

MARIBYRNONG BIKE SPORTS INFRASTRUCTURE & DEVELOPMENT PLAN DRAFT STRATEGIC ISSUES AND OPTIONS REPORT



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Otium Planning Group Pty Ltd

Head Office:

304/91 Murphy Street
Richmond VIC 3121
ABN: 30 605 962 169
Phone: (03) 9698 7300
Email: info@otiumplanning.com.au
Web: www.otiumplanning.com.au

Local Office:

Contact: Kate Maddock – Managing Director
Phone: 0419 316 540
Email: kate@otiumplanning.com.au

Otium Planning Group has offices in:

- Auckland • Brisbane • Cairns • Christchurch • Melbourne • Perth • Sunshine Coast • Sydney

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Acknowledgements

Acknowledgement of Country

Maribyrnong City Council acknowledges that we are on traditional lands of the Kulin nation, and through them to all Aboriginal and Torres Strait Islander peoples past, present and emerging.

We appreciate the rich culture and contributions Indigenous Australians have made and continue to make to this City.

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- Bike West, with special mention of the contributions made by John Symons
- Cycling clubs in Melbourne's West including Footscray Cycling Club and Westside Cycle Club
- Local Government Authorities in Melbourne's West including Brimbank, Hobson Bay, Melton, Moonee Valley and Wyndham.

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1. Introduction

The Maribyrnong Bike Sports Strategy aim is to support the growth of bike sports as a key ingredient to encouraging the Maribyrnong community to be physically active.

The Strategy:

- Guides the future development of bike sport facilities to deliver social, health, economic and environmental benefits.
- Considers all bike sport disciplines but recognise that the municipality will not be able to accommodate all formats of the sport.
- Considers opportunities for not only current participants, but also youth, women and girls, people of different ethnicities and people of all abilities.
- Provides a planning hierarchy that will guide the development of a complimentary network of bike sport facilities.
- Includes an action plan
- Investigates the possibility of regional and state-level competition.
- Delivers a balanced approach to provision that considers all open space users, so they are enhanced as social meeting places and deliver sustainable place making.

Active transport was outside the scope of the project. The *Maribyrnong Bicycle Strategy 2020 to 2030* already outlines a plan for improving the active transport network. This project has considered how proposed bike sport facilities connect with the regional network of on-road cycling routes and off-road trail networks (both existing and proposed).

Planning Process

The following planning steps will be undertaken for the Strategy. This Draft Report summarises the findings from the market research, engagement, site assessment and mapping analysis tasks.



Figure 1: Planning Process

1.1 Why is a Maribyrnong Bike Sports Strategy needed?

The various bike sport disciplines such as mountain biking and cyclocross are growing in popularity. Through this strategy, Maribyrnong City Council will explore how to provide for bike sports in Maribyrnong as a key ingredient to encouraging physical activity and recreation for its residents.

Strategy Goal: Maribyrnong City Council seek a connected network of facilities to support bike sports that will encourage active living in the community and visitors to Maribyrnong delivering regional economic and tourism benefits.

The creation of bike friendly communities will foster a love of riding and is a key ingredient to addressing the low levels of physical activity and resulting health concerns in Maribyrnong. These include:

- 1 in 2 people aged 18 and over (56%) do not meet physical activity guidelines with a higher proportion of women (58%) than men (53%) not meeting their physical activity guidelines
- For ages 18–24, 51% of women and 42% of men do not meet physical activity guidelines.
- Over 70% of children and 91.5% of young people do not meet physical activity recommendations
- Declining rates of physical activity are contributing to accelerating rates of childhood obesity. Over one-quarter of Australian children are overweight or obese.

OPG research of bike sport facilities and destinations show that properly planned bike sport facilities and trail networks with supportive infrastructure can provide significant liveability, social, health, economic and environmental benefits to communities. Bike sport facilities are increasing in popularity across all age groups and genders. Further, bike tourism has been shown to return several times the capital cost in employment and spending within the community.

Recently the Queensland Government released the Queensland Cycling Strategy 2017-2027. The Strategy reports that for every \$1 spent on bike infrastructure there was a return of \$5 in physical health benefits, reduced congestion and other benefits. The graph below shows a breakdown of benefits per kilometre cycled.

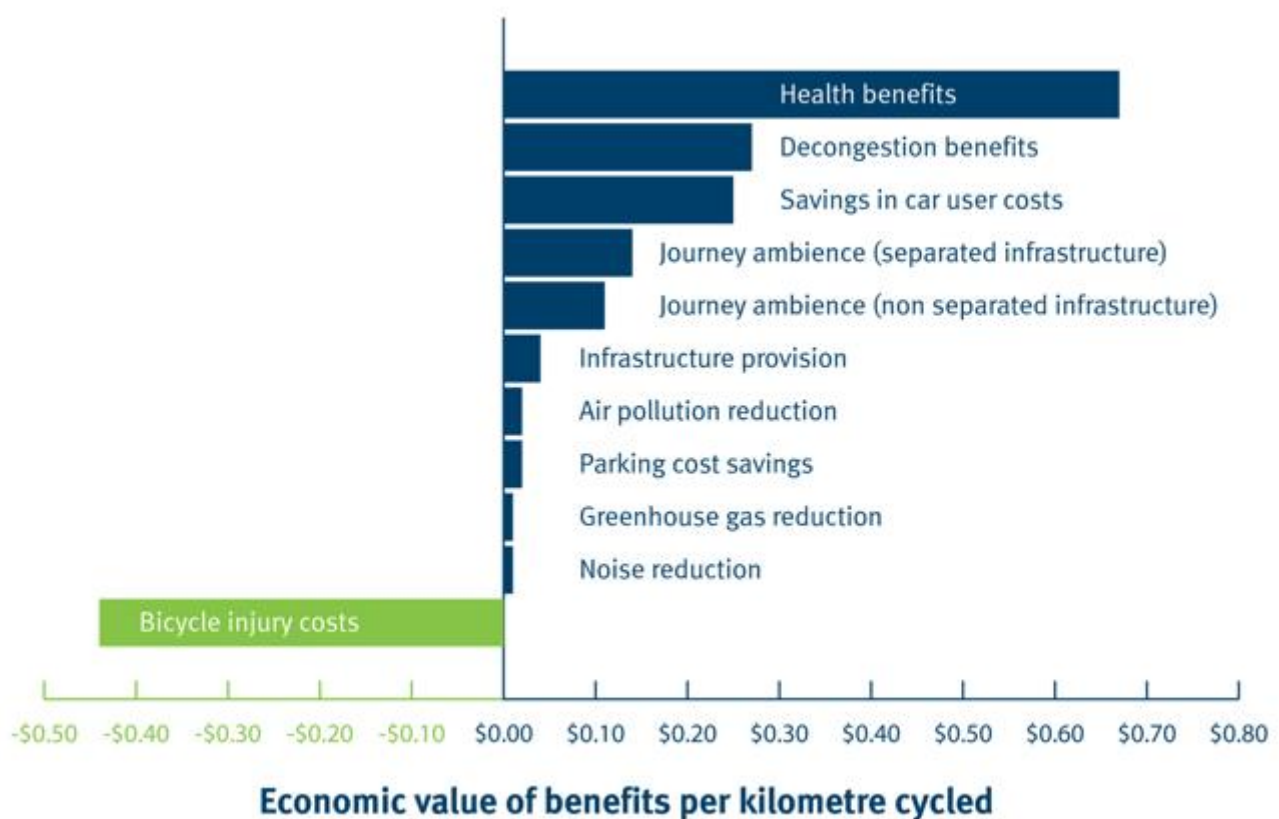


Figure 2: Economic Value of Benefits per Kilometre Cycled (Source: Queensland Cycling Strategy)

The graphic below highlights some the benefits of riding bikes.

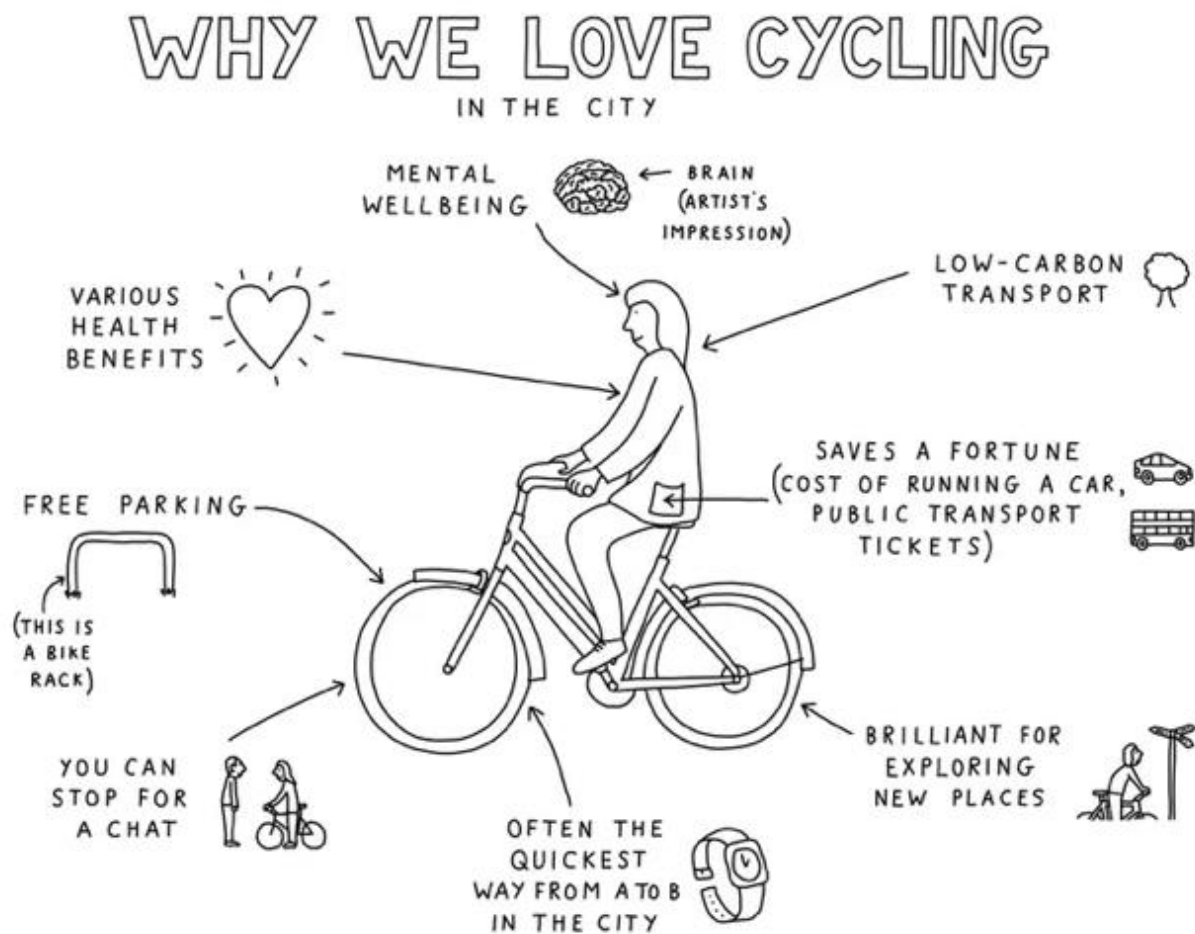


Figure 3: Why We Love Cycling (Source: The Cycling Cartoonist, Guardian)

1.2 What are bike sports?

The Cycling Victoria State Cycling Strategy 2016 to 2026 defines the different bike sport disciplines and its events. These descriptions don't cover recreational riding.

Road Cycling

- Road race – conducted on roads and course varies in length, from 5km – 260km
- Criterium – event conducted around a tight technical circuit, which varies in length from 0.8km – 3 km lapping over a specific time period
- Individual time trial – an individual event in which participants are given a specific start time and complete the distance in as short a time as possible
- Multi-stage races – typically called tours (i.e. Tour de France) and have any number of stages and / or days.



Track Cycling

- Time Trial – conducted over 500m – 1,000m and completed in as short a time as possible
- Points race – points are accumulated by riders through a series of sprints
- Individual pursuit – two riders start on opposite sides of the track and attempt to catch one another over a distance of 2 km – 4 km
- Teams pursuit – similar to the individual pursuit but raced in teams of four over 3km – 4 km
- Madison – two riders compete in a team over a prescribed number of laps
- Handicap races – usually run over 2 km and as the name implies riders are given a ‘head start’ depending on their ability
- Scratch race – riders commence from the same starting point and event is typically 5 km – 20 km in length
- Team Sprint – involves two teams of three cyclists competing over three laps of the track and the teams start on opposite sides of the track
- Omnium – An omnium is a multiple race event
- Elimination – Participants are eliminated throughout the event after specific sprint points.



BMX (Bicycle Moto Cross)

- Freestyle – riders utilise skate parks, half pipes, dirt jumps and flat smooth surfaces for performing tricks
- Track racing – While there is no single standard design for a BMX track they are generally 300 m – 400 m in length. Each race is started with a group of up to eight competitors, generally matched by age or ability.

Mountain Bike

- Downhill – is a time trial event in which riders descend as quickly as possible down a designated trail. Within the Downhill category there are a number of different events that include Individual Downhill, Mass Downhill, Four Cross and Dual Slalom.
- Cross Country – There are timed downhills and untimed uphill, with racing conducted over a series of special stages and whoever has the fastest combined time after those stages wins. Within the Cross Country category there are a number of different events that include Cross Country Olympic, Marathon, Point to Point, Short Track, Time Trial and Team Relay.



Cyclo-Cross

- Combines a number of elements from cross country mountain biking cycling and criterium racing. Races are conducted over a number of laps of a circuit. The circuit combines a number of different elements such as short steep ascents where the cyclist carries the bicycle, bitumen track, grass track and mud
- The course must form a closed circuit of a minimum length of 2.5 km and maximum 3.5 km, of which at least 90% shall be rideable. Due to the nature of cyclo-cross there is no prescriptive type or number of obstacles for a circuit. Often demountable obstacles are created for events.



Gravel Racing

- One of the newest bike sport disciplines. Gravel racing is a long-distance race on gravel roads and tracks often over 100 to 250km with mass starts.
- Bikes and courses in gravel racing vary widely, from road bikes with wide tyres on smooth gravel roads to bikes similar to mountain bikes used on courses that are more technical trails.



1.3 Bike Sport Structure

AusCycling is the peak body combining all cycling disciplines in Australia. Cycling Australia Mountain Bike Australia and BMX Australia together with their state/territory subsidiaries (3 national and 16 state organisations) have been dissolved to form AusCycling, the national body that now governs all of cycling in Australia.

AusCycling represents the interests of affiliated cycling clubs and its individual members. AusCycling covers the disciplines of road, track, mountain bike, cyclo-cross, BMX, BMX freestyle, e-cycling sports, para-cycling, and recreational and commuter riding. AusCycling represents the interests of all levels of bike sport from grassroots to elite – high performance.

The vision of AusCycling is to make Australia a nation of bike riders, to advocate for riders' safety, build strong club communities and to make all forms of cycling accessible to everyone be it on a track, off a jump, in the great Australian bush or on the road.

In 2022, AusCycling represents over 54,000 members and 400 cycling clubs across BMX Racing, BMX Freestyle, Cyclo-Cross, Esports, Mountain Bike, Para-Cycling, Road, Track and Lifestyle (recreational and commuter) riders throughout Australia.

The AusCycling model:

- Centralises administration, improves operational efficiency and resourcing, and builds capacity in the organisation from racing administrators to also be a strategic and advocacy body
- Consolidates Australian cycling to create a sport more appealing to commercial partners
- Provides a simplified and consistent membership model to riders
- Simplifies rider licensing. A rider can purchase whatever license they need (single or multi-discipline) from one body rather than having to visit multiple organisations
- One insurance policy to cover all cycling disciplines. This affords AusCycling a better negotiating position to attract a more affordable policy for clubs and members.

AusCycling is a member of the Union Cycliste Internationale (UCI) and the Oceania Cycling Confederation (OCC). It is recognised by the Australian Government, the Australian Olympic Committee, the Australian Commonwealth Games Association and the Australian Paralympic Committee.



Figure 4: AusCycling Structure (Source: Auscycling)

2. Strategic Review

This section provides the strategic context for the Maribyrnong Bike Sports Strategy.

What are the strategic objectives for bike sports in Maribyrnong?

2.1 Maribyrnong City Council Strategies

The Maribyrnong City Council has prepared a series of strategies that support the development bike sport facilities in Maribyrnong.

Maribyrnong City Council – Council Plan 2021-2025

The Council Plan incorporates the Municipal Public Health and Wellbeing Plan. Key strategic objectives are:

Safe Climate and Healthy Environment – Council will proactively identify opportunities to support a return to a safe climate and healthy environment and work with our community to respond to climate emergency challenges.

Liveable Neighbourhoods – Council will partner with its community to provide and advocate for integrated built and natural environments with access to open spaces that are well maintained, engaging, accessible and respectful of the community and neighbourhoods.

A Place for All - Council will provide well-planned neighbourhoods and a strong local economy, delivering services that are inclusive and accessible to the whole community, and that support wellbeing, healthy and safe living, connection to the community, and cultural interaction.

Future Focussed – Council will plan and advocate for new infrastructure and safe, sustainable and effective transport networks and a smart innovative city that encourages and supports new generations to thrive.

Ethical Leadership – Council will proactively lead our changing City using strategic foresight, innovation, transparent decision- making and well-planned and effective collaboration and community engagement to support community and economic growth during the ongoing challenges of the pandemic and beyond.

The objectives of the Maribyrnong Bike Sports Strategy aligns with Maribyrnong City Council's Council Plan 2021-2025 objectives. More people riding bikes on a connected network of on road bike routes, off road bike trails and bike sport facilities will:

- Improving the health of all the community with cycling being a pursuit that benefits all ages, abilities and cultures
- Deliver an integrated, sustainable and integrated transport network that is safe, inclusive and delivers an environmental benefit to Maribyrnong with less car trips reducing carbon emissions

Maribyrnong City Council – Bicycle Strategy 2020-2030

The *Maribyrnong City Council Bicycle Strategy 2020-2030* includes the following references to recreational riding under "Strategy 2: Package bicycle facilities with government, Council and private investor investments". These actions will be responded to within the Bike Sport Strategy:

Target: Increased recreational cycling in the City:

- Explore opportunities for an additional learn-to-ride area in the north part of the city, such as at Robert Barrett Reserve adjacent to the skate park or McDonald Reserve
- Prioritise access to a pavilion space for a cycling club specifically encouraging female and junior membership
- Continue to install three bicycle maintenance stations annually
- Investigate feasibility of a cycle track around an oval, and an all-inclusive bike hub at a suitable location including access for disability service agencies to provide cycle training at a suitable location".

The development of bike sport facilities has been opportunistic. This strategy will develop a strategic approach to developing a complementary network of bike sport facilities that support the growth of bike sports within an agreed framework of provision.

The strategy includes a map of the existing and proposed on road and off-road bike path network and includes connections to neighbouring municipalities. These maps are supported by a series of major projects that show how the trail network will connect to major activity centres, schools and open spaces (parks and sports reserves).

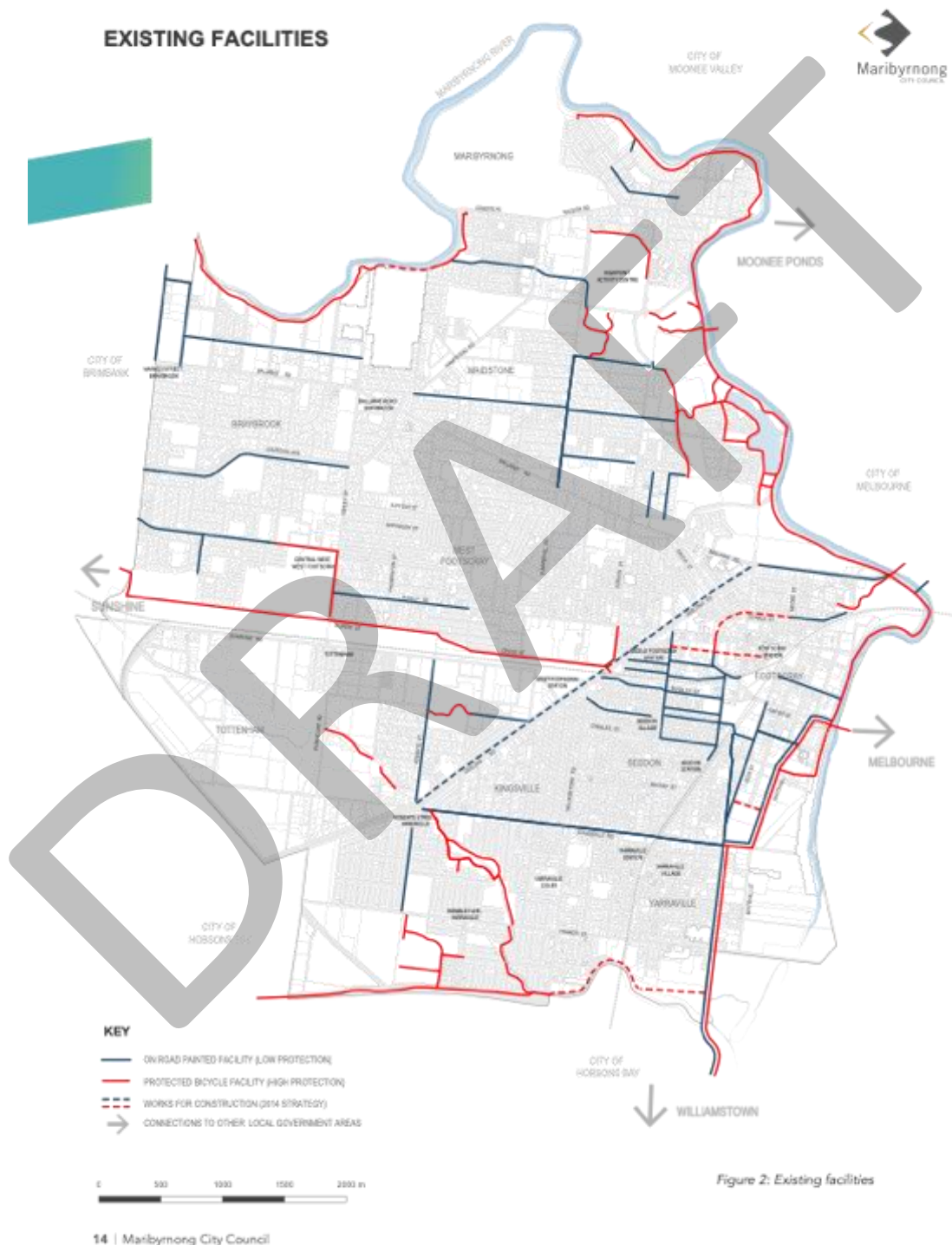


Figure 2: Existing facilities

Figure 5: Existing Bike Path Network (Source: Maribyrnong Bicycle Strategy)

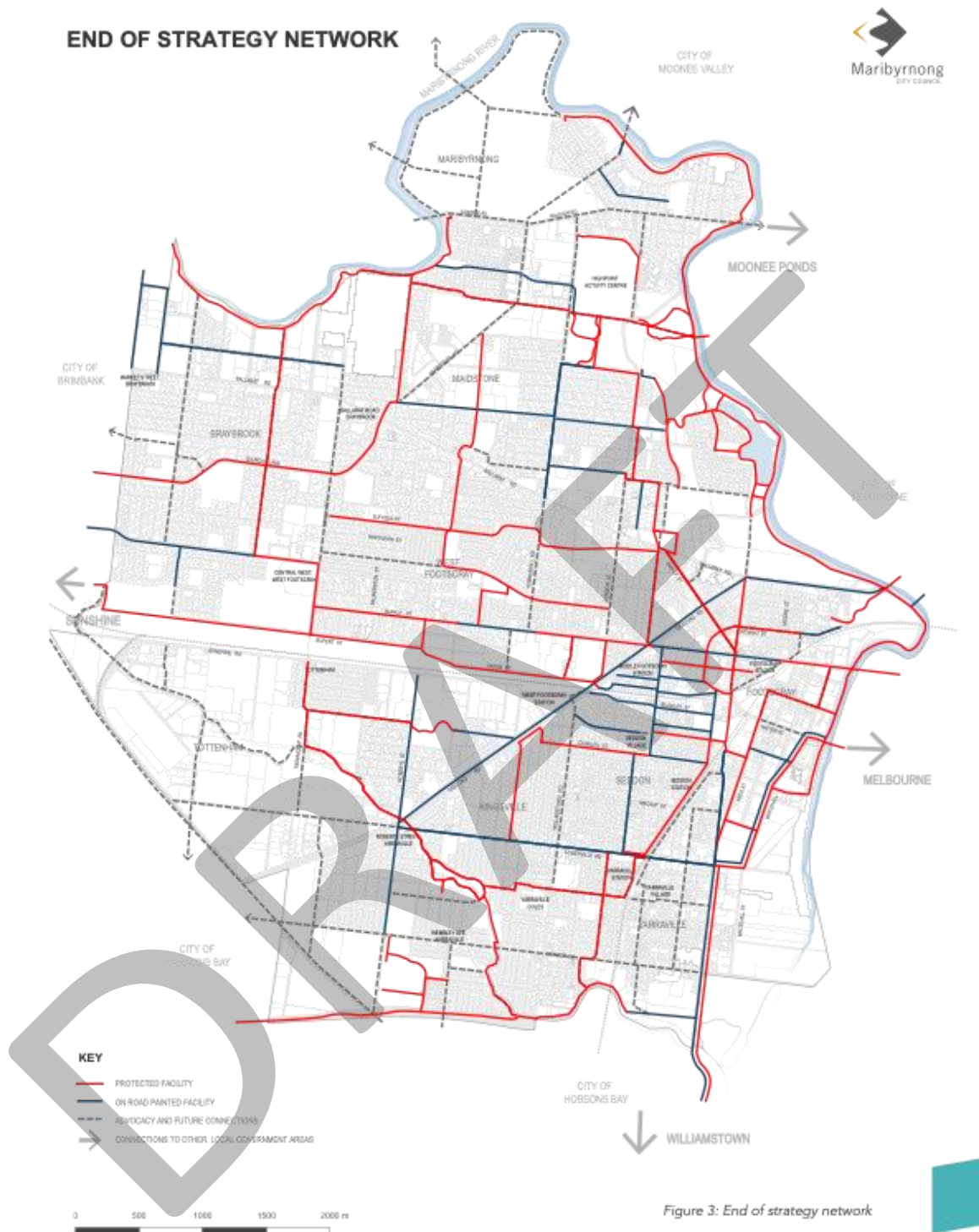


Figure 6: Proposed Bike Path Network (Source: Maribyrnong Bicycle Strategy)

The proposed bike path network is aligned to the State Government’s Principal Bike Network and Strategic Cycling Corridors.

In response to the Bicycle Strategy, Council has installed 40km of bike paths across Maribyrnong as part of their commitment to encouraging bike riding as a safe mode of transport to access services and facilities. In the 2022 budget, \$6.947 million has been allocated toward developing and upgrading pedestrian and bike paths. This gives confidence to the interconnection of these paths with current and potential bike sport facilities.

Maribyrnong City Council – Integrated Transport Strategy 2012

The Integrated Transport Strategy supports the development of cycling infrastructure to encourage safe, equitable and sustainable travel of Maribyrnong residents.

Key objectives of the Strategy are to improve opportunities for cycling, improving connections to public transport, reducing greenhouse gas emissions and improve air quality through efficient improvements, and informing people about their travel choices.

Maribyrnong is recognised as being well suited to cycling as a mode of travel, being relatively flat and within its eastern boundary being only four kilometres west of Melbourne's CBD. It is a low-cost and sustainable form of transport. More people cycling will reduce traffic congestion and carbon emissions, and provide convenient access to destinations within and outside Maribyrnong.

Key actions for cycling include:

- Updating the Maribyrnong Bicycle Strategy 2004. This has been achieved with the release of Maribyrnong Bicycle Strategy 2020-2030.
- Undertake cycling audits along key routes and public transport interchanges and identify infrastructure and traffic management opportunities to improve safety and connectivity for cyclists of all ages and abilities.
- Work with VicRoads to increase road space allocation for cyclists, ensure adequate separation of cyclists from car and truck traffic and examine opportunities for grade separation of intersections
- Completing a safe and connected cycling network including completing missing links, implementing the Principal Bicycle Network and extending off-road shared trails network
- Provision of secure, undercover bike storage, lockers and showers in homes, workplaces and institutions through planning reform and partnering with business and developers
- Promote cycling awareness and provide recreation cycling opportunities for residents. This includes identifying local streets to implement Ciclovía or other cycling-focused events on a regular weekly basis and working with Victoria University, RACV and other relevant bodies to extend the Melbourne Bike Share scheme into Maribyrnong.

The strategic intent of these actions will be considered as part of this Strategy.

Maribyrnong City Council – Open Space Strategy 2020 Update (5 Year Review)

The Open Space Strategy provides a strategic direction for the future planning, provision, design and management of open space in the City of Maribyrnong from 2013 to 2031. A 5-year review was conducted in 2020 to identify what improvements have been completed, what actions are in progress and what remains to be done.

The map below shows the existing and proposed open space areas. There are no references in the Strategy to new bike sport facilities, outside those supported in master plans. These include Quarry Park Master Plan and Hansen Reserve Master Plan.

The outcomes of this bike sports strategy should be considered for incorporation in the 2025 review of the Open Space Strategy. Opportunities to incorporate bike sport facilities at proposed regional and municipal open spaces should be explored.

Open space network

Overview

Each open space has a unique role in the network, influenced by its urban context, location, size, use and character. The role, character and distribution of each open space has been assessed and mapped which forms the basis of understanding the existing open space network, identifies deficiencies and informs what needs to change in the future.

Role

Regional open space has a broader context with values and facilities that are intended to be used or contribute to values which extend beyond the municipal boundaries. This can include its recreational, cultural and environmental significance. Examples include Maribyrnong River Valley Reserve, Footscray Park and Pipemakers Park.

Municipal open space is primarily for the City of Maribyrnong community and mainly provides structured sporting facilities or other recreation and social facilities that attracts people to travel to it beyond their local neighbourhood or suburb. Examples include Yarrville Gardens and Braybrook Park.

Neighbourhood open space provides for a diverse range of social and unstructured recreation facilities for the neighbourhood within a 400 metre walkable catchment. Examples include Pritchard Reserve and Alex Beaton Reserve.

Local open space provides for two to three activities and uses for the community within a 300 metre walkable catchment. Examples include Beavers Reserve and Costello Reserve.

Small Local open space provides intimate spaces with one or two activities and uses for the nearby community within a 200 metre catchment. Examples include Bristow Reserve and Little Saigon Plaza.

Distribution

A key objective is to provide open space within an easy and safe walking distance of the existing and forecast community. A 500 metre walkable catchment is applied to all Regional and Municipal open space, reflecting the use of neighbourhood level facilities in these major reserves. A 400, 300 and 200 metre safe and easy walkable catchment is used for Neighbourhood, Local and Small Local open space. The areas outside the walkable catchments are referred to as gap areas in the Strategy and are shown as white in Figure B.

Character

The larger parks, gardens and reserves across the City have a range of characters. These vary from formal historical gardens with a European character to natural wetlands and bushland areas along the Maribyrnong River. They provide space for organised sports, childrens play, informal recreation, spaces to relax and unwind and places to meet and socialise. A range of character types describe the variety of open spaces in the City.

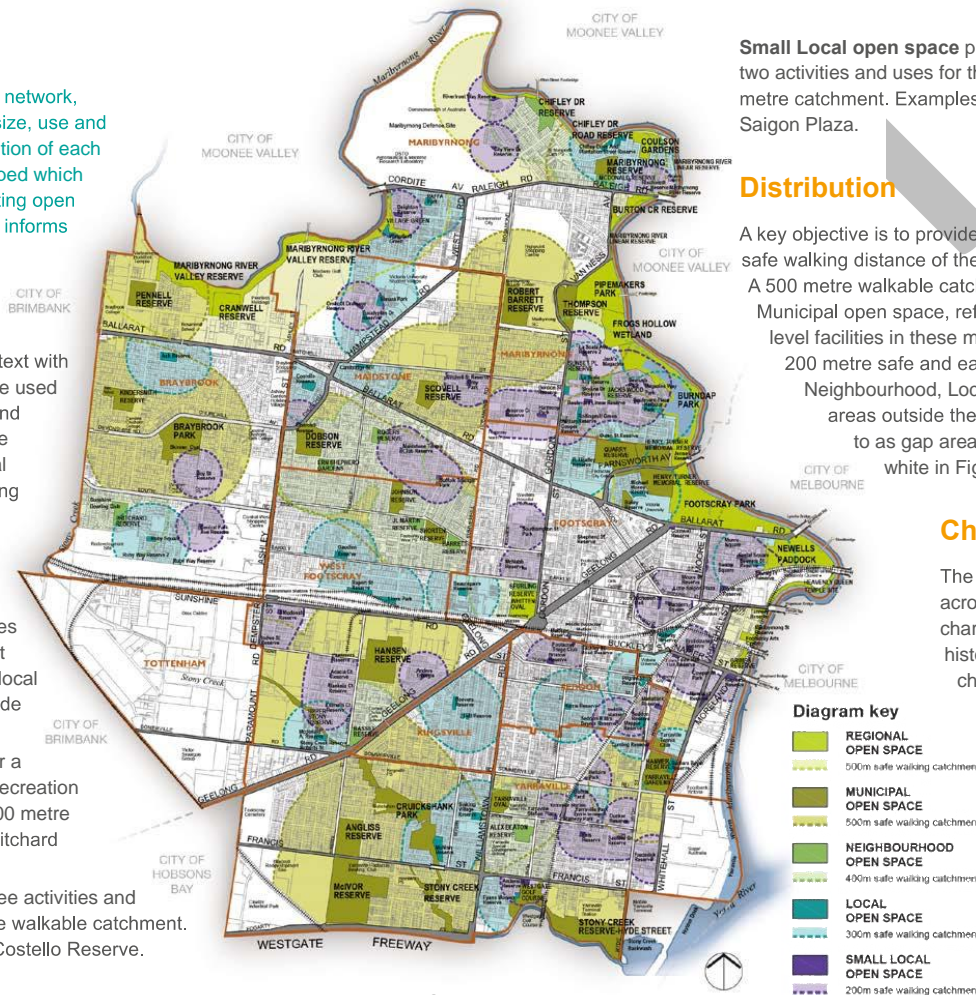


Figure B Gap Analysis

Figure 7: Maribyrnong Open Space Network (Source: Maribyrnong Open Space Strategy)

Overall directions – proposed additional open space

Proposed additional open space

Additional Regional open space

The additional Regional open space is the linear open space corridor along the Maribyrnong River through the Maribyrnong Defence Site and the recently purchased land through Medway Golf Club.

Additional Municipal open space

The additional Municipal open space on the Maribyrnong Defence Site is primarily catering to the future community that will live and work on that site and in the Highpoint Activity Centre. The additional Municipal open space on the existing Footscray Hospital site is the preferred location for catering to the structured sporting needs of the forecast growth in Footscray and West Footscray. An alternative location in Tottenham/West Footscray would be sought if the Footscray Hospital site is not feasible due to the large land parcels remaining in that area which have potential for a larger area of open space to be established there.

Additional Neighbourhood, Local, Small Local open space

Refer to the precinct summaries for more information on the intent and purchase of each proposed new open spaces.

All the additional open spaces shown on this plan are diagrammatic only and

indicative of the general location and relative, not actual size. The final location, size and configuration of new open space will be determined during the Strategy implementation and will be influenced by factors such as the rate of population growth, land acquisition opportunities, surrounding land use change, urban layout, open space design and community feedback.

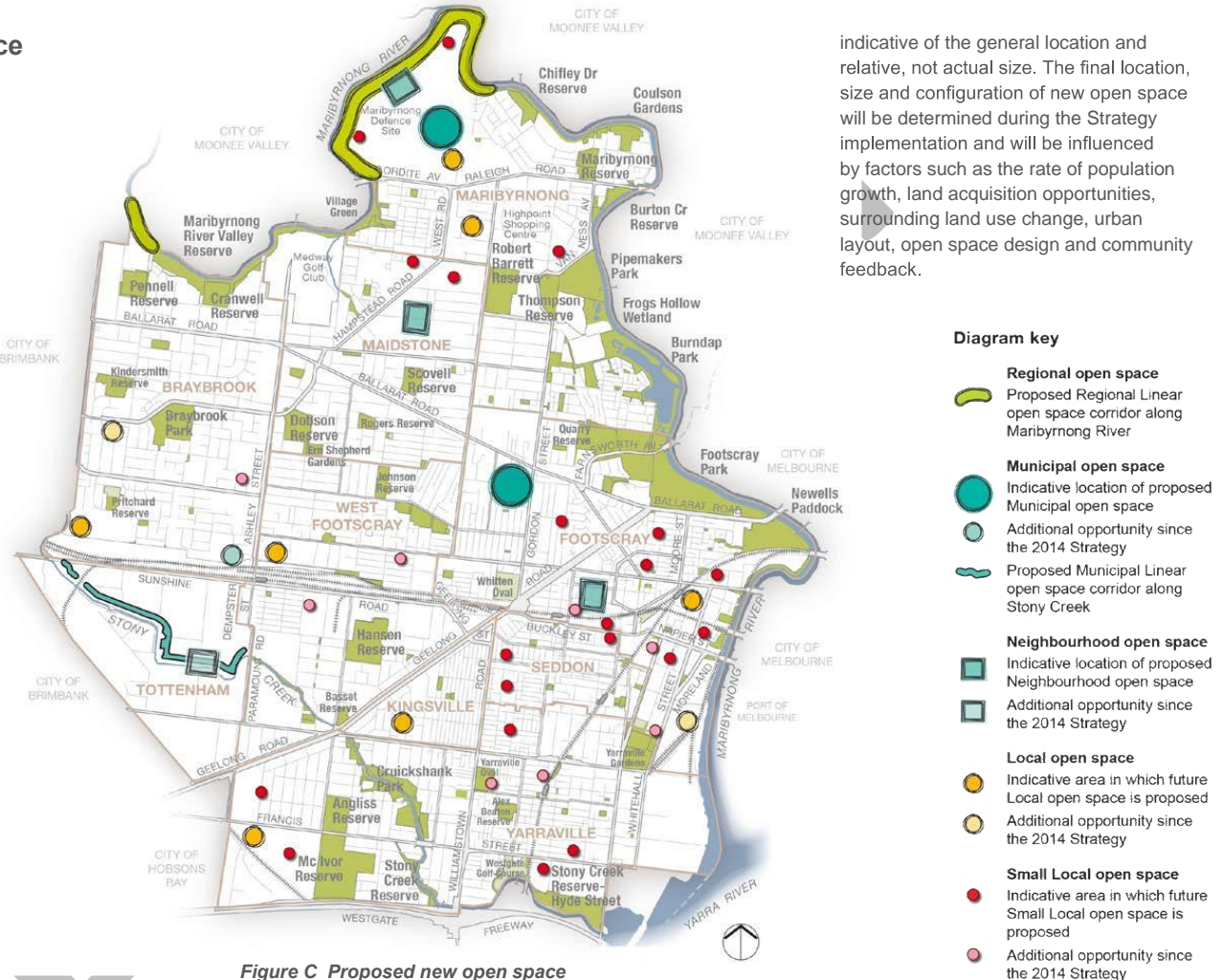


Figure C Proposed new open space

Figure 8: Proposed Additional Open Space in Maribyrnong (Source: Maribyrnong Open Space Strategy)

Maribyrnong City Council – Stony Creek Future Directions Plan 2020

The Stony Creek Future Directions Plan supports improving and extending the BMX track with enhanced skill features and landscape setting / tree planting at Cruikshank Park.



Figure 9: Proposed Additional Open Space in Maribyrnong (Source: Stony Creek Future Directions Plan)

2.2 Regional Strategies

The development of bike sport facilities in Maribyrnong will need to consider a regional context to avoid duplication. The following regional bike sport facilities are proposed to service Melbourne's west.

Lawrie Emmins Reserve Master Plan (Wyndham)

The Lawrie Emmins Reserve Master Plan proposes the development of a \$22.5 million cycling facility at the "regional" sports reserve. The facility includes a 1,800m long criterium track with lighting, 320m—420m long velodrome with lighting, 300m long pump track, BMX supercross track, traffic school track and a shared central pavilion and car park area. The proposed development is scheduled for development from 2023 to 2030 in the master plan implementation plan. The facility is strategically supported by the master plan and Wyndham Sports Strategy.



Figure 10: Lawrie Emmins Reserve Master Plan

Sunshine Energy Park is 44 hectares vacant land that was previously a basalt quarry and landfill site. Brimbank City Council is now undertaking remediation works to clean up the site and regenerate the site as a public open space reserve. The vision for the site is to transform it into one of the western region's premium parks. The proposal includes a regional bike sport facility with criterium track, velodrome, pump track, and BMX track.

The Ardeer Green Activity Hub Master Plan proposes the development of 3km of mountain bike cross country single track, a 300-400m long BMX Track, a criterium track through refurbishing and re-aligning the existing M80 path, a dirt jumps area suitable for different levels, a pump track and bicycle education centre that includes bike hire, club house and educational facilities.



West Trails 2017

West Trails is the Western metropolitan Region's Trails Strategic Plan. It is a strategic approach to improving the quality and usage of regional trails in Melbourne's West across six local government authorities. These are Brimbank, Hobsons Bay, Maribyrnong, Melton, Moonee Valley and Wyndham. Sport and Recreation Victoria was a funding partner.

Regional trails were defined by those trails that allow for multiple user groups (pedestrians and cyclists), are off road, relatively long and continuous in length and are of a regional scope, purpose and impact. Other key characteristics include off road trails that support transport, recreation, deliver an economic benefit and improve ease of access for residents and visitors across the region.

There were 19 existing and proposed regional trails identified by the study. Of these trails, all but two existed to some degree with the exceptions of future trails associated with the Outer Metropolitan Ring Road and Western Freeway Trail. Of those that exist, most have scope for future construction to extend or fill a gap.

The map below shows the existing and proposed regional trails.

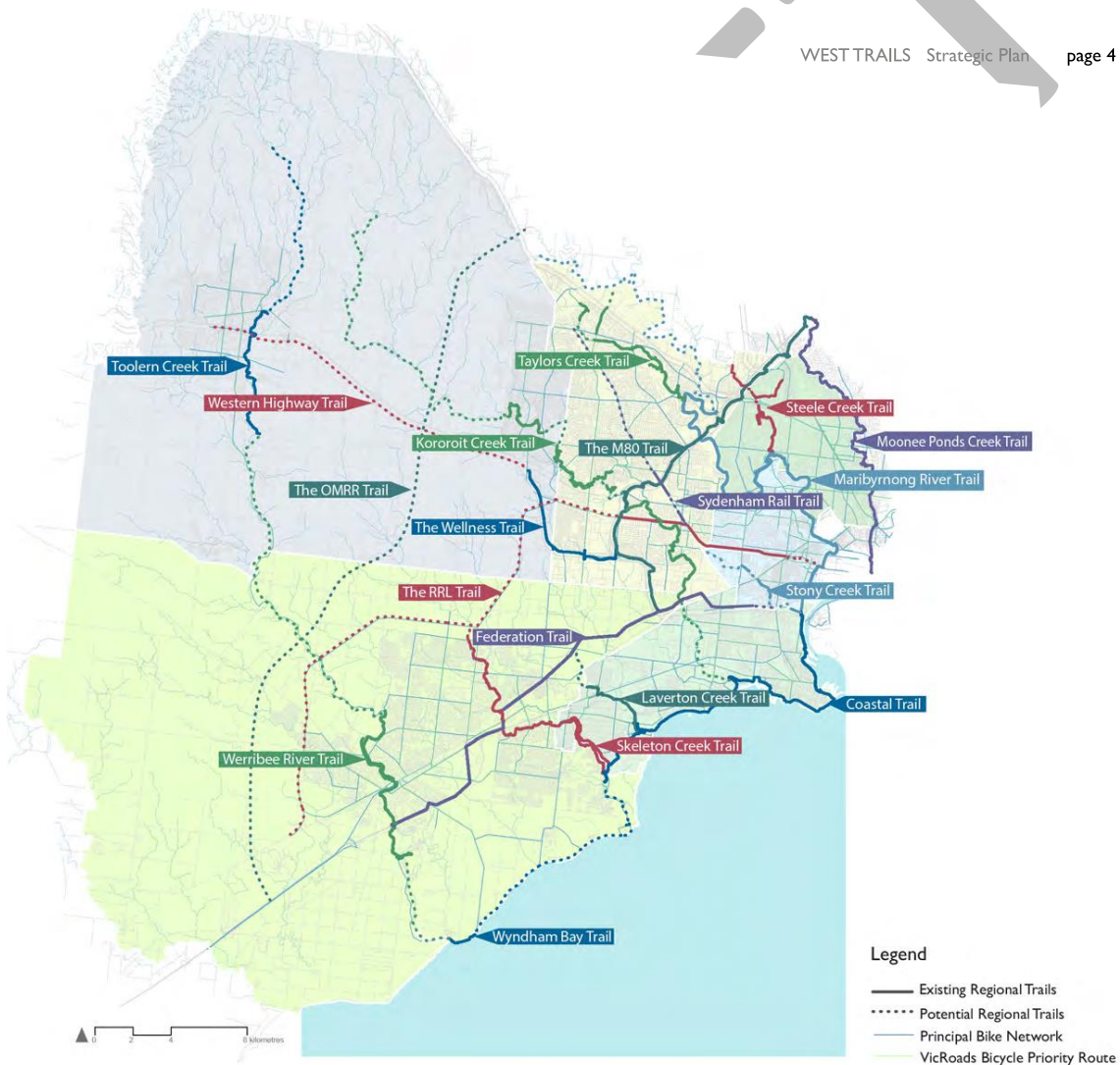


Figure 12: West Trail – Regional Trails Network

2.3 State Government Strategies

Victorian Government – Active Victoria 2022 -2026

Active Victoria is the Victorian Government's strategic framework for sport and recreation in Victoria. The framework aims to reset the sector following the Covid 19 global pandemic, build on the existing foundations for the state to be recognised as the nation's sporting capital and to deliver a more active Victorian population.

The vision of Active Victoria is to build a thriving, inclusive and connected sport and active recreation sector that benefits all Victorians. The framework includes twelve key directions:

1. Increase and promote opportunities so Victorians can participate in ways that suit them.
2. Target efforts towards individuals and communities who participate less.
3. Improve community sport and active recreation infrastructure coordination to better meet demand, with a focus on areas and populations who need it most.
4. Deliver inclusive, multi-use and sustainable community sport and active recreation infrastructure.
5. Attract and retain a skilled sport and active recreation workforce (paid and unpaid).
6. Promote more financially sustainable organisations that reduce duplication and inefficiencies in service delivery.
7. Implement frameworks to create safe and inclusive sport and active recreation settings.
8. Build insights through better use of evidence and data.
9. Develop a world-leading suite of major stadium and state facilities.
10. Connected and co-ordinated pathways exist to pursue sport at the highest level.
11. Invest in state infrastructure that can host international and regional events and support event content that boosts the Victorian economy.
12. Partner to maximise leverage from investment in Victoria's major events.

This study responds to the strategic directions outlined above, and directly aligns with the identified need to increase participation and deliver multi – use sustainable community sporting infrastructure. Specifically, bike sport facility projects will be eligible for funding under the Local Sport Infrastructure Program.

Strategic Cycling Plans

The Principal Bicycle Network (PBN) is a network of existing and proposed cycle routes identified to help people ride to major destinations around metropolitan Melbourne. The plan was developed in 1994 and reviewed in 2012 with a focus on getting people into activity centres and to make more use of local roads and off-road paths.

The Bicycle Priority Network (BPR) are priority sections of the PBN. They identify routes that will be elevated to a higher order of priority for bikes. The main objective is to separate bikes from motorised traffic. BPRs are identified on VicRoads' SmartRoads Road Use Hierarchy maps for each of Metropolitan Melbourne's local government areas.

Strategic Cycling Corridors (SCC) are recent additions to bicycle network planning in metropolitan Melbourne. SCCs are part of an initiative in *Plan Melbourne 2021 – 2050* (Victorian Government's Land Use Strategy) to 'Support Walking and Cycling in Central Melbourne'. They are corridors developed to improve cycling to and around major activity centres in metropolitan Melbourne and can cater for the highest cycling volumes. They are a subset of the PBN. Work is underway to identify SCCs in the central subregion of metropolitan Melbourne (Maribyrnong, Melbourne, Port Philip, Stonnington and Yarra).

The Metropolitan Trail Network (MTN) focuses on recreational bicycle and walking routes in metropolitan Melbourne. These trails usually run beside rivers and creeks and connect with the Metropolitan Parkland Network. The initial development of the MTN was set out in Parks Victoria's *Linking People and Spaces 2002* and has since been reviewed and extended further.

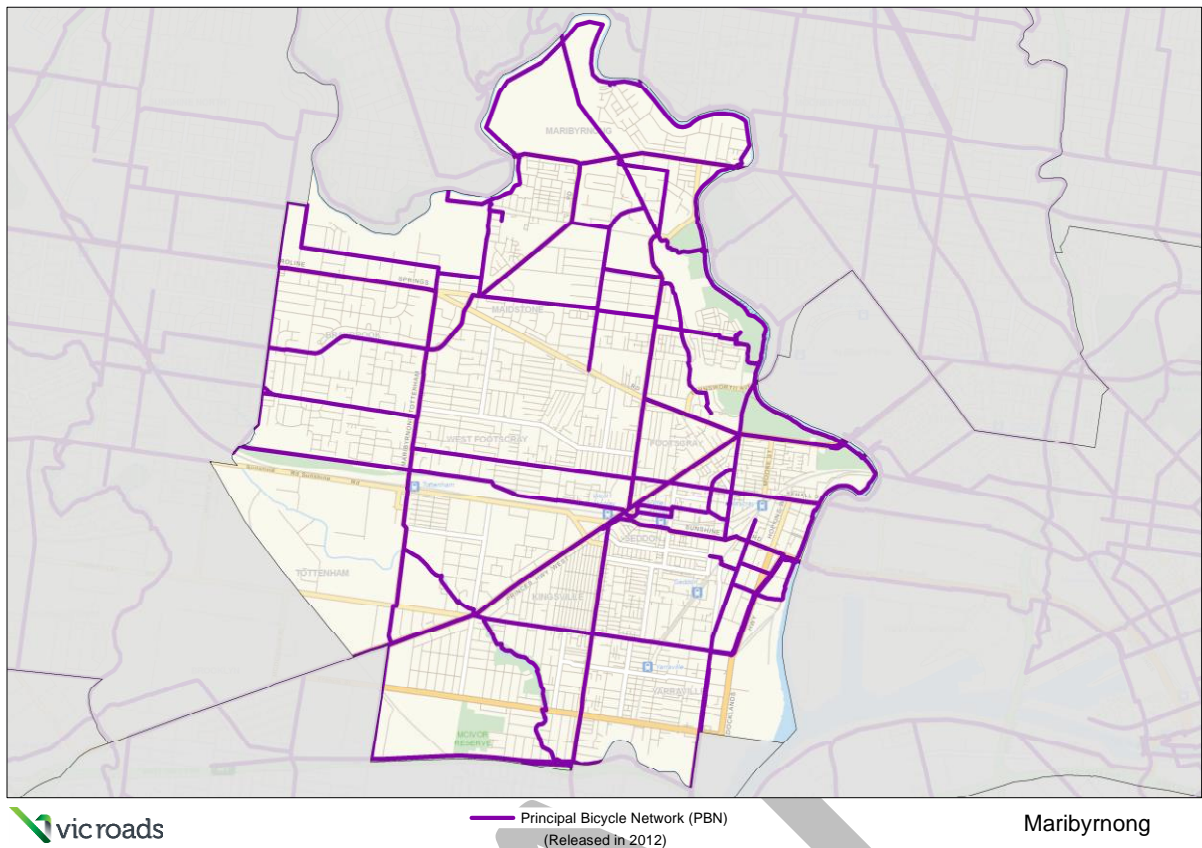


Figure 13: Maribyrnong Principal Bicycle Network Plan

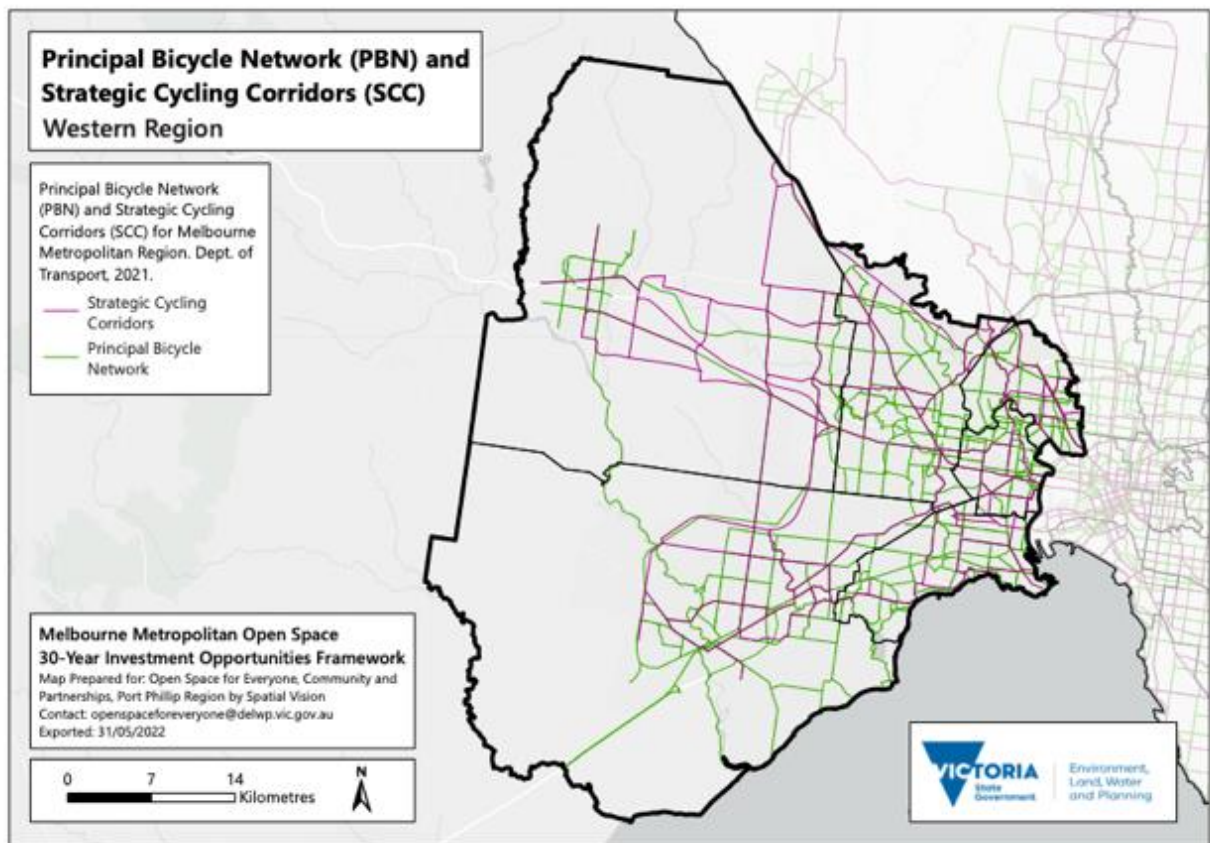


Figure 14: Melbourne West Principal Bicycle Network and Strategic Cycling Corridors

2.4 Peak Sports Bodies Strategies

Cycling Victoria State Facilities Strategy 2016 – 2026

The *Cycling Victoria State Facilities Strategy 2016 – 2026* was developed to with other peak bike sports bodies to improve the planning and maintenance of bike sport facilities; and to partner with local government and clubs.

The strategy recognises that most investment made to cycling infrastructure has been directed towards the development of bike lanes, paths or commuting. Improvements to bicycle lane infrastructure allow riders to navigate in a generally safer environment and is welcomed. However, many sporting cyclists travel at speeds that are higher than the norm for bicycle lanes. Therefore, consideration and planning for training routes and bike sport facilities and tracks are important for competitive cyclists.

The strategy identified the following:

- The proportion of cycling participants who are registered active club members is 2.5%.
- Metropolitan cyclists indicated they were willing to travel a reasonable distance to access facilities.
- Existing provision in metropolitan Melbourne was: 18 BMX facilities (11 local; 5 municipal; and 2 regional); 12 track facilities (2 regional criterium circuits; 8 regional velodromes; 2 State velodromes); 3 mountain bike facilities (2 local; 1 State); There were no cyclo-cross tracks and 9 recognised road circuits
- Footscray Cycling Club conduct their off-road circuit racing at Victoria University's Hoppers Crossing Campus training track. The Club have been advised they will no longer be able to use the track, therefore the Club has a need for an off-road circuit in the medium to long term due to their forced relocation.
- There are only two regional level off road circuits in Melbourne, both are situated in the south-east. There is no state level off road circuit in Melbourne. With the loss of the on road criterium circuits used by St Kilda Cycling Club and Footscray Cycling Club there is a need for these facilities to be replaced.

The strategy recommends:

- Adoption of key facilities policies and initiatives: Upgrading existing facilities should occur in a more regular structured process
- Modernisation of current facilities to cater for all: Development or upgrade of facilities should ensure a focus inclusion, with specific importance to universal design and appropriate facilities for encouraging female participation
- Provision of off-road training and racing facility network: Position cycling facilities to benefit from existing cycling infrastructure where practical, such as bike track network for access
- Multi-use and integrated facilities: Where possible facilities should combine cycling disciplines, ability levels and consider the needs of spectators and supporters. Further, integration of cycling facilities into a shared precincts sharing infrastructure where practical such as clubrooms, change facilities, café or car parking
- Providing 'Homes' for cycling clubs: Provide a geographic 'base' for cycling club activities allowing for club growth through greater participation
- Recognition of the development of cyclo-cross and BMX facilities: Cyclo-cross provides a unique low cost option to allow participation in cycling. Further investment in the provision of cyclo-cross facilities is required
- Provision of off-road training and racing facility network: The provision of a network of off-road facilities (commonly termed criterium circuits) to provide for a growing demand of participation.

Specific recommendations for Maribyrnong include:

- A regional level off-road circuit is developed in the west of Melbourne preferably within the Brimbank, Maribyrnong, Hobsons Bay and Wyndham region
- Development of cyclocross specific courses through the metropolitan area.

Victorian Mountain Bike Strategy 2021

AusCycling released the *Victorian Mountain Bike Strategy 2021* to guide the development of mountain bike riding across Victoria.

The strategy identified the following:

- Trail networks close to major population centres are used most frequently and have high repeat visitation.
- Many LGAs and clubs reported increased usage of trail networks within their jurisdiction over recent years, particularly during the COVID-19 pandemic. Trail count data collected from multiple trails within a trail network, indicated a 45% average increase in trail passes from 2018 to 2020.
- An increased demand for urban bike parks including pump tracks was also noted amongst LGAs. This is consistent with industry trends with many pump tracks recently constructed in Victoria either as standalone facilities or to complement existing bike and skate facilities.
- There is over 1,300km of single mountain bike tracks with 59% of tracks cross country, 31% all mountain / endure and 11% downhill. There is a desire by mountain bike users for more all mountain / endure, flow, gravity, adventure, freeride and adaptive trail types.
- Riders will travel to other regions at least once per month and most are willing to travel up to 2 hours from home for a day trip and 5 hours for a weekend trip.
- There is an opportunity to cater for the significant mountain biking demand in Melbourne. Local and Regional scale mountain bike facilities should have a particular focus on catering for recreational rides and skill progression as well as being dispersed throughout metropolitan Melbourne. Facilities to cater for this demand can include trail networks, pump tracks, skills parks and jumps parks. Co-location with existing facilities, especially sports precincts and skate parks can create a hub of activity and participation.

2.5 Proposals

There have been various proposals presented to Maribyrnong City Council by bike sport stakeholders. Most of these have been submissions prepared by Bike West, an advocacy group seeking improved access to bike sport facilities, on-road and off-road trails in Melbourne's west. The presentation of these proposals is evidence of a perceived need to improve facilities in Maribyrnong. This has in part led to this Issues and Options Report to ensure Council is responding to community proposals in a co-ordinated and strategic manner.

@Leisure – Pipemaker's Park Cycle Sport Prefeasibility 2021

A prefeasibility study to providing new off-road bicycle facilities in Pipemakers Park was undertaken. The study was prepared in consultation with Bike West, AusCycling and the Living Museum of the West.

Pipemakers Park was opened in 1988 following a bicentennial grant in 1987 to develop the site. The park has some of the oldest and most substantial early industrial structures associated with technological innovations in manufacturing. It is a historically significant place.

Maribyrnong City Council was appointed the Committee of Management in 2014 from Parks Victoria for Pipemakers Park and Frog's Hollow Wetland. A park master plan was adopted by Council in October 2015.

The study also investigated the potential of bike facilities at Jacks Magazine. Jacks Magazine is a 19th century blue stone and gun powder storage buildings with associated earth mound blast walls tunnels tramways service buildings loading dock and canal. It is a historically significant place.

Key findings:

- The proposal to provide new off-road bicycle facilities in Pipemakers Park would serve the immediate families with children, adults who already ride, the local schools (particularly Maribyrnong High School) and existing users who engage in bike-related activities

- In summary, there are pockets of the site where modest skill-based facilities could be situated without conflict, however the Living Museum of the West believe that it is not a suitable location for bike facilities. The entry to Jacks Magazine could be part of an off-road cycling circuit and a small bike skills area could be provided in the car park currently closed to cars in the south west of the Park.

Bike West proposes a mountain bike trail skills loop in Cranwell Gardens off the Maribyrnong River Trail. A trail alignment is proposed in the map below.



Bike West – West Cycle Centre Proposal for Quarry Park Master Plan

Bike West has made two proposals for consideration at Quarry Park:

The first proposal was for a multiuse running and cycling track as part of the Quarry Park Master Plan 2016. The path would be used for cyclocross events a few times a year and a running track like the Tan Track and Royal Park Track for the remaining times.

The trail would be designed as a wider gravel path (3m) instead of concrete paths with two small additional gravel paths in the south-west and south-east. The path would meet shared use path standards and could be adapted for cyclocross racing.

Cyclocross races were likely to feature in the autumn and winter and consist of numerous laps of a short (1.5 to 3.5km) course featuring pavement, wooded trails, grass, steep hills and obstacles that requires the rider to quickly dismount, carry the bike while jumping the obstruction and remount.

The proposed amendments to the *draft* Quarry Park Master Plan are sketched below.



Figure 16: Bike West Quarry Park Multi Use Trail Proposal

The second proposal took this original concept further and proposed a Western Community Cycling Hub (WCCH). The proposal shows evidence of cycling participation levels in decline, the benefits of more people riding, showcasing the latent demand for cycling and potential of a cycling hub that builds on the success of Quarry Park Mountain Bike Park.

The proposal is for a multipurpose cycling venue for all ages and ability levels and includes:

- A velodrome cycle track similar to that provided at Patterson reserve in Hawthorn
- An education area in the middle of the area similar to the Essendon Traffic School
- A conference centre for bicycle skills and maintenance courses similar to the Brunswick Velodrome Pavilion
- A multipurpose track for cyclocross and running.

The proposed amendments to the master plan are sketched on the Quarry Park Master Plan below.



Figure 17: Bike West West Cycle Centre Proposal



Figure 18: Examples of Proposed Bike Infrastructure Proposed by Bike West at Quarry Park

2.6 Research Findings

The Australian Cycling Economy 2021

We Ride Australia commissioned EY to prepare a report that estimates the size and scope of the Australian Cycling Economy in 2020. The study found:

- The Australian cycling economy engages with a broad range of participants with an estimated one in three Australian adults spending on cycling related goods or services.
- Cyclists engage in the industry as a means of sport and recreation, but also as a mode of transport to work or other commitments and as part of their tourism activities.
- The Australia cycling economy includes expenditure of participants on items such as new bicycles, accessories and equipment, servicing, bike hire, merchandise and media and subscriptions. It also includes local and state government expenditure on bicycle infrastructure and programs, bicycle organisation spend and private sector spend on logistics and end of trip facilities.
- Whilst the study focused on the economic contribution of the cycling industry, it is recognised that the physical activity benefits of cycling participation support broader health and wellbeing, social and productivity benefits to the Australian economy.
- Cycling as a mode of transport can also benefit local communities through reducing road congestion and providing a sustainable transport option.
- In 2020, the Australian cycling economy is estimated to have directly contributed to:
 - 6.3B direct industry output including,
 - \$3.4B direct value add supporting,
 - 34,295 direct jobs.
- The study shows the Australian cycling industry is significant and equal to the zone of the Australian thoroughbred racing industry and three times as large as the Australian motor sport industry.

Historical Research into Bike Ownership Study 2022

The findings of a recent global historical research study into bike ownership and use since the 1960's conducted by researchers from University of Southern Denmark was published by Communications Earth and Environment Journal on 18 August 2022 shows significant health and environment impacts of bicycle use.

The study found that:

- A worldwide pro-bicycle policy and infrastructure development that enabled modal shift like the Netherlands and Denmark can lead to significant climate and health benefits
- If people emulated the Netherlands or Denmark bicycle use patterns where Danes are cycling on average of 1.6 kilometres per day and the Dutch 2.6km per day, the world could reduce carbon dioxide emissions by up to 686 million metric tons per year. This opportunity exceeds the entire carbon footprint of most countries including Australia, the UK and Canada
- An estimated 0.34 and 0.62 million deaths could be prevented if the Danish and Dutch cycling patterns were followed globally
- People who cycle to work have a 45% lower risk of developing cancer and a 46% lower risk of cardiovascular disease
- 50% of the journeys we take each day are less than 3.2km long, all trips that could feasibly be swapped for bike rides
- Bike production has increased to over 123 million bikes. This is not translating to more people cycling as a proportion of global population. Bike journeys make up just 5% of daily trips worldwide.

The researchers call for an “urgent” expansion of cycling infrastructure worldwide noting that many places are not cycle-friendly. They point to lessons learned from successful cycle-friendly places in the world such in countries like Denmark and the Netherlands and particularly on a city level such as Copenhagen. Measures include redesigning streets to prioritise public transport, cycling and walking, investing in bicycle lanes, pro-bicycle education and culture and policies to discourage car use.

Case Study 1: Copenhagen

Copenhagen has consistently been recognised as being a cycle friendly city.

The European Mobility Atlas 2021 shows the 28% of all trips to, from or in Copenhagen are by bike. This increases to 44% of trips for education or work.

The Atlas reports Copenhagen investing in 248km of cycle routes with plans to expand this to 746km by 2045. The \$295 million euro investment is estimated to deliver \$795 million in social and economic benefits, a reduction in 1,500 tonnes of carbon emissions annually, 30% lower mortality for adults who cycle every day and 1 million fewer car trips and 6 million more bike trips annually.

The Visit Copenhagen (Official guide to Copenhagen 2022) features a series of articles on “What makes Copenhagen the world’s most bicycle friendly city”.

The articles include cycling statistics reported by Copenhagen Municipality:

- Copenhagen has been ranked the world's top cycling city several times
- Cycling accounts for 49% of all commuter trips
- Bikes outnumber cars in central Copenhagen
- 1.44 million kilometres were cycled per weekday in the city
- 180,000 bike spaces available
- There are now (2022) more than 382km of cycle tracks
- Dronning Louise's Bridge (one of a number of dedicated biking highway) is the most heavily trafficked cycling stretch in Denmark with more than 40,000 cyclist daily
- 1 in 4 Copenhagen families with two kids own a cargo bike
- Nine out of ten Danes own a bicycle
- 25% of all school children in Copenhagen cycle to school.

These outcomes show what is possible when we invest in designing a cycle friendly place.

Cycling in Copenhagen is prioritised in design and made to be easy, simple and safe. Cycling infrastructure include traffic calmed streets, painted bike lanes, separated cycle tracks, and “green” off road routes.

On residential streets, cyclists and cars share the roadway. To enable a safe roadway, the speed limit is no faster than 30km per hour with most 20km. Streets are also treated with a variety of traffic calming measures. By narrowing lane widths, tightening corner radii, and using textured surfaces.

Within busier neighbourhood streets, there are bike lanes separated by a painted line and using textured surfaces. Cars are expected to park in between the bike lane and car traffic, adding an extra level of protection between bicycle riders and cars.

The bicycle lanes are often separated by a curb. This simple design feature separates car traffic, bikes and pedestrians and provides all street users with an intuitive travel experience.

Along the more trafficked streets outside of the city centre, the curb separation has a buffer to improve safety and make riding more comfortable.

Running through parks, waterfronts, railway lines, and highways there are off street “green” trails that provide recreational routes and help connect the network to the on-street bike lanes. The design of these trails maintain a separation between pedestrians and bicycle riders through different surface colours.

There are dedicated cycleways including a series of bridges over canals that connect with the broader bicycle lanes and off street “green” trails network. The Bicycle Snake (Cykelslangen) is reported to attract more than 20,000 cyclists daily.

Many intersections have their own dedicated bike traffic signals that are afforded a couple seconds head start before the cars. The intersections also feature a rail, footrests, tilted garbage bins, cyclist counters and bicycle air pumps. Many busier intersections feature a set-back stop-line for turning cars (5m).

Every cycling trip ends with a parked bicycle space. There are now over 180,000 bicycle parks in the city.

The cycleways, bicycle lanes and off-street trail network connect with public transport and the design at public transport nodes make the transition from one mode to the other easy through provision of safe and secure parking and wayfinding signage.

In addition to infrastructure, the articles highlight a number of creative bicycle-friendly initiatives in Copenhagen:

- Children's traffic playground is a place for young and older kids to learn about road safety and traffic rules before heading out into the real traffic in Copenhagen
- The Danish Cycling Championships now features the “fastest on a cargo bike” race
- Many hotels in Copenhagen provide bicycles for their guests
- There are numerous bike rentals and bike tours on offer
- You can rent one of the electric city bikes for a very low cost per hour
- The Bicycle Innovation Lab is a bike culture centre that advocates bikes as an alternative to cars through a bicycle library, bike repair workshops, and bike events to develop an innovative bicycle culture
- There is a bike café that take old bikes and renew them from scratch with top-quality components
- Cycling Without Age program invites seniors to ride from nursing homes in a rickshaw.
- A funeral company uses a cargo bike as a funeral vehicle.
- The “Cycling Chef” cooks and serves a five-course meal with local, seasonal ingredients in his cycling kitchen.
- A bakery delivers fresh bread by bike every morning
- The donor bike transports sperm samples to the fertility clinics around Copenhagen
- Bike and Bake is a Danish Street food pizza project and catering company in which pizza is made from their special bike equipped with a wood fire oven.





Figure 19: Copenhagen Cycle Infrastructure (Source: The images above are provided by Visit Copenhagen)

Case Study 2: Boulder, Colorado

Boulder is recognised as one of the top cycling cities in America with a high population of cyclists. What makes Boulder an attract?

Boulder has a bike-sharing program with nearly 50 stations located around the city. You can hire a bike for 60 minutes and return it to any of the stations.

There are many places you can hire fat tyre bikes and electric bikes and cycle centric shops and cafes.

Boulder is at the foothills of surrounding mountains that feature single track mountain bike trails.

Boulder has a dedicated road cycling community. There is a series of prioritised on road cycling routes that include long cross country stretches, rolling hills and steep climbs.

The Valmont Bike Park is a dedicated 42 acres park that attracts 500 visitors a day. The park is free to use and caters for families, beginners to experienced riders.

The park has a terrain park with pump parks, dirt jumps, slalom and slopestyle courses, pump tracks (beginner to experience), mountain bike single tracks, skills course, cyclocross tracks, skate park, tot track near a playground, dog park and picnic areas. The park has a pavilion with kiosk/café. The park also has paid staff that offer a range of riding programs and maintain the park.

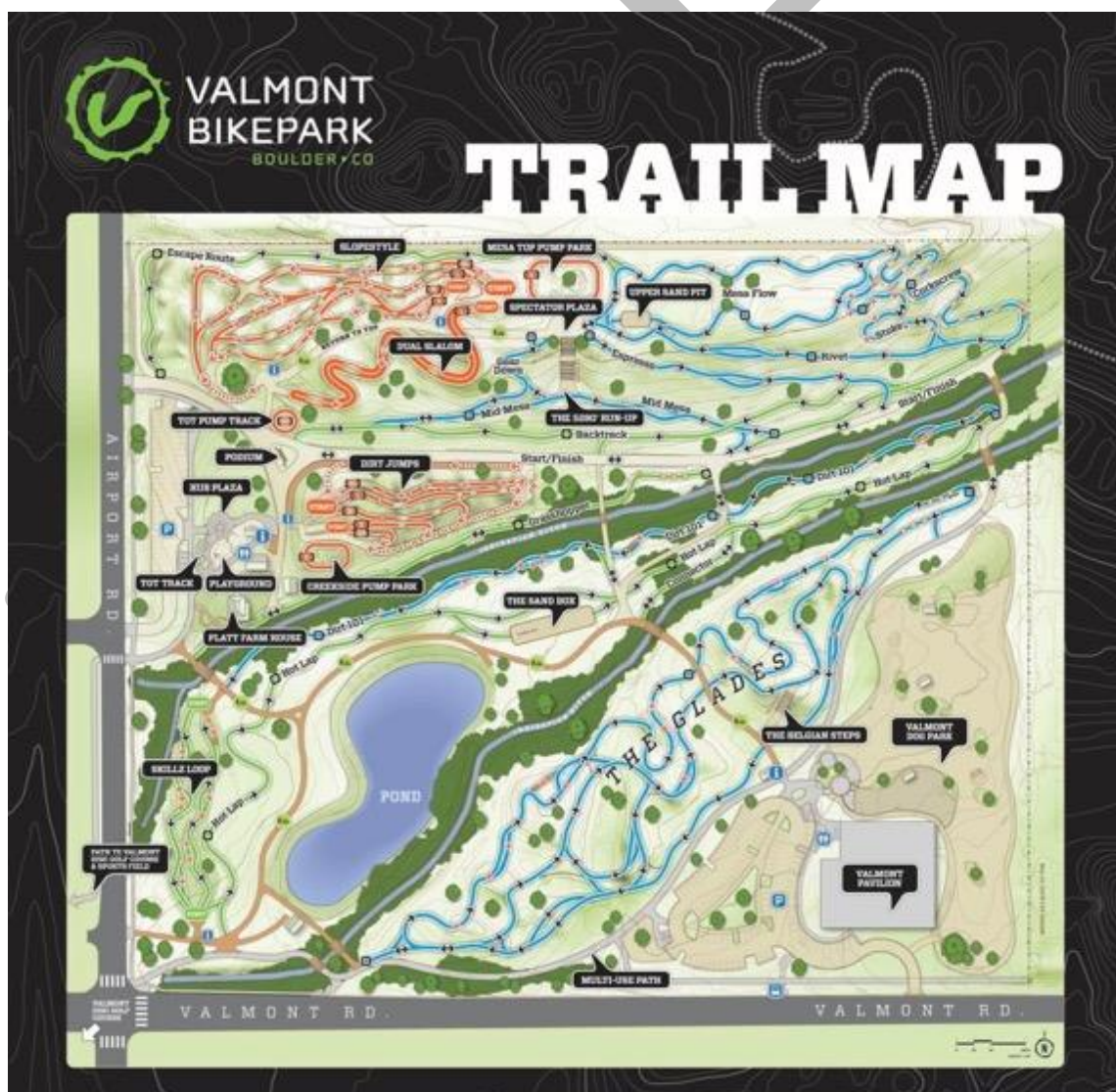


Figure 20: Valmont Bike Park (Source: The images above are provided by Visit Boulder)

Case Study 3: Yarra Valley and Dandenong Ranges Trail Destination

Ride Yarra Ranges is an initiative which will deliver an accessible and sustainable world-class trail destination that immerses people in the natural Yarra Valley environment.

The Yarra Ranges Council together with Yarra Valley Tourism are developing the Yarra Valley and Dandenong Ranges as a trail destination. They are investing in bike sport infrastructure, promotion, programming and events, partnering with State Government, local clubs and event promoters.

The region has existing on road cycling routes, off-road mountain bike trails, rail trails, two BMX facilities and pump tracks in several local townships. These include:

- Lilydale to Warburton Rail Trail that connects all the townships along the old railway line.
- Yarra Valley Trail. Stage 1 from Lilydale to Yarra Glen is completed. Stage 2 from Yarra Glen to Healesville is funded and being constructed. Stage 3 Healesville to Warburton to connect with the Lilydale to Warburton Rail Trail is in detailed design.
- O'Shannasse Aqueduct Trail that connects the Lilydale to Warburton Rail Trail to the Silvan Reservoir and Dandenong Ranges.
- Popular cycling routes include climbing routes up Mount Donna Buong from Warburton in the Yarra Valley National Park and the 1 in 20 route up Mt Dandenong Tourist Road that winds up from The Basic to Sassafras in the Dandenong Ranges.

Mt Donna Buong is host to the Giro Della Donna, a weekend-long festival of road and gravel cycling in the Yarra Valley.
- There are several kilometres of gravel riding routes that connect from the Lilydale to Warburton Rail Trail through to Gippsland and the High Country through Yarra Valley National Park and State Forest
- Lilydale and Eastfield BMX Club tracks in Lilydale and Kilsyth.
- Pump tracks at Mt Evelyn and Kilsyth, the Lilydale Lake beginner mountain bike trails and Healesville Junior bike skills park.

State and Federal Government funding has been secured for a world class mountain bike destination in Warburton within the Yarra Valley National Park and State Forest. The Warburton Mountain Bike Destination will deliver 177km of sing track mountain bike trails into the Warburton Township and connect with the Lilydale to Warburton Trail and Yarra Valley Trail.

State and Federal funding has been secured to transform the large (2.7ha) former Coldstream Railway Station site from an unused open space into a pump track.



Figure 21: Warburton Mountain Bike Destination (Source: Yarra Ranges Council)



Figure 22: Yarra Ranges Bike Experiences (Source: Yarra Ranges Council)

2.7 Key Findings of Strategic Review

Bike sport facilities and destinations show that properly planned bike sport facilities and trail networks with supportive infrastructure can provide significant liveability, economic and health benefits to communities.

Bike sport facilities are increasing in popularity across all age groups and genders. Further, bike tourism has been shown to return several times the capital cost in employment and spending within the community.

There is strategic support for improving the provision of bike sport facilities in Maribyrnong:

- Cycling Victoria State Facilities Strategy identify a significant land of cyclo-cross and criterium facilities across Victoria
- Victorian Mountain Bike Strategy identify a need for regional scale mountain bike facilities that cater for recreation rides and skill progression. The strategy recommends the development of pump tracks, skills and jumps parks
- Maribyrnong Bike Strategy supports the development of bike facilities together with an extended network of on-road cycling routes and off-road trails for active transport and recreation.
- The Principal Bicycle Network and Strategic Cycling Corridors network supports improving cycling infrastructure and safety along these designated on-road cycling routes.
- West Trails supports extending and upgrading the off-road trail network across Melbourne's West.
- Stony Creek Master Plan supports renewing and extending the BMX / pump track at Cruickshank Park.

New and upgraded bike facilities proposed by this Strategy should connect with the strategic on-road cycling routes and off-road trails proposed in the Maribyrnong Bike Strategy, Principal Bicycle Network, Strategic Cycling Corridors and West Trails strategic plans.

Council has already committed to the following bike sport facility projects in the Maribyrnong Bike Strategy:

- Explore opportunities for an additional learn-to-ride area in the north part of the city, such as at Robert Barrett Reserve adjacent to the skate park or McDonald Reserve
- Prioritise access to a pavilion space for a cycling club specifically encouraging female and junior membership
- Continue to install three bicycle maintenance stations annually
- Investigate feasibility of a cycle track around an oval, and an all-inclusive bike hub at a suitable location including access for disability service agencies to provide cycle training at a suitable location.

This Strategy will assess how to deliver these commitments.

There is merit to re-consider Bike West proposals for additional bike facilities at Quarry Park that builds on the success of the existing mountain bike park, a mountain bike skills loop at Cranwell Gardens together with exploring the potential of Cruickshank Park as part of the renewal of the track and other sites like Newell's Paddock (Nature Wetlands Reserve) and Jacks Magazine (Heritage Site) as proposed in the Pipemaker's Park Cycle Sport Prefeasibility 2021.

The focus of these facilities should be on providing pathways into bike sports (fun and diverse bike sport facilities and tracks) and addressing gaps in bike sports facilities within a regional context. There is a current lack of a criterium track, velodrome and cyclocross tracks in Melbourne's West.

There are three regional cycling hub proposals supported by master plans in Melbourne's West that will meet the regional club and competition needs for criterium and velodrome racing. These cycling precincts also include regional level BMX facilities and pump tracks. Maribyrnong City Council should advocate through this Strategy support for these regional cycling hubs because they will service the bike sport competition needs in Maribyrnong including the Footscray Cycling Club and Westside Cycle Club.

The Quarry Park Mountain Bike Park is recognised as one of these 'regional' cycling hubs. There is an opportunity for AusCycling's to support Footscray Cycling Club and Westside Cycle Club in expanding to all disciplines of bike sports and establish Quarry Park as a home or satellite venue for mountain bike programs, events and activities. Council could also consider a similar operating and service model to that provided at Valmont Bike Park in Boulder that includes a bike servicing and sales workshop, café / kiosk and programming. This commercial opportunity could improve the financial sustainability of the facility.

The research findings show that investing in infrastructure that offers a diversity of bike sport facilities that are connected by a network of safe, accessible, attractive and comfortable on-road cycling routes and off-road trails and offers a pathways into bike sports for recreation and competition (grass root to elite level) is an important ingredients to encouraging more people to ride. Other ingredients include a partnership approach between Council, Government, Education and Sport, promoting and informing people of the participation opportunities, investing in bike education programs, supporting the growth of cycling clubs to offer a more diverse bike sport experience across all disciplines, hosting programs and events for riders.

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3. Site and Facilities Review

In Melbourne's West, there were cycling tracks at Yarraville Oval, the Western Reserve (now Whitten Oval), Digman Reserve, Newport and a dedicated cycling track was built in the 1930s in the south-western corner of Hansen Reserve in West Footscray adjacent to the quarry and landfill site. However, after World War 2, cycling declined in popularity for various reasons including the increased availability and affordability of cars and suburban sprawl increasing travel distances. In the 1970s and 1980s, few people were using cycling for transport or participating in cycling as a sport and many of the cycling tracks around football ovals disappeared. All were lost in Melbourne's West. Council also removed the Hansen Reserve cycling track in the 2000's after it fell into disrepair.

Maribyrnong is a relatively flat municipality, however there are steep slopes created over eons by the Maribyrnong River and other water courses that offer opportunities for downhill, climbing, and other challenging bike sport activity. This landscape also provides ways of appreciating the natural environment and excellent views. There is an opportunity to expand on the current bike sport facilities in Maribyrnong.

However, this will be a challenge. Maribyrnong has 153 open spaces, covering 313.5 hectares of land or 10 percent of the total land area of the municipality. This is much lower than the surrounding municipalities and means there is a contest for access to open space by sports and for recreation and other open space values.

What bike sport facilities do we have in Maribyrnong?

3.1 Bike Sport Hierarchy and Facility Standards

The Cycling Victoria State Facilities Strategy 2016-2026 includes a facility hierarchy and design standards for bike sports disciplines. The definition for each level of the hierarchy is summarised below. Appendix 1 includes the supporting design standards for bike disciplines levels of service.

Local Facilities – are those facilities such as a BMX pump track or MTB trail developed by a club / group of local enthusiasts. These facilities provide opportunities for local persons to participate in the sport. These facilities are very basic and are likely to provide minimal amenities.

Municipal Facilities - principally attract people from within the municipality within which they are located, but also cater for participants affiliated with clubs or competitions based outside of the municipality. Municipal sports facilities will serve a municipal-wide catchment. Facility provision will be a higher level than is available at other facilities in order to accommodate a higher level of competition or activity. Examples of Municipal Facilities include Oakleigh BMX track.

Regional Facilities – will attract people from within and outside the municipality in which they are located and will be built and maintained to an elite or premier standard for that sport. They will cater for training and State-wide competitions and will have the capacity to host National standard competitions. Regional facilities will serve a catchment extending beyond the municipal boundary. Examples of regional facilities include Casey Fields criterium track, Warragul velodrome, Sandown Park, Knox BMX track and Shepparton BMX track.

State Facilities – will principally be facilities that cater for training and state/national level competitions. These facilities are built and maintained to a very high standard and there will only be one or two of these types of facilities. Examples of State Facilities include Darebin Indoor Sports Centre, Hisense Arena and the State Mountain Bike Centre (Lysterfield).

3.2 Bike Sport Facilities in Maribyrnong

Maribyrnong has the following bike sport facilities of varying types and standards.

Table 23: Maribyrnong Bike Sport Facilities

Name	Service Level	Location	Type	Track Details	Commentary / Implications
Quarry Park Mountain Bike Park	Regional (AusCycling recognise facility as a state mountain bike park)	Farnsworth Avenue, Footscray	Mountain Bike Park, Pump Track, Skills Park	The Quarry Park Mountain Bike Facility is a state significant bike sports destination as an existing “All Mountain” trail. The facilities include mountain bike trails (green and blue runs), skills park and pump tracks.	Quarry Park is a contaminated site with significant soil capping was required with additional soil required on top for trails. The trails require regular maintenance to ensure capping is not disturbed. A review of the Quarry Park Master Plan could expand the bike sport facility experiences at an already recognised bike destination with a “regional” catchment.
Yarraville BMX Track	Local	Wilkins Street Yarraville	BMX Track	The BMX track is a 219m long track with smaller bumps and is suited to less experienced riders (green – easy rated).	The facility is basic and requires renewal. There is an opportunity to renew the facility as a contemporary pump track that offers experiences for junior and experienced riders
Hansen Reserve Beginner Bike Skills Track	Local	Robert Street, West Footscray	Junior Bike Skills Track	The junior bike skills track is new and features obstacle bumps, fast humps, rumble strips, a roundabout and ramps.	The facility is in good condition. The junior bike skills track was supported in the Hansen Reserve Master Plan.

Quarry Park Mountain Bike Trails

The Quarry Park Mountain Bike Park is a key bike sports destination identified in the *AusCycling Victorian State Bike Sports Strategy* as an existing “All Mountain” trail. The facilities include:

- An ascent trail rated easy/green
- An easy/green descent trail
- Two intermediate/blue descent trails, one with jumps
- A skills park; a single direction loop with three tracks in the flat area focused on skills development with technical features such as balance beams, berms, rock features etc
- Pump track (junior track with dirt surface and intermediate track with asphalt surface) with highly sculpted loops full of rollers and berms that users can 'pump' around without pedalling.



Figure 24: Quarry Park Mountain Bike (Source: Maribyrnong City Council)

The map below shows the configuration of trails and location of the skills park and pump track.



Figure 25: Quarry Park Mountain Bike Trails Map (Source: Maribyrnong City Council)

Yarraville BMX Track



Figure 26: Yarraville BMX Track

Hansen Reserve Junior Bike Skills Track



Figure 27: Hansen Reserve Junior Bike Skills Track

3.3 Where are people riding in Maribyrnong?

The maps below are heat maps showing Strava 2022 data for bike activity in Maribyrnong. The white lines show very high bike use; the yellow lines show high bike use; the red lines show moderate bike use and the purple lines show low bike use. The map shows very high bike use at Quarry Park and along the major off-road trails. These include north south along the Maribyrnong River Trail and West Gate Trail; and east west along the Footscray Sunshine Trail.

The primary on-road network also attracts moderate to high use. Primary roads supporting north south bike use include:

- Gordon Street
- Gammon Street - Victoria Street
- Albert Street - French Street - Donald Street - Droop Street – Farnsworth Avenue
- Summerhill Road

Primary on-roads supporting east west bike use include:

- Monash Street - South Road - Ashley Street - Barkly Street
- Ballarat Road
- Suffolk Street - Duke Street - Cranwell Street - Street - Mitchell Street
- Devonshire Road - Churchill Ave
- Francis Street

As noted, active transport and recreational riding is not within the scope of this report. However, understanding how the network is used will help ensure that proposed bike sport facilities are interconnected and accessible.

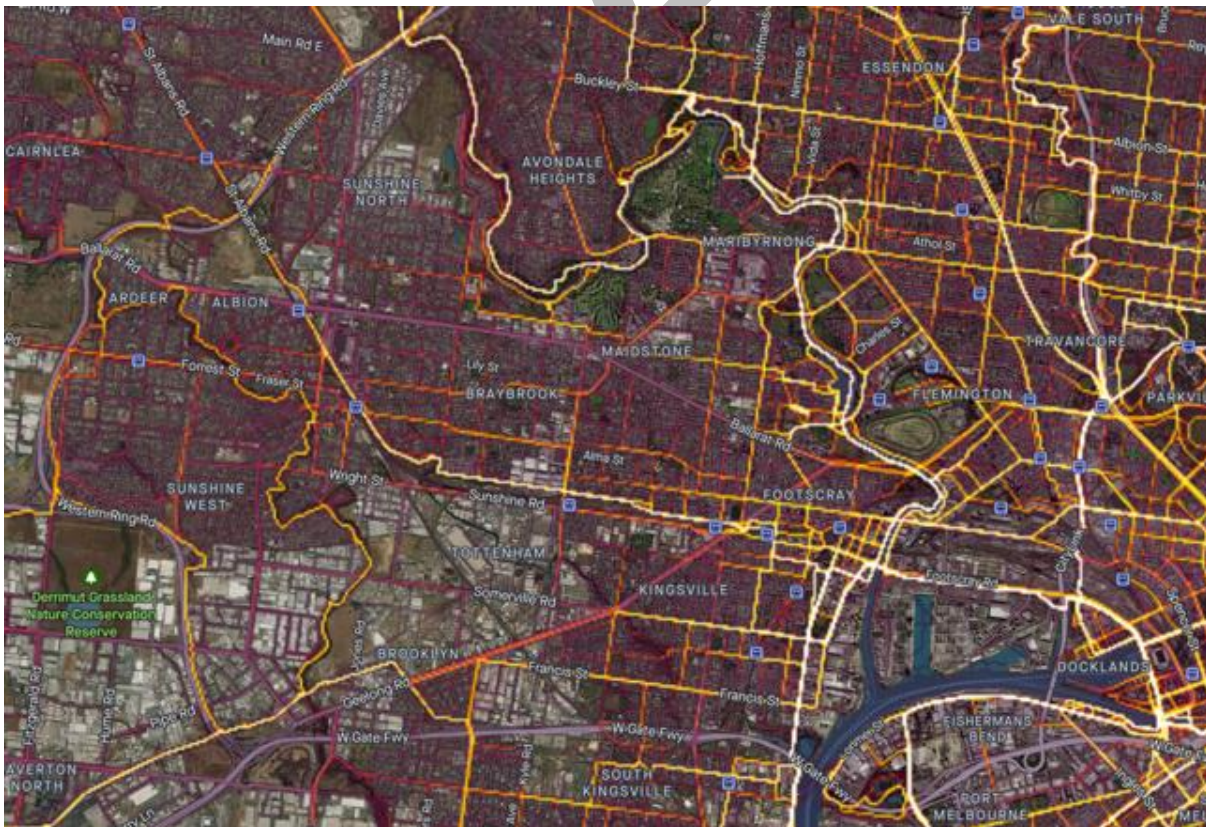


Figure 28: Strava Heat Map of Bike Activity in Maribyrnong

3.4 Bike Sport Facilities in Melbourne's West

A benchmarking analysis of all bike facilities in metropolitan Melbourne has been undertaken. See **Appendix 1** for benchmarking analysis.

The analysis shows a good distribution and provision of BMX tracks in Melbourne's West.

Table 29: Bike Sport Facilities in Melbourne's West

Name	Service Level	Location	Type	Track Details
Kensington BMX Track	Local	Cnr Childers St & Kensington Rd, Kensington	BMX Track	This track has approximately 5 jumps, two sections to ride, including a pump track. There is a skate park next to the BMX track
Moonee Ponds BMX Track	Local	18 Fanny St Moonee Ponds	BMX Track	There are four basic jumps at this track, suitable for less experienced riders.
Altona Meadows BMX Track	Municipal	Queen St and Andrew Park Dr Altona Meadows	BMX Track	The Altona Meadows BMX Track has facilities split into skill levels, from novice to super advanced, so inexperienced riders have the opportunity to build up skill and confidence. Next to the BMX track there is a skate park.
Werribee BMX Racing Track	Municipal	87 Derrimut Road Werribee	BMX Track	This is the home of the Wyndham Warriors BMX Club, who use the track for training a couple of times a week. The track has curves and jumps suitable for racing or just a casual fun ride. It's a track suitable for a range of skill levels. The track is open to the public the remainder of the time.

There is no criterium track or velodrome in Melbourne's West. The nearest facilities are in Melbourne's North, located 20km from Maribyrnong in Brunswick East and Coburg.

Table 30: Velodromes nearest to Maribyrnong

Name	Service Level	Location	Type	Track Details
Brunswick Velodrome	Regional	Brunswick East, VIC	Velodrome	The banked velodrome is located at Roberts Reserve and is home to Brunswick Cycling Club. The 333m track which has an incline around 30 degrees, is open to the public outside of the Brunswick Cycling Club's activities.
Coburg Velodrome	Municipal	Coburg North, VIC	Velodrome	The velodrome is located at Richards Reserve and is home to Coburg Cycling Club. The velodrome, which is steeply banked, is open to the public outside of the Coburg Cycling Club's activities.

There is currently one criterium circuit in Melbourne's West at Victoria University Werribee Campus training track in Altona. This is in average condition and the use of the track by the Footscray Cycling Club in the future is not guaranteed. VU is undertaking a condition report (September 2022) to understand whether it is safe for the Footscray Cycling Club to continue using the track.

"We (VU) have acknowledged the limited assets in the west to accommodate the training of on road cycling and have offered to maintain the long-standing relationship with FFC. However, their requests will be dealt with on an adhoc basis, until a condition report (of the training track) is finalised."

- Executive Director, Precincts, Communities & Government Relations, VU

The map below shows the training track at VU's Werribee East Campus.



Figure 31: VU Werribee East Campus Training Track

There is a disused criterium track at MacPherson Park (regional sports reserve) in the City of Melton. The track is currently used as car parking for reserve uses.



Figure 32: MacPherson Reserve Criterium Track

3.5 Key Findings of Site and Facilities Review

The map on the next page shows the current bike sport facilities in Maribyrnong together with the proposed regional bike sports facilities in Wyndham and Brimbank, the on-road cycling routes and off-road trail network in Melbourne's West (as identified in the Maribyrnong Bicycle Strategy, Principal Bicycle Network, Strategic Cycling Corridors and West Trails strategic documents).

There is one criterium circuit in Melbourne's west at Victoria University Werribee Campus training track in Altona. There is a disused criterium track at MacPherson Park in Melton.

There are no velodromes in Melbourne's west. The closest velodromes are DISC (Indoor Velodrome) in Thornbury, Brunswick and Coburg in Melbourne's north.

There are five BMX tracks in Melbourne's west with Altona Meadows BMX Track and Werribee BMX Track municipal level tracks and support clubs. The other sites include Yarraville BMX Track, Kensington BMX Track, Moonee Ponds BMX Track and Werribee BMX Track.

Quarry Park Mountain Bike Park is centrally located in Melbourne's West providing a unique "regional / state" significant mountain bike facility with jump skills park and pump track. This site is also located on the primary trail network and strategic cycling corridors together with access to major road arterials and public transport connections.

The proposed regional cycling facilities at Lawrie Emmins Reserve (Wyndham) and Sunshine Energy Park (Brimbank) are well located and connected to service Local Government Authorities in Melbourne's West. They support a mix of bike sport disciplines including criterium, velodrome, cyclocross and BMX. The facilities are located on the primary trail network and strategic cycling corridors together with access to major road arterials and public transport connections.

The existing bike sport facilities in Maribyrnong provide a pathway into bike sport participation. The Hansen Reserve Junior Bike Skills Track introduces preschool and primary school aged children (beginners) to riding on a fun easy track with interesting challenges to help develop bike skills. The Yarraville BMX Track offers a gravel BMX / mountain bike flow track experience. It is of an average condition that if renewed to provide a junior and experienced pump track experience would complement the regional level Quarry Park Mountain Bike Park and introductory level Hansen Reserve Junior Bike Skills Track.

However, these are only three bike sport facilities in Maribyrnong and the Yarraville and Hansen Reserve facilities provide for only a local catchment. There are several suburbs that have no access to bike sport facilities within 2km of where they live including: Braybrook, Maidstone, Maribyrnong, and Seddon. Opportunities to provide local and municipal bike sport facilities in these areas should be explored.

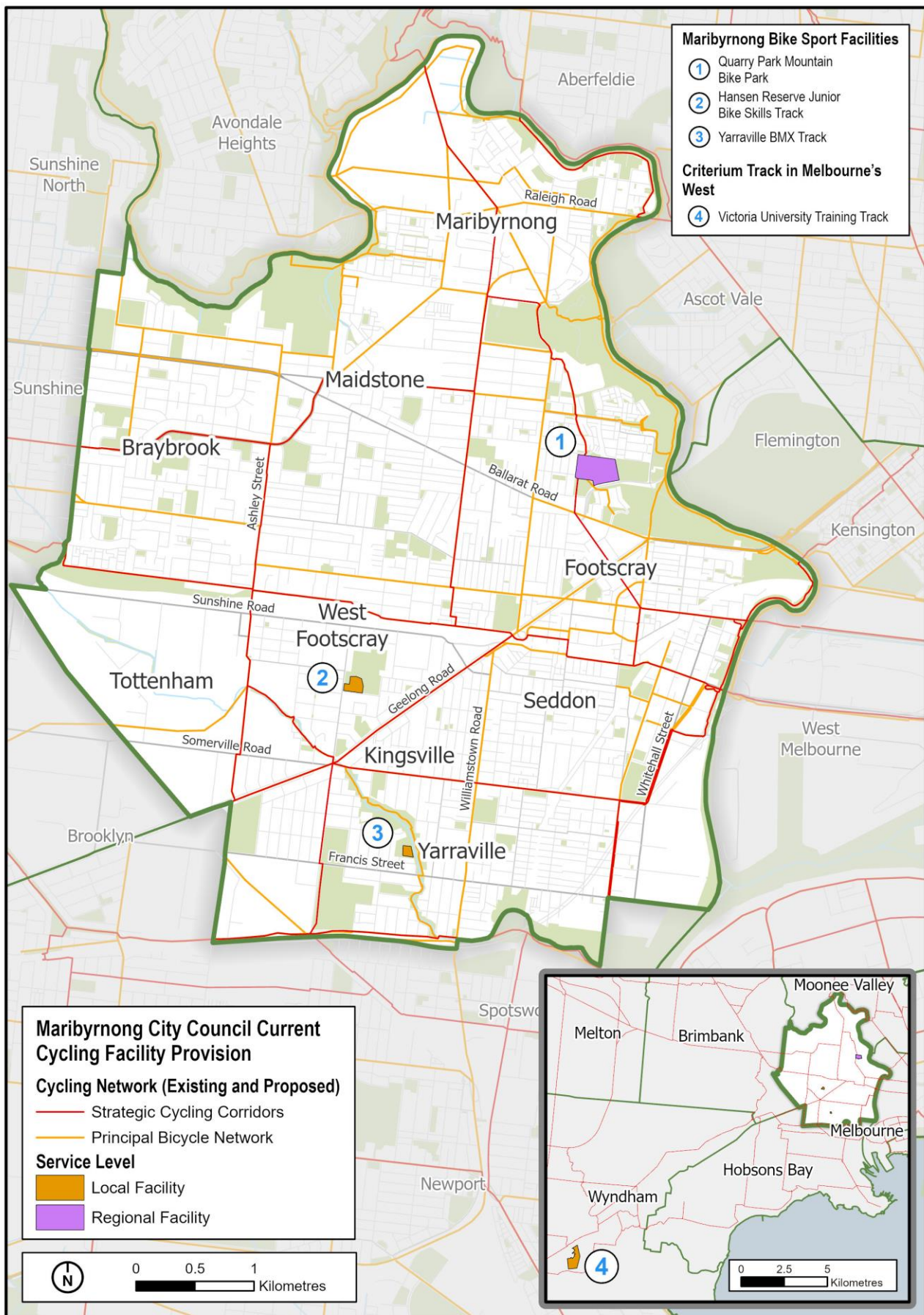


Figure 33: Current Cycling Facility Provision (Note: size of facilities is not drawn to scale)

4. Demand Assessment

This section assesses the demand for bike sport facilities in Maribyrnong. The assessment includes a review of:

- Population and demographics influences
- Local cycling participation
- National cycling participation
- Trends analysis.

Do we need bike sport facilities in Maribyrnong?

4.1 Population and Demographic Influences

Maribyrnong City Council is made up of nine suburbs. These are Braybrook, Footscray, Kingsville, Maidstone, Maribyrnong, Seddon, Tottenham, West Footscray and Yarraville.

The following key population and demographic characteristics will influence the demand for bike sports facilities in Maribyrnong. The resident profile is based wherever possible on the 2016 ABS Census data and has been sourced from .id, an online company that analyses ABS Census data.

Population

- Maribyrnong has an estimated resident population of 98,424 people for 2022 that is forecast to increase by 67.27% to 164,637 people in 2051. This significant population growth will fuel demand for bike sports into the future
- Maribyrnong estimated resident population in 2016 was 86,942 that increased from 75,154 people in 2011. This demonstrates a latent demand for bike sports facilities in Maribyrnong and the potential growth in participation if we can encourage a greater number of people to ride bikes
- All suburbs are projected to grow in the next 30 years demonstrating a demand for bike sport facilities across all parts of Maribyrnong:

Table 34: Projected Population Change between 2022 and 2051

Suburb	2022 Population	2051 Population	Population Change %
Maribyrnong	15,573	32,165	106.5%
Maidstone	10,362	19,305	86.3%
Braybrook	11,007	15,977	45.2%
Footscray	21,304	44,677	109.7%
West Footscray	12,971	17,280	33.2%
Seddon	5,843	7,552	29.2%
Yarraville	17,178	23,346	35.9%

Maribyrnong has one of the highest population densities in Melbourne's West. The maps on the next page show the current and future population densities for Maribyrnong.

The map on the left shows the current 2021 population density in Maribyrnong. The map on the right shows the change in population projected between 2021 and 2036. The maps show an increasing density across much of Maribyrnong and particularly in Footscray and Maribyrnong in the next ten years.

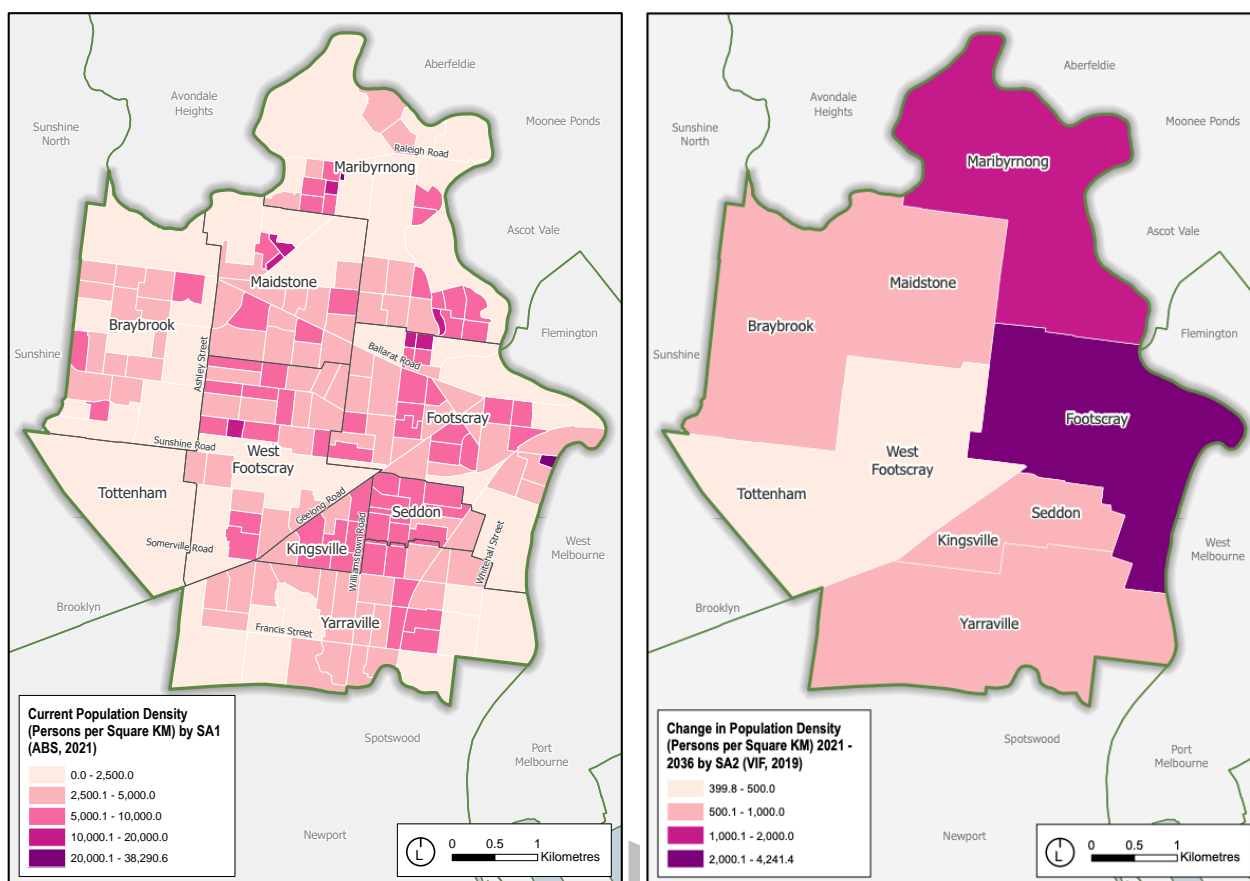


Figure 35: Change in Population Density within Melbourne West (Source Victoria in the Future, 2019)

Age

- There is a higher percentage of people within the 25 to 69 years age groups when compared to the Greater Melbourne area and a lower percentage of people within the 0 to 24 years age groups (school age – preschool / primary, secondary and tertiary)
- In particular, the young workforce (25 to 34 years) service represents 22.6% of the Maribyrnong population compared to 16% for Greater Melbourne
- There is a large proportion of Maribyrnong’s population that fall into peak riding categories. Peak participation rates for adults are between 35 and 64 years; and for children between 9 and 14 years. The table below shows an additional 25,573 people are predicted within peak participation rates (from 42,276 to 67,849 people); and that in 2022 this makes up 43% of the total population and will remain at this level for the next 30 years:

Table 36: Projected Population within Peak Participation Age Groups between 2022 and 2051

Suburb	2022 Population	2051 Population	Population Change %
Peak participation rate for children 9 to 14 years	5,084	7,880	55%
Peak participation rate for adults 35 to 64 years	37,192	59,969	61.2%
Total population	98,424	164,637	67.3%
Peak participation categories proportion of total population	43% (42,276)	41% (67,849)	+25,573

Diversity

- Maribyrnong is culturally and linguistically diverse with 40% of the population born overseas. The main countries of birth of residents, apart from Australia include Vietnam, India, China, the United Kingdom and New Zealand.

- Bike sports is a global sport recognised as a popular recreation pursuit and transport option in most cultures and places in the world.

Disadvantage and Social Capital

- Maribyrnong has a low level of disadvantage in 2016. The Socio-Economic Indexes for Areas (SEIFA) of disadvantage for Maribyrnong in 2016 was 995.
- When we break down by suburb, the following areas record a high level of disadvantage – West Precinct, Braybrook, Stony Creek Ward, East Precinct and Footscray (all recording a SEIFA below 962). The map below shows the relative advantage and disadvantage level for Maribyrnong in 2016.
- Low socio-economic people are worse off on most societal and health indicators. Therefore, providing access to free and affordable bike sports facilities and services will be important within these communities.

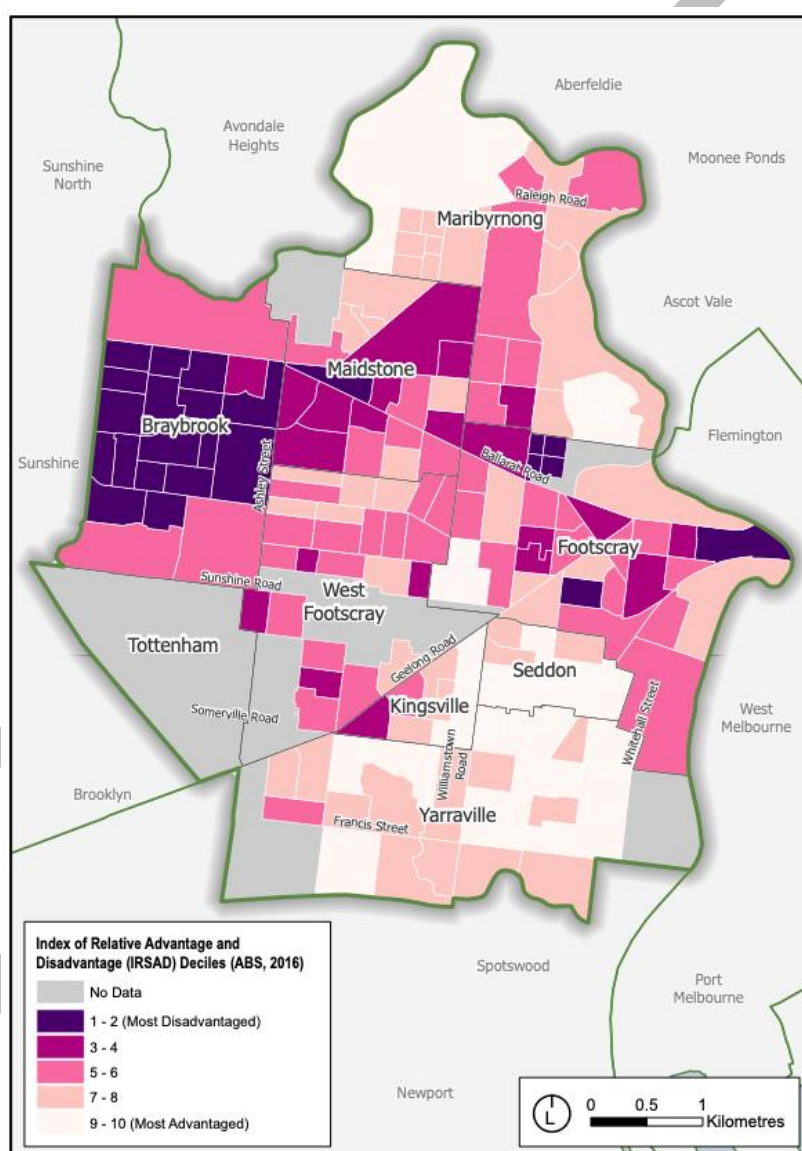


Figure 37: IRSAD (Source ABS, 2016)

Health Characteristics

- Achieving a healthy and active Maribyrnong is a priority within Maribyrnong's Council Plan (includes Municipal Public Health and Wellbeing Plan) to respond to less adults meeting physical activity guidelines compared with the State average, and more women having insufficient levels of physical activity.
- Chronic disease rates, particularly Type 2 diabetes, heart disease and cancer, are comparatively high regionally.
- Maribyrnong also have more adults experiencing high or very high levels of psychological distress, drinking more than two alcohol drinks a day at least five days per week, and consuming sugar-sweetened soft drinks daily. Only 3.1 percent of adults consume sufficient amounts of fruit and vegetables.
- Participation trends show that people that ride a bike more than meet the recommended physical activity guidelines and decreases mortality rates from chronic diseases and obesity.

Why are people attracted to live in Maribyrnong?

Maribyrnong's close proximity to the Melbourne CBD and it being recognised as a hub for arts and culture, retail, education and creative industries has attracted people to live and work in the City. People are attracted by the period homes, the 'foodie' culture and the natural environment of the Maribyrnong River and open spaces.

Also, Maribyrnong has good access to public transport including the Footscray Railway Station and is in close proximity to Melbourne's CBD by train, tram and active transport routes and the Melbourne Airport. The Metro Tunnel and Melbourne Airport Rail projects will further improve access by car and rail to these destinations.

The rapidly growing population in Maribyrnong and Melbourne's west is creating an unprecedented and unmet demand for sport and recreation facilities and services including bike facilities.

4.2 Local Participation

Footscray Cycling Club

Footscray Cycling Club (FCC) is over 100 years old and is the old road racing cycling club in Melbourne's West. They organise weekly road races in Little River and the Brisbane Ranges over winter and criterium races at Drake Boulevard in Altona and at the Victoria University Hoppers Crossing Campus traffic training track over summer.

Current club programming:

- During the Road Season (April-October), the club conducts racing over a number of on road circuits ranging in distance from 75km to 125km. On any given Saturday or Sunday, there is usually about 50 to 80 riders. On road circuits include the Little River race circuit; Maude/Meredith race circuit; Balliang race circuit and Lethbridge race circuit.
- During the Criterium season (October-March), the club races on Thursday evenings and Saturday mornings at the criterium circuit at Victoria University's Skills Training Centre (Werribee Campus), located at Drake Blvd in Altona.

Ausplay reports club membership of 170 members in 2021 including 128 males and 38 females.

The Northern Combine includes Footscray, Brunswick and Coburg Cycling Clubs. They run weekly events in local industrial estates. These venues have limited suitability due to them being semi-closed roads with limited availability.

Westside Cycle Club

Westside Cycle Club is a new cycling club in Melbourne's West and covers all disciplines from road, mountain, cyclo-cross, gravel and social riding. The club offers both competitive and social rides and aim to increase the numbers of people of all ages and abilities, women, children and men riding bikes in Melbourne's West.

The club hosts Tuesday and Thursday weekly rides along a circuit that runs along the Maribyrnong River Trail, Yarra River Trail, Point Gellibrand Coastal Heritage Park, Altona Coastal Park and Altona Road and Kororoit Creek Road.

Quarry Park Mountain Bike Park

Maribyrnong City Council has installed a bike counter at the Quarry Park Mountain Bike Park. The graph below shows that on average the park attracts about 2,000 to 4,000 counts daily. This represents a 100% increase in traffic in 2021 in the same period as last year 2020. It is very popular and anecdotally, users of the park are drawing from a regional catchment (Metro West, Metro North and Melbourne's CBD).

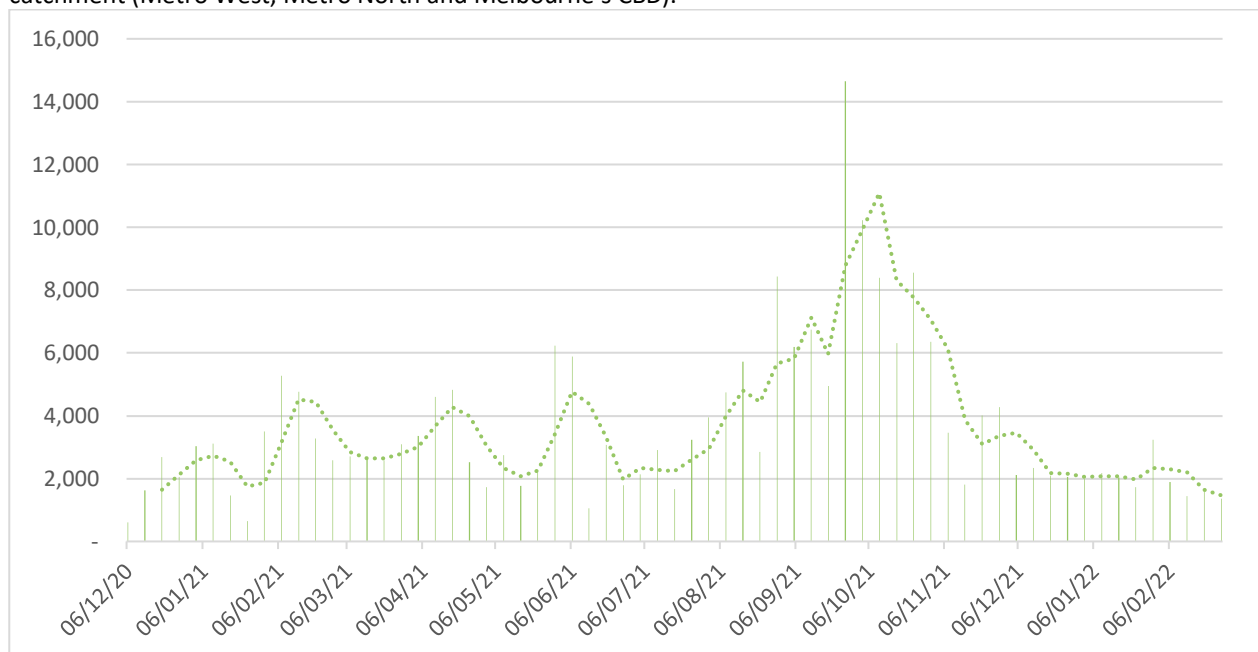


Figure 38: Quarry Park Weekly Usage Totals (Source: Maribyrnong Council Bike Counter, 2022)

Ausplay Cycling Participation Demand Assessment 2021

Ausplay has engaged the Kinetica Group to assess the participation demand for local Council areas using their data analytics tool AURA. The data estimates:

- 11,352 adults (15+ years) cycling in the last 12 months
- 5,518 adults were interested in cycling in the last 12 months
- 1,921 children (0 to 14 years) cycling in the last 12 months
- 5,106 children were interested in cycling in the last 12 months
- 29,711 adults were bike riding in the last 12 months.

AusCycling Programming and Club Development Potential in Maribyrnong

AusCycling is now the peak sport responsible for all bike sport disciplines. The plan is to roll this approach to club level. No matter the cyclist interest, they can be part of a cycling club and be afforded AusCycling insurance cover.

AusCycling has launched Ride Nation, a place where the cycling community can connect and promote programs, activities, events and cycling destinations and facilities.

AusCycling have staff re-engaging with the local cycling clubs to get them back up and running following interrupted years as a result of the global COVID pandemic and restrictions placed on sporting groups.

AusCycling also run the Ride Nations Schools and would like to increase the number of bike education programs at schools in Melbourne's West. It currently has a small footprint. There are three levels to the Ride Nation School Program that all require a safe off-road place to ride and learn. The levels are:

- Ride Nation - Skills (Playground): Recommended for grades 2-3, this 4–6-week program focuses on developing the essential bike control skills braking, balancing and riding. The skills learnt in this program will allow them to ride around in traffic free environments (school yard, park and around the block).

- Ride Nation - Confidence (Pathways): Recommended for grades 3-5. Once grasping the essential bike control skills, participants are ready to develop their riding confidence. This 4-6-week program focuses on riding and situational awareness, providing students with the skills and competences to enable them to start riding on footpaths and shared pathway in low traffic environments. This program is ideal to start having students riding to and from school!
- Ride Nation - Explore (Places): Recommended for grades 5-6. Participating in life-long physical activity is essential to every child. Ride Nation - Explore looks at utilising all the skills learnt through previous programs and develop them in different cycling situations and explore their local area by developing road safety and situational awareness. The program consists of four weeks of practical skill development and learning and ends with two local community rides for children to understand what is in their community.

There is a potential for the program to be run in 21 primary schools with 7,918 students and two secondary schools with 2,717 students.

Maribyrnong Travel Behaviours

The Maribyrnong Integrated Transport Strategy 2006 analysed the modes of travel to work and school and found:

- Residents exhibit travel behaviour that is more sustainable compared to the average for Greater Melbourne. Less people drive to work, and more people catch public transport. There were 20.2% of residents using public transport compared to 11.7% in Greater Melbourne.
- Footscray performed best with 43.1% of people travelling to work by car (53.3% Maribyrnong and 61% Greater Melbourne) and 28% using public transport. Footscray also exhibits the highest walking and cycling rates in Maribyrnong with 5.3% and 2.6% respectively using these modes for the journey to work. Other areas that perform well is Seddon.
- Braybrook performed worst with 60.9% of people travelling to work by car and 14.8% using public transport. These rates are still better than the Greater Melbourne average. Braybrook has the lowest walking and cycling rates in Maribyrnong with 1.5% and 1% respectively using these modes for the journey to work. Other areas with high car dependency are Maidstone, Maribyrnong, Kingsville, Yarraville and West Footscray.

There is an opportunity to encourage sustainable travel modes in these communities by improving on-road cycling routes and off-road trails to public transport nodes with safe, secure, and sufficient bike parking.

- Nearly 40% of students travel by car, 19% by bus and 16.7% walk to school. For primary schools, 38.2% of students travelled less than 1km and the majority (67.4%) travelled less than 2km. For secondary school students, 14% live within 1km and 47% within 5km.

All these trips could be made by walking or riding if safe on-road cycling routes and off-road trails are established from where people live to school and that these are promoted and supported by bike education programs so students feel safe and confident to ride.

4.3 National Cycling Participation

Cycling Victoria Cyclist Survey 2013

A survey of registered sport cyclists was conducted as part of the Cycling Victoria State Facilities Strategy. There were 118 survey responses to the survey that provides an insight into club cyclists' preferences. Majority of respondents were male (80%), with 20% female.

The survey found:

- The most popular type of cycling sport respondents participated in was road cycling (64.9%), criterium racing (39.5%), BMX (37.7%), track cycling (28.1%), mountain biking (24.6%) and duathlon / triathlon (2.6%). Note more than one response was allowed for this question.
- On average the majority of cyclists (67.2%) will spend 5 – 15 hours per week cycling, including training and racing.
- Aside from a cycle path, the most common type of cycling facility used was the road network, followed by criterium track, velodromes, BMX tracks and mountain bike facility / trail.
- The average distance travelled to access:

- A BMX track is approximately 15 kms.
- Mountain bike facilities are approximately 40 kms. f A velodrome is approximately 15 kms.
- A criterium track is approximately 20 kms.

Ausplay Sport and Physical Activity Participation Survey 2021

Sport Australia's Ausplay Sport and Physical Activity Participation Survey 2021 data shows the following participation profile for cycling:

- There are 2,556.9K adults 15+ years participating in cycling; and 52.2K children 0-14 years participating in organised cycling out of school, annually
- Participation by gender is similar for adults and children with two-thirds of participants male and one-third female
- Peak participation rates for adults are between 35 and 64 years; and for children between 9 and 14 years
- Track / road cycling made up 17% of the overall cycling activity with bike riding / cycling 83%
- There were 57% participants that took part in cycling one per week
- There were 86% participants that participated over 30 minutes in duration per ride.

The chart below shows the motivations to participate in cycling, with more dominant motivations in larger font. The key reason for participating in cycling was "physical health or fitness, followed by "fun/ enjoyment" and "a way of getting around".



The chart below shows the barriers to participate in cycling, with more dominant barriers in larger font. The key barriers to participating in cycling were "poor health or injury", followed by "not enough time / too many commitments" and "fear of injury".



The chart below shows a breakdown of road cycling, BMX and mountain biking participation rates. There has been an increase in mountain biking participation in the last 5 years, whilst a decrease in road cycling participation. An additional 180,000 people participated in mountain biking in some format over the last two years.

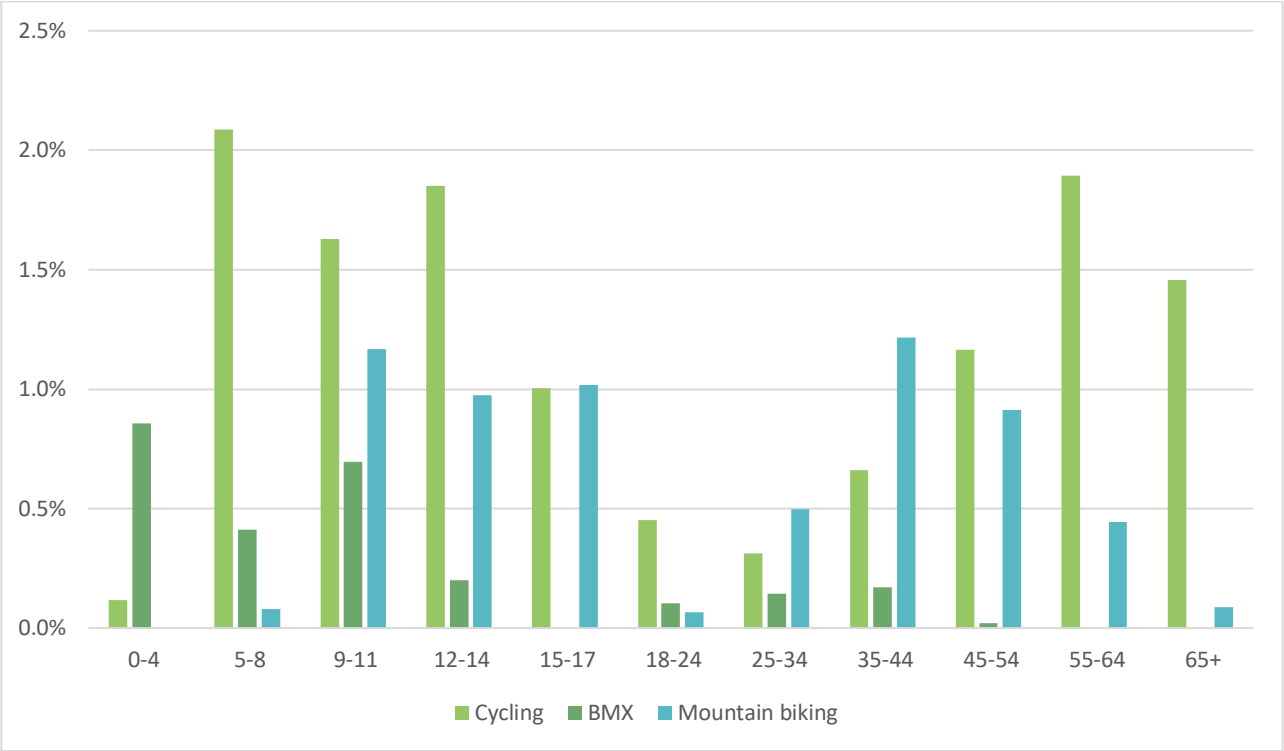


Figure 39: Cycling, BMX and Mountain Bike Participation Rates (Source: Ausplay, 2022)

The chart below shows a breakdown of road cycling, BMX and mountain biking participation rates for children and adults by gender. There is a higher number of males participating in cycling than females. There needs to be a focus on supporting greater female participation across all bicycle disciplines.

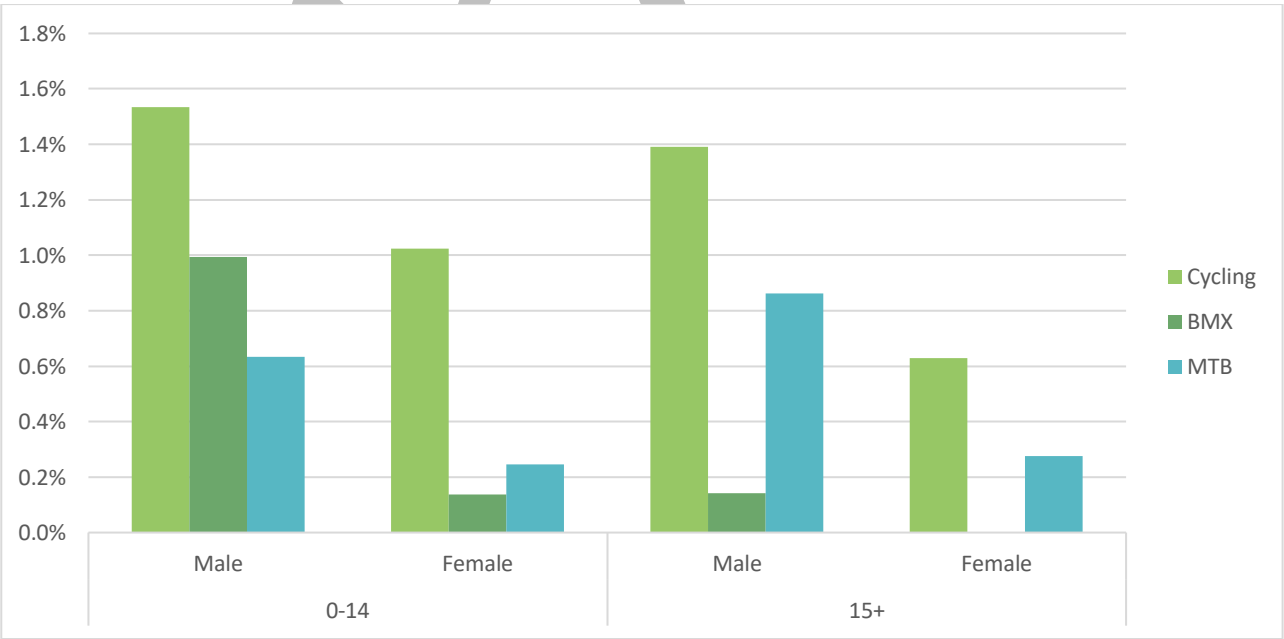


Figure 40: Cycling, BMX and Mountain Bike Participation Rates by Age and Gender (Source: Ausplay, 2022)

Bike sports have higher rates of unstructured sport participation than formal sport structures (competition)

Recent Ausplay research shows that unstructured sport is increasing with Australians embracing a “mixed approach to getting active”. In 2021, there are less people participating exclusively through sporting clubs or organised venues. Instead, we see Australians more likely to supplement club or venue use with unstructured activities use. This could be associated with participating in a “COVID-Safe” way.

When unstructured cycling is included in participation rates, cycling has relatively similar rate to swimming. This participation rate highlights the potential for cycling if quality, diverse and accessible bike sport facilities are provided.

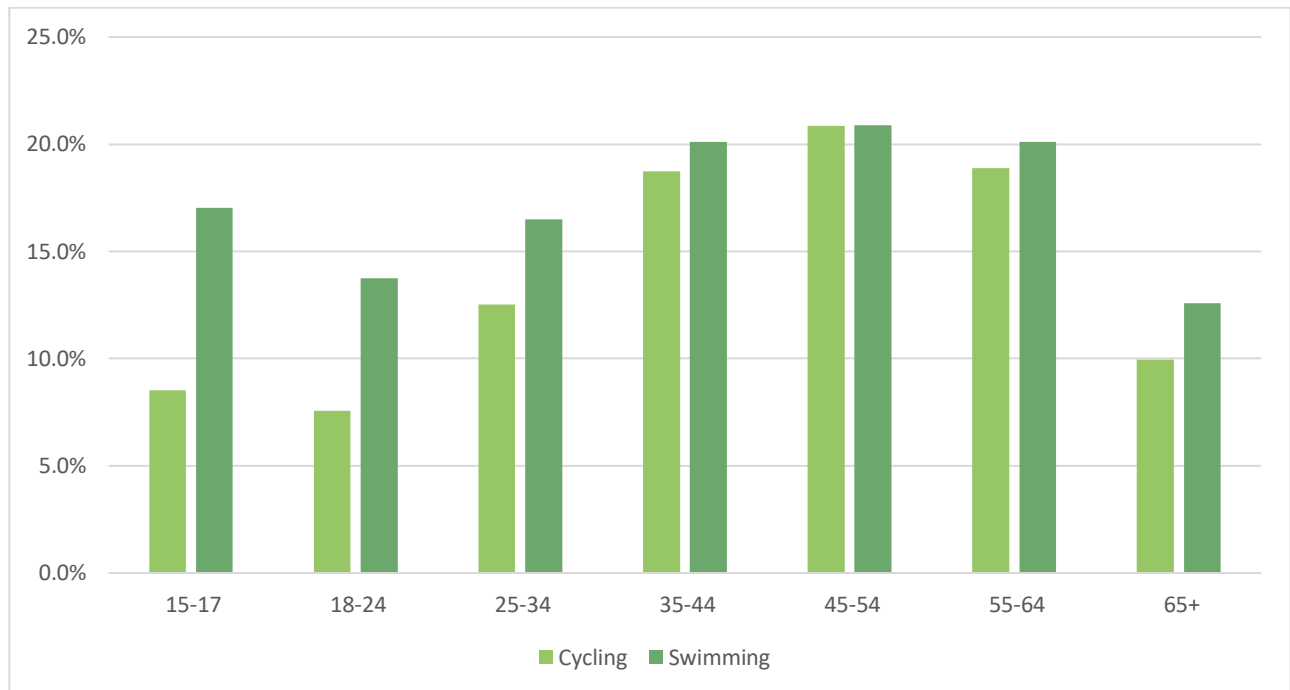


Figure 41: Unstructured Swimming and Cycling Rates (Source: Ausplay, 2022)

Austroads National Walking and Cycling Participation Survey 2021

Austroads National Walking and Cycling Participation Survey 2021 data shows cycling participation rates increased from 2019 to 2021. The weekly participation rate increased from 13.8% in 2019 to 18% in 2021. The 2021 participation figures show that cycling participation levels have returned to those observed in 2011. Victoria has above the National average in cycling participants and provides further support to an increase in bike sports participation.

The chart below shows the national cycling participation trends from 2011 to 2021.

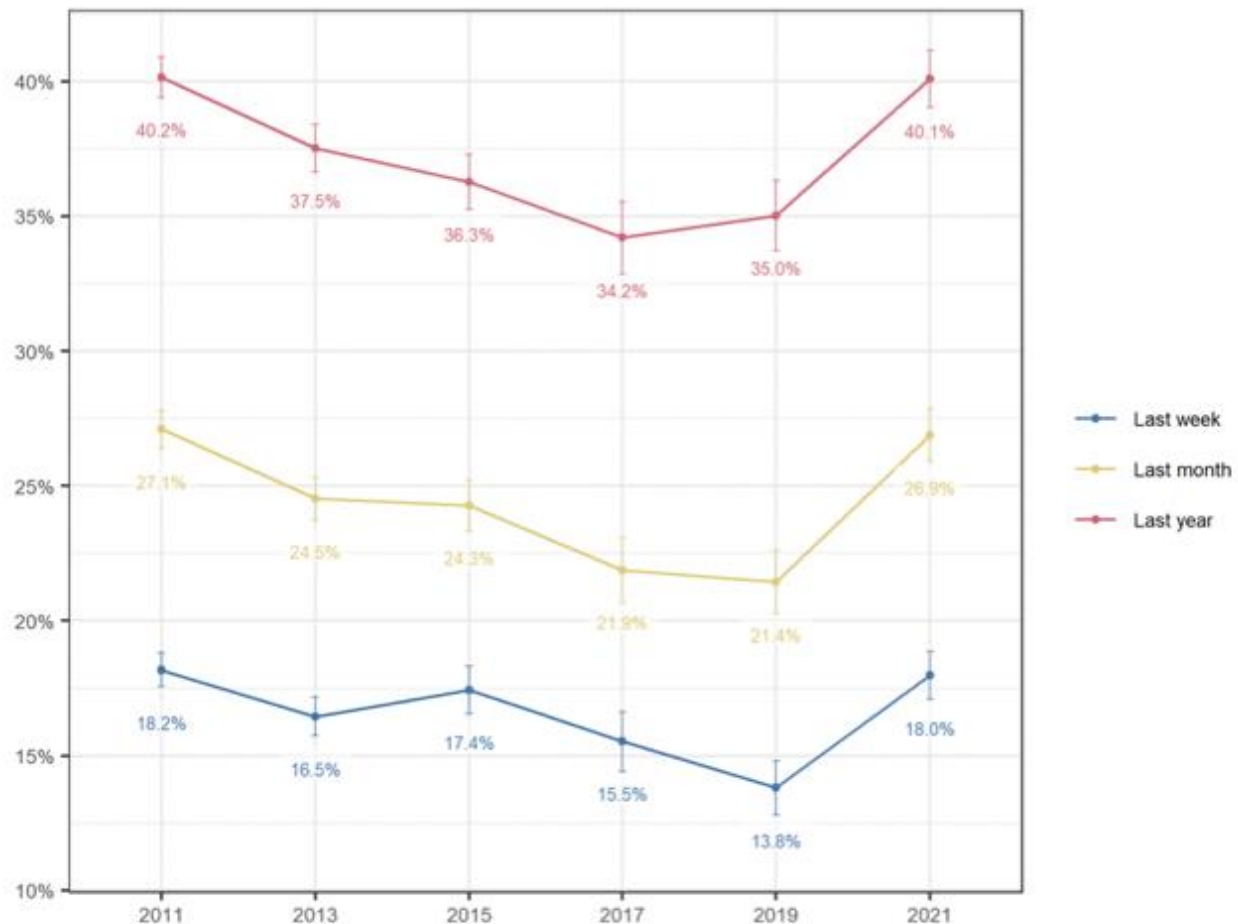


Figure 42: National Cycling Participation Survey Results 2011 to 2021

4.4 Trends Analysis

Latent or induced demand occurs when the want or desire is one that a consumer is unable to satisfy, whether through a lack of information, money, skill or infrastructure. Research into the level of interest in cycling within Portland, USA (Geller, 2005), classifies four types of cyclist: the 'strong and fearless' who cycle everywhere and anywhere; the 'enthused and confident' who cycle but only on roads where they feel relatively safe; the 'interested but concerned' who would like to cycle but are put off by road conditions; and the 'no way, no how' group, who simply do not want to cycle at all. The research shows a latent demand for cycling is significant with 60% of people identifying as 'interested but concerned'.

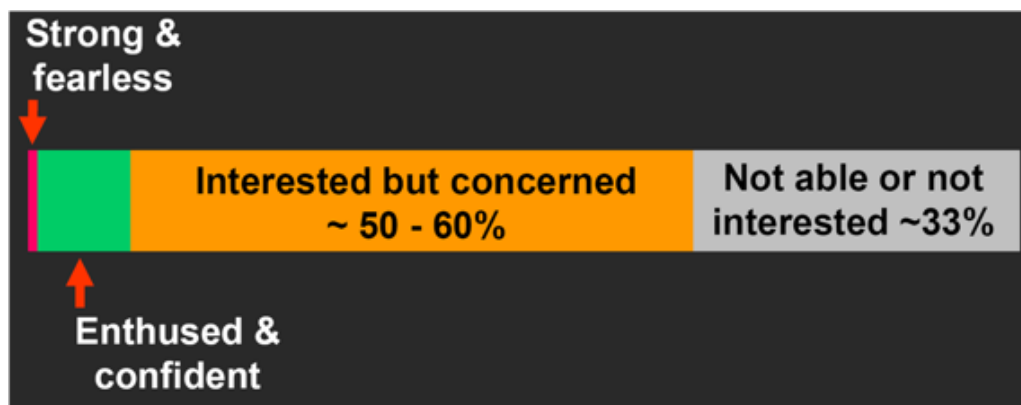


Figure 43: Level of Interest in Cycling in the population (Geller, 2005)

The following trends are influencing the participation of bike sports in Australia:

- Expanding participation for female riders
- Impact of technology on wayfinding and trail mapping
- Increased multi night stays for cycle destinations
- Increasing interest in mountain biking. This aligns with one of Sport Australia's key megatrends: From extreme to mainstream. This megatrend captures the rise of lifestyle, adventure and alternative sports which are particularly popular with younger generations
- The rise and rise of E-bikes and the increased accessibility due to the "assist" expanding age and ability of participants.

The nature of the bike industry is diverse and an expanding industry. This includes:

- Trail design, construction and maintenance
- Equipment manufacturing and retail
- Events (both competitive and recreational)
- Guided tours and skills tuition
- Targeted commercial / tourism services for cycling visitors i.e. shuttle operations, accommodation, food and beverage
- Cycle holiday packaging
- Provision of traditional tourism services targeting trail-based tourists (accommodation, food and beverage, etc).

Good examples of these trends are:

- Improvements and decreasing production costs in electric battery and motor technology is driving the increasing penetration of E-bikes (electric bikes) into the market. E-bikes are also referred to as pedal assist bikes – that is, the battery and motor supply power to the drivetrain when the rider is pedalling, providing assistance to the rider, increasing the average speed and extending the range for the average rider. They do not have a throttle like a motorbike and don't really allow riders to ride faster than a skilled rider already can. The main impact of E-bikes is that riders who believe they are too old, too unfit, too inexperienced or are otherwise not capable of going mountain bike riding are now able to experience the sport using an E-bike. The real benefit of E-bikes therefore is that they have the potential to expand the bike market beyond the stereotypical on road cyclist and off-road mountain bike rider

- Increasing popularity of gravity enduro racing is thought to be because gravity enduro is closer to the type of riding that most people like to do with their friends - riding the descents as fast as possible, and then riding together on the climbs and socialising. The Enduro World Series visiting Australia in 2017 and 2019 has influenced the development and manufacturing of gravity enduro bikes leading to an increase in the consumer uptake of these bikes. This in turn has contributed to an increase in local participation and attendance at similar events that leads to the development of gravity enduro trails at our mountain bike destinations
- We are seeing an increase in women's participation. For example, over the last two years Mt Buller Alpine Resort in Victoria has offered a women's mountain biking weekend called 'Mind, Body, Bike' that includes social rides, guided tours and skills tuition, with additional optional elements like food and wine, yoga, cooking classes, massage and mindfulness. The Australian Mountain Bike Club Women Development Program is another example. The program supports women's introduction and participation in mountain biking.

Please visit the Mind Body Bike website to find out more: <http://www.mindbodybike.com.au>.

- Pump tracks are also becoming more common. These are often located at trail heads of mountain bike destinations and in urban areas within local parks. The Quarry Park Mountain Bike Facility is one example of this. While traditionally constructed with soil, crushed rock or clay, the modern, best-practice pump tracks are being constructed with a smooth, low maintenance asphalt surface, sub-surface drainage and landscaping elements including vegetation, turf, lighting, shelters, bench seating and more.

The key benefits of asphalt pump tracks are:

- They can be constructed for low budgets
- They can be constructed in small areas
- They can be constructed quickly
- They can be used by bikes (BMX, mountain bikes, balance bikes, kids' bikes), skateboards, scooters and even in-line skates
- They have lower inherent risk than skate parks – there are no 'falls from heights', no sharp edges, no forced risks. All obstacles are rollable
- Minimal maintenance and lifespan approaching 15 years
- Excellent environment for learning bike handling skills
- Suitable for all ages and all skill levels.

4.5 Key Findings of Demand Assessment

There is a latent demand for structured and unstructured bike sports participation in Maribyrnong. There is an opportunity to increase participation by addressing the current barriers to participation in Maribyrnong including making people feel safe when riding and building a person's skills and confidence when riding. This will involve providing infrastructure that prioritises cyclists on road and offers safe off-road trails and bike sport facilities for people to ride; and bike education and skills development programs. A particular program focus should be made to increase women and children participation and across all abilities and cultures.

Ausplay participation data in 2022 identifies:

- The main barriers to participating in cycling were "poor health or injury", "not enough time / too many commitments" and "fear of injury". Other barriers listed include "can't get there", "no opportunities" and "not good enough".
- The motivation drivers for participating in cycling were "physical health or fitness", "fun and enjoyment" and "Way of getting around".

Geller's 2005 research into the level of interest in cycling shows that up to 60% of Maribyrnong residents would cycle if it was safe and they felt confident.

Collectively, bike sports are one of Australia's major participation sports and the demand is growing in Maribyrnong. There is potential to grow the current bike sport participation in Maribyrnong, including club membership and cycling programs. Key drivers of demand are:

- Maribyrnong has less adults meeting physical activity guidelines compared with the State average, and more women having insufficient levels of physical activity. Chronic disease rates, particularly Type 2 diabetes, heart disease and cancer, are comparatively high regionally. Participation trends show that people that ride a bike more than meet the recommended physical activity guidelines and decreases mortality rates from chronic diseases and obesity.
- Maribyrnong population is growing. The estimated resident population of 98,424 people for 2022 is forecast to increase by 67.27% to 164,637 people in 2051. This significant population growth will fuel demand for bike sports facilities, programs and services into the future
- There is a large proportion of Maribyrnong's population that fall into peak riding categories (Adults - 35 to 64 years). An additional 25,573 people are predicted within peak participation rates (from 42,276 to 67,849 people). This makes up 43% of the total population.
- Providing access to free and affordable bike sports facilities and services in areas with a high level of disadvantage – West Precinct, Braybrook, Stony Creek Ward, East Precinct and Footscray (all recording a SEIFA below 962) will be important for these communities to realise the benefits of cycling.
- AusCycling reports an estimated 11,352 adults (15+ years) and 1,921 children (0 to 14 years) cycling in the last 12 months. Bike sports represent a major participation sport in Maribyrnong that require a mix of bike sport facilities and programs that supports the varied bike sport disciplines to continue to grow.
- AusCycling's demand modelling supports 5,518 adults and 5,106 children were interested in cycling in the last 12 months. This further supports the latent demand potential of bike sport participation in Maribyrnong.
- There are two cycling clubs in Melbourne's West. The Footscray Cycling Club is primarily a road racing club with a membership of 170 members in 2021 including 128 males and 38 females. Westside Cycle Club is a new cycling club that covers all disciplines from road, mountain, cyclo-cross, gravel and social riding. There is an opportunity for the club to expand membership and programming to cover all bike sport disciplines with support from AusCycling. This would create a grass root to elite level pathway for all bike sport disciplines in Melbourne's West and align with AusCycling structure.
- AusCycling Ride Nations Schools has a small footprint in Melbourne's West. There is an opportunity to expand this program to more schools and students in Melbourne's West if a partnership can be formed with local schools and safe places to ride that are within close proximity to schools and accessible for safe on-road bike lanes and off-road trail routes. Across Maribyrnong, there are 14 primary schools with 5,663 students and four secondary schools with 5,574 students that could benefit from this program.
- Maribyrnong City Council bike counters on Quarry Park Mountain Bike Park shows that on average the park attracts about 2,000 to 4,000 counts daily. This represents a 100% increase in traffic in 2021 in the same period as last year 2020. It is very popular and anecdotally, users of the park are drawn from a regional catchment (Metro West, Metro North and Melbourne's CBD).
- Bike sport facilities, programs and services will need to respond to the following trends influencing the participation of bike sports in Australia:
 - Expanding participation for female riders
 - Impact of technology on wayfinding and trail mapping
 - Increased multi night stays for cycle destinations
 - Increasing interest in mountain biking. This aligns with one of Sport Australia's key megatrends: From extreme to mainstream. This megatrend captures the rise of lifestyle, adventure and alternative sports which are particularly popular with younger generations
 - The rise and rise of E-bikes and the increased accessibility due to the "assist" expanding age and ability of participants.

5. Benchmarking Analysis

An extensive benchmarking analysis of bike sport facilities has been undertaken. The analysis has included benchmarking contemporary cycling hubs in Australia, reviewing metropolitan Melbourne's bike sport facilities and access to facilities by Victorian cycling clubs. See **Appendix 2** for the full benchmarking analysis.

5.1 Benchmarking of Bike Sport Hubs in Australia

Table 44: Benchmarking Bike Sport Hubs

Name	Location	Type	Track Details	Commentary / Implications
Wagga Wagga Cycling Complex	Wagga Wagga, NSW	Criterium Track, Velodrome, BMX Track, Pump Track, Cycling Education Area, Mountain Bike Park	Wagga Wagga's \$12 million multisport cycling complex at Pomingalarna Reserve opened in 2022. It is the most recent cycling hub developed in Australia. The complex is located on the city's western outskirts and features a 1.5km criterium track (3 loops), BMX track, jump and pump tracks, mountain bike playground, cycling education area, 400m velodrome and supporting infrastructure. The complex caters for competitive and recreational cyclists and provides the infrastructure to host regional, state, national and international events.	The complex is an example of providing a purpose built cycling hub off streets for recreational and competitive cycling; and offers an athlete pathway in the Riverina region from grass root to elite competition. The venue is designed to support international events. The project supports five cycling groups and has already secured the 2022 AusCycling Marathon National Championships mountain bike event that attracts over 400 competitors and 2022 Mountain Bike National Gold Level Cross Country Olympic (XCO) event that attracts over 130 competitors.
Nerang Cycling Centre	Nerang, QLD	Criterium Track, Velodrome, Mountain Bike Park	Nerang Cycling Centre includes an outdoor Velodrome, a 1.4km criterium track that wraps around the velodrome and into the bushland park and adjoins a network of mountain bike tracks.	Nerang criterium track is run by Council and is considered a world club cycling hub that services the Gold Coast region. The facility supports the Gold Coast Cycling Club Inc. that is an amalgamation of the Gold Coast Goldstars Cycling Club and the Gold Coast Cycling Club

Name	Location	Type	Track Details	Commentary / Implications
Tolosa Park Cycling Hub	Glenorchy, TAS	Criterium Track, Pump Track, BMX Track and Mountain Bike Park	<p>The track was opened in 2012 following funding by Glenorchy City Council and a trails and bikeway grant (\$80k) from Sport and Recreation Tasmania.</p> <p>The facility includes a criterium circuit and warm up track to complement and existing mountain bike circuit. It is generally open between 10.30am - 4pm with the exception of daylight savings where times extend to between 10.30am - 8pm.</p> <p>The site is part of a larger Tolosa Park Dam precinct which includes 16 huts of varying capacity which can be hired out for use by the community with a capacity of between 40-100 people. Permits are required for all events and a condition of booking is the availability of huts 15 and 16 which both have a capacity of between 40-60 people. Public toilets, a music bowl and substantial car parking is available within the site adjacent to the circuit.</p> <p>The track is 7m wide and 800m in length and incorporates a marshalling and transition area. A 400m course is for warm up and junior competition including wheelchair and speed skating.</p>	<p>The facility provides an example of how a criterium circuit can be adapted within a publicly accessible parkland area. Bookings have to be made through the City. Close proximity to the mountain bike infrastructure provides a broader cycling precinct link.</p> <p>The length of track for competition use is limited to 800m but is maintained at a 7m width throughout. A proposed smaller circuit provides for shorter races, training and warm up. The critical aspect is the use of infrastructure which has the capability to be utilised for other purposes associated with the recreational use of the dam and parkland.</p>
Toowoomba Criterium Track	Toowoomba, QLD	Criterium Track	<p>National standard criterium track</p> <p>Joint initiative between Toowoomba Regional Council, Queensland Government and the Royal Agricultural Society of Queensland</p> <p>Six different track configurations, with circuit lengths varying from 350m to 1.7km</p> <p>Hosts local, state and national racing, including 2014 U17/U15 Road National Championships and Stage 4 of the 2014 Tour of Toowoomba, part of the elite-level National Road Series</p> <p>Free public use, except during events or private hire</p> <p>Located at Royal Toowoomba Showgrounds, 7km from Toowoomba CBD</p> <p>Various different circuit configurations from 1,760m to 400m oval.</p> <p>Links to recreational cycling routes</p> <p>Infrastructure includes toilets, showers, change rooms, function areas, clubroom, car parking</p> <p>\$2.63 million build cost</p>	<p>The Toowoomba circuit provides a range of configurations and track lengths. The incorporation of an oval is seeking to replicate a velodrome training area. The links to the adjacent cycling network encourages greater public use and activation of the site when not used for competitions and events.</p> <p>As with other dedicated criterium circuits the site provides access to a pavilion with showers and function area. Other infrastructure provides for the flexible use of the facility.</p>

Name	Location	Type	Track Details	Commentary / Implications
Stromlo Forest Park	Stromlo, ACT	Mountain Bike and Criterium Track	<p>Officially opened on 2nd December 2006 the criterium circuit is 1.2km long. A minimum width of 8 meters up to 11 meters is provided in the start finishing straight.</p> <p>The circuit is designed to provide a safe and versatile cycling and sports venue suitable for the widest possible range of activities, from adults and children's skills training and fun riding, to local, national and international cycling events, as well as a venue for elite sports training by national and state institutes of sport.</p> <p>Constructed with a central flat paved area joining front and rear portions of the track. It can be used to divide the circuit into two 650m tracks, used as a skills training area, as a base for set up of event infrastructure or marshalling area for competitors.</p> <p>The circuit has been designed to provide a mixture of fast flat cycling combined with some more technically challenging corners and easy grades at either end.</p> <p>The park entrance has been designed to accommodate road racing finishes coming in from the public road system, with a spur road onto the cycling circuit off the main park entrance road.</p> <p>The park caters for a variety of running, bike and equine activities including:</p> <ul style="list-style-type: none"> - Cross Country - Down Hill (DH) - Dirt Jumps - Trials & 4X - Equestrian Trails - Cross Country Running - Criterium Circuit <p>Current clubs operating from the facility include:</p> <ul style="list-style-type: none"> - Canberra Cycling Club; ACT Veterans Cycling; Tuggeranong Cycling Club - ACTSPORT - OzHPV - Pedal Power ACT 	<p>Stromlo Forest Park is often referenced as the optimum development where the criterium circuit forms part of a broader outdoor cycling and equine based asset. It is now considered to be one of Canberra's premier adventure sporting destinations attracting over 167,000 visits and an average year on year growth of 15%. A master plan in 2015 identified a number of enhancements to the facility including:</p> <ul style="list-style-type: none"> - BMX track - Criterium extension to increase safety and functionality. - Jumping/dirt park - Tourist accommodation - Temporary event village - Gondola to surrounding summit peak - Playground relocation (mountain bike circuit) - Cross country running track - Link bridge over criterium track - Adventurer gravity sport track and associated infrastructure. - Stromlo swimming pool. - Enclosed oval and district level playing fields - Bushfire memorial - Extensive park trails - 12km cycling circuit - Equestrian trails <p>The options to extend the development of the park reflect the relatively un-encumbered nature of the land and surrounding usage. It provides a relatively easy to develop level of infrastructure which would integrate a number of complimentary users and complement event capability.</p>

Name	Location	Type	Track Details	Commentary / Implications
Ipswich Cycle Park	Raceview, QLD	Criterion Track and Learn to Ride Track	<p>The criterium circuit was a joint project between Ipswich City Council and the Queensland Government which contributed \$1.5million to a \$3.3m facility.</p> <p>Ipswich Cycling Club and 24/7 Cycling Safety Fund actively advocated for the track's construction.</p> <p>The stage one development includes the construction of a 1.7km asphalt circuit that can be configured to three different lengths. (a 1.31km, a 1.08km and a 400m track loop).</p> <p>The facility replaces the Limestone Park velodrome that was demolished in 2010.</p> <p>Construction began in October 2017 to cater for cyclists (7m lane) runners (2m lane) and also a 1m safety lane. It also includes:</p> <ul style="list-style-type: none"> - A main race staging area which will double as 'Learn-to-Ride' facility for families when the park is not being utilised for events - A small staging area for the 400m track - Minor pathway connections - An officials shelter for use during events - Lighting and security cameras for improved safety and utilisation. <p>Future developments will include a formalised learn to ride area, a clubhouse and additional car parking. It is to be available for public use from 4:00am to 10pm.</p>	<p>The facility is one of the most recent criterium circuit developments and provides the opportunity to be split into 3 different track configurations. The use of the track for running provides alternative access when not utilised for training, competition and events. The limited associated infrastructure provides for staging and officials whilst minimising the initial capital investment. The 400m oval is seen as a replacement of the velodrome (whilst it is in not banked and is of a hot mix construction. The long-term intention is to provide a focal point for road-based cycling and the training and development of individuals learning to ride and control bikes with the objective of reducing road injuries/deaths.</p>
Luke Harrop Memorial Cycle Track	Runway Bay, QLD	Criterion Track	<p>Part of the Runaway Bay Sport & Leadership Excellence Centre</p> <ul style="list-style-type: none"> - Track standard for Local Training - An asphalt circuit with no lighting - Change room facilities: Suitable for large teams (25 or more athletes per male or female rooms) - Full wheelchair access, showers and toilets - Tactile paving - Tactile signage <p>The Sports Super Centre was an official training ground for athletes competing at the Gold Coast 2018 Commonwealth Games and its facilities are now available as a legacy to the local, domestic and international community. It provides a training and competition hub for triathlon.</p>	<p>The complex incorporates a range of sporting facilities including an aquatic centre, basketball courts, outdoor playing fields, tennis and netball courts. It is utilised by the National peak bodies of sport as a training camp with a particular focus on triathlon (Gold Coast Triathlon Championships - the largest sprint distance triathlon in Australia - due to be held on 17th April 2019 incorporating the 50m outdoor pool, synthetic athletics track and criterium circuit).</p> <p>It is also one of the monthly road racing events for the Gold Coast Cycling Club (main base for senior and junior training being at Nerang velodrome).</p> <p>The option to combine the facility with other sporting infrastructure provides a more effective flexible facility for a wider sporting user base.</p>

Name	Location	Type	Track Details	Commentary / Implications
The Girraween Criterium Cycling Track	Sunshine Beach, QLD	Criterium Track	<p>Developed in 2012, the \$6.9 million Girraween Sports Complex at Sunshine Beach provided a multi-use, district-level sport and recreation facility. Cycling is an integral part of the sporting infrastructure which focusses on elite athlete support. The Queensland Government contributed \$1.5 million towards the project</p> <p>The track is 914m in length and is designed to be used by cyclists only. It is the only self contained criterium cycling circuit on the Coast that can host a regional competition. It includes a clubhouse a 100 seat clubroom, offices, kitchen, first aid and referees' room and associated amenities. The track offers a safe recreation and training venue dedicated entirely to cyclists' use, suiting all levels of skill and fitness. There is car parking of 160 spaces and alternative parking nearby.</p> <p>The track is free for use by the public except when booked for organised events.</p>	The complex was developed by Sunshine Coast Council in partnership with the state government and in consultation with local sporting groups. It features two senior and two junior football fields, athletics grass track and facilities in addition to the criterium circuit. The criterium circuit is a safe, dedicated off-road facility with shared associated non-wheel based sporting infrastructure.
Casey Field Criterium Track	Cranbourne, VIC	Criterium Track	<p>Regional standard criterium track</p> <p>Joint initiative between City of Casey and Sport and Recreation Victoria</p> <p>20ha area</p> <p>Four different track configurations, with total track length of 2.2km</p> <p>Hosts local and state level racing</p> <p>Open for public use, except during events or private hire</p> <p>Located at Casey Fields multi-sports complex, 5km from Cranbourne and 55km from Melbourne CBD.</p> <p>Access to toilets, showers, change rooms, function areas, clubroom, car parking</p> <p>\$4.2 million build cost</p>	<p>The track was for a number of years, the only dedicated off road criterium circuit in Victoria.</p> <p>All of the alternative circuits are non-dedicated sites which would require the closure of roads at various times (or the hiring of expensive track infrastructure). Casey Fields provides the only dedicated venue which provides security of access. It is used by Casey-Cardinia Cycling Club.</p>

5.2 Key Findings for Benchmarking Analysis

The benchmarking analysis found:

- Integrating bike sport facilities with a broader sporting precinct and connected by active transport links is beneficial.
- Cycling hubs are recognised as regional facilities that cater for grass root to elite level participation (in both a structured and unstructured way). They can often provide for support infrastructure like seating requirements to host regional, state and national level events.
- Dedicated bike sport facilities with a variety of experiences are essential and offer competition, training and educational opportunities.
- Successful bike sport facilities sustain local weekly users whilst attracting visitors and events.
- Facilities are either managed by Local Government Authorities or through an agreement with a resident club.
- Facility maintenance is often subsidised by Local Government Authorities.

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6. Stakeholder Engagement

Maribyrnong City Council invited stakeholder and community input into the development of the Strategy. Methods included:

- Key stakeholder group interviews and workshop. Key stakeholders participate on a Project Reference Group
- Melbourne's West Local Government Authorities workshop
- Broader community feedback through Council's engagement page "Your City Your Voice" and via a community survey.

This section summarises the engagement findings.

6.1 Project Reference Group Workshop

A workshop was held with representatives from the cycling community in Maribyrnong including:

- Maribyrnong City Council
- Bike West
- AusCycling
- Footscray Cycling Club
- Westside Cycle Club
- Local Cycling Businesses.

Workshop Findings

Why do we need bike sport facilities in Maribyrnong?

- There is a latent demand for bike sports facilities. Quarry Park Mountain Bike Park usage was recording 1500+ visits a day.
- There is a need safe places to establish cycling habits in school kids – establish strong links with schools.
- There is a need for local places (small or large) that encourage cycling that are accessible to all in the community close to where they live.
- Suggest a hierarchy of facilities (local to regional) – These would relate to different scales and disciplines of bike sport facility types and consider event requirements.

What are the key issues in providing bike sport facilities in Maribyrnong?

- There is no safe off-road circuit.
- There is one dedicated cycling facility (Quarry Park MTB) in Maribyrnong plus two small beginner bike tracks part of parks at Cruikshank Park Bike Track and Hansen Reserve Junior Bike Skills Track. We need to develop a shared model in our parks to facilitate cycling and other activities due to the contested use of our open spaces.
- Volunteering is a challenge for the sport. We need for volunteers to host programs and races and the volunteer requirement increases dramatically when hosting events at on-road circuits. There are 14 marshals required for traffic management at Hobson Bay criterium circuit (on-road). We need an off-road circuit in Melbourne's West.

What are the key opportunities in providing bike sport facilities in Maribyrnong?

- AusCycling has launched Ride Nation that is a platform where peak cycling organisations, local cycling clubs and councils can promote facilities and activities.

- AusCycling run school programs that require safe facilities to run these programs. Particularly required in the inner west because the program only has a small footprint presently. There is interest locally but the lack of a safe bike facilities to host programs is a barrier.
- A strategy objective is to create a junior division in bike sports to offer life long engagement with sport and a long-term participation opportunity.
- There is support for a volunteer community group to support programming facilities. This could be an expansion of the Footscray Cycling Club and Westside Cycle Club.
- There is support for the establishment of bike sport facilities that offer a pathway into the sport and to support structures (club competition and events) and unstructured (social sport participation)
- There is support for a coordinated promotion of bike sport facilities, programs, events and services through Ride Nation
- There is support for more programming opportunities including Ride Nation Schools and other bike education and skills development programs that target groups .

6.2 Key Stakeholder Interviews

Follow up interviews were requested of key stakeholders including AusCycling representing the interests of bike sports clubs and Bike West representing the interest of bike sports participation in Melbourne's West. Victoria University was also consulted for an updated position on Footscray Cycling Club's access to the VU Training Track at the Werribee Campus.

AusCycling

The top three priorities for AusCycling in the new bike sport strategy are:

- Connected Communities
- Major Events
- Sports Development.

AusCycling would like to see participation opportunities for young people all the way through to professional. But understand that developing this needs to be realistic within municipal areas and partnering in strategies like the Maribyrnong Bike Sports Strategy is a good way to understanding what is possible.

AusCycling are currently running Ride Nations programs including with schools, for people in CALD communities, for women and people with disabilities.

Participation has dramatically escalated in schools and there is an opportunity to expand the Ride Nations Schools program..

AusCycling need to better engage with Councils to ensure facilities link with club networks when required. Sometimes clubs are left out and on the other hand some have a big voice.

Safe off-road bike sport Infrastructure is required for:

- Racing
- Bike education
- Modified bikes
- Scooters
- Roller blades
- Balance bikes for toddlers.

The closest velodrome to Maribyrnong would be Brunswick. There would be merit in considering a velodrome in Melbourne's West.

Council will need to reduce the number of illegal jumps being built. Many were created during the global COVID epidemic. It has been good that people are getting out and using their bikes, however this needs to be done in safe riding environment.

Bike West

Bike West participating in the workshop and an interview, presented a submission together with a series of proposals that have been summarised in the Strategic Review section of this report.

Bike West advocate for bike sport infrastructure and partnerships with schools and providing programs, particularly targeting women and young people i.e. bike education programs in schools.

Bike West advocacy achievements include the Quarry Park Mountain Bike Park and Hansen Reserve Junior Skills Bike Track.

Key issues and opportunities from the interview and submission were:

- While track cycling has decreased in popularity over the past few decades leading to the removal of velodromes becoming a self-fulfilling prophecy, these have been superseded to some extent by MTB trails and riding. However, these trails are usually 1-4 hours drive away from the west of Melbourne making them inaccessible for the majority of the population, especially young people.
- A lack of local safe places to ride has led to a situation where 1 in 3 kids don't know how to cycle. Currently the only public cycling specific facilities between Brunswick and Geelong include the highly successful Quarry Park MTB trails, the Brimbank Bicycle Education Centre in Green Gully and the dilapidated, neglected, poorly designed, and used BMX track in Altona.
- This lack effectively provides a barrier to large sections of the community from getting on their bikes. Many of the issues with infrastructure and inclusive programs that can encourage more people of all ages, abilities and genders to take up cycling and enjoy its many benefits.
- While there are many different sports available to the public, considerable evidence suggests there is a significant latent demand for cycling due to the popularity of cycling among younger and older age groups. This age profile differs from other sports where barriers to participation do not exist due to the easy access to local facilities. The peak participation in organised/structured cycling occurs in the 10-17 age bracket with a gradual decline through the twenties, thirties and forties.
- Cycling has both a lower participation rate than football and Australian football as well as a very different age profile. The low participation rates for organised cycling of those in their twenties, thirties and forties indicates enormous potential for growth should the barriers be overcome.
- Cycling participation rates are more complicated due to the various sub disciplines, road cycling, BMX and Mountain biking. As expected, BMX is more popular under the age of twelve, while MTB is more popular with teens and those in their forties. Road cycling is more popular among the over 55 age group leading to the common term, MAMIL (middle aged man in lycra).
- There has been a failure of cycling governing bodies as well as local and state governments to provide appropriate facilities and programs to reduce the barriers of entry to cycling for other age groups.
- Cycling has higher participation rates for males than females across all the different sub-disciplines for both 14 and under and over 15 age groups. This is another indicator of failure of cycling authorities as there is no reason for participation rates for males and females to be similar as is the case in northern European countries.
- When unstructured cycling is included in participation rates, cycling has a relatively similar rate as swimming. This participation rate highlights the potential for cycling, as with poor cycling facility provision is considered when compared to swimming provision. With good provision cycling provision rates, especially unstructured cycling would dramatically increase.
- There is significant latent demand for children, especially girls, as well as community members in their twenties, thirties, and forties. This suggests there exists an enormous potential to increase the number of cyclists if they felt confident and safe and infrastructure made it easy and convenient.
- Low levels of physical activity are a major risk factor for ill health and mortality from all causes and contribute to excess weight and obesity leading to the diseases such as cardiovascular disease, Type 2 diabetes, some

musculoskeletal conditions, and some cancers. Being physically active improves mental and musculoskeletal health and reduces risk factors such as overweight and obesity, high blood pressure and high blood cholesterol. Overall, 9 out of 10 young Australians do not move enough. A much neglected option in Australia for increasing physical activity is through cycling.

- Numerous studies have documented the many health benefits generated by cycling in terms of reduced risk for cardiovascular diseases, stroke, cancer, and type 2 diabetes, and consequently mortality. Cycling is mainly an aerobic activity, which means that your heart, blood vessels and lungs all get a workout. People who cycle will breathe deeper, perspire and experience increased body temperature, which will improve your overall fitness level.
- The Australian Medical Association emphasise that it is important to recognise that some of the largest gains in health and wellbeing are made by people who shift from being physically inactive (sedentary) to moderate amounts of physical activity. This suggests sedentary people who take up bicycle riding for the first time are likely to derive the most benefit.
- The City of Maribyrnong is forecast to increase by 67% by 2041, to over 157,000. This will lead to an increase in latent demand for cycling even with unchanged participation rates. However, without addressing this latent demand this will leave an increasing number of young people and women effectively excluded from cycling due to the lack of suitable cycling facilities and clubs.
- The reasons for an increasing number of children and women not cycling are complex, but the levels of cycling among children and women will not change unless women, children and their parents feel they are safe, and they have the skills to build their confidence. The only way this will change is through investment in facilities and education programs aimed at these groups.
- Urgent action is needed to establish safe cycling infrastructure and programs that will support more people of all ages to get on their bikes with the main issues being:
 - The “dearth of bicycle facilities in Maribyrnong and the western suburbs”.
 - The increasing popularity of cycling among some age groups and cultural groups which is not translating into the younger generation or women taking up cycling.
 - The latent demand for cycling suggests up to 85 to 90% of the population would cycle if it was safe and they felt confident.
 - The lack of physical activity of people especially children and associated health costs.
 - The rapidly increasing population in Maribyrnong.
- Local provision of cycling facilities is key to the success of bike sports in Maribyrnong as well as providing programs for these facilities in conjunction with schools and supporting local clubs.
- A key issue is the expected “backlash from local park user groups” as any change in park usage or shared areas. Council needs to be prepared in advance of this backlash with strong evidence of support from the direct local community as well as the wider Maribyrnong community.
- Despite Maribyrnong being an inner city local government area, there are many underutilised public areas as well as opportunities for provision of small cycling facilities such as pump tracks.

Victoria University

The Precincts, Communities & Government Relations and Facilities Groups of Victoria University provided the following advice on the status of Footscray Cycling Club’s access to the training track at VU’s Werribee east campus, off Hoppers Lane, Altona.

Victoria University have acknowledged the limited assets in the west to accommodate the training of on road cycling and have offered to maintain the long-standing relationship with Footscray Cycling Club. However, their requests for access to the track will be dealt with on ad-hoc basis, until a condition report of the training track is finalised.

So far, the club has requested and been approved bookings for four days (in July, August and September 2022) to undertake their winter 2022 schedule.

The condition report is underway and is due for completion by the end September 2022. VU will check in with the Project Team in October to report on the status of access and the outcomes of the condition report.

Footscray High School

Bike West have partnered with Footscray High School in the last two years and developed bike programs for students. These programs involve bicycle maintenance skills and bike riding skills.

The bike skills program has ran in an ad-hoc fashion in 2020 and 2021. In 2022 the bike maintenance program is being taken by all year 9 students with the skills program to be taken by all year 9 students in 2023 at Quarry Park Mountain Bike Park

6.3 Melbourne West Local Government Authorities Workshop

The Project Team invited Local Government Authorities in Melbourne's West to discuss a regional approach to providing bike sport facilities.

Project Scope:

- Bike Sports is the competitive form of cycling that includes road, track, BMX, cyclocross and mountain bike racing. The project focuses on identifying how and where we should invest in bike sport facilities to support competitive and recreation use of these activities.
- The facilities that cater for these activities include roads, velodromes, criterium circuits, BMX tracks, open areas with variable terrain (cyclocross) and single use mountain bike tracks.
- The key reason for Maribyrnong seeking to invest in bike sport facilities is to improve community health and wellbeing.

Key Questions:

- What facilities does your Council have planned to support bike sports?
- Which of these facilities can provide a regional response to support bike sports in Melbourne's west?
- Is there a joint planning response needed to support specific bike sports in Melbourne's west?

Workshop Findings

We can't all provide for bike sports facilities due to the contested space for open space in Melbourne's West. A regional approach is required to meet the growing bike sport needs in Melbourne's West.

Bike sports is a tool to active pathways and healthy living. Providing a spectrum of infrastructure and programming that targets all of community is important to supporting bike sport pathways. This hasn't been done well in the past.

Cyclocross tracks, criterium circuits and pump track were bike sport facilities identified in demand.

Road racing is a challenge. There is a high cost to closing roads and a high demand on volunteers. A regional cycling hub that supports a safe off-road criterium circuit would reduce the burden on volunteers and mean on-road circuits used in Melbourne's west were no longer required.

A regional partnership approach with AusCycling is supported. A focus on the connection from programs to community that provide pathways in bike sports from education to structured (club and competition) and unstructured (social rides) participation. It is important we make sense of the pathway (introduction, community programs, club, and recreation) because it has been poor.

AusCycling doesn't have leverage with the clubs but the focus now on a one peak body support of all bike sports discipline is an opportunity for clubs at a local level. Local Government Authorities can play a role in fostering this opportunity because we have a relationship with clubs. A partnership approach is possible and should be advantageous to community, clubs and sport.

A strategic support for regional bike sport facilities would add weight to "collective" advocacy.

Bike sports facilities should link with the strategic on-road and off-road trail network. A key reference document is West Trails - Western Metropolitan Melbourne's Trails Plan. A map that overlays the trail network with bike sport facilities (current and proposed (and potential opportunities) would be a useful planning and advocacy tool.

Melton – There are no operational bike sport facilities in Melton. We support a regional planning framework and approach for bike sports in Melton and across Melbourne's west. There is an old criterium track at McPherson Park that is now disused and services car parking for finals football.

Brimbank – The key regional bike sports facility project is Sunshine Energy Park. This is located off Ballarat Road near Western Underpass. It is a regional sport and recreation park but requires remediation to landfill. Low impact short term works will include shared use trails, criterium circuit, pump tracks and BMX track. A *draft* Vision Statement is being prepared and will be released later in 2022. The Ardern Reserve Master Plan proposes a criterium circuit. This is not funded in Long Term Financial Plan. Sections may be delivered as funding opportunities arise.

Wyndham – Lawrie Emmins Reserve is located off Sayers Road. The regional sports and cultural park includes a \$22.5 million cycling facility and earmarked to deliver in the next 10 years. The motocross track has been delivered. The facility will include a 1.8km criterium track, national level supercross BMX track, 300m long pump track, 320m to 420m velodrome track. The reserve is positioned uniquely so that is easily accessible off major road arterial and active transport link and would service Hobsons Bay and Maribyrnong areas. This is not funded in Long Term Financial Plan. Sections may be delivered as funding opportunities arise.

There is also the existing Wyndham BMX track that is home to Wyndham BMX Club. A further track is earmarked in the growth area.

Hobson Bay – Existing facilities include Jake Blvd criterium track circuit on-road. Council supports road closure process in consultation with VicPol. There is the existing Altona BMX Track at HD Graham Reserve that is a publicly accessible track. A new asphalt pump track is being built at Donna McLean Reserve as part of a play space upgrade.

Council is very supportive of Lawrie Emmins Reserve regional cycling facility that is well connected.

* The development of 'local' pump tracks and junior bike skills tracks with playspace renewal projects were supported by all Local Government Authorities in Melbourne's West.

Moonee Valley – There are limited bike sport facilities in Moonee Valley. There is a small BMX track in Moonee Valley and the Essendon Traffic School. There is funding in the budget to build a pump track facility and a potential site for mountain bike tracks at Boeing Reserve. This is proposed by Moreland CC on their part of the reserve.

6.4 Key Findings of Stakeholder and Community Engagement

Stakeholder Engagement

Key stakeholders identified:

- Support the development of a diverse bike sports facilities that are linked by off road trails and on road cycling routes. These facilities would be promoted (through AusCycling's Ride Nation platform) and facilitate programs and events in Maribyrnong.
- Access to safe places to ride close to where people live will establish cycling habits in our community is good for the health of Maribyrnong community, it encourages sustainable transport and is good for the environment. Particularly young people through partnerships with schools in expanding the school bike education programs (like AusCycling's Ride Nation Schools Program).
- There is latest demand for bike sports and demand will only increase as the population grows. There is support for providing a hierarchy of bike sports facilities (local, district and municipal) and programs that offer a pathway into the sport. This would include in structured (club competition and events) and unstructured (social sport) participation. There is an opportunity for the Footscray Cycling Club and Westside Cycle Club in partnership with AusCycling and Maribyrnong City Council to broaden the focus of the clubs to all bike disciplines including off-road (cyclo-cross, mountain biking).

- The Quarry Park Mountain Bike Park is a great bike sport asset and could be expanded to be a cycling hub in Maribyrnong. The small beginner bike track at Cruikshank Park (Yarraville Pump Track) requires renewal. The Hansen Reserve Junior Bike Skills Track has been very well received and the concept could be considered in other parks. There is an urgent need to establish more safe bike sport facilities to meet latent and future bike sport participation demand
- A shared model of use of our parks to facilitate cycling and other activities is needed but it was recognized that there is contested use of our open spaces by community.
- Volunteering is declining and the increasing requirement to manage on-road cycling events is challenging. An off-road circuit in Melbourne's West is a priority for club competition and events. This track could also support training, recreation riding and human powered vehicle programs run through local schools.

Community Engagement

Phase one community engagement was online only via Maribyrnong City Council's Your City Your Voice platform. 73 responses were received with a summary provided below:

- Most respondents were active bike sport participants.
- Most respondents supported bike sport participation (94%) and bike sport facilities (92%) in Maribyrnong.
- The most popular riding locations identified included regional Victoria (the You Yangs), Quarry Park Mountain Bike Park, on-road cycling routes and off-road trails in metropolitan Melbourne, including the Maribyrnong River Trail.
- Most respondents participated in bike sports because it encourages healthy living, it is fun and social.
- Key barriers to bike sport participation were the lack of safe and suitable bike facilities close to home, safe on road bike lanes, work and family commitments, and the lack of confidence.
- 81% of respondents were interested in participating in bike sports in Maribyrnong if there were more opportunities.
- There were a wide range of ideas proposed for improving bike sport participation in Maribyrnong. These included:
 - More bike sport facilities (close to home) that covered a diversity of cycling options including cyclocross, criterium track, velodrome, mountain bike trails, pump track, BMX track, learn to ride / junior bike skills tracks
 - Extending and renewing existing bike sport facilities at Quarry Park Mountain Bike Park and Yarraville Pump Track.
 - Developing new bike sport facilities including Cranwell Park.
 - Extending the bike path network and improving the safety of on-road cycling network. A separate bike lane on the Maribyrnong River Trail and connecting bike paths by a gravel paths network were key suggestions.
- Of the small number of respondents who did not support new bike sports facilities, key reasons included that residents didn't want the limited green space used for passive purposes lost to sport; and there was a conflict and safety concern between walkers and cyclists on shared paths.

7. Strategic Directions

The following section summarises the key findings from market research, site and facilities review and stakeholder engagement together with a proposed vision and supporting objectives and recommendations.

7.1 Key Issues and Opportunities

Riding improves health and more people riding bikes will deliver social, economic and environmental benefits to Maribyrnong

Bike sport facilities and destinations show that properly planned bike sport facilities and trail networks with supportive infrastructure can provide significant liveability, economic and health benefits to communities. Recently the Queensland Government released the Queensland Cycling Strategy 2017-2027. The Strategy reports that for every \$1 spent on bike infrastructure there was a return of \$5 in physical health benefits, reduced congestion and other benefits.

The creation of cyclable communities will foster a love of riding and is a key ingredient to addressing the low levels of physical activity and resulting health concerns in Maribyrnong. These include:

- 1 in 2 people aged 18 and over (56%) do not meet physical activity guidelines with a higher proportion of women (58%) than men (53%) not meeting their physical activity guidelines
- For ages 18–24, 51% of women and 42% of men do not meet physical activity guidelines.
- Over 70% of children and 91.5% of young people do not meet physical activity recommendations
- Declining rates of physical activity are contributing to accelerating rates of childhood obesity. Over one-quarter of Australian children are overweight or obese.

Maribyrnong has less adults meeting physical activity guidelines compared with the State average, and more women having insufficient levels of physical activity.

Chronic disease rates, particularly Type 2 diabetes, heart disease and cancer, are comparatively high regionally. Participation trends show that people that ride a bike more than meet the recommended physical activity guidelines and decreases mortality rates from chronic diseases and obesity.

There is strategic support for bike sport facilities

There is strategic support for improving the provision of bike sport facilities in Maribyrnong:

- Cycling Victoria State Facilities Strategy identify a significant land of cyclo-cross and criterium facilities across Victoria
- Victorian Mountain Bike Strategy identify a need for regional scale mountain bike facilities that cater for recreation rides and skill progression. The strategy recommends the development of pump tracks, skills and jumps parks
- Maribyrnong Bike Strategy supports the development of bike facilities together with an extended network of on-road cycling routes and off-road trails for active transport and recreation.
- The Principal Bicycle Network and Strategic Cycling Corridors network supports improving cycling infrastructure and safety along these designated on-road cycling routes.
- West Trails supports extending and upgrading the off-road trail network across Melbourne's West.
- Stony Creek Master Plan supports renewing and extending the Yarraville BMX / Pump Track at Cruickshank Park.

New and upgraded bike facilities proposed by this Strategy should connect with the strategic on-road cycling routes and off-road trails proposed in the Maribyrnong Bike Strategy, Principal Bicycle Network, Strategic Cycling Corridors and West Trails strategic plans.

The research findings show that investing in infrastructure that offers a diversity of bike sport facilities that are connected by a network of safe, accessible, attractive, and comfortable on-road cycling routes and off-road trails and offer pathways into bike sports for recreation and competition (grass root to elite level) is an important ingredient to encouraging more people to ride.

Other ingredients include a partnership approach between Council, Government, Education and Sport, promoting and informing people of the participation opportunities, investing in bike education programs, supporting the growth of cycling clubs to offer a more diverse bike sport experience across all disciplines, hosting programs and events for riders.

The Maribyrnong community support bike sport facilities

Key stakeholders and the community support the development of bike sport facilities to encourage more people to ride in Maribyrnong.

Key Stakeholders including AusCycling, Bike West, Footscray Cycling Club, Westside Cycle Club, Victoria University and local cycling businesses were consulted. Key stakeholders identified:

- Support for the development of a diverse bike sports facilities that are linked by off road trails and on road cycling routes. These facilities would be promoted (through AusCycling's Ride Nation platform) and facilitate programs and events in Maribyrnong.
- Access to safe places to ride close to where people live will establish cycling habits in our community is good for the health of Maribyrnong community, it encourages sustainable transport and is good for the environment.
- There is an opportunity for the Footscray Cycling Club and Westside Cycle Club in partnership with AusCycling and Maribyrnong City Council to broaden the focus of the clubs to all bike disciplines including off-road (cyclo-cross, mountain biking).
- The Quarry Park Mountain Bike Park is a great bike sport asset and could be expanded to be a cycling hub in Maribyrnong. The small beginner bike track at Cruikshank Park (Yarraville Pump Track) requires renewal. The Hansen Reserve Junior Bike Skills Track has been very well received and the concept could be considered in other parks.
- A shared model of use of our parks to facilitate cycling and other activities is needed but it was recognized that there is contested use of our open spaces by community.
- Volunteering is declining and the increasing requirement to manage on-road cycling events is challenging. An off-road circuit in Melbourne's West is a priority for club competition and events. This track could also support training, recreation riding and human powered vehicle programs run through local schools.

There were 296 visitors to Maribyrnong's "Your City Your Voice" engagement page with 73 responses received to the community survey. Most respondents were active bike sport participants. Key themes from the survey were:

- Most respondents supported bike sport participation (94%) and bike sport facilities (92%) in Maribyrnong.
- Most respondents participated in bike sports because it encourages healthy living, it is fun and social.
- The lack of safe and suitable bike facilities close to home, safe on road bike lanes, work and family commitments, and the lack of confidence were key barriers to bike sport participation.
- There were 81% of respondents that were interested in participating in bike sports if there were more opportunities to ride.
- There were a wide range of ideas proposed for improving bike sport participation in Maribyrnong. These included:
 - More bike sport facilities (close to home) that covered a diversity of cycling options including cyclocross, criterium track, velodrome, mountain bike trails, pump track, BMX track, learn to ride / junior bike skills tracks
 - Extend and renew existing bike sport facilities at Quarry Park Mountain Bike Park and Yarraville Pump Track.
 - Develop new bike sport facilities including Cranwell Park.

- Extending the bike path network and improving the safety of on-road cycling network. A separate bike lane on the Maribyrnong River Trail and connecting bike paths by a gravel paths network were key suggestions.
- There were four respondents that did not support new bike sports facilities in Maribyrnong. The key reasons were that residents didn't want the limited green space used for passive purposes lost to sport; and there was a conflict and safety concern between walkers and cyclists on shared paths.

There is a high demand for bike sport facilities in Maribyrnong

There is a latent and growing demand for structured and unstructured bike sports participation in Maribyrnong.

Geller's 2005 research into the level of interest in cycling shows that up to 60% of Maribyrnong residents would cycle if it was safe and they felt confident. There is an opportunity to increase participation by addressing the current barriers to participation in Maribyrnong including making people feel safe when riding and building a person's skills and confidence when riding. This will involve providing infrastructure that prioritises cyclists on road and offers safe off-road trails and bike sport facilities for people to ride, and bike education and skills development programs. A particular program focus should be made to increase women and children participation and across all abilities and cultures.

Collectively, bike sports are one of Australia's major participation sports and the demand is growing in Maribyrnong. There is potential to grow the current bike sport participation in Maribyrnong, including club membership and cycling programs. Key drivers of demand are:

- Maribyrnong population is growing. The estimated resident population of 98,424 people for 2022 is forecast to increase by 67.27% to 164,637 people in 2051. This significant population growth will fuel demand for bike sports facilities, programs and services into the future
- There is a large proportion of Maribyrnong's population that fall into peak riding categories (Adults - 35 to 64 years). An additional 25,573 people are predicted within peak participation rates (from 42,276 to 67,849 people). This makes up 43% of the total population.
- Providing access to free and affordable bike sports facilities and services in areas with a high level of disadvantage – West Precinct, Braybrook, Stony Creek Ward, East Precinct and Footscray (all recording a SEIFA below 962) will be important for these communities to realise the benefits of cycling.
- AusCycling reports an estimated 11,352 adults (15+ years) and 1,921 children (0 to 14 years) cycling in the last 12 months. Bike sports represent a major participation sport in Maribyrnong that require a mix of bike sport facilities and programs that supports the varied bike sport disciplines to continue to grow.
- AusCycling's demand modelling supports 5,518 adults and 5,106 children were interested in cycling in the last 12 months. This further supports the latent demand potential of bike sport participation in Maribyrnong.
- There are two cycling clubs in Melbourne's West. The Footscray Cycling Club is primarily a road racing club with a membership of 170 members in 2021 including 128 males and 38 females. Westside Cycle Club is a new cycling club that covers all disciplines from road, mountain, cyclo-cross, gravel and social riding. There is an opportunity for the club to expand membership and programming to cover all bike sport disciplines with support from AusCycling. This would create a grass root to elite level pathway for all bike sport disciplines in Melbourne's West and align with AusCycling structure.
- AusCycling Ride Nations Schools has a small footprint in Melbourne's West. There is an opportunity to expand this program to more schools and students in Melbourne's West if a partnership can be formed with local schools and safe places to ride that are within close proximity to schools and accessible for safe on-road bike lanes and off-road trail routes. Across Maribyrnong, there are 14 primary schools with 5,663 students and four secondary schools with 5,574 students that could benefit from this program.
- Maribyrnong City Council bike counters on Quarry Park Mountain Bike Park shows that on average the park attracts about 2,000 to 4,000 counts daily. This represents a 100% increase in traffic in 2021 in the same period as last year 2020. It is very popular and anecdotally, users of the park are drawn from a regional catchment (Metro West, Metro North and Melbourne's CBD).
- Bike sport facilities, programs and services will need to respond to trends influencing the participation of bike sports in Australia including the expanding participation for female riders, impact of technology on wayfinding

and trail mapping, Increased multi night stays for cycle destinations, increasing interest in mountain biking and the rise of E-bikes.

There are limited bike sport facilities in Maribyrnong

Maribyrnong has only three bike sport facilities. These are:

- Quarry Park Mountain Bike is a 'regional' (state level) facility that includes mountain bike trails, skills park and pump track. It is the only such facility in Melbourne's West.
- Yarraville BMX Track is a 'local' track with small bumps and is suited to beginner level riders. The facility is basic and requires renewal.
- Hansen Reserve Junior Bike Skills Track is a new 'local' track and features obstacle bumps, fast humps, rumble strips, a roundabout and ramps.

The current bike sport facilities in Maribyrnong are connected by the Principal Bicycle Network, Strategic Cycling Corridors and trails proposed in the West Trails Plan.

The existing bike sport facilities in Maribyrnong provide a pathway into bike sport participation. The Hansen Reserve Junior Bike Skills Track introduces preschool and primary school aged children (beginners) to riding on a fun easy track with interesting challenges to help develop bike skills. The Yarraville BMX Track offers a gravel BMX / mountain bike flow track experience. It is of an average/poor condition that if renewed to provide a junior and experienced pump track experience would complement the regional level Quarry Park Mountain Bike Park and introductory level Hansen Reserve Junior Bike Skills Track.

However, these are only three bike sport facilities and there are several suburbs that have no access to bike sport facilities within 2km of where they live including: Braybrook, Maidstone, Maribyrnong, and Seddon. Opportunities to provide local and municipal bike sport facilities in these areas should be explored.

There is currently one criterium circuit in Melbourne's West at Victoria University Werribee Campus training track in Altona. This is in average condition and the use of the track by the Footscray Cycling Club in the future is not guaranteed. There is a disused criterium track at MacPherson Park in Melton that is now used as car parking.

There are no velodromes in Melbourne's west. The closest velodromes are DISC (Indoor Velodrome) in Thornbury, Brunswick and Coburg in Melbourne's north.

Outside the Quarry Park Mountain Bike Park there are no current regional cycling facilities in Melbourne's West. There are however proposed regional cycling facilities in Wyndham City Council and Brimbank City Council that are well located and connected to service Local Government Authorities in Melbourne's West.

Maribyrnong supports a regional approach to cycling hubs

The three regional cycling hub proposals supported by master plans in Melbourne's West will meet the regional club and competition needs for criterium and velodrome racing. These are at Lawrie Emmins Reserve (Wyndham), Sunshine Energy Park (Brimbank) and Ardeer Green Activity Hub (Brimbank). The facilities are located on the primary trail network and strategic cycling corridors into Maribyrnong together with access to major road arterials and public transport connections. These projects are not funded.

These cycling hubs support a mix of bike sport disciplines including 'regional' level criterium, velodrome, BMX and pump tracks. Maribyrnong City Council supports these regional cycling hubs because they will service the bike sport competition needs in Maribyrnong including the Footscray Cycling Club and Westside Cycle Club.

The Quarry Park Mountain Bike Park is recognised as one of these 'regional' cycling hubs. There is an opportunity for AusCycling to support Footscray Cycling Club and Westside Cycle Club in expanding to off-road cyclists and establish Quarry Park as a home or satellite venue for mountain bike programs, events and activities.

Council could also consider a similar operating and service model to that provided at Valmont Bike Park in Boulder, Colorado, USA. This is a hybrid model that retains public amenity and provides active programming. It includes a bike

servicing and sales workshop, café / kiosk and programming. This commercial opportunity could improve the financial sustainability of the facility and potentially be a joint community enterprise venture with Bike West.

Facility provision to focus on pathways into bike sports

Maribyrnong is a relatively flat municipality, however there are steep slopes created over eons by the Maribyrnong River and other water courses that offer opportunities for downhill, climbing, and other challenging bike sport activity. This landscape also provides ways of appreciating the natural environment and excellent views. There is an opportunity to expand on the current bike sport facilities in Maribyrnong.

The focus of bike sport facility provision should be on providing pathways into bike sports (fun and diverse bike sport facilities and tracks) and addressing gaps in bike sports facilities within a regional context.

There is a current lack of a criterium track, velodrome and cyclocross tracks in Melbourne's West. In response, there are three regional cycling hub proposals in neighbouring municipalities in Melbourne's West. These are supported by master plan that will meet the regional club and competition needs for criterium and velodrome racing. **There is no requirement for Maribyrnong to provide 'regional' standard facilities for criterium, velodrome and BMX.**

Council has already committed to the following bike sport facility projects in the Maribyrnong Bike Strategy and Stony Creek Master Plan:

- Explore opportunities for an additional learn-to-ride area in the north part of the city, such as at Robert Barrett Reserve adjacent to the skate park or McDonald Reserve.
- Prioritise access to a pavilion space for a cycling club specifically encouraging female and junior membership.
- Continue to install three bicycle maintenance stations annually.
- Investigate feasibility of a cycle track around an oval, and an all-inclusive bike hub at a suitable location including access for disability service agencies to provide cycle training at a suitable location
- Upgrade the Yarraville Pump/BMX Track.

This strategy has considered the proposals prepared by Bike West for additional bike facilities at Quarry Park that builds on the success of the existing mountain bike park, a mountain bike skills loop at Cranwell Gardens together with exploring the potential of Cruikshank Park as part of the renewal of the track.

7.2 Proposed Strategic Directions

Proposed Vision

Maribyrnong's connected and diverse network of bike sports offers community a pathway into bike sports and a life-long engagement with riding

Strategic Objectives

Objective 1: Provide a diversity of new bike sports Infrastructure that offers everyone in the community pathways into bike sports participation

Objective 2: Develop partnerships and facilitate programs that foster pathways into bike sport participation

Objective 3: Advocate for funding support and events at regional bike sport facilities

Objective 4: Well maintained and managed bike sport facilities

Action Plan

Objective 1: Provide a diversity of new bike sports Infrastructure that offers everyone in the community pathways into bike sports participation

1. Extend the Quarry Park Mountain Bike Park with a 'regional' level cyclo-cross track together with a minor, low banked ring track around the sport oval and bike sports pavilion with café, bike services workshop and learning / function space. This should be an integrated space and provide for a number of disciplines being mountain biking, cyclo-cross, pump track, human powered vehicles and mountain bike trials. This development should be integrated into a significant urban forest on the site.
2. Renew and extend Yarraville Pump Track with a contemporary facility for beginners and experienced BMX, skaters, wheelchair users and mountain bike riders.
3. Provide a four cross mountain bike track in Cranwell Gardens.
4. Provide 'local' junior bike skills (learn to ride) tracks and pump tracks near play spaces in strategic locations around Maribyrnong. Prioritise parks in suburbs with no bike sport facilities. Consider Robert Barret Reserve and Braybrook Park (Skinner Reserve) as central parks servicing these suburbs. Consider a small pump track at Braybrook Park.
5. Support the development of a separate bike lane along the Maribyrnong River Trail.
6. Explore possible locations where roads closure could be easily facilitated to provide an on-road criterium circuit to support club activities.

Objective 2: Develop partnerships and facilitate programs that foster pathways into bike sport participation

1. Partner with AusCycling in the promotion of bike sports facilities and programs in Maribyrnong on the Ride Nation platform.
2. Partner with AusCycling in the expansion of Ride Nation Schools bike education program in schools within Maribyrnong.
3. Partner with AusCycling and the Footscray Cycling Club and Westside Cycle Club in the expansion of the clubs to focus on all bike sport disciplines.
4. Partner with neighbouring Local Government Authorities and other land managers in the planning and advocacy of regional bike sports facilities and the strategic off-road trail and on-road cycling routes.
5. Partner with local organisations (interest groups) and develop programs that support target segments of the community i.e., new migrants, disability, children, young people, and women.

Objective 3: Advocate for funding support and events at regional bike sport facilities

1. Recognise the proposed bike sport facilities at Lawrie Emmins Reserve in Wyndham and Sunshine Energy Park in Brimbank as 'regional' bike sport facilities in Melbourne's West. These facilities are well located on Principal Bicycle Network and Strategic Cycling Corridors and will deliver the regional needs for a criterium track and velodrome (south and north of Melbourne's West).
2. Advocate to State and Federal Government for funding the proposed improvements to Quarry Park Mountain Bike Park and establish the park as Melbourne's West 'regional' mountain bike and cyclocross bike sports facility.
3. Promote Quarry Park Mountain Bike Park as a destination for 'regional' and 'state' level cyclocross and mountain bike events.

Objective 4: Well maintained and managed bike sport facilities

1. Implement the asset management plan and maintenance plans for current bike sport facilities and update when new bike sports facilities are constructed. Align Council's operational and renewal budgets.
2. Allocate access (lease or license) for the operation of the proposed new bike sports pavilion. The operator is to partner with local clubs, Bike West and AusCycling in the development and running of programs. This could be a joint community enterprise venture with Bike West and a commercial opportunity that improves the financial sustainability of the facility.
3. Implement a process for collating participation data i.e. counters, participant surveys, as a means of measuring social and economic benefits.

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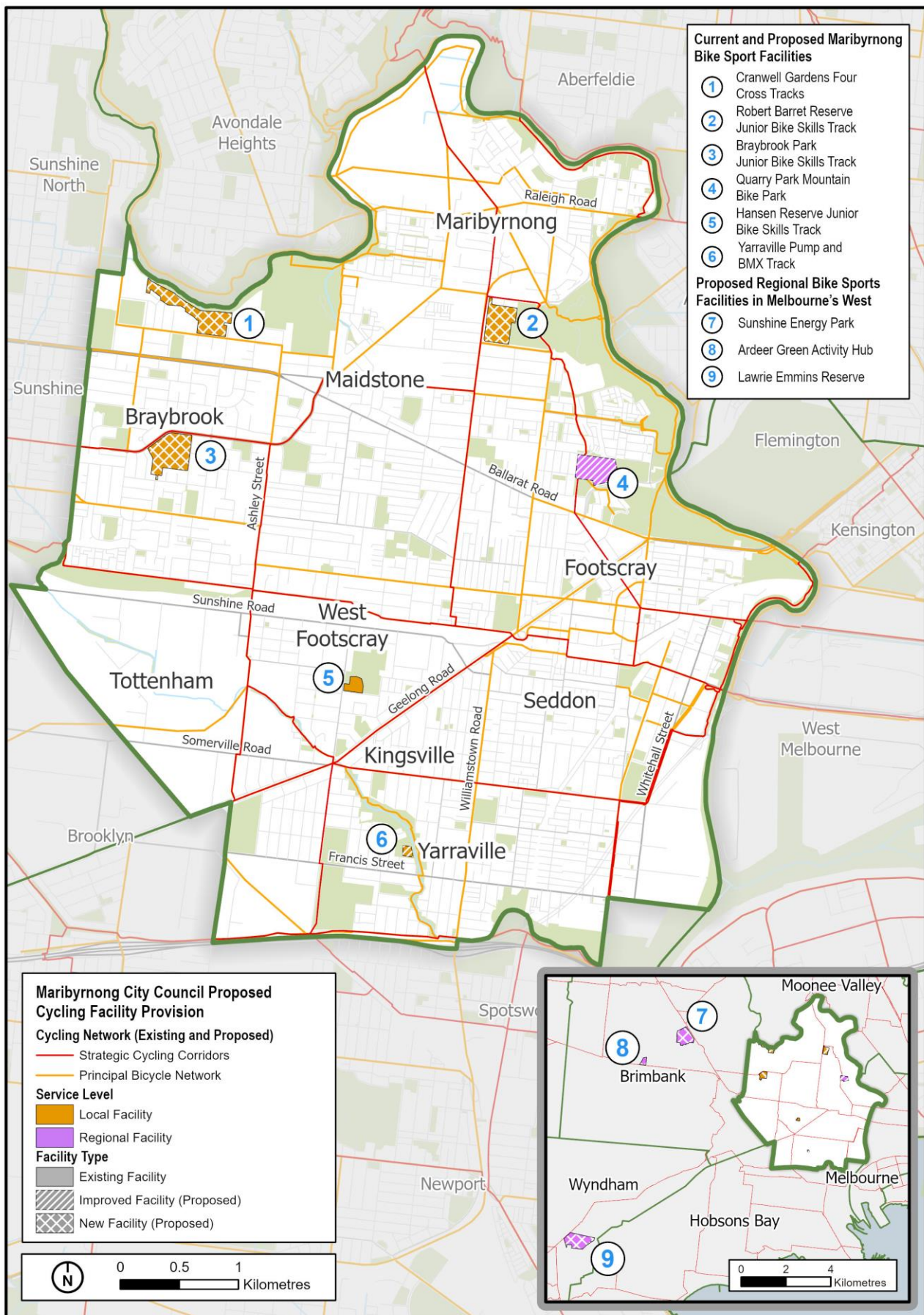


Figure 45: Potential Future Bike Sports Locations (Note: size of facilities is not drawn to scale)

7.3 Site Specific Development Options

The following site-specific development options have been assessed. The proposed improvement, advantages and implications of each option are summarised.

Quarry Park Mountain Bike Park

There is an opportunity to create the Quarry Park Mountain Bike Park as the 'regional' off-road bike sports hub location in Melbourne's West. The proposed concept builds off the existing mountain bike trails, jumps and skills park and pump track by providing a 'regional' level cyclo-cross track (that can also be used as a trail running track), a minor banked velodrome of 4m wide around the sports oval, and pavilion that can provide for café / kiosk, bike services workshop, a learning / function space that can be a meeting place for running bike skills programs and offers a small event space. The pavilion offers a commercial opportunity that could improve the financial sustainability of the facility and potentially be a joint community enterprise venture with Bike West. This pavilion should provide for all-inclusive programs and designed to Universal Design Principles and Female Friendly Design Guidelines.

There is no requirement for Maribyrnong to provide for 'competition standard' velodrome or criterium track in Melbourne's West because other proposals in the region have strategic support, available land and the design and development processes are well progressed. These include regional cycling hubs at Lawrie Emmins Reserve, Sunshine Energy Park and Ardern Park.



Figure 46: Examples of Proposed Bike Infrastructure Proposed by Bike West at Quarry Park

Advantages:

- The topography and open space area is ideal for a cyclo-cross trail and would only require an extension of the existing gravel trails. There is open space available to support a pavilion (about 250m²) with proposed functions.
- There are no designated cyclo-cross tracks in Melbourne's West and shortfall in tracks across metropolitan Melbourne.
- The park is well located centrally to Maribyrnong and on the Maribyrnong River Trail, a regional trail as part of the off-road trail network. This trail connects to the on-road cycling routes and off-road trails proposed in the Maribyrnong Bike Strategy.
- The minor banked velodrome around the sports oval will provide a safe place for people to learn to ride and supports the human powered vehicle programs run through schools.
- The "all inclusive" pavilion will provide a home for a future "off-road" bike sport club activities and events. It would be a focal place for programs that offer a pathway to bike sports and encourage all genders, ages, abilities and cultures to learn to ride and develop their bike skills in a fun and safe riding environment.
- The proposed bike sport facility is consistent with the existing land use and there are no planning restrictions that would prevent the development.

Disadvantages:

- The Quarry Park Master Plan currently doesn't support an expansion of bike sport facilities

Yarraville Pump Track Renewal and Improvement

A pump track similar to the concept at Creswick Pump Track in Hammon Park and proposed at the old Coldstream Station site is proposed for the renewal and extension of the Yarra Ville Pump Track at Cruikshank Park. It is of a similar size open space area and shows a contemporary pump track experience for beginners to experienced BMX and mountain bike riders.



Figure 47: Coldstream Pump Track (Source: Yarra Ranges Council)

Advantages:

- The renewal and extension of the track is strategically supported in Maribyrnong Bike Strategy and Stony Creek Futures Directions Plan.
- The track is basic and of average condition. A renewal of the track to a “local” contemporary pump track experience for beginners to experienced BMX and mountain bike riders would attract participation within the southern part of the municipality (Yarraville and Kingsville – south of Railway line)
- The park is well located on the Stony Creek Trail that connects to the Maribyrnong River Trail. These trails are key trails as part of the off-road trail network. These trails connects to the on-road cycling routes and off road trails proposed in the Maribyrnong Bike Strategy.
- The facility complements the mountain bike, skills park and pump track experiences offered at Quarry Park.
- The proposed bike sport facility is consistent with the existing land use and there are no planning restrictions that would prevent the development.

Disadvantages:

- The expansion of the track within the existing open space area may not be supported by some community members who use the park for other purposes because it is located on a shared use trail and accessible to the local community i.e. dog walking and exercise (The park is not a designated dog park).

Cranwell Park Four Cross Track

The proposed four cross track at Cranwell Park is similar to the Anglesea Bike Park. It offers a different BMX and mountain bike experience to Quarry Park Mountain Bike Park and Cruikshank Park.



Figure 48: Anglesea Bike Park Four Cross Track (Source: Surf Coast Shire Council)

Advantages:

- The topography and open space area is ideal for a four cross track bike park.
- The park is well located centrally to Maribyrnong and on the Maribyrnong River Trail, a regional trail as part of the off-road trail network. This trail connects to the on-road cycling routes and off-road trails proposed in the Maribyrnong Bike Strategy.
- There are no bike sport facilities in the northern part of Maribyrnong (Braybrook and Maidstone – north of railway line).
- The proposed facility is a different type of mountain bike facility to Quarry Park Mountain Bike Park. It offers a fun pathway into bike sports that is social and would attract participation within the northern part of the municipality.
- The proposed bike sport facility is consistent with the existing land use and there are no planning restrictions that would prevent the development.

Disadvantages:

- The development of the track within the existing open space area may not be supported by some community members who use the park for other purposes because it is located on a shared use trail with playspace and is a designated dog park.

Robert Barret Reserve Junior Bike Skills Track

A junior bike skill track, similar to concepts provided at Hansen Reserve in Yarraville, the Berwick Waters Grand Prix Playspace in Berwick and the Queens Park Track in Healesville is proposed at Robert Barrett Reserve adjacent the skate park.



Figure 49: Hansen Reserve Junior Bike Skills Track (Source: Mamma Knows West)

Advantages:

- The park is well located central to the suburb of Maribyrnong near Highpoint Shopping Centre and is part of a sporting precinct with sports field, tennis courts, bowling greens and playspace. The park is within proximity to the Maribyrnong River Trail, a regional trail as part of the off-road trail network. This trail connects to the on-road cycling routes and off-road trails proposed in the Maribyrnong Bike Strategy.
- There are no bike sport facilities in the north-eastern part of Maribyrnong (Maribyrnong – suburb).
- A junior bike skills track offers a fun pathway into bike sports for pre-school and primary school aged children and would attract participation in the northern part of the municipality.
- The proposed bike sport facility is consistent with the existing land use and there are no planning restrictions that would prevent the development.

Disadvantages:

- The proposed area is within a heavily treed area and would require arborist advice on alignment and construction methods.
- The development of the track within the existing open space area may not be supported by some community members who value the informal space. The park is fully developed elsewhere in the reserve and this development would mean all areas were developed for dedicated sport (structured and unstructured).

Braybrook Park Junior Bike Skills Track and Pump Track

A junior bike skill track similar to concepts at Hansen Reserve in Yarraville, the Berwick Waters Grand Prix Playspace in Berwick and the Queens Park Track in Healesville is proposed at Braybrook Park. A 'local' pump track is also proposed similar to Hammon Park in Creswick.

Advantages:

- The park is well located central to the suburb of Braybrook and is part of a community, sporting and recreation precinct with the Braybrook Community Hub, sports field, tennis courts, netball court, community garden and a new playspace.
- There is a vacant open space area south of the playspace where a junior bike skills track and pump track could be provided, ideally located to the playspace and picnic areas.
- There are no bike sport facilities in the north-western part of Maribyrnong (Braybrook).
- A junior bike skills track and pump track offers a fun pathway into bike sports for pre-school and primary school aged children and would attract participation in the northern part of the municipality.
- The proposed bike sport facility is consistent with the existing land use and there are no planning restrictions that would prevent the development.

Disadvantages:

- The development of the track within the existing open space area may not be supported by some community members. The park is largely developed elsewhere in the reserve.



Figure 50: Berwick Waters Grand Prix Junior Bike Skills Track and Hammon Park Pump Track (Source: Tot: Hot or Not and Helpburn Shire Council)

8. Warranties and Disclaimers

The information contained in this report is provided in good faith. While Otium Planning Group has applied their experience to the task, they have relied upon information supplied to them by other persons and organisations.

We have not conducted an audit of the information provided by others but have accepted it in good faith. Some of the information may have been provided 'commercial in confidence', and these venues or sources of information are not specifically identified. Readers should be aware that the preparation of this report may have necessitated projections of the future that are inherently uncertain and that our opinion is based on the underlying representations, assumptions and projections detailed in this report.

Otium Planning Group's advice does not extend to, or imply, professional expertise in the disciplines of economics, quantity surveying, engineering or architecture. External advice in one or more of these disciplines may have been sought, where necessary to address the requirements of the project objectives. There will be differences between projected and actual results because events and circumstances frequently do not occur as expected, and those differences may be material. We do not express an opinion as to whether actual results will approximate projected results, nor can we confirm, underwrite, or guarantee the projections' achievability as it is impossible to substantiate assumptions based on future events.

This report does not constitute advice, investment advice, or opinion and must not be relied on for funding or investment decisions. Independent advice should be obtained in relation to investment decisions.

Accordingly, neither Otium Planning Group, nor any member or employee of Otium Planning Group, undertakes responsibility arising in any way whatsoever to any persons other than the client in respect of this report, for any errors or omissions herein, arising through negligence or otherwise however caused.

Appendix 1: Bike Sport Facility Hierarchy and Design Standards

Table 51: BMX Facility Hierarchy

Facility Component	Requirement				
	Local	Municipal	Regional	State	Comment
BMX Track	Min 40 m – Max 300m (length) x 5m (width) Commonly known as a pump track and serves to introduce participants to the sport. It is a loop or series of small loop circuits which have smaller jumps or rollers that are designed for riders to push and pull their bike in a “pumping” manoeuvre through the bumps without pedalling.	300m (length) x 10m (width) Starting hill must be 10m wide and at least 1.5m above ground. The initial straight shall be a minimum of 40 metres in length. The track shall have a minimum of 3 turns.	400m (length) x 10m (width) Starting hill must be 10m wide and at least 2.5m above ground. The initial straight shall be a minimum of 40 metres in length. The track shall have a minimum of 3 turns.	400m (length) x 10m (width) Starting hill must be 10m wide and at least 2.5m above ground. The initial straight shall be a minimum of 40 metres in length. The track shall have a minimum of 3 turns.	Standards for Municipal, Regional and State level facilities are a UCI requirement and a safety provision. The track must be of a compact, closed looped design, forming a circuit with the length measured along its centre line.
Area	0.4 – 0.8 Ha	0.8 – 1.0 Ha	1.2 Ha	1.5 Ha	Indicative only and subject to final design. Area excludes car parking.
Functional Infrastructure					
Spectator area	Shaded area (i.e. can be trees) for approx. 100 pax	Shaded area (i.e. can be trees) for approx. 150 pax	Shaded area (i.e. can be trees) for approx. 150 pax	Covered area (i.e. can be under cover of pavilion) for up to 500 pax	
Lighting	No	To be determined by program and training requirements.	Refer to Section 4.5 of the Cycling Victoria State Facilities Strategy for further information.		
Reserve Fencing	To be determined on a case by case basis, however as a basic principle, reserve fencing should only be required where it might be necessary to enhance participant and spectator safety.				

Facility Component	Requirement				
Starters hut	No	Yes	Yes	Yes	Should have direct line of sight over track and starting gate.
Change rooms (include. Showers)	No	Yes	Yes	Yes	Size of change rooms to be determined by average number of participants and Building Code requirements.
Toilets	No	Yes	Yes	Yes	Level of provision to be by determined by average crowd size and Building Code requirements.
Marshalling/ staging area	No	Yes	Yes	Yes	An area where participants are marshalled prior to the commencement of their race. Area should be 20m x 10m, covered and have power supplied for lighting and PA.
Storage	No	Yes	Yes	Yes	Will depend on the number of resident clubs. Area can be used as a workshop during events.
First Aid	No	Yes	Yes	Yes	
Kiosk	No	Yes	Yes	Yes	Key source of income for resident clubs.
Drainage	Due to the configuration of the track, it is likely drainage will be required.	To be determined following completion of detailed design.			
Car Parking	Car parking provision will be subject to local planning requirements.				

Table 52: Mountain Bike Facility Hierarchy

Facility Component	Requirement				
	Local	Municipal	Regional	State	Comment
Mountain Bike Downhill	Minimum course length is 1,500m and minimum duration is 2 mins.	Minimum course length is 1,500m and minimum duration is 2 mins.	Minimum course length is 1,500m and minimum duration is 2 mins.	Preferred course is 3,500m (length) and 5 mins (duration). Start area is a minimum of 1m and no more than 2m wide.	Standards are a UCI requirement and safety provision.

Facility Component	Requirement				
	Start area is a minimum of 1m and no more than 2m wide. Finish area to be a minimum of 6m wide with a minimum braking area of 35 – 50m post finish line and must be clear of obstructions.	Start area is a minimum of 1m and no more than 2m wide. Finish area to be a minimum of 6m wide with a minimum braking area of 35 – 50m post finish line and must be clear of obstructions.	Maximum course is 3,500m (length) and 5 mins (duration). Start area is a minimum of 1m and no more than 2m wide. Finish area to be a minimum of 6m wide with a minimum braking area of 35 – 50m post finish line and must be clear of obstructions.	Finish area to be a minimum of 6m wide with a minimum braking area of 35 – 50m post finish line and must be clear of obstructions.	Course is a combination of a minimum length and time. They are not mutually exclusive. The course must present a descending profile and differing types of track (e.g. narrow and wide, filed paths, road, rocky road). It is important the course should achieve a balance between technical and speed sections. It should be designed to test the technical abilities of riders more than their pedalling ability. Uphill sections should not be part of the course.
Mountain Bike Cross Country	Course length is between 4 – 10km. Start must be on a flat or uphill section. The start zone must be a minimum 6m wide for a minimum of 50m before the start line and a minimum of 100m after the start line. The finish zone must be a minimum of 4m wide for a minimum 50m before the finish line and 20m after the finish line.	Course length is between 4 – 10km. Start must be on a flat or uphill section. The start zone must be a minimum 6m wide for a minimum of 50m before the start line and a minimum of 100m after the start line. The finish zone must be a minimum of 4m wide for a minimum 50m before the finish line and 20m after the finish line.	Course length is between 4 – 10km. Start must be on a flat or uphill section. The start zone must be a minimum 6m wide for a minimum of 50m before the start line and a minimum of 100m after the start line. The finish zone must be a minimum of 4m wide for a minimum 50m before the finish line and 20m after the finish line.	Course length is between 4 – 10km. Start must be on a flat or uphill section. The start zone must be a minimum 8m wide for a minimum of 50m before the start line and a minimum of 100m after the start line. The finish zone must be a minimum of 4m wide for a minimum 50m before the finish line and 20m after the finish line.	Course is a closed loop design. Paved road may comprise a maximum of 15% of the total distance of the course. Extended single track sections must have periodic passing sections.
Mountain Bike Four Cross	First 5m of course must have four lanes of equal width that are marked. Start straight must be 30m long. Race duration is 30 – 60 sec. Optimal race duration is 45 – 60 sec.	Course is developed on moderate slopes with regular gradients and includes a mix of jumps, humps, banked turns, berms, dips, natural tables and other special features. Normally no climbing requiring the riders to pedal.			
Trail Difficulty Rating (for	Easy – Intermediate	Intermediate – Difficult	Difficult	Difficult – Extreme	Trail Difficulty Ratings are those published by IMBA Australia.

Facility Component	Requirement				
all MTB disciplines)					Note UCI requirements should take precedent over IMBA guidelines.
Area	Total area required will depend on final design and number and length of trails included.				
Functional Infrastructure					
Spectator area	Course design to consider spectator viewing areas. Due to the likely location and topography of MTB courses shading can be provided by existing flora.				
Lighting	Security lighting to be provided for functional infrastructure.				
Reserve Fencing	To be determined on a case by case basis, however as a basic principle, reserve fencing should only be required where it might be necessary to enhance participant and spectator safety.				
Judge's platform	Must provide unobstructed view of entire course and in an area not accessible for spectators.				
Change rooms (include. Showers)	No	No	No	Yes	Due to the potential remote location of MTB courses build cost for amenities are likely to be higher. Amenities should be located within reasonable proximity to trail head.
Toilets	Yes	Yes	Yes	Yes	
Storage	No	No	Yes	Yes	Small area to be provided.
Kiosk	No	No	Yes	Yes	Should be located within reasonable proximity to trail head.

Facility Component	Requirement				
Drainage	Due to the configuration of the track it is likely drainage will be required	Track design should incorporate IMBA sustainable trail principles.			
Car Parking	Car parking provision will be subject to local planning requirements.				

Table 53: Track Cycling Facility Hierarchy

Criterion Circuit

Facility Component	Requirement				
	Local	Municipal	Regional	State	Comment
Criterion circuit	Closed road circuit (on or off road) of not less than 800m and not more than 3km. Minimum width of 6m with a finishing straight of a minimum of 200m (length) and 8M (width).	Closed road circuit (on or off road) of not less than 800m and not more than 3km. Minimum width of 6m with a finishing straight of a minimum of 200m (length) and 8M (width).	Off road circuit of not less than 800m and not more than 3km. Minimum width of 7.5m with a finishing straight of a minimum of 200m (length) and 8M (width).	Off road circuit of not less than 800m and not more than 3km. Minimum width of 7.5m with a finishing straight of a minimum of 200m (length) and 8M (width).	Course can be undulating but shall be a sealed surface with minimal roadway/ roadside hardware likely to cause hazards/falls. All such hazards shall be rendered safe prior to any event. Barriers to control pedestrians to be erected.
Functional Infrastructure					
Spectator area	Shaded area (i.e. can be trees) for approx. 150 pax	Shaded area (i.e. can be trees) for approx. 150 pax	Shaded area (i.e. can be trees) for approx. 150 pax	Covered area (i.e. can be under cover of pavilion) for up to 500 pax.	
Lighting	To be determined by program and training requirements.	Refer to Section 4.5 of Cycling Victoria State Facilities Strategy for further information.			
Fencing	To be determined on a case by case basis, however as a basic principle, reserve fencing is required to ensure/enhance participant and spectator safety.				

Facility Component	Requirement				
Change rooms (include. Showers)	No	Yes	No	Yes	Size of change rooms to be determined by average number of participants and Building Code requirements.
Toilets	Yes	Yes	Yes	Yes	Level of provision to be by determined by average crowd size and Building Code requirements.
Storage	Yes	No	Yes	Yes	Will depend on the number of resident clubs. Area can be used as a workshop during events.
First Aid	Yes	Yes	Yes	Yes	
Kiosk	Yes	Yes	Yes	Yes	Key source of income for resident clubs.
Drainage	Due to the configuration of the track it is likely drainage will be required	To be determined following completion of detailed design			
Car Parking	Car parking provision will be subject to local planning requirements.				

Cyclo-Cross

Facility Component	Requirement				
	Local	Municipal	Regional	State	Comment
Cyclo-cross track	Course length between 2.5 – 3.5 km, with at least 90% rideable. Minimum 3m wide throughout. Start must be on firm ground, preferably a surfaced road, a minimum of 200m (length) and 6m (wide), be as straight as possible and not include any descent.	Course length between 2.5 – 3.5 km, with at least 90% rideable. Minimum 3m wide throughout. Start must be on firm ground, preferably a surfaced road, a minimum of 200m (length) and 6m (wide), be as straight as possible and not include any descent.	Course length between 2.5 – 3.5 km, with at least 90% rideable. Minimum 3m wide throughout. Start must be on firm ground, preferably a surfaced road, a minimum of 200m (length) and 6m (wide), be as straight as possible and not include any descent.	Course length between 2.5 – 3.5 km, with at least 90% rideable. Minimum 3m wide throughout. Start must be on firm ground, preferably a surfaced road, a minimum of 200m (length) and 6m (wide), be as straight as possible and not include any descent.	Course should be incorporated with other sport cycling facilities which will allow access to toilets, showers, etc. Course shall include road, country and forest paths and meadowland alternating in such a way as to ensure changes in the pace of the race and allowing riders to recuperate after difficult sections. The course shall be usable in all

Facility Component	Requirement				
					<p>weather conditions. The course must form a closed circuit. The angle of the first corner must be greater than 90 degrees. The finish section must be flat or uphill and run straight for a minimum 100m (length) and 6m (width). The course may include no more than six man made obstacles. Obstacle shall mean any part of the course where riders are likely (but not required) to dismount.</p>
Functional Infrastructure					
Spectator area	Shaded area (i.e. can be trees) for approx. 100 pax	Shaded area (i.e. can be trees) for approx. 150 pax	Shaded area (i.e. can be trees) for approx. 150 pax	Covered area (i.e. can be under cover of pavilion) for up to 500 pax.	

Velodrome

Facility Component	Requirement				
	Local	Municipal	Regional	State	Comment
Velodrome	Outdoor track must be 250m – 500m (length), with a radius of 19m – 50m and a uniform width of 7 – 10m	Outdoor track must be 250m – 500m (length), with a radius of 19m – 50m and a uniform width of 7 – 10m.	Outdoor track must be 250m – 500m (length), with a radius of 19m – 50m and a uniform width of 7 – 10m.	Indoor track must be 250m – 400m (length), with a radius of 19m – 50m and a uniform width of 7 – 10m. Infield of track to be accessible by tunnel.	All velodromes must have line markings as per UCI specifications. Must be designed with competitor safety as paramount and to guarantee a minimum safe speed of 75km/h. The length of the track shall be such that a whole number of laps or half laps shall equal 1km exactly.
Infield area	Can be utilised as a training/playing venue for junior				

Facility Component	Requirement				
	sports, however attention will be required to ensure there are no scheduling conflicts.				
Functional Infrastructure					
Spectator area	Shaded area (i.e. can be trees) for approx. 150 pax	Shaded area (i.e. can be trees) for approx. 150 pax	Shaded area (i.e. can be trees) for approx. 150 pax	permanent seating for 500+.	
Lighting	To be determined by program and training requirements.	Refer to Section 4.5 of Cycling Victoria State Facilities Strategy for further information.			
Fencing	UCI specify the outside edge of the track must be surrounded by a safety fence to protect riders and spectators. It must be stable and solidly mounted, with an overall height of at least 90cm.	For outdoor velodromes the inside part must be smooth (no protruding fencing twists) and unbroken.		For indoor velodromes the inside part must be completely smooth and unbroken to a height of at least 65cm above the track	
Change rooms (include. Showers)	No	Yes	No	Yes	Size of change rooms to be determined by average number of participants and Building Code requirements.
Toilets	Yes	Yes	Yes	Yes	Level of provision to be by determined by average crowd size and Building Code requirements.
Storage	Yes	No	Yes	Yes	Will depend on the number of resident clubs. Area can be used as a workshop during events.
First Aid	Yes	Yes	Yes	Yes	
Kiosk	Yes	Yes	Yes	Yes	Key source of income for resident clubs.
Drainage	Due to the configuration of outdoor tracks, water will be shed to the infield and it is likely drainage will be required	To be determined following completion of detailed design			
Car Parking	Car parking provision will be subject to local planning requirements.				

Sports Cycling Facility Lighting Standards

The Australian Standard for Sports Lighting (AS2560) does not identify lighting standards for sport cycling facilities. The lighting standards in AS2560 range from 50 lux (recreational level) to 1,500 lux (televised events).

The only identified standard for sport cycling facilities is the British Standard (BS EN12193) Light and lighting – Sport Lighting that identifies the following lux levels for an outdoor velodrome:

- 300 lux for Class I (national and international competition).
- 200 lux for Class II (regional level competition).
- 100 lux for Class III (local, training and recreation/school sports competition).

Another reference for lighting of sport cycling facilities is Sport England's 'Cycle Sports Facilities Design Guide'. This document refers to the following lighting standards for an indoor velodrome:

- 300 lux for training or general activity. 600 lux for racing events.
- 1,200 lux for televised events.

The Union Cycliste Internationale has specified the following lighting levels for velodromes:

- During training sessions without spectators, vertical lighting must be at least 300 lux.
- During competitions at least 1,400 Lux is required for Elite World Championships and the Olympic Games (category 1 velodromes).
- A minimum 1,000 Lux for World Cups, Continental Championships and Junior World Championships (category 2).
- A minimum 500 Lux for Other international and National events (category 3 and 4).

BMX Victoria are reviewing their lighting needs and prefer lighting levels from 200 – 300 lux for BMX tracks.

Other guidelines that provide some information are the Austroads Guide to Road Design that refers to lighting of bicycle paths.

Appendix 2: Bike Sport Facility Benchmarking Analysis

Electronic copy provided separately.

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