



# **Yarra Valley Trail Impact Assessment**

FINAL REPORT | MARCH 2018

## Document Register

Version	Report	date
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## Acknowledgements

The Yarra Valley Trail Impact Assessment report has been prepared by TRC Tourism Pty Ltd and MCA < Michael Connell & Assocs.>. for Yarra Ranges Council.

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# Executive Summary

## Introduction

The proposed Yarra Valley Trail (YVT) will link Lilydale, Yarra Glen and Healesville and the existing Lilydale to Warburton Rail Trail near Woori Yallock. It will be a trail of some 40 kilometres or greater depending on which options are ultimately chosen through the master planning process currently under way. The YVT will form a critical component of a broader destination approach to developing experiences and products for the Yarra Valley. Combined with the existing Lilydale to Warburton Rail Trail, the proposed mountain biking developments in Warburton and Powelltown, and with the existing tourism products focussed on food, wine and world class service and attractions such as the Healesville Sanctuary, the Yarra Valley offers a cycle and tourism destination that truly can achieve world class status

## Alignment of Policy and Strategy

To achieve the build of the trail and the associated infrastructure, it is important that the Trail is aligned with the intent of State and Local Government objectives in community health, economic growth, visitor economy development and environmental protection and improvement. An analysis of this proposal against important strategies and policies shows clear alignment of the project with the objectives. The area of most concern is how options for trail alignment can be planned and implemented to avoid sensitive habitat described in the Yellingbo Investigation, as well as providing community access to help improve the habitat.

## Current Trail Planning

Yarra Ranges Council is in the process of preparing a draft Master Plan for the Trail that includes detailed assessment of alignments, costs, issues and opportunities and considers among other issues, land tenure and agreements required to enable the trail to proceed. A summary of the current state of planning is provided in this assessment report.

## Cycling Trends and Creating a World Class Trails Destination

To create a world class destination, a number of elements need to be delivered, and while the trail is vital, it is the sum of the parts that deliver the experience. This report identifies a number of those elements and provides some examples of where other destinations are succeeding such as in Italy and Scotland.

For Yarra Valley, it will be critical to develop the sense of a cycling destination through the mix of mountain bike trails and trails providing an experience in the river valley linking the valleys food and wine and other hero products.

## The Trail

The YVT description will be provided in more detail in the upcoming master plan, but this report contains a brief description of the 3 sections of the trail: Lilydale to Yarra Glen, Yarra Glen to Healesville and the third section from Healesville to the Warburton Rail Trail near Woori Yallock.

Sections 2 and 3 have several options and each option is briefly described to enable a clearer assessment of the options in the report. Each option has its own unique features – including rail alignments, river corridors, the opportunity to experience food and wine and the potential to explore the Healesville Sanctuary – in itself a world class product.

## Vision

A vision is an important element in planning a significant trail as it provides all partners with the aspiration to achieve a common goal. The YVT trail and destination are integrally linked and both seek to be world class.

A draft vision for the trail is described below:

**The Yarra Valley Trail will be recognised as a world class destination linking communities and tourism products, managed sustainably for the health and wellbeing of visitors and residents alike.**

## Trail Options Assessment

The report reviews a number of the markets that may use the trail, and what they seek from a product perspective, and more broadly the experiences they desire. Having assessed the likely market needs and assessed the trail options, an analysis of each option for each section has been undertaken to determine the combined route most likely to succeed in attracting visitors and in meeting their expectations.

The alignment most likely to succeed follows the rail easement for section one (the only option for that section), the rail easement where possible for section two and then the river corridor (including the Healesville Sanctuary) for option three.

There are other options (other than the preferred mix) for the three sections that could also deliver great experiences. Some route options could include the potential for hybrids and also offer a high quality opportunity ranked nearly as highly as the preferred combined route in total score. This is important in that it provides some flexibility in trail planning should more detailed planning not allow an option on a section to proceed.

## Risk Assessment

To complete a trail of this significance successfully, good governance is required and part of good governance is knowing, assessing and controlling risks. This report is not a complete risk assessment or risk plan but high-level risks and some potential controls are identified. Foremost among the risks are planning approvals and financing the project. The control most likely to assist with managing both risks is careful planning and working in partnership with the land managers – controls now effectively in place for the trail planning.

## Economic Assessment

An assessment of the economics of the project has been undertaken as part of this report. The analysis shows that the YVT will generate positive economic benefits for the region during the construction phase and the operations phase:

- ▶ The construction will generate a total of 40 FTE jobs
- ▶ The operations phase based on assumptions contained within the report will generate close to 80 FTE jobs and generate an increase in regional income of \$5.955 million
- ▶ The trail generates benefits that are substantially above the cost of the trail (excluding health benefits that are at present unquantified) with a BCR of 2.19 using a 7% discount rate.

The benefits are based on reasonably conservative use assumptions and projected spend per person derived from surveys undertaken as part of the trail's feasibility assessment undertaken in 2016.

## Conclusion

The YVT optimal alignment will become a world class trail that is an important component of the Yarra Valley and greater Melbourne destination. The trail is viable and is aligned with policy providing the authorising environment for the trail to proceed.

Careful planning to avoid environmental issues and to mitigate risks will help the trail move to construction and operations phases as quickly as possible and the benefits of the trail to be realised.

Unquantified benefits also include community connection and health benefits gained from the ability to exercise on infrastructure designed for safe and easy access.



# 1 The Project

This document provides an assessment of the social, environmental and economic benefits of a proposed trail – The Yarra Valley Trail – planned to link Lilydale, Yarra Glen and Healesville, and then linking to the existing Lilydale-Warburton Rail Trail.

The Trail is high priority in the Yarra Ranges Council’s Hike and Bike Plan and aligns very strongly with several Council and State objectives described in this report.

The Yarra Valley Trail is being planned in three (3) stages each linking towns and tourism products. Stage 1 is Lilydale to Yarra Glen, Stage 2 Yarra Glen to Healesville and Stage 3 Healesville to the Lilydale Warburton Rail Trail near Woori Yallock (see figure 1).

This assessment aims to build on the reports and analysis previously undertaken by Council including the 2015 Yarra Valley Trail Feasibility Report.

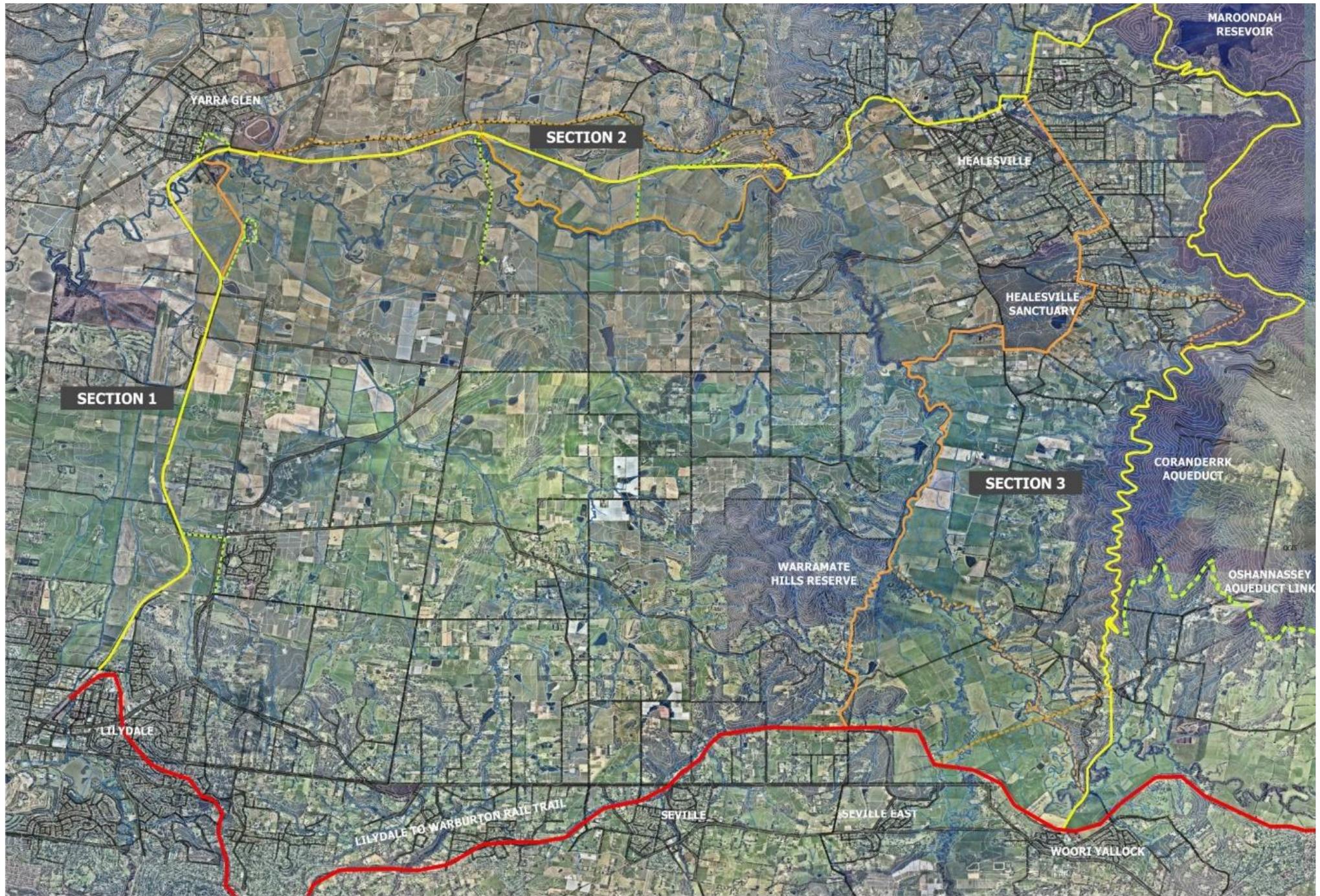
Current planning considered in this report includes the draft Master Plan and cost estimates, and an experience led assessment of the options for the Trail, determining the most appropriate alignment and experience for the markets likely to be attracted to use the trail.

A demand analysis will use the information previously gained through surveys and other methods, cross reference that to the various options and the impacts the options might have on market segments given their degree of difficulty and experience.

The economic impact assessment will cover a range of opportunities including business growth, economic impact and benefit and a review of project costings to provide the information that will support decisions on whether investors should continue with funding the proposal.

Significant social and environmental benefits and costs may accrue with the project and these are examined thematically.

Figure 1 Yarra Valley Trail Proposed Alignments, Stages and Options for Consideration



### YARRA VALLEY TRAIL - PROPOSED TRAILS



- POTENTIAL TRAIL ALIGNMENT BEING INVESTIGATED
  - POTENTIAL TRAIL ALIGNMENT BEING INVESTIGATED
  - POTENTIAL TRAIL ALIGNMENT BEING INVESTIGATED
  - POTENTIAL LINKAGES
- ALL TRAIL ALIGNMENTS SUBJECT TO LAND OWNER/MANAGER CONSENT





## 2 Yarra Ranges – Context

The Yarra Ranges covers a total area of 244,700 hectares, of which 2% is owned by Council, 30% is in private ownership and 68% is Crown land – predominantly National Park and State Forest.

The population of Yarra Ranges sits at approximately 155,300<sup>1</sup> stretching from the densely populated outer Eastern suburbs of Melbourne into the surrounding foothills, agricultural valleys and forested areas of the Great Dividing Range. It is currently one of Victoria's most diverse and scenic municipalities. It contains more than 55 suburbs and communities.

The Shire was also listed in 2015 as one of the 20 fastest growing municipalities in Australia growing at 2.8% per annum.

A raft of plans provide context for the Shire's strategic directions and intent. These are described in the following section and include State level plans and strategies as well as Shire specific plans and Frameworks

As a measure of community wellbeing, education levels have increased significantly since the 2011 census. In 2016 47.1% of people had stayed at school until year 12 or beyond. That compares directly with 43.5% in 2011.

The Yarra Ranges region has a significant number of tracks and trails of varying types and standards, a small number of which are of a high profile and attract visitors from both within and outside of the region. The State Government (mostly through Parks Victoria) and Yarra Ranges Council have contributed to recreation trail development in response to increasing public demand and as a way of stimulating tourism visitation and delivering environmental, economic and social benefits to the community.

Yarra Ranges Council currently manages the Lilydale to Warburton Rail Trail and has been a main driver of two proposed trails in the region with notable assistance from Parks Victoria, Department of Environment, Water, Land and Planning (DELWP), Vic Track, Melbourne Water and Vic Roads. The proposed trails are:

- Warburton MTB Hub within the Yarra Ranges National Park and State Forest
- The 40 km Yarra Valley Trail that will wind through the Yarra Valley and through the Yarra Ranges National Park to connect with the Lilydale to Warburton Rail Trail
- Powelltown Mountain Bike trails from State Forest through to the Powell town Recreation Reserve.

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<sup>1</sup> ABS ERP 2016

# 3 Summary of the Existing Policy and Planning Framework

## 3.1 General

Building a destination focussed on providing outstanding experiences takes considerable leadership, funding, planning and the right mix of strategy and research to provide the alignment of direction with market, industry and opportunity. The provision of adequate risk management planning is also critical to success.

Victoria has a wealth of plans and policies that are relevant to the proposal to develop cycle tourism in the Yarra Valley, specifically through the construction of the Yarra Valley Trail, and the subject of a separate assessment, a Warburton Mountain Bike Hub. These plans provide the intent, policy framework and direction for the Yarra Valley Trail's construction.

This section provides a brief description of the environment in which Council seeks to build the trail which provides a solid background to assessing the potential trail's costs and benefits, not just from a financial basis but also from a social, community and environmental perspective.

## 3.2 Victoria's Trail Strategy 2014-24

This Victorian State Government document<sup>2</sup> provides for a vision led approach to trail development and management in Victoria with a vision to:

'be recognised as a leading trail based destination that provides a diverse range of quality experiences for visitors, while strengthening the State's economy and improving the health, wellbeing and lifestyle of the community'.

To achieve the vision, the strategy presents a set of initiatives to:

- ▶ Improve the quality of trail experiences in Victoria
- ▶ Increase awareness and visitation to Victorian trails
- ▶ Support complimentary tourism and retail businesses
- ▶ Seek improved understanding of trail-user markets, their motivations and influences.

The strategy provides a strong case for the increased demand for experiencing Victoria's outdoor product with international demand growing and local awareness of the benefits of a healthy lifestyle increasing. The report also emphasises the benefits of trails in dispersing visitors to regional areas and optimising the outcomes for smaller towns and destinations.

The strategy sets specific directions that align strongly with the proposal to build a Yarra Valley Trail – specifically – to provide a strategic framework for trail investment and to support effective planning, development and maintenance of trails, as well as creating better trail experiences.

Investment criteria support the proposed Yarra Valley trail as a trail that may have international and national significance or at the least State significance.

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<sup>2</sup> Victoria's Trail Strategy 2014 – 24 – Victorian Government 2014

### 3.3 Cycling into the Future 2013-23

The Victorian Government cycling strategy<sup>3</sup> is relevant to the proposed Yarra Valley Trail (YVT). The strategy aims to grow and support cycling so that the State can:

- ▶ Improve the wellbeing of Victorians
- ▶ Provide a better place to live
- ▶ Support a stronger economy and generate jobs
- ▶ Contribute to a healthier environment.

The report identifies six (6) directions relevant to the proposed YVT:

1. Building the evidence to help make more informed decisions
2. Enhancing governance and streamlining decision processes making it easier to deliver strong outcomes for cycling
3. Reducing safety risks for cycling
4. Encouraging cycling including information on where to cycle and supporting community programs
5. Continuing to develop and grow the cycling economy and mountain biking
6. Planning networks and prioritising investments.

**The report specifically makes mention of the need to focus on supporting the construction of high quality regional trails and specialist sporting facilities that are significant to the state.** These are designed specifically to achieve the four aims and objectives described above.

### 3.4 Shaping our Future

Parks Victoria's strategy<sup>4</sup> describes several relevant directions for the Yarra Valley Trail. The principles upon which the plan is built are:

- ▶ The wellbeing of societies depends on healthy ecosystems
- ▶ Parks nurture healthy ecosystems
- ▶ Contact with nature is essential for improving emotional, physical and spiritual health and well-being
- ▶ Parks are fundamental to economic growth and to vibrant and healthy communities.

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<sup>3</sup> Cycling into the Future 2013 – 23 – Victoria's Cycling Strategy – Victorian Government

<sup>4</sup> Shaping our Future – Parks Victoria October 2013

In delivering the vision and aligning to the principles, Parks Victoria will focus on themes which include:

- ▶ Connecting people and parks – describing an approach to forge strong partnerships with people to conserve special places and make them accessible to all. The plan emphasises that use of parks is essential and working to improve park access while ensuring the parks are sustainable is vital is essential
- ▶ Conserving Victoria's special places – managing the natural and cultural heritage of Victoria's parks and reserves and working with traditional owners
- ▶ Providing benefits beyond boundaries – the theme very much focussed at communities near parks and more broadly Victorians benefiting economically from parks and tourism and keeping communities safe from fire and other emergencies
- ▶ Enhancing organisational excellence – focussed more internally in building a strong organisation.

### 3.5 Regional Economic Development and Services Review

This review<sup>5</sup> conducted by the Victorian Government throughout 2014 and early 2015 considered the needs and drivers for regional development in Victoria. The report provided a series of 52 recommendations across the spectrum of regional issues and opportunities including new governance structures to ensure that the right projects are supported through regional partnerships through to Cabinet for consideration.

Of note in this report are several observations and recommendations into how to grow tourism across regional Victoria and the importance of strong infrastructure to support marketing. The report also notes the disadvantage some regional and rural areas face compared to their city counterparts. Both points are relevant to the outcomes of the Trail proceeding.

<sup>5</sup> Regional Economic Development and Services Review – Final Draft July 2015 – Victorian Government 2015

### 3.6 The Victorian Health and Wellbeing Plan 2015 - 2019

This plan<sup>6</sup> outlines the governments key priorities over the next four years to improve the health and wellbeing of Victorians. A central tenancy of the plan is that healthy living is supported from early years and throughout life as many disease and injuries are preventable. The vision of the plan is for a Victoria free of the avoidable burden of disease and injury so that all Victorians can enjoy the highest attainable standards of health, wellbeing and participation at every age.

A central priority of the plan is healthier eating and importantly for this assessment – active living.

The plan also references the need to be environmentally sustainable and recognises the inextricable link between environment and human health.

The report states that **‘Interaction with nature in Victoria’s parks and open spaces and participation in sport and recreation make an important contribution to reducing chronic disease risk factors, increasing social inclusion and building strong communities’**.

Accordingly, the plan recommends strategies to improve active transport such as cycling, neighbourhood design that promotes activity and participation in sport and recreation. The plan also recommends interaction with nature in Victoria’s parks and open spaces.

### 3.7 Victoria’s 2020 Tourism Strategy

The Tourism Strategy<sup>7</sup> is a whole of Victorian Government strategy that provides a vision for the tourism industry and how it can increase its economic and social contributions to the State. The Strategy provides recommendations and areas of focus including recognising the importance of regional tourism to Victoria. At the time of writing the strategy, regional tourism had stagnated and International visitation was not well dispersed.

This document sits above and defers detail to the Victorian Trails Strategy (3.2 and described above). It also recognises the importance of investment in National Parks and provides for a framework on investment in natural areas. Since the release of this strategy, government policy has changed and a revised approach to investment in Parks has occurred.

### 3.8 2012 – 2022 Economic Development Strategy – Yarra Ranges Council

This plan focusses the Yarra Ranges Council economic development activities into a series of target sectors and themes. The plan builds upon the work completed in previous iterations of the strategy.

Focus areas within the Tourism Sector are strongly aligned to the proposal to develop a Yarra Valley Trail. These include:

- ▶ Ensuring the economic, social and environmental benefits of tourism are recognised and realised
- ▶ Ensuring the sustainable development of tourism is balanced with environmental, cultural and heritage values, and community lifestyle, supported by the planning scheme
- ▶ Attracting investment in sustainable tourism development and encouraging appropriate growth of the existing tourism industry
- ▶ Advocating for the equitable allocation of funds for marketing, industry development, infrastructure and services to visitors and residents
- ▶ Providing infrastructure and facilities that meet the needs and expectations of visitors and local communities
- ▶ Facilitating constructive, collaborative working relationships between government, industry associations, chamber and business groups that support a sustainable tourism industry.

The proposed Yarra Valley Trail while not mentioned specifically is aligned very strongly to the focus areas and objectives of the strategy.

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<sup>6</sup> The Victorian Public Health and Wellbeing Plan 2015 – 2019 – Victorian Government 2015

<sup>7</sup> Victoria’s 2020 Tourism Strategy July 2013. Victorian Government 2013

### 3.9 Recreation and Open Space Plan Strategic Framework 2013-2023

This plan<sup>8</sup> contains a policy and strategy that is considered the guiding policy and framework for Yarra Ranges Council in creating healthy and active environments for its community. The plan works collaboratively with the other overarching corporate strategies that provide the strategic direction for improving services in Yarra Ranges.

The Framework outlines the benefits of open space, recreation and the benefits that are derived to communities from participating in sport and recreation and engaging with open spaces like parks and bushland. Specifically referenced is the need to develop facilities in a complimentary way to the protection of the environment protection and enhancement of natural values.

The Framework and its aligned policies and actions are linked to other State documents with no discernible difference in direction or clash in policy or strategy.

Evidence in the Framework points to an increased demand for access to open spaces and recreation and activity infrastructure to support community development and health objectives. This is also aligned to the State Health Strategy and a few other strategies referenced in this section of the Assessment.

### 3.10 Hike and Bike Plan Yarra Ranges Council 2005

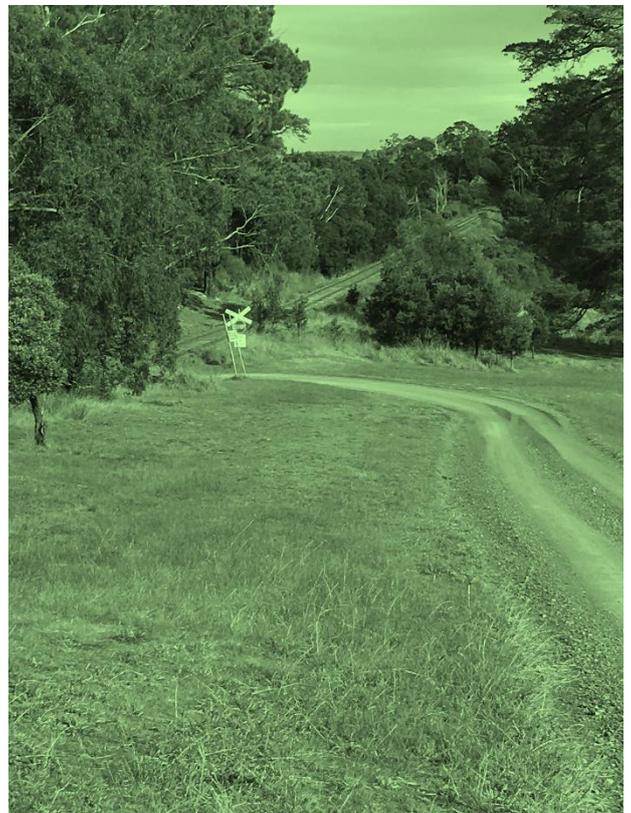
This plan<sup>9</sup> defines the commitment of the Shire of Yarra Ranges Council to establish a pedestrian and bicycle network that provides communities with safe access to local destinations, connections between rural townships and urban centres and a large trail system aligned through scenic landscapes of the Shire linking key tourist attractions.

Components of the plan directly reference a Yarra Valley Trail (although it may not be called that). Specifically, the iconic tourist route declared to be of State tourism significance between Lilydale and Healesville following the old railway line providing outstanding links for cyclists and walkers to famous wineries, food markets, art galleries and the townships of Yarra Glen and Healesville. The plan identifies in 2005 dollars that \$8.25 million would be generated every year to the local economy through the trails use.

Benefits of the plan implementation including the Yarra Valley Trail align with the documents summaries in this section of the report and include:

- ▶ Improved health and well-being of the community
- ▶ More socially connected neighbourhoods and
- ▶ Increased tourism within the Shire.

It is acknowledged that the Hike and Bike Plan is over 10 years old however the directions and actions align very strongly with all major Strategies and Frameworks of the State Government and the Shire's overarching plans.



<sup>8</sup> Recreation and Open Space Plan – Strategic Framework 2013-2023 Yarra Ranges Council

<sup>9</sup> Hike and Bike Plan 2005. Yarra Ranges Shire Council 2005.

### 3.11 Environment Strategy 2015-2025. Yarra Ranges Council

The Strategy<sup>10</sup> provides for a vision and specific goals aligned to delivering the vision through a series of actions. The vision – **‘We are dedicated to making Yarra Ranges a place of thriving communities, at home in healthy landscapes’** - provides a strong statement about living with nature. The elements of the vision are described in more detail in the strategy. The goals are directly relevant to pursuing outcomes in the Shire across all facets of Council business and include:

- Our iconic places and their natural character are actively protected
- Our water resource is improved and preserved
- Our native plants and animals are protected and their natural habitat is enhanced
- Our local economies are strengthened by environmentally sustainable activities
- Our communities are resilient in the face of a changing climate and more extreme events
- All who live and work in the Yarra Ranges see themselves as stewards of our environment.

The plan recognises the living landscape of the Wurundjeri people and the importance of connection to the land and to country.

The principles applied in the plan to decision making by Council are elements that will be taken forward in this document:

- Make evidence based decisions
- Take a whole of landscape approach
- Apply a risk management framework
- Practise ‘Avoid, Minimise, Offset’
- Think longer term rather than short term
- Engage with the community
- Work Effectively with other land managers, key agencies and alliances, and
- Lead by example.

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<sup>10</sup> Environment Strategy 2015-2015. Yarra Ranges Council 2015.

### 3.12 Protecting Victoria’s Biodiversity

The State Government’s biodiversity strategy<sup>11</sup> released in 2017 provides guiding actions, policy and strategy for the ensuing 20 years. The plan describes the benefits of Victoria’s Parks as:

- \$1.4 billion in spending per year associated with visits by tourists generating \$1 billion in gross value added to the State economy
- Between \$80 and 200 million saved in health expenditure per year from avoidance of disease through people’s use of parks for relaxation and activity
- Avoided treatment costs of \$83 million across Victoria for water purification
- Flood protection to the value of \$46 million per year in avoided infrastructure failure
- \$24 to \$56 million from avoided costs to coastal protection through vegetation management
- 270 million tonnes of carbon stored.

The principles that underpin the actions throughout the strategy include:

- Valuing life forms that make up biodiversity
- Conservation of biodiversity best occurs in living systems and natural habitats
- Collective action across the community will have the greatest impact
- Continuing to improve knowledge is vital, and
- Decisions need to be made in a fair and transparent way.

Specific to this project, the following actions and statements are relevant:

- A net improvement in species habitat for threatened species by 2037
- Connecting with nature is good for Victorians
- Link opportunities to connect with nature with on the ground biodiversity needs such as expanding support for volunteers
- Better care for and showcase Victoria’s environmental assets as world-class natural and cultural attractions
- Adopting a collaborative biodiversity response planning approach to drive accountability and measurable improvement.

<sup>11</sup> Protecting Victoria’s Environment – Biodiversity 2037 – Victorian Government

### 3.13 Yellingbow VEAC Investigation and Government Response

The Yellingbow Investigation in 2013<sup>12</sup> and the subsequent Government response in 2014<sup>13</sup> have significant implications for the proposed Yarra Valley Trail alignment option in stage 3 that pursues the flatter river route.

The response sets up a Yellingbow Conservation Area Coordinating Committee and planning undertaken with the section of the river proposed to be included in the YVT as a category 2 with the following characteristics:

- ▶ A high priority restoration site for threatened species
- ▶ A high priority restoration site for conservation values based on strategic priorities
- ▶ Corridors for Helmeted Honeyeater and Lowland Leadbeaters Possum that contain larger areas of vegetated Crown Land at regular intervals to act as breeding sites
- ▶ High priority restoration sites to provide habitat corridors for Helmeted Honeyeater and Lowland Leadbeaters Possum.

And managed with the following principles:

- ▶ In accordance with the Nature Conservation Reserves (VEAC Classification)
- ▶ The area may provide for a limited range of passive recreation
- ▶ Revegetation on streamside areas should cover an area of at least 35 m on each side of the waterway where possible with the intention to gain a total width of 70 metres along both sides of the waterway.

The intent of the plans and response is to aid in the protection of several threatened species and conserve what little remnant vegetation is left.

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<sup>12</sup> Yellingbow Investigation Final Report – Victorian Environmental Assessment Council 2013

<sup>13</sup> Victorian Government Response to the Victorian Environmental Assessment Council’s Yellingbo Investigation Final Report March 2014

### 3.14 Suburban Development Statement

The Statement<sup>14</sup> sets a pathway for better management and planning for outer suburbs among others and put in place a Growth Areas Infrastructure Contribution while creating the Office for Suburban Development.

Developing new suburbs and providing the infrastructure that communities require and that drives investment in jobs and economic activity are at the centrepiece of the statement.

### 3.15 Summary of Planning and Policy Impacts

Table 1 below shows a summary of the alignment of policy, plans and strategy to the development of a trail destination in the Yarra Valley specifically with reference to developing a Yarra Valley Trail linking Lilydale, Healesville and into the Woori Yallock section of the Lilydale to Warburton Rail Trail.



<sup>14</sup> Suburban Development Statement – Victorian State Government 2017

The summary assessment shows the alignment using a scale:

- 0 = Does not meet or is direct contravention
- 1 = Partially meets with some difficulty
- 2 = Mostly meets with the intent and direction
- 3 = Fully meets and implements specific actions and directions

**Table 1 Summary of Government policy, planning and strategy impact on the proposed Yarra Valley Trail.**

Section	Policy / Strategy	Owner	Alignment
3.2	Victoria’s Trail Strategy	Victorian State Government	3
3.3	Cycling into the Future 2013 - 2023	Victorian State Government	3
3.4	Shaping Our Future	Parks Victoria, Victorian State Government	2
3.5	Regional Economic Development and Services Review	Victorian State Government	3
3.6	The Victorian Health and Wellbeing Plan 2015 – 2019	Victorian State Government	3
3.7	Victorian 2020 Tourism Strategy	Victorian State Government	3
3.8	2012 – 2022 Economic Development Strategy	Yarra Ranges Shire Council	3
3.9	Recreation and Open Space Plan Strategic Framework 2013-2023	Yarra Ranges Shire Council	3
3.10	2005 Hike and Bike Plan	Yarra Ranges Shire Council	3
3.11	Environment Strategy 2015-2025.	Yarra Ranges Shire Council	3
3.12	Protecting Victoria’s Biodiversity	Victorian State Government	2
3.13	Yellingbow VEAC Investigation and Government Response	Victorian State Government	1
3.14	Suburban Development Statement	Victorian State Government	3

In general, there is strong alignment and very few adverse consequences from a policy and planning perspective of the proposed Yara Valley Trail.

One area for careful planning consideration is the proposed alignment for section 3 along the Yarra River. The option potentially is located within areas impacted by the Yellingbow Conservation Area recommendations. The implication is that some passive recreation may be allowed under the Yellingbow guidelines but it must not impact on the potential for conservation of the threatened species. Detailed planning and policy investigations are underway at present to determine the alignment to avoid as much any detrimental issues and to determine whether the option is feasible. Should it not be, the option may be ruled out in which case the 3.13 Yellingbow policy alignment would strengthen due to the trail avoiding the area, but some other policies may well not be as highly aligned due to a more difficult and likely less used option around Coranderrk Aqueduct.



## 4 Current Planning and Direction

### 4.1 Yarra Valley Feasibility Report

The Yarra Valley Trails Feasibility Report<sup>15</sup> is significant in providing the underpinnings for the trails master plan and potential development. The 2016 report provides a comprehensive view on the proposed trail, its drivers, benefits, costs and likely use.

The plan identifies that the 40-kilometre proposed trail is ready to be transformed into a world class trail winding its way through river flats, forests, vineyards and farmland, and connecting towns, communities and tourism product.

The headline outcomes include:

- Once complete and operational across all stages, the trail will generate \$30,317,188 in economic benefit to the community in direct and indirect benefits
- 222 new jobs created through the trails operation
- 210,000 visits to the trail predicted once fully operational
- 98% of people using the trails would eat at cafes and restaurants along the trail
- The trail will cost a total of \$10,654,000
- Annual total asset renewal and maintenance costs are likely to be \$503,000 per annum.

Preferred routes exist for all stages (although this may be superseded in the masterplan process discussed below).

The report notes several social benefits including activating healthy activity and provides alignment with the variety of State and Council strategies discussed in this report and the feasibility assessment.

Planning approvals, environmental benefits and issues and engineering are discussed in the report. As the trail follows in part an old railway alignment, several engineering assessments on bridges need to occur. Alignment through public land can be problematic and will need to go through several assessment processes for statutory approvals including native vegetation management, Cultural Heritage Value assessment and management and conservation planning.

Significant community support has been demonstrated to the project through the conduct of the survey which is also used to generate in part the economic benefits of the trail. Importantly 72 businesses responded in favour of the proposal and overall 98% of respondents were in favour of the Trail proceeding.

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<sup>15</sup> Yarra Valley Trail Feasibility Report, Yarra Ranges Shire Council

## 4.2 Yarra Ranges Trails Governance Business Models DRAFT Report

TRC Tourism completed a draft report<sup>16</sup> for the Yarra Ranges Shire Council in 2017 considering options for the business model for the Yarra Valley Trail and Warburton Mountain Biking Hub. The report identifies the likely partners and proposes options for governance including a preferred model based on successful destinations in New Zealand but modified for Victoria's legal framework.

Effective governance models require characteristics including:

- Simple and clear accountability
- Effective planning and management of the network
- The strengths of partners are brought to bear
- The model allows for a continuing improvement of visitor services and experience and continual development of product
- The trails are supported by several funding sources with retained revenue capability
- Strong risk management and control environment to reduce risks to people, the environment and other entities
- The model is allowed for in regulation or law, and
- The benefits are visible to the community and stakeholders.

Several models were looked at through the lens of the criteria and principles outlined above. The preferred model based on the most strengths is one that establishes an Incorporated Association bringing together at least 5 partner organisations including DELWP, Parks Victoria, Yarra Ranges Tourism, The Yarra Ranges Council and selected user groups ideally with an Independent Chair. This model also brings to Victoria many to the advantages of a model such as the Queenstown Trails Trust that is regarded as a very successful model in New Zealand.

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<sup>16</sup> Yarra Ranges Trail Governance and Business Model Draft Report – 2017 (TRC Tourism for Yarra Ranges Council)

## 4.3 Draft Master Plan – Yarra Valley Trail

Cox Architects have been engaged by Yarra Ranges Council to prepare the Draft Master Plan for the Yarra Valley Trail. Considerations are well progressed at the time of preparation of this draft report.

The plan allows for the trail to be developed over three main stages; each with options to provide different grades, experiences and lengths:

- Section 1** from Lilydale to Yarra Glen
- Section 2** from Yarra Glen to Healesville and
- Section 3** from Healesville to the Lilydale to Warburton Rail Trail near Woori Yallock.

The total length of the trail is as follows:

- Section 1.** 11.5 kilometres and generally flat along the rail alignment
- Section 2.** 19 kilometres and generally flat with some uncertainty around elevation gain due to the options in getting through the Tarrawarra corridor
- Section 3.** up to 20 kilometres dependent upon the route chosen and the elevation gain similarly dependent upon the route.

This assessment report goes into more detail in later sections.

# 5 Current Cycling and Trail Trends

## 5.1 Cycling

The National Cycling Participation Survey (NCPS)<sup>17</sup> is a standardised survey that has been undertaken biennially since 2011 and accordingly provides great insights into the participation in cycling by the Australian population. The NCPS also provides an effective measure to determine how well the objectives of the Australian National Cycling Strategy 2011-2016 are being achieved – and the priority objective to double participation in cycling over the life of the strategy. The most recent survey suggests:

- ▶ 15.5% of Australians had ridden a bike in the previous week, while 21.8% had ridden on the previous month and 34.2% had ridden at least once in the previous year. These national figures vary slightly for Victoria where 16.7% of Victorian residents had ridden a bike in the typical week and 35.8% in the past year
- ▶ Participation rates are highest in the ACT – potentially reflecting in part the outstanding network of bike trails throughout Canberra
- ▶ Participation has dropped across Australia slightly over the past 12 months
- ▶ Of the 21.8% that cycled in the past month, 80.6% of those did so for recreation purposes – a figure that has not changed much since the 2011 survey when 80.9% surveyed cycled for recreational purposes
- ▶ The average ride time for those that cycled in the past week was 2 hours and 32 minutes
- ▶ 55.8% of households have at least one bike in working order Australia wide while Melbourne households rise to 61%
- ▶ Younger children have high levels of cycling participation with 43.8% of males and 37.4% of females under 10 having ridden the past week. Male participation rises in the 10 to 17 category to 50.4% but female cycling falls dramatically to 17%.

The National Cycling Strategy: Implementation Report 2016<sup>18</sup> shows that State and Territory Governments continued to embed walking and cycling measures into a variety of planning instruments (aligned to section 3 of this report) and operations with governments investing \$121.8 million on improving on and off-road cycling networks in urban and rural.

The same report shows that Victoria on average spends less per head on cycling investment (\$3.01) than any other State or Territory other than South Australia (\$2.15), while the Australia average is \$5.29 per head and the ACT leads per capita expenditure at \$40.71 per head.

## 5.2 Cycle Tourism

Cycling tourism (which includes mountain biking and road/trail riding) is increasing globally. The Adventure Travel Trade Association (ATTA)<sup>19</sup> conducted a benchmark survey of worldwide cycle tour companies in 2014 which estimated that:

- ▶ Cycle tour companies saw a 59% increase in profits over 2013
- ▶ Europe, Asia and North America are the leading cycle destinations
- ▶ Mountain bike tours form 20% of the total cycle tourism.

The National and International Visitor Surveys (NVS/IVS) conducted in Australia currently only ask for participation in the activity of 'cycling', and do not differentiate between road cycling and off-road cycling and mountain biking.

The NVS and IVS results for the year ending June 2015 indicate that over the past five years, there has been significant growth (35%) in tourists who participate in a cycling activity.

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<sup>17</sup> Australian Cycling Participation – Austroads 19 June 2017

<sup>18</sup> The Australian National Cycling Strategy: Implementation Report 2016 - Austroads

<sup>19</sup> ATTA (2014), Bicycle Tourism – 2014 Survey, [www.adventuretravel.biz](http://www.adventuretravel.biz)

Since 2011, steady increases can be witnessed across cycle tourism by domestic overnight and international visitors – which have seen a 38% and 46% growth respectively over the past five years (see Figure 3). Although since 2013 there has been a 4% per annum decline in day trip cycle visitors, there has been a total increase in this market over the past five years. Overall there has been an average growth per annum of 6% in the day trip cycle market, 8% in the domestic overnight cycle market and 9% in the international cycle market.

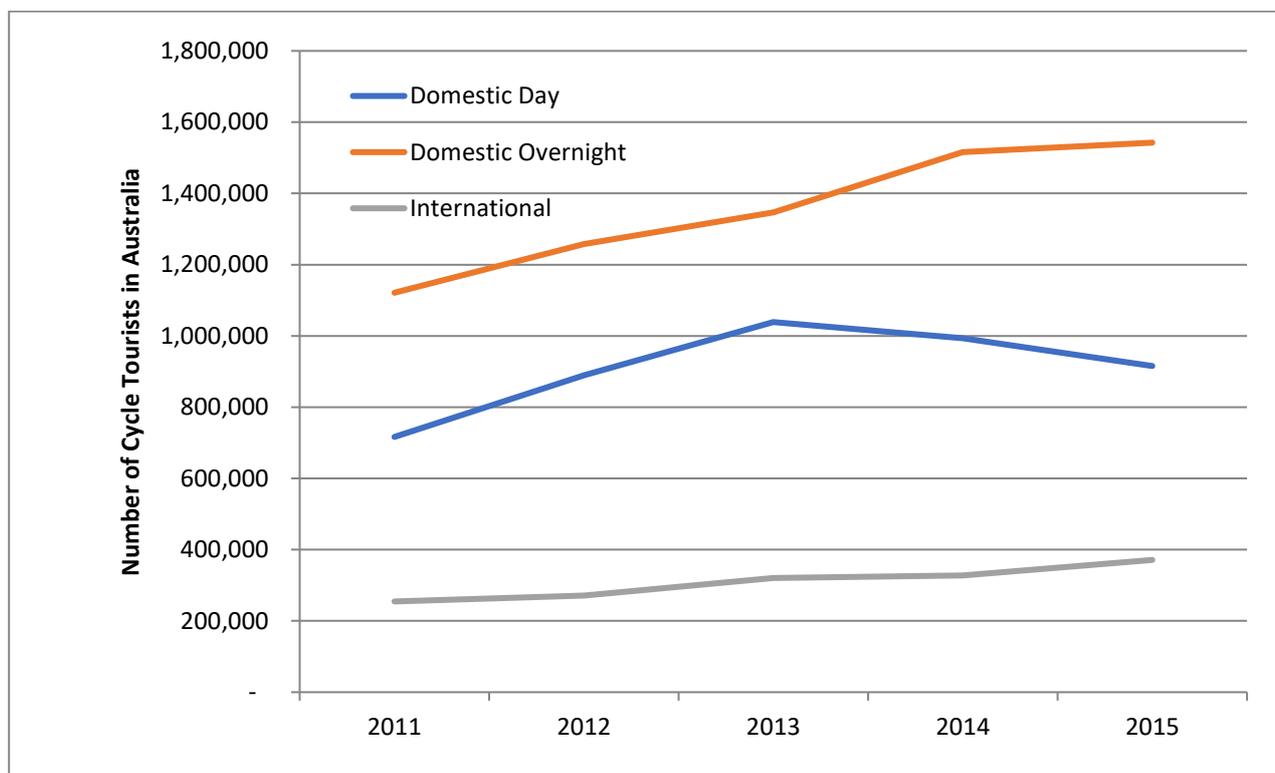
### 5.3 Case Study – New Zealand Cycle Trails and Great Rides

The New Zealand Cycle Trails is a significant initiative from the New Zealand Government that arose during their financial crisis. The government initially invested \$50 million with an additional \$30 coming from Trusts and local government. In 2016, an additional \$25 million was invested. Currently, there are 23 Great Rides that showcase New Zealand’s beauty, culture and heritage.

In 2015, the Great Rides attracted 1.2 million visitors and generated \$37.4 million NZ in economic activity. The Otago Rail Trail remains a central plank in the portfolio of rides in part due to the scenery and in part due to an easy gradient and the provision of attractive leisure and recreational cycling opportunities for locals and visitors alike. Significant learnings have included:

- The need to build a brand around cycling while offering different experiences within that brand
- Good governance of trails is essential for them to reach their full potential
- Partnerships across Government and the community and business are essential
- Constructing trails to a recognised standard to ensure people’s understanding of the experience on offer is matched with that delivered.

Several challenges are noted including that access to private land and ensuring the right agreements are in place is important, as is planning for the full funding required for the trail build and its ongoing maintenance and operation.



# 6 Creating a World Class Cycling Destination

While a destination may have world class trails, it is the combination of trails and the overall visitor experience that creates a trails destination resident are proud of and visitors seek out. A world class or even a great trail destination is more than its physical trails. A combination of factors creates a trail destination that continues to attract visitors through its reputation for quality and a special experience. The following factors tend to characterise a world-class trails destination.

## 6.1 The Trails

At the core of attracting trail visitors is the environment and setting, the quality and quantity of trails, their accessibility and the interest and challenge offered.

### 6.1.1 Diversity of trail types, styles and destinations

A diversity of trails suited to a range of users and markets is desirable to broaden the destination's appeal to a range of users and markets – both for people for whom a trail experience is the main reason for the visit and visitors for whom a trail is one of several activities they undertake.

This has been achieved in a variety of ways, such as trails in different locations and landscapes, long and short trails or different loops and journey options; a range of challenges – such as front country and backcountry walks or rides.

Successful mountain biking destinations typically offer trails for a variety of riding styles, skill levels (beginner, intermediate and advanced) and technical challenges. Mountain biking facilities that offer a wide range of quality experiences are often recognised by the International Mountain Bicycling Association (IMBA) by its Ride Centre designation.

**Queenstown** (New Zealand) owes part of its success as a trails destination to its wide range of walking, tramping, cycling and mountain biking trails that are easily accessible from the town or nearby visitor hubs.

**Mt Buller Bike Park** in Australia's Victorian Alps offers a wide range of cross-country and downhill mountain biking trails together with skills development areas. It has gained IMBA recognition as an IMBA Ride Centre. Development of an IMBA Epic Ride (a demanding, single track backcountry adventure trail) added to the variety of the trail offer and led to an increase in visitation.

One or more signature (or icon) trails are important to provide a drawing point for a trail destination. However, a variety of trail experiences is desirable to cater for the range of visitor interests, encourage exploration of the destination and foster repeat visitation.

### 6.1.2 Concentration of trail opportunities

Ideally, different visitor markets should have access to trail opportunities that cover at least 2 to 3 days of walking or riding activity. Depending on the market, this might include linear trails that offer multi-day journeys; trail networks or trails accessible from a visitor hub with a variety short trail or day options.

**Fruits**, an adventure destination in Mesa County Colorado, has several dispersed mountain biking, hiking and horse riding trail networks accessible from the area's visitor hubs and offering a range of difference trail experiences through desert and mountain terrain.

### 6.1.3 High quality, sustainable trail infrastructure

The trail's location and design should enhance the user's overall experience – whether it is a short walk showcasing a special feature, a long journey through different landscapes, a remote nature experience, a challenging mountain bike ride or an event.

Trails and associated infrastructure (trailheads, signage, amenities) need to be designed and constructed to be fit for purpose and level of use, to be compatible with surrounding natural and cultural features, and to minimise environmental and social impacts.

Trails and infrastructure should be designed and managed to be safe for the proposed uses, including shared use trails. There should be clear, accessible information (on signs and online sources) on orientation and wayfinding, trail standards, difficulty ratings, appropriate user behaviour and journey length.

### 6.1.4 Accessibility

Trails need to be easily accessible to visitor markets from a destination's population, tourism and transport hubs. Transport arrangements and facilities need to be tailored to the ways users wish to access trails, their points of origin and their logistical requirements. Examples include:

- ▶ road access to trailheads with adequate car parking facilities

- ▶ public bus or train services to trailheads, with facilities for transporting packs and bicycles
- ▶ people, bike and luggage transfer services that facilitate one-way journeys
- ▶ bike shuttle services and lifts at mountain bike trails
- ▶ All ability accessible facilities to encourage the broadest community use possible.

On multi-day trails such as New Zealand's **Otago Central Rail Trail**, **Queen Charlotte Track** and **Australia's Great Ocean Walk**, transport providers transfer luggage and drop off and pick up people at different locations to facilitate luggage-free walking or riding, different journey lengths and the use of off-trail accommodation.

Bike shuttle services are an important element in the success of the **Rotorua** mountain biking destination.

## 6.2 The Experience

### 6.2.1 Distinctive experiences

Successful trail destinations offer visitors something special and different from other places. They offer a strong overall destination experience in which:

- ▶ trails showcase distinctive landscapes, natural or cultural landscapes and/or enable users to interact with local people and cultures
- ▶ linked experiences and accommodation add character and variety
- ▶ on and off trail competitive and social events help stimulate interest and attract different markets.

Interpretation and storytelling are important to contemporary trail visitor markets who seek to immerse themselves in, and learn about, places and people.

### 6.2.2 Attractive natural or cultural context

The setting in which trails are located is integral to their attraction to visitors. Spectacular or unusual settings and places of interest near trails are significant attractions for visitors and add to the pool of visitors likely to use trails. The natural and cultural features of a destination also provide stories that add interest to the trail experience.

### 6.2.3 Quality pre-trip information

Quality websites, apps and maps are needed to provide prospective visitors with reliable information about the trails in a destination, the services available and the destination in general. Ideally, a trail destination will have a 'one stop shop' website that provides comprehensive information on all the trails; the range of experiences and services; and facilities or links for booking trail experiences, tours, transport, services and accommodation.

The website for the 152 km **Otago Central Rail Trail** ([www.otagoctrail.co.nz](http://www.otagoctrail.co.nz)) provides comprehensive information about the trail and the region, equipment requirements, transport services, bike hire, tours, accommodation, food and wine, attractions and events. Itineraries are provided for trail trips of various lengths. There are links to tourism providers to enable booking.

The **7Stanes** is a group of world-class mountain bike trail centres spread through in forest areas in the south of Scotland. Scotland's Forestry Commission's website ([scotland.forestry.gov.uk/activities/mountain-biking](http://scotland.forestry.gov.uk/activities/mountain-biking)) provides detailed information about each centre, trail grades and safety, walking and other activities and events. Another website ([www.7stanes.com](http://www.7stanes.com)) provides information of mountain bike businesses, accommodation and holiday packages.

### 6.2.4 A range of quality support services and facilities

Successful trail destinations provide the range of trail users with the services they need to access and enjoy trails. They assist in providing a seamless experience where the logistics of accessing trails, transporting people and equipment, and finding a place to stay are easily handled. The support services need to recognise the special needs of trail visitors. It is becoming more prevalent for trail destinations to run walker or bike friendly schemes where service and accommodation providers offer products and packages that cater for needs such as secure bike and equipment storage, clothes and equipment washing, packed lunches, opening hours convenient to trail users.

Typical trail destination support services include:

- people, equipment and luggage transport to and from trailheads and accommodation
- a range of guided and self-guided trail tours
- equipment, bike hire, repair and retail for tramping, and other user needs including bridle equipment
- car rental services that facilitate carrying of equipment and bikes
- long stay car parking at or near trailheads
- a range of trail-friendly accommodation that caters for walkers and riders.

#### VISIT SCOTLAND WELCOME SCHEMES

**Visit Scotland**, Scotland's national tourism organisation, operates Welcome Schemes which offers accreditation to encourage tourism businesses to meet the varied needs of visitors and ensure that the hospitality encountered by visitors 'meets, or preferably exceeds, their expectations' (<http://www.visitscotland.org>). The range of schemes includes a Walkers Welcome Scheme and a Cyclists Welcome Scheme with criteria for accommodation, caravan/camping, visitor attraction and café/restaurant businesses.

Core criteria for accommodation are:

- outdoor clothing drying space
- access to clothes washing facilities
- provision of (or access to) early breakfast and late evening meals
- packed lunch service
- information on local walking/cycling routes and public transport
- daily weather forecast
- details of local resource services
- free unrestricted WIFI
- chargers for common mobile devices
- lockable, covered bike storage (for cyclists)
- details of nearest cycle repair services and a range of basic repair items (for cyclists)

Core criteria for attractions and café/restaurants are:

- space for wet clothes, rucksacks
- provision of bike parking
- information on local public transport, emergency first aid contacts, local walking/cycling routes
- assistance on finding walker or cyclist friendly accommodation providers
- free refilling of water bottles and flasks
- free unrestricted WIFI



### 6.2.5 Trail, food, beverage and retail products and businesses

Trail visitors need to have accessible places, open at the right times, in order to purchase food and equipment. Cafes and restaurants are also important as places to relax and enjoy the destination. In many places cafes have evolved as places for walkers and riders to meet and socialise – often forming an intrinsic part of a walking or riding experience. Outdoor and bicycle shops are also important places to make trip-related purchases, obtain local information and arrange hire or repair of equipment and bikes.

### 6.2.6 Strong trail destination positioning and marketing

With an increasing number of trail destinations, strong destination positioning is needed in the marketplace and the minds of prospective visitors. The positioning needs to be delivered consistently across the different trails in a destination through information, messages, imagery, standards, quality of product and service.

Collaboration between trail managers, operators, the tourism industry and government agencies is required to develop and deliver consistent position and to market a trails destination in an effective manner.

## 6.3 Governance and Management

An effective structure (or structures) to facilitate collaboration, coordination and quality control among the different trail managers and stakeholders is critical to delivering quality trails infrastructure and experiences across a destination.

A separate report<sup>20</sup> on trail governance is being considered by the Yarra Ranges Council.

### Italy Bike Hotels

Italy Bike Hotels ([www.italybikehotels.com](http://www.italybikehotels.com)) is a consortium of 67 hotels which provide quality-services according to agreed criteria to cyclists visiting different parts of Italy. They cover the different cycling clientele – road cyclists, mountain bikers, cycle tourists and sport cyclists. The fulfilment of the criteria in each hotel is audited independently.

The core facilities provided by participating hotels are:

- safe, secure bike storage
- an equipped bike workshop
- access to a bike repair service
- cycle guide services
- information on routes, trails and itineraries
- laundry services for sports clothing
- balanced meals and snacks suited to energetic activity
- medical assistance and physiotherapy
- work out space, massage treatment



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<sup>20</sup> Yarra Ranges Trail Governance Business Model  
Updated Final Report 2017



## 7 The Yarra Valley Trail – Description

The Yarra Valley Trail (YVT) has been described variously as a potential ‘Game Changer’ project for the Yarra Valley. The proposal is briefly described in Section 1 of this report with more detail provided in the Feasibility Report and in the upcoming Master Plan.

Essentially the Yarra Valley Trail is a 40-kilometre high quality trail traversing through the outstanding scenery of the Yarra Valley linking not only communities and towns but also tourism product that is of world standard.

Located on the eastern outskirts of Melbourne, the YVT will be directly accessed by a short drive from Melbourne or other locations generally in the Eastern suburbs. The YVT will connect the local townships located between Lilydale, Yarra Glen, Healesville and Warburton with a trail designed to be family friendly, safe and supported by a range of world class facilities. The linkages are generally thought to be able to provide social benefits beyond the tourism and economic generators likely to be delivered.

The Master Plan process currently underway (See section 4.3) will provide more detail on the routes and infrastructure to be provided but in summary, the three sections of the trail are:

### Section 1

Beginning near the Lilydale Railway Station, linking to the Lilydale to Warburton Rail Trail not far from Lilydale before traversing the old rail line to Yarra Glen terminating at the recently refurbished Yarra Glen Historic Railway Station. The section passes through farmland and vineyards and crosses several historic trestle bridges before a final crossing of the Yarra River near Yarra Glen.

### Section 2

Several options are currently being considered for this section that links Yarra Glen and Healesville. An option following the rail easement prior to deviating south to the river corridor provides a scenic and relatively flat meandering link to Healesville, while more direct routes potentially use the rail corridor and some road reserves and private property that may be available for lease or licencing. Descriptions of options are detailed later in this section.

### Section 3

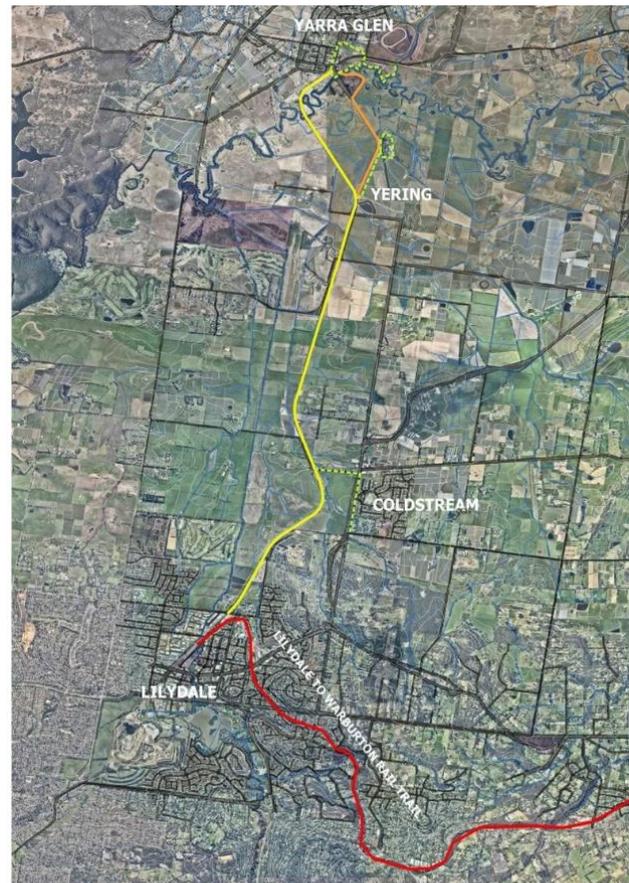
The most difficult section to define links Healesville and the Lilydale Warburton Rail Trail somewhere near Woori Yallock. The section has two main options each with strengths and weaknesses, and some with issues that are difficult to resolve in this report without considerable in-depth planning. Healesville Sanctuary sits along the potential route and would be a significant product drawcard to enhance the experience of the trail.

## 7.1 Yarra Valley Trail Section 1 Options and Detail

Approaching 11.5 kilometres in length and basically flat (a drop of perhaps 20 to 30 metres over the length of the section), this proposed section follows the old railway alignment from Lilydale to Yarra Glen. Most of the track is elevated due to the likelihood of flooding and to get the previous railway line off the river flats. Several bridges provide outstanding view points across the Yarra Valley to the Great Dividing Range, Coldstream Hills and up and down the Yarra Valley.

The rail line skirts to the west of Coldstream, a small village north of Lilydale with product that will add to the experience of the trail and a likely link into the village not only for tourism but for residents to access the pathway and use it for travel to both Yarra Glen and Lilydale.

A significant crossing of the Yarra River is required. The current plan has a reconstructed rail bridge being the preferred approach, crossing the Yarra River southwest of the Yarra Glen township before the trail arrives at the old railway station. This bridge would also provide a significant experience for trail users, especially those living in Melbourne where the Yarra River holds a somewhat famed position in Melbournians' minds.



**MAJOR LAND MANAGERS**  
VIC TRACK

**OTHER STAKEHOLDERS**  
YARRA VALLEY RAILWAY  
MELBOURNE WATER



YARRA VALLEY TRAIL

SECTION 1 - LILYDALE TO YARRA GLEN

COX

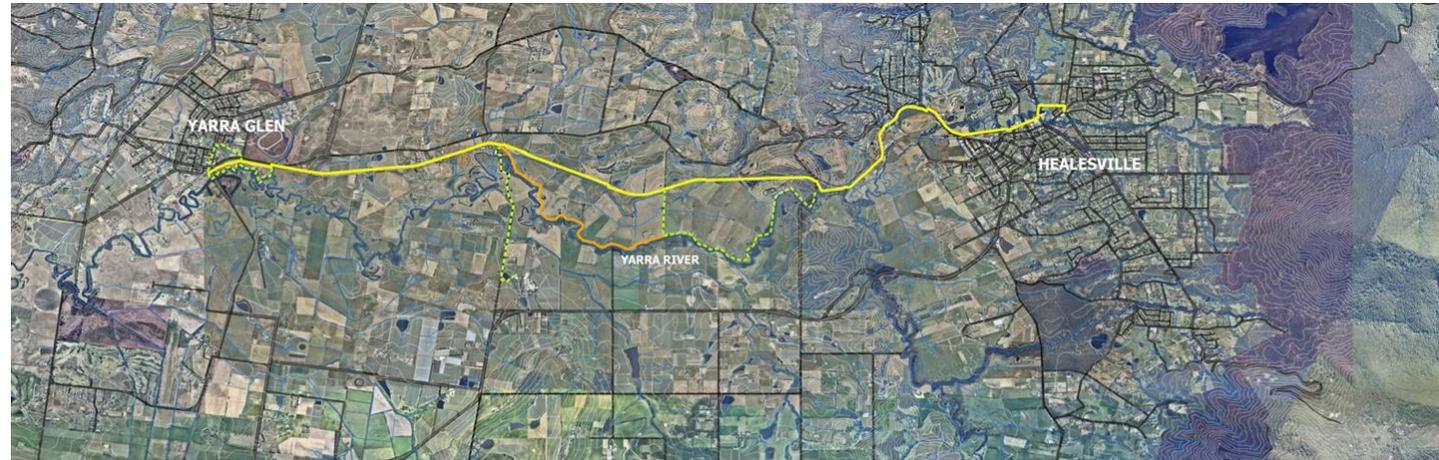
Figure 2 Section 1. YVT (Source Draft Master Plan)

## 7.2 Yarra Valley Trail Stage 2 Options and Detail

Section 2 of the proposed trail leaves the Yarra Glen railway station and traverses one of several options to arrive at Healesville Railway Station along the tree lined River Street. The options vary in their attributes, experiences and likely markets and are described in more detail.

### 7.2.1 Section 2 Option 1 – Primarily Rail Corridor Alignment

This option leaves the Yarra Glen railway station, and crosses the Yarra River to follow the rail alignment for the much of the way. Heading eastwards from Yarra Glen and the Yarra crossing, the alignment meanders along at grade through rolling farmland with pleasant views to the north and south into the ranges and Christmas Hills. Approximately two thirds of the way to Healesville, a deviation around the railway tunnel is required. The trail cannot pass through the tunnel due to the safety risks associated with trains passing through when the railway becomes operational. A proposed bypass of the tunnel is under exploration with options including traversing hills to the north of the tunnel, and sections along the river to the south of the tunnel.



<b>MAJOR LAND MANAGERS</b> VIC TRACK (YVR) VIC ROADS YARRA RANGES COUNCIL TARRAWARRA ESTATE/ TARRAWARRA ABBEY		<b>OTHER STAKEHOLDERS</b> MELBOURNE WATER YARRA VALLEY RAILWAY TARRAWARRA ESTATE
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YARRA VALLEY TRAIL

SECTION 2 - YARRA GLEN TO HEALESVILLE



Once past the tunnel the trail continues eastward through linking low use roads, easements through the Racecourse and onto the existing trail network arriving into the rail station at Healesville.

The option has strengths including the grade and road separation providing both a strong experience element aligned with the target market and section one of the trail (they are relatively flat and easy to traverse) and safety as it is off the road and not located directly on the trail path. A number of outstanding businesses are passed and joined to the trail.

The section of trail located on or near the rail easement would be relatively easy to construct and would present few governance or engineering issues through the development of a sub - lease or MOU with the current lessees of the alignment; Yarra Valley Railway. Some issues including native vegetation offsets and land holder agreements may be required for the by-pass of the tunnel.

### **7.2.2 Section 2 Option 2 – South to the Yarra River**

The first 5.6 kilometres of this option follow an identical route to that described in Section 2 option 1 above. At an appropriate point close to the Yarra River, the trail would deviate to the south and be constructed on land close to the river providing a true Yarra River experience. A sub option has the trail join the river further eastwards after heading due south to the river from the rail alignment. At a point immediately east of the tunnel, the trail would re-join the proposed route in option 1 described above.

The option would provide a wonderful Yarra River experience but presents several challenges. Land owner consents are not taken for granted both along the river frontage and on the final proposed route to the river and to re-join the alignment east of the tunnel.

Engineering issues may be present due to the need to either raise the boardwalk along the river sections due to the flooding regime of the river, or design the trail to be flooded as and when the river does.

The option avoids passing by many of the businesses that might be a significant product for the trail and provides a more natural setting.

### **7.2.3 Section 2 Option 3 – Follow the Yarra Glen Healesville Road Alignment**

This option may follow the rail alignment as far as practically possible to the east from Yarra Glen Railway Station, but would then deviate to a constructed and separated path on the Healesville – Yarra Glen road easement. The road of course was not constructed to provide an outstanding visitor experience route and accordingly does not take the most scenic route. The road also has a few elevation gains that may present some difficulty to the average user in some of the market segments being sought.

On entering Healesville this option deviates from the main road onto the same easements and minor local roads and the Racecourse as does the above two options for this section.

Additionally this option provides a relatively poor experience for cyclists riding close to (but separated by Armco barriers or similar infrastructure) a road with considerable use. This includes heavy transport and the constant movement of cars.

### **7.2.4 Hybrid Option**

At the time of writing this report, Yarra Ranges Shire Council is investigating a hybrid option for Section 2. The Option (option 4) follows the rail easement as far as practically possible with the in principle of support of Yarra Valley Railway. The trail would then, as opposed to heading south to follow the river or deviating around the tunnel through the nearby hill, involve leasing sections of private land between the Yarra Glen – Healesville Road and the rail easement until the trail is east of the tunnel and can re-join the alignment proposed in all options for this section.

This hybrid option has the advantage of relative ease of construction (not in a flood plain), and potentially stronger accountability assuming leases can be negotiated with landholders to access private property while still offering visitors the opportunity to visit Tarrawarra and other businesses on the route into Healesville from the west. Environmental

approvals may be needed for vegetation management but the trail alignment can be managed to minimise these impacts. Grades can also be managed to provide the user experience most aligned to the visitor segments using the trail, and to those present in Section 1.

### **7.3 Yarra Valley Trail Section 3 Options and Detail**

This section of trail has two options with vastly different experiences, trail formations and opportunities for the section that joins Healesville and the Lilydale-Warburton Rail Trail.

#### **7.3.1 Section 3 Option 1**

Option 1 for section 3 is a high-level route that initially heads north out of Healesville and in and around the Maroondah Reservoir with the aim of gradually building elevation to join the Coranderrk Aqueduct. The aqueduct has a management vehicle trail along-side it and due to the design of the aqueduct to slowly move water from one part of the catchment to another, has a very even gradient perfect for easy cycling.

While currently unavailable as an option due to the sensitive nature of people in a designated water catchment buffer area, the aqueduct is due to be decommissioned by Melbourne Water in approximately 2022.

The visitor experience of the trail would be significant although at times repetitive. The main-focus is a nature based one travelling through outstanding forest and with glimpses of the valley below and south and west. Upon leaving the aqueduct, a relatively steep drop off south to eventually join the Rail Trail south of the Yarra River near Woori Yallock. The steepness would generally not be a problem for those completing this section from north to south by reversing that would pose a relatively significant climb from the valley floor to the aqueduct.

#### **7.3.2 Section 3 Option 2**

Option 2 for section 3 provides a nature and conservation based experience that potentially is world class. The trail leaves Healesville to the southeast along Don Road to eventually join into the Healesville Sanctuary. The Sanctuary is a world class facility that attracts hundreds of thousands of visitors a year to view native animals and immerse themselves in conservation of threatened species.

The trail has the potential to go through the Sanctuary (subject to design and security issues being addressed), or alongside with the option of a visit as an added extra. This option also provides a significant stand-alone market for cycling to the Sanctuary from Healesville township accommodation.

Upon leaving the sanctuary zone, the trail heads west and joins the Yarra River where it would, subject to landholder and environmental approvals, follow the river corridor to the Warramate Hills. This section of the river is important environmentally and has been classified accordingly in the recent Yellingbow Study by the State Government. While acknowledging the importance of the environmental overlay in this section, the trail also presents an opportunity to engage the local community in conservation by using a trail in the area to access degraded sections of the river corridor and rehabilitate them to better protect the threatened species of the area.

The trail then leaves the Warramate Hills on existing roads and tracks and eventually joins the Lilydale to Warburton Rail Trail completing the Yarra Valley Trail loop.

The section will ultimately re-join the Lilydale to Warburton Rail Trail completing an exciting loop trail, all elements of which have a slightly different experience, landscape they traverse through and products to support them. Cyclists and trail users then have the option of returning to Lilydale or going on to Warburton.

## 7.4 Yarra Valley Trail Section Costs

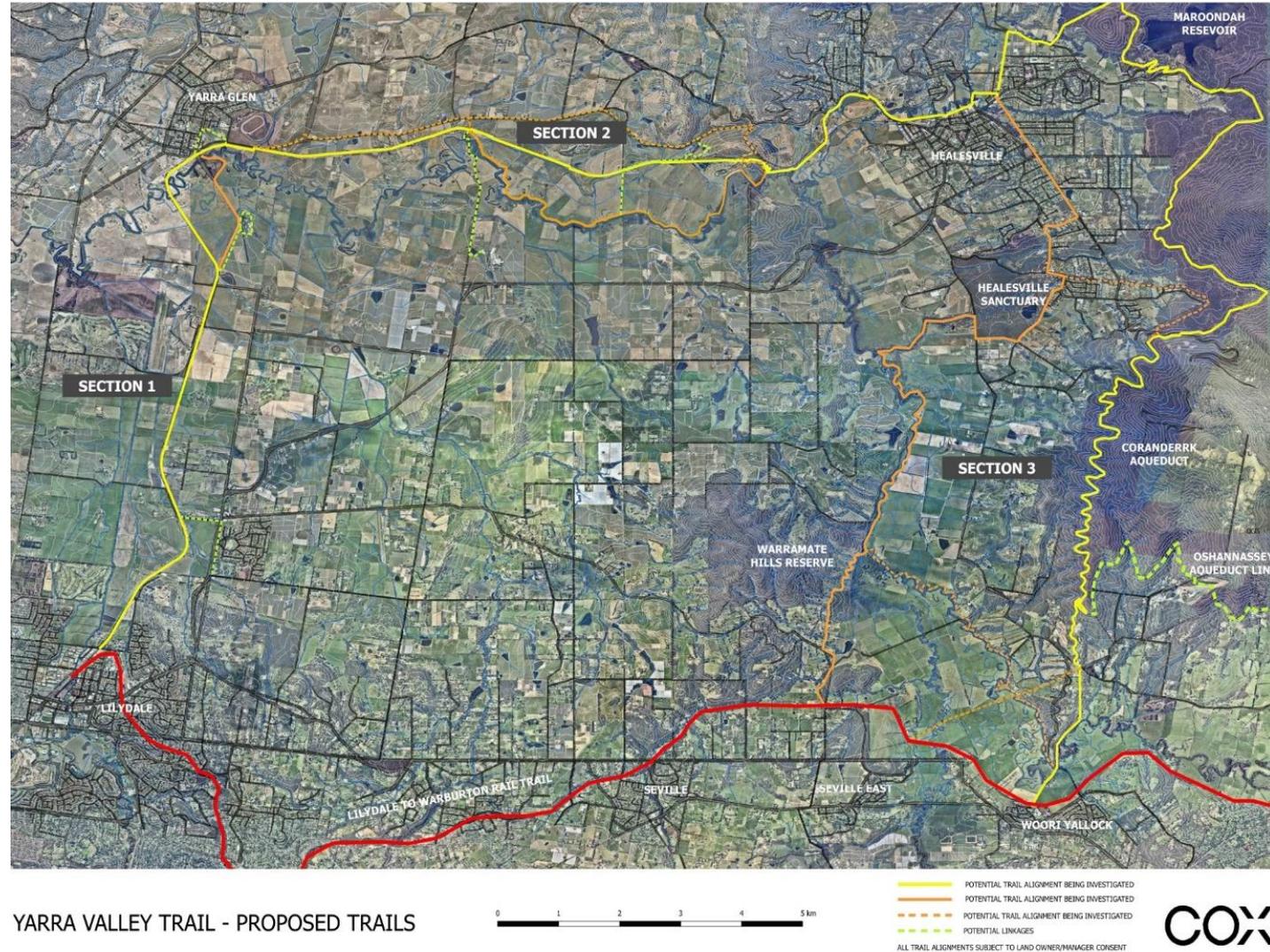
Current work undertaken as part of the Master Plan process has identified cost estimates for each section of the trail. These cost estimates are yet to be tested by the market, and are based on schedule of costs for different trail types, and bridge and other asset requirements. It should be noted that until detail design is undertaken, they remain estimates but are considered strong enough to be able to be used in this impact assessment process.

Figures in table 2 below have been adjusted to 2017-dollar equivalents and are based partially on the 2013 Great Victorian Rail Trail. Figures are ex GST.

**Table 2 Coast Estimates for the Trail Sections and Options**

Section	Option	Estimated Cost
1 Lilydale to Yarra Glen	Only 1 Option	\$4.220 million
2 Yarra Glen to Healesville	Rail Reserve	\$1.38 million
	Yarra River Option	\$3.19 million
3. Healesville to Woori Yallock	Road Reserve	\$4.5 million
	Don Road and Aqueduct	TBD

(Source – Draft Master Plan Costs Estimates – Cox 2017)



# 8 Yarra Valley Trail Vision & Target Markets

The Yarra Ranges Council seeks to establish the Yarra Valley as a world class trail destination. The destination will be the sum of its parts with many of the elements in existence now and some requiring improvement, development or completion.

A proposed vision for the YVT could be:

**The Yarra Valley Trail will be recognised as a world class destination linking communities and tourism products, managed sustainably for the health and wellbeing of visitors and residents alike.**

Setting an objective to be world class immediately puts in place an aspiration to succeed to the highest level in all the elements required for the trail and the broader destination to the highest standard. This will include not only trail design, but the elements of a destination described in Section 7 of this report, and the critical elements of environmental stewardship and community activation providing social and health benefits to residents.

## 8.1 Target Markets

Aligned to a vision, target markets are critical in order to ensure that the product and infrastructure are designed to meet the needs and aspirations of the market segment and that the services and experiences are meeting the markets expectations. Failure to do so will result in misalignment of product service and expectation leading to declining user satisfaction and ultimately visitors.

In creating a world class cycle tourism destination across the broader Yarra Ranges Council area, a variety of trails will provide different levels of difficulty and trail type to suit a variety of user markets. The collective destination will have the ability to provide cycle tourism services as the sum of the markets and trails across the Valley including proposed mountain biking trial and trail hubs in Warburton and Powelltown.

Target markets and their attributes of the YVT are described below in table 3.

**Table 3 Market segments and their characteristics**

Market Segment	Characteristics	Experience Preferences	Experience Needs	Market Compatibility
<b>Describes the user group</b>	<b>Such as age/life-stage, travel group, length of stay, expenditure</b>	<b>Motivations and type of experience – such as hard or soft adventure, events.</b>	<b>Such as infrastructure, services, guided products, supporting experiences.</b>	<b>Compatibility with walk/paddle experience</b>
<b>Younger Couples or groups with no Children</b>	Generally have a higher disposable income. May have more relaxed itinerary with more flexibility. Will generally have a high level of equipment.	Relaxing high quality with supporting services including cafes and lunch locations including wine tasting.	Good quality information and possible electronic information including apps. Supporting services including food and wine services and good coffee.	Highly compatible using the trail as an experience among the destinations high quality service offerings
<b>Family Groups</b>	Likely to be a day trip or a weekend visit to the valley staying nearby. Family groups are most likely to be in a group of	The motivation will be for quality time spent as a family in the fresh air enjoying the scenery.	Good signage and route information is critical to help family groups with timing and reassurance on distances.	High compatibility with the market. The addition of high quality local products along the trail is a strong selling point, as is the

Market Segment	Characteristics	Experience Preferences	Experience Needs	Market Compatibility
	<p>between 3 and 6 people with children aging from 5 or 6 through to mid-teens.</p> <p>Expenditure will generally be modest but may include transport costs, coffees and ice creams, and purchase of local provisions for picnics</p>	<p>A lower degree of difficulty will be chosen as the parents do not want to get into difficulty with the children on bikes.</p>	<p>Groups may choose to buy local products to support a self-catered picnic.</p> <p>Good coffee and snack stops along the way.</p> <p>Facilities to allow picnics including picnic tables.</p> <p>Good quality clean toilet stops well placed apart and well signed.</p>	<p>proximity to Melbourne (not too far to drive).</p>
<b>Experience Seekers</b>	<p>This segment will likely use and enjoy a high-quality facility but will also explore beyond the trail to find the unique products and experiences.</p> <p>A weekend getaway with friends is most likely although strong mid-week use could be expected with fewer people and a less crowded visit welcomed.</p>	<p>Small personalised and unique offerings are generally sought.</p> <p>Some groups will seek out higher level activity experiences including adrenalin and adventure.</p> <p>Festivals for food and wine and other niche services or racing type events may also be sought.</p>	<p>Knowledge and on-line information to help decide on the experiences sought prior to arrival.</p> <p>The ability to explore and find experiences themselves.</p> <p>High quality niche products and services that are more individually focussed.</p> <p>Supporting infrastructure that allows exploration and that is high quality.</p>	<p>High compatibility given the quality focussed attractions and services along the trail.</p> <p>Smaller wineries and breweries with bakeries, chocolates, coffees and the opportunity to explore Healesville Sanctuary on bike are strong attractors.</p>
<b>Mid Life Retirees and Empty Nesters</b>	<p>Generally from age 50 upwards to 70's. Will either be travelling as a couple of will be with a group of like-minded and similar aged people.</p> <p>May not be in a rush and will be seeking to enjoy the location and company of friends and immediate partners.</p> <p>May have some money to spend on services such as a nice lunch along the way.</p> <p>Some day trip and overnight options will be sought.</p>	<p>This demographic is generally motivated to enjoy the outdoor life with friends. Activity is important but higher levels of activity are generally not sought.</p> <p>Some local events may be important attractors including food and wine festivals.</p>	<p>High quality support infrastructure including signs, toilets, rest facilities and easy access to products and services including food and wine and crafts.</p> <p>Will explore off the beaten track if the information is available and generally will be seeking reasonable to higher quality accommodation options</p>	<p>Highly compatible. The range of services is a strong attractor and a high quality, easy to follow trail with good car parking access is important.</p>

# 9 Options Assessment

The Yarra Valley Trail planning process has identified several options within Sections 2 and 3 that need consideration and evaluation to determine the impact on the economic return from the trail to the community and to the investors.

To analyse the options a number of criteria are used to help differentiate the options not only on their cost to build, but a range of measures that assist in developing a world class trail with outstanding experiences aligned to the target markets. This will help drive visitor numbers to the trail and to the broader destination.

Each section will be analysed separately in order to develop a picture of the section's values, strengths and weaknesses and opportunities.

## 9.1 Criteria

Assessing the 3 sections, and the options within each is complex due to the differing products, degrees of difficulty, alignment to target markets and cost. The approach is to assess each trail option against a set of criteria to help determine which options provide the greatest alignment to the vision and outcomes sought. Each option has been assessed against the following set of questions:"

### Visitor Experience Outcomes

- 1.1 How well does the option align the product with the vision for the destination?
- 1.2 How well does the option provide a significant experience on its own?
- 1.3 How well does the option link world class products and services?
- 1.4 How well does the section of trail activate a theme for that section?

### Business Outcomes

- 2.1 How well does the trail potentially link and provide greater visitor numbers and greater yield and visitors to existing businesses?
- 2.2 How well does the trail potentially activate new business opportunities?
- 2.3 To what extent does this section of trail offer event opportunities?

### Social Outcomes

- 3.1 How well does the trail link communities?
- 3.2 How well does the trail provide ease of access for local use including community exercise etc.?
- 3.3 How well does the section act as a transport corridor for walking and cycling between facilities (i.e. school)?

### Environmental

- 4.1 How likely is the trail to cause environmental risk or damage during its construction?
- 4.2 To what extent does this option traverse through environmentally sensitive areas better avoided?
- 4.3 How well does the trail potentially activate community conservation through better access for rehabilitation?

### Planning and Construction

- 5.1 How clear is the governance of the section option in respect of accountability and clarity?
- 5.2 How likely is the trail to be able to exhibit world class design and construction?
- 5.3 How costly is the option to build?
- 5.4 How easy if the trail to implement and build with a reduced cost and engineering/planning risk?

## 9.2 Scoring Methodology

Scores are applied to each for the criteria as follows:

- 0 Does not meet the criteria and provides no value to the trail, or detracts from overall product and experience
- 1 Partially meets the criteria, providing limited value while not completely fulfilling its potential
- 2 Mostly meets the criteria adding significant value to the trail, providing efficiencies or closely aligned to a target market
- 3 Fully meets the criteria

Additionally, colour coding is applied to each of the section attributes accordingly to aid in visual interpretation of the analysis:

Does Not Meet	Partially Meets	Mostly Meets	Fully Meets
0	1	2	3

## 9.3 Assessment of Section 1

Table 4 below provides an assessment of Section 1 of the proposed YVT using the criteria outlined in section 10.1 above and the scoring methodology outlined in section 10.2.

**Table 4 Assessment of Section 1.**

Criteria	Section 1	Comments
	Option 1	
<b>1. Visitor Experience</b>		
1.1 Alignment of the Product to the Vision for Yarra Valley	3	The experience offered on a unique rail formation with trestle bridges and expansive view of the ranges, coupled with access to outstanding Yarra Valley food and wine on a relatively flat grade high quality trail.
1.2 The Quality of the Option Experience	3	This option is the only option considered for this section but provides outstanding experiences.
1.3 Option Linkages to other products and services	2	Strong links to Coldstream including the shops and microbrewery. Good links to several businesses including the dairy and wineries along the route but many of the attractions are not easily accessible due to the elevated nature of the alignment and difficulty getting off it at all but designated stops.
1.4 The activation of a theme along the section	3	Strong sense of a theme, being immersed on an authentic rail trail in the Yarra Valley among wineries, food and terrific natural scenery
<b>2. Business Growth</b>		
2.1 Link and provide existing businesses more opportunity	2	A number of businesses in Lilydale Coldstream, Yarra Yering and Yarra Glen will have opportunity from this trail section with a trail or connecting link passing close by. General increase in tourism traffic and product in the Valley will help all businesses.
2.2 Activation of new business opportunities	2	Potential for new transport and service businesses to support the trail users, and for new experience augmenting businesses such as tour guides, providers and bike maintenance and repairs. Accommodation services on or near the trail may be considered by investors given the likely use of the trail.
2.3 Event Opportunities activated	3	Trail Section 1 provides a positive environment for events aligned to the target markets and the product strengths of the region including family and food and beverage weekends.

Criteria	Section 1	Comments
	Option 1	
<b>3. Social Benefits</b>		
3.1 Linkage of Communities	3	Trail section 1 links the towns of Coldstream to Lilydale and Yarra Glen to Lilydale. These connections are important community infrastructure additions and provide activation benefits as well as potential transport corridors for schools to communities.
3.2 Easily accessible for communities	2	Several relatively easily accessible points including the main towns but significant sections are raised and have little access given the private property neighbouring large sections
3.3 Linking communities to infrastructure and services	3	Linking Coldstream to Lilydale for school and other service connections for safe riding, walking and running is a significant advantage. Yarra Glen connections through to Lilydale are longer but important for those who will chose to use it.
<b>4. Environment</b>		
4.1 Construction risks to the environment	3	Most of the trail is on pre-formed alignments previously used by the railway. Some bridge reconstruction is required in addition to linkages into the towns. Very little vegetation removal or soil disturbance is required.  Some soil contamination may be encountered due to the railway past.
4.2 Routed in environmentally sensitive areas	3	The trail section predominantly passes through farmland or rail corridor with little environmental value.
4.3 Potential to activate community conservation corridors	2	Some revegetation opportunities and creek line access improvements may be available.
<b>5. Planning and Construction</b>		
5.1 How clear and simple and accountable is the governance for the section of trail	3	Section 1 is likely to be a simple lease to Yarra Ranges Council giving full accountability in the absence of other governance structures to Council.
5.2 How likely is the trail to be able to exhibit world class design and construction	3	The trail section and associated infrastructure including bridges, road crossings, river crossings etc all have great design potential.
5.3 How costly is the section to build	2	Generally favourable as the majority is on the rail easement, however one large bridge of the Yarra River will need replacing and could be costly with flood risk having to be considered.
5.4 How easy is the section to plan and build such that it reduces planning and implementation risk	3	Assuming leases can be put in place, operationalising this section has relatively low risk.

**Total score for the YVT Section 1 is 45 points.**

## 9.4 Assessment of Section 2

Table 5 below provides an assessment of Section 2 of the proposed YVT using the criteria outlined in section 10.1 above and the scoring methodology outlined in section 10.2. The comment section contains descriptions of the various options.

**Table 5 Assessment of Section 2. Options 1,2,3 and the hybrid option**

Criteria	Section 2				Comments
	Option 1	Option 2	Option 3	Hybrid 4	
<b>1. Visitor Experience</b>					
1.1 Alignment of the Product to the Vision for Yarra Valley	3	3	1	3	Option 3 following the road easement and presents a significantly reduced alignment to the vision with traffic noise and many more undulations never designed for family friendly cycling. Some higher level of safety risk in this option needs to be mitigated through the installation of Armco barriers to separate cyclists and cars. Options 1 and 2 and the hybrid have strong alignment with a rail and river thematic.
1.2 The Quality of the Option Experience	3	3	1	2	The quality of the experience riding along the rail easement on a purpose-built track will be strong as will the river option. The road alignment detracts from the experience in option 3 while the hybrid option has strong sections but some may be good rather than great as it skirts the private property in the Tarrawarra area.
1.3 Option Linkages to other products and services	2	2	2	2	All options provide some linkages with products and services between Yarra Glena and Healesville, but none link all the existing and potential offerings.
1.4 The activation of a theme along the section	3	3	1	2	Option 1 links strongly to the thematic of Section 1 of the trail as does option 2 but with a stronger river component. Option 3 using the road corridor is not a strong experience or theme and the hybrid option provides elements of section1 while introducing some food and wine elements.
<b>2. Business Growth</b>					
2.1 Link and provide existing businesses more opportunity	2	2	2	3	Significant businesses on the trail are ideally linked and this includes Tarrawarra Museum of Art and Winery in addition to those that might utilise the trail including the Railway. The river corridor potentially misses some businesses.
2.2 Activation of new business opportunities	3	2	2	3	Option 3 may encourage new transport providers as it will not be a particularly strong experience, options 1 and the hybrid present strong business growth with new product including food and wine on relatively easily accessible sections of trail. Option 2 on the river is more difficult to access and it may be more difficult to start a business on that section.
2.3 Event Opportunities activated	3	3	2	3	All options present strong opportunity for activating community and competitive events. The river adds a new dimension for water based activity over section 1 while the road option has a potentially poor experience. Options 1, 2 and 4 offer the opportunity for more event.

Criteria	Section 2				Comments
	Option 1	Option 2	Option 3	Hybrid 4	
<b>3. Social Benefits</b>					
3.1 Linkage of Communities	3	2	3	3	All options provide some linkage. The river option provides the least linkage due to it being a more natural setting without many residences.
3.2 Easily accessible for communities	3	1	3	3	Option 2 on the river provides the least community accessibility while option 3 and 4 along the road and the hybrid option provide the most access points for local community use.
3.3 Linking communities to infrastructure and services	2	1	2	2	Option 2 along the river provides the least linkage while all other options provide a good linkage recognising that there are not a lot of community services between the two towns.
<b>4. Environment</b>					
4.1 Construction risks to the environment	3	1	2	3	Sections of trail being constructed on previously built rail corridors have little construction risk to the environment other than potential contamination from previous rail use. The road corridor requires considerable potential disturbance to native vegetation so presents a higher risk.
4.2 Routed in environmentally sensitive areas	3	1	1	2	The river environment and the road environment both have extensive sections of native vegetation that will require offsets to be purchased or developed. The rail trail has little to no environmental risk.
4.3 Potential to activate community conservation corridors	2	3	1	2	The river corridor would be appealing to community groups to take an active conservation approach in. Roadside vegetation tends to be less appealing to the community. Rail corridor improvements can be undertaken with community support, particularly on creek crossings.
<b>5. Planning and Construction</b>					
5.1 How clear and simple and accountable is the governance for the section of trail	3	2	2	1	A single agreement provides the simplest form of governance and the section along the rail corridor provides that. Options 2 and 3 provide some mixed tenure with a river frontage and private property leasing adding complexity. The hybrid will potentially contain elements of all and while achievable does present a greater level of complexity.
5.2 How likely is the trail to be able to exhibit world class design and construction	3	3	1	3	All options except the road corridor have potential to be able to showcase excellence in design. The road corridor is narrow and will require Armco barriers or similar to separate safely cyclists and road users.
5.3 How costly is the section to build	3	2	10	2	The road section becomes very expensive due to the barriers required and other engineering. The river corridor will require flood design while the rail corridor or private farmland in the hybrid option would be relatively inexpensive.
5.4 How easy is the section to plan and build such that it reduces planning and implementation risk	2	2	1	2	The road alignment provides a difficult option due to the limited space, safety issues and batters that at times are relatively high. The easiest section is the rail trail but this does require a tunnel diversion.

**Total Option 1 – 43 Points**

**Option 2 – 36 Points**

**Option 3 – 27 Points**

**Option Hybrid – 41 Points**

## 9.5 Assessment of Section 3

Table 6 provides an assessment of Section 3 of the proposed YVT using the criteria outlined in section 10.1 above and the scoring methodology outlined in section 10.2. The comment section contains descriptions of the various options.

**Table 6 Assessment of Section 3. Options 1 and 2**

Criteria	Section 3.		
	Option 1	Option 2	Comments
<b>1. Visitor Experience</b>			
1.1 Alignment of the Product to the Vision for Yarra Valley	3	3	Both options provide outstanding natural features – with option 1 providing a unique aqueduct experience within the catchments and option 2 providing a route either in or around the world famous Healesville Sanctuary and then onto the Yarra River to experience a community conservation corridor.
1.2 The Quality of the Option Experience	3	3	Both experiences are world class. The trip to the aqueduct from Healesville is more difficult both in length and in grade (depending on the final route) and may limit the experience to a smaller market.
1.3 Option Linkages to other products and services	1	3	Option 1 leaves Healesville and heads into the forests and catchment areas. It does not link many businesses or products that exist now. Option 2 links a number of businesses and products including the Healesville Sanctuary.
1.4 The activation of a theme along the section	3	3	Both options provide outstanding nature based trail experiences although they have slightly different perspectives on the importance of conservation.
<b>2. Business Growth</b>			
2.1 Link and provide existing businesses more opportunity	2	3	Option 1 through the catchment has the potential to provide additions to the opportunity for cycling hire, and tour companies including transport options. Option 2 provides a strong support to the Sanctuary and the café and other services currently provided. It also links in wineries and other services that will have opportunity to link to the trail
2.2 Activation of new business opportunities	3	3	Some new opportunities will arise from both trail options. Option 2 will have opportunities for nature conservation tours and linked into the Yellingbaw conservation area. Option 1 may also have opportunity for new guiding and transport services. It is not known whether a Licensed Tour Operator Permit would be required for the use of the aqueduct corridor as it is on public land.
2.3 Event Opportunities activated	2	2	Events in a part of the Melbourne catchment may be problematic and are likely to require a higher level of risk management. Community events in option 2 have enormous potential, especially if linked into the Lilydale to Warburton rail trail. Competitive events may not be ideal on these sections of the trail given the nature based theme emerging for both options.
<b>3. Social Benefits</b>			
3.1 Linkage of Communities	1	3	Option 1 through the public land and catchments has little community connection benefit. Option 2 provides a greater degree of community benefit for the Warramate Hills community, through to Woori Yallock, and

Criteria	Section 3.		
	Option 1	Option 2	Comments
			the communities of Don Road and back into Healesville. Option 2 will also provide a connection for the Sanctuary to Healesville.
3.2 Easily accessible for communities	2	3	Option 1 is relatively easy to access for the Healesville community and slightly more difficult from the southern end for the Woori Yallock community. Option 2 is relatively easily accessed from Healesville and has several exit points at road crossings etc. Option 1 has very few entry and exit points along the aqueduct.
3.3 Linking communities to infrastructure and services	1	2	Option 1 provides little to no linkage of community to services and other infrastructure such as schools although it potentially does link the Maroondah Reservoir to Healesville that would add to the towns appeal and activities. Option 3 provides linkages to the Sanctuary and several other services.
<b>4. Environment</b>			
4.1 Construction risks to the environment	1	1	Both options require some construction work in sensitive environments – one being within the water catchment of Melbourne and one being within the Yellingbow Conservation Area. The aqueduct trail is mostly in existence now and will require little soil disturbance but will require capping. Sections of the river trail in the Warramate Hills will require the new trail to be sensitively designed.
4.2 Routed in environmentally sensitive areas	1	1	As above, both trails are in sensitive areas and require careful routing to avoid disturbance of areas that environmentally sensitive.
4.3 Potential to activate community conservation corridors	1	3	Option 2 provides an outstanding opportunity to activate the community around conservation outcomes in the important Yellingbow Conservation Area. Sections of the River within the Conservation Area are degraded and a trail carefully designed and sensitively built can provide the access to, and incentive for a greater community conservation outcome.
<b>5. Planning and Construction</b>			
5.1 How clear and simple and accountable is the governance for the section of trail	2	1	Option 2 will require negotiation and potentially a lease with Melbourne Water. Sections of trail that traverse other areas will require their own form an agreement or use Council managed road reserves as much as possible. Option 1 will have a mixed range of agreements in place to make it feasible that can also be problematic.
5.2 How likely is the trail to be able to exhibit world class design and construction	2	3	A significant part of option 1 is on aqueduct trail that is already established. Design options exist for the entry to the aqueduct and the steeper descent into the Yarra River and onto Woori Yallock although technically more challenging. Option 2 has the advantage of being able to be designed without encumbrance and can take advantage of the conservation and natural features of the area. There is also the potential for a world class ride through (or within) the Healesville Sanctuary.
5.3 How costly is the section to build	1	1	Both options will be relatively expensive to build as much in part due to the environmentally sensitive nature of both routes. The aqueduct trail is partially constructed and in place.
5.4 How easy is the section to plan and build such that it reduces planning and implementation risk	1	1	It is noted that Melbourne Water do not intend to decommission the aqueduct until at least 2022, leaving a 5-year window where it is not available. Option 2 requires significant care and risk management to avoid any negative impacts on the conservation outcomes required under the Yellingbow Conservation rea outcomes sought by Government.

**Total Option 1 – 30 Points**

**Option 2 – 39 Points**

## 9.6 Highest Benefit Trail Options

The analysis undertaken throughout this section has provided a multi-factor assessment of the strengths and weaknesses of each of the options for each of the trail sections. Combining them will then provide the highest benefit trail alignment for the entire proposed Yarra Valley Trail.

**Table 7 Section and Option Summary**

SECTIONS	OPTIONS
Section 1. Lilydale to Yarra Glen	Option 1 – rail alignment
Section 2. Yarra Glen to Healesville	Option 1 – rail corridor
	Option 2 – rail corridor and south to follow the river
	Option 3 – Healesville to Yarra Glen Road and rail corridor
	Hybrid Option – rail corridor and private property
Section 3	Option 1 – Route to the Coranderk Aqueduct then south
	Option 2 – Don Road to Healesville Sanctuary, Yarra River and Warramate Hills

**Table 8 Section and Option Assessment Totals – Multi factor scoring for each Section and Option**

Option	Section 1	Section 2	Section 3
1	45	43	30
2		36	39
3		27	
4 Hybrid Option		41	

In order of highest ranking the optimal alignment for the entire length of the trail is shown below in table 9.

**Table 9 Options analysis ranged by multi factor scoring**

Trail Alignment Route (in Order of Highest Benefit)	Section 1	Section 2	Section 3	Total
A	Option 1 – 45 Points	Option 1 – 43 Points	Option 2 – 39 Points	127 Points
B	Option 1 – 45 Points	Option 4 – 41 Points	Option 2 – 39 Points	125 Points
C	Option 1 – 45 Points	Option 2 – 36 Points	Option 2 – 39 Points	120 Points
D	Option 1 – 45 Points	Option 1 – 43 Points	Option 1 – 30 Points	118 Points
E	Option 1 – 45 Points	Option 4 – 41 Points	Option 1 – 30 Points	116 Points
F	Option 1 – 45 Points	Option 2 – 36 Points	Option 1 – 30 Points	111 Points
G	Option 1 – 45 Points	Option 3 – 27 Points	Option 2 – 39 Points	111 Points
H	Option 1 – 45 Points	Option 3 – 27 Points	Option 1 – 30 Points	102 Points

In summary, a route that includes the section one on the Lilydale to Yarra Glen rail easement, an alignment on the rail easement from Yarra Glen to Healesville and the alignment from Healesville to Woori Yallock via the Warramate Hills provides the highest visitor experience outcome, social benefit, community linkage and economic activity benefit of the options.

## 9.7 Analysis of a Partial Yarra Valley Trail Build

Given the uncertainty of the land agreement process for many of the tenures in the options for sections 2 and 3, it is possible that section one may proceed on its own while planning takes time for sections 2 and 3. This option will provide some much-needed infrastructure and will provide community benefits and economic activity under many of the same headings as the analysis undertaken earlier in this section to determine the best fit option.

An analysis shows the following benefits will accrue if only Section 1 is summarised under the following headings:

### 9.7.1 Community

- ▶ A strong link between the Lilydale, Coldstream and Yarra Glen communities able to be cycled as a commute to work, access to schooling for families and connection to business hubs
- ▶ Outdoor infrastructure to support health and fitness activation through the ability to walk, cycle and exercise outdoors
- ▶ A strong addition to the Lilydale to Warburton rail trail that extends the ability for residents and communities to gain some pride and to benefit from the economic activity that could be generated.

### 9.7.2 Tourism

The tourism benefits of a single section addition to the trail infrastructure are uncertain as it falls short of creating a world class trails destination. The section one only option:

- ▶ Provides an addition to the well-known Lilydale Warburton Rail Trail and further options for people to use and enjoy
- ▶ Gives a sense of continued development and building a brand in the marketplace for cycling and linking the Valley's famous food and wine
- ▶ Provides opportunities for businesses to package accommodation, transport and services such as food and wine
- ▶ Creates the potential for strong design to position the infrastructure in such a way as it becomes a part of the product.

- ▶ Provides a crossing of the Yarra River on a purpose-built bridge that could also showcase excellence in architecture.

The extent to which the trail section, assuming it is a standalone section, adds to the destination appeal is difficult to determine. The Lilydale to Warburton Rail Trail will continue to grow as a destination appeal for tourism and residents alike, particularly as events develop momentum and existing businesses package and develop further product. The addition of the Warburton Mountain Bike Hub will also add a significant product to the destinations appeal. The additional visitation of a section 1 alone is likely to be in the order of perhaps 10% to 30% of the combined benefit of completing all three sections. This is simply based on industry knowledge and the lack of a loop option. It should also be noted that Healesville in many respects forms the backbone of the existing product offer from other services and businesses. This includes the marketability of a visit to the Sanctuary, the Railway, the food and wine on offer and the ability to access the catchments.

The possible addition of section 2 to the trail network would add more than an additional 30% to section 1 and the other trail developments in the region. This is due to the continued product development, the ability of the trail to link in Healesville as a major destination within the Yarra Valley's product mix, and having the trail essentially two thirds complete leaving only one section to be built, allowing transport companies to offer a link to Woori Yallock in the short to medium term. It is likely that close to 50% to 60% of the total trail value to the economy and residents could be realised should section 1 and section 2 be able to be completed together.

Should the sections one and two be completed, and the Warburton Mountain Bike Hub also be completed with the opportunity to market Australia's longest descent through the DropperK track, then it is more likely the destination would be able to realise its ambition to become a world class cycling destination.

# 10 Risk Analysis

Risk management practice is in its simplest form the ability to look at uncertainty, understand how likely that uncertainty is, and the severity of that uncertainty to impact on a business or project, and then to ascribe controls that may limit the likely hood or severity of that risk on the business. This section will not fully prepare a risk management plan for the Yarra Valley Trail but there is value in understanding risks to the trail development

High level risks are identified and controls suggested for each.

## Risk 1 – Funding

The development of all three sections of trail, and the potential addition of a fourth section with Coranderrk Aqueduct being added to the trail when decommissioned provides for a likely expenditure of \$10 to \$15 million. Securing that funding is uncertain and will rely in part or fully on grant applications, political commitments or donations. The ability of the Yarra Ranges Council essentially acting as proponent to build the case to fund all of the sections will be critical.

Possible Controls:

- Develop the Feasibility and Impact Assessment in a robust and transparent way to identify the costs and benefits of the trail. Align the outcomes of these studies to rate-payers' interests and remove as much uncertainty as possible in the data, the understanding of the data and advocacy for the outcome based on the data in a unified way.
- Develop a robust planning framework that removes uncertainty on the cost of building the trail to enable a greater level of certainty when applying for funds that the amount applied for is the amount required to deliver the world class outcome.
- Build a strong sense of excitement in the project with politicians through strong relationships, strong evidence as described above and third-party advocacy including business, trail construction and trail management partners.

## Risk 2 – Approvals

The trail as planned will pass through multiple land tenures, each with a level of complexity defined by regulation, acts and existing planning frameworks. Environmental approval for elements of section 3 are uncertain due to the sensitive nature of the habitat for threatened and endangered species. Approval and licencing / leasing of private property and rail alignments is also uncertain and dependent upon land owner agreement.

Possible Controls:

- Build a strong project governance structure that enables the collection of evidence and the ability to make good decisions on the project planning and management. This may include developing trail options in the case that approval for land use is not able to be received in some areas.
- Sound planning and background evidence will be critical in reducing risk and project uncertainty. Working with regulatory authorities to understand tolerance to environmental risk and building positive outcomes into the trail design to potentially help offset any negative risk.

## Risk 3 - Trail Governance

The success of the destination and the trail will in a large part depend on the ability of the partners including Yarra Ranges Council, Parks Victoria, DELWP, Yarra Ranges Tourism, user groups, and other partners wo work together on a common goal and shared vision. Should partners not be able to or not be willing to collectively work towards the outcome, it presents risk in achieving the benefits described in the feasibility report.

Possible Controls

- Establish the governance fundamentals prior to construction across multiple tenures allowing each potential partner to commit to a governance model, and allowing modifications to be made to the model and its operation dependent upon members feedback (within a model framework).

#### Risk 4 - Fire Flood or Other Environmental Disaster

The trail traverses through open farmland, river reserves, forested areas and areas prone to flooding. It is plausible that at some point during the trail's planning and construction phase, a significant natural disaster may impact upon the route.

##### Possible Controls

- ▶ Construction of the trail and design of the infrastructure could include natural materials that are more resilient to disaster in locations particularly prone to fires and floods. This may include stone work, gravel surfacing and metal structures.
- ▶ Strong linkages to Yarra Ranges Tourism to ensure marketing consistency with the remainder of the product and in the event of a disaster, the Trail is linked into disaster recovery marketing and funding.

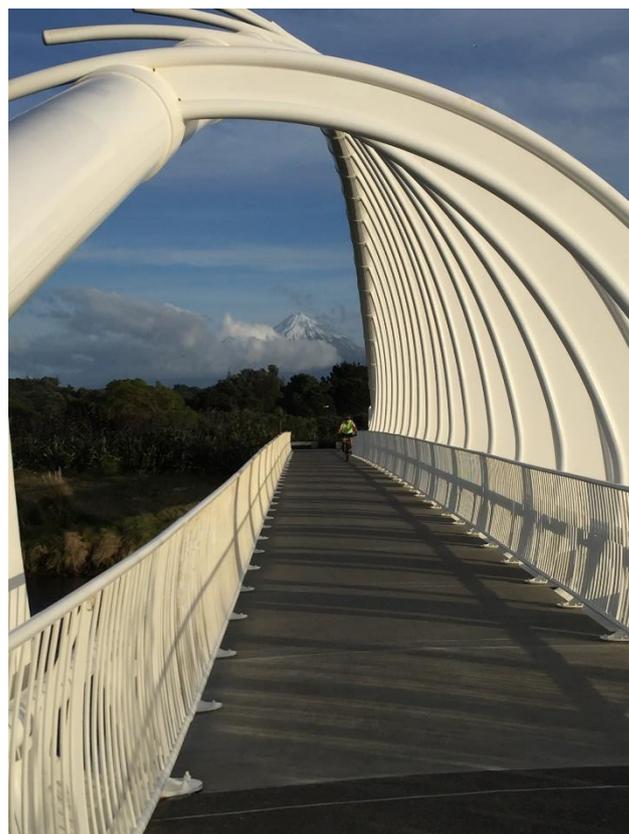
#### Risk 5 – Competitor Strength

The provision of cycle trails is growing as various destinations throughout Victoria and further afield continue to build and grow experience based cycle tourism product. Areas continuing to grow their product include the North-East of Victoria and specifically the Murray to the Mountains Rail Trail. Canberra and a range of interstate markets are also investing in cycle tourism product.

##### Possible Controls

- ▶ Develop outstanding connection to the Yarra Valley product strengths including food and wine and nature so that the trail becomes not only a feature in its own right but also a conduit to the growing visitation in the Valley.
- ▶ The trail can showcase design of infrastructure to become a product feature in this own right. A possible example might include the Whale Bone Bridge in Taranaki over the Coastal Foreshore Trail. The photo to right shows the bridge which has become a feature and one of the most photographed points of the trail.
- ▶ The proximity to Melbourne and a large internal Shire population provide the opportunity to strong use numbers without having to compete to attract visitors from long distances – although this should continue to provide market share into the future.

- ▶ The potential development of the Warburton Mountain Bike Hub, the current Lilydale Warburton Rail Trail and the potential for a Powelltown mountain bike trail all add up to a potential world class destination for trails and cycling – with the sum being more than the parts.



The photo shows the whalebone bridge on the foreshore trail near New Plymouth in New Zealand – the bridge is a design feature of the trail and one of the most photographed points in Taranaki.

# 11 Economic Impact Assessment

## 11.1 Introduction

### 11.1.1 Methodology

This section provides an economic impact assessment of the proposed Yarra Valley Trail. The modelling is based on estimates of annual trail users by Yarra Ranges Council. Three types of users (general use) are identified: Day Users; Overnight Users (users who stay overnight in the region); and Local Users.<sup>21</sup> The economic impacts of the trail arise from spending by users in proximity to the trail and other spending in the broader region covered by the trail.

Visitors from outside the region (day users and overnight users) generate significant expenditure covering food and beverage, accommodation (for overnight stayers), and recreation and other services. The modelling of the trail users and their spending is based on several assumptions and estimates outlined in this section of the report.

## 11.2 Trail Users and Spending

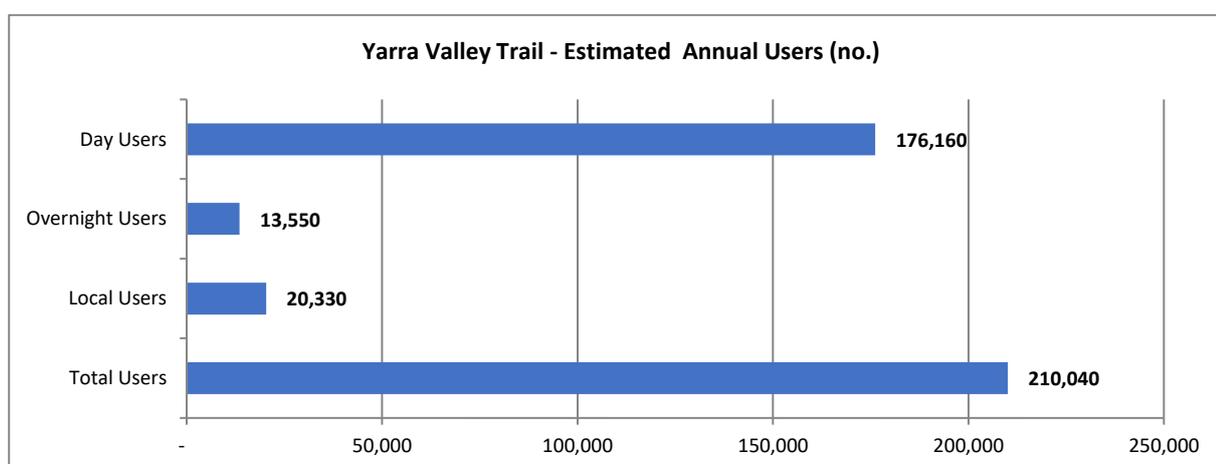
### 11.2.1 Trail Users

The annual trail user numbers are estimates by Yarra Ranges Council based on the demand analysis in the feasibility study of 2016.<sup>22</sup> There are an estimated 210,040 annual users: day users 176,160 (83.9%); overnight users 13,550 (6.5%); and local users 20,330 (9.7%).

**Table 10 Yarra Valley Trail - Estimated Users by Type (Annual)**

Yarra Trail Users General Usage	Day Users	Overnight Users	Local Users	Total Users
Visitor drawn to Trail annually	176,160	13,550	20,330	210,040
Share of users (%)	83.9	6.5	9.7	100.0
Average Users per Week (based on 52 weeks)	3388	261	391	4,039

Source: Yarra Valley Trail Feasibility Report, Yarra Ranges Council March 2016, P30



Source: Yarra Valley Trail Feasibility Report, Yarra Ranges Council March 2016, P30

<sup>21</sup> Trail user estimates are from Yarra Valley Trail Feasibility Report, Yarra Ranges Council March 2016, P30

<sup>22</sup> Trail user estimates are from Yarra Valley Trail Feasibility Report, Yarra Ranges Council March 2016, P30

## 11.2.2 Spending in the Region

Spending in the Region was estimated using data from the Yarra Valley Trail Feasibility Report.

**Table 11 Average Expenditure by Trail users**

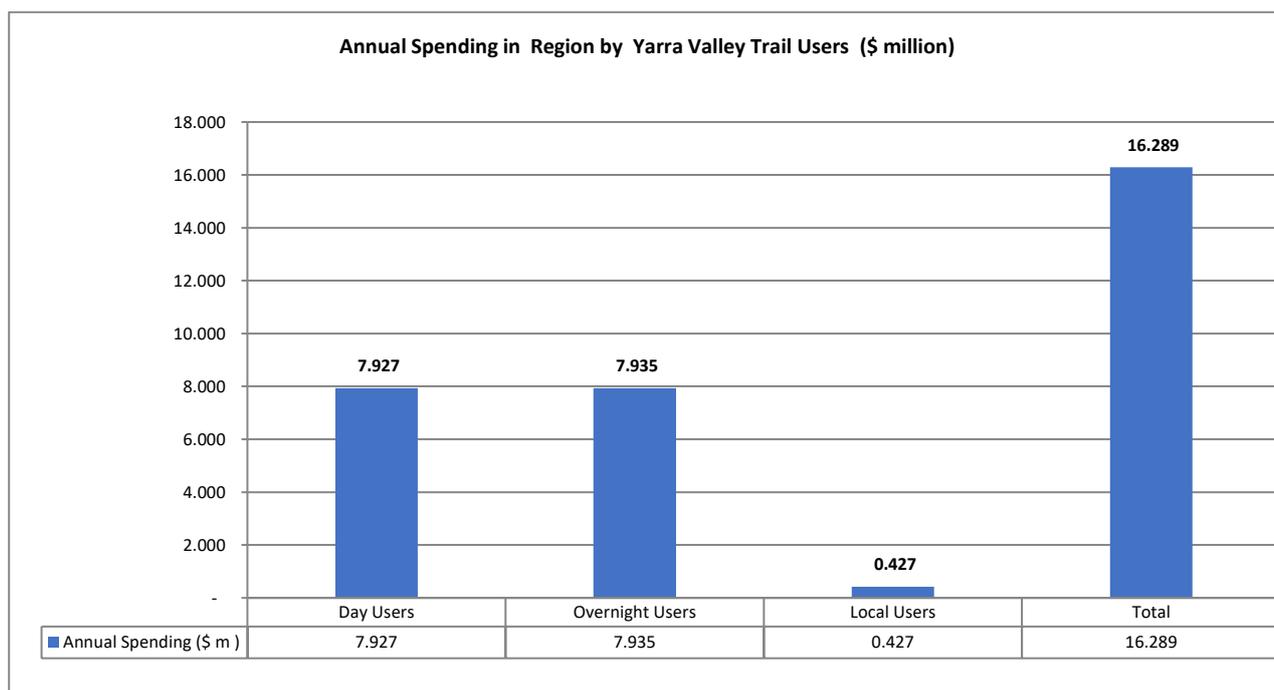
Trail User Spending in Region	Day Users	Overnight Users (per night)	Local Users
Average expenditure per visitor	\$45	\$244	\$21
Ave stay (overnights)		2.4	

Source: Yarra Valley Trail Feasibility Report, Yarra Ranges Council March 2016, P30

The combination of user numbers by type, average spending and average length of stay is used to estimate annual spending in the region. The following chart shows annual spending for each of the user types.

Total annual spending in the region by trail users was estimated at \$16.289 million - \$7.927 million by day users and \$7.935 million by overnight users (trail users who stay overnight in the Yarra Valley region). Local users spending is \$0.427 million (based on an average of \$21 per person during their trail use).

Total expenditure comprises: spending on trail linked activities (spending on bike related expenses and other spending - food & beverage etc.) in proximity to the trails; and other spending on accommodation (for overnight stayers), meals during their stay and other retail and other recreational and tourism services.



**Table 12 Total Annual Spending by Trail Users**

Yarra Trail Users & Spending	General User			Total
	Day Users	Overnight Users	Local Users	
Visitors drawn to Trail annually	176,160	13,550	20,330	210,040
Average expenditure per visitor	\$45	\$244	\$21	
Average length of stay (nights)		2.4		
Total Spending	\$7,927,200	\$7,934,880	\$426,930	\$16,289,010

Source: Source: MCA analysis, September 2017 - Data from Yarra Valley Trail Feasibility Report, Yarra Ranges Council March 2016, P30. Average length of stay from TRA Local Government Area Profiles - Yarra Ranges LGA 2015. Average expenditure per person – Yarra Ranges Council estimates.

## 11.3 Economic Impacts of the Yarra Valley Trail

The economic impacts of the trail (on the region covered by the trail) were modelled for both the construction phase and the operations phase. The impacts are measured in terms of: full time equivalent jobs; and the increase in regional income that is generated by trail users and their spending in the Region. <sup>23</sup>

### 11.3.1 Construction phase

Jobs and an increase in regional income will be generated during the construction phase of the project. Jobs generated are estimated for the sections of the trail and for the total project (3 sections built).

#### 11.3.1.1 Construction Costs

The cost estimates in the tables below cover trail construction and other infrastructure.

**Table 13 Yarra Valley Trail - Construction Costs by Trail Section**

Yarra Valley Trails Construction	Cost \$
<b>Section 1.</b>	
Total Section 1.	\$3,923,433
<b>Section 2. Options</b>	
Total Section 2. via Rail Reserve	\$2,754,805
Total Section 2. via Yarra River Option	\$2,970,785
Total Section 2. via Road Reserve	\$4,185,315
<b>Section 3. Options</b>	
(includes bridges)	
Section 3. Via Yarra River	\$3,352,370 (\$1,852,370 – trail only)
Section 3. Via Coranderrk Aqueduct	\$3,296,820 (\$1,796,820 – trail only)

Source: TRC & architect estimates. Notes: for Section 3 Options the cost of bridges is assumed to be \$1.5 million in both options; Section 2 options costs include all bridges; costs exclude GST and contingencies.

There are several possible routes for the trail. The following table shows four routes and the associated construction costs for each. The total construction costs are similar for each of the routes. In the economic impact analysis that follows we have modelled Route A, which was the route that scored highest on the assessment of trail user experience in table 9 report section 9.6.

<sup>23</sup> Regional income is the total net income generated from the activity and covers wages and salaries of employees and profits of businesses within the region. It includes income generated directly within the business and indirect income, which is generated in other regional businesses (wages and profits) from the multiplier impacts of employee spending on the region. In the modelling of income generated, income tax and GST on spending, are both treated as leakages from the region.

**NOTE** – Assumptions have been made on the trail cost in the absence of a completed cost estimate through the master planning exercise. This includes making provisions for bridges which may likely change as the detail of the master plan evolves. At this point, a bridge provision similar to that for section 2 has been made for section 3.

**Table 14 Trail Route Options and Estimated Costs**

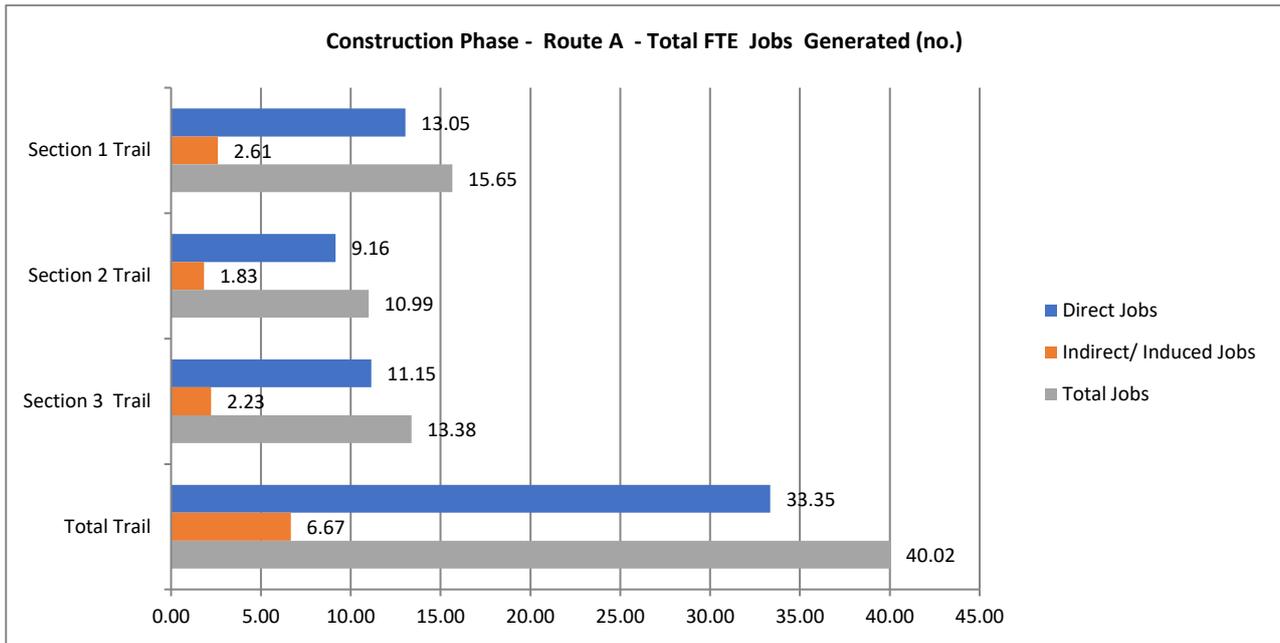
Route Options	Construction Costs \$
<b>Total Costs Route A</b>	Ranked 1 Experience
Total Section 1	3,923,433
Total Section 2 via Rail Reserve	2,754,805
Total Section 3 - via Yarra River	3,352,370
Total Section 1-3	\$10,030,608
<b>Total Costs Route B</b>	
Total Section 1	3,923,433
Total Section 2 via Yarra River	2,970,785
Total Section 3 via Yarra River	3,352,370
Total Section 1-3	\$ 10,246,588
<b>Total Costs Route C</b>	
Total Section 1	3,923,433
Total Section 2 via Yarra River	2,970,785
Section 3 via Coranderrk Aqueduct	3,296,820
Total Section 1-3	\$ 10,191,038
<b>Total Costs Route D</b>	
Total Section 1	3,923,433
Total Section 2 via Rail Reserve	2,754,805
Section 3 Via Coranderrk Aqueduct	3,296,820
Total Section 1-3	\$ 9,975,058

Source: TRC & architect estimates. Note costs exclude GST and contingencies.

### 11.3.1.2 Economic Impacts – Construction

#### Total Trail Development

For the Route A trail development, a total of 40 FTE jobs (33.3 direct jobs and 6.7 indirect/induced jobs) would be generated during the construction period. These comprise 25.1 direct jobs in construction and 8.3 jobs in material supply. The jobs generated would be similar for the other Route Options (B, C and D).



Source: MCA modelling and estimates, September 2017

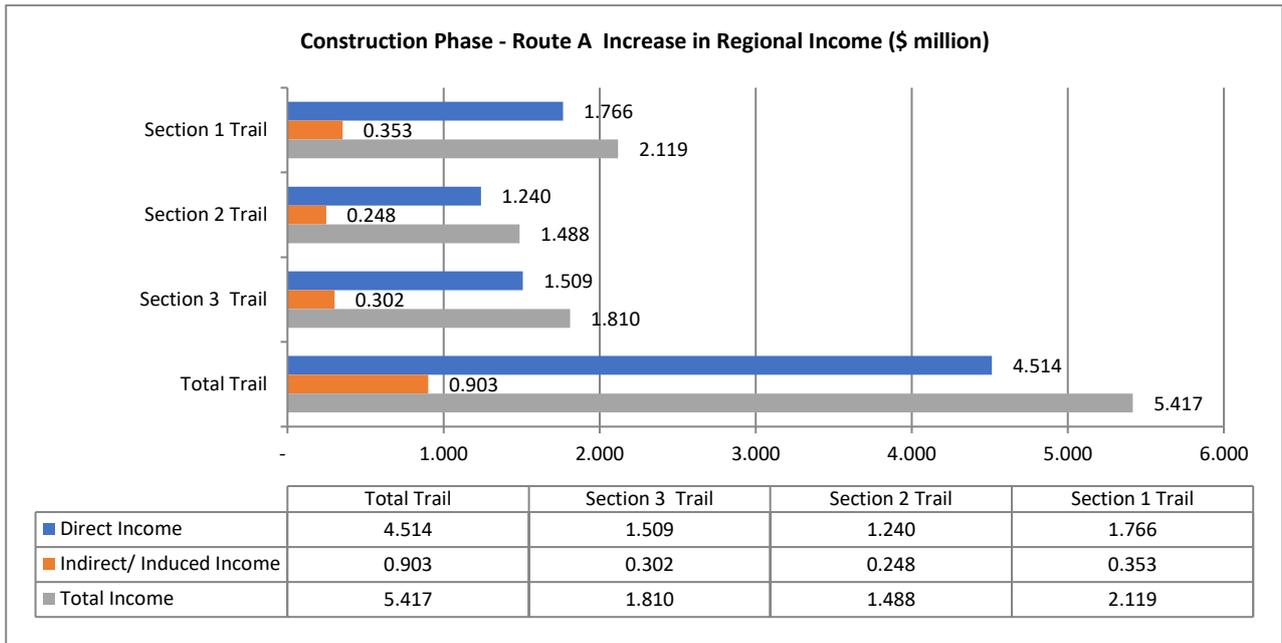
**Table 15 Construction Phase - Route A FTE Jobs Generated (no.)**

Construction Phase FTE Jobs			
Route A	Direct Jobs	Indirect/ Induced Jobs	Total Jobs
<b>Construction Jobs</b>			
Section 1 Trail	9.81	1.96	11.77
Section 2 Trail	6.89	1.38	8.26
Section 3 Trail	8.38	1.68	10.06
<b>Total Trail</b>	<b>25.08</b>	<b>5.02</b>	<b>30.09</b>
<b>Materials Jobs</b>			
Section 1 Trail	3.24	0.65	3.88
Section 2 Trail	2.27	0.45	2.73
Section 3 Trail	2.77	0.55	3.32
<b>Total Trail</b>	<b>8.28</b>	<b>1.66</b>	<b>9.93</b>
<b>Total Jobs</b>			
Section 1 Trail	13.05	2.61	15.65
Section 2 Trail	9.16	1.83	10.99
Section 3 Rail	11.15	2.23	13.38
<b>Total Trail</b>	<b>33.35</b>	<b>6.67</b>	<b>40.02</b>

Source: MCA modelling and estimates, September 2017

The following chart shows the increase in regional income generated during the construction of the trails (for the total trail and for each section).<sup>24</sup> For the total trail construction \$5.417 million in regional income would be generated (\$4.514 million direct and \$0. 903 million indirect/induced).

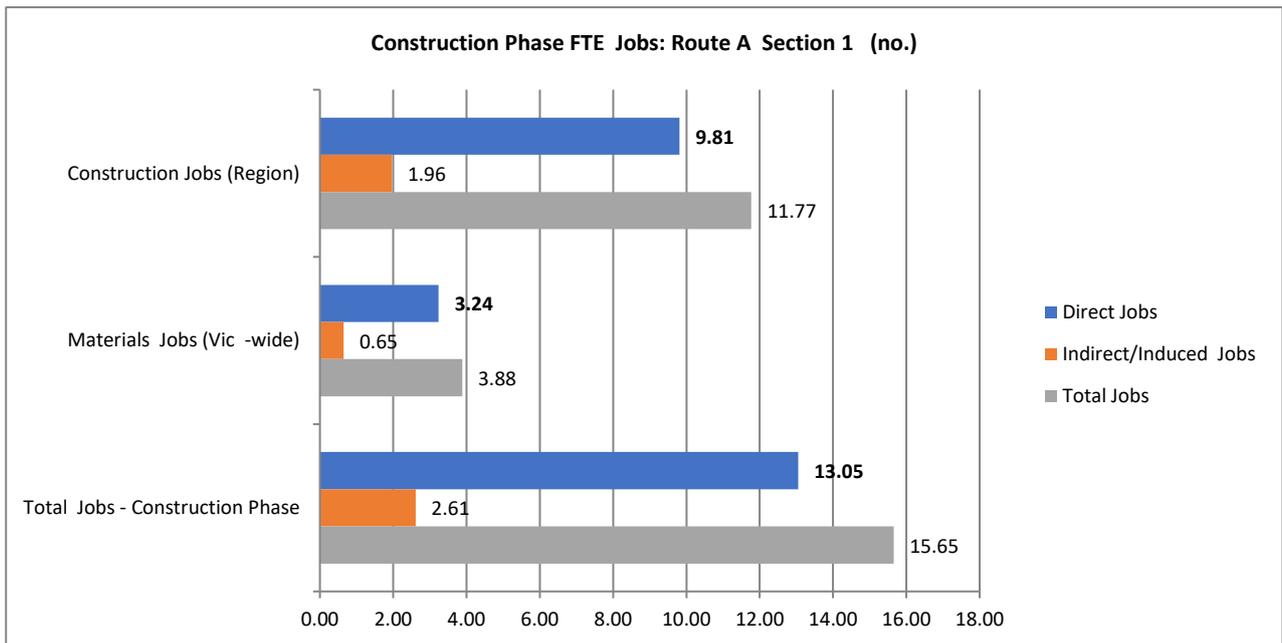
<sup>24</sup> This assumes the construction workforce would come from Yarra Ranges and adjacent areas.



Source: MCa modelling and estimates, September 2017

**Trail Section 1**

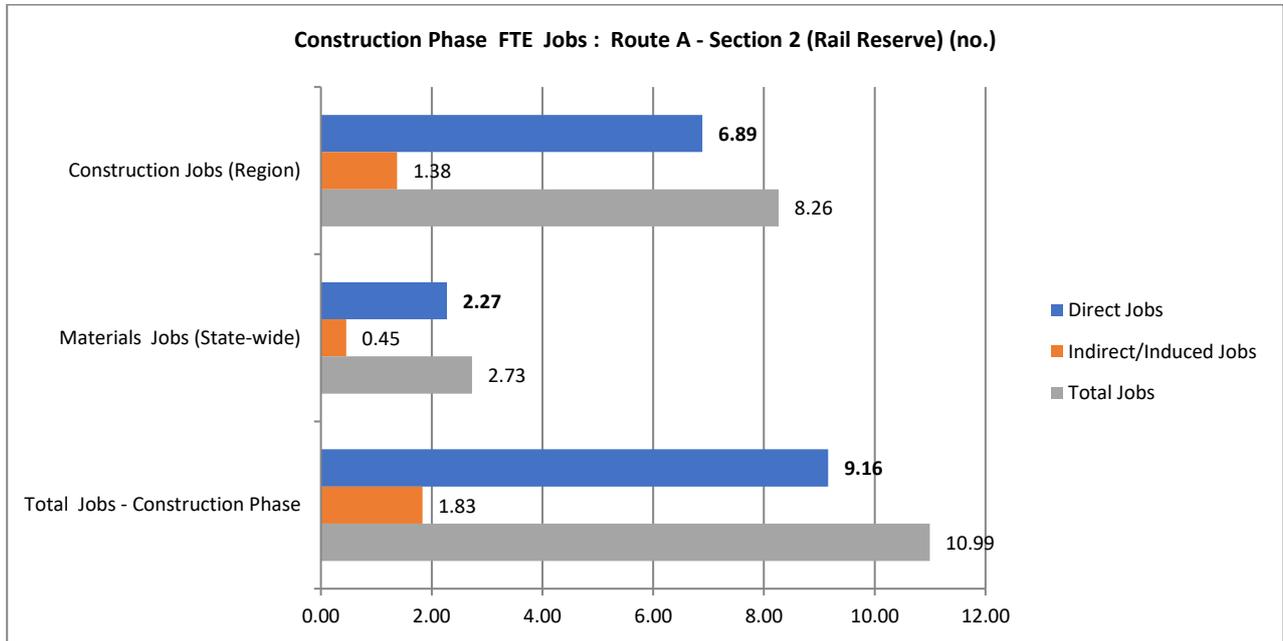
Construction of Section 1 of the trail would generate a total of 13 direct FTE jobs - 9.8 construction jobs in the region and 3.2 materials supply jobs state-wide.



Source: MCa modelling and estimates, September 2017

### Trail Section 2

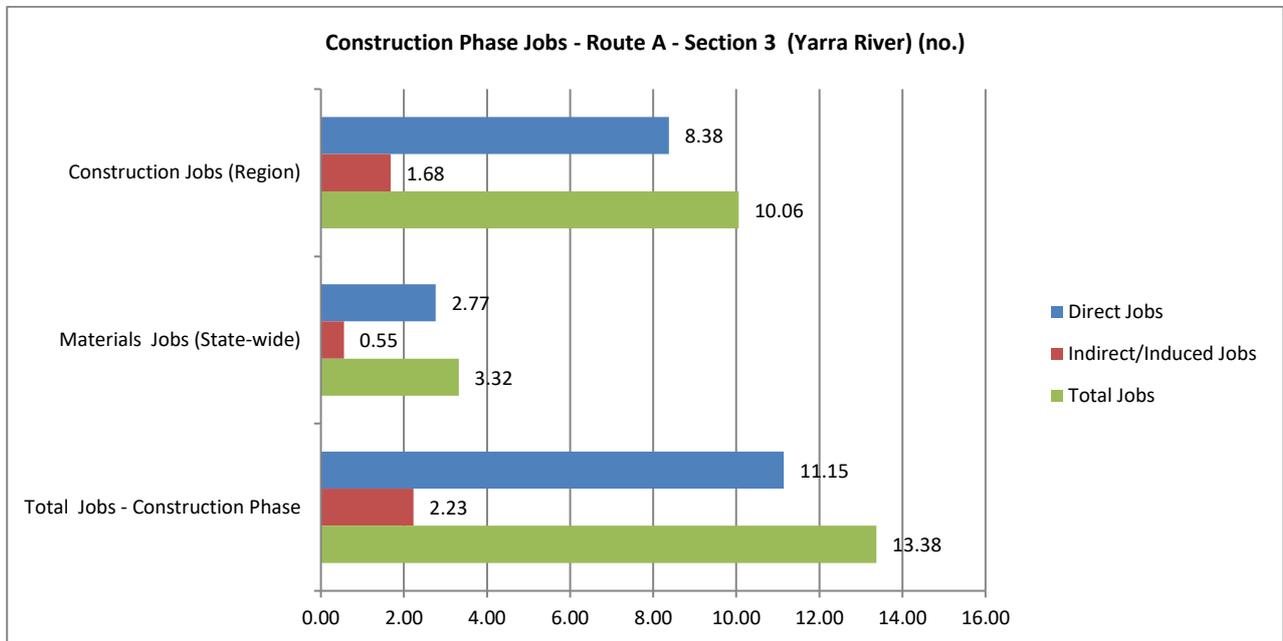
Construction of Section 2 of the trail would generate a total of 9.2 direct FTE jobs – 6.9 construction jobs in the region and 2.3 materials supply jobs state-wide.



Source: MCA modelling and estimates, September 2017

### Trail Section 3

Construction of Section 3 of the trail would generate a total of 11.2 direct FTE jobs – 8.4 construction jobs in the region and 2.8 materials supply jobs state-wide.



Source: MCA modelling and estimates, September 2017

## 11.3.2 Operations Phase

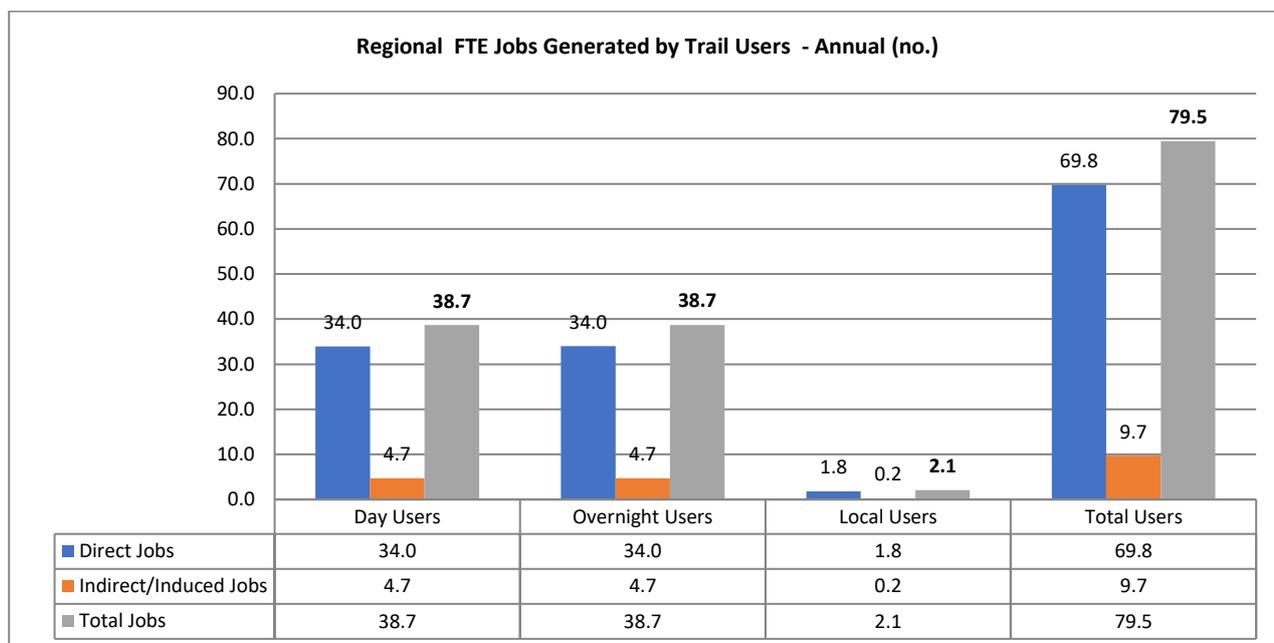
The operations phase economic impacts of the trails is driven by expenditure by trail users in areas adjacent to the trails and in the region. TRC/ MCA's economic model is used to estimate the regional employment and income impacts of the trails. The model allocates spending across relevant industry sectors and takes account of the significant shares of gross spending by trail users, which leaks out of the region.<sup>25</sup>

### 11.3.2.1 Employment Impacts

The chart below shows the increase in regional jobs generated by each of the trail user groups.

- ▶ Total users generate 79.5 FTE jobs (69.8 direct jobs and 9.7 indirect/induced jobs).
- ▶ Day users and overnight users each generate a total of 38.7 FTE Jobs (34 direct jobs and 4.7 indirect/induced jobs).<sup>26</sup>
- ▶ Local users only generate 2.1 FTE Jobs (1.8 direct and 0.3 indirect/induced jobs).<sup>27</sup>

On a sector basis, the jobs (FTE) generated by trail users are mainly concentrated in accommodation (24.1), food and beverage (19.0), recreational services and other visitor services (23.6) and other retail (8.2).



Source: MCA modelling and estimates, September 2017

<sup>25</sup> The spending by trail users is not the economic impact and does not represent the increase in regional income. There is a major leakage of this spending out of the region due to: the GST (10%); and a significant component of the value of services and products purchased by visitors comes from outside the region (e.g. food ingredients, soft drinks, beer, consumer products bought etc.). The model takes account of these leakages and estimates employment impacts and the increase in regional income.

<sup>26</sup> Jobs generated the same due to both user groups having a similar level of spending: day users - \$7.927million (176,160 users each spending an average of \$45); and overnight users - \$7.934 million (13,550 users staying overnight for an average of 2.4 nights and spending an average of \$244 each per day).

<sup>27</sup> Local users only generate \$426,000 in spending (20,330 annual users spending an average of \$21 per person).

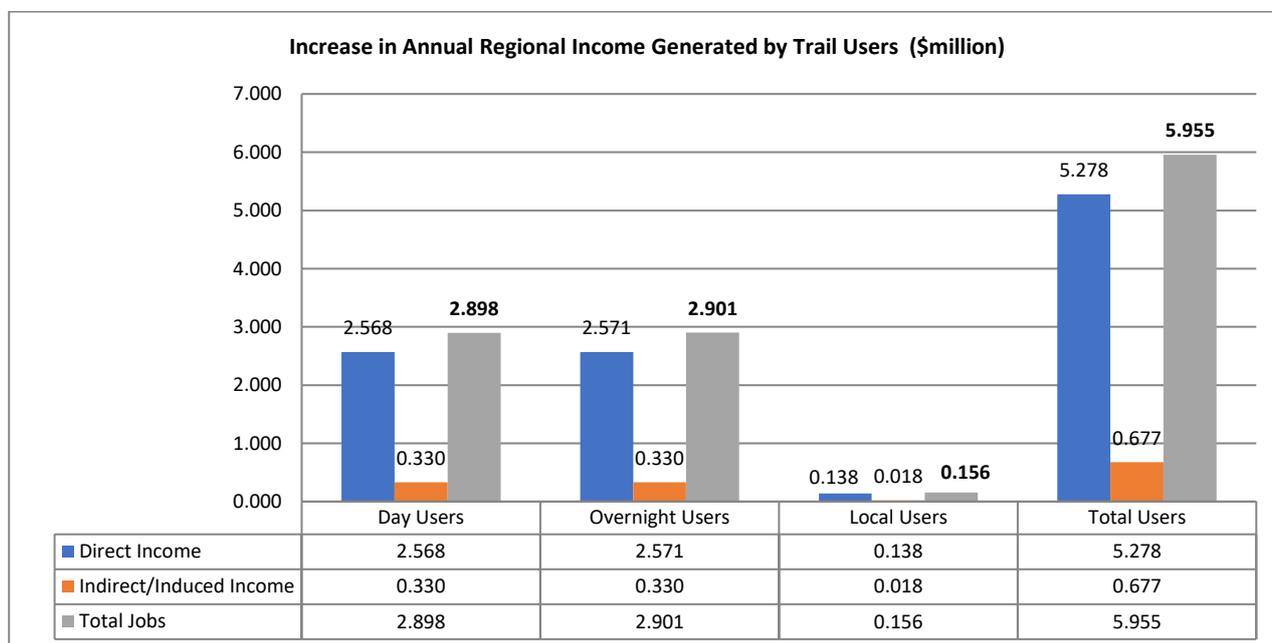
**Table 16 Total FTE Jobs (Direct & Indirect) Generated by Yarra Valley Trail Users - Annual (no.)**

Yarra Valley Trail				
Sector	Day Users	Overnight Users	Locals Users	Total Users
Accommodation	11.7	11.7	0.6	24.1
Food & Beverage	9.3	9.3	0.5	19.0
Other Retail	4.0	4.0	0.2	8.2
Housing	0.3	0.3	0.0	0.6
Health	0.4	0.4	0.0	0.7
Transportation	0.8	0.8	0.0	1.7
Communication	0.1	0.1	0.0	0.1
Recreation Services/Other Services	11.5	11.5	0.6	23.6
Education	0.2	0.2	0.0	0.5
Miscellaneous	0.5	0.5	0.0	1.0
<b>Total</b>	<b>38.7</b>	<b>38.7</b>	<b>2.1</b>	<b>79.5</b>

Source: MCa modelling and estimates, September 2017

### 11.3.2.2 Regional Income Impacts

The increase in annual regional income generated by the operation of the trail totals \$5.955 million, with most of this being generated by day users and overnight users.<sup>28</sup>



Source: MCa modelling and estimates, September 2017

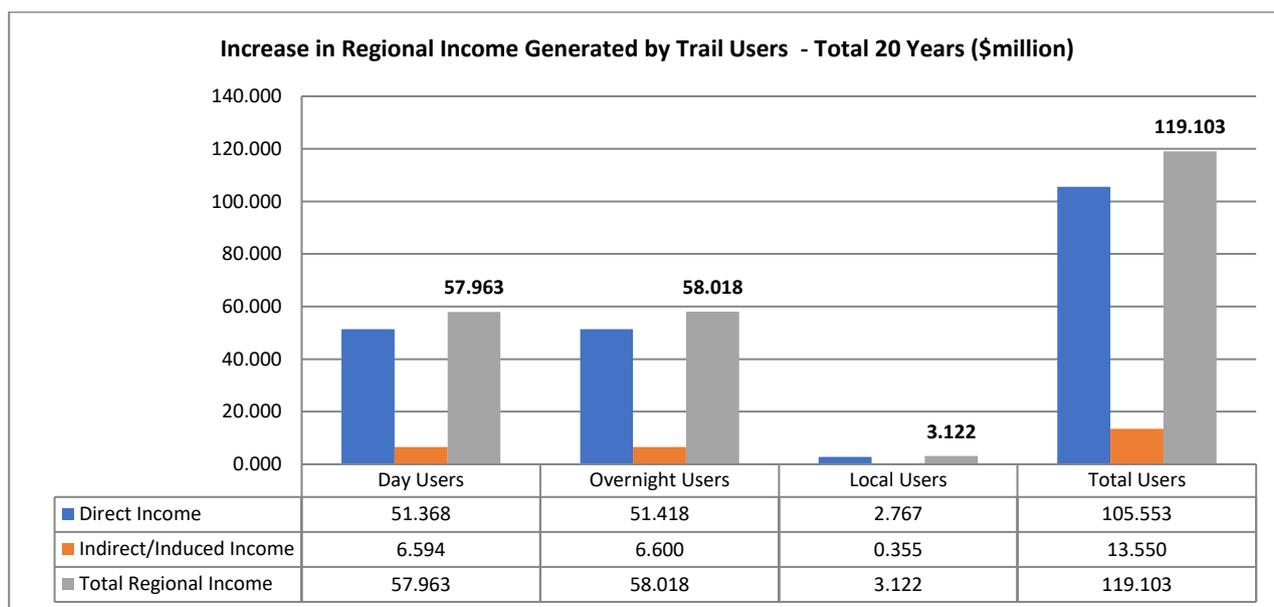
<sup>28</sup> Regional income is the total net income generated from the activity and covers wages and salaries of employees and profits of businesses within the region. It includes income generated directly within the business and indirect income, which is generated in other regional businesses (wages and profits) from the multiplier impacts of employee spending on the region. In the modelling of income generated income tax and GST on spending, are both treated as leakages from the region.

### 11.3.3 Trail Benefits and Costs

#### 11.3.3.1 Trail Analysis

For the benefit cost analysis a 20-year period is examined.

- Measured benefits comprise the increase in regional income generated by trail users over a 20-year period and this totals \$119.103 million.
- Trail cost – Route A (all sections) is used with a capital cost of \$10.030 million and a 20-year maintenance cost of \$4 million (assumed to be \$200,000 per year over 20 years).



Source: MCa modelling and estimates, September 2017

**Table 17 Yarra Valley Trail Benefits: Increase in Regional Income - 20 Year Period (\$)**

	Day Users	Overnight Users	Local Users	Total Users
	\$	\$	\$	\$
Direct Income	51,368,256	51,418,022	2,766,506	105,552,785
Indirect/Induced Income	6,594,453	6,600,138	355,153	13,549,745
Total Regional Income	\$57,962,709	\$58,018,161	\$3,121,660	\$119,102,530

Source: MCa modelling and estimates, September 2017

**Table 18 Trail Route A Construction Costs & Maintenance Costs**

Route Options	Construction Costs \$
<b>Total Construction Costs Route A</b>	
Total Section 1	3,923,433
Total Section 2 via Rail Reserve	2,754,805
Total Section 3 - via Yarra River	3,352,370
Total Section 1-3 (Capital Cost)	\$10,030,608
<b>Maintenance Cost</b>	
Trail Maintenance Cost (\$200,000 per year x 20 years)	\$4,000,000
<b>Total Trail Costs</b>	
Total Cost (20 Years)	\$14,030,608

Source: TRC & architect estimates.

### 10.3.3.2 Benefit Cost Analysis

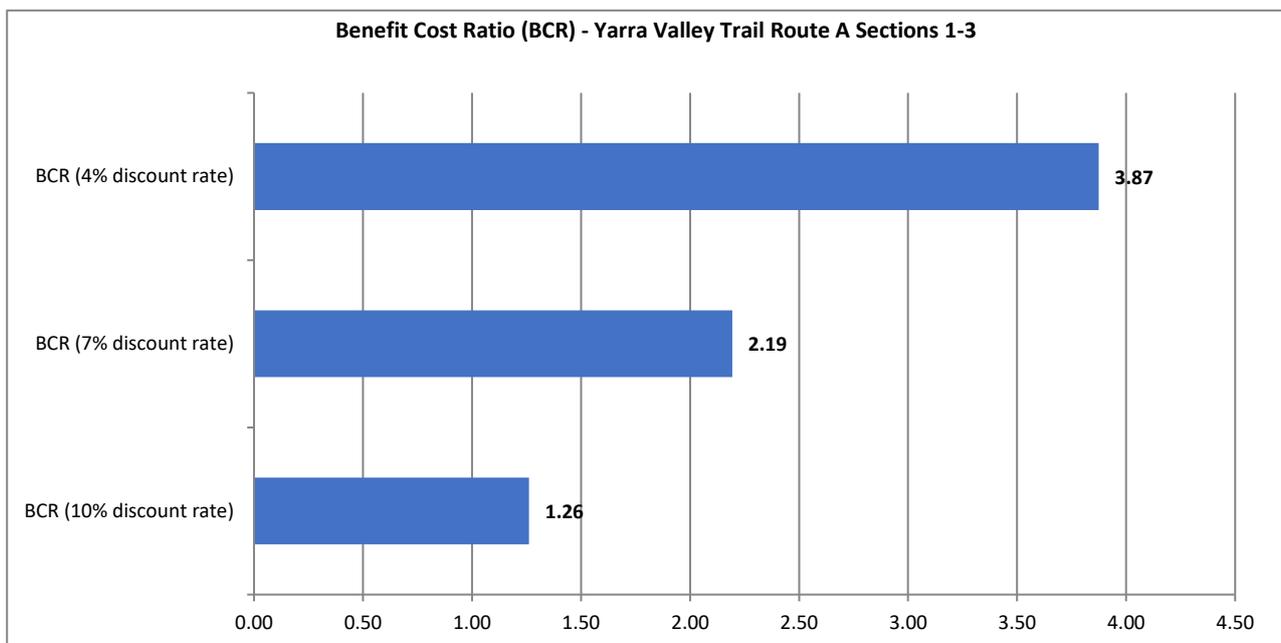
The following table and chart show the benefits and costs of the trail development for Trail Route A (Sections 1-3). The benefits are measured by the increase in regional income generated by trail users over a 20-year period. For the comparison the present value of the benefits is calculated using 3 discount rates (4%, 7% and 10%).

**Table 19 Benefits and Cost Analysis - 20 Year Period**

Yarra Valley Trail	Nominal	Nominal	Nominal
20 Year Operations Period	Discount Rate	Discount Rate	Discount Rate
	4%	7%	10%
<b>Trail Route A Sections 1-3</b>			
Capital Costs 2018 (\$) (Present Value)	\$10,030,608	\$10,030,608	\$10,030,608
Costs - Asset Replacement/Maintenance	\$4,000,000	\$4,000,000	\$4,000,000
Total Capital Costs	\$14,030,608	\$14,030,608	\$14,030,608
Direct Benefits (users)			
Indirect Benefits (regional income generated)	\$119,102,530	\$119,102,530	\$119,102,530
Total Benefits	\$119,102,530	\$119,102,530	\$119,102,530
Total Benefits (\$) Present Value	\$54,356,839	\$30,778,357	\$17,703,832
Net Present Value (\$)	\$40,326,231	\$16,747,749	\$3,673,224
NPV/Capital Costs	2.87	1.19	0.26
Benefit Cost Ratio (BCR) <Total Benefits -Present Value/Total Capital Costs>	3.87	2.19	1.26

Source: MCA modelling and estimates, September 2017. Note: Direct benefits are the value to users of a facility; usually this is measure by user payments. In this case it is assumed that there are no user charges for the trail, therefore benefits are the increase in regional income generated by visitor spending.

The chart below shows the Benefit Cost Ratios (BCR) for the 3 discount rates. For a trail project, a 7% discount rate is appropriate and the project yields a BCR of 2.19, which is substantially above 1.<sup>29</sup>



Source: MCA modelling and estimates, September 2017.

<sup>29</sup> The present value of total benefits generated by the investment exceed the costs of the project over a 20-year period.

## 12 Summary

The proposed Yarra Valley Trail offers the potential to be a world class trail within a world class destination. The combined effect of the existing Lilydale to Warburton Rail Trail, with the addition of the proposed full loop trail from Lilydale to Yarra Glen, Healesville and then to Woori Yallock provides an experience that when combined with the region's outstanding natural beauty, and world class food wine and attractions, will make a significant impact socially and economically.

In addition, proposed mountain biking facilities and infrastructure in Warburton and Powelltown add to the destination's appeal as a cycling destination, with businesses able to leverage off the total combined asset and the benefit being more than the sum of its parts.

The project is aligned with State Government and Shire Council strategies and provides significant progress towards many of the higher-level objectives specifically in relation to active living, continuing to drive the visitor economy and promoting jobs. Notwithstanding the alignment with the majority of the Strategies and Plans, some environmental issues do require further and detailed assessment to ensure the proposed trail does not impact on the values of the area including the Yellingbow Conservation Area objectives of conserving threatened species.

The proposal has several options for sections 2 and 3 which have been assessed and a preferred route identified from a visitor experience, social and economic perspective. Several route options also exist with a slightly lower impact but still providing a strong benefit should the preferred option not be able to be used due to a range of land tenure, environmental or physical reasons.

Using risk management principles, a high-level look at the risks identifies that careful and considered planning are critical to the project getting off the ground and to its successful operation. This is in addition to the importance of a strong and suitable governance model for the trail that is the subject of a separate report – most likely to be an Incorporated Association to provide for revenue attraction and retention capability and the ability to bring partners together to achieve the trail's vision.

Finally, with an economic Benefit Cost Ratio (BCR) of 2.19 based on a 7% discount rate, the project is viable and will generate considerable returns to the community.



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