: Cobram to Strathmerton via Yarroweyah
6. Route F: Cobram to Yarrawonga
7. Route G: Yarrawonga to Bundalong
8. Route H: Bundalong to Wangaratta (Rural City of Wangaratta)

9. Route I: Yarrawonga to Benalla (Rural City of Benalla) via Tungamah
10. Route J: Katamatite to Dookie (City of Greater Shepparton)
11. Route K: Numurkah to Katamatite
12. Route L: Cobram to Katamatite
13. Route M: Cobram to Koonoomoo to Tocumwal (Berrigan Shire)
14. Route N: Bundalong to Rutherglen (Indigo Shire)

A brief description of each potential trail is provided below. These are shown on Map 2.

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Route A: Numurkah town centre to Kinnairds Wetlands

- Type: Creek trail
- Route: along Broken Creek corridor and adjoining road reserves (if required)
- Approximate length: 7.5km (circuit)
- Degree of difficulty: easy
- Potential activities: walking, cycling
- Visitor attractions: Numurkah township, Broken Creek, Lake Numurkah, Kinnairds Wetlands
- User services: Numurkah
- Potential mid-trip nodes: none
- Potential connection/s to other route: Routes B and K
- Potential connections outside Shire: none
- Current status: existing local trail
- Likely works required: minor upgrading trail surface, signage
- Ecological sensitivity: low-moderate

**Route B: Numurkah to Nathalia / Picola**

- Type: Rail trail
- Route: along former railway reserve and/or adjoining road reserves (if required)
- Approximate length: 22km (to Nathalia) or 32km (to Picola) (one-way)
- Degree of difficulty: moderate
- Potential activities: walking (all or part, depending on provision of overnight facilities en route), cycling, equestrian (possibly in some sections)
- Visitor attractions: Numurkah township, Broken-Boosey State Park, Nathalia township, Barmah Forest Heritage & Education Centre (Nathalia)
- Potential user services: Numurkah, Nathalia
- Potential mid-trip nodes: Waaia, Nathalia (if extended to Picola)
- Potential connections outside Shire: none
- Potential connection/s to other route: Routes A, C and K
- Current status: community interest; likely rail corridor has been leased to adjoining landholders
- Likely works required: full construction of trail, including minor earthworks and drainage, fencing, possible road / waterway crossings, mid-trip facilities and signage
- Ecological sensitivity: low
- Other comments: if land along rail corridor cannot be secured, use road corridors

Route C: Nathalia to Barmah / Barmah National Park (Dharnya Interpretation Centre)

- Type: Creek trail
- Route: along Shepparton-Barmah Road
- Approximate length: 32km (one-way)
- Degree of difficulty: moderate
- Potential activities: walking (all or part, depending on provision of overnight facilities en route), cycling, equestrian (possibly in some sections)
- Visitor attractions: Broken Creek, Barmah National Park, Barmah Forest Heritage & Education Centre, Dharnya Interpretation Centre
- Potential user services: Nathalia, Barmah
- Potential mid-trip nodes: Picola, several stops on Broken Creek
- Potential connections outside Shire: Echuca (Campaspe Shire)
- Potential connection/s to other route: Routes B and D
- Current status: route currently marketed as the 'Broken Creek Drive'
- Likely works required: full construction of trail, including minor earthworks and drainage, fencing, possible road / waterway crossings, mid-trip facilities and signage
- Ecological sensitivity: low-moderate
- Other comments: refer to tourist brochure

Route D: Cobram to Barmah / Barmah National Park (Dharnya Interpretation Centre) via Tocumwal / Murray River

- Type: River trail
- Route: along Murray River corridor and/or adjoining road reserves (if required)
- Approximate length: 85km (one-way)
- Degree of difficulty: challenging
- Potential activities: walking (all or part, depending on provision of overnight facilities en route), mountain biking
- Visitor attractions: Cobram township, Murray River, Barmah National Park, Dharnya Interpretation Centre, Barmah township
- Potential user services: Cobram, Barmah
- Potential mid-trip nodes: several stops in National Park / on river, such as Ulupna Island and The Gulf
- Potential connections outside Shire: Echuca (Campaspe Shire)
- Potential connection/s to other route: Routes C, E, F, L and M
- Current status: various tracks within Barmah National Park / along Murray River; potentially part of proposed Murray Valley Trail
- Likely works required: upgrading of existing trails as required, mid-trip facilities and signage
- Ecological sensitivity: high



Route E: Cobram to Strathmerton via Yarroweyah

- Type: Roadside trail
- Route: along Murray Valley Highway
- Approximate length: 16km (one-way)
- Degree of difficulty: moderately easy
- Potential activities: walking, cycling, equestrian (possibly in some sections)
- Visitor attractions: Cobram township
- Potential user services: Cobram, Strathmerton
- Potential mid-trip nodes: Yarroweyah
- Potential connections outside Shire: none
- Potential connection/s to other route: Routes M, F and L
- Current status: community interest
- Likely works required: full construction of trail, including minor earthworks and drainage, fencing, possible road / waterway crossings, end / mid trip facilities and signage
- Ecological sensitivity: low

Route F: Cobram to Yarrawonga

- Type: River trail
- Route: along Murray River corridor and/or Murray Valley Highway (if required)
- Approximate length: 40km (one-way)
- Degree of difficulty: moderate
- Potential activities: walking (all or part, depending on provision of overnight facilities en route), cycling, mountain biking, equestrian (possibly in some sections)
- Visitor attractions: Cobram Regional Park, Quinn Island, Yarrawonga Regional Park, Lake Mulwala, Chinamans Island, Byramine Homestead
- Potential user services: Cobram, Yarrawonga
- Potential mid-trip nodes: Several stops on Murray River
- Potential connections outside Shire: Tocumwal (Berrigan Shire), Mulwala (Corowa Shire)
- Potential connection/s to other route: Routes D, E, G, I, L and M
- Current status: various tracks within along Murray River; potentially part of proposed Murray Valley Trail
- Likely works required: upgrading of existing trails and mid-trip facilities as required, and signage
- Ecological sensitivity: moderate
- Other comments: if land along rail corridor cannot be secured, use road corridors

Route G: Yarrawonga to Bundalong

- Type: River trail
- Route: along Murray River corridor and/or Murray Valley Highway (if required)
- Approximate length: 15km (one-way)
- Degree of difficulty: moderate
- Potential activities: walking (all or part), mountain biking, equestrian (possibly in some sections)
- Visitor attractions: Yarrawonga township, Murray River, Lake Mulwala, Chinamans Island, Ovens River
- Potential user services: Yarrawonga, Bundalong
- Potential mid-trip nodes: several stops on Murray River
- Potential connections outside Shire: Rutherglen / Wahgunyah (Indigo Shire), Corowa (Corowa Shire), Wangaratta (Rural City of Wangaratta)
- Potential connection/s to other route: Routes F, H, I and N
- Current status: the Yarrawonga to Bundalong Foreshore Master Plan was completed in 2008; provision of public land along lake / river and trail being assessed as part of relevant developments; potentially part of proposed Murray Valley Trail
- Likely works required: upgrading of existing trails and mid-trip facilities as required, and signage
- Ecological sensitivity: moderate
- Other comments: if land along river corridor cannot be secured, use road corridors



Route H: Bundalong to Wangaratta (Rural City of Wangaratta)

- Type: River trail
- Route: along Ovens River corridor and/or Yarrowonga-Wangaratta Road reserve (or alternative roads if more suitable) (if required)
- Approximate length: 45km (one-way)
- Degree of difficulty: moderately challenging
- Potential activities: walking (all or part, depending on provision of overnight facilities en route), cycling, equestrian (possibly in some sections)
- Visitor attractions: Ovens River (including confluence with Murray River), Warby Ovens National Park, Wangaratta township
- Potential user services: Bundalong, Wangaratta
- Potential mid-trip nodes: several stops on Ovens River, such as Warby-Ovens National Park (near Peechelba)
- Potential connections outside Shire: Wangaratta (Rural City of Wangaratta)
- Potential connection/s to other route: Routes F, G and N
- Current status: minimal investigation
- Likely works required: full construction of trail, including minor earthworks and drainage, fencing, possible road / waterway crossings, mid-trip facilities and signage
- Ecological sensitivity: moderate
- Other comments: if land along river corridor cannot be secured, use road corridors

Route I: Yarrowonga to Benalla (Rural City of Benalla) via Tungamah

- Type: Rail trail
- Route: along railway corridor
- Approximate length: 56km (one-way)
- Degree of difficulty: Challenging
- Potential activities: cycling, equestrian (possibly)
- Visitor attractions: Yarrowonga township, Tungamah township and historic buildings, Benalla township
- Potential user services: Yarrowonga, Tungamah, Devenish, Goorambat, Benalla
- Potential mid-trip nodes: Telford, Tungamah, St James, Devenish, Goorambat
- Potential connections outside Shire: Benalla (Rural City of Benalla)
- Potential connection/s to other route: Routes F and G
- Current status: minimal investigation
- Likely works required: Full construction of trail, including minor earthworks and drainage, fencing, possible road / waterway crossings, mid-trip facilities and signage
- Ecological sensitivity: Low

Route J: Katamatite to Dookie (City of Greater Shepparton)

- Type: Rail trail
- Route: along disused railway corridor
- Approximate length: 32km (one-way)
- Degree of difficulty: moderate
- Potential activities: cycling, equestrian (possibly)
- Visitor attractions: Dookie township
- Potential user services: Katamatite, Dookie
- Potential mid-trip nodes: Youanmite, Yabba North, Yabba South
- Potential connections outside Shire: Dookie Rail Trail (City of Greater Shepparton)
- Potential connection/s to other route: Routes K and L
- Current status: Dookie Rail Trail extends to the boundary of Moira Shire; rail corridor may be leased to adjoining landholders
- Likely works required: full construction of trail, including minor earthworks and drainage, fencing, possible road / waterway crossings, mid-trip facilities and signage
- Ecological sensitivity: low

**Route K: Numurkah to Katamatite**

- Type: Creek trail
- Route: along Broken Creek corridor and/or adjoining road reserves (if required)
- Approximate length: 25km (one-way)
- Degree of difficulty: moderate
- Potential activities: walking, cycling, equestrian (possibly in some sections)
- Visitor attractions: Broken Creek, Broken-Boosey State Park, Kinnairds Wetland, Lake Numurkah, Numurkah township
- Potential user services: Numurkah, Katamatite
- Potential mid-trip nodes: several stops on Broken Creek
- Potential connections outside Shire: none
- Potential connection/s to other route: Routes A, B, J and L
- Current status: community interest – 'Wilderness Walk' along Broken Creek
- Likely works required: full construction of trail, including minor earthworks and drainage, fencing, possible road / waterway crossings, mid-trip facilities and signage
- Ecological sensitivity: low
- Other comments: if land along river corridor cannot be secured, use road corridors

Route L: Cobram to Katamatite

- Type: Roadside trail
- Route: along Cobram South Road and Benalla-Tocumwal Road reserves, or alternative roads if more suitable
- Approximate length: 20km (one-way)
- Potential activities: cycling, equestrian (possibly)
- Degree of difficulty: moderately easy
- Visitor attractions: Cobram township
- Potential user services: Cobram, Katamatite
- Potential mid-trip nodes: none
- Potential connections outside Shire: none
- Potential connection/s to other route: Routes D, E, F, J, K, L and M
- Current status: some road cycling around Cobram
- Likely works required: full construction of trail, including minor earthworks and drainage, fencing, possible road / waterway crossings, mid-trip facilities and signage
- Ecological sensitivity: low
- Other comments: mainly to provide linkage / circuit between other trails (e.g. routes along Murray River and Broken Creek)

Route M: Cobram to Koonoomoo to Tocumwal (Berrigan Shire)

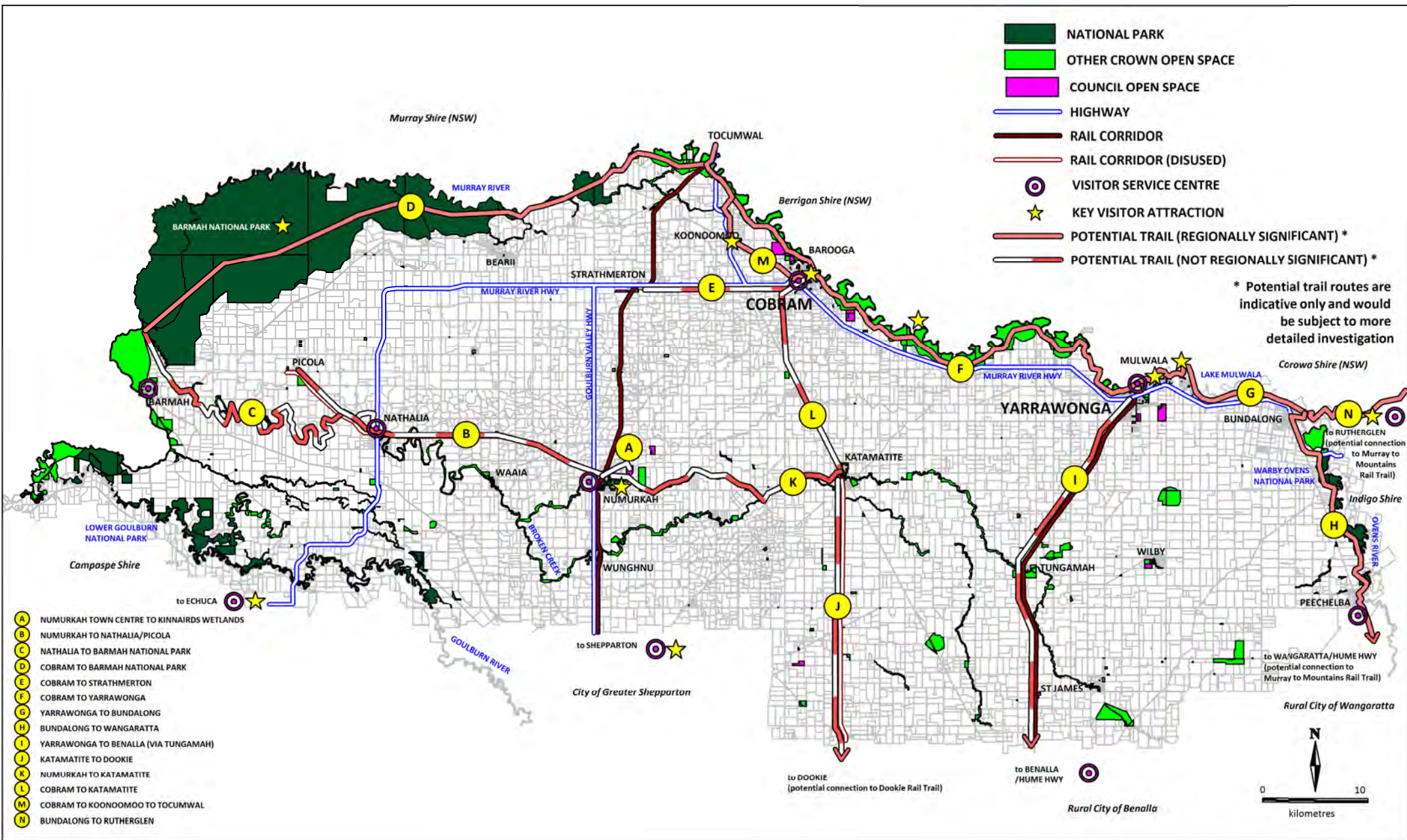
- Type: Roadside / river trail
- Route: along Torgannah Road reserve and Murray River corridor. An alternative route (or circuit) could be along Koonoomoo-Cobram Road and Goulburn Valley Highway
- Approximate length: 19km (one-way)
- Degree of difficulty: moderately easy
- Potential activities: walking (all or part, depending on provision of overnight facilities en route), cycling, mountain biking, equestrian (possibly in some sections)
- Visitor attractions: Cobram township, The Big Strawberry, Koonoomoo Nature Reserve, Murray River, Tocumwal township, old bridge
- Potential user services: Cobram, Koonoomoo, Tocumwal
- Potential mid-trip nodes: Koonoomoo
- Potential connections outside Shire: Tocumwal (Berrigan Shire)
- Potential connection/s to other route: Routes D, E, F and L
- Current status: existing informal trail; community interest to upgrade
- Likely works required: full construction of trails and/or upgrading of existing informal trails, including minor earthworks and drainage, fencing, possible road / waterway crossings, mid-trip facilities and signage
- Ecological sensitivity: low



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Route N: Bundalong to Rutherglen (Indigo Shire)

- Type: River trail
 - Route: along Ovens River corridor, Murray River corridor and Corowa (Corowa Shire) / Wahgunyah (Indigo Shire) then Wangaratta to Wahgunyah section of Murray to Mountains Rail Trail. Alternative routes could be along Murray Valley Highway (Indigo Shire) or along Spring Drive reserve (Corowa Shire) to Corowa
 - Approximate length: 30km (one-way)
 - Degree of difficulty: moderate
 - Potential activities: walking (all or part, depending on provision of overnight facilities en route), mountain biking, equestrian (possibly in some sections)
 - Visitor attractions: Murray River, Lake Mulwala, Ovens River, Lake Moodemere, Corowa township, Rutherglen township and surrounds
 - Potential user services: Bundalong, Corowa, Wahgunyah, Rutherglen
 - Potential mid-trip nodes: Several stops on Ovens River, Corowa, Wahgunyah
 - Potential connections outside Shire: Rutherglen / Wahgunyah (Indigo Shire), Corowa (Corowa Shire), Wangaratta (Rural City of Wangaratta)
 - Potential connection/s to other route: Routes G and H
 - Current status: identified connection with Rutherglen-Wahgunyah section of Murray to Mountains Rail Trail; potentially part of proposed Murray Valley Trail
- Likely works required: full construction of trail, including minor earthworks and drainage, fencing, possible road / waterway crossings, mid-trip facilities and signage
 - Ecological sensitivity: moderate-high
 - Other comments: if land along river corridor cannot be secured, use road corridors



Map 2: Potential trail routes in Moira Shire

POTENTIAL REGIONAL CYCLING AND WALKING TRAILS

Rear 534 Mt Alexander Rd
 Ascot Vale VIC 3032
 039 326 1662
 info@atleisure.com.au
 www.atleisure.com.au



Date: 03 June 2013
 Drawn: GH
 Scale: 1:380,000



4.2 Methods for determining regional significance of a trail and priorities for construction

A two-stage approach was used to assess potential trails. Stage 1 determined the regional significance of a potential trail and Stage 2 determined its priority for construction.

Stage 1: Determining regional significance

The following criteria were used to determine whether potential trails were of regional significance:

1. Is the landscape or natural environment that the route passes through of regional or higher significance, has iconic status or is unique in Victoria or the wider region?
2. Does the route connect with another regionally significant destination / attraction?
3. Does the route provide an opportunity to extend an existing or planned regional trail (e.g. Murray to Mountain Rail Trail, Murray Valley Trail)?
4. Does the route have an appropriate length to attract regional use? This would be for the following activities:
 - a) Walking (8km minimum; based on minimum 2 hour walk at average speed of 4km/hr)

- b) Cycling (40km; based on minimum 2 hour ride at average speed of 20km/hr)
 - c) Equestrian activities (20km; based on minimum 2 hour ride at average speed of 10km/hr)
5. Does the route have opportunities for trail head and potential mid-trip facilities that would be suitable for intended users, for the following activities:
 - a) Walking (e.g. vehicle access, car parking, public amenities, seating, shade / shelter, water)
 - b) Cycling (e.g. vehicle access, car parking, public amenities, seating, shade / shelter, water, area for storing bicycles)
 - c) Equestrian activities (e.g. vehicle access, car and float parking, public amenities, seating, shade / shelter, water, rail or yards for tying up horses)
6. Does the route have ease of access to regular passenger rail and bus services?
7. Are there a significant number of existing businesses along or in proximity of the route associated with tourism that could lever off a regional trail? This would be for the following sectors:
 - a) Information
 - b) Accommodation
 - c) Food and beverage
 - d) Transport
 - e) Events and attractions

8. Does the route reinforce and connect with the tourism theme of the region, 'Sun Country of the Murray'?

This assessment found that Routes D, F, G, H, M and N had potential to be regionally significant. These followed the course of the primary attraction in the area, being the Murray River, provided connections to the service centres of Cobram and Yarrawonga, and provided connections to other attractions in the region, such as the Barmah Forest, Lake Mulwala, Ovens River, Rutherglen, Wangaratta and the Murray to Mountain Rail Trail.

Refer to [Appendix 1](#) for more details on this assessment.

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Stage 2: Criteria for prioritisation of trails

The following criteria were used to prioritise potential trails that were deemed to be of regional significance:

1. Likely proportion of residents served by the route
2. Likely to provide economic benefit through serving tourists, and or ability to be packaged or located to create business opportunities (cycle services, cafes, accommodation, attractions, events)
3. Likely number of visitors to use the trail
4. Increases the number of localities in the Shire / region served by trails
5. Meets the following criteria: (a) increases range of trail types in the area; (b) increases the range of users in the area; (c) supports different types of activities and experiences in the area; and (d) increases the range of difficulty of trails in the area
6. Route provides a diversity of stimuli and experiences along it, including settings (e.g. high quality scenery, natural environment, towns, cultural heritage, rural landscape), changing topography, meandering / straight trail, location of trail (road corridor / rail corridor / river corridor)
7. Increases access to a diversity of settings, e.g. urban locations, peri-urban or coastal, or bushland trails
8. Adds value to, extends length (or width) of, connects, create a circuit from, or fills known gaps in existing trails or routes
9. Provides a circuit trail or enables informal ones to be created using connections with other public land (e.g. road corridors, local / district trails)
10. Provides linkages to existing district / local trails
11. Number and spacing of mid-point connections required for the intended activities
12. Ease of providing / improving trail head (end-of-trail) and mid-point facilities to the required standard for the intended activities
13. Existing legibility of route (e.g. accessibility, general knowledge of area, signage) and ease of improving to required standard
14. Adds to a range of trails accessible to people regardless of age or ability
15. Doesn't create major environmental impacts
16. Ease of planning / extent of previous investigations
17. Ease of securing land (e.g. current land ownership)
18. Extent of works required to provide fit-for-purpose trail (e.g. extent of cut / fill, construction of appropriate surface, requirement for boardwalks and bridges, vegetation clearing, road crossings, fencing)
19. Relative ease of ongoing maintenance required (e.g. coordination of multiple land managers, land management (e.g. mowing, vegetation pruning), amount of facilities / infrastructure requiring maintenance, ease of access, sensitivity of environment, potential for flooding, etc.)
20. Evidence that resources will be committed from the community, user or peak bodies to contribute to planning, design and manage the resource
21. Evidence the trail can be managed and constructed in partnership with another agency, user group, the landowner, or an entity established for their provision and management
22. Meets a direction in an existing regional, Council and / or Community Plan
23. Likelihood that the local community, local businesses and champions of outdoor recreation are / will be involved to support and promote the trail
24. The proposal builds on or links to existing marketing and communication programs / strategies
25. Information about the route exists (on- and off-site) in relation to suitability for use by people of different abilities nature of the trail, gradients, distance, surface and degree of difficulty, etc.

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4.3 Priority trails

This analysis of potential regional trails determined the following priorities.

Priority 1: Route F (Cobram to Yarrawonga)
(score of 4.85 out of 5)

Priority 2: Route G (Yarrawonga to Bundalong)
(score: 4.50 out of 5)

Priority 3: Route D (Cobram to Barmah / Barmah National Park (Dharnya Interpretation Centre) via Tocumwal / Murray River)
(score: 4.43 out of 5)

Priority 4: Route M (Cobram to Koonoomoo to Tocumwal) (score: 4.23 out of 5)

Priority 5: Route N (Bundalong to Rutherglen)
(score: 3.82 out of 5)

Priority 6: Route H (Bundalong to Wangaratta)
(score: 3.71 out of 5)

Details of these trails are shown on Maps 3-5. Refer to [Appendix 2](#) for more details on this assessment.

Barmah Lakes camping area
 Dharnya Interpretation Centre
 Day visitor area
 Potential end of trip trail facilities

Potential site for camping area
 and mid trip trail facilities

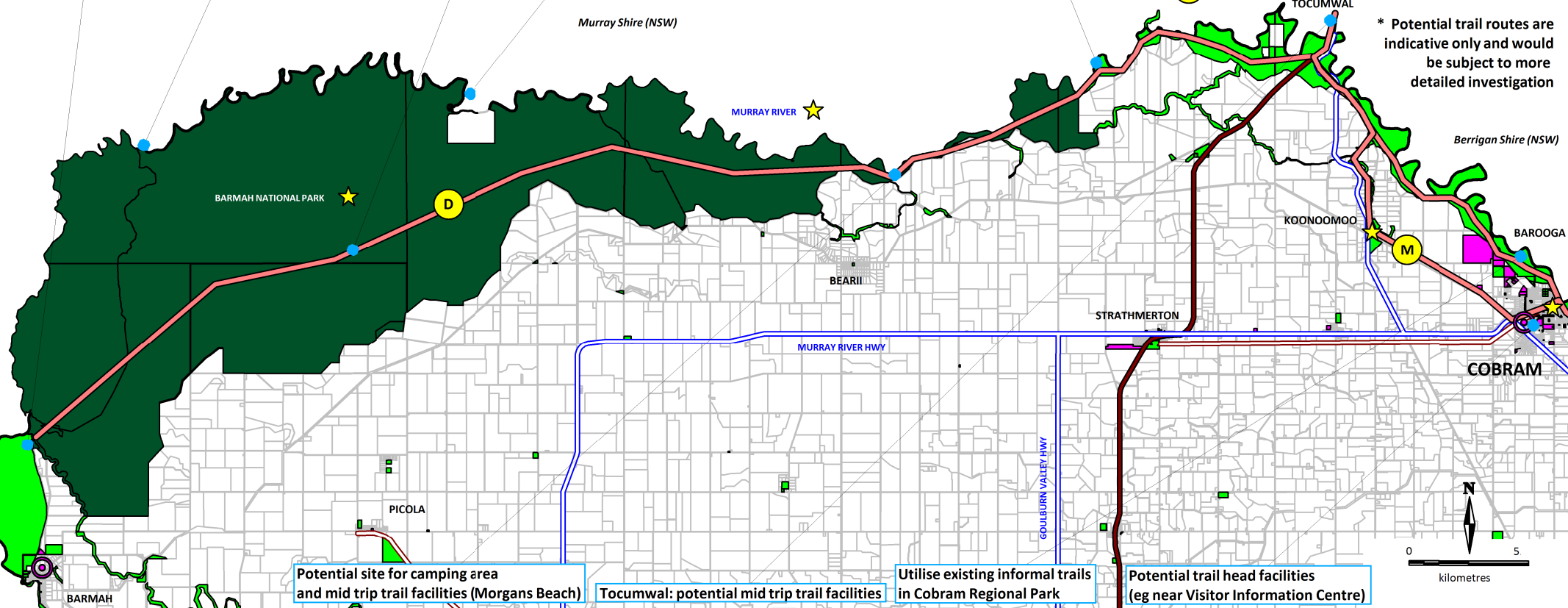
Utilise existing network of
 trails in Barmah National Park

The Gulf camping area:
 Potential mid trip trail facilities

Ulupna Island

- NATIONAL PARK
- OTHER CROWN OPEN SPACE
- COUNCIL OPEN SPACE
- HIGHWAY
- RAIL CORRIDOR
- RAIL CORRIDOR (DISUSED)
- ◎ VISITOR SERVICE CENTRE
- ★ KEY VISITOR ATTRACTION
- POTENTIAL TRAIL (REGIONALLY SIGNIFICANT) *
- D COBRAM TO BARMAH NATIONAL PARK
- M COBRAM TO KOONOOOOO TO TOCUMWAL

* Potential trail routes are
 indicative only and would
 be subject to more
 detailed investigation



Potential site for camping area
 and mid trip trail facilities (Morgans Beach)

Tocumwal: potential mid trip trail facilities

Utilise existing informal trails
 in Cobram Regional Park

Potential trail head facilities
 (eg near Visitor Information Centre)



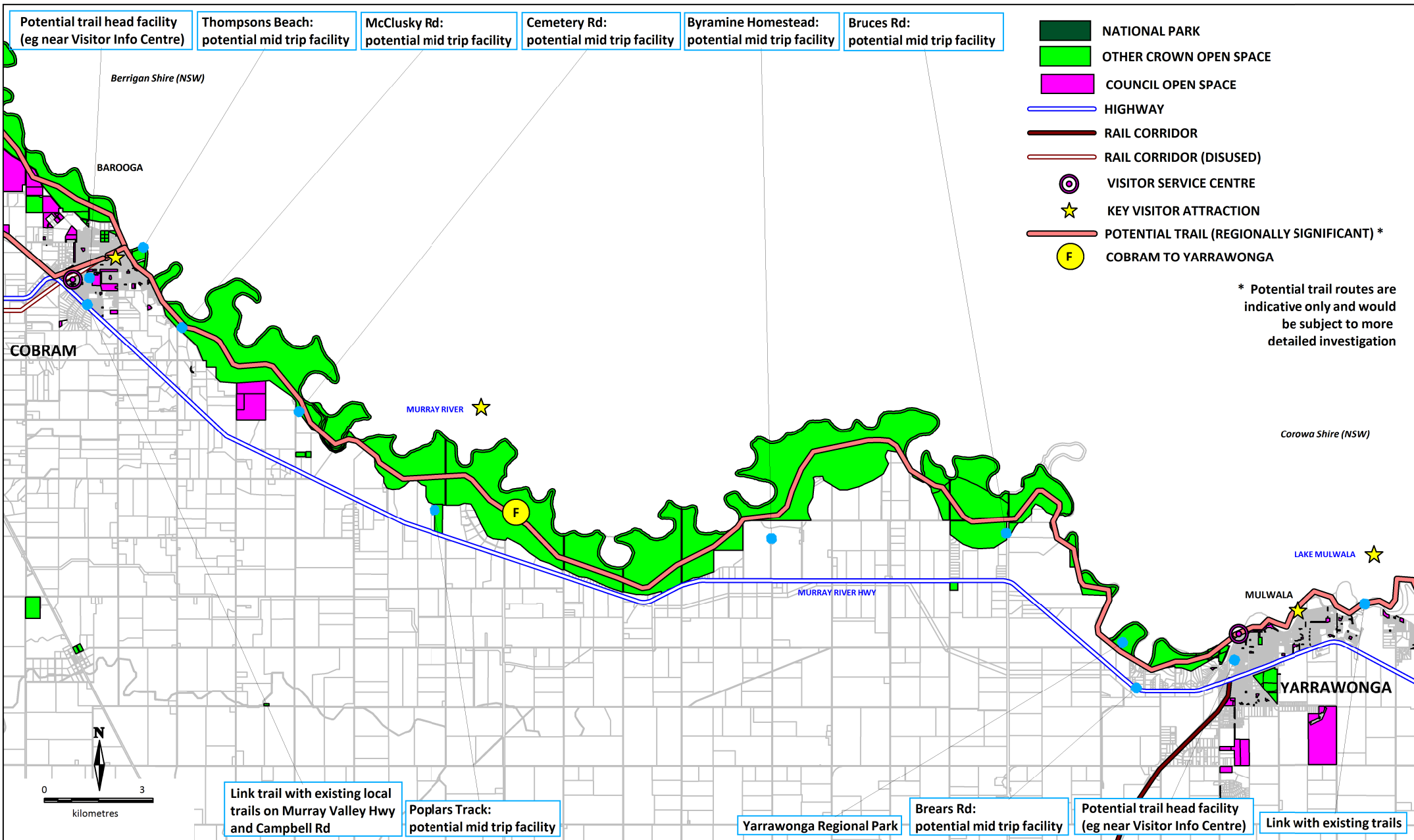
Map 3: Potential regional trail routes (west of Cobram)

POTENTIAL REGIONAL CYCLING AND WALKING TRAILS

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 Ascot Vale VIC 3032
 039 326 1662
 info@atleisure.com.au
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 Drawn: GH
 Scale: 1:190,000



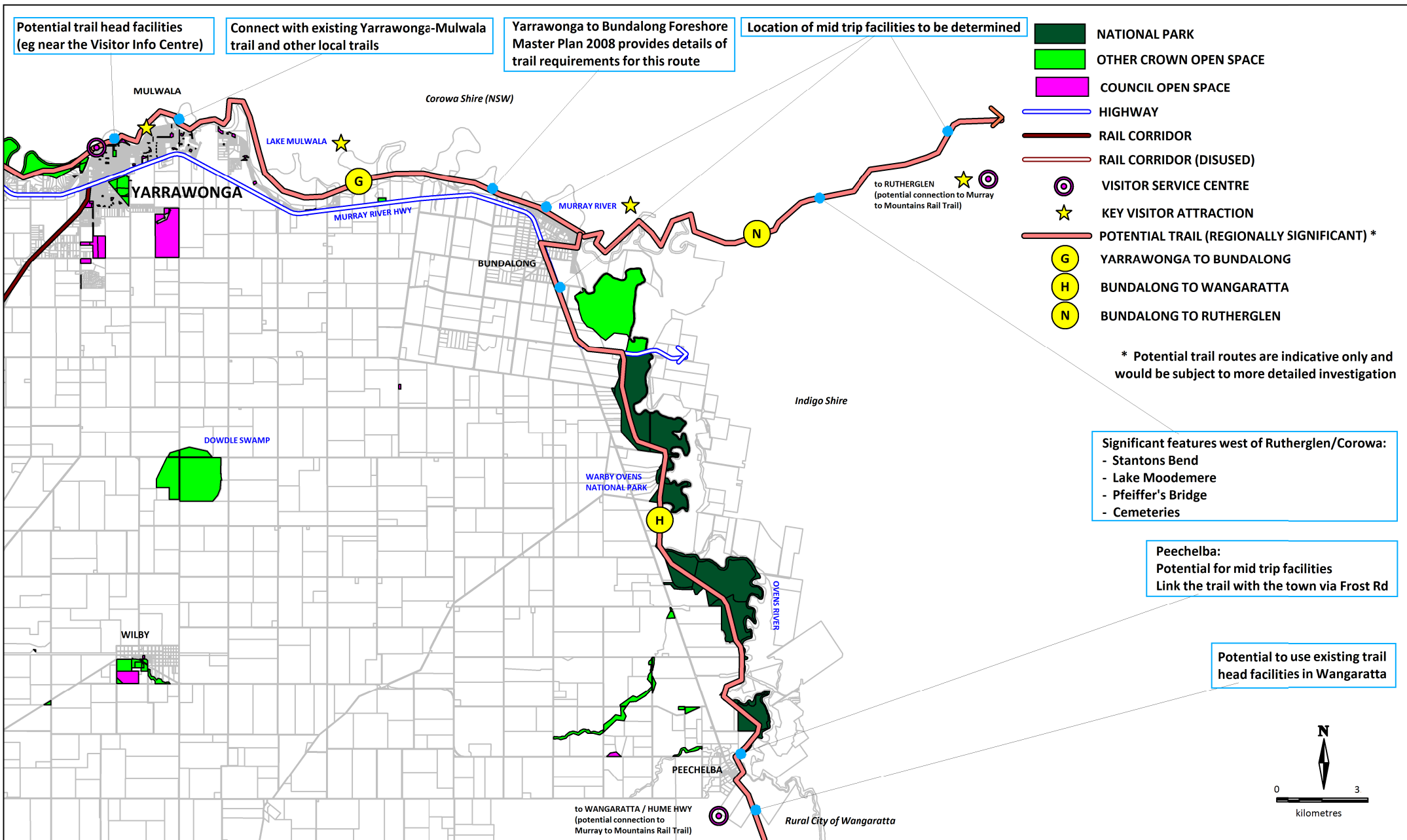
Map 4: Potential regional trail route (Cobram-Yarrawonga)

POTENTIAL REGIONAL CYCLING AND WALKING TRAILS

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Date: 03 June 2013
 Drawn: GH
 Scale: 1:110,000





5. General issues relating to trails

5.1 Trail design

The potential for the identified priority trail routes to become regionally significant will depend of provision of substantial infrastructure that has the ability to support their potential use. Trails must be well-designed, constructed and maintained, and adequate facilities provided to support users at trail heads and along the route.

The success of the Murray to Mountain Rail Trail is evidence of this. Research of this trail has found that recreational cyclists are a high yield, high spending market, and one that is predominantly highly educated⁶. This segment needs to be well serviced.

⁶ Cycling in Regional Communities: A Longitudinal Study of the Murray to Mountains Rail Trail, Victoria, Australia (S. Beeton; 2009)

Trails generally need to have the following characteristics:

- Easily accessible and suited for the intended user groups, including treadway and corridor width, surface material, gradient and cross-fall
- Adequate separation from roads and other trafficable areas
- Require minimal maintenance
- Minimises impacts on environmentally sensitive areas such as waterways, riparian zones and floodways
- Sited to maximise casual surveillance from public areas and with adequate clearance and buffers on either side of the treadway
- Includes fencing or bollards as required near hazards or to prevent animals wandering onto the trail
- Have connections to towns, user facilities and services, and the local trail network.

A standard specification for trails will be prepared and used. There are several technical guidelines for the design of trails to assist, including Austroads and the VicRoads Cycle Notes.

The following are the key matters that should be considered in the design of trails.

General Types of Trails

It is proposed that three general types of trails (or sections of longer trails) be developed depending on the intended users and to provide different user experiences:

- **Type A Trail** – largely accessible township trail. Where possible these would be⁷ suitable for people using a mobility aid, or wheeled recreational toys or vehicles, as well as young children. These sections of trail would be close to towns and have shorter lengths. The trail would generally be formed and mostly sealed (in specific situations) or consolidated pavement or compacted well-graded materials, with be designed with a high level of supports (user facilities and signage).
- **Type B Trail** – riverside or countryside hike and bike trail. These would be largely through the natural environment and be suitable for a wide range of riders and walkers seeking a longer and more challenging experience with fewer comforts. This type of trail would generally be formed but unsealed, with some level of user support facilities and signage.

⁷ Defined as ‘accessible paths of travel’, as outlined in Australian Standard 1428: Design for Access and Mobility



- **Type C Trail** – bushland trail. These would be suitable for more experienced riders who seek a more physical challenge and nature-based experience (generally mountain biking) and bushwalkers. The trail would be more remote and generally be an unsealed reinforced single track (where environmental degradation is likely to be minimal), with a low level of user support facilities and signage.

Corridor design and dimensions

An off-road trail corridor for Type A and B trails includes the tread, right of way and a buffer or protection zone on either side of the tread, as shown in the following image⁸:

- The **tread (or treadway)** is the surface on which the user walks / rides.
- The **right of way** is the cleared space either side of the treadway. This is provided for alternative passage of trail users, such as for passing, short rest stops and walking dogs.

- The **buffer or protection zone** is either side of the right of way, and is used to separate trail users from environmentally sensitive areas (such as waterways) or potentially dangerous areas (such as roads), provide amenity, shade and shelter for users, and screen from surrounding land uses. This zone is generally vegetated.

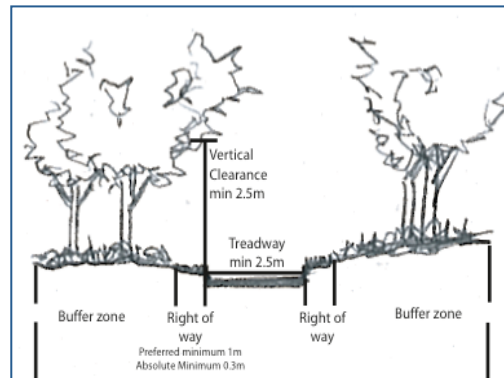


Image 1. Anatomy of an off-road trail corridor

There are considerable risks associated with developing trails where there are inadequate widths and buffers around a trail when it is likely to be used by a range of different users such as cyclists, groups of walkers, and horse riders. These groups have different requirements, behaviours and travel at different speeds.

Unsealed trails

As many trails in the Shire are likely to be unsealed, there are some key issues that should be addressed in planning. These are briefly discussed here.

Unsealed trails are likely to be appropriate where:

- The area is of high environmental quality
- A seal would be inconsistent with a natural setting
- The topography is suitable to minimize erosion
- The use is high enough to keep the tread material relatively compacted
- Accessibility, e.g. use by people with mobility aids or prams is not a high priority
- Paths are not likely to be regularly wet or inundated.

There are some key requirements when providing unsealed trails. These include:

- Using a colour of surface material that is sympathetic to the colours in the surrounding landscape
- Ensuring surface material is stable, firm, relatively smooth and slip resistant in both wet and dry conditions
- Ensuring surface material brought in from other places is free from weeds and pathogens

⁸Trail Building and Maintenance (Robert Proudman and Reuben Rajala, Appalachian Mountain Club; 1981; 2nd Edition)



- Using tread material that is well graded with different particle sizes that fit together to form a tight, dense mass. Material must be stable and relatively firm, quick draining and not boggy in the wet, or sharp on bicycle tyres or feet
- Ensuring fines do not easily wash away to leave sharp and loose aggregate
- Using reinforcing or sealed surfaces in trails sections where erosion or inundation is likely to occur
- Where sealed and unsealed surfaces are used together, ensuring loose materials do not migrate onto the sealed surfaces and cause slip and trip hazards
- Where equestrian activities are permitted, sealed surfaces should not be used. These are not suitable for horses as they are hard, and not slip resistant for shod horses.

Trail head and mid-trip facilities

Trail head facilities should include the following:

- Vehicle access and car parking
- Public amenities (which may include showers)
- Constructed shelter, picnic tables and/or BBQs
- Shade trees and seating
- Water suitable for drinking and washing
- Bicycle parking – rails are generally satisfactory, however lockers may be appropriate where trail heads are associated with public transport
- Access to public transport, such as a bus stop on a local road
- Formal or informal camping area (where overnight camping is appropriate and allowed)
- Horse float parking and rail or yards for tying up horses (where equestrian activities to be encouraged).

Mid-trip facilities should be provided along trails to provide opportunities for users to rest and enjoy the environment.

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Mid-trip facilities should be provided at regular intervals, at least every 8km⁹. Lesser intervals should be provided closer to key towns, such as Cobram and Yarrawonga, to cater for older adults, children and people with a disability.

Where possible, mid-trip facilities should be located at or close to attractions along the route. They may coincide with visitor attractions provided by private operators.

Mid-trip facilities may include:

- Break out spaces to stop and relax off the trail, including shade trees and seating
- Side trails / circuits to local attractions, such as river viewing platforms and bird hides
- Water suitable for drinking.

The standards of user facilities will vary depending on the type of trail (or sections of longer trails) be used depending on the intended users.

Some mid-trip facilities could be enhanced, with provision of constructed shelters, picnic tables, public amenities and camping.

These facilities could have vehicle access and small car parking areas (generally unsealed) so enable people to enter and exit the trail at various points (if this is unlikely to impact on environmental integrity), as well as allow access for emergency and maintenance vehicles.

⁹ The approximate distance that could be walked in two hours



Signage

Clear and consistent signage needs to be provided along trails to define the route, provide directions, warnings and information for users.

Signage is most important at trail heads, mid-trip facilities and in any other locations adjacent to intersections, hazards, and attractions. Signage could include:

- Directional, routeway and location signage, including that to adjacent facilities, service centres, attractions and points of interest
- Distance markers
- Interpretive elements, such as information about flora and fauna, geography and indigenous and European heritage
- Regulatory signage (e.g. related to fire, camping and acceptable activities)
- Warning signage, such as road and waterway crossings, overhanging vegetation, dangerous corners and areas to avoid when flooding
- Accessibility signage assisting users make choices about alternative routes, and about the presence of sand, stairs, steep sections etc.
- Promotional signage at key nodes – to associated services for example, appropriate to the desired trail experience.
- Consistent trail branding

Visitor services and facilities

Visitor facilities and services are desirable to support the use and development of a regional trail, or the trail route may be defined by the location of existing services.

A high quality visitor experience will help assure return visits and longer stays. This in turn will contribute more to the local economy.

Visitor services could address one or more of the following sectors:

- Information
- Accommodation
- Food and beverage
- Transport (including transfers)
- Events, tours and attractions.

Existing businesses can support the growth of cycle tourism and trail use through: welcoming signage, offering simple add-ons such as water, information, snacks, bike hire, access to repairs and pumps, first aid, covered bicycle parking and shelter, and flexibility in relation to trail user's dress.

A number of areas in Australia, including the high country in Victoria, have successfully marketed themselves to cycle tourists and walkers using trails. An example of this is the Victoria High Country Cycle Guide.

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There are a significant number and variety of business associated with tourism and recreation that can lever off a regional trail.

Regional trails can support the establishment of new businesses. Examples are the Bike Cog Café at Mt Evelyn that fronts the Warburton Rail Trail¹⁰, the general store in Tallarook and bike-carrying bus services in a number of places.

¹⁰ <http://cogbikecafe.com.au>



5.2 Land ownership

The majority of the preferred trail routes can be located on existing public land, such as foreshore areas, road reserves and railway corridors. In some sections, however, the preferred routes pass through private land. There are several strategies to overcome this issue, including:

- Seek alternative public land to divert the trail for this section, such as along an adjacent road reserve, drainage reserve, or infrastructure / utility corridor. In a foreshore area, a boardwalk could be provided. These alternative sections of the route may also provide variety in landscape settings and could provide mid-point access points to the trail
- Seek contribution of the relevant portion of land should the private land have development potential. In some circumstances, this land would be encumbered by constraints such as flooding or remnant vegetation, so loss of development potential could be minimal and could be secured for environmental or drainage purposes as well as for public access

- Investigate the use of ‘transferable development rights’ to secure the land for public purposes by allowing increased development yields in other portions of the land
- Facilitate public access over the private land through agreement with the landowner, and formalised with establishment of an easement.
- Lease or purchase the relevant portion of the private land for public purposes

Where private properties abut foreshore areas, current delineation of public and private land, makes public access difficult. This is a particular issue along Lake Mulwala at Yarrawonga and at Bundalong. There are often no property fences, and private infrastructure and improvements have encroached over the public land, such as lawns and gardens, and jetties and pontoons.

This problem is made worse in some areas where the public corridor is already narrow. This has resulted in lack of clarity of public access along the foreshore.

Goulburn-Murray Water is currently liaising with landowners in these areas to clarify land ownership boundaries, remove inappropriate infrastructure and to ensure public accessibility along the lakefront.

In some situations, a preferred trail route may be proposed over land controlled by State agencies or authorities. In particular, this includes rail corridors owned by VicTrack, frontage to Lake Mulwala owned by Goulburn-Murray Water, and road reserves managed by VicRoads. Public use of this land has traditionally not been a priority. There are, however, successful examples of trails being located on this land with minimal conflicts with the primary infrastructure or designated functions.

Shared use of public land is likely to become more important to help achieve community outcomes, and strategic approaches to the use to this land are needed. There are also opportunities to develop relationships with the relevant stakeholders and to streamline the approval process to access this land.

In the long term, any Council open space strategy should identify gaps in public ownership along corridors suitable for regional trails and seek to acquire these as resources allow and/or development occurs.

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5.3 Partnerships

The success of a regional trail in Moira Shire will depend of the establishment of ongoing partnerships between relevant stakeholders to coordinate trail related activities and ensure trails can be funded, promoted, serviced and maintained. Key stakeholders are:

- Moira Shire Council
- Land managers, such as the Department of the Environment and Primary Industries, Parks Victoria, Goulburn Broken Catchment Management Authority, Goulburn-Murray Water, VicRoads
- Adjoining Councils
- Murray Darling Basin Commission
- User groups, such as walking and cycling and equestrian clubs
- Community groups, such as Friends groups, and Landcare and other conservation groups
- Tourism and business groups and associations
- Local indigenous community.

Stakeholders can also work together to share knowledge and information, promote walking and cycling, seek external funding, and contribute towards the construction, mapping, promotion, and maintenance of trails.

The great value of community volunteers in the success and ongoing viability of trails needs to be recognised. Community members need to be involved in all aspects of establishing and managing a regional trail.

A stakeholder group, such as a committee of management, should oversee the ongoing management of a regional trail. This would be in accordance with relevant plans such as a trail management plan and/or memorandum of understanding, and can represent a wide range of interests including adjacent landholders, land management agencies and user groups.

5.4 Information and promotion

Regional trails need to be supported by quality on-site and off-site information about trails and suitable use. This is required for strategic planning, asset management, promotion, and user choice and safety.

Information should be provided using a variety of methods, including hardcopy brochures, websites and social media. Accurate maps are important.

There are opportunities to utilise the existing profile of the Sun County on the Murray and the Murray to Mountains Rail Trail. Programs such as the Victoria High Country Cycle Guide and North East Valleys Pedal-to-Produce could also be partnered with.

The 'cycle friendly business' system developed with the Victoria High Country Cycle Guide could be used for a regional trail in Moira Shire as a way of providing information to potential users. Businesses would also benefit from increased trade.



6. The way forward

Analysis has found a number of potential cycling and walking trail routes in Moira Shire that could be regionally significant. These largely follow the course of the Murray River, which is the primary attraction in the area.

The long-term desirable outcome is a continuous cycle and walking trail along the Murray River from Wahgunyah (Indigo Shire) to Echuca (Campaspe Shire). This 200km trail would constitute one of the most important sections of the Murray Valley Trail that was proposed in the Victorian Trails Strategy 2005-2010. It would connect the Murray to Mountains Rail Trail and Rutherglen tourism area with the Murray River and the tourism area of Echuca.

This route also provides connections to the major attractions in Moira Shire, being Lake Mulwala, the Barmah Forest and the confluence of the Ovens River with the Murray River. Access is also provided to Cobram and Yarrowonga, which provide the majority of visitor services in the Shire.

This trail should be established in sections as opportunities for funding and contributions arise.

High priority trail

The highest priority trail should be **Cobram to Yarrowonga**. This would be approximately 40km in length. It is proposed that different reaches of the trail be developed to provide for a range of users and user experiences (as discussed in [Section 5.1](#)).

The main works required to complete this trail are outlined below. [Appendix 3](#) provides high indicative probable costings.

- a) Establishing trail head facilities at:
 - Cobram Tourist Information Centre (or a more suitable location if determined); and
 - Yarrowonga Tourist Information Centre or at the Lake Mulwala foreshore.
- b) Construct an off-road shared pathway from the Cobram trail head facility (Cobram Tourist Information Centre or otherwise) along Mookarii Street to Thompsons Beach. This would be approximately 2km long and be a Type A Trail. Connect with the existing pathway to Barooga.
- c) Constructing trails (Type B Trail):
 - From Mookarii Street along River Road to the northern end of McClusky Road, Cobram (approximately 2km long). Connect with the existing trails within Cobram Regional Park (including to Quinn Island);
 - Upgrading an existing track (to be determined) within Cobram Regional Park from McClusky Road to the northern end of Cemetery Road, Cobram East (approximately 4km long); and
 - From Yarrowonga Regional Park to the Yarrowonga Tourist Information Centre (approximately 2km long). Connect with existing pathway to Mulwala, along the Lake Mulwala foreshore.
- d) Formalising an existing track (to be determined) within Cobram Regional Park from the northern end of Cemetery Road to the northern end of Brears Road, Yarrowonga (Type C Trail). Connect with existing trails within Cobram Regional Park and Yarrowonga Regional Park. This would be approximately 28km long.
- e) Providing enhanced mid-trip facilities at:
 - Thompsons Beach (by upgrading existing visitor facilities);
 - The northern end of McClusky Road;
 - The existing parking area at the northern end of Cemetery Road;

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- Byramine Homestead; and
 - The northern end of Brears Road.
- f) Providing basic mid-trip facilities at the eastern end of Poplars Track, Cobram East and the northern end of Bruces Road, Burramine.

A detailed cost benefit analysis of the potential trail (or priority sections) may be beneficial to assist securing funding and partners for the project.

Medium priority trails

There are two medium priority trails.

- a) Constructing the trail from **Yarrowonga to Bundalong**, which would be approximately 20km long. The following would be required:
- Completion of the shared pathway along the Lake Mulwala foreshore from the Yarrowonga Tourist Information Centre to the northern end of Botts Road (via Chinamans Island). This is approximately 4km long.
 - Construction of a trail from the northern end of Botts Road to Bundalong. This would be approximately 16km long. The foreshore reserve will need to be clearly delineated, and if necessary additional land may need to be secured to increase the width (as discussed in [Section 5.2](#)).

- b) Formalising and upgrading the existing trail from **Cobram to Tocumwal**. This would be approximately 19km long. A side loop to Koonoomoo could also be investigated.

Low priority trails

The low priority trails would be to complete the following sections of the Murray Valley Trail:

- d) **Bundalong to Wahgunyah** (approximately 30km) – seek partnership with Indigo Shire Council (and other relevant stakeholders) to establish this trail along the Murray River. This would be a bushland walking and/or mountain biking track. This would then connect with the Murray to Mountains Rail Trail and Rutherglen.
- e) **Tocumwal to Barmah** (approximately 66km) – seek partnership with Parks Victoria and Berrigan Shire Council (and other relevant stakeholders) to establish a trail along the Murray River (including within Barmah National Park) from Tocumwal to Barmah. This would be a bushland walking and/or mountain biking track. Provide trail head facilities, and low level mid-trip facilities at appropriate locations (e.g. Tocumwal, Ulupna Island, Morgans Beach, The Gulf camping area and Dharnya Interpretation Centre). Connect with existing trails within Barmah National Park.

- f) **Barmah to Echuca** (approximately 30km) – seek partnership with Campaspe Shire Council and Parks Victoria (and other relevant stakeholders) to establish this trail along the Murray River.

There are opportunities to create circuit trails and different user experiences both within the Shire and connecting with adjoining municipalities. These could also provide connections to the other major visitor and service areas in the region. Potential trails include:

- d) **Along the Ovens River** from Bundalong to Wangaratta
- e) **Along Broken Creek** from Barmah to Tungamah (via Nathalia, Numurkah and Katamatite)
- f) **Along rail corridors** between Yarrowonga and Benalla (via Tungamah), Katamatite and Shepparton (via Dookie), and Numurkah and Picola (via Nathalia).

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Other actions

The following actions are also recommended to improve opportunities to establish regional cycling and walking trails in the Shire and address current issues.

- a) Continue to promote the health and social benefits of walking and cycling.
 - b) Continue to promote the attractions of Moira Shire in conjunction with trail use.
 - c) Continue to support the program by Goulburn-Murray Water to remove (or consolidate) private infrastructure that has been built on foreshore reserves, as well as education of landowners of their responsibilities. This is to improve public access along these areas.
 - d) Incorporate priority trails into relevant Council policies and strategies.
 - e) Seek external funding to contribute towards the cost of constructing priority trails.
 - f) Continue to build relationships with land managers, such as the Department of the Environment and Primary Industries, Parks Victoria, Goulburn Broken Catchment Management Authority, Goulburn-Murray Water, VicRoads and adjoining Councils, to share information, assist in promoting trails, and walking and cycling related activities and businesses, seek external funding and contribute towards the construction and maintenance of trails.
 - g) Continue to build relationships with user and community groups, to share information, assist in promoting walking and cycling, seek external funding and contribute towards the construction and maintenance of trails.
 - h) Develop consistent construction standards for trails and support facilities.
 - i) Seek protection of land that could be used for a regional trail in the future. This includes disposal of land, as well as location of new buildings, infrastructure and works. This should be regardless of the priority of a potential route. Such land includes waterway corridors, foreshores, unformed road reserves, verges of constructed roads, railway corridors, closed government roads and land for public utilities and infrastructure.
 - j) Seek ways to secure development contributions towards off-road trails, and ensure future structure / development plans provide off-road routes and connections to regional trails. Development contributions could include provision of land, contributed assets and/or monetary contributions towards future land acquisition or works. Utilise available mechanisms, such as Public Acquisition Overlay, development contribution plans and negotiations with developers.
- Consider utilising land protected by overlays such as Floodway Overlay, Vegetation Protection Overlay, Erosion Management Overlay or Significant Landscape Overlay. This may require amendment to the Moira Planning Scheme.
- k) Continue to support businesses develop that can support trail tourism and associated recreation activities. This should include product and service development in the following sectors:
 - Information
 - Accommodation
 - Food and beverage
 - Transport
 - Events, tours and attractions.Facilitation of business development could include training, as well as investigating suitable locations for types of new businesses that could be established along or associated with potential trails. This may require rezoning of land to allow these uses.
 - l) Seek improved connections between Cobram, Yarrawonga and other localities in Moira Shire, and major visitor and service areas in the region, either by motor vehicle, public transport or on-road cycling, including Wangaratta, Benalla and Shepparton.



7. Action Plan

The following table sets out identified actions to implement the findings of this report.

No.	Action	Project Type	Priority	Indicative Probable Cost	Lead Department
1	Construct a cycling and walking trail along the Murray River from Cobram to Yarrowonga.	Capital Works	H	\$4,000,000	Shire Development and Liveability
2	Seek ways to secure development contributions towards off-road trails.	Policy	H	\$10,000	Shire Development and Liveability
3	Continue to support businesses associated with tourism and recreation.	Operations	H	\$20,000	Community
4	Seek external funding to contribute towards the cost of priority trails.	Operations	H	Internal	All
5	Seek protection of land that could be used for a regional trail in the future.	Policy	H	Internal	Shire Development and Liveability
6	Continue to promote the health and social benefits of walking and cycling.	Operations	M	Internal	Community
7	Continue to promote the attractions of Moira Shire.	Operations	M	Internal	Community
8	Continue to support the program by Goulburn-Murray Water to consolidate private infrastructure that has been built on foreshore reserves.	Operations	M	Internal	Shire Development and Liveability
9	Incorporate priority trails into relevant Council policies and strategies.	Policy	M	Internal	All
10	Continue to build relationships with land managers.	Operations	M	Internal	All
11	Continue to build relationships with user and community groups.	Operations	M	Internal	Community
12	Develop consistent construction standards for trails and support facilities. Any contractors and external providers will obtain Council's approval of the trail design and specification prior to commencement of works.	Policy	M	Internal	Shire Development and Liveability
13	Seek improved connections between Cobram, Yarrowonga and other localities in Moira Shire, and major visitor and service areas in the region.	Capital Works	M	To be determined	Shire Development and Liveability
14	Complete the cycling and walking trail along the Murray River / Lake Mulwala from Yarrowonga to Bundalong.	Capital Works	M	To be determined	Shire Development and Liveability
15	Seek partnerships to construct a cycling and walking trail along the Murray River from Cobram to Tocumwal.	Capital Works	M	To be determined	Shire Development and Liveability



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No.	Action	Project Type	Priority	Indicative Probable Cost	Lead Department
16	Seek partnerships to construct a cycling and walking trail along the Murray River from Bundalong to Wahgunyah.	Capital Works	L	To be determined	Shire Development and Liveability
17	Seek partnerships to construct a cycling and walking trail along the Murray River from Tocumwal to Barmah.	Capital Works	L	To be determined	Shire Development and Liveability
18	Seek partnerships to construct a cycling and walking trail along the Murray River from Barmah to Echuca.	Capital Works	L	To be determined	Shire Development and Liveability
19	Seek partnerships to construct a cycling and walking trail along the Ovens River from Bundalong to Wangaratta.	Capital Works	L	To be determined	Shire Development and Liveability
20	Investigate construction of a cycling and walking trail along Broken Creek from Barmah to Tungamah (via Nathalia, Numurkah and Katamatite).	Capital Works	L	To be determined	Shire Development and Liveability
21	Investigate construction of a cycling and walking trail along rail corridor between Yarrawonga and Benalla (via Tungamah).	Capital Works	L	To be determined	Shire Development and Liveability
22	Investigate construction of a cycling and walking trail along rail corridor between Katamatite and Shepparton (via Dookie).	Capital Works	L	To be determined	Shire Development and Liveability
23	Investigate construction of a cycling and walking trail along rail corridor between Numurkah and Picola (via Nathalia).	Capital Works	L	To be determined	Shire Development and Liveability

8. Appendices

Appendix 1: Assessment of regional significance of potential trails

No.	Criteria	Potential Route													
		A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Is the landscape or natural environment that the route passes through of regional or higher significance, has iconic status or is unique in Victoria or the wider region?	X	X	✓	✓	X	✓	✓	✓	X	X	X	X	✓	✓
2	Does the route connect with another regionally significant destination / attraction?	X	X	✓	✓	✓	✓	✓	✓	✓	X	X	✓	✓	✓
3	Does the route provide an opportunity to extend an existing or planned regional trail (e.g. Murray to Mountain Rail Trail, Murray Valley Trail)?	X	X	✓	✓	X	✓	✓	✓	X	X	X	X	✓	✓
4	Does the route have an appropriate length to attract regional use? This would be for the following activities:														
	(a) Walking (8km minimum; based on minimum 2 hour walk at average speed of 4km/hr)	X	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	(b) Cycling (40km; based on minimum 2 hour ride at average speed of 20km/hr)	X	✓	✓	✓	✓	✓	X	✓	✓	✓	✓	✓	✓	✓
	(c) Equestrian activities (20km; based on minimum 2 hour ride at average speed of 10km/hr)	X	✓	✓	✓	✓	✓	X	✓	✓	✓	✓	✓	✓	✓
5	Does the route have opportunities for trail head - and potential mid-trip facilities that would be suitable for intended users, for the following activities:														
	(a) Walking (e.g. vehicle access, car parking, public amenities, seating, shade / shelter, water)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	(b) Cycling (e.g. vehicle access, car parking, public amenities, seating, shade / shelter, water, area for storing bicycles)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	(c) Equestrian activities (e.g. vehicle access, car and float parking, public amenities, seating, shade / shelter, water, rail or yards for tying up horses)	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6	Does the route have ease of access to regular passenger rail and bus services?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
7	Are there a significant number of existing businesses along or in proximity of the route associated with tourism that could lever off a regional trail? This would be for the following sectors:														
	(a) Information	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	✓	✓	✓	✓
	(b) Accommodation	✓	✓	X	✓	✓	✓	✓	✓	✓	X	✓	✓	✓	✓
	(c) Food and beverage	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	(d) Transport	✓	✓	X	✓	✓	✓	✓	✓	✓	X	✓	✓	✓	✓
	(e) Events and attractions	✓	✓	X	✓	✓	✓	✓	✓	✓	X	✓	✓	✓	✓
8	Does the route reinforce and connect with the tourism theme of the region, 'Sun Country of the Murray'?	X	X	X	✓	X	✓	✓	X	X	X	X	X	✓	✓
RESULT		FAIL	FAIL	FAIL	PASS	FAIL	PASS	PASS	PASS	FAIL	FAIL	FAIL	FAIL	PASS	PASS

PASS = meets the majority of criteria (those that may affect potential activities / users could be excepted)



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Appendix 2: Prioritisation Matrix

No.	Criteria	Score					Weighting	POTENTIAL REGIONAL TRAIL (FROM SEPARATE SHEET)											
		5	4	3	2	1		D		F		G		H		M		N	
								Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score
Community Benefits																			
A	Likely proportion of residents served by the route	Very high proportion of residents	High proportion of residents	Moderate proportion of residents	Low proportion of residents	Very low proportion of residents	0.07	4	0.28	5	0.35	4	0.28	2	0.14	4	0.28	2	0.14
B	Likely to provide economic benefit through serving tourists, and/or ability to be packaged or located to create business opportunities (cycle services, cafes, accommodation, attractions, events)	Likely to produce considerable economic benefit	Likely to produce high economic benefit	Likely to produce moderate economic benefit	Likely to produce insignificant economic benefit	Not likely to produce economic benefit	0.08	4	0.32	4	0.32	4	0.32	3	0.24	3	0.24	3	0.24
C	Likely number of visitors to use the trail	Very high number of visitors	High number of visitors	Moderate number of visitors	Low number of visitors	No visitors	0.06	4	0.23	5	0.28	5	0.28	3	0.17	4	0.23	4	0.23
D	Increases the number of localities in the Shire / region served by trails	Connects to two or more larger destination towns (e.g. Cobram, Yarrowonga, Wangaratta, Rushworth, Benalla)	Connects to one larger destination town (e.g. Cobram, Yarrowonga, Wangaratta, Rushworth, Benalla)	Connects to one or more medium destination town (e.g. Barmah, Numurkah, Nathalia, Tocumwal)	Connects to two or more minor destination towns	Connects to one minor destination town	0.06	4	0.25	5	0.32	4	0.25	5	0.32	5	0.32	3	0.19
Diversity																			
E	Meets the following criteria: (a) increases range of trail types in the area, (b) increases the range of users in the area, (c) supports different types of activities and experiences in the area, (d) increases the range of difficulty of trails in the area	Meets all 4 of these criteria	Meets 3 of these criteria	Meets 2 of these criteria	Meets 1 of these criteria	Doesn't meet any of these criteria	0.07	5	0.37	5	0.37	5	0.37	5	0.37	3	0.22	5	0.37
F	Route provides a diversity of stimuli and experiences along it, including settings (e.g. high quality scenery, natural environment, towns, cultural heritage, rural landscape), changing topography, meandering / straight trail, location of trail (road corridor / rail corridor / river corridor)	Very high diversity of scenic quality and setting	High diversity and scenic quality and setting	Moderate diversity and scenic quality and setting	Low diversity and scenic quality and settings	No scenic quality or diversity along trail	0.07	5	0.35	4	0.28	5	0.35	4	0.28	4	0.28	5	0.35
G	Increases access to a diversity of settings, e.g. urban locations, peri urban or coastal, or bushland trails	Significantly adds to diversity of settings trails are provided in by providing a trails in the most important setting elsewhere is currently a gaps	Adds to diversity of settings trails are provided in (where major gaps)	Somewhat adds to diversity of settings trails are provided in	Adds little to diversity of settings trails are provided in	Doesn't add to diversity of settings trails are provided in	0.03	4	0.13	4	0.13	4	0.13	3	0.10	3	0.10	3	0.10
Accessibility																			
H	Adds value to, extends length (or width) of, connects, create a circuit from, or fills known gaps in existing trails or routes	Fills an identified gap, extends width and length and creates a circuit from existing trails	Extends an existing trail into a circuit from existing trails	Extends and makes a connection from an existing trail	Extends the length or width of an existing trail only	Does not fill gaps extend, create a circuit or connects existing trails	0.06	3	0.18	4	0.24	3	0.18	4	0.24	2	0.12	4	0.24
I	Provides a circuit trail or enables informal ones to be created using connections with other public land (e.g. road corridors, local / district trails)	Provides multiple circuit trails	Provides one circuit trail	Provides a point-to-point trail with multiple connections to create informal circuits	Provides a point-to-point trail with one connection to create an informal circuit	Provides a point-to-point trail with no connections or opportunities for circuits	0.03	3	0.10	3	0.10	3	0.10	3	0.10	3	0.10	3	0.10
J	Provides linkages to existing district / local trails	Provides multiple linkages to district trails	Provides one linkage to a district trail	Provides multiple linkages to local trails	Provides one linkage to a local trail	Provides no linkages	0.02	5	0.08	4	0.07	4	0.07	2	0.03	4	0.07	2	0.03
K	Number and spacing of mid-point connections required for the intended activities:																		
K1	Walking (4km; based on distance likely covered in an hour)	Accessible public land is available every 4km at the most	Accessible public land is available generally every 4km (some spacings are greater)	Public land is available generally every 4km (some spacings are greater) but access needs to be secured	Accessible public land is not available generally every 4km (some spacings are greater) but could be secured	No possibility to secure accessible public land for mid-point connections	0.03	4	0.13	5	0.17	5	0.17	3	0.10	5	0.17	4	0.13
K2	Cycling (20km; based on distance likely covered in an hour)	Accessible public land is available every 20km at the most	Accessible public land is available generally every 20km (some spacings are greater)	Public land is available generally every 20km (some spacings are greater) but access needs to be secured	Accessible public land is not available generally every 20km (some spacings are greater) but could be secured	No possibility to secure accessible public land for mid-point connections	0.03	5	0.17	5	0.17	5	0.17	5	0.17	5	0.17	5	0.17

No.	Criteria	Score					Weighting	POTENTIAL REGIONAL TRAIL (FROM SEPARATE SHEET)											
		5	4	3	2	1		D		F		G		H		M		N	
								Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score
K3	Equestrian activities (8km; based on a minimum section length)	Accessible public land is available every 8km at the most	Accessible public land is available generally every 8km (some spacings are greater)	Public land is available generally every 8km (some spacings are greater) but access needs to be secured	Accessible public land is not available generally every 8km (some spacings are greater) but could be secured	No possibility to secure accessible public land for mid-point connections	0.03	4	0.13	5	0.17	5	0.17	4	0.13	5	0.17	5	0.17
L	Ease of providing / improving trail	head (end-of-trail) and mid-point facilities to the required standard for the intended activities:																	
L1	Walking (vehicle access, car parking, public amenities, seating, shade / shelter, water)	Appropriate standard facilities already existing at appropriate distances - negligible upgrading of facilities required	Below standard facilities already existing at appropriate distances - upgrading of facilities only required	Suitable land existing at appropriate distances, but no facilities currently provided - full construction of facilities required	Suitable land available, but separation between is too great and/or inadequate facilities currently provided	None available	0.04	4	0.16	4	0.16	4	0.16	3	0.12	4	0.16	3	0.12
L2	Cycling / mountain biking (vehicle access, car parking, public amenities, seating, shade / shelter, water, area for storing bicycles)	Appropriate standard facilities already existing at appropriate distances - negligible upgrading of facilities required	Below standard facilities already existing at appropriate distances - upgrading of facilities only required	Suitable land existing at appropriate distances, but no facilities currently provided - full construction of facilities required	Suitable land available, but separation between is too great and/or inadequate facilities currently provided	None available	0.04	4	0.16	4	0.16	4	0.16	3	0.12	4	0.16	3	0.12
L3	Equestrian activities (vehicle access, car and float parking, public amenities, seating, shade / shelter, water, rail / yards for tying up horses)	Appropriate standard facilities already existing at appropriate distances - negligible upgrading of facilities required	Below standard facilities already existing at appropriate distances - upgrading of facilities only required	Suitable land existing at appropriate distances, but no facilities currently provided - full construction of facilities required	Suitable land available, but separation between is too great and/or inadequate facilities currently provided	None available	0.04	3	0.12	3	0.12	3	0.12	3	0.12	4	0.16	3	0.12
M	Existing legibility of route (e.g. accessibility, general knowledge of area, signage) and ease of improving to required standard	Very high	High	Moderate	Low	Very low	0.01	3	0.04	4	0.05	4	0.05	3	0.04	3	0.04	2	0.03
N	Adds to a range of trails accessible to people regardless of age or ability	Accessible path of travel	Path with high degree of accessibility	Reasonable degree of accessibility	Low degree of accessibility	Not accessible at all for wheeled mobility devices	0.03	2	0.06	4	0.12	3	0.09	2	0.06	3	0.09	2	0.06
Sustainability																			
O	Doesn't create major environmental impacts	No environmental impact	Unlikely to cause any environmental impacts	Possible environmental impacts	Some environmental impacts identified	Potential to cause significant environmental impacts	0.07	4	0.29	4	0.29	4	0.29	3	0.22	4	0.29	3	0.22
P	Ease of planning / extent of previous investigations	Minor planning required / detailed investigation / master planning previously undertaken	Strategic / conceptual investigation previously undertaken - more detailed planning required	Moderate planning required / previous high level / conceptual investigations, community plans, etc.	Comprehensive planning required / only informal discussions / investigations previously undertaken	Complex planning required / no previous investigations	0.01	2	0.02	5	0.05	3	0.03	1	0.01	3	0.03	1	0.01
Q	Ease of securing land (e.g. current land ownership)	Easy	Moderately easy	Moderately difficult	Difficult	Very difficult	0.05	4	0.19	4	0.19	3	0.14	3	0.14	4	0.19	3	0.14
R	Extent of works required to provide fit-for-purpose trail (e.g. extent of cut / fill, construction of appropriate surface, requirement for boardwalks and bridges, vegetation clearing, road crossings, fencing)	Insignificant works required	Minor works required	Moderate works required	Comprehensive works required	Complex works required	0.05	3	0.15	4	0.20	2	0.10	2	0.10	3	0.15	2	0.10
S	Relative ease of ongoing maintenance required (e.g. coordination of multiple land managers, land management (e.g. mowing, vegetation pruning), amount of facilities / infrastructure requiring maintenance, ease of access, sensitivity of environment, potential for flooding, etc.)	Easy	Moderately easy	Moderately difficult	Difficult	Very difficult	0.03	3	0.09	4	0.12	3	0.09	2	0.06	4	0.12	2	0.06
Stakeholder ownership / stewardship																			
T	Evidence that resources will be committed from the community, user or peak bodies to contribute to planning, design and manage the resource	High level of commitment likely from multiple stakeholders	High level of commitment likely from one stakeholder	Some level of commitment likely from multiple stakeholders	Some level of commitment likely	No commitment likely	0.05	3	0.15	3	0.15	3	0.15	2	0.10	3	0.15	3	0.15

No.	Criteria	Score				Weighting	POTENTIAL REGIONAL TRAIL (FROM SEPARATE SHEET)												
		5	4	3	2		1	D		F		G		H		M		N	
								Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score
U	Evidence the trail can be managed and constructed in partnership with another agency, user group, the landowner, or an entity established for their provision and management	Strong evidence of support from landowner / other government agency	Evidence of support from government agency	Evidence of support from multiple user groups or other entity	Evidence of support from a user group other entity	No evidence of support from an agency, user group or other entity	0.03	3	0.08	3	0.08	3	0.08	3	0.08	3	0.08	3	0.08
V	Meets a direction in an existing regional, Council and / or Community Plan	Meets direction in multiple strategies including Regional plan or strategy	Meets direction in multiple strategies including Council strategy	Meets direction in a Council strategy or plan	Meets direction in a Community plan	Does not meet any direction in any plan	0.02	5	0.08	5	0.08	5	0.08	4	0.07	4	0.07	4	0.07
W	Likelihood that the local community, local businesses and champions of outdoor recreation are / will be involved to support and promote the trail	A wide range of local and Shire-wide groups and organisations will support and promote	Both local and Shire-wide groups and organisations will support and promote	Local groups and organisations will support and promote	Possibility of local groups and organisations will support and promote	Not likely to gain support and promotion from local groups and organisations	0.02	5	0.10	5	0.10	5	0.10	4	0.08	4	0.08	4	0.08
Marketing and communication																			
X	The proposal builds on or links to existing marketing and communication programs / strategies	Aligns closely with an existing marketing and communication program / strategy	Aligns to a reasonable degree with an existing marketing and communication program / strategy	Aligns to an extent with an existing marketing and communication program / strategy	Aligns in small ways with an existing marketing and communication program / strategy	Does not align with an existing marketing and communication program / strategy	0.00	4	0.01	5	0.02	4	0.01	2	0.01	3	0.01	3	0.01
Y	Information about the route exists (on- and off-site) in relation to suitability for use by people of different abilities nature of the trail, gradients, distance, surface and degree of difficulty, etc.	Extensive off-site and on-site information	High degree of off-site and on-site information	Reasonable degree on-site information, little or no offsite information	Little on-site information	No off-site and on-site information	0.00	3	0.00	4	0.00	3	0.00	2	0.00	3	0.00	2	0.00
TOTAL SCORE								109	4.43	123	4.85	112	4.50	88	3.71	106	4.23	91	3.82
RANK									3		1		2		6		4		5

Appendix 3: Indicative Probable Costs for the Priority Trail

The following are probable indicative costs of the main works likely to be required to establish a trail between Cobram and Yarrawonga (Route F). These costs have been provided by Council. Any requirements to secure additional land for the trail corridor would be subject to detailed assessment, including property valuation.

No.	Item	Unit	Unit Cost	x	No.	Cost
1	3m wide concrete / asphalt trail (Type A Trail)	\$/m ²	\$80	3,000	2	\$480,000
2	3m wide unsealed formed trail (Type B Trail)	\$/m ²	\$12	3,000	9	\$324,000
3	1.8m wide unsealed reinforced track (Type C Trail)	\$/m ²	\$10	1,800	28	\$504,000
4	Bollards	\$	\$200	1	1,000	\$200,000
5	Signage – standard	\$/km	\$50,000	1	12	\$600,000
6	Signage – limited	\$/km	\$20,000	1	28	\$560,000
7	Pedestrian / cyclist road crossing (if required, mainly in Cobram or Yarrawonga)	\$	\$10,000	1	3	\$30,000
8	Small bridge (waterway crossing) (if required)	\$	\$50,000	1	1	\$50,000
9	Small culvert (drainage line crossing) (if required)	\$	\$10,000	1	4	\$40,000
10	Sealed car parking area (e.g. 20 spaces)	\$/m ²	\$63	600	2	\$75,600
11	Unsealed car parking area (e.g. 10 spaces)	\$/m ²	\$25	300	7	\$52,500
12	Trail head facility, consisting of 4 x shelters, 4 x tables, 12 x seats, 2 x BBQs, 100m ² turf & moderate landscaping (if new or improved facilities are required)	\$	\$81,800	1	1	\$81,800
13	Mid-trip facility – enhanced, consisting of 2 x shelters, 4 x tables, 12 x seats, 20m ² turf & minor landscaping (if new or improved facilities are required)	\$	\$43,840	1	5	\$219,200
14	Mid-trip facility – basic, consisting of 1 x table, 3 x seats & minimal landscaping (if new or improved facilities are required)	\$	\$8,600	1	2	\$17,200
15	Small viewing platform	\$	\$10,000	1	4	\$40,000
16	Bicycle storage (e.g. 5 bicycles)	\$	\$1,000	1	8	\$8,000
17	Public amenities (if required at trail heads)	\$	\$75,000	1	2	\$150,000
Contingency (20%)						\$674,460
TOTAL						\$4,106,760