



**Macedon  
Ranges**  
Shire Council

# Woodend - Macedon - New Gisborne - Riddells Creek Shared Trails Feasibility Report

28 August 2019



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## Acknowledgements

This report, Woodend – Macedon – New Gisborne – Riddells Creek Shared Trails Feasibility Report, was prepared by TRC Tourism Pty Ltd for the Macedon Ranges Shire Council.

## Disclaimer

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## Document Register

Version	Report	date
V2	Trail Feasibility Report	14/08/18
V3	Trail Feasibility Report	3/10/18
V4	Trail Feasibility Report	27/11/18
V5	Trail Feasibility Report	28/08/19



# EXECUTIVE SUMMARY

## The Experience

The Woodend - Macedon - New Gisborne - Riddells Creek experience is proposed as a combined rail trail shared use and commuting trail experience linking rural landscapes, towns, heritage and the community. This study explores and makes recommendations for the best options for shared use trails between Woodend and Macedon and through to New Gisborne and Riddells Creek.

## Guiding Principles

- 1 The Woodend to Macedon and through to New Gisborne and Riddells Creek experience will become a distinctive brand for community and visitor trails within one hour of the Melbourne CBD.
- 2 The trails will contribute strongly to community spirit and wellbeing by being fun, enjoyable and safe and well used by visitors and locals of all ages and popular with children. The trails will encourage a culture of shared use similar to other successful Victorian low volume shared use trails<sup>1</sup>.
- 3 The shared use trail will provide the links and connections to future Macedon Ranges trails and will ensure visitors and the local community (including commuters) are well served with good trails.
- 4 Safety and the comfort of all trail users will be fundamental to the experience and will be evidenced by an increase in trail use for recreation, tourism and commuting by users of all ages and ability.
- 5 Trail experiences will be designed to encourage shared, low volume cycling, walking and running across a range of abilities and suitable for all bike types and will be asphalt capped where possible. Trail routes will be planned off roads where possible with great trail experiences being the priority.
- 6 The management, maintenance, marketing and information services for the trail will be facilitated through an effective and sustainable management model. Trails will protect, enrich and contribute to regional biodiversity.

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<sup>1</sup> [www.ridehighcountry.com.au/rail-trails/murray-to-mountains](http://www.ridehighcountry.com.au/rail-trails/murray-to-mountains)

## Target Markets

Demand for trails is predominantly driven by tourism (nature based and adventure), physical activity and as a way for people to commute. Trail based events are becoming increasingly popular, while public awareness campaigns focused on health and wellbeing are likely to continue to promote active living (Tourism Victoria 2014).<sup>2</sup>

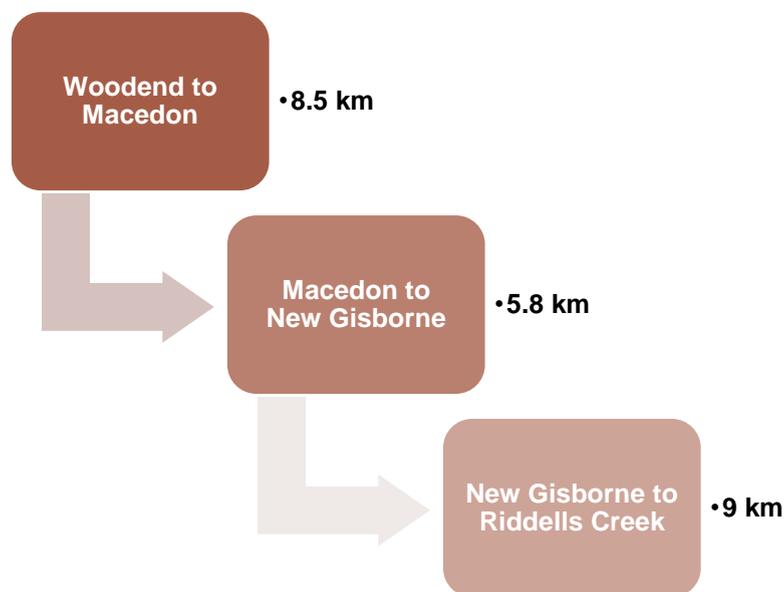
Boosting the number of people, walking, running and cycling will be key to making the Macedon Ranges neighbourhoods more vibrant and result in healthier Victorians. The Woodend to Macedon and through to New Gisborne and Riddells Creek shared use trails aim to get more people on bicycles by delivering a safer, lower-stress, better-connected network and by building a more inclusive cycling culture.

## Woodend - Macedon and through to New Gisborne and Riddells Creek Trail

The Woodend - Macedon - New Gisborne - Riddells Creek experience is proposed as a shared use trail experience linking rural landscapes, towns and heritage. The experience will link to events, schools, businesses and local food and produce and can be undertaken as a short ride or as an overnight riding experience staying at accommodation within the Macedon Ranges.

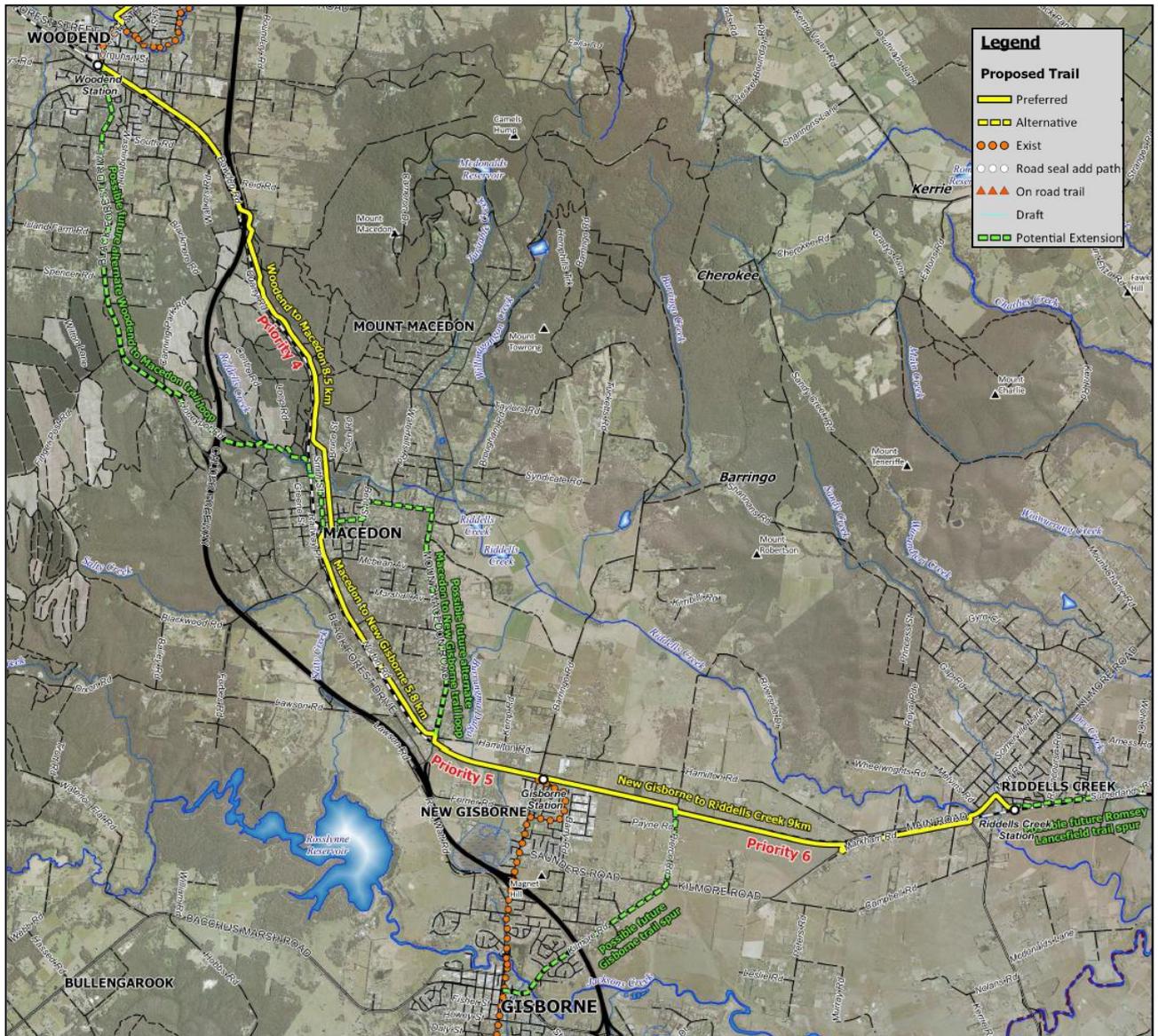
The trails are strongly linked to the local community's priorities of enjoyable, safe, recreation, commuting, fitness and social trail experiences and provide strong links to existing and future connecting trails.

The trails will ensure future strong links between and within the towns and important services such as schools with many step on and step off opportunities. The trails will be developed to encourage a wide range of users through wide asphalt shared paths with an open and flowing nature that links the user with landscape features.



<sup>2</sup> Regional Development Victoria – Loddon Campaspe Regionally Significant Trails Strategy 2018-2023

**Figure 1.** Overview of Trail - Woodend to Riddells Creek



## Infrastructure

The shared trail routes will have a clear objective to reduce interaction between cyclists and walkers and vehicles as much as possible.

Separation between cyclists and motor vehicles offers the prospect of safer, lower-stress and more direct journeys<sup>3</sup>.

The main infrastructure will be the shared use trail. The choice of trail width is generally based on the level and type of use that could be expected and the relationship between cyclist operating speed, volumes of pedestrians

<sup>3</sup> Victorian Cycling Strategy 2018-28

and cyclists, and mix of pedestrians and bicycles. A 3.0 metre wide path (rather than wider) is recommended as unlike urban commuter trails path speeds are less important and higher speeds are counter-productive e.g. not encouraging inexperienced and new cyclists and other walkers and runners.

Toilets, rubbish bins, doggy bags and drinking water will be available in each of the townships being less than 10 kilometres apart.

The trail will for the majority of the journey be within the active rail corridor on purpose built 3.0 metre wide asphalt paths providing opportunity for a wide range of users including recreational cyclists, walkers, runners, scooters, wheelchairs and goffers.

Whilst the recommended trail surface is 3.0 metre wide asphalt, the most suitable surface material and width in some sections of the trail may differ due to the particular requirements of that section, which will be determined at detailed design.

**Indicative Infrastructure Costs |  
Woodend to Macedon Middle Gully Road Option | 8.5 km**

**Total \$3,349,733  
Annual Maintenance \$66,995**

**Indicative Infrastructure Costs |  
Macedon to New Gisborne Preferred routing via Norton Rd 5.8km**

**Total \$2,289,335  
Annual Maintenance \$45,787**

**Indicative Infrastructure Costs |  
New Gisborne to Riddells Creek Route begins at New Gisborne Station 9km**

**Total \$4,115,185  
Annual Maintenance \$82,304**

**Total Project Cost \$9,754,253\*\* GST Exclusive**

**Estimated annual maintenance \$195,085**

\*\* Based on 2021 figures, future anticipated cost should factor in 3% annual rise

## Strategic Considerations

- *Victoria's Regional Statement sets out the government's commitments to rural and regional Victoria. Tourism presents exciting opportunities for regions to promote public transport as a way of visiting popular destinations for weekend getaways and family holidays, accessing rail trails, and attending regional events.*
- *The Victorian Government is seeking to prioritise investment in strategic cycling corridors with the current and potential highest levels of demand, in essence providing arterials for people who cycle for transport. They will be within and outside road reserves, on local and state roads, and will be designed to maximise the separation of cyclists and motor vehicles.*
- *Transport for Victoria, through its Active Transport Victoria unit, will work with councils and state government agencies to deliver the strategy, ensuring cycling investments are coordinated and have maximum effect<sup>4</sup>.*
- *The proposed Woodend – Macedon – New Gisborne – Riddells Creek shared trail is strongly linked and connected to the Daylesford to Hanging Rock Rail Trail experience identified in the Loddon Campaspe Regionally Significant Trails Strategy as a priority development.*

*The Council chose the themes 'Liveability, Efficiency and Sustainability', as priorities for the future reflecting the community's wishes for these themes to be considered in everything the Council will do. The Council Plan has five main priorities:*

- *Promote health and wellbeing*
- *Protect the natural environment*
- *Improve the built environment*
- *Enhance the social and economic environment*
- *Deliver strong and reliable government*

*The planning for the Macedon Ranges Shared Trails considered these priorities with a strong focus on contributing to participation in recreation and leisure by providing enjoyable, comfortable and safe physical activity opportunities across the municipality<sup>5</sup>.*

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<sup>4</sup> Victorian Cycling Strategy 2018-28

<sup>5</sup> Council Plan 2017–2027, Macedon Ranges Shire Council, Gisborne Victoria

## Next steps

- High level project feasibility assessment and consultation are now complete.
- State and Federal Government funding support is required to advance.
- Once funded the project is ready to move to more detailed design and implementation.
- Detailed design phase will include further land manager and land owner consultation.



IMAGE 1 - VIEWS OF THE PROPOSED TRAIL AT WOODEND

# 1 Introduction

The Macedon Ranges Shire Council is seeking to develop enjoyable, user focussed and safe walking and cycling opportunities for the Shire. This includes rail trails and shared use trail links between the major towns in the region.

This Trail Feasibility Study is the second of two studies. The first study is the Daylesford (Tylden) to Woodend, Kyneton and Hanging Rock trail.

This study explores and makes recommendations for the best options for shared use trails between Woodend and Macedon and through to New Gisborne and Riddells Creek.

The Trail Feasibility Study provides realistic components to meet the criteria for funding by State and/or Federal Governments. The Feasibility Study details the benefits and preferred route for future shared trail links between Macedon Ranges communities.

The Trail Feasibility Study is a high level feasibility analysis as being fully funded by Council it was not possible to fund the extent of detailed investigations required. The majority of more detailed investigations and considerations will occur at detailed design phase once funded either as an entire trail or more likely in stand alone sections.

The trail routes focus on the needs of the users making them fun, enjoyable and as safe as possible. The trail alignments have considered engineering requirements, environmental approvals, cultural heritage and the important considerations of the local community.

Visitors have been well catered for by securing the best alignments for cycling, walking and running between the Shire's communities and attractions.

The Macedon Ranges Shire Council Plan 2017 – 2027 has outlined the key priorities for investing in services and facilities that reflect the vision for the Shire, the community and the future. The feasibility study links strongly to the Shire's future with a focus on improving public health and wellbeing and good decision-making.

The attractive historic towns in the area provide special destinations for cyclists and other trail users and are a significant component to the overall trail and visitor experience.

The Feasibility Study presents the results of research, consultation and analysis drawn together and presented in the form of a cycling and trail experience management framework.

This Feasibility Study draws together the results of consultation, analysis of socio-economic benefits and the development of concepts. It includes recommendations represented in a concise, action-orientated document suitable for dissemination to Council and stakeholders.

An important component of this study is the initial engineering safety advice to ensure the options proposed conform to National Road Safety Strategy Priorities, Standards, legislation and policy.

The objectives, policies and provisions of the *Macedon Ranges Planning Scheme 2018* including special planning controls (known as overlays) have been considered.

The study area includes significant vegetation areas and places of special heritage significance including those protected under the *Heritage Act 2017* and under the stewardship of Heritage Victoria. These important features have been recognised and considered in the planning and siting of the trail. Where required a permit application process will be undertaken.

The Feasibility Studies includes the results of discussions with agencies that have management responsibility for the active rail corridor (VicTrack and VLine) and the road network (Vic Roads and Macedon Ranges Shire Council).

A public exhibition process of the draft studies was undertaken and feedback was invited from land management authorities, adjoining land owners, stakeholder groups and the general community.

As a result, 47 written submissions were received and 378 online surveys completed, 95% of survey respondents were in support of the development of shared trails in the Macedon Ranges.

Feedback received during the public exhibition of the draft studies was valuable in informing the final studies.

The Feasibility Studies are produced at a level that enables trail sections to be ‘project ready’ for State and Federal Government funding. Once trail sections are funded detailed design will happen inclusive of detailed engineering, cultural heritage, environmental and other considerations. Additional consultation with adjoining landowners will also take place to address any outstanding concerns.



IMAGE 2 - EXAMPLE OF TRAIL HEAD / ROAD CROSSING INFRASTRUCTURE ON THE MURRAY TO MOUNTAINS RAIL TRAIL

## 2 The Task

The Macedon Ranges Shire Council is one of Victoria's fastest growing non-metropolitan municipalities situated 40 minutes by car north-west of Melbourne in an area rich in beauty and character. The population of the Shire in 2017 was 47,850 and is projected to grow to 64,902 by 2036. The major population centres are Gisborne, Kyneton, Lancefield, Macedon, Mt. Macedon, Riddells Creek, Romsey and Woodend.

The Macedon Ranges community has increasingly sought the provision of safe walking and cycling opportunities and the Shire has responded with a key action of the recently completed Council Plan 2017-2027 to *"invest \$1.1M in planning, renewing and building new footpaths and cycling paths to improve access and community connections"*.

A TRC Tourism team has been appointed to investigate and consider various options to develop the preferred and realistic costed options. The options will include the support and in-principle approval of land management authorities and will have factored in cultural heritage, environmental and other relevant considerations.

This Trail Feasibility Study provides the next step towards providing improved cycling, walking, running and community connections for Macedon Ranges residents and visitors.

The Woodend to Macedon, New Gisborne and Riddells Creek experience is proposed as a combined rail trail shared use trail experience linking rural landscapes, towns and heritage through Woodend, Macedon, New Gisborne and Riddells Creek. The experience will encourage cycling, walking and running and increase trail use for recreation, tourism and commuting by users of all ages and abilities.

### 2.1 Critical factors for success

Successful trails offer visitors and residents a distinctive and encouraging experience - something special and different from other places. They offer experiences that:

- Have a clear positioning that provides a compelling message for the market
- Showcase distinctive natural or cultural landscapes and enable users to interact with nature, local people and culture
- Are linked experiences that include character and variety and encourage use by a wide range of users including new users
- Offer ways for visitors to immerse themselves in landscape and activity through off road free flowing trail experiences.

Specifically, great trail based experiences:

- Offer diversity in experience and environment
- Have limited overlap with busy roads and visitor nodes
- Feature trails designed to match the experience and purpose
- Showcase a point of difference from other products
- Provide day cycling experiences up to 50 kilometres
- Promote sustainability and protect and enrich the environment.

## 2.2 Creating a distinctive experience

The following draft Ambition Statement, Positioning Statement and Guiding Principles are proposed as a guide to the development of the trails:

### 2.2.1 Ambition Statement

Macedon Ranges Trails is an integrated cycling experience, connecting the best of destination, community, nature and culture. The Ambition encompasses:

► **The Woodend – Macedon – New Gisborne – Riddells Creek Trail**

◀ is the description of the offer, which helps to reinforce that it is more than just a shared use rail trail as it has strong links to attractive towns, unique destinations and represents exploration and mild adventure.

► **Is an integrated cycling experience**

◀ tells us that the experiences linked across the landscape provide enjoyable, fun, safe and practical recreational visitor and commuter activity that meets the expectations of locals and visitors and encourages use.

► **Connecting the best of nature, culture and community**

◀ through opportunities presented by the region’s unique landscape, natural and heritage features, growing local product and proximity (50 minutes) from Australia’s fastest growing capital city. <http://www.abs.gov.au/ausstats>

### 2.2.2 Positioning Statement

Macedon Ranges Trails: Engage with the landscape, attractive historic heritage towns and destinations and link communities through safe, enjoyable and spirited trails. The Positioning encompasses:

► **Engaging with the landscape**

◀ reinforces that the Macedon Ranges Trails are more than just a physical adventure and a way for people to get around. The trails offer engagement with the rural landscape and heritage towns from the historic rail corridor.

► **Immersing yourself in heritage and attractive rural towns**

◀ the historic trail provides the corridor and links across rural landscape to the rural towns of Woodend, Macedon, Newgisbornme/Gisborne and Riddells Creek.

► **Linking the community through safe, enjoyable and spirited trails**

◀ whether a visitor or local the Macedon Ranges Trails engage the rider, walker or runner into the spirited community of the Macedon area through trails that welcome all and strengthen the ties between the people and the community.

The goal will be to create a shared trail experience that delivers on this positioning.

## 2.3 Guiding Principles

1	The Woodend – Macedon – New Gisborne – Riddells Creek Trail experience will become a distinctive brand for community and visitor trails within one hour of the Melbourne CBD.
2	The trails will contribute strongly to community spirit and wellbeing by being fun, enjoyable and safe and well used by visitors and locals of all ages and popular with children. The trails will encourage a culture of shared use similar to other successful Victorian low volume shared use trails <sup>6</sup> .
3	The shared use trails will provide the links and connections to future Macedon Ranges towns trails and will ensure visitors and the local community (including commuters) are well served with good trails.
4	Safety and the comfort of all trail users will be fundamental to the experience and will be evidenced by an increase in trail use for recreation, tourism and commuting by users of all ages and ability.
5	Trail experiences will be designed to encourage shared, low volume cycling, walking and running across a range of abilities and suitable for all bike types and will be asphalt capped. Trail routes will be planned off roads where possible with great trail experiences being the priority.
6	The management, maintenance, marketing and information services for the trail will be facilitated through an effective and sustainable management model. Trails will be designed to protect, enrich and contribute to regional biodiversity.

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<sup>6</sup> [www.ridehighcountry.com.au/rail-trails/murray-to-mountains](http://www.ridehighcountry.com.au/rail-trails/murray-to-mountains)

# 3 Target Markets

Demand for trails is predominantly driven by tourism (nature based and adventure), physical activity and as a way for people to commute. Trail based events (such as races and mountain biking competitions) are becoming increasingly popular, while public awareness campaigns focused on health and wellbeing are likely to continue to promote active living (Tourism Victoria 2014).<sup>7</sup>

Boosting the number of people, walking, running and cycling will be key to making the Macedon Ranges neighbourhoods more vibrant and result in healthier Victorians. The Macedon Ranges shared use trails aim to get more people on bicycles by delivering a safer, lower-stress, better-connected network and by building a more inclusive cycling culture.

The Macedon Ranges shared use trails will include initiatives that result in more direct, separated (from vehicles) cycle paths to link the towns and important destinations, like workplaces, schools and public transport stops.

The Victorian Cycling Strategy (2018-28) informs us that about 60 percent of Victorians are curious about cycling but are deterred by real or perceived safety concerns. Women, children and seniors are far fewer than the typical cyclist, who is male and under 45. A majority of Victorians have real and perceived safety concerns that put them off cycling. An approach to better separate pedestrians, bicycles and motor vehicles, reducing the need for cyclists to mix with other road users will encourage those curious about cycling to get on board<sup>8</sup>.

Initial community consultation indicated that there is real concern for cyclists particularly children on Macedon Ranges roads whilst there is a strong desire for these kids to be cycling.

## The Four Types of Cyclists

People can be grouped into four types according to their cycling attitudes and behaviours, according to a study by the City of Portland USA and applicable here. This is based mainly on their level of comfort when cycling and their interest in or intent to cycle for transport. This study is used internationally (including in Australia) to better understand people’s propensity to cycle and what can be done to encourage them. <sup>9</sup>.

The four cycling attitude types include:

<p><b>1. Strong and Fearless</b></p> <ul style="list-style-type: none"> <li>• People willing to bicycle with limited or no bicycle-specific infrastructure.</li> </ul>	<p><b>2. Enthused and Confident</b></p> <ul style="list-style-type: none"> <li>• People willing to bicycle if some bicycle-specific infrastructure is in place.</li> </ul>	<p><b>3. Interested but Concerned</b></p> <ul style="list-style-type: none"> <li>• People willing to bicycle if high-quality bicycle infrastructure is in place.</li> </ul>	<p><b>4. No Way, No How</b></p> <ul style="list-style-type: none"> <li>• People unwilling to bicycle even if high-quality bicycle infrastructure is in place.</li> </ul>
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The largest group, and group most likely to use the trails, are the *interested but concerned cyclists* whom vary in age and cycling ability. They are curious about cycling and like to ride but are afraid to do so and are put off by the need to ride close to motor vehicles and pedestrians, especially on higher-speed, higher-volume roads or where conflicts are more likely.

<sup>7</sup> Regional Development Victoria – Loddon Campaspe Regionally Significant Trails Strategy 2018-2023

<sup>8</sup> Victorian Cycling Strategy 2018-28

<sup>9</sup> Victorian Cycling Strategy 2018-28

This indicates that investment in cycling infrastructure to make it safer and lower-stress is worthwhile to encourage interested but concerned people to cycle<sup>10</sup>.

People are more inclined to cycle when they see it as something a diverse range of people do and when they feel accepted. Participants in the consultation for the Victorian Cycling Strategy (2018-28) thought the attitudes and behaviours of cyclists and other road users would improve if they saw women, children, seniors and people from other underrepresented groups cycling. To attract a more diverse range of people to cycling, it's important to make cycling a more comfortable experience. Separating cyclists and motor vehicles makes cycling more comfortable by reducing traffic stress<sup>11</sup>.

E-bikes will become more popular over the next decade, as they counteract barriers to cycling such as hilly terrain and longer distances. E-bikes may also suit people who have stopped cycling because of injury, illness or age. This is particularly important for Victoria's ageing population.

The Macedon Ranges trail experience has the potential to attract users interested in new experiences, exploring new places through day trips, weekends away, or for local people commuting to work, school or sport or for enjoyment, recreation and fitness. With a variety of trails, support services and complementary activities in the region families and less experienced riders will be encouraged to get involved in cycling and the trails will be a feature for walking running and events. Trails need to be specifically designed to encourage children and young people to use trails and for parents and care givers to be confident in having children use the trails. The community will be encouraged to develop a culture of trail use and less reliance on motor vehicles.



IMAGE 3 & 4 – 3 METRE ASPHALT PATHS ENCOURAGE A RANGE OF USERS (MURRAY TO MOUNTAINS TRAIL)

<sup>10</sup> Source: Roger Geller, *Four types of cyclists*, City of Portland Oregon <https://www.portlandoregon.gov/article/15472>

<sup>11</sup> Victorian Cycling Strategy 2018-28

### 3.1 Insights into the cycling target markets

The trails will cater for a range of cycling target markets to varying degrees including:

Social trail riders	Active retirees, Middle Aged Men In Lycra (MAMILs), or 55+ market	Endurance trail rider	Interested, curious but concerned people	Commuters
<ul style="list-style-type: none"> <li>A mixture of age groups - from young to older. They ride with groups of friends or family, and look for day or overnight trips. They generally ride up to 50km / day on easy - moderate terrain. Seeking challenge but nothing risky or extreme. Sense of adventure and achievement is important. Scenery and points of interest are very important. They require good information online and in print, rustic to mid-range accommodation for overnight trails. This group are interested in experiencing cafes, cellar doors, historic sights and small towns / villages along the way, and they like to showcase their activities on social media.</li> </ul>	<ul style="list-style-type: none"> <li>Groups of working or semi-retired men. They participate in regular social riding activities and like 'bragging rights' associated with their activities. Enjoy a mix of riding, sightseeing and other activities. Budget - mid level accommodation with quality dining options. Will participate in events and offer potential for repeat visitation.</li> </ul>	<ul style="list-style-type: none"> <li>in the age group of 22-50, predominantly male and higher income groups. They have a strong interest in challenging terrain, steep climbs and descents. They will ride long distances, up to 75km / day and are compatible with multi-day experiences. They may complete more than one segment of a multi day ride per day, depending on conditions. This group will travel to destinations that offer quality experiences and will spend on riding experiences and equipment.</li> </ul>	<ul style="list-style-type: none"> <li>wishing to bicycle if high-quality bicycle infrastructure is in place, interested in exploring new places through day trips, weekends away or for local people commuting to work, school or sport or for enjoyment, recreation and fitness. Often women, children, seniors and people looking for a variety of trails, support services and complementary activities in the region that will encourage these people to get involved in cycling</li> </ul>	<ul style="list-style-type: none"> <li>Victorians who cycle to work, school and sport or for enjoyment or have limited transport options. While the number of people cycling to work is low compared with the number using other modes of transport, work journeys are typically the longest journeys we take. These current and potential users will be looking for a variety of trails between towns in the region and will be encouraged to continue and develop further into cycling, walking, running and being involved in events.</li> </ul>

## 3.2 Macedon Ranges Tourism Demand Analysis

### 3.2.1 The Region

The demand for trails is predominantly driven by tourism (nature based and adventure), physical activity and as a way for people to get around. The previous section focussed on encouraging use particularly by the local community. Macedon Ranges, due to its proximity to Melbourne, is popular with a range of visitors, it should be noted however that much of the visitor analysis described here combines both the Daylesford & Macedon Ranges, as Daylesford is also a well-known attractor to the area.

Accessible by car or train from Melbourne in less than one hour, the Macedon Ranges are a taste of country Victoria. The towns and villages in this region offer community markets, culinary experiences, parklands and gardens, historic architecture, wineries, art and culture, gold-rush heritage, spa and well-being experiences, together with outdoor activities such as walking and cycling.

The region is well known for the iconic Hanging Rock which has been featured in both print and film and is a significant place for local indigenous people. Autumn creates an explosion of colour in the Macedon Ranges and is a popular time for visitors to the region.

The main towns and villages that make up the Macedon Ranges are Gisborne, Kyneton, Lancefield, Macedon, Malmsbury, Mount Macedon, Riddells Creek, Romsey and Woodend.

## 3.3 Attractions

TripAdvisor 'Top 10 Things To Do' in Macedon Ranges are a mixture of nature based activities and other attractions and include:

1. Hanging Rock Reserve
2. Mount Macedon
3. Piper Street, Kyneton
4. Edgar's Mission
5. Mount Macedon Memorial Cross
6. Forest Glade Gardens
7. Woodend Children's Park
8. Gisborne Peak Winery
9. Paramoor Winery
10. Gisborne Olde Time Market

### 3.4 Cycling

The Macedon Ranges Ride Guide already features 16 trails (on and off-road) that are suitable for a wide range of ages and abilities. Wombat State Forest offers over 100km of single track trails for mountain biking. Bike riding experiences do appeal to a smaller, more niche market, but would still increase visitation to the region.<sup>12</sup>

Demand for trails is predominantly driven by tourism (nature based and adventure) and physical activity. Trail based events (such as races and mountain biking competitions) are becoming increasingly popular, while public awareness campaigns focused on health and wellbeing are likely to continue to promote active living (Tourism Victoria 2014).<sup>13</sup>

The Macedon Ranges Visitor Economy Strategy 2019-2029<sup>14</sup> suggests that the region is already known as a cycle friendly destination and that there is a need for local businesses to understand the needs of cyclists and modify their current offering to meet these. A lack of formalised cycling trails was identified, including no link between Woodend and Hanging Rock. Investment into mountain bike trails and endorsement of more mountain bike trails was recommended, to bring the quality of the Macedon Ranges cycling options up to the level of other cycling destinations.



IMAGE 5 - PROPOSED TRAIL ALIGNMENT BETWEEN ROADS AND RAILWAY LINE

<sup>12</sup> Colmar Brunton – Daylesford & Macedon Ranges RTB - Market Research and Gap Analysis – May 2015

<sup>13</sup> Regional Development Victoria – Loddon Campaspe Regionally Significant Trails Strategy 2018-2023

<sup>14</sup> Macedon Ranges Visitor Economy Strategy 2019-2029

### 3.5 Equestrian

Equestrian usage of the Woodend - Macedon - New Gisborne - Riddells Creek Shared Trails has been considered as part of this feasibility study, however due to the narrowness of the available corridor and close proximity to active railway and roads in several locations on these routes, it is not proposed to cater for horse riding along these trail sections.

Rather the proposed “rail trail” section from Carlsruhe to Daylesford has been identified as being better able to provide for a safer horse riding experience. Further consideration of equestrian usage for this section of trail will occur during detailed design.

Whilst several informal horse riding trail opportunities currently exist in the Macedon Ranges, one of the short term priorities recommended in Council’s Sports and Active Recreation Strategy 2018-2028<sup>15</sup> is for Council to facilitate an *Equestrian Facilities Plan* in conjunction with equine clubs, groups and associations to determine amongst other things, opportunities to establish safe trail riding locations in collaboration with other land management agencies.

The Macedon Ranges Shared Trails Feasibility Studies supports this approach.

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<sup>15</sup> Macedon Ranges Sports and Active Recreation Strategy 2018-2028

## 4 Visitor Profile

Key visitor demographics and travel behaviour reviewed in the Macedon Ranges Visitor Economy Strategy 2019-2029<sup>16</sup>, provide some insights into existing market segments that are likely to be expanded from the development of the trails. In particular, the nature based offering catering for bush walking and the previously mentioned current cycling activities will be enhanced. Other market segments identified include:



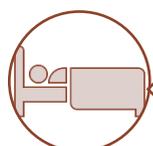
Holiday daytrip visitors dominate the market (46%), but are underrepresented in the domestic overnight (24%) and international (17%) markets



The VFR market is highly significant to the region, representing a high proportion of international (62%) overnight (51%), and daytrip (33%) visitors



There is a lower proportion of holiday overnight visitors as compared to regional Victoria, which may be driven by the region's proximity to Melbourne



Overnight domestic and international travel is dominated by adults travelling alone or in couples



Older visitors/retirees 65+ years were a key market segment across all three visitor markets (daytrip, overnight and international), representing more than 20% of visitors across each



The Macedon Ranges nature based offering was a key attractor with 'bushwalking/ rainforest walks' one of the top 6 activities for domestic visitors



The region attracted a high proportion of traditional western markets (UK, NZ and USA) and captured less of the emerging growth markets which are aligned to the regions strengths (such as China and India)



12% of day trip visitors fell in the highest household income bracket (\$200,000+)

<sup>16</sup> Macedon Ranges Visitor Economy Strategy 2019-2029

# 5 The Experience

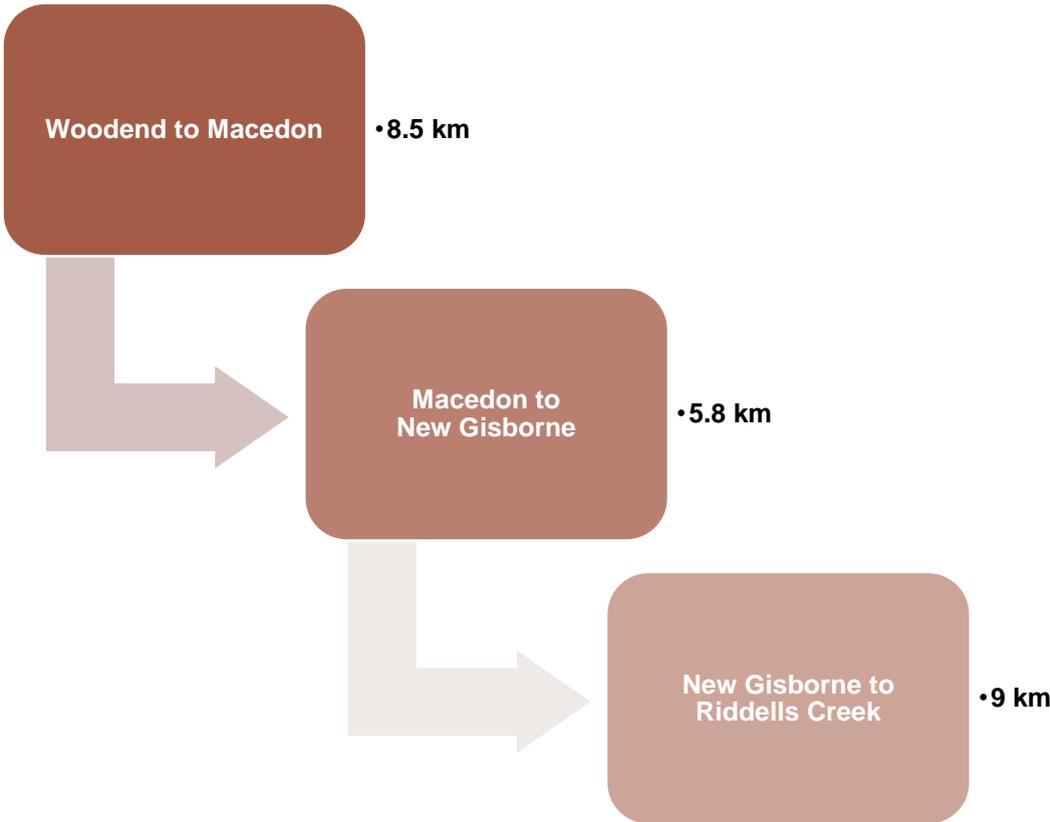
## 5.1 The Trail

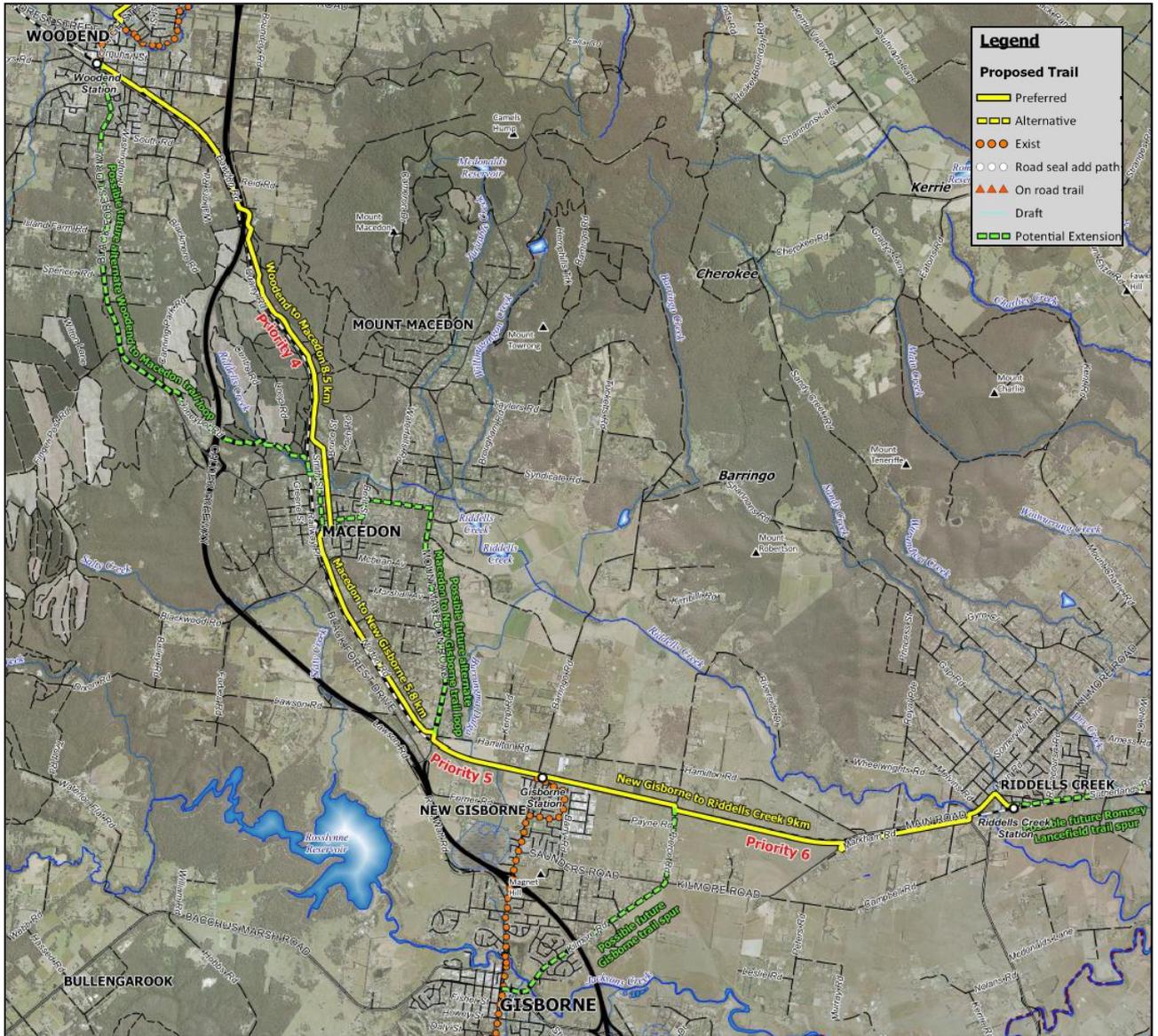
The Woodend – Macedon – New Gisborne – Riddells Creek experience is proposed as a shared use trail experience linking rural landscapes, towns and heritage. The experience will link to events, schools, businesses and local food and produce and can be undertaken as a short ride or as an overnight riding experience staying at accommodation within the Macedon Ranges.

The trails are strongly linked to the local community’s priorities of enjoyable, safe, recreation, commuting, fitness and social trail experiences and provide strong links to existing and future connecting trails.

The trails will ensure future strong links between and within the towns and important services such as schools with many step on and step off opportunities. The trails will be developed to encourage a wide range of users through wide asphalt shared paths with an open and flowing nature that links the user with landscape features.

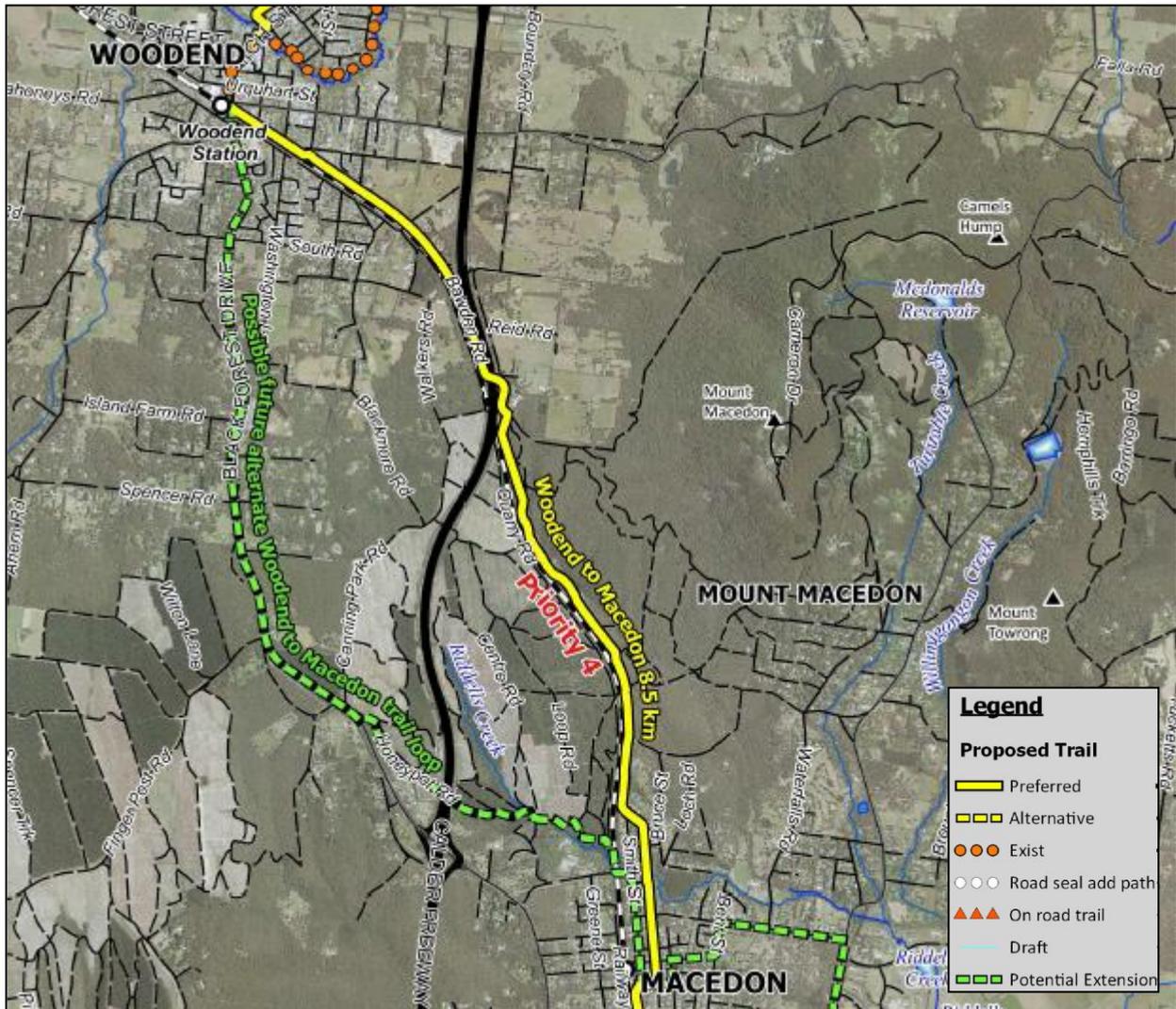
### 5.1.1 Woodend - Macedon - New Gisborne - Riddells Creek shared path





MAP 1 - OVERVIEW OF WOODEND - MACEDON - NEW GISBORNE - RIDDELLS CREEK SHARED TRAILS

## 5.1.2 Woodend to Macedon



MAP 2 - WOODEND TO MACEDON

Recommended Shared Trail Route Investigation	Assessment Against Principles and Shared Trail Criteria
<p>Woodend to Macedon via Middle Gully Rd 8.5km. Uses transit corridor primarily to east of Calder Freeway to create new purpose-built trail with available land (often where informal trails already exist) adjacent to VLine live rail, or use roads (verge and surface alterations required) or mix of both.</p> <p>Macedon approach via Smith Rd or off road via existing dirt walking track sited parallel to VLine railway. Terminus at Macedon Railway Station.</p> <p>This section of trail has been identified as development priority 4 of 6.</p>	<p>This route focus on commuter, recreation cycling and tourism cycling with good node to node distance and user experience for walker/runner and recreation.</p> <p>Directly links Woodend and Macedon with eastern cycling and nature trails precinct (Macedon Regional Park) also appeal to runners/walkers to encourage activity and use.</p> <p>Allows linking to Mount Macedon community/attractions via Bawden Road.</p> <p>Provides best active recreation and natural landscape user experience and links several significant features (historical tunnel sites, Old Scout Camp, reservoirs).</p>

Recommended Shared Trail Route Investigation	Assessment Against Principles and Shared Trail Criteria
	<p>Provides significantly increased rider safety via lessened exposure to high speed traffic with the potential for majority of new build off-road trail. Focus on major cycling commuter trail with related infrastructure and upgrading of existing informal tracks/trails.</p> <p>New trail build would allow for significant lessening of some existing gradient pinch points adjacent to road. There is sufficient spacing between live rail and potential alignment for the entire length and this would create a more 'remote' and less urban route compared with Old Calder Freeway option.</p>

### Recommended Route

This preferred route ensures improved experiences for a wide range of users including; commuters, recreation and tourism cyclists (with good distance between trail heads), walkers, runners and wheel chair and gofer users.

The trail begins in open space across from the Train Station at Woodend Centenary Plantation stone marker (1934) with on road link to Campaspe Park / Five Mile Creek Trail accessing the centre of town (via Bowen Street).

The route follows an existing grass/dirt trail alongside (at distance) VLine live rail (northern side). Skirting behind houses on informal dirt trails (walk/4WD/service road), the route links up to Bawden Road heading south east. Potential to use road or preferred new trail build on current informal trails sited between Bawden Road and VLine live rail. This section by being to the east of Bawden Road avoids any potential impact on the Black Gum vegetation community. Bawden Road is dirt and sealed in sections.

Remaining on the north eastern side of the railway line, the route tracks Bawden Road, underneath the Calder Freeway Bridge. Coming under the Calder bridge, the road climbs gently, but on a sweeping bend. Barrier required if trail remains on southern side of road.

The route then crosses into Parks Victoria (Macedon Regional Park) as it picks up trails and eventually a road that assists the route to avoid a deep and steep gully on Middle Gully Rd. The route then re-joins Middle Gully Road.

The route traces Middle Gully Road (could be new build adjacent between Middle Gully Rd and VLine live rail or on road proper (dirt). The route passes several feature points including Kitty English Reservoir and Frank Mann Reservoir, and several old stone tunnels of note before arriving at the Old Scout Camp Site.

Between the Calder Freeway underpass and the Scout Camp site, there are several existing, signposted off road cycle trailheads (Macedon Regional Park Cycling Trail).

As the route nears Macedon outskirts the preferred route is along Campey Road to the extension of Bruce Street into the bush. Bruce Street then passes through Macedon back streets towards Victoria Street where the main trail turns right to meet up with trails between Smith Street and Norton Road and VLine or a route terminus at Macedon Railway Station.

Six different sections of shared trails were investigated as part of the Macedon Ranges Shared Trails Feasibility Studies, the Woodend to Macedon section has been identified as development priority 4.

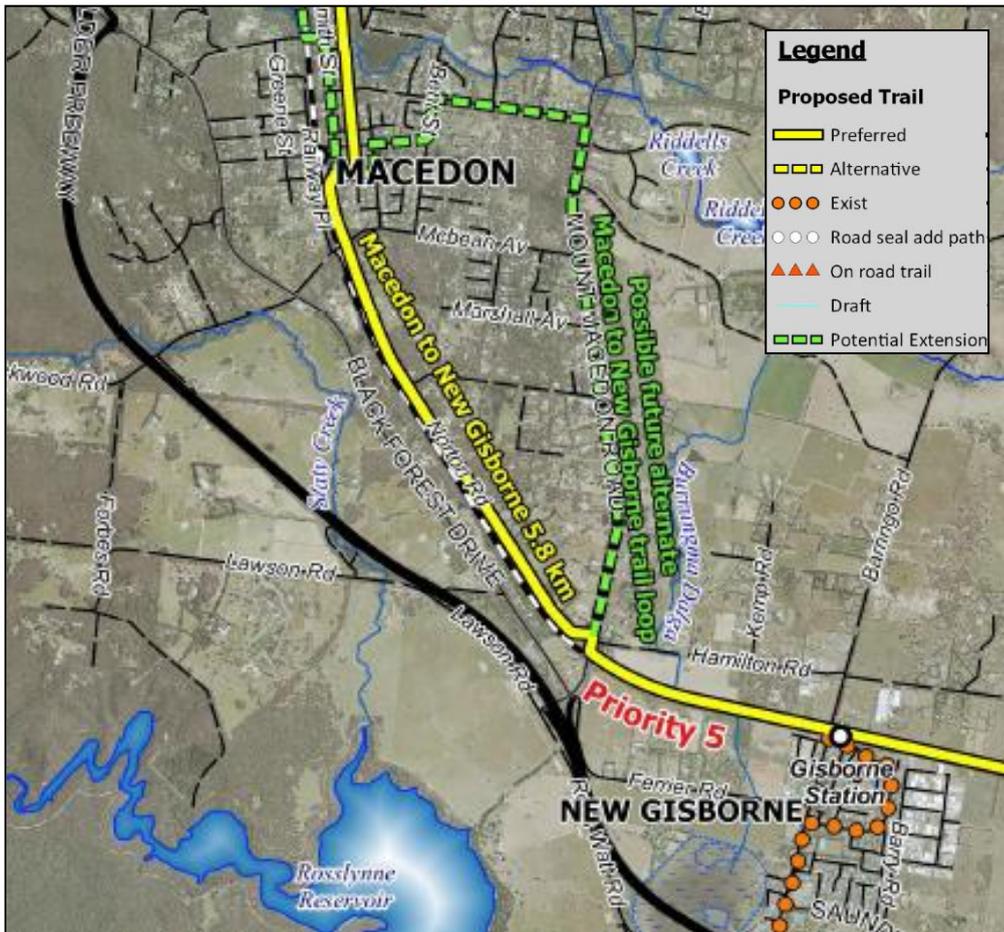
The majority of the route passes on Crown Land or Crown Land under reserve management or on road reserves.

**Other Shared Trail Route Options Investigated for this Section**

Options	Shared Trail Route Options Investigated	Assessment Against Principles and Shared Trail Criteria
2.	<p>Woodend-Macedon via Old Calder Highway/Black Forest Drive focus on using the Old Calder Highway/Black Forest Drive as the guide corridor for an off-road cycling route from Woodend to Macedon.</p> <p>This option would require construction of a purpose-built multi-use, multi-directional pathway on the eastern VicRoads road reserve corridor. Sections of informal trail already exist for major sections along the length of Black Forest Road and there are obvious spaces for length of the route.</p>	<p>This option was investigated but is not the recommended priority. It is a feasible option, eliminating risk factors while increasing likely useability across cycling markets. As such it could be a future addition to the trails.</p> <p>Involves construction of a single, multi-directional cycling trail on eastern side of Black Forest Drive using VicRoads land corridor/s plus potentially forest land (*NOTE: conceptually mirrors <i>Woodend-Macedon Cycling Trail</i> proposal by Michael Brennan, Nov 2017).</p> <p>There are some ‘pinch points’ that would bring the path near the road verge with buffer barriers required. This option would need to cross Calder Freeway with one opportunity being the use of the Black Forest Rd bridge crossing. This would necessitate a problematic crossing four on/off ramp carriageways and presents issues of placement with limited space available on the bridge proper for safe cycle ways.</p> <p>Alternative to the bridge crossing there are dirt forestry roads that provide potential corridors for a cycling route from Black Forest Rd-Old Camp Rd turn off, through to Nursey Rd/Smith Street approach to Macedon Railway Station, using a trail that travels under the Calder Freeway. This routing is more recreational rider-friendly in that it highlights the significant feature of the freeway underpass and the Riddells Creek water body and parkland near the Macedon township entrance.</p> <p>Considered a less ‘remote’ route compared with previous Middle Gully Road option and provides commuting opportunity for residents on Black Forest Drive. Future VicRoads cycling improvements to Black Forest Drive are considered an important short-term addition to local transport needs.</p> <p>There is potential for a future spur or loop trail beyond the preferred route to be developed along Black Forest Drive.</p>

Options	Shared Trail Route Options Investigated	Assessment Against Principles and Shared Trail Criteria
3.	<p>Woodend-Macedon via Old Calder Highway/Black Forest Drive with alternatives 9.7km. This ON-ROAD option would entail further investigation into VicRoads' previous plans to turn the major road from a four-lane highway to a three-lane road (middle turning lane + cycling lanes in either direction). Reports are that the road narrowing (for cars) met with strong community resistance.</p> <p>The ON-ROAD routing would use the Black Forest Drive verge in both directions, travelling down to Nursery Road.</p>	<p>This option was investigated but not recommended.</p> <p>There exists some constructed cycling lanes in place along Black Forest Drive at the Macedon end, however they are 'island' bike lanes with no full linkage at either end into Macedon or Woodend.</p> <p>The traffic mix of trucks and cars on a medium-high speed route would focus on committed experienced commuter cycling but is a direct link between Woodend and Macedon.</p> <p>Recreation and natural landscape user experience would be impacted by proximity to well trafficked road and limited significant landscape features.</p> <p>Zero appeal for recreation walker /runner usage.</p> <p>Rider safety and experience impacted via continued exposure to high speed traffic regardless of VicRoad planned alterations.</p> <p>Monitored traffic on Black Forest Drive revealed moderate consistency, high-speed traffic. This, along with the exposed aspect for the entire length of an on-road routing, would make the addition of cycling lanes as an adjunct to either the current or proposed road design suitable only to serious commuting cyclists. It is believed there would be little attraction for a local recreational or inbound tourism market beyond a limited road/race cycling community subset. It is suggested the investment required vs. the resultant usage of bike lanes would prove a poorer result than other cycling route options, even those requiring a higher degree of up-front investment. The on-road laneways would also necessitate numerous and higher-risk vehicle-rider proximity interactions.</p>

### 5.1.3 Macedon to New Gisborne



MAP 2 - MACEDON TO NEW GISBORNE

Recommended Shared Trail Route Investigation	Assessment Against Principles and Shared Trail Criteria
<p>Macedon to New Gisborne Preferred routing via Norton Rd 5.8 km.</p> <p>Route begins on road, taking Smith Street south, crossing McBean Avenue to pick up the western side of Norton Rd (assuming new off road trail build/on road follows Nortons Rd verges).</p> <p>Ample bushland corridor, on western side of Nortons Rd for new trail build for entire length of the road until Mount Macedon Road.</p> <p>Cross Mount Macedon Rd C322 to access service road/track on northern side of VLine live rail corridor.</p> <p>Follow live rail corridor entire length until meeting Barringo Rd. Cross to New Gisborne Railway Station. This section has sufficient spacing from live rail with the exception for all but a small 100-metre section.</p> <p>This section of trail has been identified as development priority 5 of 6.</p>	<p>There are limited options for corridors from Macedon to New Gisborne. The preferred route is majority two way off-road and feasible via Norton Road (western side – bushland corridor) onto VLine (northern side) live rail corridor, to Barringo Rd crossing and New Gisborne Station.</p> <p>Norton Road section feasibly on road – dirt road and limited verge, off road preferred. Excellent commuter routing, sufficient for recreational use, low tourism appeal apart from linkage on to Riddells Creek.</p> <p>Good node to node distance for walking and running however limited feature points apart from landscape views.</p>

<p><b>GISBORNE LINKS:</b>          Access to Gisborne is via on road and footpath links. Steep but safe gradient on multi use footpath into Gisborne on eastern side of Station Rd/Aitken St. Access Gisborne Town Centre via Sankey Reserve and associated pathways.</p>	<p>This is the most direct route suiting the local market for commuting.</p>
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**Recommended Route**

The preferred routing exits Macedon to the east via roadside routing with limited space for additional new built trail. Once meeting Norton Rd the preferred option would be for a new build multi directional trail on the southern side of Norton Rd where ample Crown Land exists (between Road Reserve and live railway).

At the terminus of Norton Rd the route crosses Mount Macedon Road before picking up the service road/track on the northern side of the live railway. The route parallels the railway until it reaches New Gisborne Railway Station.

The user experience along this and the Norton Rd section features attractive sections of bush flora and once onto the train line siding, pleasant views back towards Mt Macedon and over agricultural landholdings. The ride experience is separated from the railway amply with the exception of one 100 – 200 m section requiring barriers.

The route is preferred in order to offer a safer cycling environment and the best possible visitor/user experience and keep cyclists/users off alternative roads that have limited opportunity for safe cycling experiences and provide a greatly decreased user experience.

Six different sections of shared trails were investigated as part of the Macedon Ranges Shared Trails Feasibility Studies, the Macedon to New Gisborne section has been identified as development priority 5.

Further environmental assessments will be undertaken at the next phase during detailed design and landowner consultation. The implementation of the trail project will include bush restoration and maintenance including addressing the numerous blackberry bushes and other pest plants found along the alignment.

An alternative route would use road reserves on Honour Avenue and Mount Macedon Road to take riders to Hamilton Road and link up with the trail adjacent to VLine to New Gisborne Station:

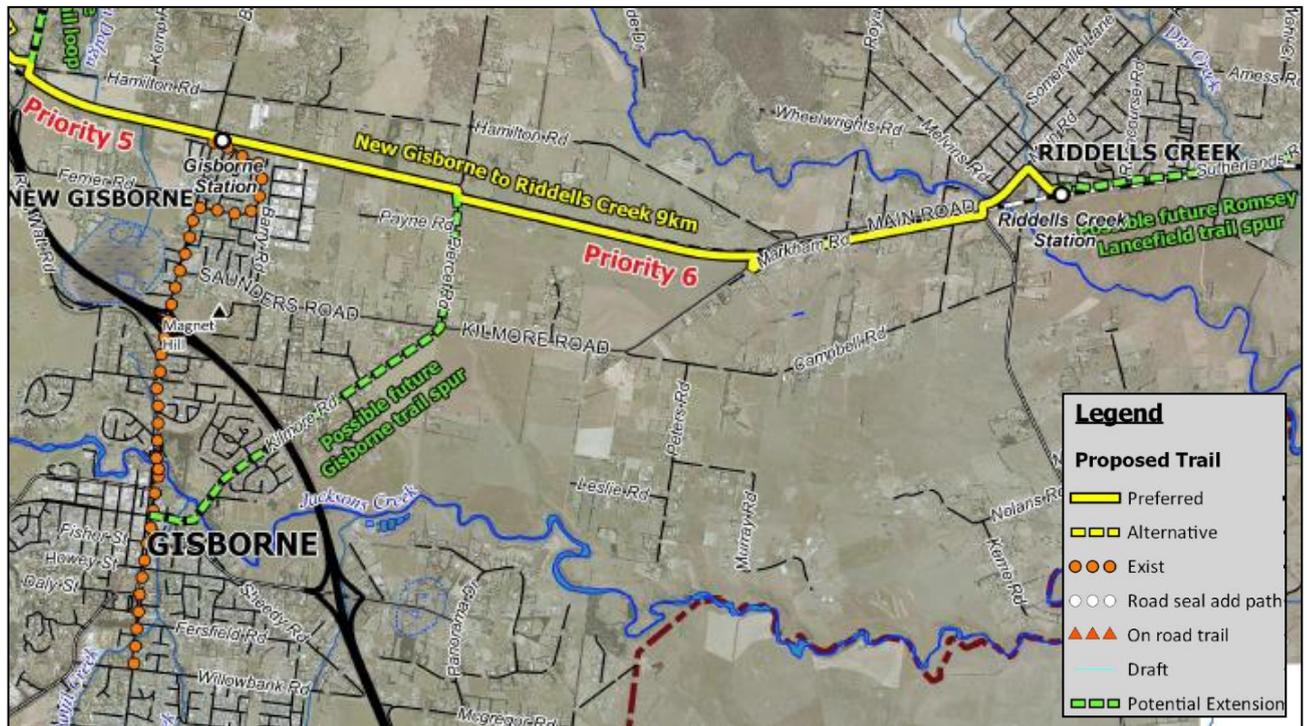
**Other Shared Trail Route Options Investigated for this Section**

Option	Shared Trail Route Options Investigated	Assessment Against Principles and Shared Trail Criteria
2.	<p>Alternative route via either or both Victoria St &gt; Bent Street &gt; Honour Ave &gt; Mount Macedon Road. Feature points include Honour Avenue, parkland facilities on eastern side of Mount Macedon Road at junction with Honour Ave.</p> <p>Mount Macedon Road has land corridor on the western side for trail build if required. Hamilton Road is not ideal – limited verge, high speed traffic Hamilton Road would link in with proposed regional sports precinct north east corner Hamilton and Barringo Rd intersection.</p>	<p>This option was investigated but is not the recommended priority. It is a feasible option. As such it could be a future addition to the trails.</p> <p>This option extends the distance consequently less commuter focused but is more recreation and tourism focused.</p> <p>There is future potential for a future spur or loop trail beyond the preferred route along Norton Road for visitors and commuting users.</p>



IMAGE 6 - HERITAGE BRIDGE AT RIDDELLS CREEK WILL REQUIRE TRAIL BRIDGING THROUGH CREEK

## 5.1.4 New Gisborne to Riddells Creek



MAP 3 - NEW GISBORNE TO RIDDELLS CREEK

### Recommended Shared Trail Route Investigation

Route begins at New Gisborne Station, picking up service tracks aside VLine live rail corridor. There are existing tracks on both side of the line, consultation with VLine indicates north side for the share path. Tracking directly east the trail parallels the live railways with sufficient distance often higher level than tracks to eventually meet Pierce Rd.

After Pierce Rd the route picks up another service road on the south side alongside VLine live rail, with sufficient safety spacing and natural barriers for most of the route, with the exception of 1-2 sections of 100 metres each requiring barriers. This section with views south is a pleasant riding experience. As the route approaches Kilmore Rd, it takes a dogleg south and then east across Kilmore Rd. Safety infrastructure required.

The route can then use Markham Rd as a dirt conduit, or new trail build using the ample corridor to the north or south of Markham Rd and south of the live railway. There are important native grasses alongside Markham Road with trail options either on mown reserve or integrated with vegetation restoration works within the

### Assessment Against Principles and Shared Trail Criteria

Off road routing preferred and feasible for all of route. Relies on VLine service requirements.

There are some feature points (historical stone bridges, especially at Riddells Creek, Walter J Smith Reserve) which adds to the attraction and encourages recreational and tourism use.

Good node to node distance for walkers and runners. Markham Rd feasible for new trail build within northern side corridor between VLine live rail and road.

Trail from Pierce Rd to Kilmore Rd/Markham Rd would provide sufficient spacing from live rail with exception of one 100-metre section, barriers however required providing a safe and enjoyable ride experience.

There is potential for a future spur of loop trail beyond the preferred route along the rail corridor to Clarkefield then either via the old

Recommended Shared Trail Route Investigation	Assessment Against Principles and Shared Trail Criteria
<p>rail reserve. Also there is an option to seal Markham Road for shared trail and local traffic use.</p> <p>Reaching Riddell Rd, crossing required, picking up trails leading into and under historic railway bridge (feature point).</p> <p>Some infrastructure would be required for the creek crossing here – although not deep, it would run water in rain and flood. Enough elevation is provided on western flank under bridge to create boardwalk ride, and then bridge across creek heading east into Walter J Smith Reserve (feature point).</p> <p>From Walter J Smith Reserve, routing can go either or both north east and south east, the former crossing Station Street to route through the town park (facilities, playground), to access railway station via Stephens Rd, the latter using a paddock space or VLine rail corridor (north side of railway line) to head directly to the Railway Station terminus on Hamilton St.</p> <p>This section of trail has been identified as development priority 6 of 6.</p>	<p>rail corridor or road reserve to the existing Romsey Lancefield path.</p>

### Recommended Route

The preferred New Gisborne to Riddells Creek route utilises the live rail corridor for the first significant portions of the journey, joining the railway lines on the northern side, using mostly existing access tracks from nearby the New Gisborne Railway Station towards Pierce Rd.

Crossing Pierce Rd, the route continues alongside the southern side of the live rail, the track adjacent but separated sufficiently from the line to provide a pleasant rural riding experience, including intersecting with two feature historical bridges (Pierce Rd and Kilmore Rd).

Reaching Kilmore Rd, the route requires a significant crossing of busy Kilmore Rd (safety infrastructure required with potential future underpass option), before picking up the land corridor between Markham Rd (gravel, secondary) and the live railways. There is a significant parcel of Crown Land available for trail build however native grasses need to be protected which could limit shared trail build on mown road verge or within the rail reserve. The preferred option is to integrate the trail with vegetation restoration works within the rail reserve or on the road reserve on the north side of the road.. The detailed design and land owner consultation phase will include a significant focus on protecting the important native grasslands through well placed trail alignments and landscape restoration. The range of options also consider sealing Markham Road for shared trail and local traffic use.

Reaching Riddell Rd in the east, the route would cross over, running aside and below the train line, to reach the historical bridge underpass. This marks the boundary to Riddell Creek township, the trail entering parklands. The underpass and subsequent crossing of a creek basin (dry when visited) would require a short platform and bridge to reach the eastern bank (further consultation and potential exemption from permit to be sought from Victorian Heritage).

The route would then run through the existing parkland, skirting a small ornamental lake, before reaching Station Street. A signposted crossing would be required. It is suggested that to avoid a pinch point on Station

Street (one of the main trading streets) caused by drainage and barriers, the route heads further east, into the municipal park, before looping around to link up to Stephens Street to reach the Station. This also gives a terminus that allows users to exit toward the other trading precinct on Kilmore Road where crossing infrastructure is already in place.

Six different sections of shared trails were investigated as part of the Macedon Ranges Shred Trails Feasibility Studies, the New Gisborne to Riddells Creek section has been identified as development priority 6.

With the development of a shared trail to Riddells Creek there is value in extending the trail in the future to connect to the Romsey Lancefield Path.

**Other Shared Trail Route Options Investigated for this Section**

Options	Shared Trail Route Options Investigated	Assessment Against Principles and Shared Trail Criteria
2. ✓	<p>ALTERNATIVE APPROACH via south east corner of Walter J Smith park, over paddock (or aside VLine live rail) to Hamilton Street / Station Street and Railway Station terminus.</p> <p>GISBORNE LINKS From Pierce Rd intersection, travels south on Pierce Rd, major crossing at Saunders Rd. Cycling lane or pathway required for length of Kilmore Rd heading south west, into Gisborne to link in with existing Jacksons Creek trails.</p>	<p>These options were investigated but not recommended. The Gisborne Links though could be a future addition to the trails.</p>

## 5.2 Levels of service Woodend - Macedon - New Gisborne - Riddells Creek

The trail will enable cyclists to experience a part day ride one way between any of the towns of Woodend Macedon, Gisborne and Riddells Creek and return by train or a full day return ride. Alternatively, users may choose to ride or walk small sections of the trail or use the trail for school or work commuting. Visitors could base themselves at one of the smaller towns and conduct shorter return trips over a two to three-day period linked in with the Daylesford to Hanging Rock Rail Trail.

The shared path from Woodend will follow existing and new shared paths with little or no use of existing roadways. VLine the operators of the train service do not allow use or contact with the existing rail management tracks or infrastructure therefore all future shared paths on the active rail corridor will be new trails. Safety fencing will also be required where the trail is in close contact with the active rail line.

It is recommended that the trail is developed for a broad range of users with cycling to be the most popular activity and with a choice of full day or short rides the trail should be suited to a full range of bikes and riders from road riders, to those more used to urban riding and inexperienced riders such as children. The trail may not be suited to fast road riding styles due to the shared nature of the experience and occasional narrow sections and the potential for debris across the trail.

The trail is expected to encourage a drop off and pick up service to be provided by accommodation houses, service providers and by private individuals. It is not proposed to provide accommodation directly on the trail as the trail opens up new opportunities for self-contained accommodation from old fashioned bed and breakfasts to farm stays. Visitors to the trail will be looking for places to stay along the way.

The trail will be 3.0m width asphalt surface and it is not anticipated that additional services will be required as it is a relatively short distance between towns. Infrastructure including crossing the river under the Riddells Creek Bridge will be designed to conform with the expectations of the users (focus on safety and comfort), design standards including flood mitigation and in this case consideration of the heritage values and listing of the stone bridge.

Traffic road junctions and the importance of separating cyclists and pedestrians from cars is a major consideration in continuing the approach to safety, comfort and connectivity of the shared routes.

Placement of trail head signs, way marking will continue throughout ensuring orientation, safety and the continuing the shared trail theme. It is the intention to achieve the best alignment possible to provide enjoyable, comfortable, convenient and safe travel, within the available resources. Landscaping, weed control and revegetation are important considerations (especially removal and exclusion of vegetation that has thorns that may puncture tyres), and species planting sizes at maturity<sup>17</sup>.

### 5.2.1 Infrastructure

The main infrastructure will be the shared use trail. The choice of trail width is generally based on the level and type of use that could be expected and the relationship between cyclist operating speed, volumes of pedestrians and cyclists, and mix of pedestrians and bicycles. A 3 metre wide path is recommended (rather than wider – eg. up to 4 metres as per Austroads 2017) as unlike urban commuter trails path speeds are less important and higher speeds are counter-productive to the proposed users (e.g. not encouraging to inexperienced and new cyclists and other walkers, runners and in some cases horse riding).

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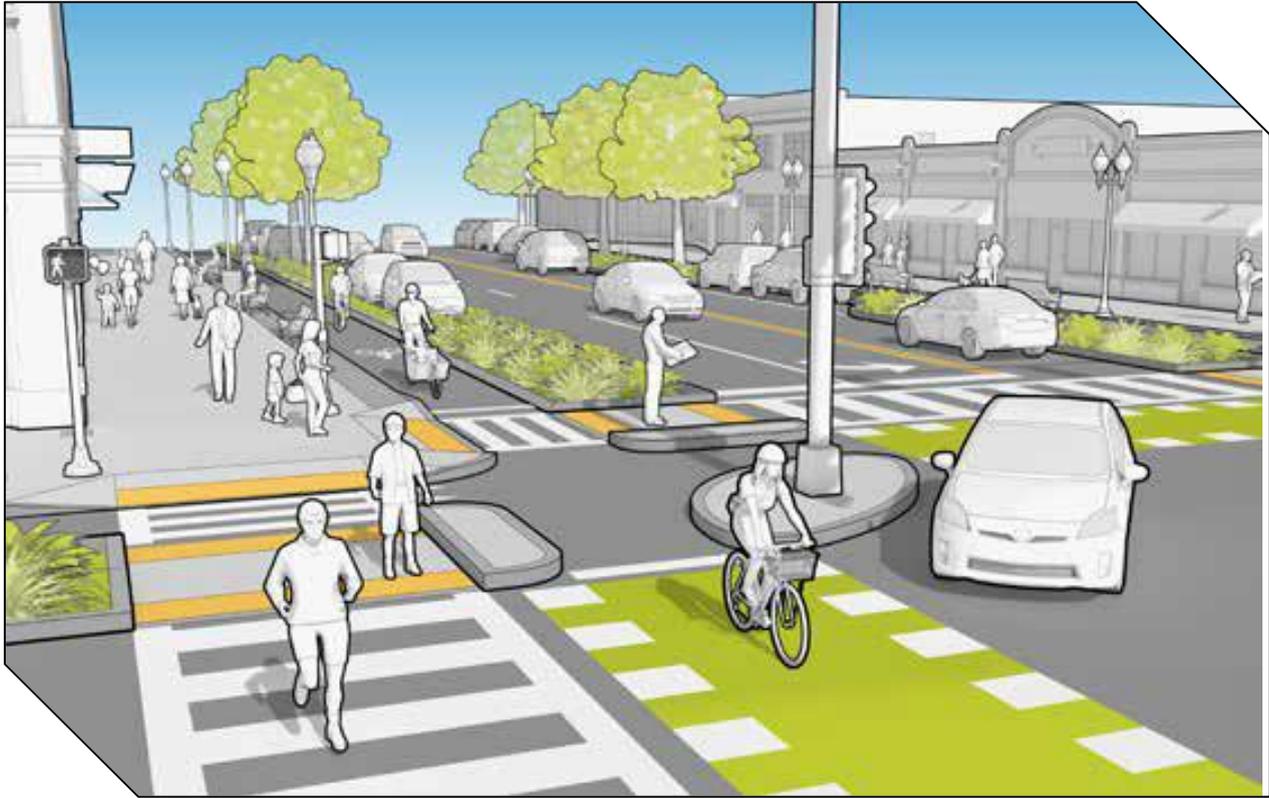
<sup>17</sup> Guide to Road Design Part 6A: Paths for Walking and Cycling 2017 Austroads Sydney

It is important that appropriate sight lines are provided between a cyclist's eye height and other trail users to assist in minimising conflict, and between a cyclist's eye height and the path surface so that cyclists can stop in the event that a hazard exists on the path (e.g. mud deposited during inundation, potholes due to washouts, broken glass, and fallen tree limbs).

It is the intention to achieve the best alignment possible to provide enjoyable, comfortable, convenient and safe travel, within the available resources. Landscaping weed control and revegetation are important considerations (especially removal and exclusion of vegetation that has thorns that may puncture tyres), and planting sizes at maturity.

Strategies for intersections and road crossings at which cyclists and pedestrians need to be separated from cars to increase the safety and comfort will need to be further detailed by road traffic experts. The shared trail routes will have a clear objective to reduce as much as possible interaction between vehicles and users. The level of interaction with roads and vehicles will depend on negotiations with a range of landowners.

The *Guide to Road Design Part 6A: Paths for Walking and Cycling* provides guidance for designers and other practitioners on the design of paths for safe and efficient walking and cycling. The guide provides information on considerations that will be considered in the development of the shared use trail and covers the requirements of path users, e.g. operating spaces, factors that influence path locations, and geometric design criteria for a path and related facilities such as intersections between paths, and road ways<sup>18</sup>.



Source: Massachusetts Department of Transportation 2015, *Separated Bike Lane Planning & Design Guide*.

A range of strategies are available to provide separation between cyclists, vehicles and pedestrians however the objective is to minimise this interaction and is reliant on effective agreements with adjacent landowners.

<sup>18</sup> Guide to Road Design Part 6A: Paths for Walking and Cycling 2017 Austroads Sydney

Separation between cyclists and motor vehicles offers the prospect of safer, lower-stress and more direct journeys<sup>19</sup>.

SHARED PATH WIDTHS	Suggested path width (m)		
	Local access path	Regional path	Recreational path
<b>Desirable minimum width</b>	2.5	3.0	3.5
<b>Minimum width – typical maximum</b>	2.0–3.0	2.5-4.0	3.0 – 4.0

The path width from AUSTRROADS 2017 suggests path widths and acceptable ranges of width for shared paths. Lesser widths should only be adopted where cyclist volumes and operational speeds will remain low. A greater width may be required where the numbers of cyclists and pedestrians are very high or there is a high probability of conflict between users (e.g. people walking dogs, in-line skaters etc.)<sup>20</sup>. It is likely that the volumes of cyclists and other users and the trail design will encourage lower speeds suggesting a regional path category.

With the increasing use of personal mobility devices and encouragement to increase cycling and walking, there is a growing need to ensure path widths are provided that accommodate safe movements of path users, including passing or overtaking movements. This is again the case where school children and others will be encouraged to join the shared use trails at certain times of the day.

As such it is recommended that the trail be 3.0 metres asphalt seal in width narrower in tight sections with good views ahead. If possible and to be considered at detailed design stage the trail should utilise recycled materials and consider a colour that is compatible with the surrounding environment.

In consultation with trail running groups asphalt is the preferred surface for most runners. Due to the narrowness of the available corridor in many places on these routes it is not proposed to cater for horse riding. Rather the proposed “rail trail” from Carlsruhe to Daylesford can better provide a horse riding experience.

Infrastructure required along the active rail line will include as a minimum the 3.0m wide shared path and associated bridge underneath the Riddells Creek Bridge. Additional infrastructure will be subject to a separate risk assessment process and the needs and requirements of VLine and may include security fencing between the trail and the active rail line.

The area of important native grasses along Markham Road will require further assessment to avoid damage and it is proposed that if the grasses cannot be protected the local traffic Markham Road be sealed (2 km) and traffic calming devices be installed to enable the local road to be shared.

<sup>19</sup> Victorian Cycling Strategy 2018-28

<sup>20</sup> AGRD06A-17\_Guide\_to\_Road\_Design\_Part6A\_Paths\_for\_Walking\_and\_Cycling



IMAGE 7 - ROAD CROSSING TREATMENT (MURRAY TO MOUNTAINS TRAIL)



IMAGE 8 - THE PATH MATERIALS AND WIDTHS WILL VARY DEPENDING ON LOCAL CONDITIONS (MURRAY TO MOUNTAINS TRAIL)

**Indicative Costs**

<b>Infrastructure   Woodend to Macedon 8.5km Middle Gully Road Option</b>				
<b>Item</b>	<b>unit</b>	<b>qty</b>	<b>rate</b>	<b>amount</b>
New asphalt shared path 3.0 average width	sqm	25,500	53	\$1,351,500
Landscape and restoration, weed control	Contract	1	53,000	\$53,000
Signs road entry, safety and trail head	Signs	6	15,900	\$95,400
Vline safety requirements*	Fencing	6000	21 lm	\$127,200
Alignment and land agreements costs				\$106,000
Heritage and environmental assessment and offsets				\$190,800
Site establishment costs				\$604,200
Engineering and design fees 10%				\$252,810
Contingencies 15%				\$379,215
Project management 7.5%				\$189,608
			<b>**Total</b>	<b>\$3,349,733</b>

\*subject to assessment and negotiation with lessee re responsibility

\*\* Figures based on 2021 figures and future anticipated indicative cost should factor in suggested 3% annual rise

<b>Infrastructure   Macedon to New Gisborne Preferred routing via Norton Rd 5.8km</b>				
<b>Item</b>	<b>unit</b>	<b>qty</b>	<b>rate</b>	<b>amount</b>
New asphalt shared path 3.0m average width	sqm	17,400	53	\$922,200
Landscape and restoration, weed control	Contract	1	53,000	\$53,000
Signs road entry, safety and trail head	Signs	6	15,900	\$95,400
Traffic control and vehicle separation	Barriers etc.	6	10,600	\$63,600
Alignment and land agreements costs				\$53,000
Heritage and environmental assessment and offsets				\$127,200
Site establishment costs				\$413,400
Engineering and design fees 10%				\$172,780
Contingencies 15%				\$259,170
Project management 7.5%				\$129,585
			<b>**Total</b>	<b>\$2,289,335</b>

\*\* Figures based on 2021 figures and future anticipated indicative cost should factor in suggested 3% annual rise

<b>Infrastructure   New Gisborne to Riddells Creek Route begins at New Gisborne Station 9km</b>				
<b>Item</b>	<b>unit</b>	<b>qty</b>	<b>rate</b>	<b>amount</b>
New asphalt shared path 3.0 average width	sqm	27,000	53	\$1,431,000
Additional sealing Markham Road	sqm	6,000	53	\$318,000
Fencing security *subject to risk ass.	lm	4000	21	\$84,800
Bridging under Heritage Bridge	sqm	100	1,590	\$159,000
Landscape and restoration, weed control	Contract	1	53,000	\$53,000
Signs road entry, safety and trail head 4 minor 1 major	Signs	6	15,900	\$95,400
Traffic control and vehicle separation	Barriers etc	6	10,600	\$63,600
Alignment and land agreements costs				\$106,000
Heritage and environmental assessment and offsets				\$127,200
Site establishment costs				\$667,800
Engineering and design fees 10%				\$310,580
Contingencies 15%				\$465,870
Project management 7.5%				\$232,935
			<b>**Total</b>	<b>\$4,115,185</b>

\*\* Figures based on 2021 figures and future anticipated indicative cost should factor in suggested 3% annual rise

### Indicative costs

Infrastructure costs   Woodend to Macedon 8.5 km	\$3,349,733
Infrastructure costs   Macedon to New Gisborne 5.8 km	\$2,289,335
Infrastructure costs   New Gisborne to Riddells Creek 9 km	\$4,115,185
<b>Project Total</b>	<b>\$9,754,253** GST Exclusive</b>
<b>Estimated annual maintenance</b>	<b>\$195,085</b>

\*\* Based on 2021 figures, future anticipated indicative cost should factor in suggested 3% annual rise



IMAGE 9 - ASPHALT TRAIL BLENDING INTO LOCAL ENVIRONMENT (MURRAY TO MOUNTAINS TRAIL)

## 5.2.2 Strategic Considerations

### The strategy's legislative and policy context

- *Victoria's Regional Statement* sets out the government's commitments to rural and regional Victoria. Tourism presents exciting opportunities for regions to promote public transport as a way of visiting popular destinations for weekend getaways and family holidays, accessing rail trails, and attending regional events.
- The Victorian Government is seeking to prioritise investment in strategic cycling corridors with the current and potential highest levels of demand, in essence providing arterials for people who cycle for transport. They will be within and outside road reserves, on local and state roads, and will be designed to maximise the separation of cyclists and motor vehicles.
- Transport for Victoria, through its Active Transport Victoria unit, will work with councils and state government agencies to deliver the strategy, ensuring cycling investments are coordinated and have maximum effect<sup>21</sup>.

<sup>21</sup> Victorian Cycling Strategy 2018-28

- The Daylesford to Hanging Rock Rail Trail is identified in the Loddon Campaspe Regionally Significant Trails Strategy as a priority development.

The Council chose the themes 'Liveability, Efficiency and Sustainability', as priorities for the future reflecting the community's wishes for these themes to be considered in everything the Council will do. The Council Plan was developed five main priorities:

- Promote health and wellbeing
- Protect the natural environment
- Improve the built environment
- Enhance the social and economic environment
- Deliver strong and reliable government

The planning for the Macedon Ranges Shared Trails considered these priorities with a strong focus on contributing to participation in recreation and leisure by providing enjoyable, comfortable and safe physical activity opportunities across the municipality<sup>22</sup>.

### **Land Owners, Neighbours and Land Managers**

Key land owners, neighbours and managers linked to the trail alignment include VicTrack, VLine and VicRoads. The support of these organisations is pivotal in ensuring the experiences provided by this project are delivered:

- VicTrack are the landowners of the disused rail line and the active rail line corridor. In principle notification received from VicTrack that a rail trail and other shared use paths on VicTrack land would be permissible in principle, pending further assessments and detailed design in consultation with VicTrack.
- VLine as managers of the active rail line are important stakeholders in this project. Assessment of the proposed rail trail alignment has taken place with VLine and changes have been made recognising the needs of VLine. The proposed trail has been planned to avoid interaction with the active rail line, maintenance tracks and active rail infrastructure. Further risk assessments and risk mitigation will take place in collaboration with VLine in the next stage of the project development.
- Vic Roads have responsibility for major roads within the trail alignment area. Vic Roads support the placement of a shared path on land under their management. They have also provided advice regarding pedestrian and cycling access and will be further consulted particularly where trails are to cross major roads.

### **Protection of Environment and Heritage Values**

The design of the trails has included a focus on protecting the natural environment, heritage and rural character. The trails provide great opportunity to combine sustainable trail development with restoration and the all-important ongoing maintenance of the biodiversity of these special areas.

Roadside vegetation plays an important role as a wildlife habitat and are important locations of rare, threatened and endangered flora including (*Vittadinia muelleri*) and Woolly Buttons (*Leptorhychos panaetiodes*), native grasses and fauna species. Tracts of remnant vegetation are fragmented in the area and roadside areas represent one of the largest reserves of native vegetation species.

The construction of the bicycle pathways and trails may require permits for vegetation removal which may involve offsets to compensate for the biodiversity so there is no net loss of biodiversity. Revegetation of the disused rail corridor and road reserves has been recommended in this plan which would contribute to any future vegetation offsets required.

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<sup>22</sup> Council Plan 2017–2027, Macedon Ranges Shire Council, Gisborne Victoria

The planning for the trail has recommended trail alignments on road reserves with planning seeking to avoid the removal, destruction or lopping of native vegetation by providing alignments that avoid areas of native vegetation.

Areas of important native grasses will require further attention particularly along Markham Road and may require sealing of the local traffic road instead of placement on the road reserve. This option will be included in further assessment and consideration.

It is proposed that the next stage of the trail program will include vegetation and biodiversity surveys and if required application for permits to remove vegetation as part of bicycle pathway and trails development.

Heritage places have been identified along the route including those registered with Heritage Victoria and on the Macedon Ranges Heritage Overlays. Discussions have taken place with Heritage Victoria and permit requirements will be sought on the progression of the project.

### **Lifestyle and Liveability**

The design of the trails system will seek to improve liveability and to strengthen community resilience, inclusion, safety, accessibility and connectivity by ensuring that shared use trails are placed where people will use them. The trails will link the communities across the Council area and encourage the whole community particularly children and youth to get on their bikes for enjoyable experiences and to use the trails as part of their everyday lives such as commuting.

The trails are designed to provide for positive change in the lifestyle and character of the region as well as enhance the liveability of the Shire. The proposed trail alignments and design have sought to provide benefits associated with:

- personal enjoyment by ensuring the trails are fun, free flowing, include a level of comfort and safety where people of all ages and abilities can achieve optimal health and enjoyment especially families, kids, and people who are not confident on the roads
- social interaction is sought through organised trail groups, independent connection and young people being encouraged to be active and engaged with their community
- physical and mental health benefits from the free flowing, well directed and enjoyable trails which at times through challenge and physical activity provide personal achievement
- trails that encourage community involvement, strengthen community resilience and create communities where most kids can walk or ride to school and grow healthier, developing happier, more independent kids
- welcoming visitors on the trails and developing community pride.

### **5.2.3 Independent tourism product**

The Woodend – Macedon – New Gisborne – Riddells Creek shared trails will be a mostly independent product with the target markets seeking a day riding experience using their own resources to travel to the track from accommodation or using the commercial drop off and pick up options available.

The proximity of the trail to Melbourne, beautiful scenery, range of food and wine options, as well as the natural and cultural attractions, will all be key drivers in the success of the product from a tourism perspective.

## 5.2.4 The services

Typical track destination support services include:

- Transport for people, bikes and to and from trailheads and accommodation
- bike hire
- car parking at or near trailheads
- food purchase and/or supply

## 5.2.5 The proposed business model

It is envisaged that the experience will be delivered by Local Government with State and Federal Government contribution through funding, as well as land access agreements for the rail corridor and State Government roads. Local Government will take the leadership role in project management, implementation, marketing and ongoing maintenance with community support. The private sector will be offering the accommodation, supported product and other services as required. Community cycling groups and the broader community including schools will provide input into the project through encouragement, promotion, advocacy, advice and in some cases contributing land for the trail corridor and community on ground maintenance and management.

## 5.2.6 The challenges

- Establishing long term agreements to develop shared use trails where there is strategic opportunity to provide the best safe, enjoyable, cost effective and sustainable trail alignments
- Establishing long term agreements with State Government and rail transport providers for shared trail access on the busy active rail corridor
- Providing safe popular and well used cycling routes between the towns where there are competing interests between vehicle use and safe and efficient cycling
- Coordination, promotion and establishment of agreed standards for shared use rail trails across Council boundaries
- Providing appropriate investment funding and maintenance resources to ensure the very best and well used sustainable trail experiences are established and maintained.

## 5.2.7 Indicative Costs

Initial Indicative cost for implementation Woodend – Macedon – New Gisborne – Riddells Creek Shared Trail

Total Shared Trail Estimate **\$9,754,253\*\* GST Exclusive**

**\*\* Based on 2021 figures, future anticipated indicative cost should factor in suggested 3% annual rise**

## 5.2.8 Maintenance

Maintenance of assets, risk and protecting the experience is estimated at \$195,085 p.a. Trail maintenance costs vary depending on conditions such as weather, construction standards, usage patterns, type of trail and whether the maintenance is outsourced at full professional trail contractor rates.

The use of qualified, experienced and contractors in the construction phase will contribute to reduced maintenance costs. The proposed maintenance costs are based on industry levels (2% of investment costs) and outcomes and assumptions about the future track and environmental conditions. Further more accurate assessments of future maintenance commitment should be undertaken as part of future design and documentation for the project.

Future arrangements for maintenance and the financial investment in trail maintenance is influenced through inputs such as volunteer assistance, sponsorship and other support.

A clear, concise Trail Management Plan is recommended and should be a component of the trail design and construct package to direct strategic trail resources into future trail maintenance and will provide a more accurate budget for appropriate trail maintenance.

Defining the level of service required to maintain a trail is an important component of a Trail Management Plan. The Level of Service is the defined service quality for a class of trail against which service performance may be measured.

A risk assessment and monitoring process should measure the condition of the trail against the walking trail or cycling classification and level of service to ensure the trail meets the expectation of the user and the duty of care of the trail manager. It should also reflect the trail vision and contribute to the protection of the trail, environmental values and the objectives of the land owners.

This section of the trail project will involve the construction of some 24 kilometres of trails at an approximate total project establishment cost of close to \$9.8 million. Future maintenance demands will be reduced through careful planning and good construction.

A maintenance plan for the shared use trails trail is an important consideration and should including as a minimum; maintenance programming and scheduling, resourcing, monitoring including risk assessments and reporting procedures.

### Primary outcomes

- the maintenance strategy/plan provides ongoing popular, enjoyable and safe cycling, walking and trail running experiences
- track assets continue to resist damage from water runoff and other erosion and users continue to remain on the path and do not create new paths
- track maintenance costs are within the \$195,085 p.a. figure and maintenance investment is well targeted
- minimal track closures are recorded due to swift attention to issues such as tree fall, flooding and land subsidence

Trail users don't stray from the path and always feel reassured that they are on the correct trail due to the sign information being up to date and well maintained there are very few incidents involving trail users.

It is envisaged that the trail will be managed and maintained by Council as the local authority albeit the funding for such may come from other levels of government or other bodies.

Maintenance of trail assets, risk and experience protection. Estimate \$195,085 p.a.

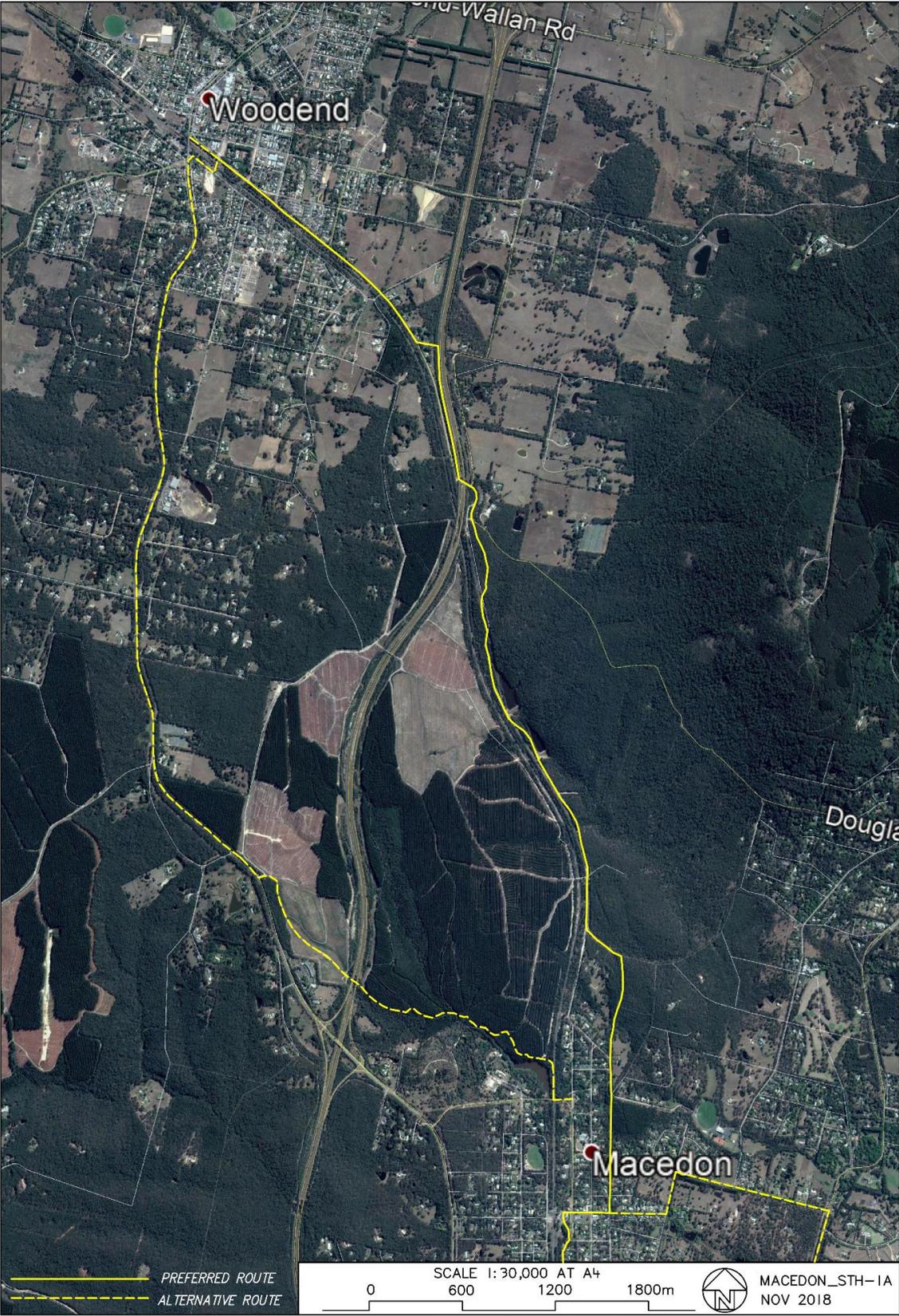
## 6 Next steps

- High level project feasibility assessment and consultation are now complete.
- The project is ready to move to more detailed design and implementation.
- Detailed design phase will include further land manager and land owner consultation.
- State and Federal Government funding support is required to advance.

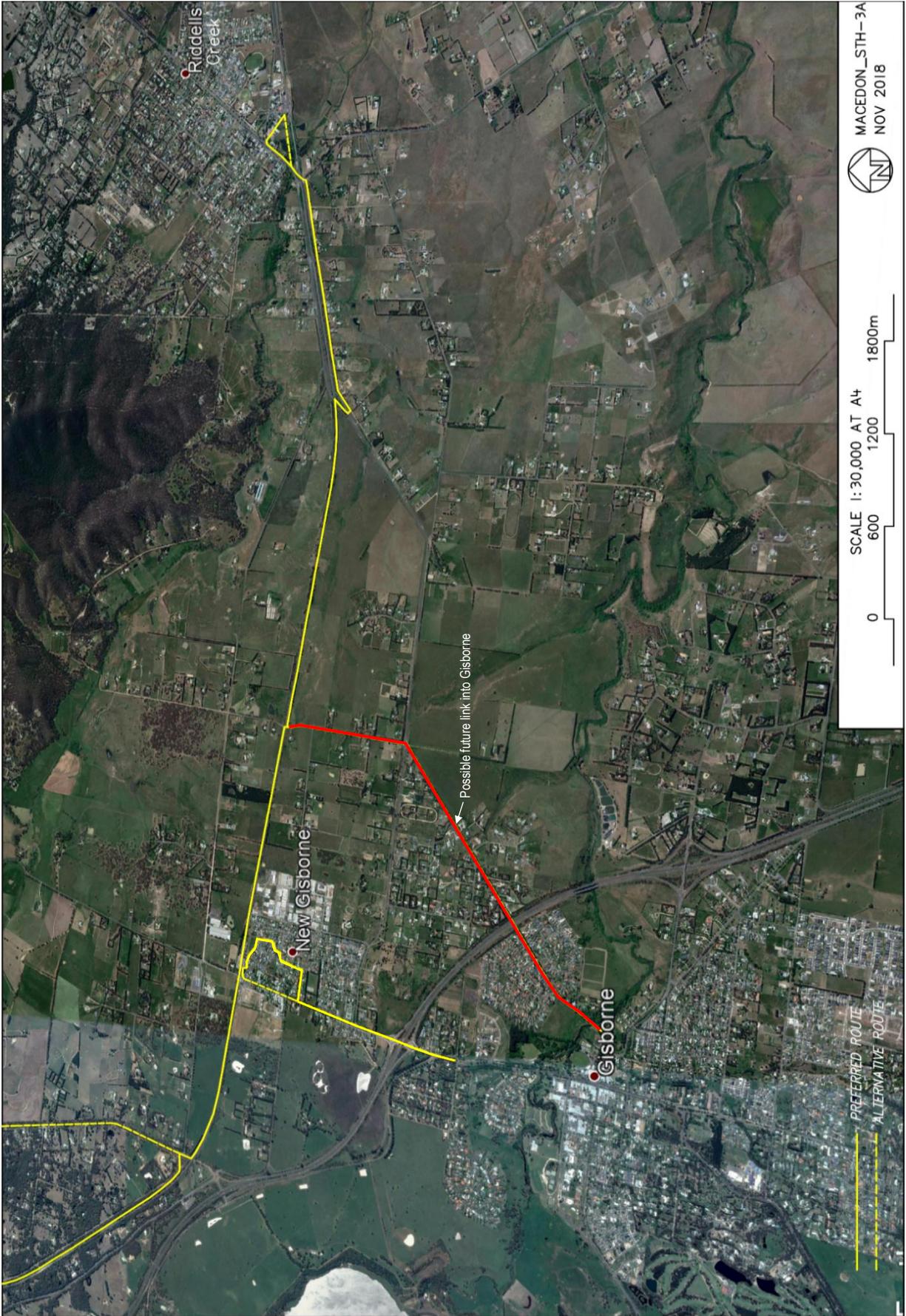


IMAGE 10 - PROPOSED TRAIL ALONG PATH WAY TO THE LEFT OF ACTIVE RAIL CORRIDOR FROM NEW GISBORNE

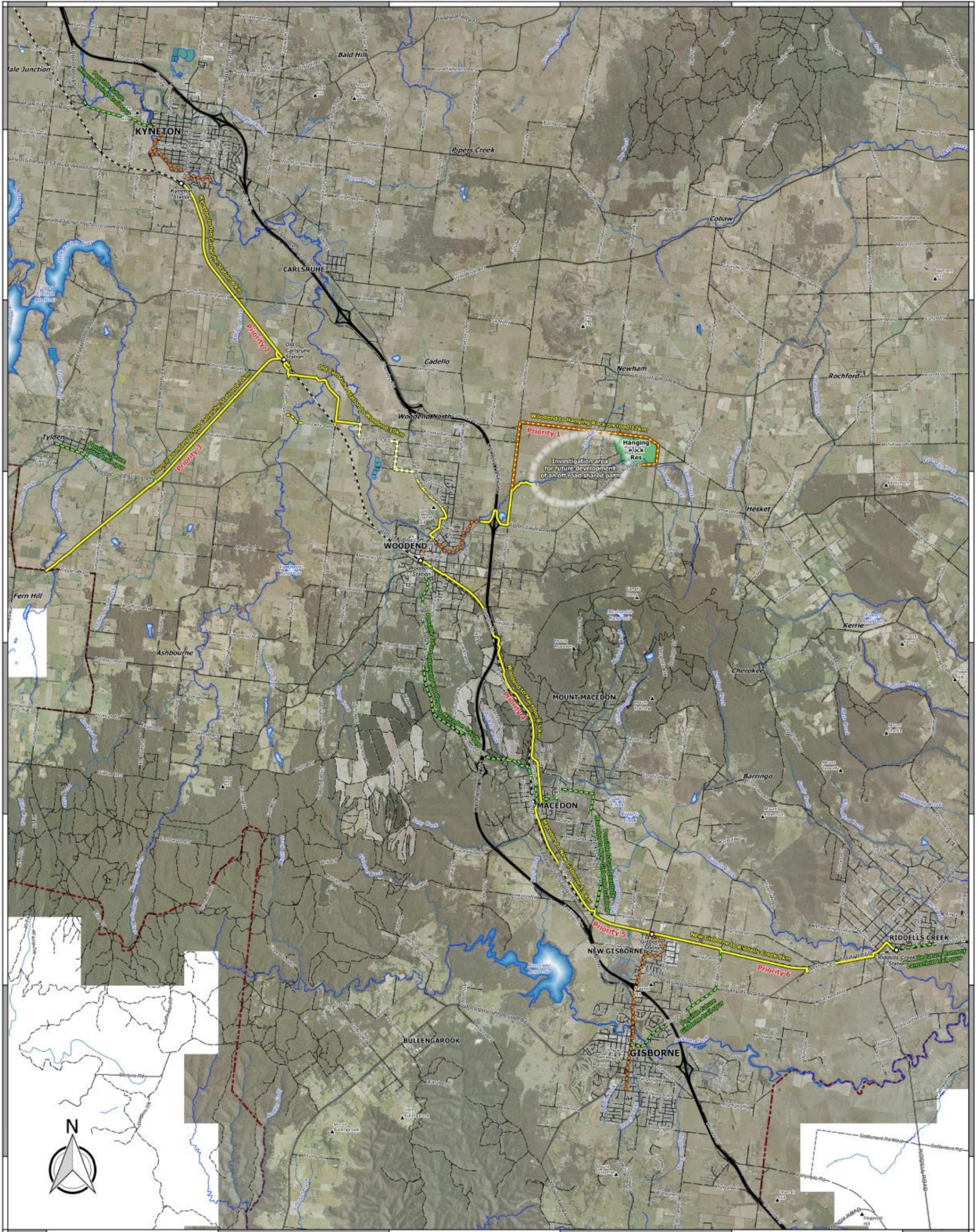
# APPENDIX 1. WOODEND - MACEDON - NEW GISOBRNE - RIDDELLS CREEK SHARED USE TRAIL MAPS







# APPENDIX 2. MACEDON RANGES SHARED TRAILS OVERVIEW MAP



## MACEDON RANGES Shared Trails Feasibility Studies

Legend				



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