

Central Goldfields Shire Walking and Cycling Strategy



2017-2026

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Executive summary

Aim

The aim of the Central Goldfields Shire Walking and Cycling Strategy is to provide a **strategic framework** to guide Council in relation to walking and cycling opportunities such as paths / trails, infrastructure, events, programs and services for the next ten years. Council is keen for the existing walking and cycling infrastructure within the municipality to be **better utilised** and also keen for **participation rates** in walking and cycling to increase. Such an increase in usage not only creates better use of existing infrastructure, but has the potential to have a profound impact on the health and wellbeing of the community.

When a network of safe, quality, linked paths and trails is created, supported by suitable programs, events and services, there is a much greater potential for local residents to utilise active transport to key destinations such as schools, work, sport and recreation facilities and shopping precincts or to enjoy recreational walking and cycling for fitness. The aim of this strategy is to ensure that the Central Goldfields Shire is best positioned to create a **walking and cycling friendly community**, within its resource capacities.

Benefits

The Central Goldfields Shire recognises that increasing participation levels in walking and cycling is enormously beneficial to the community for a vast range of reasons.

- **Individuals** can benefit from participation in these physical activities through an increased protection against a range of poor health outcomes, including cardiovascular disease, hypertension, type 2 diabetes, osteoporosis, musculoskeletal impairments, obesity, some cancers and poor mental health.
- **The community** can benefit through reduced traffic congestion, less environmental pollution, more attractive living environments, more opportunities to engage with others in the neighbourhood and reduced transportation costs.
- **Local businesses** can benefit through a healthier workforce with less absenteeism and increased revenue through sale of walking and cycling equipment, services or programs or through food and beverage sales to visiting walkers and cyclists.
- **Council** can benefit from reduced costs of providing health care and roads.

Multi-faceted approach

In order to attain the benefits that can be achieved through active transport, a multi-faceted approach to walking and cycling must be undertaken involving:

- development of a clear **network** of safe, well designed paths and trails that are well connected to people’s homes and provide easy access to schools, workplaces, shops, aged care facilities, parks, recreational facilities and transport hubs
- **programs and events** to encourage participation in walking and cycling
- **marketing and promotion** of paths, trails, programs and events to increase awareness of opportunities available.
- **educational activities** to assist residents to understand the value of walking and cycling; to gain a better understanding of road rules; and to encourage greater levels of understanding and respect between motorists, walkers and cyclists
- **research and evaluation** to ensure that the actions undertaken meet the objectives of the Shire in relation to walking and cycling.

Vision and mission

The vision developed by the Shire, following extensive community and stakeholder engagement is:

The Central Goldfields Shire is an active, connected and healthy community where people of all ages and abilities regularly walk and cycle.

Its mission is:

To encourage more residents and visitors to walk and cycle more often in the Central Goldfields Shire.

Planning principles

To help guide Council to achieve its vision, the following planning principles have been developed:

Connected	Paths / trails are connected to the key destinations people want to walk or ride to, e.g. schools, work places, shops, transport hubs, friends' homes, entertainment venues, aged care facilities, recreational areas, parks, waterways, bushland. Paths and trails also provide an opportunity for community connections and friendships to develop through events, programs, working bees or social interactions.
Accessible	Paths / trails are easy to access from people's homes. The walking / cycling network provides opportunities for people of all abilities to utilise paths / trails. Seats, shade, bike parking and end of trip facilities will be provided as appropriate. Programs and events will be designed to be as accessible as possible for the broader community by ensuring that people feel welcome, opportunities are provided for all skill levels and barriers to participation (such as cost, transport, childcare, etc) are minimised.
Safe	Paths are designed with safety (e.g. quality surface, sufficiently wide trail, good visibility, minimal road crossings, suitable signage, etc) in mind and are well maintained. People feel safe using the path / trail and all programs and events are designed with safety in mind.
Attractive	Paths / trails are designed to be visually attractive, located in pleasant surroundings and provide views wherever possible. All marketing materials will be designed to be attractive.
Fun	Paths / trails will be enjoyable to use and will encourage a social element (e.g. people will choose to meet up and walk or ride along the paths / trails together). Any programs or events will be designed to create an enjoyable experience.
Of high quality	Paths / trails are well designed and constructed using quality materials with a considerable lifespan. Programs and events will be professionally organised. All marketing materials and education programs will be of high quality.
Supported	The use of paths / trails will be supported through suitable programs and events in the municipality, as well as through walking and cycle friendly businesses. People will be supported to utilise paths and trails through appropriate education, marketing, programs and events.
Promote participation	Programs and events will be developed to encourage more people to utilise paths / trails. Some programs and events will be targeted at people who do not currently utilise or do not regularly utilise paths / trails as well as parents and school children to encourage greater numbers of children to walk or ride to school. Other programs and events will be developed or facilitated to provide participants with physical challenges. Visitors to the region will also be encouraged to extend their stay in the area to utilise local paths / trails.
Utilise an evidence base	The future planning and development of paths / trails will be based on sound evidence of need, utilising local data sources wherever possible. Future programs and events will also be developed utilising methods that have been successful elsewhere, but also taking into consideration local needs.

These factors will contribute to the success of cycling and walking trails.

Council's key role

It is recognised that **Council's key role** in walking and cycling is to develop the infrastructure to support these activities and to actively promote and encourage walking and cycling in the Shire wherever possible. It does not have the resources to necessarily organise a suite of walking and cycling programs or events, or the establishment of cycling and walking clubs, but can support and encourage other organisations, to do so, or to value add to what they already do.

Council recognises the vital strategic planning role undertaken by the **Bicycle Advisory Group (BAG)** and the organisations that make up its membership i.e. VicRoads, Victoria Police, schools, State Government, health agencies and cycling enthusiasts. However, in recognition of the importance of and the relationship of walking to cycling, Council intends to establish a new advisory body which will be called the Bicycle and Walking Advisory Group. This group will build on the success of the previous BAG and will allow for stronger representation of active transport related issues and enhanced strategic and integrated planning opportunities. New terms of reference will be developed to guide this group. It is also recommended that the membership of this group be expanded to include a representative of the Goldfields Sustainability Group.

Council needs to focus on implementing initiatives that are most likely to have the **biggest impact on participation levels**. The biggest gains in physical activity levels across the municipality may be achieved through increasing the amount of incidental activities that people take part in, e.g. walking to work or school, etc. Hence programs and infrastructure to support walking and cycling to everyday destinations is important.

To date Council has invested its resources in a variety of paths and trails, however, those that receive the greatest amount of use are Lake Victoria, Goldfields Reservoir and the Maryborough to Carisbrook Trail. These types of trails, which are relatively self-contained, attractive and accessible need to remain a focus in the suite of trail developments due to their popularity and ability to attract high numbers of trail users. It is also anticipated that the recently completed on road touring route, the Ballarat to Maryborough Heritage Trail, will be instrumental in bringing cycle tourists to Maryborough, thereby increasing the number of people using trails locally and at the same time, adding value to the local economy.

Research and data collection requirements

Anecdotally we know that a lot of people walk and cycle in the Central Goldfields Shire. We also know that walking and cycling is of significant value to the health and wellbeing of our community. In recent figures released by the Department of Health¹, we have seen a decrease in the percentage of local residents who are classified as sedentary and both overweight and obese. This data is very promising. We want to see this trend continue in the future and would ideally like to know how walking and cycling has contributed to this improvement in health.

In order to measure and monitor the impact of walking and cycling and to understand the barriers to participation so that we can initiate appropriate responses, we need to collect local **data** of both a

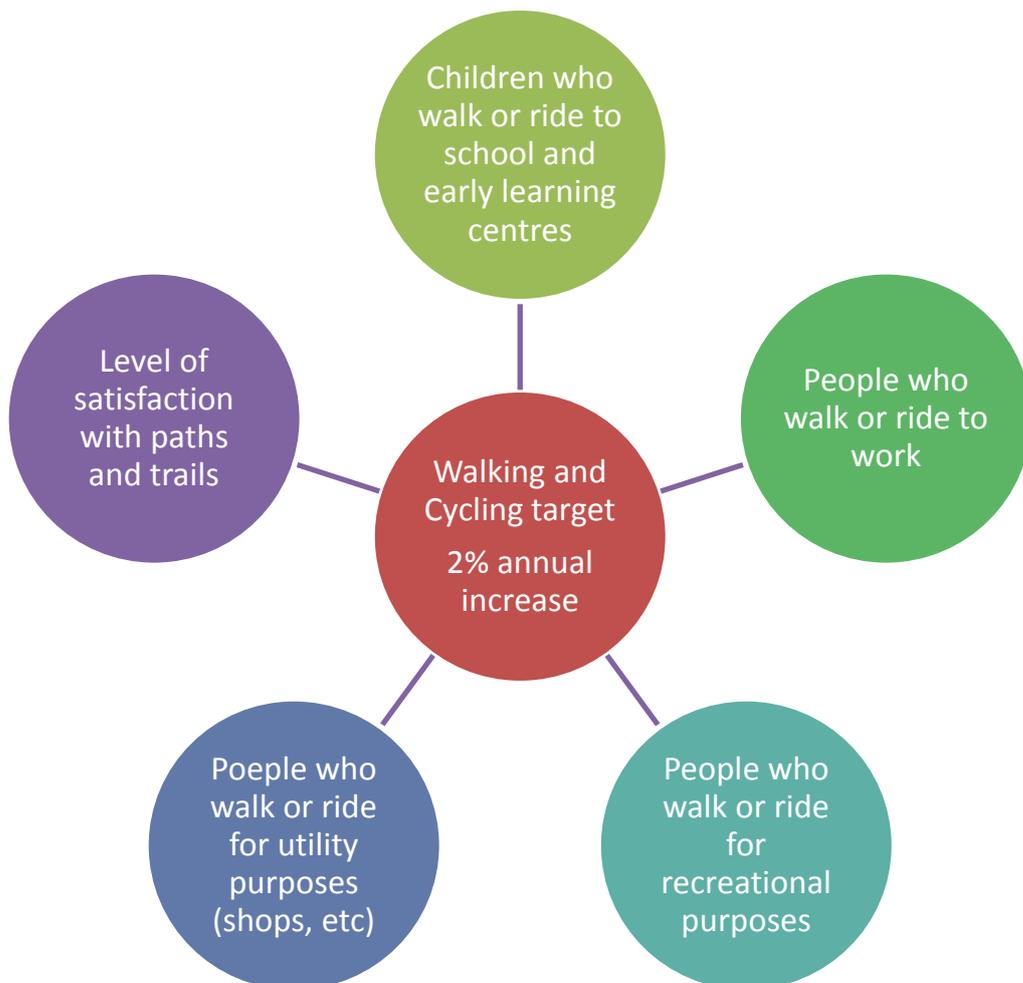
¹ Department of Health (2016) *Victorian Population Health Survey 2014*. Website: <https://www2.health.vic.gov.au/public-health/population-health-systems/health-status-of-victorians/survey-data-and-reports/victorian-population-health-survey/victorian-population-health-survey-2014>

qualitative and quantitative nature on an annual basis. There may be opportunities to work in partnership with other organisations such as Federation University to undertake data collection through telephone surveys, focus groups, additional trail counters and other tools. This data will also provide a sound evidence base for future funding applications for new or upgraded paths / trails, programs and events. Further, it will allow us to use our learnings to improve our operations and to ensure that we use an integrated planning process in all future initiatives. It will also help us to make wise investments in relation to walking and cycling initiatives.

Crash Statistics from VicRoads also enable us to identify existing locations where there have been accidents involving pedestrians and cyclists, and therefore provide us with details of where safety measures may need to be improved.

Targets

In order to determine whether or not the strategy has successfully achieved its intention of creating a better, connected network of walking and cycling paths and trails and more people walking and cycling, we aim to **increase** the percentage of people who walk and ride, and their satisfaction levels with paths and trails by 2% annually, as demonstrated in the following diagram:



Minimum requirements for small towns

A **Small Towns Trail Framework** has also been developed for the five major towns (Bealiba, Carisbrook, Dunolly, Maryborough and Talbot) to ensure that walking and cycling become the easy and safe choice for transport for both residents and visitors to the area. It also addresses issues of equity across the municipality and accessibility. The framework for each town includes:

- Identify and develop an all abilities footpath / shared path that is sealed and provides linkages to shops, transport hubs, parks and recreational facilities wherever possible in each town centre.
- Identify and develop an on road cycle lane that is clearly marked and sign posted and provides linkages to shops, transport hubs, parks and recreational facilities wherever possible in each town centre.
- Identify safe routes to schools and early learning centres in each town and construct suitable infrastructure to support this concept, i.e. shared off road paths / trails wherever possible around each side of a school / early learning centre, linked to footpaths, shared off road paths and on-road bike lanes to residential areas.
- Identify and develop a safe route for residents of aged care facilities to access the centre of each town (in which such facilities are located) by foot or motorised scooter.
- Identify and develop an off road recreational walking / cycling path or trail (of approximately 2.5km in length, i.e. a 5km round trip) that provides local residents and visitors with the opportunity to walk / cycle to key local attractions such as waterways in or near each town.
- Identify, sign and promote on road cycle training routes catering for fitness / competitive cyclists throughout the municipality.

Whilst a complete network of off road paths between towns would be ideal, this unfortunately is not realistic within the **resources** currently available. Instead, the focus of the Strategy is on ensuring that there are clearly defined and safe paths and trails marked within each town and that there is an expectation that linkages between towns will generally be on road, but clearly signposted, with wider shoulders wherever possible, supported by education programs so that motorists are aware of the need to look out for cyclists and supported by appropriate marketing tools such as online maps. That being said, there is some momentum for **further research** to be undertaken to develop an off-road rail trail between Maryborough to Castlemaine with a link to Maldon. This will require inter-municipal cooperation, a feasibility study and considerable resources.

Barriers to participation

International research suggests that **increasing the number of people who walk and cycle** as part of their everyday routine, particularly those who are currently inactive or not sufficiently active to meet national physical activity guidelines, will have the most profound impact on health and wellbeing. In order to encourage inactive people to become active, barriers to walking and cycling must be addressed. These barriers are frequently identified as feeling unsafe riding a bike, lack of paths / trails close to homes, poor condition of path / trail surfaces, lack of knowledge of where paths / trails lead to, lack of knowledge about repairing flat tyres, perception that there is too much traffic, etc.

Urban bike path

The potential development of an **urban bike park** at Bristol Hill (possibly comprising of recreational family trails, toddler tracks, skills development tracks and mountain bike / BMX features, supported by training programs), could potentially provide a safe, off road experience for people, particularly those who do not currently ride a bike, to develop their skills and confidence to ride on shared paths, roadways or mountain bike trails. Such a development would complement the existing velodrome and clubhouse at this facility. The club house could be used for birthday parties or as a training venue for elite level cyclists. There may also be potential to include a space where people can learn to ride motorised scooters. A master plan is needed to fully scope the design and costs for such a facility.

Children walking and cycling to school

A key issue identified in the Shire is the decline in the number of children walking or cycling to school. Therefore the development of safe walking / cycling paths, trails and on road lanes around **schools**, supported by educational programs is a community priority. If children can establish a pattern or habit of active transport from a younger age, they may be more likely to continue to walk or cycle as they get older.

Motorised scooters

Another key issue is the number of older people and people with **mobility issues** in the Shire who use motorised scooters for transportation. The need for clearly defined safe paths to the centre of towns is particularly important for this group to enable them to continue to maintain their independence. A link from aged care facilities to the centre of towns is therefore another priority of the Strategy. Further, given that a number of people who use motorised scooters for transportation may not be familiar with road rules; there may be an opportunity to develop a safe area for training sessions to be held at the proposed urban bike park, supported by local health professionals.

Actions

To achieve the vision of an active and healthy community where people of all ages and abilities regularly walk and cycle, the Central Goldfields Shire Walking and Cycling Strategy addresses specific path / trail works required in each town / area (refer to Action Plan at the end of the Strategy), as well as the following **actions**:

Focus area	Action
Planning	Review, update and implement Council's policies and plans that relate to walking and cycling.
	Ensure that walking and cycling are included in other relevant Council documents, plans and policies
	Create a new advisory group which incorporates both cycling and walking (to replace the former Bicycle Advisory Group)
	Liaise with neighbouring municipalities on a regular basis to discuss issues and opportunities around existing and potential shared trails that cross municipal boundaries.
	Ensure that any new walking or cycling paths and trails are integrated with public transport routes wherever possible.

Focus area	Action
	Explore the potential to employ an active transport officer, shared with one or more neighbouring municipalities.
	Explore the potential to develop a rail trail from Maryborough to Castlemaine via Newstead, with a link to Maldon
Research	Undertake or commission research in relation to local walking and bicycle related issues.
	Continue to monitor trail usage figures (by utilising counters) to support developments of new trails, upgrades and renewals.
Advocacy	Continue to advocate: <ul style="list-style-type: none"> • for bicycles to be carried on V/Line trains to encourage greater numbers of cycle tourists to the region • to VicRoads for wider shoulders on roads • to State and Federal Government for funding • to Parks Victoria to develop and enhance partnerships and infrastructure
Design	Ensure that any new trails, upgrades or renewals are designed according to relevant Australian Standards, guides, legislation and best practice.
	Prepare an infrastructure design guide to provide advice and guidance to both Council officers and developers around appropriate design and infrastructure requirements for paths / trails.
	Review location of existing directional signs, interpretive signs, seats, bicycle parking and trees on paths / trails; identify where additional infrastructure is required; and install as appropriate.
Upgrade / renewal	Ensure that trails are upgraded / renewed according to the timeframe identified by the risk rating system articulated in Council's Operational Asset Management Plan Roads document.
Management and governance	Ensure that any regional level trail, or trail that crosses land owned by a number of different organisations, is guided by a management plan and a suitable governance structure.
Maintenance	Ensure that each trail identified on Council's Pathway Register is maintained according to the schedule set out in Council's Operational Asset Management Plan Roads document.
Marketing and promotion	Develop a marketing plan to create greater awareness and usage of walking and cycling paths and trails in the municipality, linked with the Bendigo Regional Tourism Plan.
	Provide information to local businesses about how to become bike friendly and the benefits of becoming bike friendly.
	Develop branding so that the Shire is recognised at a local, regional and state level as a walking and cycling friendly destination.
Commercial opportunities	Explore the potential for commercial operators to provide bicycle hire and / or a cycle tourist business.
Education	Facilitate community education programs to promote walking and cycling and safe road use.
	Explore cost effective ways of providing bicycle education programs in schools.
	Explore the option of purchasing a Bike Ed trailer
Events and programs	Encourage walking / cycling event organisers to value add to existing events
	Seek to attract additional walking / cycling events to the municipality.
	Encourage neighbourhood houses, health agencies, schools, businesses, Sports Focus regional sports assembly and others to develop walking / cycling events or

Focus area	Action
	programs, and promote such activities where appropriate. For example Sports Focus could facilitate the Life Cycle 55+ program developed by Cycling Victoria and train locals to run the program in the future.
	Develop a program strategy that aims to encourage currently inactive people to become more active, particularly through walking to school or work or taking part in beginner walking and cycling programs. Support the development of three new walking and cycling programs from this strategy for a three year period by providing some resources and encouragement.
	Encourage participation by schools and businesses in programs such as Ride2School Day, Walk2School Day and Ride2Work Day.
Evaluation	Undertake an annual review of the Walking and Cycling Strategy and regularly monitor the strategy.
Infrastructure	Continue to develop a clear network of safe paths and trails that connect local residents to schools, workplaces, shops, aged care facilities, parks, recreational facilities and transport hubs. This includes the possible development of an urban bike park at Bristol Hill.
	Fill in any missing links in the existing walking / cycling network.
	Undertake further research to determine the viability of and key components of an urban bike park established at Bristol Hill in Maryborough, e.g. a flat area for toddlers to learn to ride, shared paths for families, a bike skills development area for mountain bikes, a pump park, on-site accommodation for cycling camps or school camps, training programs, area for people to learn to ride motorised scooters, etc.
	Undertake a water audit along trails in partnership with Sports Focus, VicHealth and Central Highlands Water with a view to developing more water outlets for trail users.
Club development	Provide support to assist walking and cycling clubs to become established and to develop.

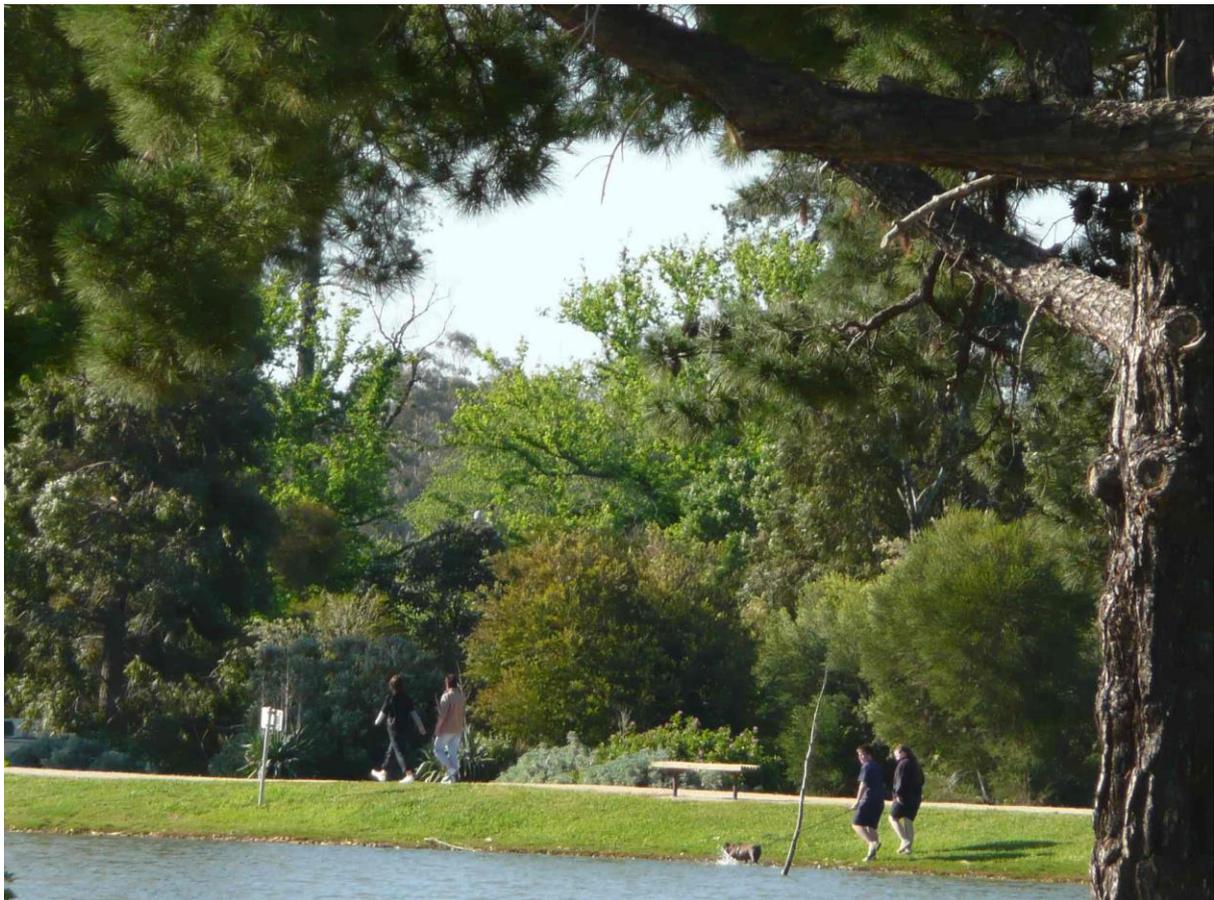
1.0 Introduction

1.1 Aim of the strategy

The aim of the Central Goldfields Shire Walking and Cycling Strategy is to provide a strategic framework to guide Council in relation to walking and cycling opportunities such as paths / trails, infrastructure, events, programs and services for the next ten years. The majority of recommendations contained within the previous Cycling Strategy have been completed, with the establishment of the Bicycle Advisory Group (BAG) identified as a particularly good outcome.

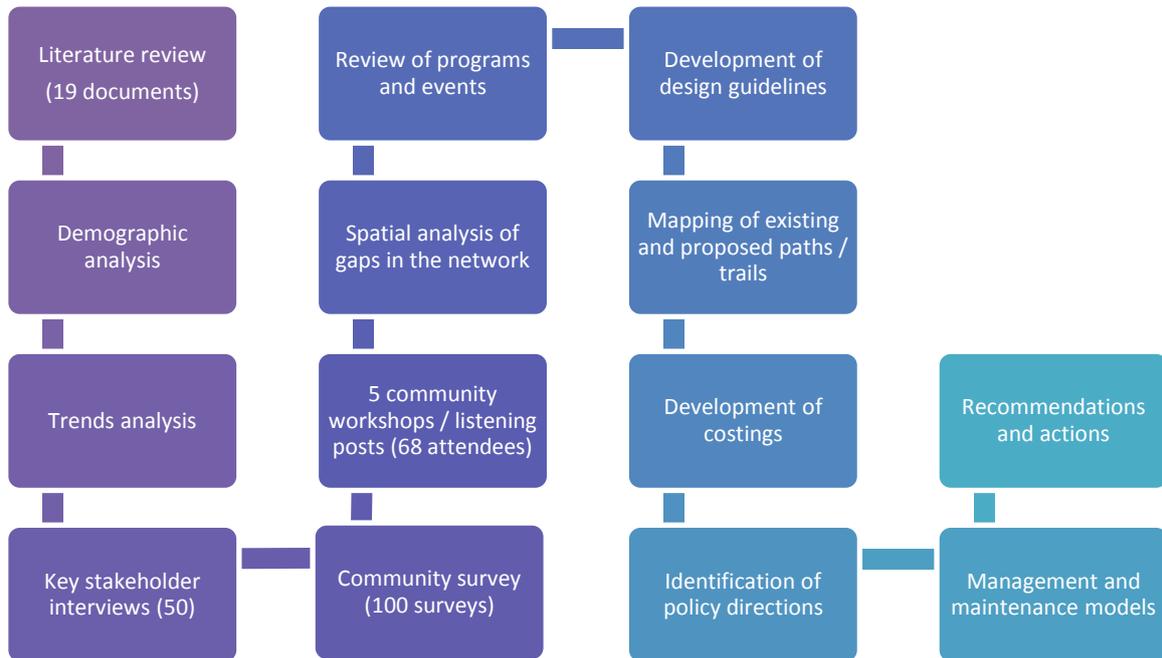
Council is keen for the existing walking and cycling infrastructure within the municipality to be better utilised and also keen for participation rates in walking and cycling to increase. Such an increase in usage not only creates better use of existing infrastructure, but has the potential to have a profound impact on the health and wellbeing of the community.

When a network of safe, quality, linked paths and trails is created, supported by suitable programs, events and services, there is a much greater potential for local residents to utilise active transport to key destinations such as schools, work, sport and recreation facilities and shopping precincts or to enjoy recreational walking and cycling for fitness. Ultimately cycling and walking should be the easy choice for residents when considering transport options and physical activity participation. The aim of this strategy is to ensure that the Central Goldfields Shire is best positioned to create a walking and cycling friendly community, within its resource capacities.



1.2 Methodology

The following methodology was utilised in order to develop the strategy:



More details of the methodology and outcomes of the literature review, key stakeholder interviews, workshops / listening posts and community surveys are contained within the Appendix.

2.0 Our community

2.1 Our region

The Central Goldfields Shire is located in the centre of Victoria and covers an area of 1,550 square kilometres. It is located two hour's drive from Melbourne, and within one hour of both Bendigo and Ballarat. The major business centre of the municipality is Maryborough. In addition to servicing the business and retail needs of the broader community, this town features significant historical buildings dating back to the 1850's gold mining period (such as the Maryborough Railway Station) and also some quality sport and recreation facilities. Other towns in the municipality, such as Bealiba, Carisbrook, Dunolly, Majorca, Talbot, Bowenvale-Timor and the rural districts surrounding these centres are also noted for their heritage architecture and agricultural industries (predominantly cropping and sheep). The Central Goldfields Shire landscape comprises of farmland bush and gently rolling hills.

The municipality is experiencing modest growth and renewal in specific areas. With this growth has come some investment in key infrastructure projects and residential developments, as well as greater sense of belonging and pride in the community by local residents.

The Central Goldfields Shire is very well suited to walking and cycling - there are low traffic volumes, a pleasant climate, not too many hills and a good assortment of trails such as Lake Victoria, Goldfields Reservoir, the Dunolly Bike Paths and various other loops in and around towns.

2.2 Our people

The Central Goldfields Shire comprises 14,496 people – 50% males and 50% females². The median age is 48, compared with a median age of 37 for both Victoria and Australia. The majority of residents (87%) were born in Australia and 95% of residents only speak English at home.

The population and median age for each Australian Bureau of Statistics 'state suburb' within the Central Goldfields Shire is as follows:

Table 1: Population and median age for each town within the Central Goldfields Shire³

Township	Population	% Female	% Male	Median Age
Bealiba	300	47.3	52.7	51
Carisbrook	1,143	49.1	50.9	44
Dunolly	908	47.2	52.8	55
Maryborough	7,630	51.7	48.3	48
Talbot	715	49.4	50.6	48

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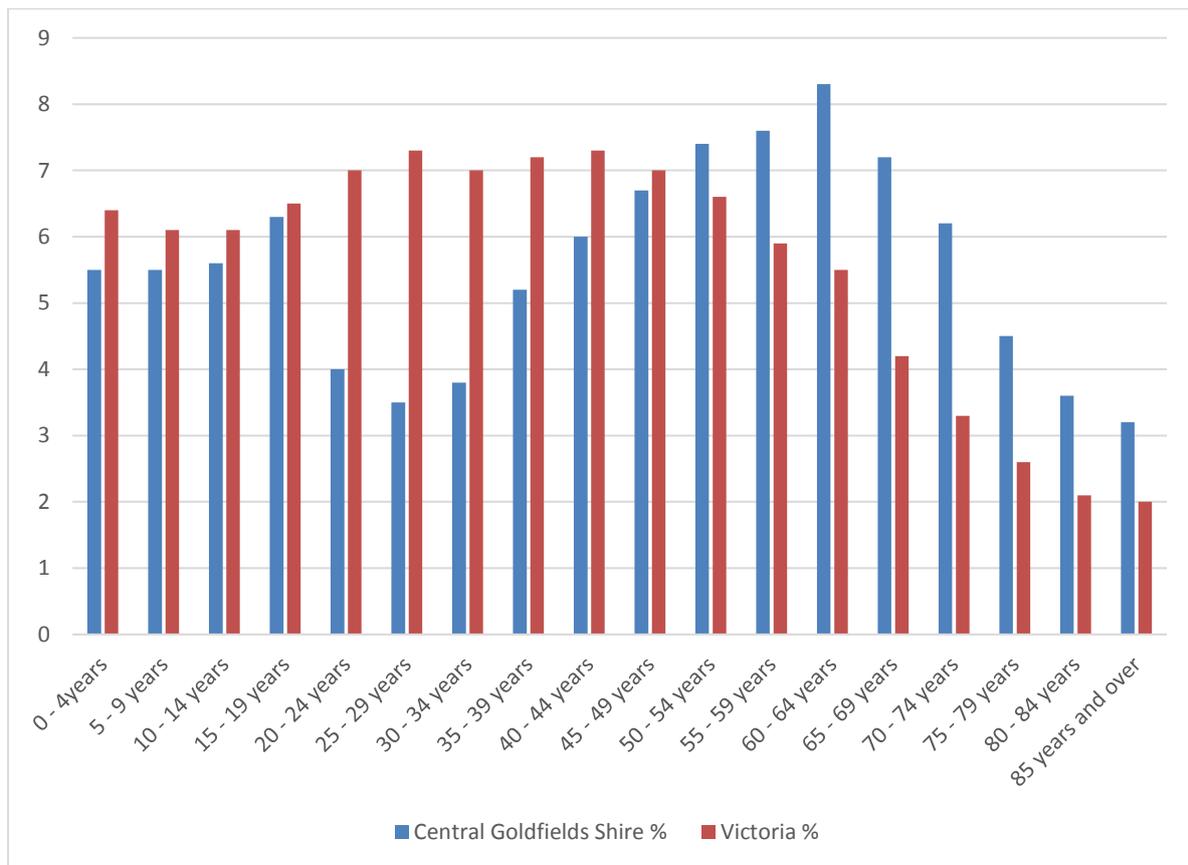
http://www.censusdata.abs.gov.au/census_services/getproduct/census/2011/quickstat/LGA21670?opendocument&navpos=220 (viewed 25th January 2016)

³ Australian Bureau of Statistics:

http://www.censusdata.abs.gov.au/census_services/getproduct/census/2011/quickstat/SSC20096?opendocument&navpos=220 (viewed 25th January 2016)

The Central Goldfields Shire has a much higher percentage of people over the age of 50 years of age (48% over the age of 50 years compared with 32% for Victoria) and a significantly lower percentage of people aged 20 – 34 years (11% compared with 21% for Victoria). The percentage of young people from 0-19 years of age is relatively similar to the Victorian figures, as is the percentage of people aged from 40-49 years of age. Carisbrook, with a median age of 44, has a greater proportion of younger residents than Dunolly, where the median age is 55. Consequently, there may be slightly different needs in relation to path / trail developments in these locations, e.g. higher numbers attending schools in Carisbrook and possibly the need for trails that cater for younger riders and young people learning to ride.

In general, the figures for rural Victoria are very similar to those for the Central Goldfields Shire.



Between 2011 and 2031 there is expected to be a net increase of 286 local residents (or 14 new residents each year), based on an average annual growth rate of 0.4%⁴. The Central Goldfields Shire is expected to comprise of approximately 13,768 residents by 2031. However, this figure could change if circumstances change, e.g. a new major employer relocates to Maryborough or there is an influx of recently arrived people / refugees to the area. By 2031, 56% of the population is expected to be over 50 years of age.

⁴ Department of Environment, Land, Water and Planning:
http://www.delwp.vic.gov.au/data/assets/excel_doc/0008/308339/Central-Goldfields-S_VIF2015_One_Page_Profile.xlsx (viewed 25th January 2016)

Some other statistics of relevance from the ABS Census , Council's *Municipal Health and Wellbeing Plan (2013-2017)* and the Department of Health's *Victorian Population Health Survey 2014* include:

- the percentage of people who worked full-time was less than the figures for Victoria and the percentage of people who worked part-time was higher than the Victorian figures.
- the percentage of people who were unemployed was higher in the Shire than in the rest of Victoria.
- the median weekly income of households in the Central Goldfields is the lowest in the state: \$685 compared with \$1,216.
- the Shire has three times the state average of disability support pensioner recipients and the highest percentage of age pensioner recipients.
- 25.8% of adults are overweight (compared with 31.2% for Victoria).
- 23.6% of adults are obese (compared with 18.8% for Victoria).
- 49.4% of adults are classified as overweight and obese (compared with 50.0% for Victoria). Note that the CGS percentage has decreased from 64.4% in 2011-2012.
- 2.5% of adults are sedentary (compared with 3.6% for Victoria). Note that the CGS percentage has decreased from 5.8% in the last survey.
- 39% of adults undertake sufficient physical activity to gain a health benefit (compared with 41.4% for Victoria)
- 49.5% of adults do not undertake sufficient physical activity to gain a health benefit (compared with 50.4% for Victoria).
- 81% of people feel safe walking alone at night (compared with 70% for Victoria).
- 6% of people walk to work.
- 1% of people cycle to work.

Based on the demographics of the Shire, it will be important to provide walking and cycling opportunities that meet the needs of the growing number of older adults and the high percentage of people with disabilities. Hence pathways that are safe, well linked, easy to access from homes and provide universal access need to be a priority. Features such as seats, shade and drinking water need to be considered. Given that the median household income is the lowest in the state, walking and cycling opportunities, which are relatively inexpensive activities, have potential to become more popular, providing that people are supported to use these facilities through the development of suitable programs.

2.3 Our visitors

The Central Goldfields Shire receives approximately 53,900 overnight visitors annually and 139,830 day visitors⁵. These visitors may take part in walking and cycling while here, or may be attracted to the area specifically to take part in such activities, thereby contributing financially to the local economy.

For those spending one or more nights in the Shire and for day visitors, visiting friends and relatives is the most common reason to come to the area. Not surprisingly, accommodation for overnight visitors in the Central Goldfields Shire is predominantly at the property of friends or relatives (55%).

⁵ Urban Enterprise (2015) Mair Street Spine Precinct Master Plan Draft

5% of domestic overnight visitors to the Central Goldfields area are likely to go cycling during their visit. This compares with a regional Victorian average of 3% and figures of only 1% for Bendigo. 14% of domestic overnight visitors are also likely to go bushwalking compared with the regional Victorian average of 14% and the Bendigo figure of 5%. An even higher percentage of domestic overnight visitors to the Central Goldfields Shire are likely to cycle or bushwalk than other neighbouring municipalities. Hence there may be opportunities to develop opportunities that cross municipal boundaries.

The largest age cohort of visitors to the Central Goldfields is the 45-54 year age group followed by 15-24 year olds. There is a fairly even distribution of all other age cohorts, with those aged over 75 least represented.

In terms of day trippers, the majority of visitors to the Central Goldfields come from Bendigo (34%), followed by other areas of regional Victoria (27%). Melbourne accounts for 25% of visitors to the area and Ballarat 13%. The final 1% of visitors comes from interstate (most likely South Australia).

In terms of international visitors, there is no data available for the Central Goldfields Shire. However, the origin of international visitors to the Bendigo region (of which Central Goldfields is a part) are predominantly New Zealand (22%), UK (21%) and United States of America (9%). The majority of these visitors come to the Bendigo region for a holiday (42%) or to see friends and family (35%).

Between 2004 and 2014, domestic day visitation rate in the Bendigo region grew by 4%, domestic overnight visitation grew by 1%, international visitation by 7%. This equates to a visitation growth rate of 3% in the region.

Given that the majority of visitors to the Shire come to see family and friends, it is important that any marketing campaigns involve educating local people about suitable locations to walk and cycle. There also appears to be a greater propensity for visitors to the area to go bushwalking or to ride a bike than in other areas such as Bendigo, hence ensuring that information is available to potential visitors in their trip planning period will also be important to capitalise on this interest or desire. The internet and social media will be key tools in marketing the walking and cycling opportunities in the Shire, along with printed materials to a lesser extent.



3.0 Political context

19 local, regional and state level documents were reviewed in order to identify strategic directions, policies or trends that may impact on the future provision of cycling and walking in the Central Goldfields Shire. A number of key points were identified through the review of relevant reports and strategies. These are as follows.

Local / regional level documents:

- The Central Goldfields Shire has a commitment to continue to develop and maintain a well connected network of on and off road walking and cycling paths to relevant standards and according to defined service levels.
- Council wants to ensure that traffic levels are well managed.
- Council wants to provide or facilitate programs, events and initiatives to encourage more walking and cycling.
- Council recognises the strong support by the community for linking key destinations and small towns to one another via walking / cycling opportunities.
- Council understands that additional infrastructure is required to further encourage walking and cycling, e.g. directional signs, interpretive signs, seats, etc.
- Council understands that participation in walking and cycling can have a significant positive impact on the health and wellbeing of local residents.
- Council understands that in order for people to walk and cycle throughout the Shire, paths and programs need to be safe, inclusive and accessible.
- Council recognises the potential to attract cycle tourists to the region due to the relatively flat and quiet country roads and short distances between towns.
- Council provides support to a variety of local sport and recreation clubs and organisations.

State level documents:

- The State Government understands that in order for cycle tourism to take off in rural and regional Victoria that the quality of the trail experience must improve, that awareness of trail offerings need to improve, complementary tourism and retail businesses need to be supported and the needs and motivations that influence the trail-user market need to be identified.
- Trail investments by the State Government will be based on trail user profile, quality, access, safety, economic benefits, environment and heritage benefits, social benefits, demand, support by landowners / land managers, development costs, long term commitment of resources, natural and cultural values, planning requirements and strategic imperative.
- Cycling will play an increasingly important role in meeting transport needs and supporting vibrant, healthy urban communities in regional Victoria. Therefore cycling needs to be integrated with land use and development planning and reflected in the development of Regional Growth Plans.
- Cycling needs to be promoted as a viable and safe mode of transport, and an enjoyable recreational activity.
- A comprehensive and continuous network of safe and attractive routes to cycle and end-of-trip facilities needs to be created.
- Monitoring and evaluation of cycling programs and trail use needs to occur.

4.0 Walking and cycling

4.1 Benefits of walking and cycling

The benefits of participating in physical activities such as walking and cycling are well documented. Not only do individuals benefit from a health and wellbeing perspective, but the whole community benefits from a greater sense of community, economic opportunities, improvement to the environment, reduction in crime and a healthier society. Some of the benefits that can occur through participation in walking and cycling are:

Benefits	Individual and Community
Physical and Mental Health	<ul style="list-style-type: none"> • “Protect(s) against a range of poor health outcomes, including cardiovascular disease, hypertension, type 2 diabetes, osteoporosis, musculoskeletal impairments, obesity, some cancers and poor mental health.”⁶ • Improved balance and coordination, resulting in fewer falls • Stronger muscles, joints and bones • Improved confidence and self-esteem • Improved body image • Improved motor skills • Less likely to suffer from depression and anxiety • Greater sense of achievement • Reduced stress levels • Higher energy and concentration levels • Reduction in incidence and severity of illness and disability • Increased life expectancy.
Social	<ul style="list-style-type: none"> • Greater sense of community • Stronger, more self-reliant communities • Greater social and friendship networks • Reduced anti-social behavior and vandalism • Helps to develop shared attitudes, values and codes of behavior in the community • Breaks down barriers between different sectors of the community • Stronger family relationships. • Reduced traffic congestion and noise on roadways.
Economic	<ul style="list-style-type: none"> • Employment opportunities in walking and cycling activities and events • Improvements to local business viability through sale of walking and cycling equipment, services or programs or through food and beverage sales • Reduction in health care costs – according to VicHealth, physical inactivity is estimated to cost Australia \$13.8 billion annually; and the health sector alone \$719 million⁷ 16,178 premature deaths can be attributed to physical inactivity each year across Australia

⁶ VicHealth (2015) Promoting equity in physical activity: An evidence summary

⁷ VicHealth (2010) Participation in Physical Activity: A Determinant of Mental and Physical Health

Benefits	Individual and Community
	<ul style="list-style-type: none"> Increases productivity of workers and reduces number of sick days (approximately 1.8 working days per employee per year are lost to physical inactivity or the equivalent of \$458 per employee⁸). Potential to attract businesses to the region if quality walking and cycling settings, programs and services exist Flow on benefits to tourism businesses from people participating in walking or cycling events and activities or involved as a spectator. Reduced cost of providing roads for Government agencies Reduced costs of operating motorised vehicles for residents Reduced costs of parking, public transport fares and tolls for residents. Mountain biking tourism contributed approximately GBP 47 million to the Scottish economy in 2009 and approximately CA 19 million to the Canadian economy from Whistler Bike Park alone in 2006.⁹
Environment	<ul style="list-style-type: none"> Protection of habitats, biodiversity and ecological integrity More attractive living environments A greater appreciation and awareness of the natural environment. Reduced environmental pollution and traffic noise

4.2 Types of walkers and cyclists

Survey respondents from the Central Goldfields Shire tend to identify with the following types of walkers or cyclists:

Walker	Cyclist
<ul style="list-style-type: none"> Recreational walker (58%) 	<ul style="list-style-type: none"> Fitness cyclist (49%)
<ul style="list-style-type: none"> Utility walker – to shops (29%) 	<ul style="list-style-type: none"> Recreational cyclist (39%)
<ul style="list-style-type: none"> Fitness walker/runner (24%) 	<ul style="list-style-type: none"> Utility cyclist – to shops (29%)
<ul style="list-style-type: none"> Other – walk dogs, use treadmill, etc (24%) 	<ul style="list-style-type: none"> Commuter cyclist – to work / school (24%)
<ul style="list-style-type: none"> Commuter walker - to work / school (20%) 	<ul style="list-style-type: none"> Mountain bike rider (20%)
<ul style="list-style-type: none"> Recreational jogger/runner (20%) 	<ul style="list-style-type: none"> Cycle tourist (17%)
	<ul style="list-style-type: none"> Competitive cyclist (15%)
	<ul style="list-style-type: none"> Touring cyclist (10%)

In addition to walkers and cyclists, footpaths and off road tracks are also utilised by runners, people driving motorised scooters / gophers, people in wheelchairs, skate boarders, in-line skaters, people riding scooters, etc. The needs of these groups also need to be considered in the design of paths and track.

⁸ VicHealth (2010) Participation in Physical Activity: A Determinant of Mental and Physical Health

⁹ Victorian Tourism (2014) Victoria's Trail Strategy

4.3 Accidents involving pedestrians and cyclists

Crash Statistics from VicRoads¹⁰ enable us to identify existing locations where there have been reported accidents involving pedestrians and cyclists. This information therefore provides us with details of where safety measures may need to be improved. Areas where accidents have occurred in the last five years involving pedestrians and cyclists and in the Shire are all in Maryborough itself at the following six locations:

- Corner of Tuaggra St / Pyrenees Highway and Burns St (2 cyclists)
- Intersection of Nolan Lane and Nolan St (1 cyclist)
- On Ironbark Drive (1 cyclist)
- Corner of Burke St and Nolan St (1 pedestrian)
- At the railway crossing on Inkerman St (1 pedestrian)
- On Elgin Road near Archer St (1 pedestrian)

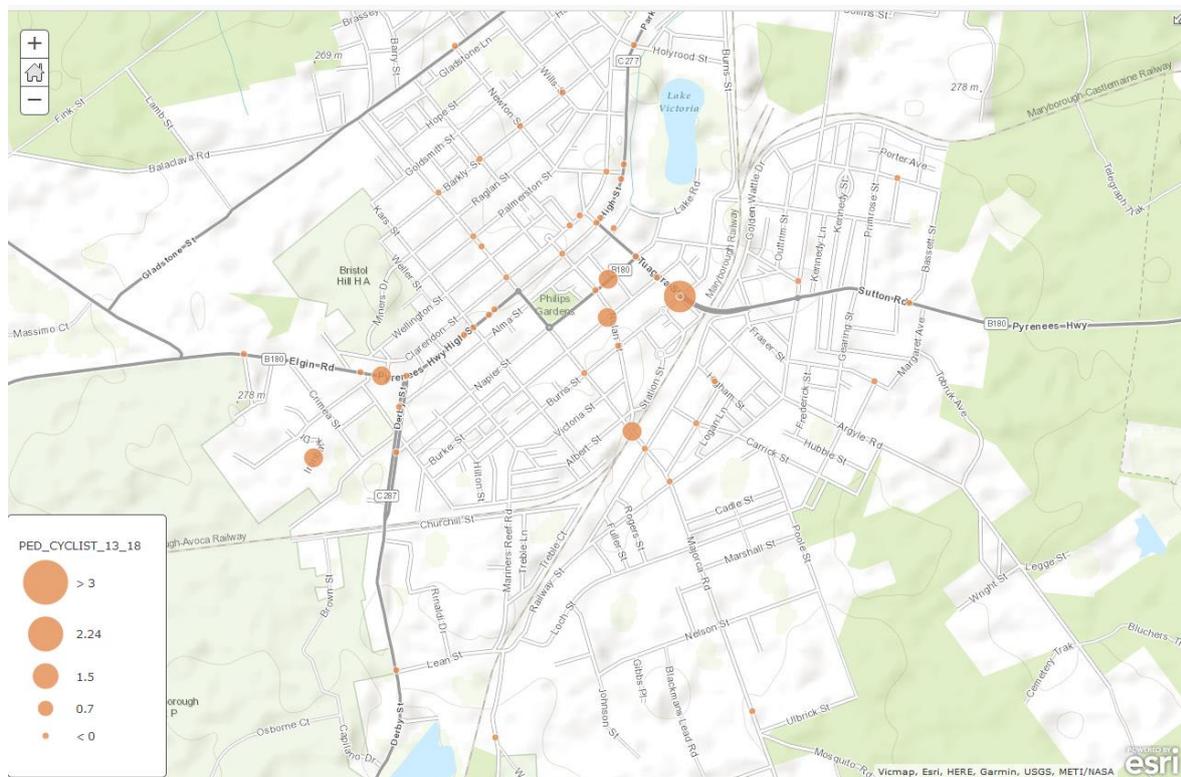


Figure 1: Six locations in Maryborough where cyclists or pedestrians have been involved in a reported collision with a vehicle in the last five years (map courtesy of VicRoads)

¹⁰ VicRoads Crash Stats:

http://www.arcgis.com/home/webmap/viewer.html?url=https%3A%2F%2Fservices2.arcgis.com%2F18ajPSI0b3ppsmMt%2Farcgis%2Frest%2Fservices%2FCrashes_Last_Five_Years%2FFeatureServer%2F0&panel=gallery&suggestField=true

4.4 Walking and cycling trends

Walking and cycling are constantly evolving. Some of the current trends related to these two activities are:

- Bicycle share schemes in towns / cities
- Electric bikes / e-bikes
- Lighting along paths / trails
- Businesses using fleet bikes for staff to travel to meetings
- Technological advances to equipment to improve safety, accessibility and speed.
- Road modifications to increase safety for cyclists, e.g. separated lanes on roads
- Use of sustainable materials and designs, e.g. solar powered bicycle lane
- Increased expectations that information, maps and bookings can be done over the internet
- Fitness trackers
- Development of urban bike parks
- Charity events focussing on walking or riding
- Greater focus on active transport by planners
- Formalised walking groups for health, fitness and social interactions
- Use of public art to enhance walking / cycling experiences
- Recognition of improved liveability of towns / cities by promoting walking and cycling
- Use of apps on smart phone / electronic devices for information, tracking of distances / speeds

More details of trends, including relevant images, are included in the Appendix.

4.5 Participation rates in walking and cycling

According to the Australian Bureau of Statistics¹¹, walking for exercise was the most popular physical recreational activity in Australian for people aged over 15 years of age in 2013/14. 25% of females walked for exercise at least once in the previous 12 months as did 14% of men (which equates to 19% of people aged 15 years and over). Males were more likely than females to participate in cycling and BMXing (8.5% and 4.0% respectively).

The following table provides an overview of the percentage of Australians over 15 years of age who walked, ran or cycled at least once in the 12 months prior to 2013. The final column in this table identifies the potential number of residents within the Central Goldfields Shire who may undertake these activities (in the absences of such data), assuming that participation rates locally are similar to those nationally:

¹¹ Australian Bureau of Statistics (released 18/2/15) Participation in Sport and Physical Recreation, Australia 2013-14: <http://www.abs.gov.au/ausstats/abs@.nsf/mf/4177.0> (viewed 5th February 2016)

Activity	Participation by Australian males over 15 years of age (%)	Participation by Australian females over 15 years of age (%)	Total participation by Australians over 15 years of age (%)	Estimated participation by CGS residents over 15 years of age (n= 10,423)
Walking for exercise	13.6	24.7	19.2	2,001
Jogging / running	8.1	6.7	7.4	771
Cycling / BMX	8.5	4.0	6.2	646
Bush walking	1.4	1.7	1.5	156
Cross country running	0.3	0.4	0.4	42
Triathlons	0.4	0.2	0.3	31

n=number of people in that grouping

Data obtained from the community survey shows that all survey respondents either cycled or walked over the past year. 41% of these survey respondents cycle several times per week and 45% of survey respondents walk daily. These figures are significantly higher than the figures for Australia, which helps to draw a conclusion that it is likely that survey respondents already live an active lifestyle.

In Victoria in 2012, approximately 64% of children aged 5-14 years of age rode bicycles for recreational purposes. This equates to 71% of boys years and 58% of girls¹². In 2009 the participation for children of all genders was 66% and in 2006 it was 67%.

Whilst there is no recent data available on the number of people in the Central Goldfields Shire who walk or cycle, Council has installed two counters on the Maryborough – Carisbrook track. Data from these counters, collected over 36 weeks in 2015/2016, show that the Maryborough end of the trail averaged 157 users per week or the equivalent of 22 cyclists / walkers each day and that the Carisbrook end of the trail averaged 104 users per week, or the equivalent of 15 cyclists / walkers each day. Over the 36 week period, 5,668 users were recorded at the Maryborough end and 3,736 at the Carisbrook end; a total of 9,404. If people cycled or walked the full length of the trail (i.e. past both counters on the same ride / walk), they would have been counted twice. Hence the exact number of individual trail users is not known, as some people only walked or cycled at one end, whilst others completed the whole trail.

Data obtained from the last Census¹³ shows that of the 4,428 people (2,063 females and 2,365 males) in the labour force in the Shire in 2011, 15 females (0.7%) and 32 males (1.4%) – a total of 47 people (1%) – cycled to work. 118 females (6%) and 129 males (5%) – a total of 247 people (6%) – walked to work (as their only form of transportation).

¹² Australian Bureau of Statistics:

<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4901.0Apr%202012?OpenDocument>

¹³ Australian Bureau of Statistics:

file:///J:/Central%20Goldfields%20Shire%20Council/Walking%20and%20Cycling%20Strategy/Statistics%20Library%20-%20Participation%20Statistics%20Archives%20%20PeopleForBikes_files/ABS%20Statistics.htm

4.6 Barriers to participation in walking and cycling

There are numerous barriers that prevent people from participating in walking and cycling. These need to be addressed wherever possible in order to encourage more people to walk or cycle. Some of these barriers include:

Attitudinal / health	Equipment / knowledge	Infrastructure
Don't like wearing a helmet	Don't own a bike, or a bike that is suitable	Gaps in walking / cycling networks, i.e. missing links
Lack of confidence riding a bike	Don't have a bike rack fitted to the car	Poor maintenance of trails, e.g. uneven footpaths, pot holes on trails
Fear of falling off a bike or falling over while walking	Don't know if there will be space on a train to take a bike for cycle touring	Nowhere to safely store a bike at the end of a trip
Don't like riding if it's too hot or too cold or wet	Don't have lights on bike	Lack of end of trip facilities such as showers
Worried about children walking / riding by themselves (stranger danger)	Don't have a bike lock	Lack of designated off-road trails
Believe that a car is more convenient and faster than walking or cycling, especially for multiple trips and shopping	Don't have the appropriate type of clothing for cycling	Paths do not lead directly to key destinations
Don't feel that bike riding or walking is safe	Don't know road rules	The roads / footpaths / trails are too steep or hilly
It's not cool to ride a bike or walk	Don't know where trails are or where they lead to	Poorly designed paths, e.g. too narrow, blind corners, rough surface, etc
Don't have the required level of fitness / health	Don't know how to repair a punctured tyre	Poorly lit paths
Don't have anyone to ride / walk with	Not aware of the benefits of cycling or walking	Paths located in isolated areas
Don't like or relate to the cyclist image		Lack of separation from cars on the road
Find it stressful riding a bike		Lack of separation of cyclists from walkers on shared paths
Takes too long to get kitted up to ride a bike		Insufficient funding to construct infrastructure

Results from the community survey indicate that the specific barriers for the Central Goldfields Shire residents are:

Walking and running	Cycling
There are not enough paths/tracks nearby (35%)	I don't feel safe riding (39%)
The condition of the path/track surface (35%)	There are no bike paths near my house (33%)
There are sections of my journey where there is no path/track (33%)	I don't have time (31%)
I don't have time (27%)	There's too much traffic on the roads (28%)
I live too far away from where I want to go (23%)	Because of the weather – it's often too hot, too cold or too wet (25%)
Weather – too hot, too cold or too wet (23%)	

The key stakeholder interviews also recognised that work requirements, such as having to carry a laptop or drop children into schools / kindergartens along the way are deterrents.

4.7 Enablers to walking and cycling

To enable or encourage more people to walk and cycle, the barriers described above need to be addressed wherever possible. From an infrastructure perspective, Austroads¹⁴ identifies the following features as enablers to cycling, many of which also relate to enablers to walking:

Route feature	Comments
Safety	Minimal risk of traffic-related injury, low perceived danger, space to ride, minimum conflicts with vehicles
Coherence	Infrastructure should form a coherent entity, link major trip origins and destinations, have connectivity, be continuous, signed, consistent in quality, easy to follow, and have route options.
Directness	Route should be direct, based on desire lines (the informal route chosen by a pedestrian or cyclist – often referred to as a 'goat track'), have low delay through routes for commuting, avoid detours and have efficient operating speeds.
Attractiveness	Lighting, personal safety, aesthetics, integration with surrounding area, access to different activities.
Comfort	Smooth skid-resistant riding surface, gentle gradients, avoid complicated manoeuvres, reduced need to stop, minimum obstruction from vehicles.

¹⁴ Austroads (2014) Cycling Aspects of Austroads Guides

Results from the community survey indicate that more people are likely to walk / run, or people are likely to walk / run more often if:

- there are more dedicated walking paths
- paths are maintained in good condition
- paths are well signed with maps.

Some people feel that they need to increase their motivation levels, and others are concerned that they need to improve their health before they start to walk as a form of exercise or transportation.

In terms of cycling, the key enablers identified by survey respondents are:

- more off road trails
- good quality trails / paths
- more time and motivation for people to go riding
- wider roads
- shoulders on roads.

A number of key stakeholders believe that the Shire provides a suitable environment for cycling as the roads are quiet, the terrain is relatively flat and the climate is conducive to outdoor activities. In terms of enablers to attract cycle tourists, key stakeholders think that the Shire needs to create a broad regional development perspective around cycling and walking as the North East of Victoria has done. As part of this perspective, the general community and businesses need to be supportive of cycling and walking and offer quality customer service to attract cycle tourists and to encourage repeat visitation and positive word of mouth.

In addition to the trail features described above, attention will need to be given to other activities that encourage participation such as programs, events, services, club development, etc.



Figure 2: Dunolly trail on fire tracks

5.0 Current situation

5.1 Previous Cycling Strategy achievements

The previous Cycling Strategy, which was completed in 2003, incorporated a suite of trail infrastructure projects along with recommendations for additional signage, education programs, community bicycle programs, supporting infrastructure (e.g. bike racks), promotions, commercial opportunities, improving accessibility, improving management of trails and introducing a more effective maintenance program. A significant number of trail projects were completed during the 10 years of the plan, but other areas such as signage and programs are still requiring a great focus.

Another key achievement of the previous strategy was the formation of a Bicycle Advisory Group to provide advice to the Central Goldfields Shire on cycling initiatives. This group has worked effectively and achieved some good results.

The Appendix of this strategy features information about the infrastructure projects which were included in the last strategy and provides commentary on which actions were achieved and which ones were not.

5.2 Existing walking and cycling infrastructure

There are a variety of different walking and cycling opportunities available in the Central Goldfields Shire including:

- Footpaths
- On-road bicycle lanes
- Shared off-road trails, e.g. Maryborough to Carisbrook Trail
- Designated on-road cycle training routes, e.g. Maryborough to Dunolly
- Designated cycle touring route, e.g. Ballarat to Maryborough Heritage Trail
- Maryborough velodrome
- Bush tracks, e.g. Paddy's Ranges
- Off leash dog park (recently opened)

According to community survey responses, the off road trail between Maryborough to Carisbrook is well utilised by cyclists, as are the Maryborough to Dunolly and Maryborough to Talbot on-road routes. Gladstone St in Maryborough and the main street in Bealiba were also identified as regular riding routes by survey respondents.

Walkers are particularly keen on the off road walking tracks developed around Lake Victoria and Goldfields Reservoir. Footpaths in the centre of towns are also well utilised by walkers as are bush tracks for recreational walking. Other streets that mentioned a higher level of use are the main street in Bealiba and Inkerman Street in Maryborough.

The condition of trails varies according to age, usage, construction materials, climatic impacts and maintenance regimes that have been applied. The majority of tracks, trails or paths could benefit from improved or additional signage as well as seats in certain locations.

Council has recently launched the Ballarat to Maryborough Heritage Trail – an on-road touring route. It is anticipated that this trail will attract cycle tourists to the Central Goldfields Shire. The 210km

unformed Goldfields Track, which runs between Mt Buninyong and Bendigo and is suitable for both mountain bike riders and hikers, has recently received a grant to undertake a strategic master plan.

At present there are no rail trails that would attract high numbers of visitors from other areas. The Central Goldfields Shire Council recognises the tourism potential of enabling cyclists to visit the area by train and then explore the towns of the Shire by bicycle. It will continue to advocate to V/Line to improve access for passengers with bicycles on trains to the region.

Maps of existing and proposed trails are included in the Appendix of the strategy.

5.3 Existing walking and cycling programs

There are a number of walking and cycling programs currently held in the Shire. These include:

Group / program	Organisation	Details
Bicycle advisory group	The Central Goldfields Shire Bicycle Advisory Group	This group was established by the Central Goldfields Shire Council following the completion of the previous bicycle strategy. Its charter is to provide advice to Council on cycling related issues. It comprises of individuals representing a broad range of agencies and organisations (e.g. Victoria Police, VicRoads, etc) as well as schools and cycling enthusiasts.
Triathlons	Maryborough and District Triathlon Club Inc.	This group promotes cycling as one of its key activities. It holds training sessions each morning from Monday to Friday and then holds a variety of events throughout the year, e.g. triathlon, cycling event, reverse triathlon. In the 2015/16 season it plans to hold 14 events. It lists its events on facebook and also on the Ballarat Triathlon Club's website.
Walking programs	Dunolly and District Neighbourhood Centre	Walking group held on Monday mornings. Approximately six people currently attend the program, mostly aged 60+. Group mostly walks around in the bushland around Dunolly.
	Goldfields Employment and Learning Centre	In 2015 the centre coordinated a one-off single day nature walk through Paddy's Ranges.
	The Heart Foundation	The Heart Foundation started several walking groups, but only one is still in existence in Talbot. One of the Maryborough groups continues to walk regularly, although it is not operating as a Heart Foundation walking group any longer. Feedback from key stakeholders indicates that the paperwork for the Heart Foundation Walks was considered too onerous for the community.
	Bushwalking Clubs	Bushwalking clubs from Bendigo, Ballarat and Melbourne frequently bring their members to the Central Goldfields Shire for a walk in the bush.

Group / program	Organisation	Details
Cycling groups	Dunolly Social Cyclists and Dragon Cycles	There are a number of informal road and mountain bike riding groups who meet regularly and go for rides together, e.g. Dunolly Social Cyclists and Dragon Cycles mountain bike group.
	Dragon Cycles	Dragon Cycles runs a school based mountain bike program (on a weekly basis for a term) in conjunction with students in years 7-9 to learn how to maintain bicycles and to go mountain bike riding.
Annual active transport days		There are a range of events conducted each year to encourage people to walk or ride more regularly, e.g. National Walk Safely to School Day; National Ride2School Day and National Ride2Work Day. These events are coordinated at a state or national level by government or organisations such as Bicycle Network. They involve children and adults walking or cycling to schools and workplaces. They rely heavily on local promotion from the Central Goldfields Shire Council, schools and workplaces.
General walking / cycling	Maryborough District Health Service	MDHS operates the Active Script program whereby medical staff prescribe physical activity to patients such as walking or cycling.

5.4 Existing walking and cycling events

The following walking and cycling events are or have been held in the municipality in recent times:

- RACV Energy Breakthrough - this event is CGS's most significant cycling event and is held annually. It involves school students from the Australian eastern seaboard designing, constructing and then racing human powered vehicles. Over 400 teams comprising of thousands of students, teachers, parents and volunteers are involved in this four day event which is held each November in Maryborough. The event has been running for 25 years and is estimated to generate in excess of \$4 million to the local economy in recent years.
- The World Mountain Bike Orienteering Championships – this event was held in the Central Goldfields Shire in 2004.
- Victorian State Series for Mountain Bike Orienteering (short and middle distance) – this event was held in 2013.
- The Central Goldfields Reverse Triathlon – this event was held annually from 2000-2016.
- South Pacific Veteran's Cycling Championships – this event, comprising of 45km and 60km road races, straight line 300m sprints, time trial and criteriums and the 63km open handicap Cec Cripps Handicap – this event was held annually from 1998-2016. Over the Easter long weekend in April 2017, the Central Goldfields Shire hosted the Australian Veteran Cycling Championships.
- Great Victorian Bike Ride – this event passes through the Shire every few years.

- Audax events – these events are held occasionally in the Shire.
- Goldfields Reservoir Fun Run.
- Jayco Herald Sun Tour – this event may pass through the Shire occasionally.
- Relay for Life – this annual walking event attracts hundreds of participants and raises money for cancer research.
- Spring into Summer Stroll – this is a fun day for the whole family focussing on walking and physical activity.
- Pyrenees Magic – this is a 113km charity bike ride organised by the Rotary Club of Maryborough with proceeds going to Maryborough and District Health Service.
- Goldfields Employment & Learning Centre Inc. - coordinated a nature walk through the Paddy's Ranges during 2015, although this was a one off event.
- Bushwalking clubs from Bendigo, Ballarat and Melbourne – these clubs frequently bring their members to the Central Goldfields Shire for a walk in the bush
- Rogaining events.

5.5 Existing promotion of walking and cycling opportunities

The Central Goldfields Shire website promotes the **Maryborough Bush and Town Walk map** (detailing the roads and bush tracks from the centre of Maryborough that connect the Goldfields Reservoir Walk; Paddy's Ranges State Park Loop Walk; and Craigie State Forest Battery Dam to Bull Gull Rock Wells to one another). This map is also available from Visitor Information Centres (VICs).

Council's Leisure Services Guide, which is also available on Council's website, provides contact details for:

- The Central Goldfields Bicycle Advisory Group
- The Maryborough and District Triathlon Club Inc.
- The Dunolly and District Neighbourhood Centre Walking Group.

Council has contributed funding to the preparation of the **Cycle Central Goldfields map** which includes the Dunolly mountain bike routes on one side and eight other trails suitable for hybrid or mountain bike rides, varying in distance from 11km to 80km printed on the other side. This map is not available on Council's website, but is available in electronic format on the Visit Maryborough website and is distributed through VICs. Other walking / cycling information distributed through VICs include:

- The Tiny Towns of the Golden Triangle Touring Guide
- A Walking Tour Guide to Carisbrook's Heritage
- Take a walk through Maryborough's history: a self-guided discovery tour
- Information from a commercial company about its bike hire and bike touring opportunities
- Various Parks Victoria Park Notes which describe walking trails in the bush.

No maps are available to promote the walking trail around Lake Victoria.

5.6 Neighbouring municipalities

The Central Goldfields Shire borders five other Local Government Authorities. Discussions with officers and / or reviews of current strategies from these municipalities indicate the following walking and cycle priorities / developments:

Municipality	
Hepburn Shire	Hepburn Shire is focussing on the development of a rail trail from Daylesford to Woodend and mountain bike trails around Creswick – neither of which impact on the Central Goldfields Shire. However, the Ballarat to Maryborough Heritage Trail will pass through Creswick and Clunes (in Hepburn Shire) on its way to Talbot and eventually Maryborough. Hepburn Shire and the City of Ballarat are already working in close partnership with the Central Goldfields Shire to deliver this project.
Loddon Shire	Loddon Shire has recently installed interpretive signage along many of its trails, including nearby Tarnagulla. A major trail that Loddon Shire is currently planning is the Captain Melville Trail that links Bridgewater and Inglewood to Melville Caves. There are no cross-border trails developments planned at this point in time. Dunolly Cycling Tracks cross over into Loddon Shire at Tarnagulla and Laanecoorie.
Mt Alexander Shire	The Shire’s Walking and Cycling Strategy (2010-2020) has identified the need to undertake further planning on developing links between Maldon to Castlemaine and Newstead to Castlemaine along railway lines. The 18km Castlemaine to Maldon Rail Trail recently opened. There may be an opportunity in the future to consider developing a rail trail link from Castlemaine to Maryborough via Newstead with an on or off road link to Maldon.
Northern Grampians Shire	The key focus of Northern Grampians Shire in relation to walking and cycling is to complete the missing link in the Stawell to Halls Gap Rail Trail and to continue to seek funding to deliver the Grampians Peaks Trail. Neither of these projects is near the border of the Central Goldfields Shire. However, a recommendation contained within the Open Space Sport and Recreation Strategy (2014) is to work in partnership with neighbouring Shires to identify and investigate the feasibility of regional track trail and paths projects (although this is more likely to include municipalities closer to the Grampians).
Pyrenees Shire	Council’s Recreation Strategy (2010-2020) noted that a Bicycle Strategy Plan was prepared in 2010 by the Bicycle Advisory Group, with particular reference to developing a trail between Avoca and Maryborough. Council’s Tourism Strategy (2016) identifies some key projects as mountain bike trails in Pyrenees State Forest, infrastructure to support cycling in Avoca and Moonambel (road grading, signage, maps and bike racks).

6.0 Issues and opportunities

The following issues and opportunities have been identified through community consultation, key stakeholder workshops and meetings, a review of relevant literature. It has also been informed by demographics of the Shire and best practice and trends at a local, regional, state, national and international level. Specific path / trail suggestions are included in Section 9.1

Bicycle Advisory Group role change

The Central Goldfields Shire Bicycle Advisory Group was established following the completion of the previous cycling strategy. It includes members from a broad range of organisations including Council, Victoria Police, Maryborough Education Centre, Highview College, St Augustine's Primary School, VicRoads, Parks Victoria, Sport and Recreation Victoria, Department of Economic Development, Jobs, Transport, and Resources, Department of Environment, Land, Water, & Planning, Maryborough District Health Service, Central Victorian Primary Care Partnership, Dragon Cycles, Goldbiz and cycling enthusiasts. Given the Shire's focus on walking as well as cycling, it is recommended that a new advisory group be established, called the Bicycle and Walking Advisory Group. It should build on the existing success of the previous Bicycle Advisory Group and use a similar model. Suggested future roles and responsibilities of this new community based committee include:

- Management and governance
 - Bicycle and Walking Advisory Committee (BWAG) to meet quarterly (or as required) to implement and review recommendations from the Walking and Cycling Strategy
 - BWAG to provide strategic advice to the Central Goldfields Shire on cycling and walking related issues
 - BWAG to undertake an annual review of the existing strategy.
- Education
 - BWAG / Council in partnership with relevant service providers to facilitate community bicycle education programs.
- Marketing and promotion
 - BWAG to assist local townships to develop their own walking and cycling maps through funding applications and sponsorship
 - BWAG / Council to print bicycle and walking maps and distribute throughout municipality and to other tourism outlets
 - BWAG / Council to prepare regular media releases promoting bicycle and walking paths.
- Events and programs
 - BWAG / Council in partnership with relevant event organisers to facilitate and further develop existing cycling and walking events for the Central Goldfields Shire to incorporate community bicycle and walking programs
 - BWAG / Council to liaise with bicycle and walking event organisers in an attempt to attract additional bicycle and walking events to the Central Goldfields Shire.

- Design
 - BWAG / Council to identify where additional directional signage is required along trails
 - BWAG / Council to assist in the content and location of interpretive and promotional signage along trails.
- Research
 - BWAG / Council to undertake or commission research in relation to bicycle and walking related issues, e.g. satisfaction levels with specific trails, economic impact on Ballarat to Maryborough Heritage Trail, bike-friendly readiness of local businesses, why low numbers of children are walking / cycling to school, etc. Funding may need to be sought to conduct some of this research.
- Commercial opportunities
 - BWAG / Council to explore the potential for a commercial operator to develop a bicycle hire business
 - BWAG / Council to explore the potential for a commercial operator to develop cycling and walking tourist businesses.

Council's role

Council has several roles in relation to walking and cycling. One is to plan for and provide the physical environment for walking and cycling, such as on and off road paths / trails, signs and seats. It also has a responsibility to maintain these trails, manage them appropriately and upgrade or renew such trails as required. Another role of Council is to promote walking and cycling infrastructure and events such as the Energy Breakthrough effectively to local residents and visitors.

Council also has a responsibility to continue to build partnerships with relevant agencies and to build the capacity of community groups and businesses (e.g. Bicycle and Walking Advisory Group or a group of community members wishing to establish a cycling club) to develop and promote walking and cycling opportunities for residents and visitors to the municipality. An area in which Council needs a greater focus is in relation to research and data collection. This will enable Council and funding bodies to make well informed decisions about where and how to invest their resources within the Shire.

Cycling to school

The percentage of children who walk or ride to school has decreased over the years. This has occurred for numerous reasons, including parental fear over traffic levels and stranger danger, closure of some local schools to form larger schools, necessity for children to carry equipment such as computers and musical instruments to school, etc. Further research into the reasons why many children do not walk or cycle to school should be undertaken. Learnings from schools where participation in walking or cycling to school is high should be shared with other schools.

We need to develop and promote shared paths to all schools and consider making the safe routes to school highly obvious, e.g. paint trails or install bollards to show the way. We need to consider implementing programs such as Bicycle Network's Active Paths Program which involves working with children in schools to plan safe routes – includes drop offs some distance from schools so children who live too far from school can be dropped off and walk the remainder of the way to school.

Council's Planning Scheme Clause 52.34 notes that there should be one bicycle parking space for each five pupils over Year 4 and one bicycle parking space for each five pupils at secondary school.

Parental education about the benefits of walking and cycling to school could be considered and parents should also be encouraged to walk or cycle to school with their children where possible. The Bicycle Action Group could potentially play a role in encouraging schools to promote greater levels of active transportation.

Further, bicycle education programs are limited in schools due to lack of volunteers and people with appropriate skills as well as competing demands on the curriculum; hence we need to find cost effective ways of operating such programs. Consideration should also be given to the purchase of an Bike Ed trailer containing bicycles. This could be funded from a range of sources and used in schools, but also as part of community events or corporate events.

Schools should also be encouraged to participate in relevant programs such as Ride2School Day and Walk2School Day.

Cycling to work

The percentage of people who cycle to work has also decreased in recent years. We need to ensure that both employers and employees are aware of the benefits of walking and cycling to work and that employers provide suitable supporting infrastructure such as secure bike storage and showers wherever possible. Council's Planning Scheme Clause 52.34 provides an overview of the number of cycle parking spaces and showers required for residential, commercial and recreational facilities, with specific information provided for design requirements of rails, compounds, lockers.

Businesses (including Council) also need to be encouraged to take part in the Ride2Work Day, and if possible, extend this program from a yearly event to a monthly event, e.g. ride or walk to work on the 1st day of each month or the last day of each week.

Programs such as the British Cycle to Work scheme whereby the government introduced an annual tax exemption, which allows employers to loan cycles and cyclists' safety equipment to employees as a tax-free benefit could be further explored or advocated for at a state level.

Cycle tourism

We need to quantify the economic value of cycle tourists to the region and identify income and employment outcomes of trails. This will assist with planning, securing of additional resources and greater support from local businesses and the broader community. We also need to provide local businesses with information about the type of experiences that cycle tourists demand, e.g. bakeries / cafes that are open on weekends, accommodation that provides safe storage for bicycles, maps available in towns, quality customer service, bicycle hire, etc.

Data collection

We need to continue to record usage levels on trails and undertake qualitative evaluations of trails to measure participation rates and identify any specific issues and barriers. Ideally this research and data collection needs to occur on an annual basis and could be undertaken in partnership with

organisations such as Federation University. It may involve telephone surveys of local residents, focus groups, additional trail counters or other appropriate tools.

Education

We need to encourage greater levels of respect between cyclists and motorists and provide information about applicable road rules. It may be possible for a service club to take on this role. We also need to provide education programs for people so that they know how to wear a helmet, be correctly fitted to their bike, understand road rules, know how to repair a tyre, know how to use their gears and know how to ride in a group / pack. Such skills are particularly important before taking part in any event where there are a lot of potentially unskilled riders riding in a pack on roads. Car dooring has also been identified as an issue on Inkerman and High Streets; hence there may need to be an education campaign developed around this issue.

Events

The Central Goldfields Shire has a broad range of walking and cycling events which contribute to the economy and increase the profile of the Shire, e.g. Energy Breakthrough. We need to explore opportunities to value add to these events to encourage participation locally, however Council's resources to do so are limited. Hence partnerships with other agencies, community groups and businesses may need to be developed to enhance existing events and to provide more entry level activities such as Come 'n' Try cycling and walking events.

Footpaths

Access to footpaths is an essential component of any walking / cycling network. There is a desire by the community for footpaths on at least one side of every street within urban areas of the municipality, if not both sides. The Victorian Planning Provisions recommends footpaths on both sides of the street. Maintenance of footpaths was identified as a key priority by local residents. The addition of solar lighting on streets was also identified as an enabler to encourage more people to walk.

Funding Sources

There are a variety of sources of funding for walking and cycling opportunities. Some funding sources identified through consultation include: Sport and Recreation Victoria; VicRoads for priority cycling routes; Federal Government's Stronger Regions; Regional Development Victoria; and the private sector.

Maintenance

We need to ensure that all paths are well maintained. Council has developed service standards for paths and trails as per its Operational Management Plan Roads document. Recognising that Council has a limited budget, we should explore the potential for Work for the Dole program and using low-risk prisoners at Loddon Prison to assist with trail maintenance. Council could further promote its app (linked to GPS coordinates) that the community can use to inform officers of areas requiring maintenance.

Planning and management

The development of footpaths and cycle paths are required in new residential developments as per the Local Planning Scheme. However, the local planning scheme needs to be strengthened and enforced by Council so that the detail of what is required is clearly communicated to developers. When designing new residential areas or new paths / trails, consideration should be given to integrate with public transport routes.

From a Council planning perspective, walking and cycling need to be incorporated into Council planning documents wherever appropriate. It must be noted that funding for trail developments may be difficult to obtain too due to rate capping imposed on Local Government by the State Government and the need to raise matching funds from a limited Council budget. An active transport officer, shared between several Councils, could be useful if resources are available.

One planning issue that has become apparent through the development of the strategy is the significant number of people with mobility issues who ride motorised scooter in the municipality. Safe routes for scooters into the CBD should be identified and township paths / trails should be able to accommodate motorised scooters. Any promotional materials about safe scooter routes should include gradients of streets and crossing points. There is a particular need for a safe scooter route from Havilah Aged Care Facility, Holyrood St and Park Road.

Programs

Rather than necessarily developing new programs, we need to seek to utilise existing free resources and advice from organisations such as Bicycle Network, Cycling Victoria and Victoria Walks and develop relationships with others who can assist in program delivery, e.g. Maryborough Police, neighbourhood houses, health agencies, etc. We could also tap into programs such as the Premier's Active April Challenge by promoting opportunities for walking and cycling within the Shire.

In order to be successful, particularly in our low socio-economic communities, we need to develop place based programs and infrastructure which is easy to access and free or low cost to participate in. We need to be mindful that programs that rely on people having to upload or download information from computers can limit participation in some areas. In addition, we may need to encourage people to personally invite people they know to go walking / cycling in order to increase participation, e.g. Bring a Friend Day, Come 'n' Try Day.

The Appendix contains a list of possible programs. Some potential program ideas identified through consultations with the community and key stakeholders include:

- an informal cycling walking challenge at Goldfields Reservoir, like the 1,000 lap club at the swimming pool – perhaps using a tally board at the Goldfields Reservoir cafe to record distances.
- cycling programs in the school holidays.
- a social dog walking group.
- a buddy program for cycling.
- bicycle education programs.
- bicycle repair workshops.

- re-introduce Walking School Bus and Cycling School Bus programs.
- community rides with a social focus that can be completed in 60 minutes.
- re-initiate the bicycle recycling program whereby local residents donated unused bicycles and young people were taught how to fix them up and maintain them, and to ultimately keep the bicycle.
- encourage people to use active transport to work a minimum of one day out of every five.
- a kilometre club challenge in schools and the general community whereby participants add up each kilometre of walking or cycling that they do and compete with others doing the same thing.
- women's riding group.
- promote geo-caching.
- build a festival around the Energy Breakthrough – a design your own bike competition and walking / cycling tours for supporting teachers and parents.
- Park Run program.
- Spring walks by the Field Naturalists Club.
- a program like the Macedon Ranges Running Club to encourage more cyclists, walkers and runners in the Central Goldfields Shire.
- a program like the one in Ararat (e.g. Activate Ararat – mentor and champion model) which was introduced following the Biggest Loser TV show.
- provide bikes free of charge to those who can't afford them.
- a program that encourages anyone who is travelling two or less kilometres to use active transport instead of the car or to swap the car one day per week for active transport (as per the City of Greater Bendigo initiative).
- half hour walking programs for beginner walkers (potentially offered through neighbourhood houses).

Promotion

There is a need for more effective advertising of walking and cycling opportunities available in the Central Goldfields Shire – particularly through:

- websites (e.g. Council website, townships websites and Visit Maryborough)
- linking to other relevant websites (e.g. International Mountain Bike Association and Bicycle Network)
- social media
- maps at Visitor Information Centres and Dragon Cycles. A variety of maps should be produced, i.e. commuter routes, road rides, mountain bike tracks, family rides. These maps need to identify roads that should be avoided.
- town signs which show the location of walking and cycling trails

Council needs to promote when it has upgraded trails – i.e. keep trails at the forefront of people's minds. It also needs to include photos of people walking or cycling in Council's newsletters and on its website on a regular basis – and link this back to the Walking and Cycling Strategy. However, when considering promotional campaigns, we need to be mindful that IT literacy and connectivity in the Shire is relatively low, but mobile phone ownership is high.

Public transport

We need to continue to advocate for bikes on trains and buses to encourage cycle tourism to the region.

Rail trails

Rail trails have been, and are continuing to be established along disused rail corridors all over Victoria as a means to provide an additional recreational opportunity for local people and to attract visitors and visitor spend to regions. Locally a rail trail has just been opened between Castlemaine and Maldon. There is some demand to explore a rail trail between Maryborough and Castlemaine via Newstead, although it is recognised that a considerable amount of work would need to be undertaken in order to bring this concept to fruition. Discussions have occurred in relation to developing a rail trail between Maryborough and Ararat, however, as the rail line is about to be re-commissioned and used primarily by freight trains, such a trail alongside an active rail line is unlikely to be approved by VicTrack.

Signage

We need to ensure that we have adequate signage throughout the municipality to enable walkers and riders to safely use paths / trails. More signage (particularly directional and interpretive) is required both within the towns and in the bush. Signs at the entrance to each town and at key locations within towns welcoming cyclists could be beneficial, particularly on the Ballarat to Maryborough Heritage Trail route. More signs warning motorists of cyclists also need to be placed on the back road from Maryborough to Dunolly to improve safety and some additional signage is required along the Dunolly Trails (as well as at the trail head – Dunolly Town Hall). Council needs to review signage on all routes and budget for the replacement of signs.

Supporting infrastructure

Greater emphasis needs to be placed on the supporting infrastructure along trails, e.g. seating, shade, bike parking (e.g. Maryborough Swimming Pool, Dunolly Bakery) and perhaps charging stations for scooters and electric bikes etc. Council also needs to ensure that businesses or developers meet regulations associated with cycling, e.g. bike shelters, bike storage, showers, etc. where appropriate.

Technology

We need to consider how technology can be used to encourage greater participation in walking and cycling, e.g. fitness trackers, online tools that track running / cycling routes and times, etc.

Trail design

We need to ensure that roads used for on-road cycling are sufficiently wide with adequate shoulder widths. There is demand for additional shared off road walking / cycling opportunities. Specific design factors to consider with off road paths / trails are: they need to link to destinations that people want to go to; they need adequate shade and seats along them; they need to be suitable for motorised scooters; the surface needs to be smooth; they need to be made more attractive through the use of planters / landscaping; they shouldn't feature materials that are slippery right next to the

path / trail; they could feature a line down the centre of shared paths so people know where to ride / walk; and some paths / trails may even have fitness equipment installed along them, e.g. pull up bar. Consideration could also be given to making all new footpaths in the municipality shared use. Any works on trails (e.g. paths, signs, seats, etc) must adhere to Disability Discrimination Act (DDA) requirements and Universal Design principles.

Urban bike skills park / velodrome upgrade

Additional uses for the velodrome at Bristol Hill need to be explored. One option is to develop an urban bike skills park, which could feature:

- a flat area for toddlers to learn to ride
- shared paths for families
- a bike skills development area for mountain bikes
- a pump park - a trail containing a series of small mounds
- a space for people to learn to ride motorised scooters.

The urban bike park could be supported by:

- on-site accommodation for cycling camps or school
- a bicycle repairs business or program
- bicycle recycle programs.

A master plan will be required to identify the key components and costings of such infrastructure including upgrades to the entrance road and drainage. Permission in writing will need to be sought from all land owners / managers prior to commencing the master plan. It will also be important to discuss various issues such as the option of swapping land owned by Parks Victoria at the rear of the velodrome with land owned by Council at the front of the velodrome. More details of the components, costings, etc of an urban bike park are included in the Appendix.

7.0 Vision, mission and planning principles

To help guide the future provision of walking and cycling opportunities, the following vision, mission and planning principles have been developed.

7.1 Vision

The Central Goldfields Shire is an active, connected and healthy community where people of all ages and abilities regularly walk and cycle.

7.2 Mission

To encourage more residents and visitors to walk and cycle more often in the Central Goldfields Shire.

7.3 Planning principles

To help guide Council to achieve its vision, the following planning principles have been developed:

Connected	Paths / trails are connected to the key destinations people want to walk or ride to, e.g. schools, work places, shops, transport hubs, friends' homes, entertainment venues, aged care facilities, recreational areas, parks, waterways, bushland. Paths and trails also provide an opportunity for community connections and friendships to develop through events, programs, working bees or social interactions.
Accessible	Paths / trails are easy to access from people's homes. The walking / cycling network provides opportunities for people of all abilities to utilise paths / trails. Seats, shade, bike parking and end of trip facilities will be provided as appropriate. Programs and events will be designed to be as accessible as possible for the broader community by ensuring that people feel welcome, opportunities are provided for all skill levels and barriers to participation (such as cost, transport, childcare, etc) are minimised.
Safe	Paths are designed with safety (e.g. quality surface, sufficiently wide trail, good visibility, minimal road crossings, suitable signage, etc) in mind and are well maintained. People feel safe using the path / trail and all programs and events are designed with safety in mind.
Attractive	Paths / trails are designed to be visually attractive, located in pleasant surroundings and provide views wherever possible. All marketing materials will be designed to be attractive.
Fun	Paths / trails will be enjoyable to use and will encourage a social element (e.g. people will choose to meet up and walk or ride along the paths / trails together). Any programs or events will be designed to create an enjoyable experience.

Of high quality	Paths / trails are well designed and constructed using quality materials with a considerable lifespan. Programs and events will be professionally organised. All marketing materials and education programs will be of high quality.
Supported	The use of paths / trails will be supported through suitable programs and events in the municipality, as well as through walking and cycle friendly businesses. People will be supported to utilise paths and trails through appropriate education, marketing, programs and events.
Promote participation	Programs and events will be developed to encourage more people to utilise paths / trails. Some programs and events will be targeted at people who do not currently utilise or do not regularly utilise paths / trails as well as parents and school children to encourage greater numbers of children to walk or ride to school. Other programs and events will be developed or facilitated to provide participants with physical challenges. Visitors to the region will also be encouraged to extend their stay in the area to utilise local paths / trails.
Utilise an evidence base	The future planning and development of paths / trails will be based on sound evidence of need, utilising local data sources wherever possible. Future programs and events will also be developed utilising methods that have been successful elsewhere, but also taking into consideration local needs.

8.0 Walking and cycling path design guidelines

8.1 On road cycling and shared walking / cycling paths

Walking and cycling path design guidelines are primarily informed by Austroads Guides and relevant Australian and New Zealand Standards:

Austrroads Guides:

- Cycling Aspects of Austroads Guides
- Guide to project evaluation: parts 1-8.
- Guide to asset management: parts 1-8.
- Guide to road design: parts 1-8.
- Guide to pavement technology: parts 1-10.
- Guide to road safety: parts 1-9.
- Guide to project delivery: parts 1-4.
- Guide to traffic management: parts 1-13.
- Guide to bridge technology: parts 1-7.
- Guide to road tunnels: parts 1-3.

Australian and New Zealand Standards:

- AS/NZS 1158.3.1-2005, Lighting for roads and public spaces: pedestrian area (category P) lighting: performance and design requirements.
- AS/NZS 1428.4.1-2009, Design for access and mobility: means to assist the orientation of people with vision impairment: tactile ground surface indicators.
- AS 1742.2-2009, Manual of uniform traffic control devices: traffic control devices for general use.
- AS 1742.3-2009, Manual of uniform traffic control devices: traffic control for works on roads.
- AS 1742.7-2007, Manual of uniform traffic control devices: railway crossings.
- AS 1742.9-2000, Manual of uniform traffic control devices: bicycle facilities.
- AS 1742.10-2009, Manual of uniform traffic control devices: pedestrian control and protection.
- AS 2890.3-1993, Parking facilities: bicycle parking facilities.
- AS 5100 Set-2007, Bridge design set.

Designers also need to refer to the following documents and standards when designing walking and cycling paths:

VicRoads:

- Traffic Engineering Manual (which included information about pedestrian facilities and cycle lane design)
- Cycle Notes.

Council documents / policies:

- Road Management Plan

- Operational Asset Management Plan Roads
- Council's Planning Scheme – specifically Clause 56.06 Standard C15, C18 and C21.

Some best practice organisations:

- Victoria Walks
- The Australian Bicycle Council
- Bicycle Network
- Rail Trails Australia
- International Mountain Biking Association (IMBA)
- Cycling Victoria
- Cycling Australia
- VicHealth
- Parks Victoria.

8.2 Off road walking and mountain bike track guidelines

The Australian Walking Track Grading System¹⁵ has recently been developed to describe to users the grade of various trails and to allow land managers to design and grade trails according to a set of technical questions based on the Australian Standard 2156.1-2001 *Walking Tracks – Classification and Signage*. Details of the various grades are attached within the Appendix.

In terms of mountain bike trail construction, reference should be made to IMBA handbooks such as:

- IMBA: Trail Solutions: IMBA's Guide to Building Sweet Singletrack
- IMBA: Managing Mountain Biking: IMBA's Guide to Providing Sweet Riding

Or to other Australian documents such as: South Australian Trails:

<http://www.southaustraliantrails.com/pdf/trailmanual/chapter7sml1.pdf>

IMBA Australia has produced a mountain bike trail difficulty rating system, which is attached within the Appendix:

<https://parks.dpaw.wa.gov.au/sites/default/files/docs/activities/IMBA%20AUSTRALIA%20MOUNTAIN%20BIKE%20TRAIL%20DIFFICULTY%20RATING%20SYSTEM.pdf>

8.3 Accessibility

To be accessible to all people regardless of their age, gender, nationality, abilities, etc paths and tracks need to be compliant with the Disability Discrimination Act (DDA) and designed according to Universal Design Principles:

- Equitable use
- Flexibility in use
- Simple and intuitive use
- Perceptible information
- Tolerance for error
- Low physical effort
- Size and space for approach and use.

¹⁵ Department of Environment, Land, Water and Planning: <http://www.depi.vic.gov.au/forestry-and-land-use/visiting-parks-and-forests/visiting-state-forests/activities/australian-walking-track-grading-system> (viewed 9 Feb 2016)

9.0 Potential walking and cycling groups / programs

In order to encourage more people to walk and cycle more often, the provision of footpaths, on road cycling lanes, on road training routes, designated bush walking tracks, designated mountain bike trails or off road shared paths alone is not sufficient. Some people need additional encouragement and support through specific programs. For example, those who have never cycled before, or not cycled in a long period of time may lack the confidence to get on a bike and go for a ride. They may not be sure about road rules, may not know how to ride a bike or ride a bike well, may be concerned that they can't change a flat tyre, may not know where they can ride, may feel that their fitness level is not sufficient to join others who cycle regularly or may not have anyone to go for a ride with. Others may want to take part in programs or groups which involve a level of training for a particular event or goal and allow them to meet other people with similar interests. Others still look forward to exploring bush settings with others on foot or bike. Programs that can fulfil some of these needs should be considered in the Central Goldfields Shire, depending on resources available. Responsibility for coordinating programs to encourage more people to walk or ride does not rest entirely with the Central Goldfields Shire. The private sector, health agencies, neighbourhood houses, schools, sports clubs, service clubs, churches and many other organisations potentially have a role to play.

Examples of the types of programs that could be considered (based on best practice internationally and suggestions from key stakeholders and the community) are:

- Individual walking / cycling challenges
- Community walking / cycling challenges
- School holiday cycling programs
- Social dog walking group
- Bicycle education programs
- Walking School Bus program
- Cycling School Bus program
- Social community bike rides
- Hiring of a cycling coordinator
- Junior mountain bike day camp
- Cycling girls camp
- Bike mechanics series
- Mix and mingle rides
- Girls rides
- School cycling clubs
- Youth bicycle ambassador
- Cycling buddy program
- Geo-caching
- Bicycle recycling program
- Park Run
- Bush walks
- Beginner walking programs
- Cycling festival
- Community running clubs
- Learn to ride camp
- Mountain bike skills camp
- Keeping up with the kids program
- Beginner rides
- Trails and ales ride
- Fix a flat clinic
- Bike shop, club and team outreach

More detail is provided in the Appendix about programs. Many of these programs are dependent upon organisations such as bicycle shops, community based groups such as bushwalking or cycling clubs, schools, health agencies, neighbourhood houses and informal groups of local residents.

10.0 Potential walking and cycling events

Walking and cycling events have the potential to provide a significant economic contribution to a community as a result of expenditure by participants, officials and spectators. The World Mountain Bike Orienteering event, South Pacific Veteran’s Cycling Championships, Jayco Herald Sun Tour, RACV Energy Breakthrough and the Great Victorian Bike Ride all fall within this category. Events such as these can also provide a positive profile of the community and its assets via media coverage. Opportunities to value add to these events should be considered, i.e. providing some locally based walking or cycling events attached to these larger events. In addition to local cycling and triathlon clubs and community based organisations, key players to work with to attract events to the Central Goldfields Shire and to organise and run such events include Tourism Victoria, Regional Tourism Boards, Victorian Major Events Company, Sport and Recreation Victoria, Bicycle Network Victoria and cycling and walking event promoters.

Local grass roots events are also important to encourage higher levels of participation in walking and cycling. Some existing local events include Relay for Life, Spring into Summer Stroll and Pyrenees Magic. Wherever possible it will be important to use these events, and any others developed in the future like these, to promote the positive benefits of walking and cycling in an effort to increase participation. However, Council has limited resources to run events itself. Instead, its role in the future is about providing encouragement to community clubs and organisations as well as the private sector to utilise the infrastructure developed by Council to operate walking and cycling events. It may also be able to promote these events via its website and flyers at visitor information centres.

Survey respondents indicated an interest in a number of events. These are listed below, with an indication of what type of organisation may be able to provide this opportunity:

Type of event and level of support by survey respondents (%)	Examples of organisations that could potentially provide this opportunity
Fun Runs/ Walks or charity events (39%)	Charities – e.g. Cancer Council, RSPCA, etc
Bushwalks (33%)	Bushwalking Clubs, Field Naturalists, Parks Victoria, U3A, neighbourhood houses
Local community or charity walking/running events of 1-2 hours duration (33%)	Health services, emergency services, private individuals (to raise money for a family experiencing a loss or major illness requiring large medical expenses.
Neighbourhood walking groups (21%)	Neighbourhood houses, health services, Heart Foundation
Triathlons/ironman/marathons (16%)	Triathlon Club
Mass participation multi-day events, e.g. Oxfam Trailwalker Challenge (100km in 48 hours) (12%)	Oxfam
Running clubs, e.g. Hash House Harriers (7%)	Hash House Harriers, running club

11.0 Potential club development opportunities

The Central Goldfields Shire currently provides support to sport and recreation clubs and organisations in the municipality, such as bowls clubs, tennis clubs, football / netball clubs, cricket clubs, etc to assist them to grow and develop. If a group of people approached Council seeking support to establish a cycling or walking club, such as a mountain bike club, a road cycling club, a veterans cycling club, a bushwalking club, etc, Council, along with relevant organisations such as Sports Focus, Sport and Recreation Victoria, Bicycle Network, Cycle Sport Australia and health agencies would endeavour to assist this group to become established and to grow its membership. These organisations could:

- help the club establish a constitution and terms of reference
- provide advice on the governance structure of such an organisation, including the need to become incorporated
- assist the club to find a venue to operate from
- provide information on relevant legislation and regulations in relation to operations, finance and facilities
- promote the club via community directories, websites and any promotional materials that these organisations distribute to the community
- provide information and assistance to enable the club to access grants to seek funds to establish a club, to hold events or to develop marketing materials such as websites
- provide training in areas such as governance, fundraising, writing funding applications, social media skills, etc
- provide tools to help the club develop partnerships and to grow its membership base.



12.0 Proposed management, maintenance and marketing plans

The following section identified key components of management plans for trails that cross various jurisdictions; recommended service standards or maintenance regimes for various types of paths / trails in the municipality; and suggestions to most effectively market paths and trails.

12.1 Asset management

The Central Goldfields Shire maintains a Municipal Pathway Register which provides details of all pathways (i.e. footpaths, bicycle paths and shared paths) under municipal control. Pathways have been identified as having the following lifespan:

- 50 years – rigid pathways which are commonly lined with concrete or brick to provide a wearing surface
- 40 years – unlined path which is formed in the earth and may be lined with gravel
- 30 years – flexible path which is commonly lined with asphalt or spray seal to provide a wearing surface.

In order to determine the priority for renewals / upgrades, Council uses a renewal / upgrade risk rating system, which comprises of the following factors combined into a formula:

- Hierarchy – relates to the primary function and relative importance of the asset
- Condition deviation – relates to the deviation of the asset condition against adopted condition service standards
- Profile deviation – relates to the deviation of the asset profile against the adopted profile / modern equivalent service standard
- Amenity - relates to the level of inconvenience to the asset user or abutting landowners as a consequence to the deviation below adopted service standards.
- Safety – reflects the consequence of a mishap
- Stitch in time – considers the potential financial penalty, in terms of renewal or replacement costs, if action to address the low service standard is delayed (i.e. ratio of the cost now versus the cost at some future point in time).

The formula is: (hierarchy + condition deviation + profile deviation) x (amenity + safety + stitch in time).

Refer to Council's Operational Asset Management Plan Roads for more details.

12.2 Management plans

An on-road cycle path could potentially be managed by either or both VicRoads and the Central Goldfields Shire Council, depending upon its location (i.e. on a VicRoads road and /or a Council road). On-road cycle paths located on secondary roads will just be the responsibility of the Shire. Often a recreational trail may traverse land owned and managed by several different agencies and could in fact cross municipal boundaries.

Where a path / trail is managed by multiple organisations, it is imperative that a management plan be prepared (e.g. Dunolly Trails, which are located on both Council and Crown Land). It is important for all stakeholders to understand their responsibilities and commit to ensuring that they undertake the required actions to provide a safe and usable path / trail for users.

Key components of a management plan for path / trail managed by more than one agency are:

- Details of how the path / trail will be governed, e.g. a committee of management with representatives from potential user groups and government agencies; an incorporated group, a foundation, etc. Roles and responsibilities of all parties need to be clearly outlined.
- Details of who will be responsible for day to day management issues and how this individual / position / organisation relates to the governing body.
- Identification of risks and strategies to reduced/ eliminate such risks
- Details of who will be responsible for maintenance and the tasks required to be undertaken
- Details of how the path / trail will be promoted to potential users (recreational paths / trails only)
- A plan to renew infrastructure as it reaches the end of its useful lifespan
- Details of how the path / trail will be monitored and evaluated. This is likely to include activities such as trail counters, surveys of users, discussions with providers of accommodation and other relevant services, etc.
- Preparation of budgets to identify annual expenses such as maintenance, signage, promotional activities, etc, but also potential income from product sales, grants, sponsors, events, donations, fundraising, tours, etc.

12.3 Maintenance plans

Paths and trails need to be regularly maintained to ensure that they remain in good condition and provide a safe experience for walkers and cyclists. Funds need to be set aside annually, just as they are for roads in asset management programs, to ensure that there is a budget to undertake the necessary works and to ensure that paths and trails remain useable and safe and so that new paths / trails are developed when and where required. Council's Asset Management Plan provides details of the process established to identify and prioritise risk; maximise the life of the asset to assist the operation of a sustainable path / trail network; and progressively upgrade the network to meet established minimum levels of service.

The Central Goldfields Shire Council maintenance plan for paths and trails, as per its Operational Asset Management Plan Roads document is as follows:

Path / trail hierarchy class	Primary function	Hazard inspections	Condition inspections	Maintenance response times for paths and shared paths with displacement of >50mm	Maintenance response times for vegetation which presents a physical hazard to the public
Commerce (CO)	Main shopping areas / transport hubs.	6 monthly	Every 3 years for scheduled inspections. Within 1 day for reported issues.	Inspect and rectify, or provide appropriate warning within 1 week.	Inspect and rectify, or provide appropriate warning within 1 week.
Business (BU)	Busy urban areas. Township main streets or zones immediately adjacent to or feeding schools, halls, churches, etc.	6 monthly	Every 3 years for scheduled inspections. Within 3 days for reported issues.	Inspect and rectify, or provide appropriate warning within 1 week.	Inspect and rectify, or provide appropriate warning within 1 month.
Residential (RE)	Formed paths through urban residential areas or parks.	Annually	Every 3 years for scheduled inspections. Within 7 days for reported issues.	Inspect and rectify, or provide appropriate warning within 1 month.	Inspect and rectify, or provide appropriate warning within 1 month.
Rural (RU)	Formed paths through rural residential areas or parks.	Annually	Every 3 years for scheduled inspections. Within 7 days for reported issues.	Inspect and rectify, or provide appropriate warning within 1 month.	Inspect and rectify, or provide appropriate warning within 3 months.
Shared path (SP)	Shared use bicycle and footpaths along defined pathways, delineated by pavement markings and roadside signs and furniture.	Annually	Every 3 years for scheduled inspections. Within 3 days for reported issues.	Inspect and rectify, or provide appropriate warning within 1 week.	Inspect and rectify, or provide appropriate warning within 1 month.

In addition to displacement and vegetation, other maintenance tasks include periodic sweeping of debris from the surface (for sealed surfaces such as the Maryborough to Carisbrook Trail) and repairs to supporting infrastructure such as seats, bike racks, etc). Landowners also have a responsibility to keep footpaths clear of vegetation growing from their property, i.e. they are required to trim overhanging branches and obstructing vegetation.

To minimise maintenance costs, good design and the use of quality materials is important. Opportunities for passive surveillance may help to reduce costs associated with repairs associated with vandalism; good drainage which takes water away from the path / trail rather than across it will help to reduce erosion of the surface; and careful selection of the placement of trees and shrubs will help to reduce the amount of time spent trimming vegetation or potential damage from roots.

In order to reduce the amount of time spent maintaining paths / trails, easy access to trails by maintenance vehicles is important.



12.4 Marketing plans

Recreational trails have potential to generate economic benefits to the community by attracting visitors to use the trail and spend money locally on services such as accommodation, food, bicycle hire, walking / cycling equipment, fuel, entertainment, etc.

To promote awareness of recreational trails in the Central Goldfields Shire, a marketing plan will need to be prepared. An annual marketing budget will need to be set aside, however, there is also potential to attract funding from local businesses to support marketing costs by selling advertising space on maps, brochures, trails and electronic communications. Some key aspects of a marketing plan include:

Promotional activity	Details
Development of branding	Develop a brand style guide which clearly outlines the Central Goldfield Shire's trail logo specifications and how these logos are to be used, with the ultimate aim of people recognising that the Central Goldfields Shire is a cycling and walking friendly destination. .
Development of a website	Incorporating maps, trail information, details of supporting infrastructure and services, accommodation options (with potential on-line booking, etc). Advertising by local businesses may be included on the website as a form of income generation. Efforts should be made to promote the trail on the websites of other relevant organisations including the Central Goldfields, cycling websites, walking websites, and tourism websites. Resources will need to be developed in order to manage the website.
Development of a social media page	Establishment of a facebook page that provides regular updates on the trail and allows a community of trail supporters to communicate with each other and keep informed of any developments or initiatives. Other social media sites for consideration include instagram, twitter and pinterest. Active social media site will need to be monitored; hence resources need to be provided for this purpose.
Development of an application (app)	An app suitable for smart phones or tablets may be developed for the recreational trail if warranted. Conversely, information about the trail may be provided to another app that promotes trails in the region or state. Advertising by local businesses on the app may be included as a form of income generation.
Printed material	Brochures, postcards and maps. A distribution plan also needs to be developed to ensure that these materials reach the target market. Some points of distribution locally will be the Visitor Information Centre, Council office, library and hotels / motels. Brochures and maps may include paid advertising by local businesses.
Advertising	Advertisements in newspapers, tourism magazines, cycling magazines, walking magazines, etc. Consideration may also be given to advertising in other areas such as social media.
Signage	Directional signage within the towns that the trail passes through and signage from key visitor locations and trail heads such as train stations, Visitor Information Centres and Town Halls. There may be potential to sell several advertising signs along the trail.
Development of products	Potential to develop products for sale, e.g. maps, trail passports, hats, mankies (maps printed on handkerchiefs), kerchiefs, etc.
Trade Shows	Attend relevant trade shows / expos / conferences as an exhibitor to promote the trails. This could be done in partnership with a regional tourism stand.
Media / visiting journalists program	Regularly prepare media releases accompanied by quality photos to send to media outlets with different themes. Also invite journalists to visit the trails (possibly as part of a larger regional tourism promotion) to see, experience and write about the trail.

13.0 Proposed policy directions

Through key stakeholder interviews, the need for greater guidance for developers when constructing footpaths and cycle paths was identified, as was the need to ensure that Council officers enforce its specific requirements in terms of such provision. The best medium in which to provide such advice and guidelines is through the preparation of a development contributions plan and through an amendment to the Planning Scheme. These changes to planning and legislation should be supported by the development of infrastructure guidelines.



13.1 Development contributions plan and Council's Planning Scheme

The Victorian Planning Scheme (Clause 52.01) states that when land is proposed to be subdivided for residential, industrial or commercial purposes, the developer of this land must make a contribution to the relevant council for the provision of development or community infrastructure required to meet the future needs of a community resulting from a development (such as walking and cycling paths / trails, open space, roads, public transport, storm water and community facilities) in an amount specified either by the schedule contained within each Council's Planning Scheme or in accordance with Section 18 of the Subdivision Act 1988. In the case of the Central Goldfields Shire, its Planning Scheme does not identify a specific amount of land or cash; hence it reverts to the Subdivision Act for guidance on the appropriate contribution. This Act states that the amount of contribution for public open space required by Council is:

- 5% of the land in the subdivision intended to be used for residential, industrial or commercial purposes; or
- 5% of the site value of all of the land in the subdivision intended to be used for residential, industrial or commercial purposes; or
- a combination of land and cash equalling 5% of the site value of all of the land in the subdivision.

A development contributions plan should be developed by the Central Goldfields Shire Council to clearly outline the contribution required by developers to public open space (as per the Planning and Environment Act 1987 – Part 3B). If land is provided as part of or as the entire contribution, it is important that land is suitable for development.

An amendment to Council’s Planning Scheme Clause 52.01 is also recommended to reflect the development contribution plan adopted by Council.

13.2 Infrastructure guidelines

If the developer constructs roads and footpaths throughout the site, works need to adhere to the design standards identified in Section 8.0 of this strategy, specifically taking into consideration the following planning documents, guides and standards:

- Australian Standards
- The Central Goldfields Shire Planning Scheme
- The Central Goldfields Shire Road Management Plan
- The Central Goldfields Shire Operational Asset Management Plan Roads
- Industry best practice

It is recommended that Council prepares an infrastructure design guide to provide advice and guidance to both Council officers and developers around appropriate design and infrastructure requirements for footpaths, shared paths and on road cycle lanes, as well as other outdoor features including play spaces, sports grounds, areas of open space, etc. Ideally future walking and cycling paths / trails will incorporate supporting infrastructure which reflects the neighbourhood or heritage character of the area, is easily available should it needs to be replaced due to damage or vandalism, is durable but cost effective and is relatively easy to maintain.

14.0 Requirements for each town

In order to create more liveable and safe communities where residents and visitors are able to easily access cycling and walking paths/ trails from their homes, accommodation venues or transport hubs, the following paths / trails are recommended for each town (Bealiba, Carisbrook, Dunolly, Maryborough and Talbot) within the Central Goldfields Shire:

1. Inner town all abilities footpath / shared path that is sealed and provides linkages to shops, transport hubs, parks and recreational facilities wherever possible.
2. Inner town on road cycle lane that is clearly marked and sign posted and provides linkages to shops, transport, hubs, parks and recreational facilities wherever possible.
3. Safe schools route that is clearly marked and provides on and off road access to schools as well as pre-schools and early learning centres wherever possible.
4. Aged care safe route wherever there is an aged care facility located within the town, there will be a clearly marked route from the facility to the centre of the town.
5. Outer town off road recreational walking / cycling path or trail that provides local residents and visitors with the opportunity to walk / cycle to key local attractions such as waterways for a distance of approximately 5km.
6. On road cycle training routes catering for fitness / competitive cyclists.

The location of proposed paths is determined by:

- Whether or not the proposed trail connects to a key destination (such as schools, shops, recreational, etc), or provides an important link to another trail that does.
- Consideration of what already exists for walkers / cyclists in terms of path and trail infrastructure in the nearby vicinity (so as not to prevent duplication).
- Population density and future growth.
- Ease of establishment, i.e. not too many road crossings.



15.0 Evaluation

The Central Goldfields Shire Walking and Cycling Strategy covers a ten year period from 2017 to 2026. Council's Recreation Department has responsibility for implementing a number of the actions within the Strategy and reporting on the Strategy to Council. However the Engineering Department will also have a major role in implementation. Council's tourism and public health areas will also have a key role in the implementation of specific initiatives contained within the Strategy.

In order to determine whether or not the strategy has successfully achieved its intention of creating a better, connected network of walking and cycling paths and trails and more people walking and cycling, we aim to:

Action	Target	Example of some sources of data
Increase the percentage of children who walk or ride to school / early learning centres	Increase by 20% by 2026 (2% per year)	Statistics from schools and early learning centres Healthy Together Achievement Program
Increase the percentage of people who walk or ride to work	Increase by 20% by 2026 (2% per year)	ABS Census statistics
Increase the percentage of people who walk for recreational purposes	Increase by 20% by 2026 (2% per year)	ABS Census statistics
Increase the percentage of people who ride a bike for recreational purposes	Increase by 20% by 2026 (2% per year)	ABS Census statistics
Increase the percentage of people who walk for utility purposes (e.g. going to the shops, visiting friends)	Increase by 20% by 2026 (2% per year)	Baseline research needs to be undertaken
Increase the percentage of people who ride a bike for utility purposes (e.g. going to the shops, visiting friends)	Increase by 20% by 2026 (2% per year)	Baseline research needs to be undertaken
Increase local residents satisfaction levels with walking / cycling paths and trails – this will take into consideration location, gaps, quality, maintenance, etc.	Increase by 20% by 2026 (2% per year)	Baseline research needs to be undertaken

Key evaluation tasks to be performed are:

Action	Responsibility	Timeframe
Regular monitoring	Recreation Department Engineering Department Bicycle and Walking Advisory Group	Monthly Bicycle and Walking Advisory Group meetings
Data collection	Recreation Department External partners, e.g. Federation University	Collect data annually using tools such as telephone surveys, focus groups, additional trail counters and other relevant tools.
Identifying works for the annual budget	Recreation Department Engineering Department Other departments as appropriate	Prior to establishment of Council budgets each year
Review of document and report on actions achieved (to BWAG)	Recreation Department Engineering Department Bicycle and Walking Advisory Group	Annually
Development of new strategy	Recreation Department Engineering Department	Every 10 years (i.e. next strategy in 2025)



16.0 Action plan

The following action plan has been prepared based on results of community consultations with key stakeholders and the community; audits; analysis of maps; Council's policy and strategic position; and an assessment against the previous cycling strategy; with reference to best practice, trends and an understanding of the political and funding climate. A number of these projects may be funded by external grants such as the State Government's *Transport Investing in Regions* initiative.

High priority = 1-3 years; medium priority = 4-7 years; low priority = 8+ years.

General actions:

No.	Area	Action	Indicative cost \$	Partners	Priority
1	Planning	Prepare a municipal development contribution plan which reflects the requirements of developers in terms of community infrastructure (such as cash or land to develop walking / cycling paths in new residential, industrial or commercial sub-divisions).	Officer time	N/A	High
2		Amend Council's Planning Scheme Clause 52.01 to reflect the development contribution plan.	Officer time	N/A	High
3		Ensure that requirements in Council's Planning Scheme around the provision of footpaths, shared paths and on road bicycle lanes, as well as supporting infrastructure such as cycle parking spaces, showers at workplaces, etc are enforced.	Officer time	N/A	Ongoing
4		Ensure that wherever relevant, walking and cycling infrastructure or programs are incorporated into other Council planning documents such as the Municipal Health and Wellbeing Plan, Early Years Plan, etc.	Officer time	N/A	Ongoing
5		Establish a new advisory group called Bicycle and Walking Advisory Group. This will replace existing Bicycle Advisory Group. Expand the group to include a representative of the Goldfields Sustainability Group.	Officer time	Bicycle and Walking Advisory Group (BWAG) Goldfields Sustainability Group	Ongoing
6		Liaise with neighbouring municipalities on a regular basis to discuss	Officer time	City of Ballarat	Ongoing

No.	Area	Action	Indicative cost \$	Partners	Priority
		issues and opportunities around existing and potential shared trails that cross municipal boundaries.		Hepburn Shire Loddon Shire Mt Alexander Shire Northern Grampians Shire	
7		Ensure that any new walking or cycling paths and trails are integrated with public transport routes wherever possible.	Officer time	V/Line Public transport operators	Ongoing
8		Explore the potential to employ an active transport officer, shared with one or more neighbouring municipalities to help promote walking and cycling and to provide advice and support to Council and advisory groups.	\$15,000	City of Ballarat Hepburn Shire Loddon Shire Mt Alexander Shire Pyrenees Shire	Medium
9		Explore the potential to develop a rail trail from Maryborough to Castlemaine via Newstead, with a link to Maldon	Officer time	Mt Alexander Shire Vic Track	Medium
10		Identify and develop an all abilities footpath / shared path that is sealed and provides linkages to shops, transport hubs, parks and recreational facilities wherever possible in each town centre.	Costed under infrastructure below	Community planning groups	High
11		Identify and develop an on road cycle lane that is clearly marked and sign posted and provides linkages to shops, transport hubs, parks and recreational facilities wherever possible in each town centre.	Costed under infrastructure below	Community planning groups BWAG	High
12		Identify safe routes to schools and early learning centres in each town and construct suitable infrastructure to support this concept, i.e. shared off road paths / trails wherever possible around each side of a school / early learning centre, linked to footpaths, shared off road paths and on-road bike lanes to residential areas.	Costed under infrastructure below	Schools Early Learning Centres Community planning groups	High
13		Identify and develop a safe route for residents of aged care facilities to access the centre of each town (in which such facilities are located) by foot or motorised scooter.	Costed under infrastructure below	Aged care facilities Community planning groups	High
14		Identify and develop an off road recreational walking / cycling path or trail (of approximately 2.5km in length, i.e. a 5km round trip) that provides local residents and visitors with the opportunity to walk / cycle	Costed under infrastructure below	Community planning groups BWAG	High

No.	Area	Action	Indicative cost \$	Partners	Priority
		to key local attractions such as waterways in each or near each town.			
15		Identify, sign and promote on road cycle training routes catering for fitness / competitive cyclists throughout the municipality.	Costed under infrastructure below	BWAG Cycle businesses	High
16	Research	Undertake or commission research in relation to local walking and bicycle related issues, e.g. satisfaction levels with specific paths / trails, economic impact of the Ballarat to Maryborough Heritage Trail, social and health impact of trails, bike-friendly readiness of local businesses, factors that enable or discourage walking / cycling to school and work, etc.	Officer time, although some grants may be required.	BWAG Bicycle Network VicHealth	High
17		Continue to monitor trail usage figures (by utilising counters) to support developments of new trails, upgrades and renewals.	Officer time	N/A	Ongoing
18	Advocacy	Continue to advocate: <ul style="list-style-type: none"> • for bicycles to be carried on V/Line trains to encourage greater numbers of cycle tourists to the region • to VicRoads for wider shoulders on roads • to State and Federal Government for funding • to Parks Victoria to develop and enhance partnerships and infrastructure. 	Officer time	V/Line VicRoads State Government Federal Government Parks Victoria	Ongoing
19	Design	Ensure that any new trails, upgrades or renewals are designed according to relevant Australian Standards, Austroads, VicRoads guidelines, Council policies and planning documents, DDA requirements, Universal Access Design guidelines and best practice of cycling and walking organisations.	Officer time	VicRoads Bicycle Network Victoria Walks	Ongoing
20		Prepare an infrastructure design guide to provide advice and guidance to both Council officers and developers around appropriate design and infrastructure requirements for footpaths, shared paths and on road cycle lanes, as well as other outdoor features including play spaces, sports grounds, areas of open space, etc.	Officer time	N/A	High
21		Review location of existing signs on paths / trails; identify where additional directional signs are required along paths / trails; and install as appropriate.	Not costed	BWAG	High

No.	Area	Action	Indicative cost \$	Partners	Priority
22		Design and install interpretive signs along trails where appropriate	Not costed	BWAG	Medium
23		Review the location of seats along paths / trails and install additional seating as required.	Not costed	BWAG	High
24		Review shade along paths / trails and plant more trees in strategic locations as required.	Not costed	BWAG	Medium
25		Review the location of bicycle parking throughout the municipality and install additional parking as required.	Not costed	BWAG	Medium
26	Upgrade / renewal	Ensure that trails are upgraded / renewed according to the timeframe identified by the risk rating system articulated in Council's Operational Asset Management Plan Roads document.	Officer time	N/A	Ongoing
27	Management and governance	Ensure that any regional level trail, or trail that crosses land owned by a number of different organisations, is guided by a management plan and a suitable governance structure.	Officer time	Parks Victoria VicTrack Private landowners	Ongoing
28	Maintenance	Ensure that each trail identified on Council's Pathway Register is maintained according to the schedule set out in Council's Operational Asset Management Plan Roads document.	Officer time	N/A	Ongoing
29	Marketing and promotion	Develop a marketing plan (linked to the Bendigo Regional Tourism Plan) incorporating maps, social media, websites, signage, regular media releases, etc., to create greater awareness and usage of walking and cycling paths and trails in the municipality.	Officer time. Some funding for marketing activities.	BWAG	High
30		Provide information to local businesses about how to become bike friendly and the benefits of becoming bike friendly.	Officer time	Tourism organisations	Medium
31		Develop branding so that the Shire is recognised at a local, regional and state level as a walking and cycling friendly destination.	Officer time	Tourism organisations	Medium
32	Commercial opportunities	Explore the potential for commercial operators to provide bicycle hire and / or a cycle tourist business.	Officer time	BWAG Local businesses Chamber of Commerce	Medium
33	Education	Facilitate community education programs to promote walking and cycling and safe road use, e.g. promoting the benefits of children walking and cycling to school; encouraging greater respect between motorists and cyclists; increasing awareness of the dangers of car	Officer time Some funding for implementation	BWAG Bicycle Network VicRoads Victoria Police	Ongoing

No.	Area	Action	Indicative cost \$	Partners	Priority
		'dooing'; greater awareness of road rules; and education programs to teach people how to be correctly fitted out and how to ride in a pack.	may be required.		
34		Explore cost effective ways of providing bicycle education programs in schools.	Officer time	Schools BWAG Service clubs Local businesses Bicycle Network	High
35		Explore the option of purchasing a Bike Ed trailer containing bicycles to be used for bicycle education in schools and also as part of community events or corporate events	Not costed	BWAG Service clubs Victoria Police VicRoads	Low
36	Events and programs	Encourage walking / cycling event organisers to value add to existing events by holding free or low cost opportunities for local residents to take part in walking or cycling.	Officer time	Event organisers BWAG	Ongoing
37		Seek to attract additional walking / cycling events to the municipality.	Officer time	Event organisers BWAG Businesses	Ongoing
38		Encourage neighbourhood houses, health agencies, schools, businesses, Sports Focus and others to develop walking / cycling events or programs, and promote such activities where appropriate. For example Sports Focus could facilitate the Life Cycle 55+ program developed by Cycling Victoria and train locals to run the program in the future.	Officer time	Sports Focus Neighbourhood houses Health agencies Schools Businesses	Ongoing
39		Develop a program strategy that aims to encourage currently inactive people to become more active, particularly through activities such as walking to school or work, beginner walking and cycling programs, social community bike ride, Park Run and social dog walking group. Support the development of three new walking and cycling programs from this strategy for a three year period (by which time these programs will hopefully be self-sustaining) by providing some resources and encouragement.	\$18,000 over three years plus officer time.	Community planning groups Neighbourhood houses Health agencies Park Run Businesses Goldfields Sustainability	High

No.	Area	Action	Indicative cost \$	Partners Group	Priority
40		Encourage participation by schools and businesses in programs such as Ride2School Day, Walk2School Day and Ride2Work Day.	Officer time	Bicycle Network Victoria Walks VicHealth	Ongoing
41	Evaluation	Undertake an annual review of the Walking and Cycling Strategy for BWAG and regularly monitor the Strategy.	Officer time	BWAG	Ongoing
42	Infrastructure	Continue to develop a clear network of safe paths and trails that connect local residents to schools, workplaces, shops, aged care facilities, parks, recreational facilities and transport hubs. This includes the possible development of an urban bike park at Bristol Hill.	Refer to the specific works table that follows	Parks Victoria	Ongoing
43		Fill in any missing links in the existing walking / cycling network.	Refer to the specific works table that follows	N/A	Ongoing
44		Undertake a master plan to determine the viability of and key components of an urban bike park (bike hub) established at Bristol Hill in Maryborough, e.g. a flat area for toddlers to learn to ride, shared paths for families, a bike skills development area for mountain bikes, a pump park, on-site accommodation for cycling camps or school camps, training programs, area for people to learn to ride motorised scooters, etc.	\$30,000 for study. Development not yet costed.	BWAG MEC Local cyclists Various funding bodies	High
45		Undertake a water audit along trails in partnership with Sports Focus, VicHealth and Central Highlands Water with a view to developing more water outlets for trail users.	Officer time	Sports Focus VicHealth Central Highlands Water	Medium
46	Club development	Provide support to assist walking and cycling clubs to become established and to develop.	Officer time	Sports Focus Sport and Recreation Victoria Bicycle Network Cycle Sport Australia health agencies	Medium

Specific works:

No.	Location	Works	Trail type	Distance (m)	Cost \$	Priority
	Bealiba					
B1		Mount Rd from Davies St to Scent Farm Road (Bealiba Reservoir)	Off road shared path - gravel	3,000	180,000	Low
B2		Cemetery Rd St from Mount Rd to Bealiba Cemetery	Off road shared path - gravel	510	30,600	Low
B3		Main St from Grant St to Davies St	Footpath – wide enough for bikes	100	15,000	Low
B4		Davies St from Cochrane St to Grant St	Footpath – wide enough for bikes	150	22,500	High
B5		Davies St from Grant St to Main St	Footpath – wide enough for bikes	200	30,000	Low
B6		Bealiba Hotel	Bicycle parking	N/A	2,000	Medium
	Carisbrook					
C1		Camp St from the Camp St School Crossing to the Simson St School Crossing.	Concrete and asphalt shared footpath	120	36,000	High
C2		Simson St and Landrigan Rd from Camp St to the Leisure Centre	Off road shared path and pedestrian bridge	200	60,000	High
C3		Urquart St from Simson St / Pyrenees Highway to Carisbrook Recreation Reserve in McNeill St	Off road shared path	360	104,000	High
C4		Birch St from Simson St / Pyrenees Highway to McNeil St	Footpath	375	56,250	Medium
C5		Green St from Bucknall St to Tullaroop Creek Trail	Footpath	130	19,500	Medium
C6		Hunter St from Simson St / Pyrenees Highway to Grice St	Footpath	320	4,800	Low
C7		McNeil St from Birch St to Bucknall St	Footpath	450	67,500	Low
C8		Simson St / Pyrenees Highway from McCallum St, along Baringhup Rd to Moolort St (west	Off road shared gravel path	600	30,000	Low

No.	Location	Works	Trail type	Distance (m)	Cost \$	Priority
		side).				
C9		McCallum St from Simson St to Hall St	Footpath	125	18,750	Low
C10		Bucknall St from McNeil St to McLachlan St	Footpath	120	18,000	High
C11		Smith St and McNeill St from Victoria St to Birch St	Footpath	560	84,000	Low
	Dunolly					
D1		Hospital St from Dunolly –Bridgewater Road , down Havelock to Thompson St	Off road shared path	680	136,000	Medium
D2		Thompson St from Havelock St to Maude St	Off road shared path	640	128,000	Medium
D3		Maude St from Bull St to Thompson St	Footpath	210	35,100	Medium
D4		Bull St from Maude St to Inkerman St	Footpath	110	16,500	Medium
D5		Dunolly Rd / Broadway from Bull St to Dunolly – Bridgewater Road / Tweeddale St (upgrade)	Footpath	150	22,500	High
D6		Tweeddale St from Inkerman St to Dunolly Rd / Broadway	Off road shared path	60	12,000	Medium
D7		Inkerman St from Tweeddale St to Thompson St	Off road shared path	400	80,000	Medium
D8		Bull St from Dunolly Rd / Broadway to Havelock St	Off road shared path	350	70,000	High
D9		Market St from Bull St to swimming pool	Off road shared path	100	20,000	High
D10		Dunolly Ping Holes, Deledio Reserve	Off road walking track upgrade	540	32,400	Medium
D11		Havelock St from Dunolly –Bridgewater Road / Tweeddale St to Thompson St	Footpath	525	78,750	Low

No.	Location	Works	Trail type	Distance (m)	Cost \$	Priority
D12		Havelock St from Dunolly –Bridgewater Road / Tweeddale St to Thompson St	On road cycle lane	525	5,000	Low
	Maryborough					
M1		Install outdoor gym equipment around Lake Victoria.	Gym equipment	N/A	30,000	Medium
M2		Park Rd – extend path near golf course to Gardiner Court.	shared concrete off road path	400	100,000	High
M3		Railway St from Lean St to Gillies St - some shoulder sealing, signage and bike lane symbols	on road path	600	15,000	High
M4		Gillies St / Railway St to Marjorca Rd - some shoulder sealing, signage and bike lane symbols	on road path	400	7,000	High
M5		Gillies St from Sutton Road / Pyrenees Highway to Golden Wattle Drive / McLure St intersection - signage and bike lane symbols	on road path,	770	4,000	High
M6		McLure St from Golden Wattle Drive / Gillies St intersection to Tullaroop Rd - some shoulder sealing, signage and symbols	on road path	890	7,000	High
M7		Albert St / Station St / Burns St from Inkerman St to Tuaggra St / Pyrenees Highway.	off road concrete path	450	90,000	High
M8		Velodrome in Elgin Rd – develop a safe crossing, sealed roadway and car parking.	Crossing, road sealing and car parking	150	50,000	High
M9		High St from Inkerman St to Lamb St.	off road path (developed by widening the footpath)	825	165,000	High
M10		Elgin Rd from Velodrome, along Phelan Rd, then along Gladstone St to Precinct Dr.	off road shared gravel path	1,400	140,000	High
M11		Derby Rd from Rinaldi Dr to Reservoir Rd (including Derby Rd Rail bicycle pedestrian crossing).	upgrade to convert existing bitumen shared path to concrete path	875	180,000	High
M12		Goldfields Reservoir – upgrade existing walking path to a shared path.	Off road shared gravel path	1,700	102,000	High

No.	Location	Works	Trail type	Distance (m)	Cost \$	Priority
M13		Napier St from Inkerman St to Earl St / Lake Rd intersection.	on road path	675	4,000	High
M14		Tuaggra St – from railway underpass to Napier St.	on road path	330	2,000	High
M15		Pekin Rd / Gladstone St to Elliot St.	Install signage and bike lane symbols	575	20,000	Medium
M16		Precinct Drive from Gladstone to Balaclava Rd.	gravel off road path	240	15,000	Medium
M17		Holyrood St between Burns St and Park Rd.	on road path and bridge widening over main drain	400	40,000	Medium
M18		Kars St between High St and Burns St.	on road path	400	2,000	Medium
M19		Lean St from Railway St to Derby Rd.	Install signage and bike lane symbols	470	2,000	Medium
M20		Giddings St and Taylor St from Burns St to Primrose Lane.	off road concrete path	600	120,000	Medium
M21		Waters St and McLennan St from Pekin Rd to Hibbert St (rear of Maryborough Education Centre).	off road gravel path	170	17,000	Low
M22		Goldsmith St between Inkerman St and Kars St.	on road path	250	1,000	Low
M23		Newton St and Nightingale St between Park Rd and Gladstone St.	on road path	940	4,000	Low
M24		Dodds St from Elgin Rd to Crimera St.	on road path	250	2,000	Low
M25		Tullaroop Rd from McLure St to Park Rd.	on road path	585	4,000	Low
M26		Argyle St from Gillies St to Cemetery on Wright St.	off road gravel path	1,300	120,000	Low
M27		Fink St from Pekin Rd to Griffith St.	Off road shared gravel path	2,080	40,000	Low
M28		Pekin Rd from Fink St to Elliot St	On road path	200	2,000	Medium
M29		Dundas St from Hughes St to Fink St.	on road path	300	3,000	Low
M30		Kars St from Clarendon St to Goldsmith St (north east side)	Footpath	570	85,500	High
M31		Inkerman St from Napier St to Alma St (south	Footpath	70	10,500	High

No.	Location	Works	Trail type	Distance (m)	Cost \$	Priority
		side)				
M32		Kars St from Burns St to Burke St (south side)	Footpath	70	10,500	High
M33		Victoria St from Kars St to Mariners Reef Road to edge of school in Brougham St (north side)	Footpath	110	16,500	High
M34		Mariners Reef Road – from Victoria St to railway line (south)	Footpath	250	35,700	High
M35		Mariners Reef Road and Lean St Derby Rd (which leads to Goldfields Reservoir)	Footpath	1,025	153,750	Low
M36		Goldsmith St from Inkerman St to Kars St	Footpath	231	34,650	Low
M37		Elgin Road from Lamb St to the velodrome	Off road shared path	250	25,000	Medium
M38		Napier St from Derby Rd to Clarke St	Footpath	50	7,500	Low
M39		Nelson St from Majorca Road to Gibbs Place	Footpath	365	54,750	Medium
M40		Barr St from Gillies St to Bryant St	Footpath	380	57,000	Medium
M41		Fraser St from Sutton Rd to Gillies St	Footpath	260	39,000	Medium
M42		Gillies St from Taylor St to Spring St	Footpath	190	28,500	Low
M43		Spring St from Gillies St to Primrose St	Footpath	370	55,500	Low
M44		Golden Wattle Drive from Taylor St to Kennedy St (south side)	Footpath	600	90,000	Low
M45		Harkness St from Havilah Hostel to Burns St	Footpath	90	13,500	High
M46		Burns St from Tullaroo Rd to Tuaggra St	Footpath – concrete, wide enough for scooters	1,520	228,000	High
M47		Lake Road from frontage of swimming pool to Earl St / Napier St intersection	Footpath	170	34,000	High
M48		Carrick St from Hill View Ave to Gartley Crt – location of netball courts	Footpath	50	7,500	High
M49		Nelson St from Majorca Road to Holden St	Footpath	95	14,250	Low
M50		Majorca Rd from Gillies to Nelson St	On road path – remove from service road	625	15,000	High
M51		Bristol Hill Reserve	Upgrade existing tracks	2,000	25,000	Medium

No.	Location	Works	Trail type	Distance (m)	Cost \$	Priority
	Talbot					
T11		Ballarat North St / Heales St between Crespigny St and Camp St, then Camp St between Heales St Scandinavian Cres, then Scandinavian Cr / Bond St from Camp St to Ballarat Maryborough Rd.	On road path	1,750	15,000	High
T2		Camp St between Scandinavian Cres and Barnes St.	Shared off road path	550	50,000	Medium
T3		Ballarat St between Star St to Railway St (south side)	Footpath	50	7,500	High
T4		Prince Alfred St from Ballarat North St to Rowe St (upgrade)	Footpath	160	24,000	High
T5		Ballarat St North (west side) from O'Hara St to King St	Footpath	200	30,000	Low
T6		King St from Ballarat St North to Ballarat-Maryborough Rd (to link with existing walking track over Back Creek)	Footpath	250	37,500	Low