



Joint Bike Plan

City of South Perth and Town of Victoria Park

August 2018



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*Bringing ideas
to life*

Executive Summary

1. Introduction

Aurecon was commissioned to develop the joint Bike Plan for the City of South Perth (CoSP) and Town of Victoria Park (ToVP). The joint Bike Plan has been part funded through the WA Bicycle Network Grants Program, which is administered by the Department of Transport (DoT).

This is the first time two local governments have worked together to deliver a bike plan in Western Australia, providing an excellent opportunity to provide a consistent outcome and benefits for the local cycling community.

The joint Bike Plan sets out the long term vision for the strategic cycling network over the CoSP and ToVP area, in line with State Government's Perth and Peel Transport Plan for 3.5 million People and Beyond ('Perth Transport Plan for 3.5 million'). The joint Bike Plan also outlines five-year action plans for specific improvements to the cycle network and environment for each local government to further investigate and implement.



2. Structure of this Plan

The joint Bike Plan (the 'Plan') is divided into the following key sections:

Executive Summary

The executive summary outlines the key findings of the consultation; surveys, research and investigation for the Plan. In addition, it displays the vision for the overarching long term strategic bicycle network over both local government areas.

Introduction, Policy and Strategic Context

This section outlines the key objectives and background information of the Plan and provides context regarding the relevant policies and strategies that have influenced the development of the Plan.

City of South Perth

This section of the report focuses on the CoSP local government area. It details the findings from the consultation, surveys, research and investigation of the existing cycle network within the CoSP. In addition, it outlines the proposed five-year action plan, including a prioritised list of projects for the CoSP to further investigate and implement.

Town of Victoria Park

This section of the report focuses on the ToVP local government area. It details the findings from the consultation, surveys, research and investigation of the existing cycle network within the ToVP. In addition, it outlines the proposed five-year action plan, including a prioritised list of projects for the ToVP to further investigate and implement.

3. Stakeholder Consultation

As part of the development of the Plan, extensive consultation was undertaken with the local community and cycling groups and other key agencies. The marketing and promotion of the community engagement activities were carried out jointly by the CoSP and ToVP.

The local community were invited to provide feedback on their cycling journey via an online questionnaire, online mapping tools and community workshops. This provided the opportunity to identify common routes, existing issues, barriers to cycling, and desired locations to improve or provide additional facilities and infrastructure.

Throughout the development of the Plan, several agencies were consulted, including state government agencies, adjacent local government authorities, Curtin University and local cycling groups. Local government officers within the CoSP and ToVP were also consulted to ensure the Plan aligns with local strategies and future projects.

4. Research and Investigation

In a rapidly changing transport environment and with predicted increase in advanced technologies, such as autonomous vehicles, how will cycling fit into everyday travel behaviour in the next 30 years? The future of cycling is explored in this Plan with consideration into how future infrastructure can be integrated with future technologies.

To understand the existing cycling conditions within the CoSP and ToVP, significant investigation into the following was undertaken:

- Detailed literature review, including previous cycle planning documents;
- Interrogation of key demographic statistics of both CoSP and ToVP to understand the potential for increased cycling;
- Analysis of existing recorded crash data involving cyclists to understand trouble spots and wider trends;
- Assessment of the overall transport network to determine gaps in the existing cycle network and appropriate cycling connections to key existing and future trip generators; and
- Infrastructure audits, including saddle surveys, to assess the condition of existing and potential future cycle routes.

5. Strategic Cycle Network

The first key component of the Plan is the establishment of the long term aspirational cycle network, i.e. what the cycle network within the CoSP and ToVP endeavours to look like by the time Perth's population grows to 3.5 million (towards the year 2050).

The proposed aspirational cycle network outlines several ambitious routes aimed at making cycling a realistic and appealing option for a high proportion of the population. The aspirational cycle network has been influenced by the routes identified in the Perth Transport Plan for 3.5 million and the research, investigation and consultation undertaken as part of the project.

The proposed network is based on a cycling route hierarchy, developed by the DoT, which aims to provide consistency in cycle planning across the State. The function of each cycling route is briefly described below:

- **Primary Routes (red)** – These routes provide safe, prioritised and uninterrupted facilities which form the spine of a cycle network. They are conducive to medium and long distance commuting, recreational and tourism trips;
- **Secondary Routes (blue)** – These routes provide safe and direct connections, typically between primary routes and major trip generators such as shopping centres, industrial areas or major health, education, sporting and civic facilities; and
- **Local Routes (green)** – These routes provide safe cycling conditions in local (predominantly residential) areas. The purpose of local routes is to collect cycling traffic from local roads within towns and suburbs and distribute it to the primary and secondary networks.



The proposed aspirational network over both the CoSP and ToVP areas is shown at the end of the executive summary (refer to Figure A).

6. 5-Year Implementation Plan

The second key component of the Plan is the establishment of a 5-year action plan for both the CoSP and ToVP that identifies key cycle infrastructure projects to be further investigated and delivered by each council. A total of 13 key infrastructure projects are proposed for delivery over both council areas, as described in Figures B-1, B-2 and B-3.

High level order of cost estimates have been determined for these projects, however further investigation will need to be undertaken to develop detailed concepts and understand the true cost of each project. Funding assistance from other agencies, such as the DoT, will need to be explored by both CoSP and ToVP during implementation of the Plan.

In addition to the key cycling infrastructure projects identified, there are several minor works improvements that were identified throughout the infrastructure audits and investigation. These are generally considered low cost 'quick wins' and intended to be incorporated into each council's capital works programs where possible. Proposed improvements include items such as new or improved cycle bypass paths through roundabouts and intersections, improved pavement markings and signage and other infrastructure modifications that aim to further enhance the existing cycle routes, with particular regard to safety and convenience. An additional common issue is the consistency of application of bicycle detection loops at signalised intersections. The CoSP and ToVP should audit all intersections within their jurisdiction to identify all intersections that do not have bicycle detection loops and liaise with Main Roads to implement them.

It is intended that this Plan is revisited every 5 years to assess the outcomes of the previous 5-year implementation program in continuing the journey of achieving the long term aspirational network.

7. Supplementary Initiatives

Whilst investment in cycling infrastructure is vital in providing safe, connected options for cyclists, there are a range of additional measures that are just as critical in promoting mode shift towards cycling.

Several initiatives are proposed for each council area, and are summarised in Figure C at the end of the executive summary. Many of the proposed initiatives should be delivered simultaneously with the implementation of the proposed infrastructure projects as they are complementary and have the potential to increase the potential for behaviour change towards increased cycling.

8. Plans under Development

Clontarf-Waterford-Salter Point Foreshore Area (CoSP)

The CoSP is developing a masterplan for the section of foreshore from Clontarf through to Waterford and Salter Point. The Masterplan will provide a consolidated management strategy recognising the ecological, cultural and recreational values of the area. The Plan identifies the entire foreshore path as a long term cycle route within the CoSP, including a potential future cycling connection to the principal route along the Kwinana Freeway. It is proposed that cycle infrastructure is investigated to be provided along the full length of the foreshore to provide consistency and legibility and to capitalise on the beautiful scenery that is offered and encourage increased cycling in the community. The Plan aims to acknowledge a future cycling connection to the Mt Henry Bridge as a long term aspiration and one that will require significant further investigation and community consultation. An alternative route connecting to the Kwinana Freeway will need to be considered as part of this investigation.

Taylor Reserve and McCallum Park (ToVP)

Taylor Reserve and McCallum Park is proposed to be redeveloped in line with the Town of Victoria Park's 2015 Foreshore Access and Management Plan. The draft Concept Report (2017) details a variety of new high-quality spaces throughout the park with the intention to create a destination for the region, whilst maintaining the core function as an event space. Four precincts are proposed including a Parkland and Event Space, Beach and Activity Node, River Edge and Revegetation and Parking.

The existing separated cycle path along the foreshore is proposed to be realigned to the rear of the site and connected to the existing cycle paths on both sides of the park. This will provide cyclists with a direct route with minimal interruptions caused from other users of the park. The development of the concept is currently in progress.

As part of the redevelopment, an area is proposed for a BMX trail as part of the 'All Ages Play' Activity Hub (Taylor Reserve & McCallum Park Concept Report, November 2017). It is recommended that the feasibility of a hybrid style pump/BMX track similar to that at Shepherds Bush Park in Kingsley, but at a smaller scale, be constructed at this location. A Bike Skills Track, which has a considerably smaller footprint to the pump track, could also be considered at the Activity Hub if there is space. The facility should consider CPTED (Crime prevention through environmental design) principles.

9. Areas outside of Council Control

During the development of the Plan, several issues were identified regarding the safety, connectivity and convenience for cyclists, both in areas within council boundaries that are outside of local government control and adjoining routes to the study area. It is proposed that both the CoSP and ToVP lobby the following improvements to the respective agencies responsible for the below infrastructure:

- Canning Bridge & Kwinana Freeway principal shared path (PSP) (south of Canning Bridge)
 - Replace the existing degraded path with high quality red asphalt path with lighting. Investigate the feasibility of separation or path widening;
 - Investigate treatment to sections of the PSP under Canning Bridge where flooding occurs during high river tides and wet weather;
 - Investigate improving priority for cyclists connecting to Canning Station. The above should be considered in any future works planned in this area by the Transport Portfolio and as part of the Canning Bridge Activity Centre Plan; and
 - Monitor the usage of the bicycle storage facilities (through consultation with the Public Transport Authority (PTA)). Any future works should consider modifications and potential upgrades to storage facilities.
- Canning Highway crossing at Cale Street
 - Cale Street provides an important east-west connection through the CoSP and provides a convenient connection to the Labouchere Road cycling route. The existing crossing of Canning Highway is an issue as it is not wide enough to accommodate cyclists. Investigate providing an appropriate crossing across the Canning Highway intersection to facilitate cyclists, in liaison with Main Roads.
- The Causeway shared path
 - The Causeway is a critical connection between the ToVP and the Perth CBD, with significant conflicts experienced between pedestrians and cyclists. A pedestrian/cycle bridge across Heirisson Island is highlighted in the Perth Transport Plan at 3.5 million, and the acceleration of the implementation of this project is recommended.
- Burswood Park (controlled by the Burswood Park Board)
 - The existing shared path along the Swan River caters for high demand for a mix of users, creating the potential for conflict. Investigation into the feasibility of separation or path widening should be undertaken, as well as improved path lighting.
- Orrong Road
 - Orrong Road is under the control of Main Roads, with long term plans for the road unclear. The ToVP should continue to liaise with Main Roads and the City of Belmont to ensure that any future plans consider cyclists

10. Summary Figures

The following figures within the Executive Summary summarise the key findings of the Plan for both the CoSP and ToVP:

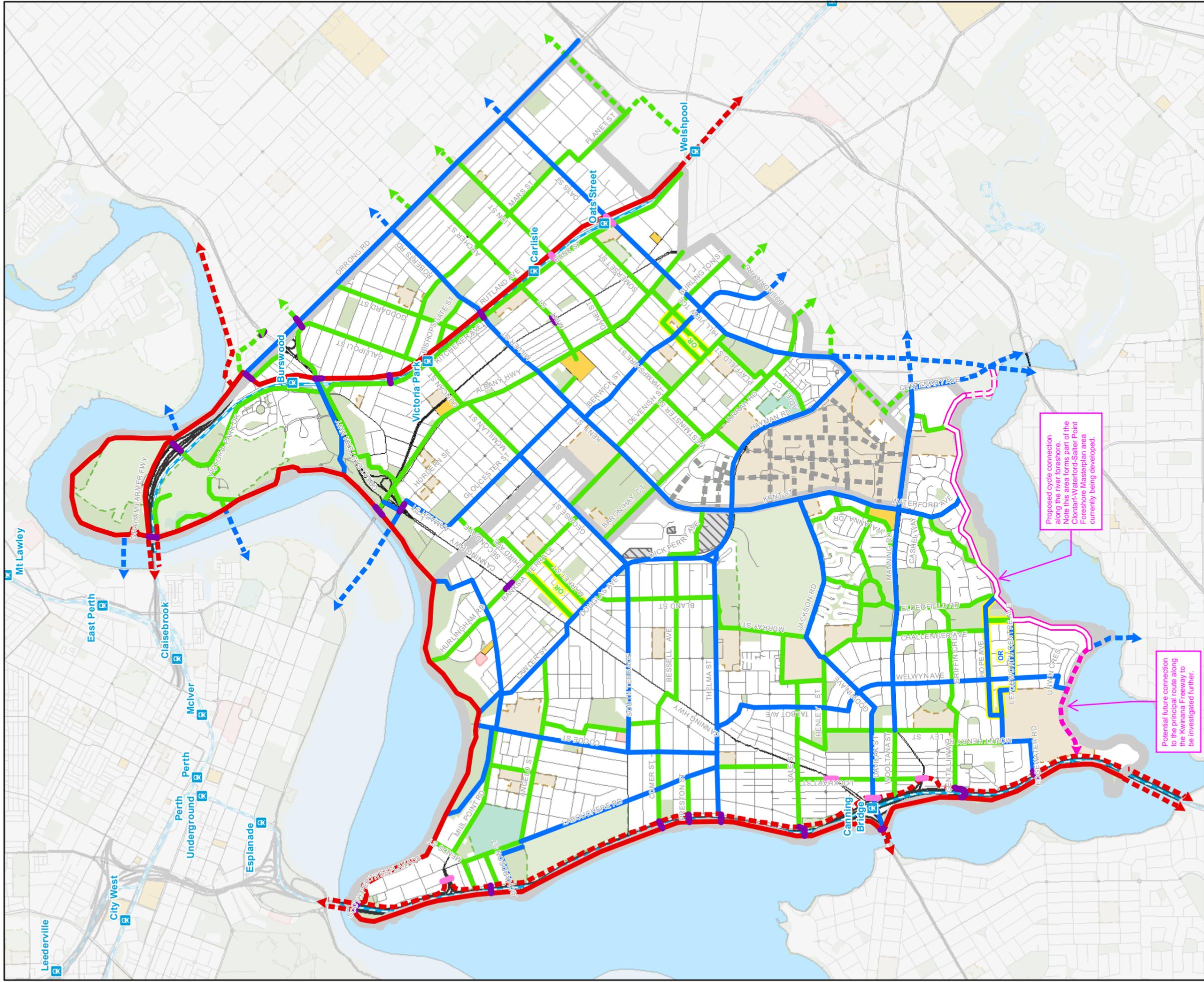
Figure A: The proposed aspirational network over both the CoSP and ToVP areas

Figure B-1: A figure showing the proposed 5-year implementation plan for both the CoSP and ToVP

Figure B-2: A summary description of the proposed 5-year action plan for the CoSP

Figure B-3: A summary description of the proposed 5-year action plan for the ToVP

Figure C: A summary of the proposed supplementary initiatives for both the CoSP and ToVP



Legend

- Rail Stop
- Railway
- Freeway
- Highway
- Main
- Minor
- Overpass/Underpasses
- Existing Overpass/Underpass
- Proposed Overpass/Underpass
- Principal Route - by others
- Strategic Routes - by other
- Local Routes - by others
- Within Curtin University
- LCA Boundary (Town of Victoria Park/City of South Perth)
- Shopping Area
- Community Facility
- Hospital Facility
- Education Facility
- Recreational Facility
- Recreational Park or Reserve
- Reserve (Miscellaneous & Other)

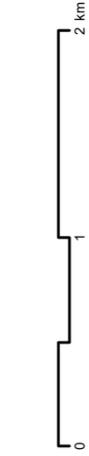


Figure A
Aspirational Cycle Network

Revision: 1	Project No: 255909	Date: May 2018
Prepared: S.Richards	Checked: M.LaGalia	Approved: M.LaGalia
Coordinate System: GDA 1994 MGA Zone 50	Source: © Landgate 2017, OpenStreetMap	Scale @ A3: 1:34,000

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Client: Town of Victoria Park, City of South Perth



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Legend

- Rail Stop
- Railway
- Freeway
- Highway
- Main
- Minor
- Separated Path (Bikes Only)
- High Quality Shared Path (Bikes and Pedestrians)
- Bicycle Lanes or Sealed Shoulders
- Safe Active Street
- LGA Boundary (Town of Victoria Park/City of South Perth)
- Shopping Area
- Community Facility
- Hospital Facility
- Education Facility
- Recreational Facility
- Recreational Park or Reserve
- Reserve (Miscellaneous & Other)
- CoSP Prioritised Project 1
- ToVP Prioritised Project
- Prioritised Project 1
- Prioritised Project 2
- Prioritised Project 3
- Prioritised Project 4
- Prioritised Project 5
- Prioritised Project 6
- Prioritised Project 7



Figure B
5-Year Implementation Plan

Revision: 1	Project No: 255909	Date: May 2018
Prepared: S.Richards	Checked: M.LaGalia	Approved: M.LaGalia
Coordinate System: GDA 1994 MGA Zone 50	Source: © Landgate 2017, OpenStreetMap	Scale @ A3: 1:34,000

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Client: Town of Victoria Park, City of South Perth



1 South Perth Esplanade Project

New and upgraded cycle facilities along the South Perth Esplanade

- Option 1: Upgraded shared path and on-road cycle lanes.
- Option 2: Safe active street



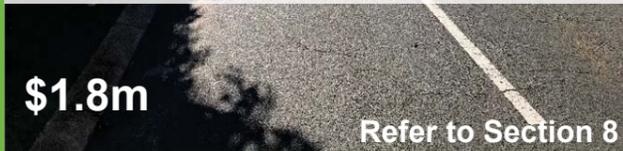
\$1.5m

Refer to Section 8

2 Canning Bridge to Curtin Link

New cycle infrastructure between Canning Bridge and Curtin University:

- Bi-directional cycle path along Davilak Street;
- Safe active street along Godwin Avenue; and
- Bi-directional cycle path along Jackson Road.



\$1.8m

Refer to Section 8

3 Manning Road Project

New and upgraded shared path facilities between Welwyn Avenue and Centenary Avenue.



\$600k

Refer to Section 8

4 Douglas Avenue Project

New and upgraded cycle facilities between Curtin University and South Perth Foreshore:

- Safe active street along Lawler Street;
- Protected on-road cycle lanes along Douglas Avenue; and
- Shared path upgrade along Hayman Road.



\$1.5m

Refer to Section 8

Investigation into a new shared path connection to fill a gap in the route near Penrhos College.



\$30k

Refer to Section 8

5 Thelma Street Investigation

New on-road cycle lanes between Dick Perry Avenue and Jarrah Road and intersection improvements.



\$400k

Refer to Section 8

6 Kent Street Project

New on-road cycle lanes between Thelma Street and South Terrace and intersection improvements.



\$500k

Refer to Section 8

7 Coode Street Project



1

Rutland Avenue Project

New cycle facilities between Welshpool Road and Riversdale Road.



\$2.3m

Refer to Section 15

2

Kent Street Project

Upgraded shared path facilities between Curtin University and Orrong Road along Kent Street, Miller Street and Roberts Road.



\$1.5m

Refer to Section 15

3

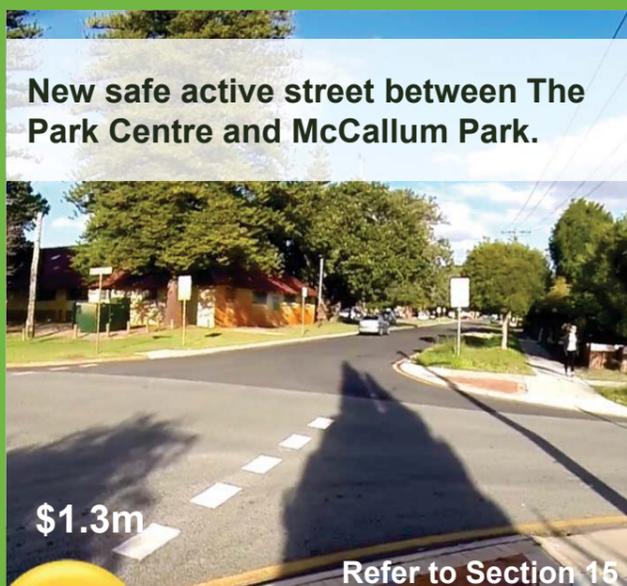
Albany Highway Investigation

Investigation into the long term treatment of Albany Highway to incorporate and enhance access for cyclists, plus interim measures to improve cyclist safety and awareness.



\$100k

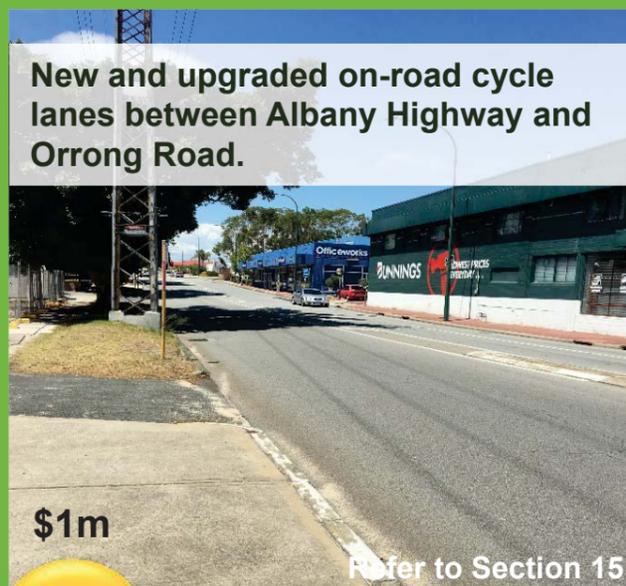
Refer to Section 15



New safe active street between The Park Centre and McCallum Park.

\$1.3m

Refer to Section 15



New and upgraded on-road cycle lanes between Albany Highway and Orrong Road.

\$1m

Refer to Section 15



Upgraded shared path facilities between Adie Court and Holder Street.

\$450k

Refer to Section 15

4

Gloucester Street Project

5

Oats Street Project

6

Hayman Road Project

Figure C
Supplementary Initiatives



Bike Parking and Amenities

Bike parking and amenities help complement the cycle network by reducing inconveniences associated with cycling.

- Amenities include bicycle pump stations, repair stations, water fountains and e-bike charging stations.
- Types of bike parking recommended include secure and sheltered, sheltered and unsheltered facilities.

CoSP	ToVP
Complete an audit/gap analysis of existing end of trip facilities	
Locations to install additional public bike parking and amenities should include:	
<ul style="list-style-type: none"> • Mends Street and Jetty • Manning Hub • George Burnett Park • South Perth foreshore at Coode Street • Angelo Street shops • Preston Street shops • Como IGA • Canning Bridge • South Perth Operations Centre • Clontarf Campus • Richardson Park • Moresby Street Shops 	<ul style="list-style-type: none"> • Albany Highway • Swansea Street markets • Archer Street shop • Bentley Technology Park • Burswood Park • John McMillan Park • Major bus stations

Cycle Monitoring

Helps to understand cycling patterns over time and inform cycle-related projects into the future. Pedestrian volumes should also be monitored as part of this on shared paths.

CoSP	ToVP
Potential locations for permanent cycle counters include:	
<ul style="list-style-type: none"> • Hayman Road • Lawler Street 	<ul style="list-style-type: none"> • Rutland Avenue • Kent Street • Taylor McCallum Park • Burswood Park

Wayfinding

Informs users of their surroundings in the built environment and guides them to key destinations.

CoSP	ToVP
Undertake a joint cycling wayfinding strategy to provide a consistent approach over the council areas. The strategy should consider DoT guidance.	
Key destinations for wayfinding include:	
<ul style="list-style-type: none"> • Rail stations • Curtin University • Perth Zoo • Mends Street Precinct • Preston Street Precinct 	<ul style="list-style-type: none"> • Manning Hub • Albany Highway Commercial Precinct • Perth Stadium • Crown Perth
Locations to intersecting cycle routes, road names, and bike parking facilities should also be incorporated.	

Innovative Solutions to Improve Cycling Priority

Exploring opportunities for creative solutions to increase cycling priority should be encouraged, particularly within challenging areas.

CoSP	ToVP
<p>Mends Street Precinct and Foreshore</p> <ul style="list-style-type: none"> • As part of the Connect South Project, support the introduction of a 'shared space' along the high activity area of Mends Street. The shared space concept involves reducing the posted speed limit to 30km/h and integrating all road users to provide pedestrians and cyclists with movement priority. 	<p>Kent Street/Albany Highway/Miller Street Intersection</p> <ul style="list-style-type: none"> • Investigate modifications to improve safe access for cyclists and reduce vehicle speeds. This will require consultation with the PTA in order to consider bus movements. <p>Hayman Road/Curtin University Main Street Intersection</p> <ul style="list-style-type: none"> • Investigate reconfiguration of the signal phasing to allow the pedestrian/cyclist signal phase to remain green until left and right turning vehicles trigger the loop detectors. This will require consultation with Main Roads.

Curtin University Bike Share Scheme

With the implementation of the Bike Plan recommendations, connectivity between Curtin University and Public Transport infrastructure will be enhanced. As such, there is an opportunity to establish a trial bike share scheme to complement the infrastructure projects.



CoSP	ToVP
Work with Curtin University to investigate establishing a bike share scheme	
<ul style="list-style-type: none"> • Potential docking stations in the vicinity of Canning Bridge Station, complementing the Davilak Street/Jackson Road bicycle link. 	<ul style="list-style-type: none"> • Potential docking stations at Victoria Park Station, Albany Highway and/or Carlisle Station, complementing the Kent Street/Miller Street bicycle link.

Cycle Volume and Speed Device

In addition to the installation of new permanent cycle counters, investigation should be undertaken into trial devices that indicate the following:

- Real-time number of cyclists and pedestrians using the path that day and year raising awareness and acknowledging the positive impacts. Potential locations could include the shared paths on the approach to the Narrows Bridge and Causeway.
- Real-time speed (similar to roadwork sites) and to 'slow down' if required. This can help promote behaviour change, encouraging cyclists to reduce speed in areas of high pedestrian and cyclist demand. Potential locations could include the shared paths at west of Mends Street and Burswood Park.

Infrastructure



Behaviour Change



Supplementary Bike Initiatives

Trial Projects



Recreational Facilities



Kids Skills Track

Encourages youth to cycle and develop their skills in a safe environment.

It is proposed the existing cycle track at George Burnett Park is upgraded to include a revitalised skills track, consisting of asphalt path circuits with pavement markings and signage simulating an urban traffic environment.

The track should be supported by improved nearby cycle infrastructure connections.



Pump Track

Encourages people of all ages to cycle for recreational use.

It is proposed that a pump track is installed within George Burnett Park to complement the kids skills track. The track could consist of circular loops with smooth dirt mounds and berms that cyclists can ride around in a pumping motion.



Awareness Campaigns

Help encourage consideration amongst all users of the transport network. Examples of potential campaigns that could be considered by each council include:

- Positive encouragement pavement markings and signage. An example is the 'Take Care' pavement markings along shared paths within the City of Perth.
- Advertisement methods such as area-wide publicity campaigns. An example is the 'Share our Roads' campaign from the Road Safety Commission (RSC).



E-Bike Salary Sacrifice

E-bike salary sacrificing has recently been ruled in favour of by the ATO and as a result, there are leasing and financing companies that provide e-bike packages.

E-bikes are gaining in popularity and could help encourage people to cycle because they do not require as much physical energy to operate compared to traditional bikes and e-bikes allow a longer distance of travel for the equivalent amount of energy expenditure.

CoSP	ToVP
Offer an e-bike salary sacrifice service to City staff and promote to other organisations to offer the same service.	

Your Move

The Department of Transport's Your Move program supports communities, local governments, schools and workplaces to promote active transport and reduce congestion.



CoSP	ToVP
Each council should actively participate in the Your Move program, by utilising the tools available to promote active transport for council staff. Each council should also encourage other organisations within the community to participate.	
Investigate the establishment of an intensive project partnership with DoT, similar to the successfully run 'Your Move Central' program, by targeting local schools.	Investigate extending the intensive project partnership 'Your Move Central' to target schools and organisations that have yet to participate.

Events

Events encourage new cyclists to 'give it a try' and also consolidate travel behaviours for existing cyclists. It is recommended that both Councils:

- Continue to promote and participate in annual public events including Bike Week, Ride2Work Day and Ride2School Day.

