



Bikeway Assessment

Encounter Bikeway

Version 1.3 | June 2021



RAA at a glance



South Australia's
largest
membership organisation



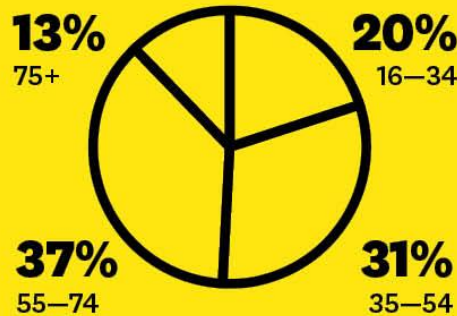
Advocating for South
Australians for over
115 years



770k+
current members
(55% of SA adults)



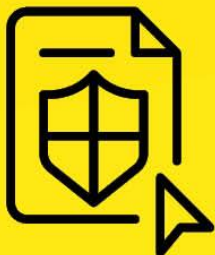
150k+
RAA members are
also cyclists



Our members span
all adult age groups



1000+
staff employed
across SA



Largest
personal lines
insurer in SA



340k+
roadside callouts
per year



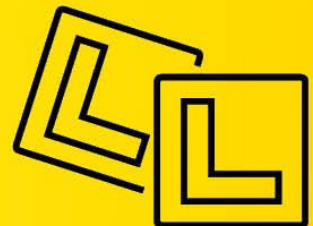
530+
tourism providers
promoted on Experience SA



450+
businesses accredited
through RAA's Approved
Repairer network




29k+
people educated on
road, bike and child
safety each year



23k+
free lessons delivered
to keep SA learner
drivers safe

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Introduction

The Encounter Bikeway is a pedestrian and cycle route extending over 30km from Goolwa North to Encounter Bay via the coastal towns of Goolwa, Middleton, Port Elliot and Victor Harbor. The route starts at the intersection with Liverpool Rd and Howell St (Goolwa North) and terminates at The Bluff (Encounter Bay) and is a mixture of on-road and shared pathway. It is frequently used by pedestrians and cyclists, particularly for shorter walks and rides on shared sections in Goolwa and Victor Harbor. The bikeway is under the care and control of Alexandrina Council between Goolwa North and Hayborough/Chiton (just west of the intersection with Seagull Avenue and Third Avenue), and City of Victor Harbor Council between Hayborough/Chiton and The Bluff in Encounter Bay.

Following a high level of community feedback compared with other cycle infrastructure, RAA reviewed the Encounter Bikeway in two stages as part of our Fleurieu Regional Road Assessment, due for release later in 2021. Initially, the route was reviewed by car with multiple stops and ad-hoc reviews of discrete sites. This identified a need to review the bikeway from the perspective of a user to gain better insight into bikeway condition, wayfinding, and continuity. On Friday 30 April 2021, two e-bikes were hired from Goolwa Bike Hire and RAA staff rode the full length of the bikeway in both directions, cycling a total of 65km.

Community feedback

As part of RAA’s Fleurieu Peninsula Regional Road Assessment, an online survey was circulated to RAA members in the Fleurieu Peninsula region and advertised via social and traditional media platforms to reach the greater community. In total, 1,080 responses were received from the local community between 23 November 2020 and 16 December 2020, highlighting a range of transport and mobility concerns.

The Encounter Bikeway was the most frequently nominated cycle infrastructure in the Fleurieu Peninsula community survey, receiving 22 nominations in questions about cycling, with 13 of these coming from respondents who had ridden a bicycle in the six months prior to completing the survey.

Responses from cyclists were more likely to raise concerns about pedestrians and dogs on the path, as highlighted by the comments below.

“Busy path, often congested with pedestrians walking dogs - I tend not to use it as never sure when a dog might come at me - also some cycle at speed”.

“Very popular walking paths for pedestrians and animals. Need to cycle on road to maintain theirs and my safety. Especially those pedestrians who have earphones on”.

“Lots of older pedestrians wearing earphones and don’t hear the bell on approaching”.

Responses from pedestrian path users were more likely to raise issues about the behaviour of cyclists, as highlighted in the comments below.

“Cyclists aren’t always good at sharing this bike / walking path with walkers. They often come through in large packs and go too fast, even though there are signs in sections asking for cyclists to slow down for blind corners.”

“Some cyclists have no warning bells and have almost been hit by them while walking on this narrow track”.

“Many cyclists ride at great speed. With pedestrians, often elderly, this is very risky!”

Both cyclists and non-cyclists raised safety concerns with the on-road sections of the bikeway and wanted the number of interactions between motor vehicles and bikeway users reduced, ideally through physical separation.

“Needs to be off roads, in particular around Victor Harbor”.

“Needs to be a dedicated bike path rather than painted lines mixing with car traffic”.

“The path often spills out to general roads and the traffic is fast, the roads narrow. The path is popular but making it continuous would improve safety and encourage more families to explore the beautiful ride”.

“This bikeway would be fantastic if there was a way that it could be completely on the cycle path and not on any shared roads, especially when riding with children”.

“There is a dedicated cycle track, but I still see cyclists on the road as it is not easy to find and not good in places. Once in Victor Harbor, more bicycle lanes are required”.

“Too often mixing with cars in back roads. Could follow rail line for less intersections with roads”.

Recent bikeway improvements

Several improvements have been made to sections of the Encounter Bikeway in recent years, including (but not limited to):

- Widening and resurfacing of the shared path in Encounter Bay (2020)
- Widening the shared path in Victor Harbor near the Victor Harbor Bowling Club
- Construction of a 75m boardwalk behind the Victor Harbor Visitor Information Centre between the Esplanade Car Park and Granite Island Causeway
- Repair to damaged sections of the path being lifted by tree roots in Goolwa North.

RAA welcomes City of Victor Harbor Council's vision to “establish the Encounter Bikeway as the best coastal bike route in Australia” as highlighted in its 2016 *Victor Harbor Bicycle Strategy*¹, and commends the steps it has taken in recent years to progress this vision.

¹ Tonkin Consulting, 2016, Victor Harbor Bicycle Strategy, accessed at https://www.victor.sa.gov.au/_data/assets/pdf_file/0024/285126/Victor-Harbor-Bicycle-Strategy_Adopted-20160926.pdf.

Crash history

RAA has reviewed reported injury crashes along the Encounter Bikeway between 2015 and 2019. The crash data reviewed is provided by the Department for Infrastructure and Transport and only includes on-road crashes that were reported to police. As such, crashes on off-road sections are not considered in this review. It is also important to note that many cyclist crashes go un-reported, especially those that only involve a cyclist (and no other road user) resulting in minor injury and these will therefore not be represented in this analysis.

Between 2015 and 2019 there were seven casualty crashes involving cyclists or pedestrians that occurred on or near the on-road sections of the Encounter Bikeway.

There were two crashes that occurred on Newell Avenue in Middleton, both resulting in serious injuries to the cyclists. One of these occurred in January 2016 and involved a cyclist rollover whilst making a left turn from Newell Avenue onto Andrew Avenue, which may be due to the gravel road shoulder at this location. The second was in December 2018 and also involved a cyclist rollover just west of Waikiki Way, heading east.

Another single cyclist crash occurred in Middleton on Ocean Parade in March 2017, where a cyclist collided with a fixed object (tree) and sustained minor injuries when turning right onto Surf Street.

Two crashes involving cyclists or pedestrians occurred on Hindmarsh Road in Victor Harbor, both resulting in minor injuries. Although not on a formal part of the Encounter Bikeway, RAA considers that these crashes may be somewhat related to the Encounter Bikeway, but more information about the crash circumstances is required to fully determine this. A pedestrian was hit while crossing the road from south to north, near Pine Avenue (where the footpath ends), and a northeast bound cyclist and car turning right onto Renown Avenue collided at the intersection with Renown Avenue.

In May 2016, a rear end crash involving a cyclist occurred heading northeast on Franklin Parade approaching the Bartel Boulevard roundabout, resulting in minor injuries.

In October 2015, a northwest bound cyclist rolled over on Bluff Jetty Road and sustained minor injuries.

Observations

Off-road path widths

Whilst path widths were not formally measured during RAA's assessment, Table 1 shows a reasonable approximation of path widths along the Encounter Bikeway as estimated by RAA traffic engineers at the time of assessment and using satellite imagery.

Table 1: Sealed width of Encounter Bikeway sections

Location	Approx. path width*
Goolwa North (Liverpool Rd)	3.0m
Goolwa South (Barrage Rd)	3.5m
Goolwa – Middleton path	3.0m
Middleton – Port Elliot path	3.0m
Victor Harbor (near Bridge Tce Bowling Club)	3.5m
Victor Harbor (Soldiers Memorial Gardens)	1.8m
Victor Harbor (Soldiers Memorial Reserve)	2x 2.0m
Victor Harbor (Esplanade)	2.5 - 3.0m
Encounter Bay (Franklin Parade)	3.5m

*Approximation using satellite imagery and/or reasonable approximation made by RAA traffic engineers at the time of assessment.

*Austrroads Guide to Road Design Part 6A: Paths for Walking and Cycling*² covers the recommended design guidelines for shared paths. The desirable width for regional cycle paths is 3m, however a minimum of 2.5m may be adopted in certain circumstance where cyclist volumes and speeds will remain low. Figure 5.5 of the guide considers a 3m shared path to be acceptable for two-way volumes of up to about 100 pedestrians and about 150 cyclists over the peak hour, with higher pedestrian or cyclist volumes triggering investigatory levels for a separate bike path and footpath.

² Austrroads, 2021, Guide to Road Design Part 6A: Paths for Walking and Cycling, accessed at <https://austrroads.com.au/publications/road-design/agrd06a>.

On-road sections

One of the most frequent complaints RAA received about the Encounter Bikeway in the community survey was about interactions with motor vehicle traffic along on-road sections of the bikeway. In the longer term, both City of Victor Harbor Council and Alexandrina Council should be progressively working towards providing a continuous off-road shared path between Goolwa and Victor Harbor, applying for state and federal government funds where applicable. While RAA recognises there are challenges in constructing a separated pathway on some sections of the route, it is considered that locations for off-road pathways should be prioritised based on safety and net benefit to the community. Some sections that RAA consider to be a high priority for improvement include:

- Goolwa Wharf, Goolwa
- Beach Road, Goolwa Beach
- Surfers Parade, Middleton
- Port Elliot – McCracken adjacent to the rail corridor
- Kent Reserve carpark, Victor Harbor
- Hindmarsh Road, McCracken

Recommendation 1

Alexandrina Council and City of Victor Harbor Council work towards providing a continuous off-road path between Goolwa and Victor Harbor by investigating and prioritising future alignments for new off-road sections.

Sharrows

Sharrows and bicycle pavement marking are used in various places along the route, mostly on local roads under the care and control of the City of Victor Harbor. RAA considers sharrows to be effective in helping with cyclist wayfinding, whilst providing warning to other road users of the possible presence of cyclists and providing some guidance on lateral lane positioning for cyclists. Whilst guidance on sharrows is not provided under Australian Standards or Austroads Guidelines, the Department for Infrastructure and Transport has produced an Operational Instruction³ on the use of these devices.

³ Department for Infrastructure and Transport, 2015, *Operation Instruction 9.4, Advisory Bicycle Pavement Marking: Shared Lane Marking (Sharrow)*, accessed at <<https://dit.sa.gov.au/standards/tass>>.

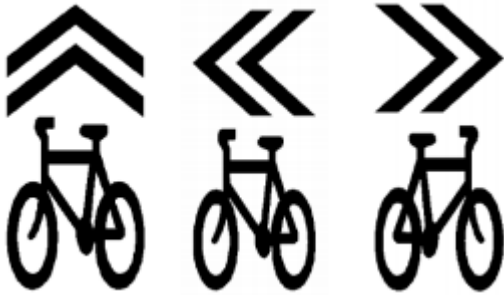


Figure 1: Sharrow lane marking (Source: DIT, 2015)

RAA supports the use of sharrows in accordance with this Operational Instruction, which details the technical requirements for placement, spacing and line marking. RAA recommends that sharrows be installed on all on-road sections of the Encounter Bikeway in accordance with this Operational Instruction. These locations are detailed throughout this report and highlighted in Table 2.

Recommendation 2

Install sharrow pavement markings on all on-road sections of the Encounter Bikeway where they are currently not provided to assist with wayfinding, warn other road users of the possible presence of cyclists and provide guidance on lateral lane position for cyclists.

Table 2: Recommended roads to install or improve sharrow pavement markings

Suburb	Road Name
Goolwa	Install on Goolwa Wharf, Admiral Terrace
Goolwa South	Install on Admiral Terrace, Riverside Drive, Barrage Road (S of Shore Court), Bristow-Smith Avenue, Beach Road (off-road path or cycle lanes preferred)
Goolwa Beach	Install on Beach Road (off-road path or cycle lanes preferred), Eaton Avenue, Bradford Road, Kightley Road, Redcliff Street
Middleton	Install on Newell Avenue, Waikiki Way, Surfers Parade, Esplanade, Mill Terrace, Higgins Terrace, Mindacowie Terrace (Ocean Parade – Dover Rd), Dover Road, Ocean Parade
Port Elliot	Install on Scrymgour Road, Coleman Place, Strangways Terrace Improve on Murray Place, Barbara Street, Rosetta Terrace, Battunga Avenue, Railway Terrace, Ocean Road
Chiton	Improve on Seagull Avenue
Hayborough	Improve on Seagull Avenue, First Avenue, Olivers Parade (east) Install on Olivers Parade (west), Granite Grove
McCracken	Install on Hayward Street, Hayward Court (eastbound)

It is important to note that RAA considers sharrows to be an interim passive safety treatment, and that our preference is to gradually provide continuous off-road shared facilities along the Encounter Bikeway wherever possible.

Signs and wayfinding

A variety of signage is used along the route. As a minimum, Austroads recommends route markers be applied along the length of local and tourist recreational routes⁴. Australian Standard AS1742.9 – 2018 stipulates that these markers must incorporate at least the bicycle symbol and an arrow, with a white legend on a blue background being the preferred colour scheme, which has been used in most instances. These route markers are generally used consistently when the route uses local roads, however they are missing in some locations, or have different variations at points where on and off road sections meet.



Figure 2: Examples of varying or confusing wayfinding signage along the Encounter Bikeway route

There are few reminders directed at route users of where they are situated along the bikeway, or of the distance to various destinations. Signs showing this type of information are particularly useful for tourists who are less likely to be familiar with the area. It was noted that the signs in the City of Victor Harbor Council section appear to be relatively new, and designed to current standards, but some are positioned towards those joining the bikeway rather than those already riding along it. There are opportunities for Alexandrina Council to update the signage within its area and for both jurisdictions to consider installing additional signs with wayfinding information at more regular intervals. Signs should preferably refer to townships by name rather than using more ambiguous terms such as 'Town Centre'.

Consideration should be given to providing larger format signs at the entry point to townships that could also incorporate a list of popular destinations in the town alongside a map of the local area to assist tourist wayfinding and attract visitors to places that aren't adjacent to the path. Without such signs, visitors may not know when they have arrived in a particular town.

Recommendation 3A

Install more distance reminder signs along the Encounter Bikeway route. These may also be incorporated with town entry treatments that also list popular destinations in the town alongside a map of the local area.

⁴ Austroads, 2017, Cycling Aspects of Austroads Guides (2017 Edition), accessed at <https://austroads.com.au/publications/road-design/ap-g88-17>.



Figure 3: Distance reminder signs are scarcely used along the path but are useful for tourist navigation

This, in combination with additional signage along the bikeway directing cyclists to town centres, retail precincts and attractions would provide further opportunities for the bikeway to promote additional tourist experiences and encourage additional tourist spending in town centres.

The end of the bikeway is not well defined, particularly at Goolwa North where there is only an end of shared path sign and an old map of the bikeway. There was a lack of amenities such as seating or toilets available near this end point. At Encounter Bay, The Bluff is a natural endpoint of the path, and offers two possible end points, either at the Bluff Jetty or the scenic view point at the top of The Bluff. While facilities at this end of the pathway are better, there is still no formal recognition that the end of the path has been reached. A clearly signed endpoint would address this and act as an attraction in itself, giving path users a sense of accomplishment when travelling the entire length of the bikeway.

Recommendation 3B

Clearly signpost both endpoints of the Encounter Bikeway and consider making improvements to facilities at the Goolwa end.

Whilst centre lines are marked on the busier off-road sections of the path in Goolwa and Encounter Bay, other sections of the path are not marked. Centre lines encourage path users to keep to the left and would act to reduce the potential conflict between pedestrians and cyclists.

Recommendation 3C

Where not already installed, install centre lines on shared paths to encourage path users to keep to the left and reduce conflict between pedestrians and cyclists.

The installation of road rule advisory signage near the Victor Harbor Beachfront Holiday Park is a welcome addition, and rollout of similar signage at other high-traffic locations should be considered by both councils to remind all path users of their obligations when using a shared path.

Recommendation 3D

Continued installation of road rule advisory signage along the path at high-traffic locations to remind all path users of their obligations when using a shared path.



Figure 4: Road rule advisory signs are a welcome addition near the Victor Harbor Beachfront Holiday Park

Goolwa North

The section of Encounter Bikeway in Goolwa North runs along the riverbank reserve between Liverpool Terrace and the Murray River. It is characterised by its good quality 3m wide shared path that contributed to a safe riding experience due in part to the separation provided between motor vehicle traffic on Liverpool Road and the path for most of its length.



Figure 5: The Encounter Bikeway is constructed to a good standard in Goolwa North

Goolwa

The 3m wide shared path extends from Goolwa North and continues adjacent to Liverpool Road until it reaches the rail line, where the path begins to follow the rail alignment. The path bisects an off-street parking area opposite the intersection of Liverpool Road and Richards Street creating potential conflict between reversing vehicles and path users. Ideally, this path would bypass the parking area completely. As a minimum, sharrows and bicycle warning signs should be installed to alert drivers of the potential presence of cyclists riding through the carpark.



Figure 6: The Bikeway traverses several car parks including near the intersection with Liverpool Road and Richards Street

The shared path continues along the rail line before terminating at the gravel carpark near the Hindmarsh Island Bridge at the Goolwa Wharf. This results in unsafe interactions between path users and reversing vehicles. The sudden change to a gravel surface can be detrimental to path users, particularly those using road bikes with narrow tyres.

Cyclists are then directed through the busy sealed section of the Goolwa Wharf carpark without physical separation from traffic, and across the rail line before being directed along a gravel path and through another gravel parking area adjacent to Admiral Terrace.



Figure 7: Gravel pathways near the Goolwa Wharf Precinct

The route crosses the rail line again, and cyclists are directed along Admiral Terrace (south) and Riverside Drive through to Barrage Road. There is an opportunity to extend the shared path along Admiral Terrace (south) and Riverside Drive, noting that traffic volumes are low on these roads and sharrows may assist with wayfinding in the short term. A lack of wayfinding signage was observed in both directions near the intersection with Riverside Drive and Barrage Road.

In June 2020, a \$7.5m funding announcement⁵ was made for revitalisation of the Goolwa Wharf precinct. This important upgrade is 50% funded by federal government (*Building Better Regions Fund*), 33% by Alexandrina Council, and 17% by state government. Improvements to shared paths are included in this project scope and this is an ideal opportunity to provide a safe and continuous shared path through the Goolwa Wharf precinct. Cycle connectivity to Cadell Street via Cutting Road should also be improved by constructing a shared path adjacent to Cutting Road. Bike racks should be installed in the vicinity of the Goolwa Visitor Information Centre, allowing cyclists to explore Cadell Street by foot.

Recommendation 4

Ensure continuous shared pathways are provided through the Goolwa Wharf precinct as part of the \$7.5m Goolwa Wharf Precinct Revitalisation Project.

RAA raised this feedback with the project management consultant in a meeting on 25 May 2021 and subsequently in writing during the community consultation stages of the project.

⁵ Alexandrina Council, 2020, *MEDIA RELEASE, Goolwa Wharf Precinct Revitalisation Project \$7.5 Million Project funding announced 5 June 2020*, accessed at <https://www.alexandrina.sa.gov.au/data/assets/pdf_file/0046/685999/Media-Release-Goolwa-Wharf-Precinct-Funding-Announcement-FINAL.pdf>.

Goolwa South and Goolwa Beach

From the intersection with Riverside Drive and Barrage Road, an off-road shared path extends for about 1km through to the intersection with Shore Court. This path is predominantly 3.5m wide with the exception of a pinch point near the Goolwa Aquatic Club which could be resolved by some relatively minor path and on-street parking realignments. It was observed that low lying vegetation was used to split the path prior to some driveway crossings along Barrage Road which is less effective than using holding rails which inhibit vehicle access and provide something to hold onto whilst waiting for traffic.

From the intersection with Shore Court, the first substantial on-road section of the bikeway begins. The route follows the local road network along Barrage Road and Bristow-Smith Avenue through to Beach Road, which is a much busier collector road providing primary access to Goolwa Beach. Extending the shared path alongside Barrage Road between Shore Court and Bristow-Smith Avenue should be considered to provide continuity of the off-road route and provide a safer environment for cyclists and pedestrians given the curved geometry of Barrage Road.

Recommendation 5A

Extend the shared path alongside Barrage Road between Shore Court and Bristow-Smith Avenue.

In the shorter term, sharrows should be used along this on-road section to help direct cyclists and alert other road users that this is an on-road cycle route.

Recommendation 5B

Install sharrows along Barrage Road and Bristow-Smith Avenue to assist cyclist wayfinding and warn other road users of the presence of cyclists.

Whilst construction of an off-road path between Barrage Road and Beach Road is possible and would be preferred to the current route along Bristow-Smith Avenue, this is expected to be expensive and have some environmental implications. This should be considered as a long-term goal for the Encounter Bikeway and possible path alignment explored further.

Installing a 115m long section of shared path on the western side of Beach Road, between Bristow-Smith Avenue and the commencement of the off-road path should also be considered to allow safer travel along this busy road corridor. Full time cycle lanes highlighted with green tactile paint should be provided as a minimum for this section.

Recommendation 5C

Install a 115m long section of shared path on the western side of Beach Road, between Bristow-Smith Avenue and the commencement of the off-road path.

In the longer term, a new path alignment between Beach Road and Reed Place should be considered with possible future alignments and costings explored further to determine the feasibility of this path.

From Beach Road, an off-road path extends for approximately 360m through to Hume Street, where the bikeway follows local roads in Eaton Avenue, Bradford Road, Kightley Road and Redcliff Street. Sharrows should be provided along these roads to assist cyclist wayfinding and warn other road users of the presence of cyclists, whilst longer term plans for an off-road path are explored.

A new off-road pathway between Reed Place and Redcliff Street should be investigated in the shorter term to increase the off-road footprint of the bikeway.

The off-road path continues for almost 2km, approximately 3-3.5m wide from Redcliff Street through to Andrew Avenue in Middleton. This path is constructed to a good standard and is a valuable asset to the Encounter Bikeway. A short section of boardwalk exists on this section which creates some potential conflict points between opposing cyclists or cyclists and pedestrians, however there are appropriate warning signs in place. In the longer term, council should consider upgrades to the width and alignment of this boardwalk to improve safety.

Middleton

In Middleton, the bikeway follows the coastal local road network from Andrew Avenue through to Newell Avenue, Waikiki Way and Surfers Parade. It was noted that the sealed section on Andrew Avenue is relatively narrow, with a wide gravel shoulder at the intersection with Andrew Avenue and Newell Avenue. Alexandrina Council should consider sealing this section to provide a higher radius corner for eastbound cyclists following the bikeway. It should also be noted that a cyclist sustained serious injuries in a 2016 crash when turning left at this location.

Recommendation 6A

Seal the inside of the corner at Andrew Avenue and Newell Avenue in Middleton.



Figure 8: The gravel shoulder at the intersection with Andrew Avenue and Newell Avenue creates a rollover risk for cyclists

There is an opportunity to construct a wide shared path along the southern side of Surfers Parade, however this may have an impact on car parking and RAA would expect that pedestrian use would also be high during peak season, meaning that some cyclists may still prefer travelling on-road unless the path was wide enough to safely accommodate pedestrians and cyclists. A shared path would still be a far more attractive alternative to riding on-road for less confident cyclists and families with younger children.

At the western end of Surfers Parade, a 350m off road path links to the Esplanade, a cul-de-sac with two off-street carparks. Riders follow a 450m on-road section along the Esplanade before being directed to another off-road path alongside Padman Crescent which crosses the waterway to Mill Terrace. Mill Terrace is another on-road section, with a short off-road path connecting to Higgins Terrace where cyclists are directed around the Dover Road/Ocean Parade/Mindacowie Terrace one-way loop. Whilst an off-road path exists along Ocean Parade, this is generally busy with foot traffic and too narrow to operate effectively as a shared path, with several pinch points. There is no signage directing cyclists to the off-road path, indicating that the preferred route for cyclists is through the carpark and along the road. RAA considers this to be the better option for most cyclists given the low-speed road environment, however further traffic calming measures or a speed limit reduction on Ocean Parade may need to be considered.

The bikeway follows a different route in each direction of travel at Dover Road/Ocean Parade/Mindacowie Terrace due to the one-way priorities of Ocean Parade, and implementation of clearly placed sharrows along with destination signs would provide better guidance to cyclists travelling in each direction.

Sharrows should be installed to assist cyclist wayfinding and provide warning to motorists on all Middleton Roads forming part of the Bikeway, including Newell Avenue, Waikiki Way, Surfers Parade, Esplanade, Mill Terrace, Higgins Terrace, Mindacowie Terrace (Ocean Parade – Dover Rd), Dover Road and Ocean Parade.

Recommendation 6B

Install sharrows along all on-road sections of the Encounter Bikeway in Middleton.

Port Elliot, Chiton and Hayborough

An off-road path extends for 2.4km between Ocean Parade in Middleton and Scrymgour Road in Port Elliot. This path traverses the Basham Beach carpark and crosses the entry road to the Port Elliot Holiday Park. As with the Goolwa to Middleton section, this section of off-road path is one of the more enjoyable and picturesque parts of the ride.

From here, the bikeway follows the local road network, traversing the busy Strangways Terrace and the intersection with Basham Parade, which is the primary access to the popular Horseshoe Bay.

RAA acknowledges that it is technically very challenging to provide a continuous shared path through Port Elliot. RAA considers there to be two potential alignments, either adjacent to the rail corridor, or along the existing path from Horseshoe Bay, around Freeman Lookout to Knights Beach.

- The rail corridor is very narrow and may not offer sufficient width to install an adjacent path but is more direct. There may also be some local opposition to a path constructed immediately behind properties. The Cockle Train is an infrequent service, and an adjacent path would create a pleasant cycling experience in most cases.

- The coastal route provides spectacular scenery and is a longer route which would require substantial widening and some realignment of curves to safely accommodate regular cyclist use as it is a highly popular walking trail. It is also likely that local roads in Basham Parade, Scrymgour Road or Strangways Terrace would still be required to access the path.

In the shorter term, RAA suggests delineation improvements are made to the current on-road route through Port Elliot. Bicycle pavement markings are first used on Strangways Terrace, prior to the intersection with Murray Place, and are painted at various points on Barbara Street, Battunga Avenue, Ocean Road and Seagull Avenue. RAA suggests that these pavement markings be improved to include wayfinding arrows, and that they are painted more regularly, prior to turns and prior to non-priority intersections to indicate the intended route through the intersection, in line with the Department for Infrastructure and Transport’s *Operation Instruction 9.4, Advisory Bicycle Pavement Marking: Shared Lane Marking (Sharrow)*.



Figure 9: Bicycle pavement markings in Port Elliot can be improved by adding wayfinding arrows (Pictured: Barbara Street)

When the bikeway crosses Rosetta Terrace and the level crossing from Barbara St to Battunga Avenue, a short section of Battunga Avenue is traversed before path users are directed along a shared path linking to the Railway Terrace (Boomer Beach) car park. It is not ideal for cyclists to have to travel through the carpark, and alternate alignments should be considered as to reduce the level of interaction between path users and motor vehicles.

In Chiton, opportunities to extend an off-road path adjacent to the rail corridor should be explored. This could provide a walking and cycling link between the Sixth Avenue/Hindmarsh Esplanade car park and the Dump beach/Investigator car park.

Sharrows are first used as the bikeway crosses onto roads under the care and control of the City of Victor Harbor Council. Their placement is somewhat disjointed however, with the first sharrow installed on the inside of a left turn curve on Seagull Avenue, and the second located on First Avenue, around the corner instead of prior to the intersection. These markings should ideally be

installed about 10m in advance of intersections, with arrows pointing to the left, right or straight ahead to indicate the intended path of travel through the intersections.



Figure 10: Sharrow use could be improved in Hayborough by installing prior to key intersections

Sharrow use should also be improved and expanded on Olivers Parade and Granite Grove in Hayborough.

Recommendation 7

Review and improve placement of sharrow in Hayborough, Chiton and Port Elliot.

In the longer term, the feasibility of an off-road pathway adjacent to the rail corridor from the Dump Beach carpark through to Hayward Court in McCracken should be explored which would significantly reduce the amount of on-road travel required.

McCracken

The bikeway continues through McCracken on-road along Hayward Drive and Hayward Court, which are connected by a short off-road path at the Hayward Court cul-de-sac. A short cycle lane is provided for westbound cyclists on Hayward Court, which ends at the intersection with Hindmarsh Road.

Hindmarsh Road is a busy arterial road carrying almost 16,000 vehicles per day. When reaching Hindmarsh Road, it is not clear whether cyclists should travel on the road or on the footpath, with no bikeway signage present at all. Not only is the road an uncomfortable environment for less confident cyclists (and inconsistent with the rest of the bikeway), but the footpath is also hazardous due to the uneven surface, steep downhill gradient, regular blind driveway access and narrow points past pram ramps and the bus stop. For cyclists who choose to ride on the road, there is no signage or easy access on to the shared path where it restarts opposite Wattle Drive, meaning they may remain on the main road all the way into Victor Harbor.

RAA considers this section of Hindmarsh Road and the adjacent footpath to be one of the most hazardous parts of the Encounter Bikeway and generally inappropriate for cycling. RAA recommends that an alternative route be constructed in the vicinity as a high priority. Improvements such as upgraded wayfinding and warning signage should be implemented in the short term.

RAA is aware that several alternative alignments have been investigated by council, as listed in the 2016 Victor Harbor Bicycle Strategy⁶. These include a new alignment:

- behind houses on Hindmarsh Road to access the existing route at Hayward Court.
- using the northern side of the rail corridor, including some excavation and construction of retaining walls at the Hindmarsh Road end to ensure a safe buffer from the railway.
- 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.

Preliminary cost estimates range from \$220,000 to upgrade the existing footpath on Hindmarsh Road to \$4.6m for a significant construction involving excavation and retaining on the northern side of the rail line.

RAA’s preference for the path alignment in McCracken and Hayborough is to construct a 1.9km long (approx.) shared use path adjacent to the rail line between Hindmarsh River and the Investigator Carpark at Dump Beach, bypassing Hindmarsh Road. However, RAA supports any alignment which is able to provide more off-road sections of the Encounter Bikeway and expects and encourages the state government to contribute significantly to this project.

Recommendation 8

Construct a 1.9km long (approx.) shared use path adjacent to the rail line between Hindmarsh River and the Investigator Carpark at Dump Beach, bypassing Hindmarsh Road.



Figure 11: Hindmarsh Road in McCracken is an uncomfortable and hazardous cycling environment

⁶ Tonkin Consulting, 2016, Victor Harbor Bicycle Strategy, accessed at https://www.victor.sa.gov.au/_data/assets/pdf_file/0024/285126/Victor-Harbor-Bicycle-Strategy_Adopted-20160926.pdf.

Victor Harbor

After crossing Hindmarsh River, the best option for cyclists following the Encounter Bikeway is to cross the rail line onto Bridge Terrace, utilising this quieter (than Hindmarsh Road) cul-de-sac to travel along the shoreline. Unfortunately, there is no signage for westbound path users directing them across the rail line, and the assumption is that the path continues straight on (this assumption is supported by an Encounter Bikeway directional sign marked 'Town Centre'). When travelling straight on at this location, cyclists are required to ride alongside busy traffic on Hindmarsh Road, or cross Hindmarsh Road and travel on the footpath if wishing to continue travelling off-road.

RAA recommends that wayfinding signage be improved which should direct bikeway users across the rail line to Bridge Terrace.

Recommendation 9A

Provide wayfinding signage on the section of path between Hindmarsh River and Bridge Terrace, that directs users across the rail line onto Bridge Terrace.

From Bridge Terrace, cyclists are directed to travel on-road alongside the Bridge Terrace Reserve. RAA supports Victor Harbor Councils plans⁷ to construct a shared path alongside Bridge Terrace, linking to the existing path near the Victor Harbor Yacht Club. This upgrade also intends to improve facilities in the reserve, with an overall benefit to amenity in the area.

South of the Victor Harbor Yacht Club, sharrows are used along Bridge Terrace and Flinders Parade, and it's not evident to cyclists that there is a 3.5m wide shared path that runs along the coast to the Victor Harbor Bowling Club.

RAA welcomes recent path widening between Eyre Terrace and Coral Street and encourages council to continue widening the current path between Coral Street and the Granite Island Causeway as highlighted in the 2016 Victor Harbor Bicycle Strategy.

Recommendation 9B

Widen the shared path between Coral Street and the Granite Island Causeway.

A boardwalk was recently constructed behind the Visitor Information Centre and links the foreshore and Granite Island Causeway to the Esplanade carpark. This is signposted as part of the Encounter Bikeway, however, there is no clear direction from the bikeway to this boardwalk when approaching from the north. This may be due to the current preference for cyclists to ride on-road along Flinders Parade due to the currently narrow section of pathway between Coral Street and the Granite Island Causeway.

The bikeway follows a relatively narrow (<3m) path alongside the Foreshore carpark before traversing the Soldiers Memorial Reserve where the path is only about two metres wide, noting that there are two adjacent pathways through the reserve.

From the Soldiers Memorial Reserve, an off-road path is present through to the Inman River Bridge, however, the width of this path is generally less than 3m, and this can be even narrower in places due to front overhang of angle parked vehicles along the Esplanade. Consideration should

⁷ City of Victor Harbor, 2020, Bridge Terrace Master Plan, accessed at <<https://www.yoursay.victor.sa.gov.au/bridge-terrace-master-plan>>.

be given to future widening of this pathway or providing wheel stops in the 45 degree angle parking bays on the Esplanade to reduce vehicle overhang. Due to this, riding on-road along the Esplanade is currently a preference for many cyclists. It is not clear to road cyclists that the bikeway continues off-road at the intersection with Inman Street to cross the Inman River, and RAA suggests that signage be improved, and better access is provided here from the road to the shared path.

From the Esplanade, the shared path passes behind the Victor Harbor Beachfront Holiday Park and crosses the Inman River Bridge before passing through Kent Reserve. Of interest, RAA observed a 10km/h regulatory speed limit sign installed on the Inman River Bridge. Whilst RAA acknowledges that this is prior to a blind corner on a section highly-utilised by pedestrians, the use of regulatory speed limits on shared path is not standard practice. Speed limits on shared paths are impractical to enforce, and difficult to adhere to given that speedometers are not mandatory on bicycles. Nevertheless, the sign does not cause any harm, but other treatments such as advisory speed or warning signs, through to vegetation removal or path realignment, are likely to be more beneficial to safety than regulatory speed signs.



Figure 12: 10km/h regulatory speed sign on the Inman River bridge

The bikeway currently directs cyclists through the Kent Reserve car park, however there is ample space to construct a wide path to the west of the car park which would meet up with the recently upgraded Franklin Parade path. This would improve safety for path users and complete the final section of off-road path between the Bluff and the Granite Island Causeway.

Recommendation 9C

Construct a pathway to the west of the Kent Reserve carpark, allowing path users to bypass the carpark.



Figure 13: The wide path ends abruptly for eastbound path users at the beach access driveway in the Kent Reserve carpark

As a general comment on wayfinding through Victor Harbor, RAA noted that this could be improved. Whilst sharrows on-road provide welcome guidance, there is minimal confirmation for path users that they are following the correct route. Given that there are several paths linking with the Encounter Bikeway through Victor Harbor, RAA recommends that additional Encounter Bikeway signage and branding be installed along the bikeway.

Recommendation 9D

Install additional Encounter Bikeway signage and branding along the off-road bikeway through Victor Harbor.

Encounter Bay

The recently widened section between Kent Reserve and The Bluff in Encounter Bay has been a highly successful project, converting this previously narrow and somewhat uneven section of shared path into a substantially safer and much higher standard pathway, able to be used by more users concurrently. In doing this, City of Victor Harbor has provided an excellent example of a shared-use path which should be used as a benchmark in all future upgrades along the bikeway. In addition, the off-road path has been well designed to run between the Encounter Bay boat ramp car park and the road rather than through the car park, which reduces the risk of collisions between cyclists and other vehicles.



Figure 14: The path runs alongside the carpark rather than through the carpark at the Encounter Bay boat ramp carpark

At the intersection of Franklin Parade and Jagger Road, cyclists have the option of riding to either the Bluff Jetty or the lookout, with both providing natural and scenic end points. Sealing the Bluff Jetty Road or providing a sealed walking and cycling path as a minimum should be investigated between Franklin Parade and the Bluff Jetty, however RAA notes that there are geometric constraints and that a 30km/h speed limit and cyclist warning signage have been implemented to improve safety in the short term.

Recommendation 10

Consider sealing the Bluff Jetty Road or providing a sealed walking and cycling path between Franklin Parade and the Bluff Jetty.

The shared path to the top of the Bluff Lookout is a welcome addition, however, it is noted that this path is quite steep, which is unappealing to many casual cyclists. RAA also considers the crossing point between the shared path and the cycle lane on the incline to be situated in a dangerous location where sight distance is poor for cyclists and for road users due to the combination of vertical and horizontal curves.



Figure 15: Hazardous location of the crossing point on the incline of the Bluff Lookout

Summary of recommendations for the Encounter Bikeway

Recommendation 1

Alexandrina Council and City of Victor Harbor Council work towards providing a continuous off-road path between Goolwa and Victor Harbor by investigating and prioritising future alignments for new off-road sections.

Recommendation 2

Install sharrow pavement markings on all on-road sections of the Encounter Bikeway where they are currently not provided to assist with wayfinding, warn other road users of the possible presence of cyclists and provide guidance on lateral lane position for cyclists.

Recommendation 3A

Install more distance reminder signs along the Encounter Bikeway route. These may also be incorporated with town entry treatments that also list popular destinations in the town alongside a map of the local area.

Recommendation 3B

Clearly signpost both endpoints of the Encounter Bikeway and consider making improvements to facilities at the Goolwa end.

Recommendation 3C

Where not already installed, install centre lines on shared paths to encourage path users to keep to the left and reduce conflict between pedestrians and cyclists.

Recommendation 3D

Continued installation of road rule advisory signage along the path at high-traffic locations to remind all path users of their obligations when using a shared path.

Recommendation 4

Ensure continuous shared pathways are provided through the Goolwa Wharf precinct as part of the \$7.5m Goolwa Wharf Precinct Revitalisation Project.

Recommendation 5A

Extend the shared path alongside Barrage Road between Shore Court and Bristow-Smith Avenue.

Recommendation 5B

Install sharrows along Barrage Road and Bristow-Smith Avenue to assist cyclist wayfinding and warn other road users of the presence of cyclists.

Recommendation 5C

Install a 115m long section of shared path on the western side of Beach Road, between Bristow-Smith Avenue and the commencement of the off-road path.

Recommendation 6A

Seal the inside of the corner at Andrew Avenue and Newell Avenue in Middleton.

Recommendation 6B

Install sharrows along all on-road sections of the Encounter Bikeway in Middleton.

Recommendation 7

Review and improve placement of sharrows in Hayborough, Chiton and Port Elliot.

Recommendation 8

Construct a 1.9km long (approx.) shared use path adjacent to the rail line between Hindmarsh River and the Investigator Carpark at Dump Beach, bypassing Hindmarsh Road.

Recommendation 9A

Provide wayfinding signage on the section of path between Hindmarsh River and Bridge Terrace, that directs users across the rail line onto Bridge Terrace.

Recommendation 9B

Widen the shared path between Coral Street and the Granite Island Causeway.

Recommendation 9C

Construct a pathway to the west of the Kent Reserve carpark, allowing path users to bypass the carpark.

Recommendation 9D

Install additional Encounter Bikeway signage and branding along the off-road bikeway through Victor Harbor.

Recommendation 10

Consider sealing the Bluff Jetty Road or providing a sealed walking and cycling path between Franklin Parade and the Bluff Jetty.

