NSW COASTLINE CYCLEWAY SURVEY
NORTH COAST

August 2012
NSW Coastline Cycleway North Coast Survey
Health Promotion, Northern NSW Local Health District
Lismore, August 2012

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EXECUTIVE SUMMARY

The Northern NSW Coastline Cycleway Survey was undertaken by the Health Promotion Service of the Northern New South Wales Local Health District as requested by the NSW Ministry of Health and the NSW Department of Planning and Infrastructure. The project replicates a previous survey undertaken in the Illawarra region.

The objective of the project was to identify opportunities to improve the Coastline Cycleway in Northern NSW in order to enhance its safety and rideability and meet its objective of linking together separate communities along the NSW coast. The aim of this report is to form the basis for a future process of engagement with councils, bicycle users, communities and other stakeholders, to progress cycling on the North and Mid North Coasts of NSW.

Physical surveying of the Coastline Cycleway was undertaken between Tweed Heads and Ballina. Observations were recorded and compiled into this report. Overall there was clear evidence of investment into cycling infrastructure in all Local Government Areas, though many opportunities for continuing improvement were identified. The two prevailing opportunities for improvement, applicable to all areas were:

1. Lack of route marking and directional signage, and
2. Missing links

Common observations and specific issues are detailed in the body of this report, and include issues around:

- Lack of on-road signage, particularly at intersections
- Sub-optimal usable path width
- Obstructions such as bollards and overgrown vegetation
- Inadequate sightlines
- General maintenance issues

There are many benefits to be gained from the promotion of cycling for recreation, tourism and commuting. The NSW Coastline Cycleway is a unique and valuable resource which should be promoted to achieve a high level of utilisation. A collaborative approach to future cycleway planning, involving councils, bicycle user groups, the Health Promotion Service and other stakeholders should be adopted to ensure that the Coastline Cycleway meets its objectives and the needs of the community.
ACKNOWLEDGEMENTS

This project was led by the Health Promotion Units of Northern New South Wales and Mid North Coast Local Health Districts. The project was coordinated by Chris Lowbridge, whose position was provided by the NSW Public Health Officer Training Program of the NSW Ministry of Health.

The authors would like to acknowledge the support and input provided by local councils in the North Coast region. In addition, we particularly acknowledge all of the Bicycle User Groups and local cyclists who provided feedback on the Coastline Cycleway. We are grateful for the assistance provided by Werner Steyer of the Illawarra Active Transport Taskforce and Dr Richard Griffith from the NSW Department of Planning and Infrastructure who provided valuable insight into the project.
INTRODUCTION

The NSW Coastline Cycleway is an initiative of the NSW Government Department of Planning and Infrastructure, aiming to build a 1400km cycleway stretching the entire length of the NSW coastline from the Queensland to the Victorian border. The initiative was conceptualised in the mid-1980s and first implemented in 2003, currently over 330km (25%) of cycleway is in place or has been planned and in progress. The aim of the Coastline Cycleway is to link communities along the extent of the NSW coastline. Funding grants are offered to local governments each year by the NSW Department of Planning and Infrastructure for works on the Coastline Cycleway. (1) The Coastline Cycleway supports the aims of NSW Government plans to increase active transport, physical activity and cycling.

The North and Mid North Coast regions cover approximately one-third of the NSW coastline. The Coastline Cycleway runs intermittently between Tweed Heads in the North and Kempsey in the South. The Coastline Cycleway aims to provide a single continuous route that links together separate communities and linking into existing cycle networks. In the North and Mid North Coast region, local councils have made significant progress towards these goals, with significant lengths of cycleway either in place or in the planning stage.

The Coastline Cycleway incorporates a range of route types, including; dedicated off-road cycle path, off-road shared path, on-road shared cycleway, on-road bicycle lanes, and on-road shoulders marked for bicycle use. In order for the cycleway to be well utilised, it must be free of safety hazards, be perceived as being safe and rideable by users and be identifiable and easily navigable.

Progress towards a single continuous route the length of the coastline must be considered in the context of the immense distance of coastline in this region and the many sections of it which are sparsely populated and or relatively isolated. Large stretches of the Coastline Cycleway in this region are not existent, most commonly due to the remoteness of large parts of the coastline, between townships and regional centres. Other large sections of coastline are inaccessible to vehicles or bicycles due to areas of bushland and National Parks. Whilst the ultimate aim of the Coastline Cycleway program is to create a continuous cycleway from the Queensland to the Victorian border, the connection of inter-urban areas in the North and Mid North Coast regions by cycleway is likely to be a distant goal.

Increasing cycling carries many benefits for both local communities and individuals. The health benefits of cycling and walking, primarily through reducing the risk of obesity, diabetes and cardiovascular disease are well documented. (2) In addition, increasing cycling infrastructure promotes the use of cycling for transport, thereby reducing traffic congestion and environmental impact through vehicular CO₂ emissions. There is a potential benefit to the local economy through revenue associated with cycling tourism. Cycling and walking, either for recreation or for transport promotes opportunities for social interaction and improves the perceived safety of neighbourhoods.

New South Wales’ North and Mid North Coast includes some of the state’s most picturesque coastal scenery. Cycling is an ideal way to experience and enjoy the scenery this region has to offer. The Coastline Cycleway is an important step in promoting physical activity, tourism and sustainable transport through cycling. Given the potential benefits to both individuals and communities, it is in the interest of health promotion services, councils, bicycle users and the community to work together to encourage cycling for leisure, commuting and exercise.
Through a process of engagement with Local Governments and bicycle users, this project seeks to identify opportunities to improve the safety and rideability of existing cycleway, and to identify the most reasonable opportunities to improve overall connectivity through further development of the cycleway in the North and Mid North Coast Regions. We hope that this process will contribute to ongoing action to improve the Coastline Cycleway and promote cycling in Northern NSW. The format of this report is based on a successfully completed survey of Coastline Cycleway in the Illawarra Region, undertaken by the Illawarra Active Transport Taskforce in 2010.(3)

This report is a compilation of observations recorded through a process of surveying the length of the existing Coastline Cycleway between Tweed Heads in the North and Ballina in the South. The surveyor rode each section of cycleway at least twice, recording observations and documenting them with photographs. The observation have been compiled in the report and presented by Local Government Area, from North to South. Bicycle User Groups (BUGs) were invited to provide feedback on the Coastline Cycleway in their respective area using the prescribed feedback form (Appendix B).
COMMON OBSERVATIONS

CONNECTIVITY

Possibly the biggest challenge to the overall objective of the NSW Coastline Cycleway, as being a continuous route along the NSW coastline, are the large expanses of remote and sparsely populated sections between coastal towns. In many instances on the North Coast these coastal towns are separated by rivers or bushland and National Parks. The need for cross-jurisdictional planning between councils to complete these sections of the cycleway adds further complexity.

On a more localised scale, connectivity of the existing Coastline Cycleway to other cycleway networks, places of employment, residential areas and popular destinations, public amenities and end of trip facilities requires ongoing planning. Removing ‘missing links’ between existing sections of Coastline Cycleway within Local Government Areas should be one of the foremost planning priorities.

Inter-Local Government Area ‘missing-links’ are a significant challenge, and will require collaborative long-term planning. Existing Cycleway marked in red on the adjacent map.

Map Data ©2012 GBRMPA, Google, Whereis®, Sensis Pty.Ltd.
**Shared Path Signage**

Provision of adequate signage directed at cyclists, pedestrians and motorists is necessary for maintaining the safety of all path users. The use of stencilled on-path signage is preferable to post mounted signs as it is often more cost effective, less susceptible to vandalism and is highly visible to path users, whilst at the same time minimising visual intrusion in the environment.

Shared path signage (PS-3 and PS-4) should be provided at regular intervals on both sides of shared path to ensure all path users are aware that other cyclists and pedestrians may be encountered.

Stencilled give-way lines (as illustrated) or stop lines (solid rather than broken line) should be considered at intersections with roads or intersecting paths, to reinforce the message to stop or to give way where necessary.
**Directional Signage**

Sufficient directional signage should be provided to allow path users to easily navigate the length of the path without stopping to check directions. Directional signs should be placed at intersections with roads and other paths. Where there are breaks in the path, directional signs should be placed to advise users how to continue on to the next section of pathway. Directional signage should also be used to provide users with information on distances to landmarks and to identify links to other cycleway networks. Directional signs should be visible from both directions.

There was an overall lack of directional signage across many of the areas surveyed. Increasing directional signage should be considered by all local government areas, as it would directly improve the rideability of cycleways, particularly for tourists who may be unfamiliar with the area. In addition directional signage may increase the public’s recognition of the route, thus potentially increasing usage.

Directional signage should provide information on distance to significant landmarks and be placed at intersections with roads and other paths.

The use of ‘NSW Coastline Cycleway’ branded directional signage may help to increase public awareness of the cycleway route.

Informational signage may be used at strategic points, such as a common start point or at popular points of interest, in order to raise awareness of the Coastline Cycleway, provide information on the route and points of interest along the way, and provide related information such as details of local bike clubs or bike shops.
Sightlines

Clear and unobstructed sightlines are essential to the safety of all path users. Obstruction of visibility by vegetation, walls, buildings or other objects may increase the risk for collision between cyclists or between cyclists and pedestrians, resulting in potentially serious injury. Adequate sightlines are where there is sufficient visibility across the inside of horizontal curves, under overhead obstructions and over vertical crests to allow cyclists to stop or take evasive action to avoid a collision with another path user or obstacle. Maintenance of adequate sightlines should be considered in path location, design and maintenance.

Adequate lateral clearance of objects inside curves should be maintained, as per AustRoads guidelines, section 7.8 (2009m).

Vegetation obstructing visibility of oncoming traffic and potential obstacles on the path ahead. Where possible vegetation should be cleared or trimmed back from path to improve sightlines.

In some instances, it may be impossible to provide adequate sightlines. A stencilled unbroken centre line should be used. Other measures to encourage extra caution, decreased speed and no overtaking may be considered.
## Vegetation

A number of considerations should be taken in relation to plant selection and path location in relation to existing vegetation:

<table>
<thead>
<tr>
<th>Good</th>
<th>Bad</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Vegetation provides shade and protection from the elements</td>
<td>- Vegetation overhangs path with low lying branches causing a collision hazard</td>
</tr>
<tr>
<td>- Soft, frangible vegetation (such as long grasses and low shrubs) alongside path provides a cushioned landing for emergency ride-offs</td>
<td>- Woody, sharp, prickly vegetation alongside path increases the risk of injury in the event of an emergency ride-off</td>
</tr>
<tr>
<td>- Vegetation is planted to define path, enhance aesthetics of environment, and control speed in selected areas</td>
<td>- Vegetation placement obstructs visibility and sightlines. Fast growing and invasive vegetation requires frequent maintenance to avoid overgrowth onto path or damage to path from roots</td>
</tr>
<tr>
<td>- Vegetation should be trimmed back at least 1 metre from path edge and at least 3 metres above path</td>
<td>- Deciduous vegetation generates excessive leaf litter over path</td>
</tr>
</tbody>
</table>

Vegetation used to provide shade and shelter for path users without obstructing path. Vegetation trimmed back to at least 1 metre from path enhances visibility and allows for use of full path width. Frangible vegetation alongside path provides cushioning in the event of an emergency ride-off.
**PATH EDGES**

Raised or sunken path edges create a trip hazard for pedestrians and increase the risk of injury to cyclists in the event of an emergency ride-off. Path edges should be level with the adjacent ground surface. The ground adjacent to the path should be firm but ideally soft surface, like grass. Loose surfaces such as sand or coarse gravel make it harder to maintain control in a ride-off.

The area immediately adjacent to the pathway should be kept free of solid or sharp objects, such as park benches, rocks or trees, as these increase the risk of injury in the event of an emergency ride-off.

Path edges should be level with the ground directly adjacent to them. Ideally adjacent surfaces should be compacted but soft, such as grass.

Raised path edges are a trip hazard to pedestrians and increase the risk of injury to cyclists in the event of an emergency ride-off.
INTERSECTIONS

The Coastline Cycleway may intersect with pedestrian paths, other shared paths or roads. Measures to maintain safety of all path and road users at each of these intersections should be used. A range of signage, both sign-posted and stencilled on-path may be used in or on approach to an intersection. The appropriate RTA AustRoads guidelines should be referred to.

The type of measures and signage used will vary depending on the type of intersection and the amount of bicycle, pedestrian and vehicular traffic using it. Minor road intersections may require minimal measures.

This illustration demonstrates the range of signage that may be used around a shared path/road intersection. Note that signage should be provided to warn path users of the road ahead, warn motorists of pedestrians and cyclists crossing and keep the intersection clear of parked vehicles.

Source: Figure 4 Vic Roads Cycle Notes, no. 16 (2005)

Sign-posted and stencilled signage to warn cyclists of intersection.

Appropriate signage and other safety measures should be considered at all path intersections, not just roads. Visibility of pedestrians exiting access way is obstructed by vegetation.
**Maintenance**

Maintenance of shared paths and cycleway is essential to their continued function and safety. The level of maintenance required may be minimised through a range of design measures.

The most common maintenance issues encountered during the Coastline Cycleway Survey included:

- Lifting of path by tree roots
- Overgrowth of vegetation and grass onto path
- Erosion of path edges and potholes
- Excessive leaf litter and overflow of gravel, sand or dirt over path

The RTA has an online hazard reporting system which cyclists and other path users should be encouraged to use. The reporting system is available through the NSW bicycle info website, at: [http://www.bicycleinfo.nsw.gov.au/](http://www.bicycleinfo.nsw.gov.au/). A detailed list of specific maintenance issues is included in this report.

Overflow of gravel onto the path reduces the useable width of the path, increases the risk of tyre puncture and bike damage and creates an unstable surface which increases the risk of an accident.

Overgrowth of vegetation onto the path reduces the useable width of the path, can reduce sightlines and contribute to excessive leaf litter on path.
Detailed Observations by LGA

Tweed
Overview

At the time of surveying (March 2012), approximately 33 kilometres of cycleway, extending from Chris Cunningham Park, in Tweed Heads in the North to Overall Drive, Pottsville in the South were included in the survey. This route was the longest continuous stretch of cycleway along the North Coast. It also links to the Queensland network that continues uninterrupted to Tallebudgera Creek Bridge.

The Tweed Coastline Cycleway route connects the coastal towns and suburbs of Tweed Heads, Tweed Heads South, Banora Point, Chinderah, Kingscliff, Casuarina, Cabarita, Hastings Point and Pottsville. The route runs along the shore of the Tweed River before extending South to Banora Point and then crossing the river to Chinderah. The route then follows the coastline South to Pottsville.

The vast extent of cycleway and connection to numerous residential and commercial centres, the generally flat topography of the region, and the picturesque surrounds make the Tweed Coastline Cycleway a valuable asset in facilitating cycling by people of all ages for recreation, commuting and tourism.


It is to be noted that Tweed Shire Council has identified signage deficits and made application to the Department of Planning for funds to install signs, improve corridors in the South Tweed area, and widen the remaining section of boardwalk at Kingscliff along Cudgen Creek.
## 1.1 Kennedy Drive crossing at Terranora Terrace

On approach to the Boyds Bay Bridge the shared path crosses Kennedy Drive. This crossing appears to be hazardous for pedestrians and cyclists due to the high speed of vehicular traffic turning left from Terranora Tce onto Kennedy Dr, obstruction of visibility by the ‘Ivory Tavern’ sign located on the corner of the intersection, and the lack of give way or other cautionary signage for both vehicular and non-vehicular traffic. Measures such as traffic calming, signage or some form of pedestrian crossing may be considered.

The adjacent map shows the flow of traffic in red, the shared path route in blue and the location of road crossing points in white.

![Image of Kennedy Drive crossing at Terranora Terrace](https://www.google.com/maps)

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## 1.2 Shared path along Boyds Bay Bridge

Light posts along the Boyds Bay Bridge are located on the shared path on the Eastern side of the bridge. The posts pose a collision hazard due to their positioning and pale grey colour which blends into the concrete path, especially in low light. On path deflection lines and or bright/reflective paint around the posts at eye level may reduce the hazard.
### 1.3 Shared path along Minjungbal Drive near Parry Street

The entrance to the public toilet block is directly adjacent to the shared path, resulting in a potential collision hazard between cyclists and persons exiting the toilet block. The hazard could be potentially reduced using cautionary signage and on path stencilled give way markings.

![Image of Minjungbal Drive near Parry Street]

### 1.4 Shared path along Minjungbal Drive, South of Water Street

The shared path in this section runs alongside a high traffic section of Minjungbal drive and the path crosses many busy driveways to large shopping centres, petrol stations and car dealerships. Ideally an alternate route would be available to avoid this busy stretch of road, however the existing route may be improved through increased cautionary signage for vehicles and path users, particularly around path obstructions.

![Image of Minjungbal Drive, South of Water Street]
<table>
<thead>
<tr>
<th><strong>1.5 Pacific Highway between Minjungbal Drive and Terranora Road</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>At the time of surveying, this section of the route was undergoing extensive roadworks, affecting the route and condition of the cycleway. No further comments are provided on this section of the route.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>1.6 Chinderah Bay Drive</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>There is a marked on road cycle lane along the extent of Chinderah Bay Dr to Wommin Bay Rd on the Eastern side of the road. It is presumed that this is a bi-directional cycle lane as there was no apparent route for North bound cyclists on the Western side of the road. On path signage should be amended to clearly indicate that the lane is in fact bi-directional.</td>
</tr>
</tbody>
</table>
1.7 Carpark at Cudgen Headland Surf Club

On path directional signage is required to assist navigation from Marine Pde to where the shared path resumes within the car park at the Cudgen Headland Surf Club.

1.8 Rosewood Avenue and Hastings Road, Cabarita

Directional signage is required at all intersections between the roundabout at the intersection of Tweed Coast Rd and Rosewood Ave and the intersection of Hastings Rd and Tweed Coast Rd.
1.9 Kingscliff to Pottsville

Given the long stretches of cycleway between communities along this stretch, directional signage which includes the distance to various landmarks and destinations would enhance the rideability of this stretch.
Overview

The Byron Shire currently includes approximately 26 kilometres of cycleway between Bilinudgel in the North, Ewingsdale Road into the CBD and from the CBD South to Suffolk Park. The Coastline Cycleway in Byron Shire includes a variety of path types including off-road shared path, on-road bicycle lane and on-road routes.

In the North of the Shire, the Coastline Cycleway connects residents of South Golden Beach, New Brighton and Ocean Shores with Brunswick Heads.

In the Byron Bay area the Cycleway links the residential community of Ewingsdale and the North Byron Industrial & Arts Estate to the Byron Bay town centre.

The Byron Cycleways are well utilised by both locals and tourists, particularly the routes connecting Suffolk Park and Ewingsdale to the Byron Bay town centre. Further development
and promotion of the cycleways and the use of cycling as a preferred method of transport may be beneficial in managing the ongoing vehicular congestion in and around Byron Bay.

Byron Shire Council provides a series of maps showing cycling routes within the greater Byron region. These are available on the council website at: [www.byron.nsw.gov.au/bikeways](http://www.byron.nsw.gov.au/bikeways). This page also contains a link to the 2008 Byron Shire Bike Strategy and Action Plan which details potential future cycle routes.

### 2.1 Corner Shara Boulevard and Brunswick Valley Way

Additional signage to identify this route as part of the Coastline Cycleway would be beneficial to assist route-finding.

### 2.2 Shared path junctions alongside Brunswick Valley Way at overpass near Balemo Drive

Directional signage needed at intersections of shared pathway. Signage should include placenames and distance to destination.
### 2.3 Crossing on Brunswick Valley Way near Bonanza Drive

Signage is needed to direct cyclists as to the appropriate route to continue South along Brunswick Valley Way. It is currently unclear whether cyclists should cross to the other side or continue on the road.

![Image of Brunswick Valley Way near Bonanza Drive]

### 2.4 Brunswick Valley Way between Bonanza Drive and Rajah Road

This segment continues along the road shoulder of Brunswick Valley Way. In some sections the shoulder width is inadequate and the shoulder surface is uneven and/or eroded. Given the 80km/hr speed limit in this section, adequate separation of cyclists from vehicles is important. Ensuring adequate shoulder width along this segment and greater cautionary signage to alert vehicles to the presence of cyclists would improve safety.

![Image of Brunswick Valley Way between Bonanza Drive and Rajah Road]

### 2.5 Roundabout at intersection of Brunswick Valley Way and Orana Way

The cycleway ends at approach to the roundabout requiring cyclists to merge with traffic to continue through roundabout. On-road signage and painted bike lane (as illustrated) may improve safety for cyclists entering the roundabout.

![Example on road signage and painted bike lane]
### 2.6 Off-ramp from Brunswick River Bridge, Old Pacific Highway

Directional signage is needed at the junction of the cycleways, indicating the destination and distance for each route.

![Image of off-ramp from Brunswick River Bridge, Old Pacific Highway](Image)

### 2.7 Northbound side of Old Pacific Highway near Newberry Parade

Directional signage is needed to direct cyclists to cross Old Pacific Highway at traffic island. On path stencilled signage including directional arrow and PS-3 may be most effective in this instance.

![Image of Northbound side of Old Pacific Highway near Newberry Parade](Image)

### 2.8 Transition from path to road at the corner of Fawcett St on Old Pacific Highway

At this point cyclists transition from riding on the shared footpath to an on road bicycle lane. Consideration should be given to placing a kerb blister on the road, either side of the transition (as illustrated). This would prevent vehicles from pulling off the road or parking so to obstruct the bicycle transition.

![Image of Transition from path to road at the corner of Fawcett St on Old Pacific Highway](Image)

### 2.9 Shared path alongside Old Pacific Highway between Park Street and Access Road
Parts of this section are unsealed. The path surface is variable but is generally fine gravel. In places the path has patches of soft, sandy surface and protruding tree roots making it unstable for cyclists and a trip hazard for pedestrians. Sealing of this section of path would be welcomed.

### 2.10 Junction of shared path with Access Road

Directional signage is required at this point to direct cyclists to where shared path resumes on opposite side of bowling club car park.

### 2.11 Junction of shared path with Access Road

Directional signage is required at this point to direct cyclists to where shared path resumes on opposite side of bowling club car park.

### 2.12 Pacific Highway from Old Pacific Highway (Gulgan Road) to Tyagarah Road
The current Coastline Cycleway route runs along the Pacific Highway Shoulder. The highway shoulder however is not accessible to children and less confident riders. The highway shoulder is also narrow in some sections not allowing adequate separation of cyclists from vehicles.

2.13 Off-road path from Tyagarah Road to Ewingsdale Road

At the time of surveying the off-road path which runs adjacent to the Pacific Highway was particularly overgrown. Improved signage would be useful to indicate the destination at the end of the path and the relevant distance. The path dips regularly to form causeways to allow water flow across the path. At the time of surveying some of these causeways had several centimetres of residual water and silt across them making it difficult to cross without getting wet.

2.14 Missing link: Ewingsdale Road, Pacific Highway Interchange to McGettigans Lane

Works are currently underway to complete the shared path along Ewingsdale Road West from the Byron CBD. By mid-2012 works are expected to be completed between Byron CBD and McGettigans Lane, with the only missing link to be between here and the Pacific Highway interchange.

2.15 Byron Bay CBD
From the end of the Ewingsdale Road shared path at Butler Street, there is no clear continuation of the cycleway through the CBD area. Continuing through the CBD requires negotiation of either high traffic roads or footpaths. Future route development through the Byron Bay CBD should ensure a route that is clearly signposted and navigable.

2.16 Carlyle Street

The grassed area at the end of Carlyle Street would be a good location for additional shared path signage indicating direction of routes and distance to destinations.

2.17 Various intersections along Bangalow Road

The shared pathway crosses many side-streets along Bangalow Road, at peak times traffic entering and exiting side-streets is heavy. To improve the safety of shared path users, traffic calming measures such as widening of the centre islands and curb extensions may be considered.

Note the centre island is not wide enough to accommodate the length of a bike.

2.17 Bangalow Road
The shared pathway along Bangalow Road is heavily utilised by both cyclists and pedestrians. The current pathway encompasses the existing footpaths which are in places less than ideal width and subject to obstruction from vegetation and signposts, etc. The path route requires cyclists to cross from one side of the road to the other and back several times. This section could be improved through path widening and greater use of a centre dividing line, or addition of an on-road bicycle lane.
Ballina
Overview

At the time of surveying (February 2012), the Ballina Coastline Cycleway extended from near the intersection of Bayview Drive and The Coast Road, south to the Burns Point ferry terminal, a distance of approximately 10 kilometres.

Map 4: Ballina region Coastline Cycleway

The Ballina Coastline Cycleway connects the largely residential areas of both East and West Ballina to the central Ballina shopping and business district. The path passes the picturesque Shelly and Angels beaches and allows users great views of the Richmond River from the Northern Break Wall, and along the river foreshore. The path passes by a number of popular parks and recreational places including the Ballina skate park and Municipal swimming pool.

Planning of an extension to the current path to the north from Angels Beach, along Sharpes Beach, past the Skennars Head community to the Pat Morton lookout at Lennox Head is underway, with proposed routes and construction methods being discussed by Ballina Shire Council.

3.1 Shared path between Angels Beach and Shelly Beach

The shared path in this section passes through dense vegetation causing blind bends and thus potential collision hazards, especially as this stretch is used by many pedestrians. Greater use of shared path signage as well as unbroken centre lines at bends could reduce the risk of collisions.

3.2 Shared path along Shelly Beach Road

Visibility of several pedestrian and vehicular accesses which intersect with the shared path is reduced by vegetation. In addition to trimming of vegetation, on-path stencilled signage such as broken give-way lines may reduce the risk of collision between cyclists and pedestrians or cyclists and vehicles.

3.3 Shelly Beach Road near car park at South end of Shelly Beach

Bollards are located at bend in path with obstructed visibility when travelling south, causing a potential collision hazard. Consideration could be given either to removal of bollards at this location or otherwise to use of stencilled on-path unbroken lines to deflect cyclists around bollards.
### 3.4 Ballina Head Lookout

Ballina Head Lookout is a popular place for path users to stop for a rest or a picnic whilst admiring the views over Lighthouse and Shelly Beach and the river mouth. Consideration should be given to placing an informational sign at this point.

The shared path in this section is subject to high pedestrian activity. In addition the path descends a steep gradient from Ballina Head lookout to Lighthouse parade and is bordered by a fence on the eastern side and a retaining wall on the western side, leaving no space for stepping-off the path. The use of a range of signage could be considered to reduce conflicts between path users. These may include; an un-broken centreline, on-path stencilled give-way lines at intersections with pedestrian access points and shared path signage.

The bollard located at the Southern end of this section near the Lighthouse Beach car park poses a significant collision hazard as it is located at the bottom of a steep hill and as the photo illustrates, its visibility can be reduced by the shadows from adjacent trees and wall. Consideration should be given to removing or relocating this bollard or providing on-path deflection lines.
### 3.5 Junction of Lighthouse Parade and Northern Breakwall

A directional sign with distances to relevant landmarks, such as Ballina CBD and Shelly Beach should be placed where the shared path turns right onto the Northern Breakwall. Signs should comply with relevant RTA and Coastal Cycleway Guidelines.

![Image of Lighthouse Parade and Northern Breakwall]

### 3.6 Car park on Eastern side of Municipal Swimming Pool, River Street

Greater separation between car park and shared path is required to prevent vehicles obstructing the shared path as shown in the picture. On another occasion vehicles have been observed parking parallel with the pathway so that their doors are opened out across the path, resulting in a dangerous collision hazard.

![Image of Car park on Eastern side of Municipal Swimming Pool, River Street]

### 3.7 Corner of Regatta and Martin Streets

Directional signage is needed at the corner of Regatta and Martin Streets to direct cyclists towards foreshore path around the Ramada Hotel.

![NSW COASTLINE CYCLEWAY]

### 3.8 River Street near corner of Brunswick Street
Visibility of oncoming bicycle and pedestrian traffic is blocked by the bus shelter at this location. In addition there is a risk of pedestrians stepping out from bus shelter in front of cyclists approaching from the West. Ideally advertising could be removed to leave a transparent panel in bus shelter. Alternatively cautionary signage or stencilled deflection and give-way signs may be considered.

3.9 Johnson Drive between Boat Harbour Road and Brampton Avenue

The current route indicated for cyclists along Johnson Drive is to use the footpath as a shared path. Given the limited footpath width, frequent driveway crossings and the low traffic level of Johnson Drive, consideration should be given to creating an on-road shared route through this section, identified by stencilled on-road bike symbols (PS-3).

3.10 Section between corner of Pacific Highway and Riverview Avenue and Kalinga Street and Quays Drive
Increased directional and shared path signage is required through this section as it is difficult to navigate from the shared path along Pacific highway to the shared path on Kalinga Street.
MAINTENANCE ISSUES

The ongoing maintenance of cycleways and shared paths is critical to their safety and useability. Path maintenance is a big task, especially in regional coastal areas where paths are subject to erosion by the elements and rapidly encroached upon by surrounding natural vegetation. Good planning and design of shared paths and cycleways using measures described in this report can dramatically reduce the frequency or level of maintenance required.

Reporting of maintenance issues plays an important role in ensuring that they are addressed in a timely manner. The Bicycle NSW website has a designated page for submitting online reports of road and path hazards, available at: [www.bicyclensw.org.au/content/report-missing-sign](http://www.bicyclensw.org.au/content/report-missing-sign). Reports to the site are followed-up and where necessary forwarded on to the Roads and Maritime Services or local council. Tweed Shire Council also have a site for providing feedback on cycleways within the region, available at: [www.tweed.nsw.gov.au/Consult/ConsultDetail.aspx?ConsultID=8](http://www.tweed.nsw.gov.au/Consult/ConsultDetail.aspx?ConsultID=8)
**Next Steps**

This project has sought to identify opportunities to improve the Coastline Cycleway in Northern NSW in order to enhance its safety and rideability and meet its objective of linking together separate communities along the NSW coast.

It is envisaged that this report may be adopted by stakeholders for supporting a range of planning actions such as:

- Informing council bike plans and other related planning and policy documents
- Supporting grant applications for the Coastline Cycleway grants program and other sources of funding
- Scheduling maintenance of cycleway infrastructure by councils.

In addition to this, it is hoped that this report serves as a starting point for a collaborative approach to cycling promotion, planning and advocacy in Northern NSW, involving local councils, bicycle users, health promotion services and other stakeholders.

In addition to planning measures, the Coastline Cycleway and participation in cycling for recreation, commuting and tourism should be promoted. Increasing the utilisation of the Coastline Cycleway supports the justification of further investment into cycling infrastructure. Health promotion organisations should work with other stakeholders to promote cycling in the community. Research suggests that even with modest resources, active promotion of cycling through community based events is effective at increasing cycle path use.(4) A range of actions to promote cycling in Northern NSW should be investigated.
REFERENCES


A. SUGGESTED COASTLINE CYCLEWAY SIGNAGE

Map
- Including extent of North Coast or Mid North Coast region
- ‘You are here’ marker
- Include landmarks and points of interest
- Include photographs of above points as a visual reference

Distances
- Point A to point B = 5.7km
- Point C to point D = 2.1km
- Point E to point F = 13km

Cycleway related advertising
- Local BUGs
- Bicycle NSW
- Local bike shops and service centres

Rules for safe use of cycleway and shared paths

Coastline Cycleway Project Information
- Relevant logos:
  - Coastline Cycleway, DPI, Council etc.

NSW COASTLINE CYCLEWAY

- 2 KM ANGELS BEACH
- 6 KM BALLINA
Feedback Form

As part of the Northern NSW Coastline Cycleway Survey, we would like to receive your feedback on the Coastline Cycleway in your local area. You can provide feedback by completing this form and returning it to the Coastline Cycleway Survey team. If you would like any further information on the survey, or have any questions about completing this form, please contact Chris Lowbridge by email on clowb@doh.health.nsw.gov.au or by phone on 02 6620 7447.

Please note: This survey includes the NSW Coastline Cycleway only. We are not looking for feedback on other cycleways in your area at this time. Further information on the NSW Coastline Cycleway initiative is available on the Department of Planning and Infrastructure website at: http://www.planning.nsw.gov.au/ProgramsServices/FundingPrograms/NWSCoastlineCyclewaygrantsprogram/tabid/396/language/en-AU/Default.aspx

Name: 
Contact number: 

Your local region: Please tick the region(s) you are providing feedback on

- Tweed
- Byron
- Bellina
- Richmond
- Coffs Harbour
- Bellingen
- Nambucca
- Kempsey
- Port Macquarie

Please return completed forms to the Coastline Cycleway Survey team by 30 March 2012, via:

Email: clowb@doh.health.nsw.gov.au
Post: Chris Lowbridge
      PO Box 498
      LISMORE NSW 2480
      Attn: Chris Lowbridge
Fax: 02 6622 2151
# Checklist

The table below can be used to provide prompts for making observations of the cycleway:

<table>
<thead>
<tr>
<th>Signs</th>
<th>1.1 Are there directional and Coastline Cycleway signs? Particularly at forks, intersections and road crossings.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.2 Do the directional signs allow for easy navigation of the route?</td>
</tr>
<tr>
<td></td>
<td>1.3 Do signs advise the distance to travel to landmarks?</td>
</tr>
<tr>
<td></td>
<td>1.4 Are signs visible from both directions?</td>
</tr>
<tr>
<td>Sightlines</td>
<td>2.1 Is your line of sight at corners or bends obstructed by plants, walls or other objects?</td>
</tr>
<tr>
<td></td>
<td>2.2 Where sightlines cannot be provided are measures in place such as cautionary signs or unbroken centrelines?</td>
</tr>
<tr>
<td>Vegetation</td>
<td>3.1 Do tree roots damage the path?</td>
</tr>
<tr>
<td></td>
<td>3.2 Does vegetation obstruct vision or create a collision hazard?</td>
</tr>
<tr>
<td></td>
<td>3.3 Is vegetation trimmed to at least 1 metre from path edge and 3 metres above path?</td>
</tr>
<tr>
<td>Ride-offs and path edges</td>
<td>4.1 Is the ground adjacent to the side of the path level with the path?</td>
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<tr>
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<td>4.2 Is the area adjacent to the path clear of hard, woody or prickly vegetation, rocks or other hard objects?</td>
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<tr>
<td>Intersections of path with road</td>
<td>5.1 Where the path crosses a road, are hazards minimised through signage to warn motorists of crossing cyclists, and to warn cyclists that they are approaching a road crossing? (may not be necessary on small or quiet roads)</td>
</tr>
<tr>
<td></td>
<td>5.2 Is visibility of oncoming traffic obstructed by parked cars, vegetation or other objects?</td>
</tr>
<tr>
<td>Path maintenance</td>
<td>6.1 Is the path surface damaged so as to cause a potential hazard, i.e. cracked, eroded, potholes, raised tree roots etc.?</td>
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<tr>
<td>Other</td>
<td>7.1 Do telegraph poles, bollards or other objects that create a collision hazard obstruct the path?</td>
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<td></td>
<td>7.2 Other observations</td>
</tr>
</tbody>
</table>

**Sample observation:**

<table>
<thead>
<tr>
<th>Checklist number</th>
<th>Location: Draw a rough map or specify street names/intersection/landmark etc.</th>
<th>Observation: Notes/comments</th>
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<tbody>
<tr>
<td>1.1 and 1.2</td>
<td>Cooke Park&lt;br&gt;John St&lt;br&gt;Smith St&lt;br&gt;Directoinal signs needed at corner of John and Smith St's and on Smith St at turnoff onto shared path through Cooke Park (marked as ‘X’ on map).</td>
<td></td>
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</tbody>
</table>
### Specific observations and feedback:

Record details of any of the issues/items listed in the checklist that you are aware of in the table below. You may also attach other sources which may help to clarify your observations. These may include photos or Google maps and images etc.

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## Northern NSW Coastline Cycleway Survey: Feedback Form

**General Feedback:** General comments, feedback or issues in relation to the cycleway in your area and comments on missing links or additional sections you would like to see added to the cycleway.

<table>
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Page 4 of 4 – End of Feedback Form