Victor Harbor Bicycle Strategy

Final Report

City of Victor Harbor

September 2016

Ref: 20155674FR2B



Tonkin CONSULTING

Document History and Status

Rev	Description	Author	Reviewed	Approved	Date
A	For Council Endorsement	IR	PS / Client	PS	24/5/16
B	Final Following Consultation	IR	PS	PS	12/9/16

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Executive Summary

Increased cycling has much to offer Victor Harbor: a healthy lifestyle for its residents, increased tourism for its businesses and relief from congestion and parking problems.

Although Victor Harbor and Alexandrina led the way with the establishment of the Encounter Bikeway in the 1980s, and Victor Harbor has provided some further bike infrastructure since, the Council has never adopted a bike strategy to guide future provision.

This Victor Harbor Local Area Bicycle Strategy (VHBS) is based on an assessment of where the community is now and what is the best way forward. It is designed to:

- encourage recreational cycling by both residents and visitors; off-road and on-road, both sealed and gravel
- encourage cycling for transport purpose by residents
- exploit the economic opportunities of cycle tourism.

While recognizing that better, safer infrastructure should be the basis of bicycle planning, the Strategy also stresses the need for better information about and promotion of the infrastructure that does exist, and of the benefits of cycling. It also stresses the importance of establishing decision-making and accountability mechanisms that tap an important local resource — the enthusiasm of its community.

Existing conditions

Although much of the City of Victor Harbor (CVH) is hilly and only attractive to stronger cyclists, the Council area has much to offer new cyclists: flat land along the coast between The Bluff and Hindmarsh River, beautiful scenery and a road network that offers alternative routes to the busy main road through the built-up area. Council has used the Hindmarsh and Inman Rivers to provide more recreational paths along flat terrain. New housing developments have also increased the opportunities for cycling through the provision of shared paths.

Another asset is of course the Encounter Bikeway, one of the first modern long distance cycling paths established in Australia. Consultation for this strategy revealed just how much this is appreciated by the local community — by pedestrians as much as by cyclists. However it is this shared appreciation that also aroused the most common concern expressed in the consultation. This is that the Bikeway is too narrow for both pedestrians and cyclists to use it easily, particularly in the section between The Bluff and Kent Reserve. The Bikeway does not meet modern standards for shared use paths and also suffers from gaps and a lack of signage or other information. From the Yacht Club boat ramp to the boundary with Alexandrina it is on-road, apart from the climb up Kleinigs Hill, where cyclists must take to the footpath alongside the busy road.

There is relatively little infrastructure supporting cycling for transport (as opposed to recreation). By far the most important is a network of part-time bike lanes for school children. There are also permanent bike lanes on Victoria Street and part of Torrens Street, some bike parking (mostly obsolete), and some signage indicating bike routes. In the older areas in particular, the road network does lend itself to cycling because there are many streets that have low levels of traffic, low traffic speeds or both. These are ideal for sharrows*, a new on-road bike symbol that encourages sharing of the road by cyclists and motorists.

* See s. 4.4 below for an explanation of sharrows

Strategic directions

Bike strategies need to be framed by a recognition that cyclists vary in terms of their needs, riding practices and what they find acceptable for riding. Fast road cyclists who are happy to ride on roads with traffic do not want to ride on shared use paths. And given the speeds they travel at, they should not use shared use paths. Timid cyclists will not ride on busy roads, even with bike lanes.

Other features to frame this strategy are:

- a comprehensive range of measures is required, covering both infrastructure and non-infrastructure
- measures should be timely; they need to fit current and future conditions, but not too far into the future.

The nine strategies are:

1. OFF-ROAD PATHS: upgrade existing and develop new local recreational cycling opportunities on off-road paths

Emphasis here is upgrading the Encounter Bikeway to meet current standards, which will involve most of the Bikeway between Hindmarsh River and The Bluff widened to 3.5 metres. It also involves establishing signage for the Bikeway. A new alignment to avoid the footpath on Kleinigs Hill may offer the opportunity to use the railway reserve to provide an off-road, flat path to the Alexandrina boundary and beyond. The Strategy recommends further analysis to gain a better understanding of the legal, civil engineering and ecological issues that are involved in any decision.

2. MAIN ROAD CYCLING: Provide safer riding on and across the main road through Victor Harbor and other major roads

The most significant recommendations here are to re-align the bike lanes on Victoria Street to provide a buffer from parked cars and to provide a separate bike lane around the roundabout intersection of Victoria Street and Torrens Street. An upgrade of Hindmarsh Road/ Parkway intersection to provide a threshold treatment and safer crossings by pedestrians and cyclists is a longer-term recommendation.

3. LOW-STRESS ROAD CYCLING: Provide a safe, low-stress environment for cyclists on local roads

In general, sharrows are recommended to promote a shared environment on local streets, with the exceptions of Bay Road (full-time bike lanes) and Crozier and Seaview roads (edge lines to demarcate the travel lanes.)

Slight changes to the existing part-time school bike network are recommended, as well as median refuges at the Crozier Road and Seaview Road crossings of the school route. A median refuge to cross Armstrong Road at Ewen Terrace will allow safe access for children accessing the Encounter Bay sports fields. A shared use path alongside Oval Park Road and Kullaroo Road is also recommended, with the section of Oval Park Road used by school buses forming a higher priority than Kullaroo Road.

4. PARKING: Upgrade existing bike parking and install new bike parking slightly ahead of demand

Progressively replace the existing out-dated bike parking with modern racks. Provide new racks at bus stops, where informal parking takes place and where requested by businesses.

5. MOUNTAIN BIKING: Encourage and promote mountain biking opportunities

Liaise with DEWNR, SATC, Forestry SA, Yankalilla and Alexandrina Councils, BikeSA and local cyclists to enable more mountain biking, and promote the opportunities as they become available.

6. INFORMATION: Strengthen the information available to locals and to visitors about cycling in the township and the region.

Establish website and social media pages for cycling in the region, provide quality maps to identify routes, supplemented with wayfinding signage on routes.

7. ACTIVITIES: Promote cycling-based activities to improve the health and well-being of locals and to promote economic development of local businesses

While a range of possibilities is mentioned in this Strategy and the accompanying Resource Document, any activities should be guided by following principles:

- Don't disappoint
- Attract the newbies
- Give promotional activities a chance
- Know your markets.

8. MAINTENANCE: Adopt asset management principles that consider cyclists' needs

Road asset management sometimes involves dilemmas, for example between drainage needs and safe cycling, between safety for motor vehicles and safety for cyclists. These dilemmas need to be identified and worked through on a case-by-case basis.

9. IMPLEMENTATION: Develop an implementation plan that forms a partnership with local cyclists and businesses

While a strategy can determine directions, implementation will be most effective if it is subject to a plan developed by those involved in the implementation. It should identify responsibilities and processes for decision-making and accountability, priorities, time schedules and ways of measuring results.

First steps

The Strategy includes a nine-point plan to guide the first two years of implementation. It is designed on the principles of building momentum, getting the easy wins and leveraging opportunities. The nine points are:

1. Council adoption of the Strategy, to signal a genuine commitment
2. Establish responsibility for implementation
3. Establish political support
4. Secure broader staff support
5. Establish a maintenance program
6. Engage with agencies whose support is necessary
7. Secure funding for later years
8. Pick the low hanging fruit
9. Develop the means to measure results

1 Introduction

The City of Victor Harbor was a leader in the provision of recreational cycling when it established the Encounter Bikeway in the 1980s. Since then it has provided other recreational opportunities and part-time bike lanes to allow safe cycling to and from school.

However until now the Council has not had a strategy to guide provision for cyclists.

Council recognises that cycling provides significant potential for a better quality of life for Victor Harbor's residents, as well as commercial benefits for its businesses. Cycling is a very visible example of the relaxed lifestyle that the Council wishes to promote to both visitors and prospective residents.

Victor Harbor has a relatively high proportion of retired residents and the number of children in the area is growing much faster than for the State as a whole. Both of these in particular benefit from good cycling conditions: children because they provide them with an independent means of travel; the retired because it provides a form of exercise that can be gentle or vigorous.

All around the Australian coast, councils have learnt the attractiveness of good cycling conditions for the camper-vanners with bikes on the back. The South Coast had a head start in this with the establishment of the Encounter Bikeway, but now faces the task of catching up and regaining its previous position.

As well as the positive opportunities that good cycling conditions provide, there are also benefits in terms of addressing problems that the Council is facing. Residential growth has brought with it parking and traffic congestion issues, especially in holiday periods. These pressures are likely to continue given planned new housing developments and higher density residential development along the coast. Cyclists are highly efficient in their use of space, both on road and for parking. Bike parking is much cheaper to provide than car parking.

The Victor Harbor Local Area Bicycle Strategy (VHBS) is a guide to achieving these benefits. This document:

- outlines the context in which the strategy has been developed; that is, existing planning and existing conditions
- responds to concerns and suggestions that featured in community consultation both for this strategy and for the concurrent Traffic and Parking Study
- provides a conceptual framework to both explain the strategies and guide further decision-making
- identifies broad strategic directions and measures to be taken within these.

The document concludes with an nine-point plan of action as initial steps in the implementation of the Strategy.

Appendices provide the proposed cycling network for the built-up area and a list of costed actions that feature in the Strategy.

A separate *Investigations and Resource Document* that accompanies this Strategy provides a wealth of further information and discussion to both explain the development of the Strategy and guide its delivery. It also provides many suggestions for further things that could be done to increase cycling by residents and visitors, beyond those prioritised in this strategy.

2 The context in which the strategy is framed

2.1 Planning and strategies

2.1.1 State government

Victor Harbor's quickly growing population is recognized in the State and local planning. The *30 Year Plan for Greater Adelaide* (30 Year Plan) identifies Victor Harbor as an important location for increased population, with new residents to 2040 expected to increase the Council area's population by about 70%. This will have an even bigger impact on the built up area.

As well as more intensified development on the coast itself, the *30 Year Plan* has identified new growth areas to the north of Victor Harbor, above the McCracken Golf Course and in the Strawberry Hill area.

The 30 Year Plan and the supplementary *Integrated Transport and Land Use Plan* (ITLUP) identify some new transport initiatives in the area:

- a potential bypass of the built up area through the creation of a new road that would parallel Port Elliot Road, roughly one kilometre north of that road
- overtaking lanes and/or shoulder sealing on arterial roads: Adelaide Road, Inman Valley Road, and Port Elliot road
- re-development of the Granite Island Causeway.

Although it does not specifically refer to Victor Harbor in this respect, ITLUP also notes planned improvements for walking and cycling safety:

- walking and cycling facilities in catchment areas for schools, public transport stations, activity centres and main streets
- safe and convenient walkable environments in and around public transport stations, activity centres, main streets and schools
- separated bicycle lanes on selected arterial roads
- safe crossings of arterial roads.

ITLUP also specifically identifies the Fleurieu as a region where the State government would work with local councils to develop cycling networks.

ITLUP refers to the importance of promoting walking and cycling access to public transport throughout the Greater Adelaide area, but with public transport in the Fleurieu region limited to three services a day and not serving commuters, this aspect has less potential in the Victor Harbor area.

Although the State government does not have a bicycle strategy, its *Strategic Plan* does include a target to double the amount of cycling undertaken from 2011-2020. The Strategic Plan also has targets covering tourism, use of public spaces, physical activity and healthy body weight. On current indicators at least, the targets of cycling, physical activity and healthy body weight will not be met, so there is an opportunity to leverage state government support for Council actions in support of these.

There have been other recent developments at the state level that have an important impact on local cycle planning.

Improved mountain biking opportunities

The current State Government's election platform included a commitment to make the Mount Lofty Ranges an international mountain bike destination1. This, along with the Department of Environment, Water and Natural Resources' (DEWNR) People and Parks strategy, has resulted in a much more accommodating approach towards cycling in national parks.

New cycling laws

In November 2015 new regulations came into force that allow adult cycling on footpaths and require motorists to leave a gap of 1m (1.5m if travelling 60km/h or more). Allowing cycling on footpaths means that cyclists are no longer cycling illegally if they are on a wide path that is not signed as a shared use path – which is the case for much of the Encounter Bikeway. It also provides some flexibility for cyclists in difficult situations where there is not enough room for a bike lane or shared use path, such as across Newland Bridge. Under the legislation, cyclists on footpaths must always give way to pedestrians.

The requirement for motorists to leave a gap when passing cyclists was accompanied by a relaxation of the rule against crossing a solid centre line when passing a cyclist. As well as improving the safety and comfort of cyclists on arterial roads, particularly in rural areas, this measure has reduced the frustration felt by motorists from being stuck behind a cyclist.

2.1.2 City of Victor Harbor

CVH does not have an existing bicycle strategy. A bike strategy developed in 2000 is on the CVH website but was not adopted by Council. An audit of that document's recommendations appears as Appendix A of the Resource Document.

The City's overarching strategic plan, Community Plan 2022, has as part of Strategy 1.11: "Develop and maintain safe road, cycle and pedestrian corridors and networks". Perhaps more importantly, it has as its vision:

A thriving and sustainable regional coastal centre offering a wide range of attractive, high amenity lifestyle choices to our local community, the wider Fleurieu region, our visitors and future generations.

It also has as an objective "Environment and lifestyle protected against the pressures of projected population growth."

Feeling comfortable going for a bike ride, or allowing your children to ride to school, could be assumed to be part of this high amenity lifestyle.

Council's Development Plan and Urban Growth Strategy flesh out the State government's land use plans contained in the 30 Year Plan. As noted above, the critical features here are the further developments to the north of the McCracken estate, northeast of Tugwell Road, and the Hayborough area. Figure 1 highlights these.

Two important recent developments strengthen the need for good active transport access to the northern part of the built-up area. The Fleurieu Regional Aquatic Centre, incorporating a fitness centre, is nearing completion. This will become a major community facility, especially for children. This is located at the intersection of Waterport Road and Ocean Road. Also in the Hayborough area are two major new shopping centres both to be located on Adelaide Road, between Port Elliot Road and Strawberry Hill Road.

The Urban Growth Strategy also plans for high-density development in the CBD area. Without mitigating factors such as encouraging more cycling and walking, this will add more pressure on road and parking capacity. On the other hand, new shopping centres referred to above should relieve demand for parking in the CBD, at least outside the peak season.

1 The new strategy can be seen in a *report* commissioned to oversee its implementation.

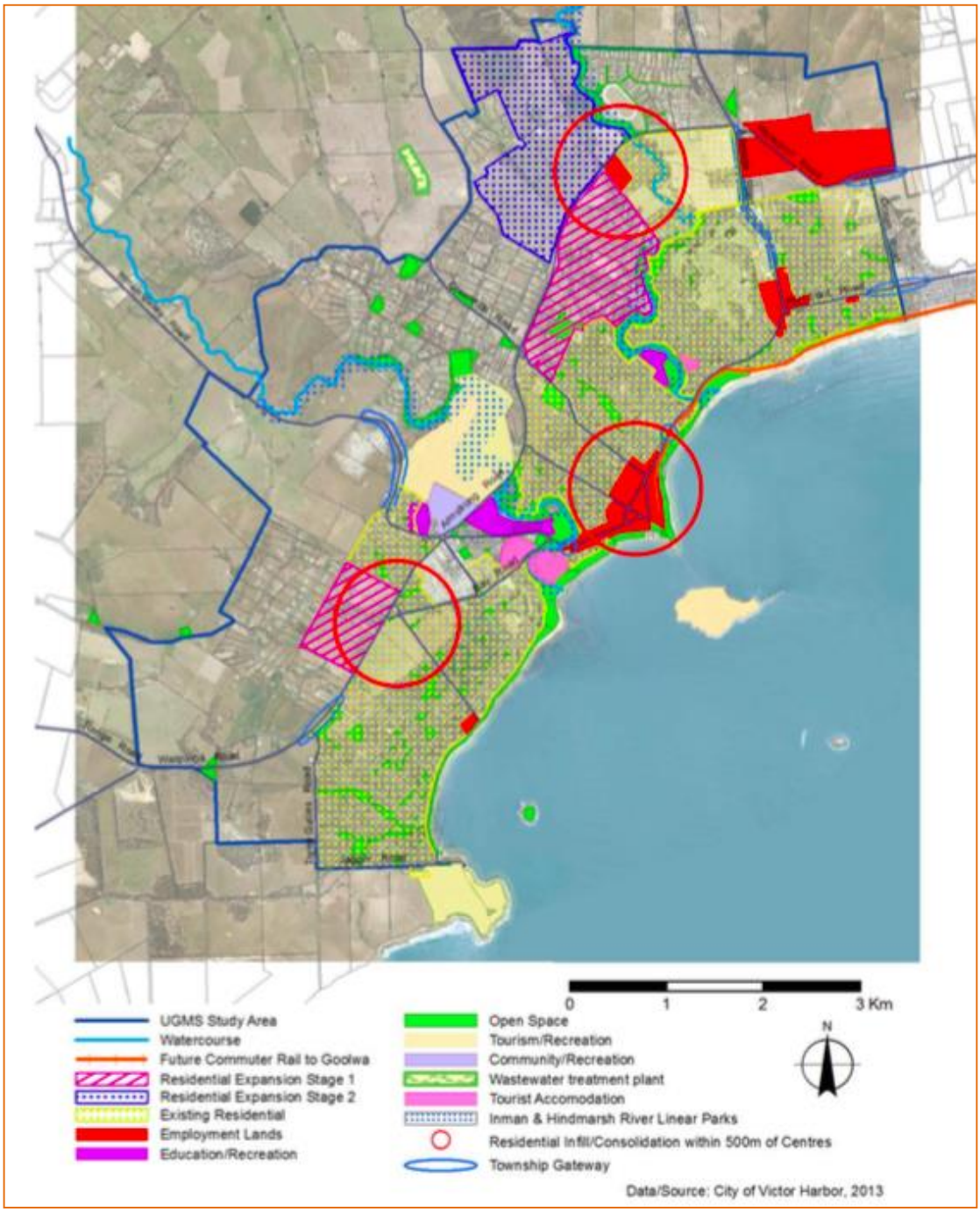


Figure 1: Proposed Structure Plan
source, City of Victor Harbor Urban Growth Strategy, 2013

The *Recreation and Open Space Study (*2007) made little mention of cycling but included as strategy 5.5: "Strengthen the trail network established across and beyond the City of Victor Harbor." An indicative $1.2m was identified as needed to fulfil this strategy. It refers to improving trails along the Inman and Hindmarsh Rivers, including "Undertake a survey of the Inman River and Hindmarsh River trails to identify specific trail sections to upgrade and implement signage requirements already identified by Council".

It also identified as longer term measures:

- a trail connection from Hindmarsh River in the Hindmarsh Valley new development area to the coastline and Encounter Bikeway (via Strawberry Hill Road)
- extensions of trails to the north of Ring Road along the Inman River and Hindmarsh River
- a trail connection between the Inman River and Hindmarsh River.

The *Footpath and Pedestrian Strategy* (2011) is mainly concerned with prioritising new footpaths and upgrades to existing footpaths. However it also references the *Town Centre Masterplan*, in which a "continuous dual use pedestrian/cycle promenade is proposed for the full length of the foreshore connecting the town centre to adjacent coastal areas" (see Figure 2).



Figure 2: extract from Town Centre Masterplan
source: City of Victor Harbor, Footpath and Pedestrian Strategy, 2011

The City commissioned a Coastal Management Study following storm damage, to assess the vulnerability to rising sea levels of the coast between the Bluff and Policeman's Point. The study noted that a sea wall might be needed in the future to protect the dunes and coastal infrastructure, including the Encounter Bikeway. The provision of such protection would provide an opportunity to duplicate the Bikeway, to provide a separate path for pedestrians.

2.1.3 The local region

The District Councils of Yankalilla and Alexandrina border the City of Victor Harbor. The built up areas of Yankalilla and Victor Harbor are separated by the hilly southern Fleurieu Peninsula. By contrast, Victor Harbor and Alexandrina share a continuous suburban landscape that stretches from Encounter Bay to Port Elliot. This sharing includes the Encounter Bikeway, which extends east to beyond Goolwa.

Neither Alexandrina nor Yankalilla have bike plans, though both have bike infrastructure. All three Councils have expressed support for a regional network of trails, including bike tracks, in the Regional Development Australia document Regional Roadmap, 2013-2016. This support extends to the promotion of tourism to use this network.

In addition, Alexandrina's Community Strategic Plan prioritises an extension to the Encounter Bikeway, as well as the Beyond Bike Track, which is just east of the boundary with Victor Harbor.

The *Regional Roadmap* also notes the support by Alexandrina and Victor Harbor for a new road parallel to Port Elliot Road, as already mentioned. The construction of such a route would relieve traffic on Port Elliot Road, making it a more attractive bicycle route.

Yankalilla also sees the need for more mountain biking opportunities in its area. Goals of its Strategic Plan include “opening up trails for mountain biking (with Fleurieu Tourism)” and the establishment of “mountain bike tracks through the Second Valley Forest”.

Sealed roads linking the Yankalilla Council with Victor Harbor are all controlled by the State government, with the exception of Range Road, which links Victor Harbor and Cape Jervis. This is relatively narrow, without space for sealed shoulders. However in the event that increasing freight traffic to and from Kangaroo Island using this road justified road widening then sealed shoulders could feature. Such an increase in freight traffic may occur as the result of upgrades to the Adelaide Victor Harbor Road and the creation of a South Coast bypass road.

2.2 Existing conditions

2.2.1 Geographical conditions

Topography

The area of the City of Victor Harbor (CVH) is clearly in two parts: the built-up coastal section and the rural hinterland. Topography is important, with flat land in the built up area extending inland for a kilometre or so in Encounter Bay but narrowing to only 300m near Hindmarsh River. East of Hindmarsh River the hilly land extends to the coast. The other important topographical feature of the built up area is its dissection by the Inman and Hindmarsh Rivers. These meandering valley floors provide good off-road walking and cycling opportunities. The rural hinterland can only be accessed from the built up area by climbing an escarpment, and is itself hilly north of Waitpinga (Range) Road. The land between Waitpinga Road and the coast is reasonably flat, but has a sparse road network, almost all of which is unsealed.



Figure 3: City of Victor Harbor topography
source: Google Maps

Road network

The road network of the built-up area is dominated by the arterial road that passes through the town of Victor Harbor, comprising Hindmarsh Road, Torrens Street, Victoria Street and George Main Road. For ease of reference, this will be referred to as Victor Main Road. This separates the old part of Victor Harbor, which is mainly visitor-oriented, from the newer part of the township, which is where most permanent residents live and which has the schools and the biggest shopping centre. There is a parallel route between the arterial route and the coast, formed by The Esplanade, Flinders Parade and Bridge Terrace. This parallel route is a strength for cycling as it provides a relatively quiet alternative road route to the arterial road.

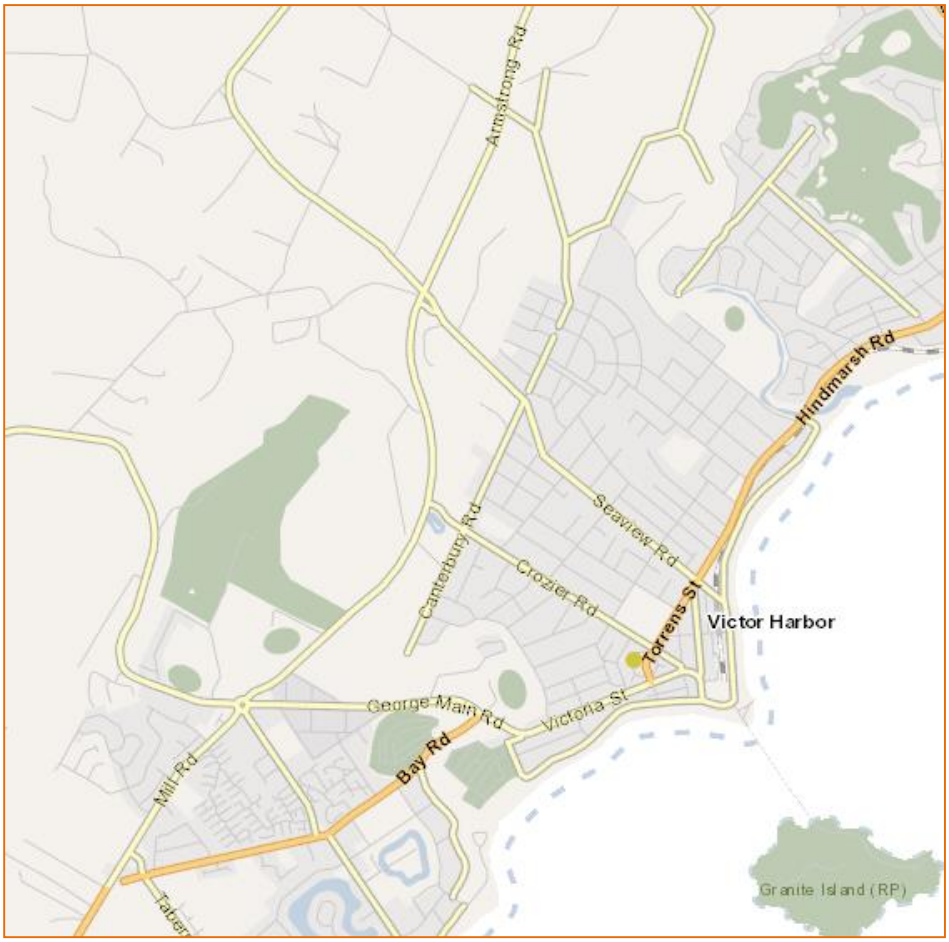


Figure 4: Victor Harbor township road network

A bypass route (Armstrong Road/ Welch Road; also known as Ring Road) forms the northern boundary of the built-up area west of Hindmarsh River. Crozier Road and Seaview Road/ Greenhills Road both provide links between Victor Main Road and the bypass. This is also a potential advantage for cycling in that by providing an alternative route, the by-pass relieves pressure on Victor Main Road as a through traffic route, leaving open the possibility of downgrading the traffic function of Victor Main Road from that of an arterial road, if the State government and Council wished to do so.

Encounter Bay also has the benefit of a coastal route whose traffic function has been superseded by inland roads, George Main Road and Bay Road. Franklin Parade now functions as an esplanade dominated by holiday housing.

Conditions for cyclists are more difficult east of Hindmarsh River in that there are no alternative parallel routes to Victor Main Road, especially on Kleinigs Hill. (See Figure 5.) Between Kleinigs Hill (Adelaide Road) and the boundary with Alexandrina the Encounter Bikeway uses residential streets overlooking the coast, though the route is not intuitive. Strawberry Hill/ Road Waterport Road provides an alternative parallel route to the Port Elliot Road. However Strawberry Hill Road is unsealed, so unlikely to attract road cyclists, while Waterport Road is likely to be too busy to appeal to other cyclists. The Hayborough area does have the advantage that new residential developments have included a network of shared use paths that connects with the Encounter Bikeway via an underpass of Port Elliot Road, just inside the Alexandrina District Council.



Figure 5: Road network, Hayborough

2.2.2 Demography

The clear distinguishing characteristic of CVH's population is that it is older than that of the State as a whole. More than a third of the residents are aged 65 or more, compared with 16% of the SA population. On the other hand the proportion of the population who are children is one third less than for the state as a whole.

This suggests that there is a high proportion of the population who might want to ride bicycles for exercise, to get out of the house, to socialise etc. It also suggests the cycle planning needs to be sensitive to the frail aged, to the possible conflict between cyclists and pedestrians on shared use paths and now on footpaths.

Another distinctive feature of the Victor Harbor population is how fast it is growing. Between 2001 and 2011 the population grew by 27%. Clearly the appeal of the south coast as a place to live is strong and is likely to remain strong as the state's population ages.

The rate of increase is so rapid that even the number of children, which forms a relatively low proportion of Victor Harbor's population, has been growing at a much faster rate than that of the state's population as a whole. The population under the age of 19 grew by 13% between 2001 and 2011, compared with only 1% for South Australia as a whole.

2.2.3 Existing cycling

The only statistical measurement of cycling in Victor Harbor covers the journey to work, as part of the national census. Only 20 people rode to work on the wet, wintry day of the 2011 census. This was 1.9% of the 1056 who recorded going to work, which was above the 1.2% for the state as a whole, but low numbers suggest not placing too much emphasis on this.

It is likely that cycling for commuting is much less significant than cycling for other purposes, particularly recreation. Unfortunately there is no measurement of this. There appears to be a healthy recreational cycling culture, judging by the number of groups in the area devoted to this activity. This includes the South Coast Cycling Club, Coastal Cruzers, Goolwa and Districts Bicycle User Group (GADBUG), and another established by residents of the Elliot Gardens retirement village.

There is also some information available about what routes are being ridden by cyclists. ***Figure 6*** and**Error! Reference source not found.** have been taken from Strava's Global Heat Map, c reated by cyclists who use the cycling app Strava to record when and where they ride.



Figure 6: cycling routes used: built up area

source: Strava Global Heat Map

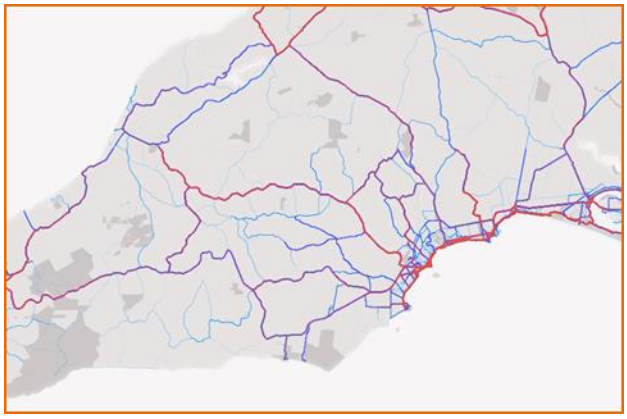


Figure 7: cycling routes used: broader regional area

source: Strava Global Heat Map

It should be stressed that those who use Strava tend to be serious, often competitive riders rather than those who ride occasionally, and these routes are also unlikely to reflect cycling for transport purposes well. Strava information is therefore likely to under-represent riding on off-road paths. Nevertheless, the use of the Encounter Bikeway is still very obvious, as is the use of the arterial roads and Greenhills Road. (Most of the recording would have taken place before the completion of the shared path network in the Hayborough housing estates, which could explain its lack of use.)

Bicycle crashes

Apart from a fatality on Inman Valley Road in 2013, crash data for the years 2012 to 2015 does not reveal a large amount of road trauma for cyclists in the Victor Harbor area. Two crashes were recorded on the bend to the east of Newland Bridge, where Victoria Street becomes George Main Road. (Both were hit from the side, presumably by motorists entering from the caravan park or Oval Road.) Police records of two reported crashes on Hindmarsh Road near Seaview Road both have the cyclist at fault; one for swerving between lanes and one "DUI". The former case happened near the roundabout. While further details are lacking, it is common for a conflict to occur when a cyclist and motorist approach the roundabout on the same leg at the same time, with the lane contracting to allow only one to enter the roundabout.

The fatality on Inman Valley Road was a sideswipe, suggesting the value of a hard shoulder separated by an edge line.

It should be stressed that while police records will encompass crashes involving serious injuries or worse, they do not include many crashes that involve property only, or minor injuries where those involved did not feel it worthwhile to report the crash to the police. For example, an anecdotal case of an elderly cyclist whose lifetime of cycling ended when “doored” on Victoria Street does not appear in the police records.



Figure 8: Bike crashes Victor Harbor township

2.2.4 Existing cycling facilities

While the Encounter Bikeway is clearly the most important asset for recreational riding in the region, it has received little attention since its establishment over 20 years ago and suffers from wear and tear. a lack of signage, and design that rarely meets modern standards.

Consultation comments reveal how much local residents value it, but also reveal the tensions that arise when cyclists and pedestrians have to share a path that is too narrow.

Victor Harbor has a number of other cycling assets beside the Encounter Bikeway:

- beautiful scenery, including away from the coast on a plethora of quiet, scenic rural roads
- two linear parks formed by the Inman and Hindmarsh Rivers

- a street network that enables many streets to be managed in a way that promotes amenity, on both sides of the main road route through the built-up area. The existence of a by-pass route also takes pressure off this main route
- bike riding opportunities provided by new housing developments.

While these all promote recreational riding, riding for transport purposes is handicapped by the topography, with flat land limited. It is very difficult to access the R-7 school by bike without climbing a hill.



Figure 9: The local scenery available to cyclists

As is noted below, lack of signage is a common complaint that featured in the consultation for this Strategy, particularly concerning the Encounter Bikeway. The Bikeway lacks signage and the wayfinding that does exist is not well branded. There are signs guiding cyclists through the residential streets east of Kleinigs Hill.

Although the route may be obvious to locals, it is possible for visitors to take the wrong path due to lack of signage at various points between The Bluff and Hindmarsh River. For example it is not clear where to go beyond the Yacht Club heading toward Goolwa. Neither is the map on the on-line brochure for the Bikeway is of sufficient quality to indicate the route.

Visitors can also become lost when following the path network associated with Hindmarsh and Inman Rivers. Some of the existing signs name paths but give no directional signage. Other signage includes finger posts identifying trails. (See Figure 10.)



Figure 10: Examples of existing signage

2.3 Findings from initial consultation

Development of the draft strategy involved internal meetings and workshops with council staff and the Recreation and Sport Sub-Committee as well as meeting with key stakeholders and a "drop-in" session with local cyclists. A questionnaire survey was provided in an on-line and paper-based format. This attracted responses from some 90 people. (This is less than the number who viewed the survey. A posting on the Bicycle Institute of SA's Facebook site alone recorded 328 views.)

As well as many ideas and valuable information, the consultation revealed the problems of pedestrians and cyclists sharing the Encounter Bikeway, particularly along Franklin Parade, where the path is too narrow for the levels of activity it often experiences. While wider or separate paths were the most common request, there were also frequent calls for encouraging more considerate behaviour from both pedestrians and cyclists.

Other commonly-expressed issues regarding for the Encounter Bikeway concerned the lack of signage, the poor condition of the path from the Causeway to Eyre Terrace and the problematic nature of the section on Kleinigs Hill.

Victor Main Road was also the subject of many comments, with a number referring to problems caused by roundabouts, and others referring to the bike lanes in Victoria Street and the narrow lanes on Newland Bridge. Bike lanes on Hindmarsh Road were also called for.

The other main topic of discussion in the consultation was the need for bike access between Hindmarsh River and Strawberry Hill Road. That is, to Encounter Lutheran College, the Regional Aquatic Centre and the shared paths of the new housing estates. There was more than one suggestion that this connection be part of an identified loop ride off the Encounter Bikeway.

The rural areas received much less comment and practically all calls for improvement concerned the arterial roads: better shoulders and encouragement of more care by drivers using these roads. Council's rural roads were argued to be a great recreational resource, with the only significant improvement called for being filling in the "gap" at the northern end of Waggon Road, where the road reserve does not allow access. Mountain biking opportunities were seen as very limited, or even non-existent.

These are only the more common comments. The consultation process is explained in the Resource Document, s. 3. The ideas put forward are presented in the Resource Document, s. 4, as part of a report on site investigations.

3 Principles governing this strategy

A successful bike strategy will be guided by three over-riding principles:

1. Cyclists vary, and one size does not fit all.
2. Success will require a range of measures, both infrastructure and non-infrastructure, as well as a sound methodology for implementation.
3. What measures are taken will depend on the stage the Council finds itself in in terms of levels of cycling.

3.1 One size does not fit all

Cyclists vary in terms of their strength, why they ride and the sorts of conditions they find acceptable, especially in terms of perceived risk.

The bikes themselves also vary, from those designed for rough terrain to the "thoroughbreds" with skinny, high-pressure tyres and no suspension, which require smooth road services.

For these reasons the ways that cyclists are catered for will also vary. Road cyclists prefer quiet roads but will be happy to ride on busy roads, seeking only enough space to be passed easily by motorists. Many will not use shared use paths, and given the speeds they cycle at, they shouldn't in any case. At the other end of the spectrum, some cyclists will not use any roads where they might encounter a motorist. In the case of children, their parents may impose this rule on them.

This strategy is designed to cater for the following people:

- Youths and adults riding for gentle recreation and for transport purposes, to access local shops, workplaces, places of education, community facilities, etc.
- Parents looking for safe routes that their children can use to ride to school and to community facilities
- Stronger recreational riders, including those on road bikes and those with sturdy bikes capable of riding on gravel roads
- Mountain bike riders.

The strategy also seeks to capitalise on the opportunities that cycling offers in the economic development of Victor Harbor.

3.2 Success will require a range of measures

A comprehensive bike strategy will have measures covering three broad categories:

- Cycling infrastructure to make riding safer and more enjoyable – "**HARDWARE**"
- Information and promotion to make better use of these facilities – "**SOFTWARE**" and
- Organisational change to promote both delivery and on-going planning – "**ORGWARE**".



Rates of cycling are highest when these elements work together. Like cogs turning a gear, if any one element is omitted or not working in harmony, the gear may still turn, but the best effect is achieved if all three work together.

3.3 Measures should be timely

The best strategies suit the circumstances. Heroic attempts to adopt "best practice" of other cities may result in wasted resources and backlash from the community.

This strategy has adopted the PRESTO framework[2], which was developed from a European-wide research project to create a guide to the best ways forward for individual cities. This framework identifies where communities sit in terms of provision for cycling: whether they are beginners, advanced, or somewhere in between.

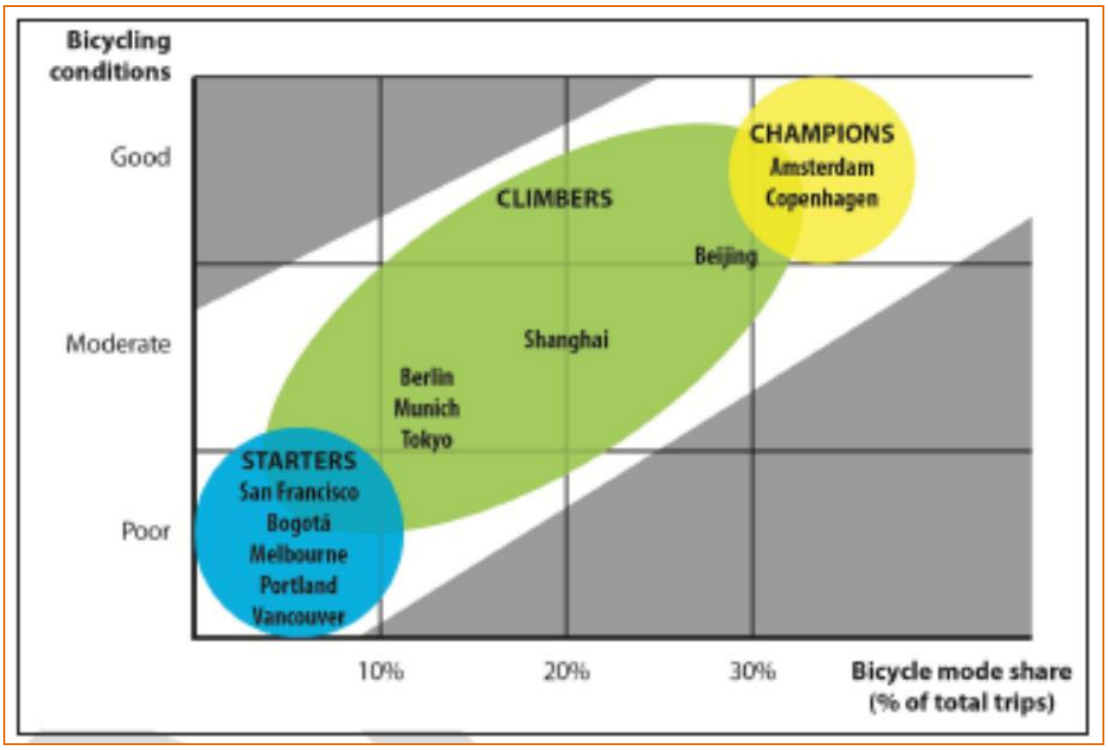


Figure 11: Example 'starters', 'climbers' and 'champions' for cycling[3]

This position will determine the appropriate measures to adopt, as is illustrated in Figure 12.

2 The name PRESTO follows the European Union convention of creating acronyms from lengthy names that do not always lend themselves to acronyms; in this case "Promoting *Cycling* for Everyone as a Daily Transport Mode". For more information on PRESTO, see www.rupprecht-consult.eu/nc/projects/projects-details/project/presto.html.

3 Draft SFMTA Bicycle Strategy, San Francisco Municipal Transportation Agency, 2013.

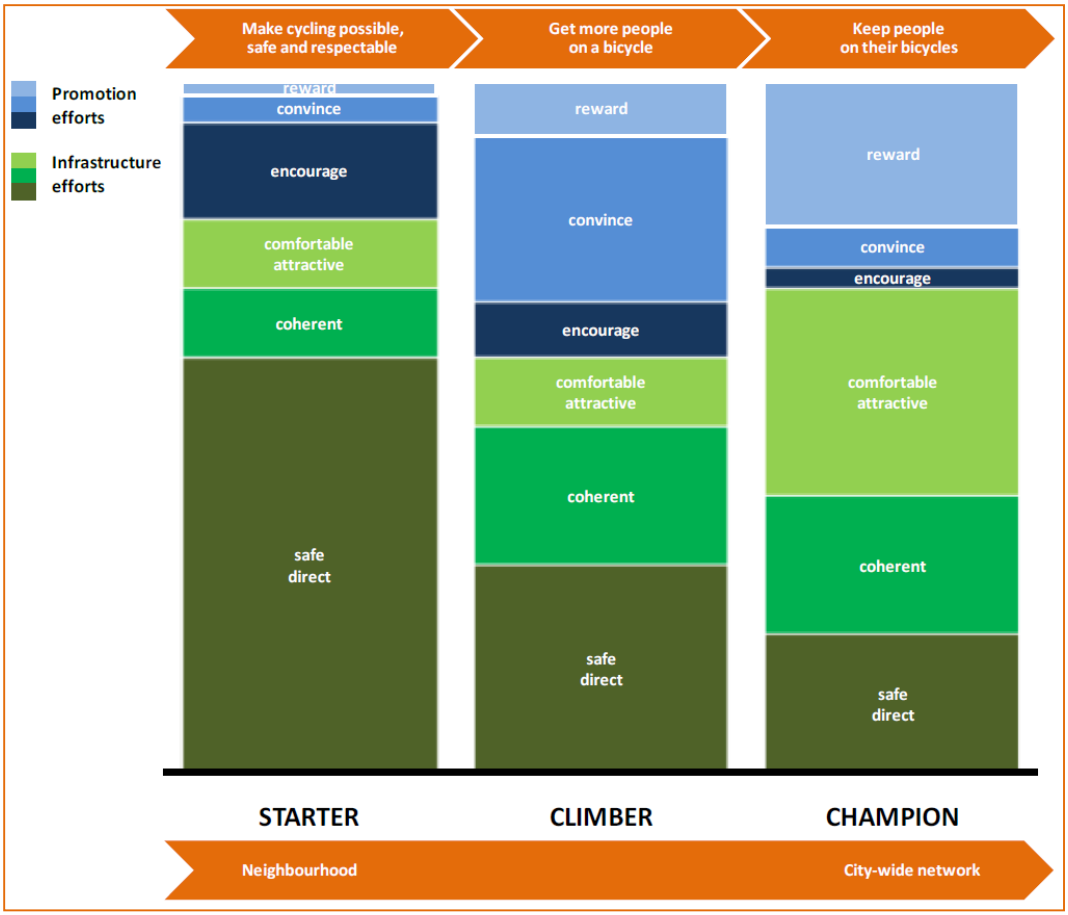


Figure 12: Effective planning and resource framework for starter, climber and champion cities[4]

Although the Encounter Bikeway is now over a quarter of a century old, the City of Victor Harbor should best be seen as a starter in terms of provision of cycling for transport, or perhaps a climber in terms of recreational cycling. The lessons of the PRESTO research for 'starter' communities were:

- Infrastructure is the best promotion – If riding isn't safe, promotion is unconvincing and will seem irresponsible. Improving infrastructure and giving cyclists room sends a clear message
- Inexpensive infrastructure can make a big difference – Best practice suited to high cycling numbers can be intimidating, hard and expensive. But quick and cheap solutions can create real, noticeable changes
- Reach for "low-hanging fruit" first – Starting with groups that are more open to the message creates the base that will draw others to join in
- Involve key local groups in infrastructure planning – An active role in planning cycling infrastructure results in a willingness to contribute to and identify with the results
- Pedelecs (power-assist bikes) can make a real difference – Pedelecs can make cycling accessible to people who would not consider cycling for reasons of age, fitness, injury, hills, sweat, etc.

4 PRESTO Cycling Policy Guide General Framework, Dirk Dufour, Ligtermoet & Partners, the Netherlands, February 2010.

Key lessons for ‘climber’ level communities are:

- Maintain and extend what you have – With a lot of cycling happening in some locations, it’s important to maintain the existing while continuing to close gaps in the network to attract new users
- Infrastructure is not enough – There will always be criticism, so it’s important to meet this with consistent messaging about new infrastructure and benefits. People will respond!
- Don’t forget other road users (including impacts of poor cyclist behaviour) – Roads aren’t only for cars, not all paths or trails are only for cyclists, and cycling doesn’t give privilege to riders over other road, path or trail users
- Consider public bikes – Public bike schemes give non-cyclists and non-bike owners a chance to try cycling, and give a particular push in tourist destinations.

4 The strategies

The following broad strategies have been developed bearing in mind the lessons from the PRESTO research.

Hardware	Software	Orgware
4.1 OFF-ROAD PATHS: upgrade existing and develop new local recreational cycling opportunities on off-road paths	4.5 MOUNTAIN BIKING: Liaise between State Government agencies and local mountain bike cyclists to establish and promote mountain biking opportunities	4.8 MAINTENANCE: Adopt asset management principles that consider cyclists' needs
4.2 MAIN ROAD CYCLING: Provide safer riding on and across the main road through Victor Harbor and other major roads	4.6 INFORMATION: Strengthen the information available to locals and to tourists about cycling in the township and the region.	4.9 IMPLEMENTATION: Develop an implementation strategy that forms a partnership with local cyclists and businesses
4.3 LOW-STRESS ROAD CYCLING: Provide a safe, low-stress environment for cyclists on local roads	4.7 ACTIVITIES: Promote cycling-based activities to improve the health and well-being of locals and to promote economic development of local businesses	
4.4 PARKING: Install bike racks slightly ahead of demand		

The actions arising from the discussion that follows are listed in Appendix B.

4.1 OFF-ROAD PATHS: upgrade existing and develop new local recreational cycling opportunities on off-road paths

CVH is blessed with a network of off-road recreational paths structured by the coast and the two rivers dissecting the built up area. The Encounter Bikeway is by far the best known of these, but is in most need of attention. However more can also be done to complement and enhance the river paths as well.

4.1.1 Encounter Bikeway

The aim here is to *establish the Encounter Bikeway as the best coastal bike route in Australia*.

The Encounter Bikeway is undoubtedly the key cycling asset for the South Coast. In recent years higher quality off-road routes, particularly the Riesling Trail and the Amy Gillett Bikeway, have overshadowed it. Also increasing use by pedestrians has created tensions in some locations. Nevertheless the Encounter Bikeway has the potential to be the best recreational bike route in the state, if not Australia.

Recommended actions to achieve this are:

The Bluff:

- Provide watch for bikes signs and a 30kp/h speed limit on Bluff Jetty Road
- Clearly identify the end of the route on Bluff Jetty Road, providing signage, seating and bike parking. (Consider also a drinking fountain.)
- Build a crushed stone path traversable by bikes (average gradient about 8%) from the end of the Bikeway to The Bluff car park access.

Franklin Parade:

- Redevelop the shared use path alongside Franklin Parade. Provide either a single shared use path of at least 3.5m, or preferably separate paths for pedestrians and cyclists.
- As a short-term measure, provide signs encouraging appropriate behaviour by all users. Also encourage faster cyclists to use Franklin Parade rather than the Bikeway by painting sharrows on the road.

Victor Harbor central business district (CBD):

- provide a 3.5m shared path adjacent to the fence from Willis St to the Causeway to the rear of the Soldiers Memorial Reserve, Foreshore Car Park and the Visitor Information Centre.



Figure 13: Route of Encounter Bikeway, Willis Street to Soldiers Memorial Gardens

- once a new alignment behind the Visitor Information Centre has been built, provide directional signage
- widen the path from the Causeway to Eyre Terrace, including measures to inhibit sand depositing on the path
- as a short term measure, ensure sand is regularly swept from the path at the Bowling Club.

Yacht Club to the end of Bridge Terrace:

- Provide a new alignment through the reserve.
- Provide separated bike lane at the northern end of Bridge Terrace. (For further discussion, see Resource Document, s. 4.2.5.)
- As a short-term measure, provide directional signage.

Hindmarsh River to Council boundary:

- investigate options for a new alignment

1. behind houses on Hindmarsh Road (Kleinigs Hill) to access the existing route at Hayward Court.
2. using the northern side of the rail corridor, including some excavation and construction of retain walls at the Hindmarsh Road end to ensure a safe operating buffer from the railway.
3. upgrading paths on the southern side of the railway, adjacent to Kleinigs Hill before switching to the northern side below Hayward Street near Olivers Reef.

See **Error! Reference source not found.**.

Figure 14: Options for new Encounter Bikeway alignment, Kleinigs Hill

Further discussion of these options can be found in the Resource Document, s. 4.2.7. The issue of which option to adopt is complex as the analysis involves comparing issues such as

- reclaiming public land that has been assumed by private owners
- determining safe operational buffer standards for what is a “part-time”, tourist railway
- costing of what may be complex civil engineering works
- sensitive coastal native vegetation.

Once costings have been established and an option chosen, seek funding from federal and state sources for its construction.

4.1.2 Other off-road paths

While the Encounter Bikeway is both the most valuable off-road path for cyclists and the path most in need of upgrade, the two paths alongside the Hindmarsh and Inman rivers are also very important, both for recreational users and for school and other utility cycling. The major needs here are for signage and promotion, though with increasing use consideration needs to be given to the width and surface used.

Both paths can also be part of recreational loops off the Encounter Bikeways, to give a broader recreational experience.

A loop off the Encounter Bikeway at Hayborough could use the Hindmarsh River path, a new path to the north of Coromandel Drive, the old alignment of Adelaide Road, Strawberry Hill Road and the established recreational paths through recent housing developments, including the Beyond Development, which is in the Alexandrina Council area. The new shared use path would also provide access to the Encounter Lutheran College and the Fleurieu Regional Aquatic Centre from the McCracken side of Adelaide Road.

A loop around the township of Victor Harbor could use the Inman River Trail, a new shared use path linking the Inman River Trail with Canterbury Road, then Waggon Road and the Hindmarsh River Trail. The new shared use path would also be used by students riding to and from the high school and TAFE.

A third loop off the end of the Encounter Bikeway at the Bluff requires the construction of a path connecting Bluff Jetty Road with The Bluff car park access road. Cyclists could then ride up the car park access road, then to the car park overlooking Petrel Cove and back down to the Encounter Bikeway at Whalers Inn.

The Encounter Bikeway loops appear in the map of off-road paths, at Appendix A1.

Residents in the Hayborough area also benefit from the network of paths that have been created in new housing developments north of Port Elliot Road. In this case all that is needed is wayfinding signage and promotion. In the same area, shared use path adjacent to Mentone Road and Waterport Road are recommended. Although a collector road, Mentone Road has insufficient space for bike lanes. A shared use path on the southern side of Waterport Road would aid access to the new Aquatic Centre as well as Encounter College.

4.2 MAIN ROAD CYCLING: Provide safer riding on and across the main road through Victor Harbor and other major roads

The South Coast is home to many recreational cyclists who use the arterial roads of the region, including the main road through the built-up area. Roads such as Inman Valley Road, Adelaide Road and Hindmarsh Tiers Road are important routes to access the South Coast by visitors by bike. In South Australia the term “arterial road” means that it is controlled by DPTI. Such roads typically connect different council areas and have traffic volumes measured in the thousands.

The Victor Harbor area is unusual in that it has a road with the usual characteristics of arterial roads, but which is controlled by the council. This is the “ring road” (Welch Road/ Armstrong Road), which Council constructed to provide a bypass of the built up area for those travelling between Adelaide Road, Encounter Bay and points west of Encounter Bay.

The other non-DPTI road whose function is primarily inter-council is Range Road (B37), which connects Victor Harbor with Cape Jervis. However it has a much lower traffic volume than the arterial roads. As it leaves Victor Harbor the B37 is known as Mill Road and Waitpinga Road.

In some cases, particularly in rural areas, there is little alternative for cyclists but to use the arterial roads. Because these roads are managed by DPTI to facilitate safe, efficient, long-distance movement of people and freight, cyclists will not be a priority. Council should work with local cyclists to identify locations where these are needed.

The State government recognizes that providing sealed shoulders, with edge lines a metre or more from the edge of the bitumen, is an effective safety measure for all road users, while at the same time providing cyclists with a de facto bike lane. The state government has a long-term program to provide sealed shoulders on all of its roads where possible. This is continuing in the Victor Harbor area. Council should advocate for this program to be completed as soon as possible and also provide edge lines on the ring road and Waitpinga Road to the intersection with Range Road as part of its scheduled maintenance program.



Figure 15: watch for bikes sign

4.2.1 Main road route through the built-up area

The main road route through the built up area is variously named Adelaide Road, Hindmarsh Road, Torrens Street, Victoria Street and George Main Road. It is controlled by DPTI. The following recommendations (in order from west to east) deal with this main road route, as well as B37.

- Provide a shared use path alongside Mill Road (B37), from Rosetta Village entrance to Dyson Court. (This is to avoid the dangerous crest of Mill Road, which has insufficient width to provide bike lanes.)
- Install signs at Newland Bridge (Inman River) to prevent motorists overtaking cyclists on the bridge.
- Use coloured pavement on the bike lanes on Victoria Street west of Oval Road and provide junction safety improvements at the service station.
- Provide a continuous bike lane past the IGA and improve the pedestrian crossing. (See Resource Document s 4.3.3)

- Redesign the bike lanes on Victoria Street to provide a buffer of at least 0.4m from parked cars. In the short term provide signage warning motorists to watch for bikes.
- Provide bike logos in the middle of the traffic lane at the approach and entrance of each roundabout to prevent motorists trying to overtake at what are squeeze points and to encourage cyclists to take the safest line through the roundabout. In the longer run, redesign the roundabouts to be more radial, so slowing traffic entering them. (For an explanation of the radial design, see the Resource Document, s. 4.3.4.)
- Provide a path for pedestrians and cyclists around the Victoria Street/Torrens Street roundabout. (A sketch of this can be seen in the Resource Document, Appendix C)
- Extend bike lanes on Torrens Street to Seaview Road if right turn lanes are removed at the intersections with Stuart Street and Ocean Street.
- Upgrade the intersection of The Parkway and Hindmarsh Road to provide a safer crossing of Hindmarsh Road and a threshold treatment for the entry into Victor Harbor. In the short term, provide a kerb ramp and signage to allow cyclists entering Victor Harbor to use Bridge Terrace.
- Provide edge lines on Port Elliot Road from the end of the existing bike lanes to the council boundary.

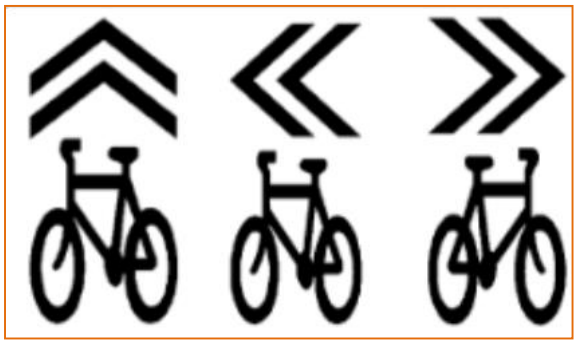
4.3 LOW-STRESS ROAD CYCLING: Provide a safe, low-stress environment for cyclists on local roads

Council roads are generally designed for local access and have much lower traffic volumes than arterial roads. In urban areas they have lower posted speed limits. While all local streets in the built-up area should be comfortable for cycling, there are three categories of streets that are subject to special attention:

Streets in the central business district (CBD), defined as those streets bounded by Willis Street, the main road route, Eyre Terrace and the coast. See Appendix A3 for the extent. These streets vary in width, but are generally too narrow for bike lanes, given the premium on parking in this area. However the relatively short distances involved and the frequency of parking manoeuvres result in relatively low speeds.

Measures to do cater for cycling in the CBD are:

- use sharrows[5] and other urban design and traffic management measures to encourage the sharing of roads by cyclists and motorists and to make it easy and comfortable to cross the road
- consider counter flow cycling on one-way streets. Council should also consider a lower posted speed limit in this area.



For further discussion, see the Resource Document, s. 4.7.

Note that under state government guidelines sharrows should be used only on streets with an average traffic volume of fewer than 3,000 vehicles per day. (See Resource Document, Appendix D.) They can be used on streets with a volume of between 3,000 and 5,000 if the posted speed is less than 60kph.

A network of streets serving school-based cycling, stretching from Investigator College in the west to the R-7 school in west. (Encounter Lutheran College in Hayborough is served by the "Hayborough Loop" referred to in s. 4.2) See Appendix A for a map of this network, with treatments proposed.

Most of this network already exists in the form of a series of part-time bike lanes, designed to cater for students riding to and from school. The proposed network builds on this by (from west to east):

- Constructing a median refuge on Armstrong Road at Ewen Terrace and installing sharrows on Ewen Terrace
- Constructing a shared use path alongside Oval Park Road and Kullaroo Road. As an interim measure, posting a low speed limit, with speed cushions on Kullaroo Road to enforce this. (Note that there is a new road design including a roundabout for Kullaroo Road, past the school).

5 State government guidance to the use of sharrows appears as Appendix D in the Resource Document.

- Strengthening the existing school bicycle route from the footbridge over Inman River at Leworthy Street to the R-7 school using the following roads: Oval Road, Lindsay Street, Acraman Street, Carlyle Street, Peace Avenue, Broadway, High Street, Renown Avenue and Riverview Road.

New features of this route would be: signage identifying the route, part-time bike lanes on Oval Road between Leworthy and Lindsay Streets, and on Peace Avenue to Broadway, Broadway itself and on Renown Avenue from Broadway to Riverview Street. It would also include median refuge crossings of Crozier Road and Seaview Road.

Council should also investigate a longer-term option of a two-way separated bike lane for the length of this route.

Other local streets that together make a network for local cyclists are treated with sharrows to encourage motorists to recognize the role of cyclists using these streets. (See map, Appendix A2.) Bay Road is an exception: here the significance of the route, the width of the road and the local parking conditions enable the creation of full-time bike lanes. (See Resource Document, s. 4.2.2.). Crozier and Seaview Roads are important links between Welch/Armstrong Road and the CBD. These can be provided with edge lines to demarcate 3m travel lanes and also provide space for cycling when parked cars are not present.

Council is also responsible for a rural local road network. Most of these provide very pleasant cycling for stronger cyclists, with lovely views and very low traffic levels. The main role of council here is one of promotion, discussed in s. 4.6 below. (See Appendix A6 for roads that could be highlighted.)

However most rural local roads are unsealed and bends in particular can be hazardous. With both cyclists and drivers using the full width of the road to negotiate bends comfortably, it is important that all road users remain alert. Council can highlight the dangers both in promotional literature and using hazard signage.

4.4 PARKING: Install bike parking slightly ahead of demand

Bike racks are a visible sign that Council encourages cycling, as well as a convenience for cyclists. However, ratepayers may see over-provision as a waste, so care needs to be taken not to provide racks that are hardly ever used.

Appendix A5 indicates possible locations of new bike parking. Most of this is in the CBD and in particular encourages cyclists to leave their bike on racks on the Encounter Bikeway to walk to local shops. Racks are also proposed for each bus stop. However the location of racks should respond to demonstrated need, so Council should encourage reports of informal bike parking (against poles, fences etc.) and requests by businesses for racks to be installed.

Council should replace out-dated "wheel bender" bike racks. These are identified in Appendix A5.

Council could also consider special "themed" bike racks, for example in the shape of a whale. as well as making use of other council infrastructure such as tree guards.[6]

See the Resource Document, s. 4.11 for further discussion about the installation of bike parking. It refers to existing standards regarding bike parking. The installation of inverted D rails in accordance with these standards will provide satisfactory outcomes, departures from this should only be undertaken in consultation with local cyclists and tested using a variety of bike types, bikes with baskets, etc.

6 For further discussion see the Resource Document, s. 411.

4.5 MOUNTAIN BIKING: Liaise between State Government agencies and local mountain bike cyclists to establish and promote mountain biking opportunities

Although well-endowed with quiet unsealed roads and several parks, there is a perceived lack of mountain-biking opportunities in CVH. As such, the community is missing out on a popular form of recreation and potential income from visitors. Importantly, as mentioned earlier, the State government has a strategy to establish the Adelaide Hills as an international mountain biking destination[7] and a People and Parks Strategy that has recently encouraged and funded the establishment of mountain biking facilities in DEWNR parks.

ForestrySA land has also been important for mountain biking. In fact the Second Valley Forestry Reserve, on the border with DC Yankalilla, is open to mountain biking, with trails marked. Council should work with local cyclists, Yankalilla Council and ForestrySA to promote their use.

There are also other locations that would make excellent mountain bike locations and in fact may be already used for these purposes on an informal basis. Existing state-owned land in the area of relevance here are:

- SAWater land that is no longer used as a catchment
- Various national parks and reserves owned by the Department of Environment, Water and Natural Resources.

Another opportunity may arise on the border with Alexandrina Council at Brown Hill, north-east of Waterport Road.

The map at Appendix A6 identifies potential locations. For further discussion, see the Resource Document, s. 4.10.

7 See DEWNR, Establishing the Adelaide Mount Lofty Ranges region as an international mountain bike destination *Final Report*, July 2015

4.6 INFORMATION: Strengthen the information available to locals and to tourists about cycling in the township and the region

There are tremendous opportunities to improve the information about the cycling facilities that are available. On the ground way-finding signage, particularly about the Encounter Bikeway, should be complemented with renovated paper-based and electronic information that includes possible “loops” off the Bikeway, toilets, parking, shops etc.

Wayfinding signage should be used for all off-road paths where users cannot take advantage of the street signage. On the ground way-finding signage can also promote Victor Harbor as a cycling town, but should not be at the expense of its basic purpose: to provide direction.

Maps of the paths that are available and the destinations they will serve should be developed in partnership with cyclists with local knowledge.

They should cover differing markets: families with new riders, elderly recreational riders, gravel bike riders, mountain bike riders as well as those travelling beyond council boundaries, including from Adelaide.

Journey planning websites such as naviki can be used to tell visitors about great rides that are available and things that they should consider.[8]

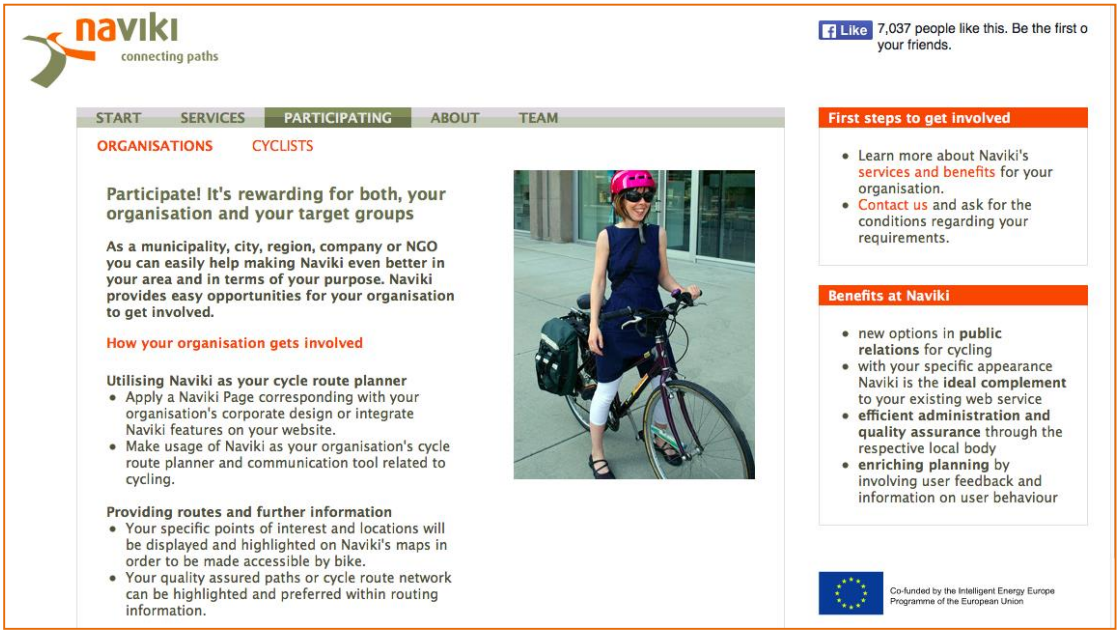


Figure 16: Naviki page

While Naviki is a best practice example from Europe, there are many closer examples that should be monitored and if appropriate, adopted in some form. South Australian examples are the management of the Riesling Trail, Barossa’s bike hub in Tanunda and the local free bike hire scheme that has operated in Adelaide. (Given the demographics of Victor Harbor, the bike hire fleet could experiment with electric bikes.)

8 See New Tool Adds Value for Cycling Policy.



Figure 17: Electric bikes

Having these available for use on the Encounter Bikeway would be a good way to encourage older people to take up cycling. (source: http://www.phillyew.com/e-bikes)

Promoting better path practice

Practically all off-road cycling in the built-up area is shared with pedestrians. Consultation for the Strategy revealed the tensions that this can create. (See Resource Document, s. 3.) Unfortunately care and courtesy are needed when people travelling at different speeds have to share the same path. Pedestrians have to be alert, keep dogs under control and resist sudden urges to change direction without looking first. Cyclists need to take care not to alarm pedestrians, to make them aware of their presence if there is a danger of collision and give way to pedestrians.

In the long term, the construction of a wall to deal with rising sea levels offers the opportunity of separating cyclists and pedestrians for much of the Encounter Bikeway, where conflict is most apparent[9].

However there is a need for education of both parties to deal with the current and immediate situation. Opportunities that can be taken by Council include information brochures, websites and signage. (See **Error! Reference source not found.** for examples.)

Figure 18: Examples of share the path signage

9 See City of Victor Harbor Victor Harbor Coastal Management Study *Final Report* December 2013

4.7 ACTIVITIES: Promote cycling-based activities to improve the health and well-being of locals and to promote economic development of local businesses

Promotional activities should be developed in conjunction with local businesses and enthusiasts. The promotion of cycling by the Council should be subject to the following principles:

1. Don't disappoint

Staging of promotion should be carefully planned to ensure that any events and activities are positive and encourage more cycling. Promoting the use of facilities that leave the users feeling vulnerable, for example, will be worse than doing nothing at all.

2. Attract the newbies

Don't focus promotion on those who already cycle. Some expression of appreciation and encouragement of existing cyclists is appropriate, but the main focus should be to convert those who don't cycle regularly into regular cyclists.

3. Give promotional activities a chance

It often takes two or three years for the potential of a particular activity or event to be realised and fine tuned, so don't give up if the results were disappointing in the first year.

4. Know your markets

The types of cyclists to attract vary: children riding to school, retired residents looking for active recreation, visitors and tourists looking for things to do, etc. A promotional strategy needs to recognise this variety and pursue tailored measures will target specific markets.

Some possibilities for the starter/climber stage are:

- develop a web page, Facebook page and brochure that identifies the range of cycling opportunities, providing essential information, including how to get more information
- mounting events to celebrate and promote the opening of new facilities
- identify and promote a variety of loop rides to appeal to different types of cyclists
- promoting "come n try" events where the less confident can be guided on safe ways to negotiate local streets and paths
- promoting rides that encourage visitors, particularly outside the busy summer peak, to visit local businesses
- provide a bike hire service through the Information Centre and encourage older residents through loans of pedelecs – power-assisted bikes
- work with SteamRanger to encourage cycling one way, train the other on the Encounter Bikeway.

4.8 MAINTENANCE: Adopt asset management principles that consider cyclists' needs

It is clear from consultation undertaken in the development of this strategy that main of the concerns that cyclists have about the existing road environment concern the details of existing road design as well as the maintenance regime in place. Cyclists, particularly those on road bikes with thin, high pressure tyres, are very sensitive to the road surface.

The design and management of roads should consider their impact on cyclists, for example:

- providing laid back kerbing as much as possible given drainage requirements, to allow cyclists to move over on narrow lanes when being overtaken
- providing clean, smooth, sealed shoulders on busier roads, particularly on up-hill sections
- avoiding sharp drop-offs on the edge of bitumen roads
- ensuring that barrier fencing does not remove the shoulder wherever possible
- institute a program to ensure edges of roads and paths are swept clear of leaf litter, sand and other hazards.

4.9 IMPLEMENTATION: Develop an implementation strategy that forms a partnership with local cyclists and businesses

While this strategy has many items recommended for implementation (and the Resource Document includes many more suggestions) what is done and when it is done will be determined by local political priorities and enthusiasm, opportunities that arise and the availability of funding, especially grant funding. An implementation program will need to have both short-term and long-term elements, be flexible and developed in a local, collaborative fashion.

The essential feature is that there is an implementation strategy and that somebody is responsible for it.

Council can take advantage of local cycling knowledge and enthusiasm to aid the implementation of this strategy. A reference group established for the implementation of the plan can

- help in developing a multi-year action plan of concrete activities
- measure progress by undertaking counts of cyclists, bikes in racks etc.
- act as a sounding board for concepts and designs
- be a source of accountability to ensure decisions are followed up and progress continues.

While representatives of the local cycling community should be represented, it should also include a councillor, representatives of staff involved in implementation and local business interests. Others (for example local school representatives, neighbouring councils) could be invited to attend on an as-needs basis.

5 An immediate plan of action

Appendix A is a graphic of the proposed network for the built-up area of the City of Victor Harbor. Appendix B is a table of specific actions to deliver this. Where relevant, these have been costed and a timeframe recommended. However matters of timing should always be sensitive to specific opportunities as they arise. For example projects that can take advantage of short-term grant opportunities should be ready to be brought forward.

While all of the actions in Appendix B can be termed "hardware", they should be taken in conjunction with "software" and "orgware" measures. In fact the most immediate priority is orgware: to establish the political, organisational and financial support, the decision-making framework and the implementation priorities.

Three principles should guide the immediate actions:

Build Momentum

The first feature of delivery is to build the momentum to undertake later, more ambitious steps.

The focus early on should be on the "ORGWARE": gaining support within Council, assigning responsibilities, forming partnerships with community bodies and allied agencies.

Early steps should be focused on gaining political support for the Encounter Bikeway as a much appreciated, high profile project, as well as securing funding for both this and smaller projects.

Pick the Low Hanging Fruit

An element of building momentum is to secure the easy wins, the items that don't cost much money, are not controversial and which help shape the climate for later actions. Providing sharrows and information-based activities such as signage fall into this category. Identifying locations for wayfinding signage using local community members and then installing this is a good, cheap way of building relations and showing Council supports cycling.



Figure 19: Examples of wayfinding signage

Leverage opportunities

Up to the first budgetary period after the adoption of the bike strategy no specific funding will have been allocated to its implementation. It is therefore important that opportunities that meet shared objectives are identified and taken advantage of. Allied programs (such as the implementing the other recreational measures, existing road and footpath budgets, the State Government's MTB agenda etc.) need to be identified and partnerships established. Existing council activities that can be used to promote cycling or establish safer cycling need to be identified and taken advantage of.

These principles have been used to identify an nine-point plan of action, to cover the first two years.

1. Adopt the Strategy

Council's adoption of the VHBS will provide political and administrative authority for its implementation. The adoption should include a statement that will indicate to staff and the community the direction that Council wants to take. It is important that Council is aware of and supports the key features of the report.

2. Establish responsibility for implementation

Identify a staff position that has responsibility for implementing this plan. Ideally there would be a staff member with hands-on responsibility for delivery. Whether this is the case or actual implementation relies on several staff from different sections, there should be a position at senior management level identified as responsible to oversee delivery.

3. Establish a political support mechanism

Establish a reference group consisting of at least one councillor, representatives of the local cycling community and business community and council staff with responsibility for implementation to oversee implementation. As well as being a spur to delivery, this group can be a sounding board for ideas and designs, help shape priorities and encourage volunteer actions within the community to help delivery.

Council could also consider encouraging the formation of a "Friends of the Encounter Bikeway" to bring together the views of pedestrians as well as cyclists in support of more improved infrastructure and better use.

4. Secure broader staff support

Staff whose cooperation is necessary need to be engaged. In some cases, some modification of emphasis and recognition of competing priorities may be necessary to secure commitment to the Strategy. Briefings and workshops should also begin to discuss budgets, not in terms of the VHBS taking over budget lines but in finding the win-win position in current activities.

5. Establish a maintenance program

Research for this strategy and feedback from consultation highlight the importance of ensuring the effectiveness of existing assets through proper maintenance. Sweeping of paths, repairing potholes, improving sight lines on shared paths, etc. are all relevant here.

Appropriate maintenance activities need to be identified, priorities determined, funding secured and a schedule of activities developed.

6. Engage with 'invested' agencies

The VHBS will need the cooperation of other agencies to be delivered: state government agencies such as the DPTI, the DEWNR, and ForestrySA, as well as neighbouring councils and private bodies such as SteamRanger and developers.

These should be aware of the Strategy early on and potential issues that involve them in the implantation should be highlighted along with invitation to help shape that implementation. The Alexandrina District Council is particularly important here to develop a cooperative approach to planning the Encounter Bikeway, securing the proposed "Hayborough Loop" off the Bikeway, and cycling access to the Regional Aquatic Centre.

7. Secure funding for later years

A first step in securing funding is to identify existing Council budget lines that have win-win potential for delivering the Strategy.

Staff to whom the responsible officer is responsible will then need to secure a budget line for delivery of the VHBS in future years.

Potential grant opportunities will need to be identified, timetables for application established, and applications submitted.

8. Pick the low hanging fruit

Working with the local community, identify immediate signage and bike parking needs and install the signs and bike racks. Establish a website and/or social media presence to encourage local bike riders to provide advice, build a bike riding community and provide information for visitors. Depending on how this is housed, such a site could also include advertising for local businesses.

9. Develop the means to measure results

There is little hard evidence about how much cycling occurs in Victor Harbor. Without a baseline of data, future progress cannot be measured. The Strategy Document, s. 6, identifies a number of possible measures by which statistical data can be gained. It should be possible to draw on volunteers for some of this

Appendix A:
A bicycle network for the built-up area, City of Victor Harbor



Actions

Action 1.3: Create destination at the end of EB
Action 1.5: Resurface existing path and w iden to 3.5m
Action 1.6: Add sharrow s to road through Kent Reserve
Action 1.7: 3.5m shared path adjacent to the fence, Willis St to Visitor Information Centre
Action 1.8: Widen existing 1.8m path to 3.5m, Causew ay to Bow ling Club
Action 1.10: Widen to 3.5m, protect from sand drift past Bow ling Club
Action 1.11: New 3.5m path seaw ard of Bridge Tce. Boat ramp almost to Hindmarsh River
Action 1.12: Upgrade pedestrian maze to Australian disability standards, railw ay crossing at Hindmarsh River
Action 1.13: Undertake analysis of options to provide a new alignment, Hindmarsh River to Alexandrina boundary
Action 3.7: New 3m shared use path, Oval Park Road, Kullaroo Road
Action 5.13: Median refuge, Adelaide Road, north of Straw berry Hill Road
Action 6.3: New 2.5m path, Mll Road, to Dyson Court
Action 6.4: New 2m crushed stone path, Bay Road from w estern end to Waitpinga Road
Action 6.5: New 2.5m shared use path on southern side, Waterport Road, from Straw berry Hill Road to Ocean Road
Action 6.7: New 2.5m shared use path, Mentone Road, northern side
Action 7.1: Build a crushed stone path traversable by bikes (average gradient about 8%) from the end of the Bikew ay to the Bluff ring road.
Action 7.5: Review w idth and surface of Hindmarsh River Trail for suitability as a shared use path
Action 7.6: Review w idth and surface of Inman River Trail for suitability as a shared use path
Action 7.7: Footbridge crossing of Inman River
Action 7.8: New trail, needs footbridge crossing of Inman River, to connect Inman River Trail w ith Canterbury Road
Action 7.11: Provide new 1.5m path, crushed stone, betw een Hindmarsh River Trail and Adelaide Road
Action 7.12: Footbridge to future Greenhills housing development
Action 7.13: New 2m path from new footbridge to Waggon Road, through former Greenhills Adventure Park.

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0 500 1,000 2,000 m
1:30,000

Job Number: 20155674
Filename: 20155674GE014C_Encounter_Bikeway_map
Revision: REV A
Date: Tuesday, September 6, 2016 at 08:37 AM
Drawn: TMOON

Data Acknowledgement:
Basemap supplied by ESRI

- Encounter Bikeway Loops
- Existing Shared-Use Paths
- New / Upgraded Shared-Use Paths
- Existing Route Through Hayborough
- Separated bike lane, northern end of Bridge Tce

City of Victor Harbor

ENCOUNTER BIKEWAY AND OTHER PATHS

Appendix A1



Actions

Action 1.3: Create destination at the end of EB
Action 1.5: Resurface existing path and w iden to 3.5m
Action 1.6: Add sharrow s to road through Kent Reserve
Action 1.7: 3.5m shared path adjacent to the fence, Willis St to Visitor Information Centre
Action 1.8: Widen existing 1.8m path to 3.5m, Causew ay to Bow ling Club
Action 1.10: Widen to 3.5m, protect from sand drift past Bow ling Club
Action 1.11: New 3.5m path seaw ard of Bridge Tce. Boat ramp almost to Hindmarsh River
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Action 7.6: Review w idth and surface of Inman River Trail for suitability as a shared use path
Action 7.7: Footbridge crossing of Inman River
Action 7.8: New trail, needs footbridge crossing of Inman River, to connect Inman River Trail w ith Canterbury Road
Action 7.11: Provide new 1.5m path, crushed stone, betw een Hindmarsh River Trail and Adelaide Road
Action 7.12: Footbridge to future Greenhills housing development
Action 7.13: New 2m path from new footbridge to Waggon Road, through former Greenhills Adventure Park.

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1:30,000

Job Number: 20155674
Filename: 20155674GE014C_Encounter_Bikeway_map
Revision: REV A
Date: Friday, September 2, 2016 at 02:27 PM
Drawn: TMOON

Data Acknowledgement:
Basemap supplied by ESRI

- Encounter Bikeway Loops
- Existing Shared-Use Paths
- New Shared-Use Paths
- Existing Route Through Hayborough
- Separated bike lane, northern end of Bridge Tce

City of Victor Harbour

OFF-ROAD BIKE FACILITIES

Appendix A1



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Job Number: 20155674
Filename: 20155674GE016A_On_Road
Revision: REV A
Date: Monday, September 5, 2016 at 09:01 AM
Drawn: TMOON

Data Acknowledgement:
Basemap supplied by ESRI

City of Victor Harbor

ON-ROAD BIKE FACILITIES (See also School Routes)

Appendix A2

Actions

Action 2.12: Sharrows between high school and river
Action 3.1: Sharrows, Ewen Terrace
Action 3.2: Part-time bike lanes south of Churchill Road
Action 3.3: Part-time bike lanes, Peace Avenue (lower)
Action 3.4: Part-time bike lanes, Broadway
Action 3.5: Part-time bike lanes, Lindsay Avenue
Action 3.7: New 3m shared use path, Oval Park Road, Kullaroo Road
Action 3.8: Investigate long-term option of a two-way separated bike lane from Anzac Bridge to R-7 school
Action 5.12: Median refuge, Armstrong Road at Ewen Terrace
Action 5.14: Median refuge, Crozier Road at Lindsay Street
Action 5.15: Median refuge, Seaview Road at Carlyle

Victor Harbor R-7 School
Investigator College
Encounter Bay sports fields
TAFE
Victor Harbor High School, oval, bmx park, skate park
Victor Harbor Golf Course
Victor Harbor Oval
Warland Reserve
Soldiers Memorial Reserve
Victor Harbor
median refuge
3.1
3.2
3.3
3.4
3.5
3.7
3.8
2.13
Henderson Rd
Greenhills Rd
Richardson Rd
Gare Ct
Galpin Ave
Pine Ave
Dorset Ave
Field Ave
Brand Ave
Bond Ave
Renown Ave
Connell St
Oxford St
Tudor Ave
Surrey Ave
Harvey Ave
James Ave
Thorne Ter
Seaview Rd
Hillview St
Cornhill Rd
Grantley Ave
Keithalan Ave
Dene Ave
O'Leary St
William St
Seymour Ln
Breckan Ave
Bridge Ter
Ozone St
Lawson St
Crozier Rd
Hill St
Graham St
Dennis Pl
Hindmarsh Rd
Eyre Ter
Ocean St
McKinlay St
Victor Harbor Tourist Railway
Flinders Pde
Torrens St
Stuart St
Coral St
Torrens Ln
Victoria St
Wills St
Albert Pl
Railway Ter
Victoria St
Sturt St
Granite St
Little Burke St
Hinkler St
Victoria St
Victor Harbor Ring Rd
Armstrong Rd
Meyer St
Jolly St
Finney St
George Main Rd
Valley Rd
Bacchus Rd
Canterbury Rd
Holder Rd
Edzell Rd
Jenkins Ave
Swain Rd
Churchill Rd
Davoren Rd
River Rd
Forrest St
Lewthorpe St
Almond Ave

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0 110 220 440 m
1:7,500

Job Number: 20155674
Filename: 20155674GE019A_School_Routes
Revision: REV A
Date: Monday, September 5, 2016 at 11:36
Drawn: AM

Data Acknowledgement:
Basemap supplied by ESRI

Consider two-way separated bike lane (long-term)
Existing school routes
Existing shared use path
New shared use path
Part-time bike lanes
Sharrows

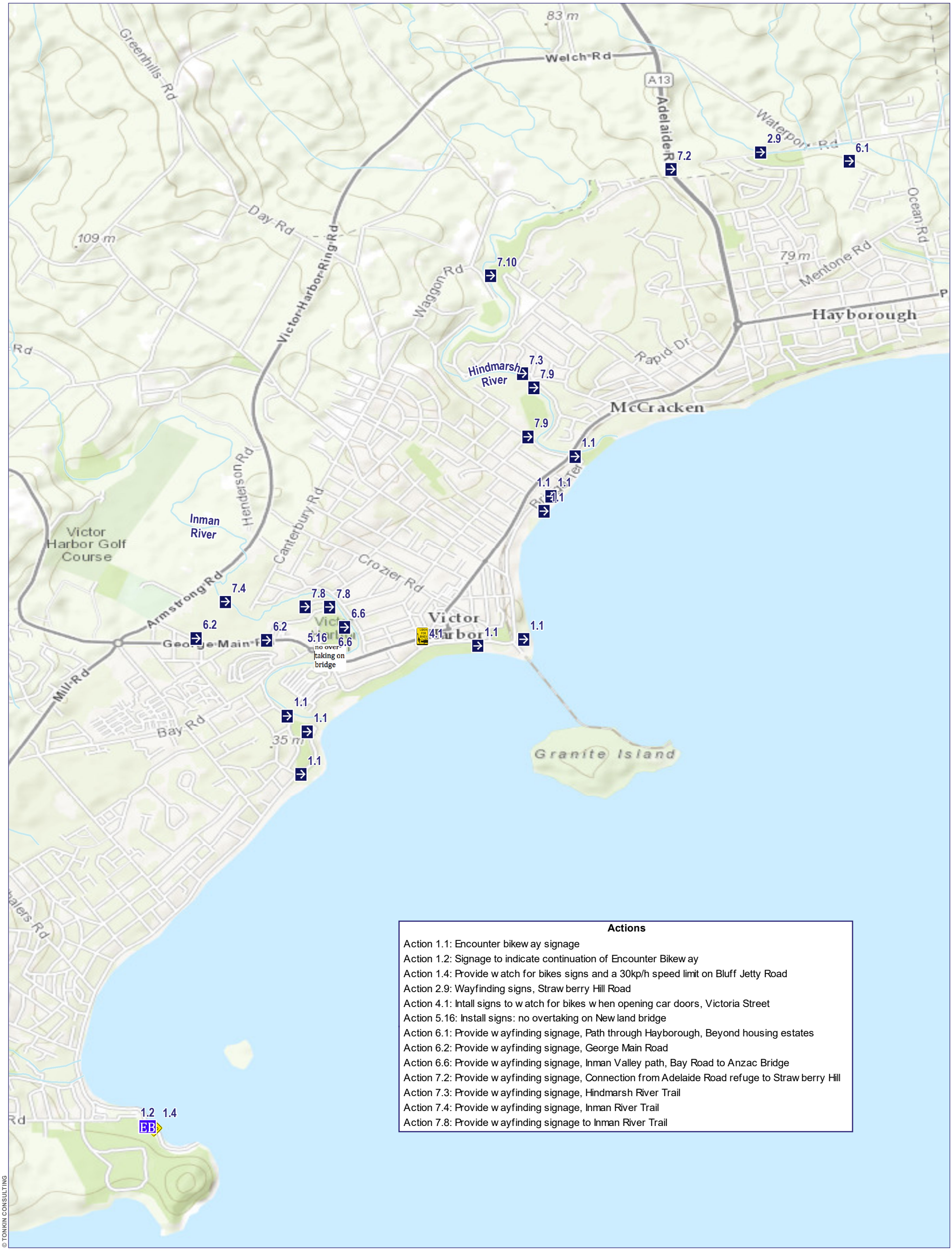
*For Encounter College, see Appendix A1

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City of Victor Harbor

SCHOOL ROUTES

Appendix A3



Actions

Action 1.1: Encounter bikew ay signage
Action 1.2: Signage to indicate continuation of Encounter Bikew ay
Action 1.4: Provide w atch for bikes signs and a 30kp/h speed limit on Bluff Jetty Road
Action 2.9: Wayfinding signs, Straw berry Hill Road
Action 4.1: Intall signs to w atch for bikes w hen opening car doors, Victoria Street
Action 5.16: Install signs: no overtaking on New land bridge
Action 6.1: Provide w ayfinding signage, Path through Hayborough, Beyond housing estates
Action 6.2: Provide w ayfinding signage, George Main Road
Action 6.6: Provide w ayfinding signage, Inman Valley path, Bay Road to Anzac Bridge
Action 7.2: Provide w ayfinding signage, Connection from Adelaide Road refuge to Straw berry Hill
Action 7.3: Provide w ayfinding signage, Hindmarsh River Trail
Action 7.4: Provide w ayfinding signage, Inman River Trail
Action 7.8: Provide w ayfinding signage to Inman River Trail

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1:25,000

Job Number:	20155674
Filename:	20155674GE017A_Signage
Revision:	REV A
Date:	Monday, September 5, 2016 at 09:54 AM
Drawn:	TMOON

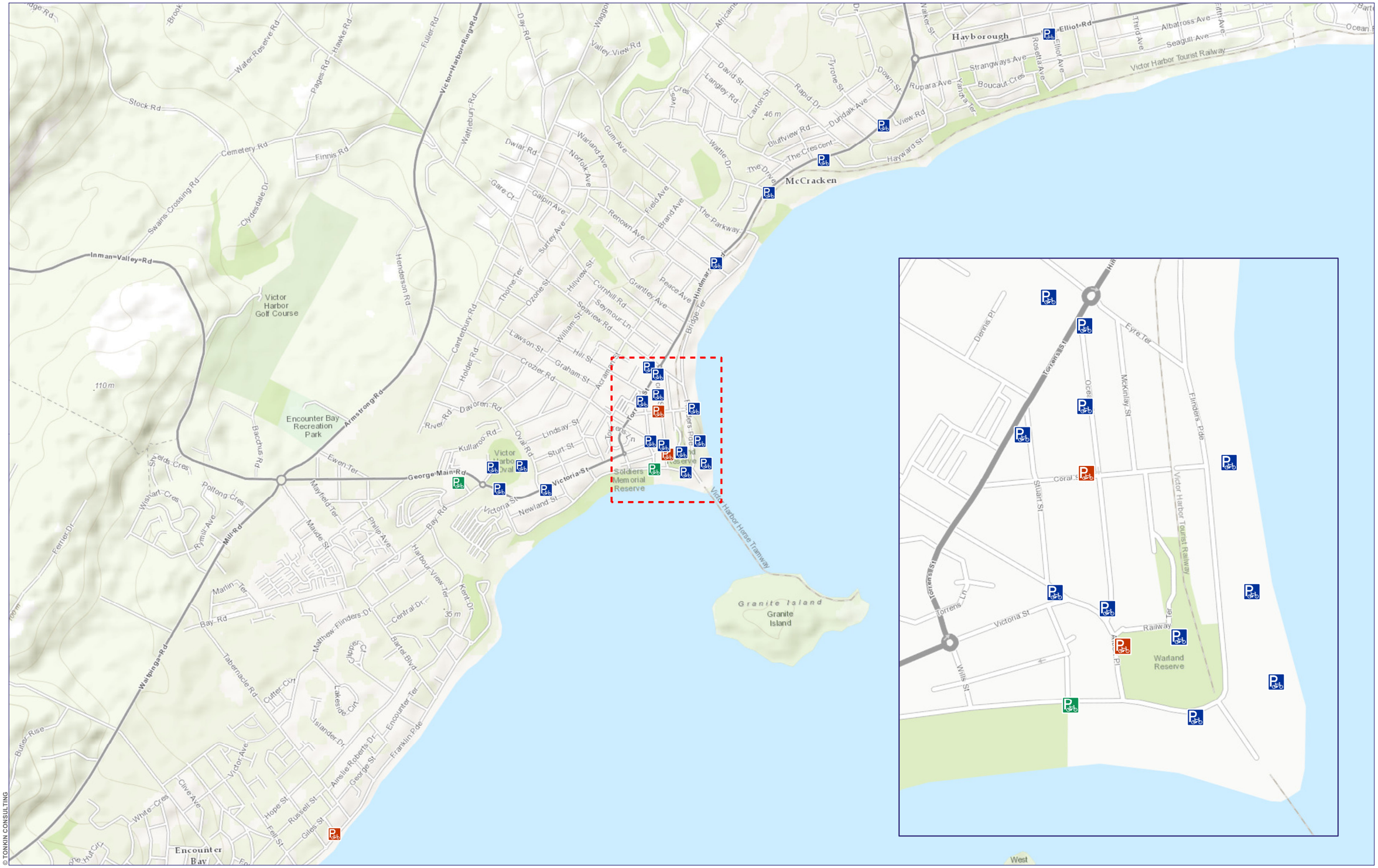
Data Acknowledgement:
Basemap supplied by ESRI

* Locations are indicative. Actual locations should be determined in consultation with the local cycling community and local businesses

City of Victor Harbor

SIGNAGE

Appendix A4



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0 250 500 1,000 m

1:20,000

Job Number: 20155674
Filename: 20155674GE013B_Bike_Parking
Revision: REV A
Date: Monday, September 5, 2016 at 11:46 AM
Drawn: TMOON

Data Acknowledgement:
Basemap supplied by ESRI

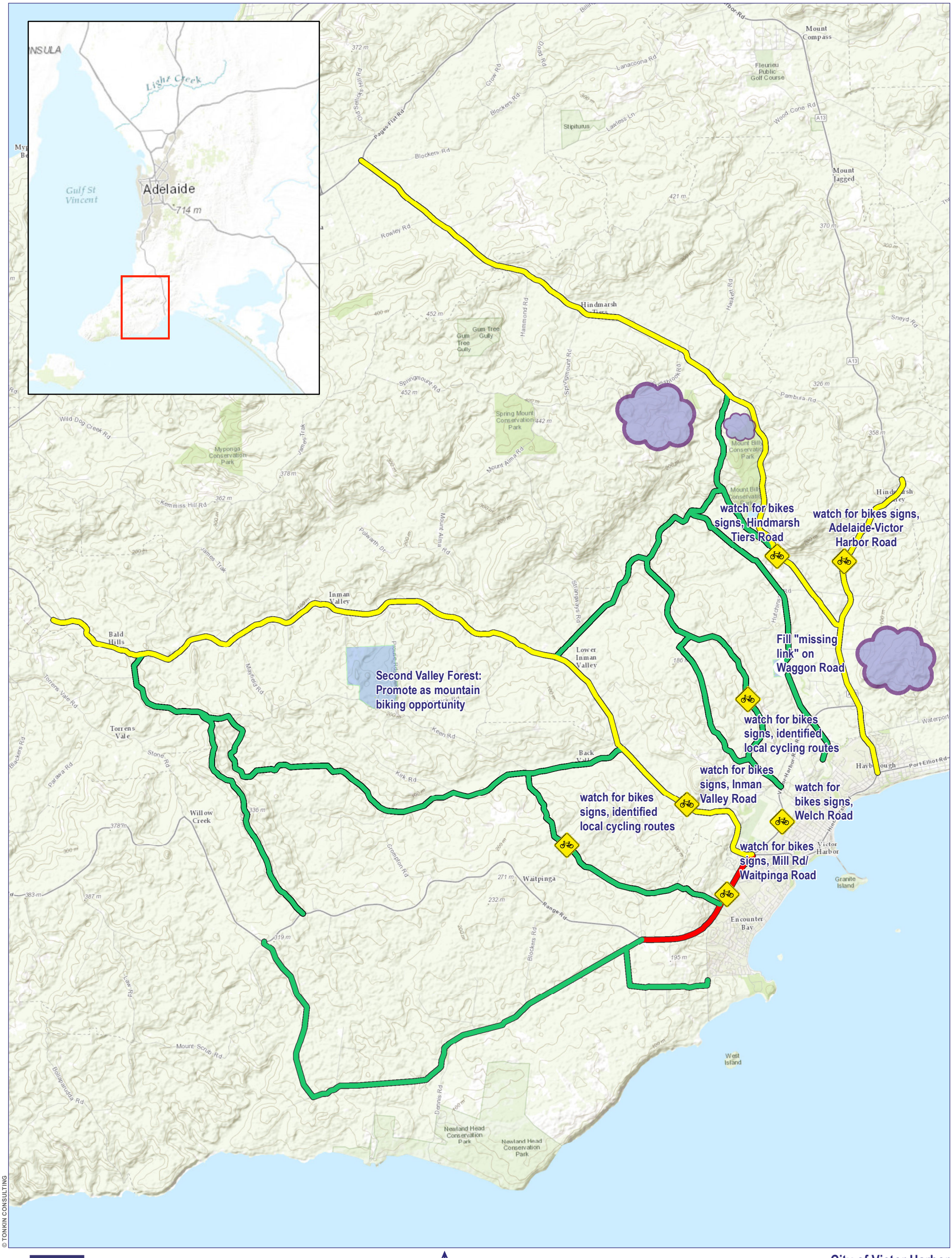
- Existing Modern Bike Parking
- Install Bike Racks
- Replace Existing Bike Parking

* Locations are indicative. Actual locations should be determined in consultation with the local cycling community and local businesses

City of Victor Harbor

BIKE PARKING

Appendix A5



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0 1,500 3,000 6,000 m

1:100,000

Job Number:	20155674
Filename:	20155674GE020A_Regional_Map
Revision:	REV A
Date:	Monday, September 5, 2016 at 11:32 AM
Drawn:	TMOON

Data Acknowledgement:
Basemap supplied by ESRI

- Mountain Biking Opportunity
- Waitpinga Road seal shoulders
- Quiet roads to highlight
- Arterial roads seal shoulders

City of Victor Harbor

REGIONAL MAP

Appendix A6

Appendix B:
Actions to deliver the bicycle network

The following cost estimates have been provided for budgetary purposes only and have not been based on actual designs. Additional contingencies should be allowed (say 20-30%), Design fees have not been included.

Action Item	Location	Description	Responsibility	Short/ Medium/ Long term	Cost
Encounter Bikeway					
1.1	General	Prepare a signage plan, including branding, wayfinding and behaviour on path	CVH	short	$12,000
1.2	Whalers Inn to path to path off Bluff Jetty Road	Provide signage to indicate Encounter Bikeway	CVH	medium	$300
1.3	Path off Bluff Jetty Road	Signage to indicate end of Bikeway, provide seating and bike racks (consider a drinking fountain longer term)	CVH	medium	$1,500
1.4	Bluff Jetty Road	Provide watch for bikes signs and a 30kp/h speed limit on Bluff Jetty Road	CVH	short	$300
1.5	Adjacent to Franklin Parade	resurface existing path and widen to 3.5m	CVH	medium	$657,500
1.6	Kent Reserve	provide sharrows	CVH	short	$600
1.6	Kent Reserve	provide 3.5m shared path	CVH	long	$66,000
1.7	Willis Street to Causeway	3.5m shared path adjacent to the fence	CVH	medium	$144,000
1.8	Causeway to Bowling Club	maintain to remove sand	CVH	medium	$10,000
1.9	Bowling Club	Widen existing 1.8m path to 3.5m, protect from sand drift (with fence)	CVH	medium	$49,000
1.11	Yacht Club to Hindmarsh River	new 3.5m path seaward of Bridge Tce.	CVH	medium	$87,000
1.12	railway crossing at Hindmarsh River	upgrade pedestrian maze to Australian disability standards	CVH	medium	$10,000
1.13	Hindmarsh River to Alexandrina boundary	undertake analysis of options to provide a new alignment	CVH	short	$20,000

Bike friendly urban streets					
2.1	CBD and foreshore	provide sharrows	CVH	short	$1,600
2.2	CBD and foreshore	reduce speed limit	CVH	medium	$5,000
2.3	Kent Drive to cover the gap in the Inman River shared use path	provide sharrows	CVH	short	$400
2.4	The Esplanade	provide sharrows	CVH	short	$1,700
2.5	Bay Road	permanent bike lanes	CVH	medium	$78,000
2.6	Oval Road/ Jenkins Avenue	provide sharrows	CVH	short	$750
2.7	Franklin Parade	provide sharrows	CVH	short	$5,300
2.8	Flinders Parade/ Bridge Terrace	provide sharrows	CVH	short	$2,500
2.9	Almond Avenue	provide sharrows	CVH	short	$400
2.10	Strawberry Hill Road	wayfinding signs	CVH	short	$200
2.11	Canterbury Road	provide sharrows	CVH	short	$3,800
2.12	Tabernacle Road	provide sharrows	CVH	short	$2,400
2.13	Kullaroo Road	provide sharrows between high school and river	CVH	short	$10,000
School route					
3.1	Ewen Terrace	provide sharrows	CVH	short	$700
3.2	Oval Road	part-time bike lanes	CVH	short	$3,450
3.3	Peace Ave (lower)	part-time bike lanes	CVH	short	$2,400
3.4	Broadway	part-time bike lanes	CVH	short	$3,600
3.5	Lindsay Avenue	part-time bike lanes	CVH	short	$13,200
3.6	Kullaroo Road, adjacent to high school	provide sharrows	CVH	short	$5,400
3.7	Kullaroo Road, adjacent to high school	new 3m shared use path	CVH	long	$5,400
3.8	school route from Anzac Bridge to R-7 school	investigate long-term option of a two-way separated bike lane for the length of this route.	CVH	long	$20,000
Full-time bike lanes					
4.1	Victoria Street	signage to watch for bikes when opening car doors	DPTI	short	$300
4.2	Victoria Street	create buffer between parking and bike lanes when resurfaced	DPTI	contingent	$4,950
4.3	Victoria Street	Continue bike lane past IGA by upgrading pedestrian crossing	DPTI	medium	$30,000
4.4	Torrens Road	extend bike lanes if right turns into Stuart and Ocean Streets are removed	DPTI	contingent	$3,600

Other on-road measures					
5.1	Mill Road	Shift 60kph sign to west of Whalers Road	CVH	short	$150
5.2	Armstrong/ George Main intersection	bicycle logos on roundabout legs	DPTI	short	$1,000
5.3	Armstrong/ George Main intersection	redesign from tangential to radial	DPTI	long	$40,000
5.4	Bay/ George Main intersection	bicycle logos on roundabout legs	DPTI	short	$1,000
5.5	Bay/ George Main intersection	redesign from tangential to radial	DPTI	long	$40,000
5.6	Victoria/ George Main Road/ Oval St intersections	provide coloured bike lanes for the 200m east of service station	DPTI	short	$54,000
5.7	Victoria/ George Main Road intersection	provide junction improvements	DPTI	medium	
5.8	Hindmarsh/ Seaview intersection	bicycle logos on roundabout legs	DPTI	short	$1,000
5.8	Hindmarsh/ Seaview intersection	redesign from tangential to radial	DPTI	long	$40,000
5.10	Victoria/ Torrens intersection	provide path around the roundabout	DPTI	medium	$80,000
5.11	Victoria/ Torrens intersection	redesign from tangential to radial	DPTI	long	$15,000
5.12	Armstrong at Ewen Terrace	median refuge	CVH	medium	$10,000
5.13	Adelaide Road, north of Strawberry Hill Road	Median refuge and shift 60kph sign north of this	CVH	medium	$50,000
5.14	Crozier Road at Lindsay	median refuge	CVH	medium	$20,000
5.15	Seaview Road at Carlyle	median refuge	CVH	medium	$20,000
5.16	Newland Bridge	install signs: no overtaking on bridge	DPTI	short	$300
5.17	Hindmarsh Road/ Parkway intersection	install ramp to Bridge Terrace via railway maze, with wayfinding signage	DPTI	short	$2,000
5.18	Hindmarsh Road/ Parkway intersection	design upgraded intersection to provide threshold treatment and safer pedestrian and bicycle crossings	DPTI	medium	$15,000
5.19	Port Elliott Road from Kerr Grove to Council boundary	provide edge lines	DPTI	medium	$9,000
5.20	Crozier Road west of Torrens	provide edge lines	CVH	medium	$12,600
5.21	Seaview Road	provide edge lines	CVH	medium	$11,800
5.22	Greenhills Road from Canterbury to Ring Road	provide edge lines	CVH	medium	$6,500

Shared use paths adjacent to roads					
6.1	path through Hayborough, Beyond housing estates	provide wayfinding signage		short	$2,250
6.2	George Main Road	provide wayfinding signage		medium	$300
6.3	Mill Road	new 2.5m path		short	
6.4	Bay Road	New 2m crushed stone path from western end to Waitpinga Road	CVH	medium	$5,625
6.5	Waterport Road, Strawberry Hill Road to Ocean	new 2.5m shared use path on southern side		medium	$156,000
6.6	Inman Valley path, Bay Road to Anzac Bridge	provide wayfinding signage		short	$450
6.7	Mentone Road	new 2.5m shared use path, northern side		short	$240,000
Off-road paths					
7.1	Bluff Jetty Road	crushed stone path traversable by bikes (average gradient about 8%) from the end of the Bikeway to the Bluff ring road.	CVH	medium	$38,000
7.2	connection from Adelaide Road refuge to Strawberry Hill	provide wayfinding signage		contingent	$300
7.3	Hindmarsh River trail	provide wayfinding signage		short	$750
7.4	Inman River trail	provide wayfinding signage		short	$750
7.5	Hindmarsh River trail	review width and surface for suitability as a shared use path		medium	$2,500
7.6	Inman River trail	review width and surface for suitability as a shared use path		medium	$2,500
7.7	connection between Inman River path and Canterbury Road	investigate new trail, needs footbridge crossing of Inman River		long	$2,500
7.8	connection to Inman River trail from Oval Park Road	provide wayfinding signage		short	$300
7.9	connection to Hindmarsh River trail from The Parkway	provide wayfinding signage		short	$450
7.10	connection from Hindmarsh River trail to Waggon Road	provide wayfinding signage		short	$300
7.11	shared use path between Hindmarsh River Trail and Adelaide Road	provide new 1.5m path, crushed stone		short	$22,500
7.12	Hindmarsh River near Greenhills Adventure Park	design footbridge to future Greenhills housing development		medium	$15,000

7.13	Bluff Jetty Road	crushed stone path traversable by bikes (average gradient about 8%) from the end of the Bikeway to the Bluff ring road.	CVH	medium	$38,000
Bike parking					
8.1	CBD	replace existing outdated bike racks		short	$3,600
8.2	various	Install bike racks at new locations as per map		continuing program	$4,500