Mullumbimby Movement Strategy

Final Report

Byron Shire Council

Prepared by

MRCagney Pty Ltd

MRCagney

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1 Introduction

Byron Shire Council has engaged MRCagney to prepare the Mullumbimby Movement Strategy. The Movement Strategy will provide a focus on transport and movement in Mullumbimby to support and complement the 'Our Mullumbimby Master Plan' which is currently being prepared by Byron Shire Council.

The Mullumbimby Movement Strategy provides analysis and recommendations to assist Byron Shire Council in understanding it's transport objectives by ensuring Mullumbimby begins the transition to a more sustainable movement network suited to growing participation in walking and cycling. The strategy provides guidance to Council in achieving this outcome through a series of recommended policies, projects and supporting interventions.

The Mullumbimby Movement Strategy forms a broader body of work that will contribute to the development of the Our Mullumbimby Master Plan.

Development of the Mullumbimby Movement Strategy has involved:

- An extensive community and stakeholder engagement programme conducted at the commencement of the project titled 'Mullumbimby Immersion'
- Development of the Issues and Needs Analysis Report following Mullumbimby Immersion which distilled community and stakeholder responses into a summary report including key transport and movement issues, constraints and opportunities present in Mullumbimby
- Background review of strategic documentation for Mullumbimby and the Byron Shire Council
- Observational surveys of parking activity in Mullumbimby and site visits.

The Mullumbimby Movement Strategy provides analysis and recommendations on all modes of transport. Section 4 of this report introduces strategies for each mode of transport which have been categorised under the following themes:

- Walking
- Bike riding
- Car parking
- Street network, cars and traffic
- Public transport

1.1 Background

Mullumbimby is a unique contemporary township boasting a strong community identity and a beautiful natural and built environment. The town's population grew from 3127 in 2011 to 3596 at the 2016 Census and is bounded by a strong and resilient community who is committed to preserving the unique and celebrated way of life enjoyed by its citizens.

Located in the Northern Rivers region of NSW and at the foot of Mount Chincogan, Mullumbimby is conveniently located 4km from the Pacific Highway providing easy access to neighbouring towns in the region and the Gold Coast to the north.

The population of Mullumbimby is forecasted to grow at a rate of 1.75% until 2036 which is a modest and manageable rate for a town of its size however housing remains a significant challenge for Mullumbimby and the Byron region more broadly with supply failing to keep up with demand. Furthermore, public transport is

limited and the maintenance of local roads and infrastructure remains a major issue for Mullumbimby and the region both posing challenges that need to be addressed in the future.

The population of Mullumbimby is heavily skewed towards older demographics with participation in the local economy and housing sector from people aged 18-25 years old particularly low. This issue was previously cited in the 'Mullumbimby Big Picture' report which highlighted the risk that this posed on the local economy. 2016 Census reveals that the median age in Mullumbimby is 46 years old compared to the state average of 38 years old. Residents aged above 40 years old make up 59.6% of the town's population while residents aged between 20 and 34 years old is only 10%. Children aged 0 - 14 years make up 18.3% of the population. [1]

There has not been a transport focussed strategy developed for Mullumbimby in previous times with the most recent strategic plan undertaken being the Mullumbimby Settlement Strategy 2003. This Strategy provided a plan to preserve the valued identity of Mullumbimby and to manage growth for a 10-year period. While relatively outdated, this strategy is still relevant to this day yet a rethinking of some key principles is required and should be an area of focus for the 'Our Mullumbimby Master Plan'. This relates to how the community and Council are prepared to manage growth particularly in terms of housing diversity and the scale and density of housing, two elements that are very much related to transport therefore of critical importance for the Mullumbimby Movement Strategy.

[1] ABS Quick Stats Mullumbimby http://www.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/SSC12828

2 Community Engagement

2.1 Mullumbimby Immersion

MRCagney in partnership with Byron Shire Council conducted an extensive stakeholder and community engagement programme in May 2017 titled "Mullumbimby Immersion" which formed the first phase of development of the Mullumbimby Movement Strategy. The programme was undertaken to understand the community's key concerns about transport and movement in Mullumbimby and sought to identify and unpack the values and aspirations that the Mullumbimby community hold for their town and its future.

The purpose of Mullumbimby Immersion was to:

- Raise awareness that the Byron Shire Council is currently undertaking a Movement Strategy as part of the Our Mullumbimby Master Plan
- Commence a community-wide conversation about transport and movement in Mullumbimby to understand the key issues and opportunities.
- Engage with the community and relevant stakeholders about broader issues that relate to movement including car parking, land use mix, public realm interventions, built form, retail and economic development.
- Encourage a public conversation regarding how transport and movement within the region can be improved over the long term.

Our approach was to conduct engagement across two different mediums. Firstly, a parklet was installed on Burringbar Street providing an opportunity for informal, conversational and walk-up engagement between the project team and community members. The parklet, pictured below in Figure 1 also demonstrated to the community alternative ways to use on-street car parking by temporarily removing car parking space to expand the footpath for additional gathering space. Secondly, a series of presentations and workshops at a community facility provided the opportunity for community groups, property owners, business owners and other stakeholders to contribute to the project and build capacity about future solutions.

2.2 Outcomes

The outcomes from Mullumbimby Immersion culminated in the Mullumbimby Issues and Needs Analysis Report. This report builds heavily upon observations and findings from the Immersion workshops, parklet, site visits and presentations to the community and stakeholders to result in a set of themes, issues, opportunities and key areas of focus to inform development of the Mullumbimby Movement Strategy.

The Mullumbimby Immersion process provided an intimate snapshot of the major movement issues facing the town and its residents and through capacity building, a list of possible solutions arose to address the most significant transport and movement challenges facing the town.

Arising from Mullumbimby Immersion are the following key themes, as referenced by the community and stakeholders at both the parklet and the presentations/workshops:

- Car parking – this is perceived as a major issue in Mullumbimby as it often is for regional towns, stemming from both high occupancy of car parking in the town centre; and a driving 'habit' that is largely pervasive across the region.

- Traffic congestion – this is caused somewhat by car parking behaviours of people queuing or circulating looking for a park very close to their destination. Typically, 30% of town centre traffic congestion is caused from 'cruising' cars in search of available car parking spaces.
- Road maintenance and conditions – The street and road network in Mullumbimby and across the region is anecdotally in a poor state of repair. It was mentioned many times in the immersion, and it seems to have been part of Byron life for so long, it has become accepted by the community. This may be impacting on town pride, investment opportunities or modal choice (whether people walk or ride bikes).
- Pedestrian facilities – The car dominance of the town centre was regularly referenced as a feature at odds with the community's vision for the town. Improving the pedestrian facilities in the centre to genuinely make it a place where people can enjoy walking to, from, in and around the town.
- Safety for cyclists – This was a dominant theme that emerged at both the parklet and at the community/stakeholder workshops. Perceived safety is clearly one of the major impediments holding back residents from cycling more as a common mode of transport, particularly for children.
- Housing affordability – Not exclusive to Mullumbimby but a very challenging matter, housing affordability is a significant issue which is compounded by a lack of housing diversity in the town but also an anti-development sentiment that was regularly expressed during community engagement. Improving housing options, including utilising infill opportunities within the town centre will support population growth in a sustainable manner while reducing the need for residents to operate private vehicles in Mullumbimby. Allowing town centre residential development enables these residents to walk or cycle to town while local roads and car parking spaces are prioritised for residents and visitors who arrive into Mullumbimby from further afield by vehicle.

The Issues and Needs Analysis Report has formed the foundation of the Movement Strategy by capturing and distilling the major issues present in Mullumbimby to develop a suite of solutions, interventions and policies in line with the community's needs for a connected and sustainable future Mullumbimby.

Figure 1: Mullumbimby Immersion - The Parklet

3 Analysis

Analysis of the existing conditions of the Mullumbimby movement network together with a review of available background material, traffic and car parking data has been undertaken in this section to inform development of a suite of strategies, recommendations and accompanying actions that respond to the community's vision for a more people friendly, equitable and sustainable Mullumbimby.

Analysis of this section has been informed by our appreciation and understanding of the role sustainable transport plays in supporting active town centres and contributing to positive social and economic outcomes. The emergent themes from community engagement as part of the initial stage of this project was that the community would like to see pedestrians and cyclists prioritised in Mullumbimby as part of future transport and community projects.

Transport planning is often undermined by misuse of available traffic data without commensurate consideration of quality of place and other intangibles that are not necessarily associated with easily measurable factors. As a result, many towns and villages are ruined by an oversupply of space for moving and parking vehicles, while neglecting the broader values that make a town attractive and sustainable.

A regional town like Mullumbimby cannot afford to suffer further from the intrusion of private vehicles in its town centre and the community has made it abundantly clear that a compact, green and walkable village is important to them, and this must be respected and followed with appropriate action.

Mullumbimby has many attributes typical of successful and sustainable small towns, however there are several aspects of the movement network that need to be addressed in order for the town to provide adequate and equitable movement options for its diverse community and visitors into the future.

This section outlines a holistic analysis of all modes of transport and related key issues which have been set under the following categories:

- Walking
- Bike Riding
- Car Parking
- Street network, cars and traffic
- Public transport

3.1 Walking

3.1.1 Walkability and land use

Walkable streets are the foundation of a great regional town centre. The most walkable and sustainable communities are characterised by diversity, a strong sense of place and a feeling of shared values between the community. A walkable town centre acts as a welcome mat for visitors and a meeting place for community relationships to be nurtured and preserved.

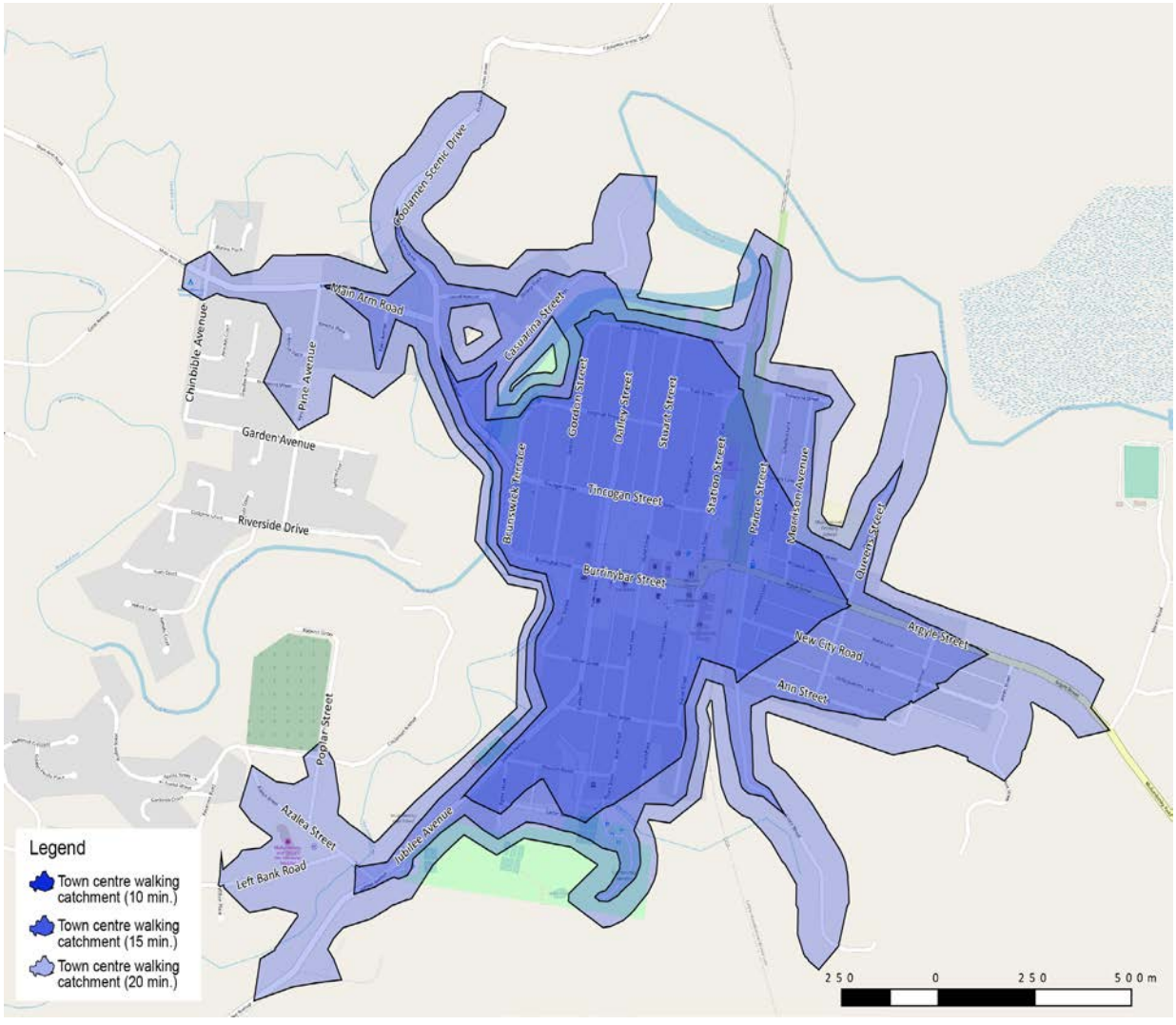
The relatively small footprint of the town is a particularly valuable asset that presents the opportunity to entrench active travel options as practical and routine choices for travel within town, provided appropriately designed footpath, bike path and street networks are provided and maintained. Towns that maximise their sustainability and prosperity invariably maximise the number of people who live within a walkable or bikeable catchment from the town centre.

A walking isochrone for Mullumbimby have been mapped in Figure 2 below, which identifies the areas of the town which are accessible via a 10, 15 or 20-minute walking trip. An isochrone is a map that illustrates the connection of different points across the same value. For this purpose, the map identifies the peripheral locations that are accessible within different cycling and walking times, which reveals the extent of the town that is accessible without a car.

It confirms that a significant area of central Mullumbimby is accessible from Mill St to the north, Myokum St to the south, Queen St to the east and Brunswick Terrace to the west via a short 10-minute walking commute. This area covers the extent of the central Mullumbimby area therefore walking should be the sensible and obvious modal option for those residents who live within these areas.

Similarly, the 15-minute catchment reveals that much of the areas on the periphery of the central core of Mullumbimby can be accessed via a 15-minute walk. The 20-minute catchment is concentrated on peripheral locations on the north, south and east of the town. Given the topography of the town, particularly to the north west, there is a significant residential catchment that lies outside of the 20-minute catchment. This refers to the areas in the vicinity of Tuckeroo Avenue and the areas bounded by Main Arm Road to the south. These areas are particularly susceptible to greater car dependency largely due to lack of alternative transport options, and pedestrian connections across Brunswick River.

Figure 2: Walking Catchment Area



3.1.2 Footpath connectivity and pedestrian network gaps

Conditions in Mullumbimby overwhelmingly favour driving a car as opposed to walking the streets as a pedestrian. Wide roads, wide turning radii, angle parking, gaps in network coverage, disconnections in pedestrian links, footpaths in disrepair, pot holes and general lack of maintenance which significantly impact the quality of the pedestrian network and are barriers to encouraging greater uptake of sustainable travel.

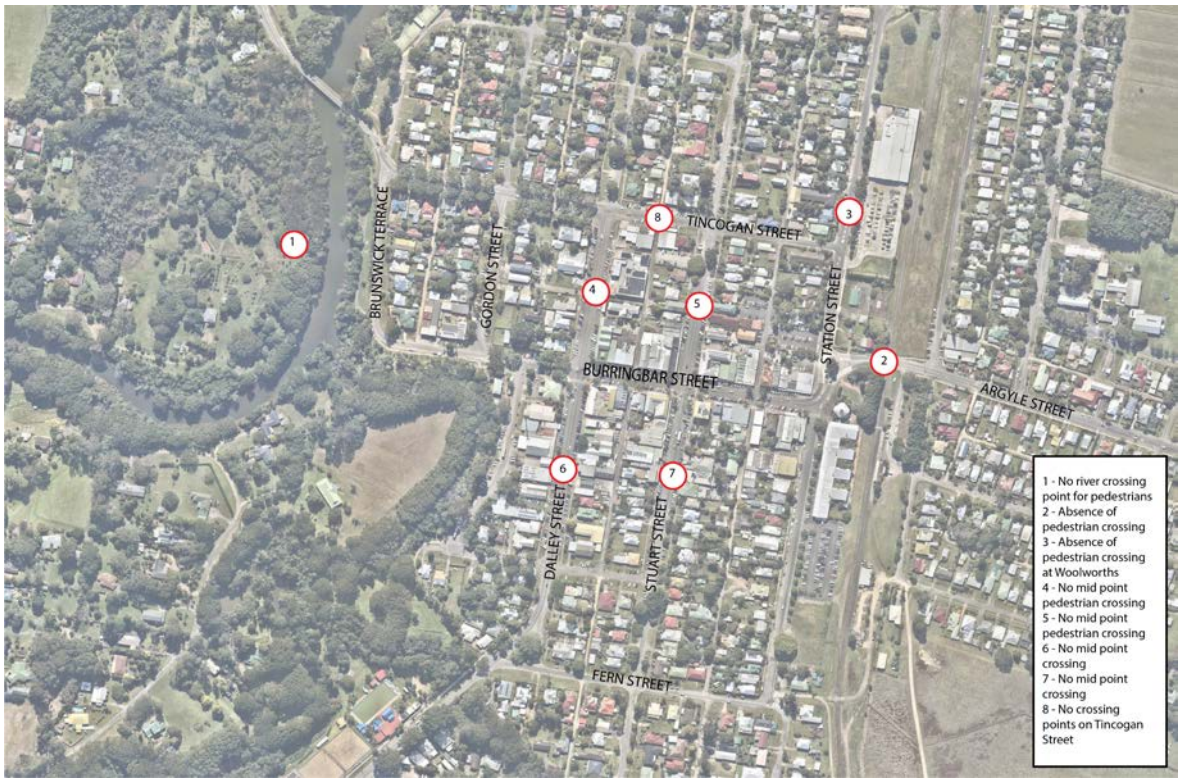
The following locations are key sites that are identified to be currently underperforming for pedestrian access and safety, walking comfort and general pedestrian amenity:

- Brunswick River – Currently there remains a significant gap for pedestrian access from both sides of the Brunswick River, particularly at the end of Burringbar Street. The existing Federation Bridge at the end of Murwillambah Rd/Tincogan St takes vehicle traffic and offers a footpath for pedestrians however is out of the way for the majority of pedestrian trips. A new bridge solely for pedestrians and cyclists that could link with Burringbar Street would offer important connections for residential communities directly west and south west of Brunswick River.
- Argyle Street – Argyle Street is the entry point to Mullumbimby for trips originating from the east and travels over the old rail line to enter Burringbar Street. Currently there is a lack of adequate crossing facilities for pedestrians and vehicles are observed to travel at inappropriate speeds due to the width of the section of street and lack of active land uses.
- Station Street and Woolworths – An absence of adequate crossing facilities along Station Street particularly adjacent to the Woolworths. The western side of the street is defined by poor walking conditions with lack of legible footpaths. The Woolworths car park and entry/exit lanes pose barriers for easy, enjoyable and safe walking.
- Dalley Street – Absence of mid-block crossing point in the section north of Burringbar Street
- Stuart Street - Absence of mid-block crossing point in the section north of Burringbar Street
- Dalley Street – Absence of mid-block crossing point in the section south of Burringbar Street
- Stuart Street - Absence of mid-block crossing point in the section south of Burringbar Street

The very poor quality of footpaths and road surfaces in some cases present trip hazards, particularly for the less able bodied, elderly and vision impaired. Narrow widths of footpaths, inconsistent provision of appropriate kerb ramps and discontinuities in the network seriously constrain mobility for a wide range of users including the elderly, disabled, people with prams of mobility scooters and young children.

Key gaps in network coverage for pedestrians, whether that be inadequate crossing points or lack of crossing opportunities all together, are shown in Figure 3

Figure 3: Existing pedestrian conditions and gaps



3.1.3 Intersection, crossing points and conflicts

Existing intersections and crossing points have been reviewed to form analysis in this section in order to understand deficiencies in the network and likely conflict locations. Figure 7 provides an overview of the existing pedestrian crossing points as well as key gaps in the pedestrian network in the town centre.

Station Street

The unmarked refuge crossing located at the northern approach to the roundabout of Station Street and Argyle Street provides some utility, however would benefit from some improvements to increase amenity and visual prominence to drivers. The roundabout (see Figure 5) generally enforces consistent traffic flow and motorists were observed to travel along this stretch at higher than appropriate speeds however pedestrian activity at this location was observed to be relatively low given the lack of adjacent active land uses and the hospitable pedestrian environment.

Burringbar Street

Burringbar Street is the most active and utilised part of Mullumbimby and is currently performing at a minimum adequate level for pedestrian needs. The major impact to the public realm is the domination of private vehicles (both parked and moving) which impacts the visual character of the street as well as presenting safety risks for pedestrians to cross easily, mid-block as well as at the key intersections of Dalley and Stuart Street.

The Burringbar Street and Stuart Street intersection was referenced during community engagement and observed to be problematic for pedestrians crossing the street. Sight distance, speed of motorists and pedestrian crossing distance are currently impacting pedestrian safety and crossing comfort, issues which could be addressed by tightening the kerb radii and improving the visual quality as part of future intersection treatments.

Improving the crossing points at the corner of Burringbar Street and Dalley Street and Burringbar Street and Stuart Street are important outcomes for the community and would significantly improve the pedestrian and urban realm along the street by slowing down vehicles and giving better access to pedestrians.

A raised footpath treatment across both of these intersections is required to address the existing conditions and would be desirable to:

- Improve universal accessibility
- Improve the pedestrian environment and reinforce pedestrian priority
- Slow turning traffic
- Help create an improved entry statement for the main street

Figure 4: Existing pedestrian crossing, Burringbar Street

Figure 5: Crossing conditions Station Street

Stuart Street and Dalley Street

Both Stuart and Dalley streets are key north-south spines and share similar typologies and existing conditions. Wide dimensions, poor road and footpath maintenance and angle parking impact the quality of these streets as people-oriented places however existing active land uses clustered along each street induces some human activity.

Both of these intersections are crucial elements of Mullumbimby's main street and should encourage dominant pedestrian movement. The current configuration provides excessive pedestrian crossing distances and can allow inappropriate and excessive turning speeds of vehicles. These intersections should provide pedestrian crossings on all approaches and encourage slow traffic movement.

Currently there are no mid-block crossing points for pedestrians however there remains an absence of pedestrian volumes to warrant mid-block crossing points as the predominant concentration of pedestrian activity is favoured closer to the corner of Burringbar Street where there is a clustering of active land uses on both streets.

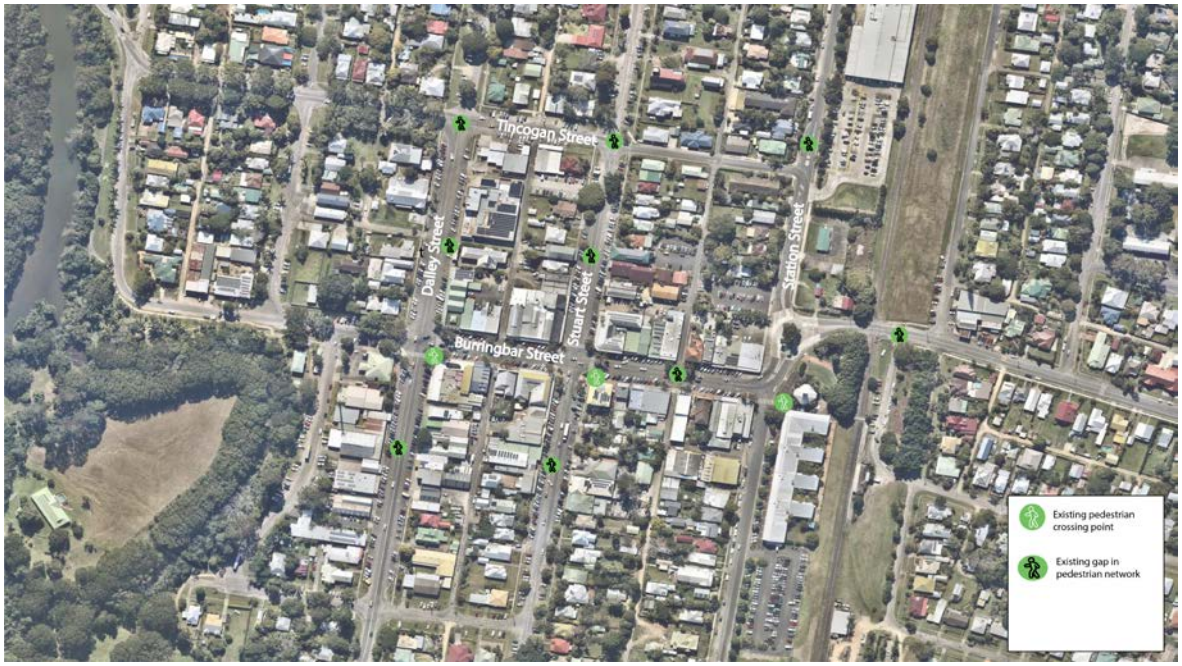
Tincogan Street

Tincogan Street is an important street that forms part of the broader road network. Currently, the street is underutilised by pedestrians. Tincogan Street is predominantly residential and the existing conditions are not appealing for genuine pedestrian use with the street being mainly used for car trips. The street is an important link in the network that connects Murwillumbah Road with Station Street serving as a ring road around the town centre from the eastern entry point of the town to the west.

There are no high-quality formalised crossing points on Tincogan Street and the street is currently defined by wide road dimensions, discontinued footpaths or absence of footpaths, and very poor road surfacing. Formal crossing points are defined by the refuge which is provided in Figure 6. The street currently functions as an informal bypass to the town centre and it should continue to serve this purpose, however some raised crossing points at the intersections of Dalley Street and Stuart Street and some complementary street narrowing could help improve pedestrian conditions and support activation of the street.

Figure 6: Existing crossing conditions, Mullumbimby

Figure 7: Pedestrian crossing gap analysis



3.1.4 Brunswick River pedestrian gaps

Currently, the Brunswick River acts as a barrier and separates a significant portion of the town's residential population from the town centre. There is currently only one river crossing (Federation Bridge at Murwillumbah Road) which is used predominantly by private vehicles with inadequate walking infrastructure presenting poor comfort and safety for pedestrians who wish to cross the river. The existing river crossing is inconvenient as it is out of the way for most people who may wish to access the town on foot from that side of the river. Figure 8 presents key gaps which exist impeding accessibility across the river.

Figure 8 illustrates the existing gaps between the township and the settlements to the east and south of the centre. Lack of crossing facilities means that there are gaps that inhibit easy pedestrian or cycling connections across both sides of the river.

Addressing these gaps by introducing pedestrian bridges would enable:

- Linkage of Pine Ave residential area to the west to main street and centre of town
- Linkage of Tallowood Estate to Burringbar St – centre of town – via Pine Ave residential area
- Linkage of Riverside Drive to Burringbar Street
- Linkage of Pine Ave residential area to high school and sports fields to the south.

Council acknowledges that building bridges to address each gap represents a significant financial investment therefore selecting one bridge to fund and construct is the most likely scenario. With this in mind, a future river crossing to connect Riverside Drive to Burringbar Street and the town centre is the most logical option. Recommendations for each option are provided in Section 4.1.3 of this report.

Figure 8: Accessibility gaps for river crossing

3.1.5 Accessibility and safety

A common theme highlighted during Mullumbimby Immersion was the town's universal accessibility issues that can prevent non-abled body people or people with a disability from accessing key destinations or otherwise participating in the community.

Many of these universal accessibility issues are simply a result of poor footpath maintenance or a legacy of poor design decisions in the past (e.g. poor or lacking kerb ramps), which can be mitigated as broader footpath or intersection works occur (as discussed in corresponding sections in this report). However, there are some specific accessibility and safety concerns that require consideration.

Furthermore, walking safety for school children and the general community more broadly was also a key theme emerging from community engagement with certain gaps across the network affecting accessibility

and a public realm generally dominated by both parked and moving cars presenting risks to personal safety and making simple tasks like crossing the street cumbersome and hazardous for pedestrians.

3.1.6 Maintenance of pedestrian facilities

The severely deteriorated nature of much of the existing pedestrian network in Mullumbimby is a significant impediment to greater active travel uptake for many people (see figures 9 and 10 which show a very poor interface between footpath and road/street impacting crossing comfort and amenity). The poor quality of footpath surfaces present trip hazards, particularly for the frail or elderly, while narrow widths, inconsistent provision of appropriate kerb ramps, and discontinuities in the footpath network seriously constrain mobility for people with a disability and people pushing prams. In a broader sense, the poor quality of the footpath network contributes to a walking environment in town that is in many cases unattractive and unamenable. This is particularly unfortunate considering the beautiful natural setting, built heritage, and local climate that should make walking in Mullumbimby the most common mode of transport, particularly for those residents who live within the walkable catchment.

Figure 9: Drainage issues on road verge (residential area)

Figure 10: Poor road surfacing, Stuart Street

3.1.7 Pedestrian realm in the town centre and pedestrian priority

At present parking dominates the town centre core, creating a poor pedestrian environment. If people are to be prioritised within the town centre, parking demands should be redistributed to more appropriate locations in order to nurture a more enrichened public realm and ensure there is an overt invitation for human activity, gathering and enjoyable walking across Mullumbimby's pedestrian network.

Currently there are limited high quality sections within Mullumbimby's pedestrian network that enable safe and accessible walking conditions not dominated by private vehicles. The overwhelming theme emerging from Mullumbimby Immersion was that the community desire a town where pedestrians are the priority and that people should be able to enjoy the town in a safe and equitable manner, free from the risks associated with a traffic dominated environment.

3.2 Bike Riding

An overwhelming response that emerged from Mullumbimby Immersion was that the community is calling for an adequate, comprehensive and connected cycling network that can provide safe, accessible and enjoyable bike riding experiences for all confidence levels and age groups within the community.

In order to achieve this, we have reviewed the performance of existing cycling conditions to understand the major gaps across the network to inform future expansion of the network.

Recommendations to support active travel outcomes in Mullumbimby and general directions for cycling and pedestrian improvements will be added to the Byron Shire Bike Plan and Pedestrian Access and Mobility Plan to ensure Council consideration for future funding and implementation.

Bike riding activity in Mullumbimby is modest but there is appetite by the community to travel more by bicycle. 2016 Census reveals that 3.3% of Mullumbimby residents ride to work, which presents favourably against comparable regional settings.[2]

[2] ABS Mullumbimby Census Quick Stats - http://www.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/SSC12828

While a small cross section of the community participates in cycling daily as a modal choice, the current form of low density patterns of development across Mullumbimby and poor quality of infrastructure make cycling an unappealing and unviable mode of transport.

There is a very strong appetite from residents to ride more in Mullumbimby which is unique for a regional town where often cycling is overlooked due to the convenience and freedom afforded by private vehicle travel.

It was referenced during Mullumbimby Immersion, that more people would ride if the conditions were improved as currently participation is low due to the lack of suitable cycling infrastructure which inevitably presents risk to perceived personal safety.

Increasing the attractiveness of bike riding as a safe and practical mode of transport presents a genuine opportunity in Mullumbimby and is strongly supported by the community. Bike riding is considered to be more aligned with the sustainable and environmental values shared by the community and the identity of the town as a place where people, not private vehicles are respected.

Bike riding is the cheapest mode of transport other than walking for Council to manage and fund and cyclists are typically a higher spending user group. As a percentage of space required for parking bicycles and private vehicles, cyclists spend more per square metre compared to private vehicles yet bicycle parking facilities only make a small percentage of area in town centre environments.

Poor network coverage and an absence of safe and accessible infrastructure continue to thwart a greater uptake of cycling activity in Mullumbimby. Furthermore, the spread out nature of residential development in Mullumbimby further reinforces dependency on private motor vehicles, adds to the long-term costs of private infrastructure and reduces the capacity of active transport systems to be easily established as part of development.

Figures 11 and 12 identify the areas of Mullumbimby that are accessible via a 10,15 and 20-minute cycling trip. It confirms that all of the central established area of the town and peripheral areas including Left Bank Road, Coolamon Scenic Drive, Main Arm Road and Mullumbimby Road can be accessed within a 10-minute cycling trip suggesting that a significant segment of the local population live within a 10-minute cycle journey of the town centre. Further afield, the 15-minute catchment opens up an expansive area that is accessible by cycling from the town centre. This refers to large lot residential pockets at Brushbox Drive and Tristran Parade to the south west, Gulgan Road to the east, Coolamon Scenic Drive to the north and Main Arm Road to the north west.

Figure 11: Cycling catchment, Mullumbimby

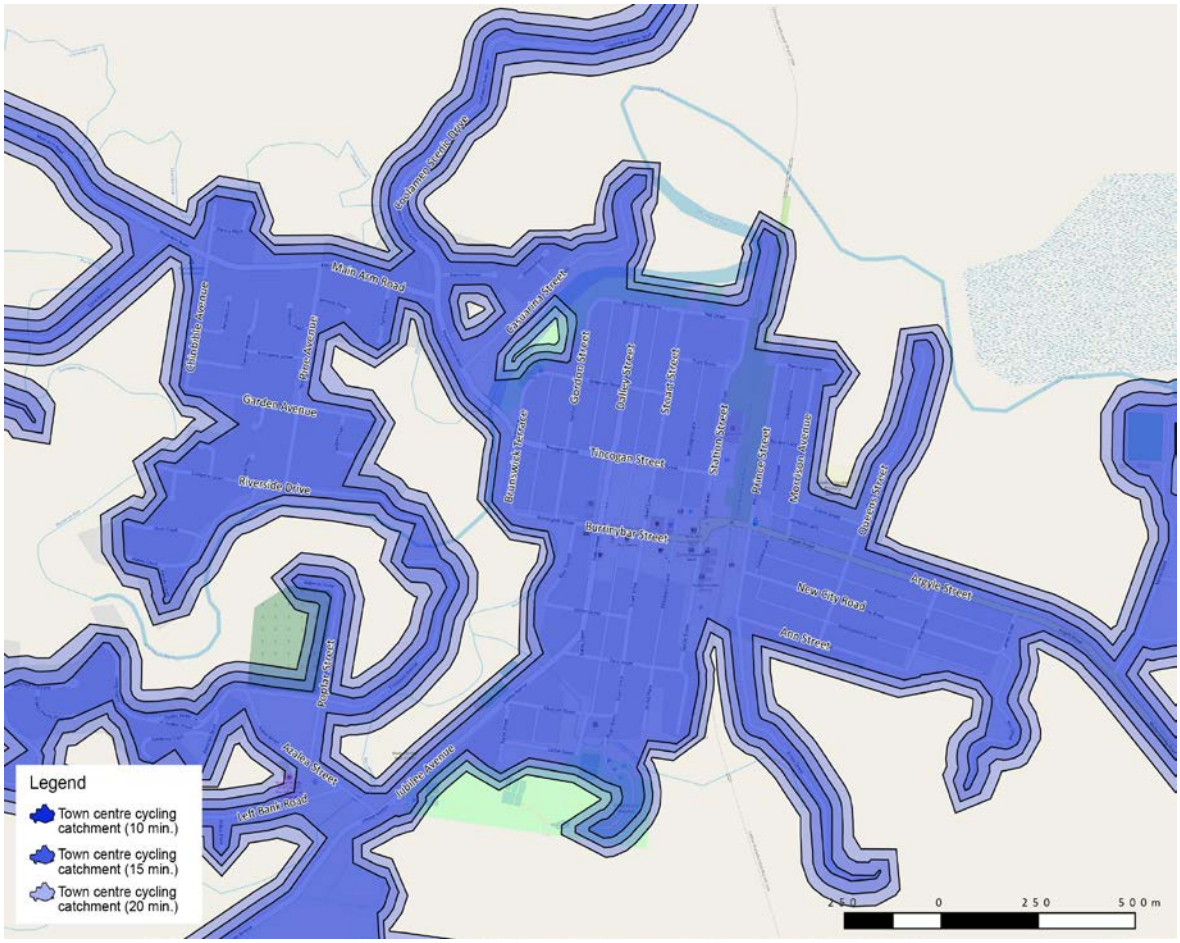
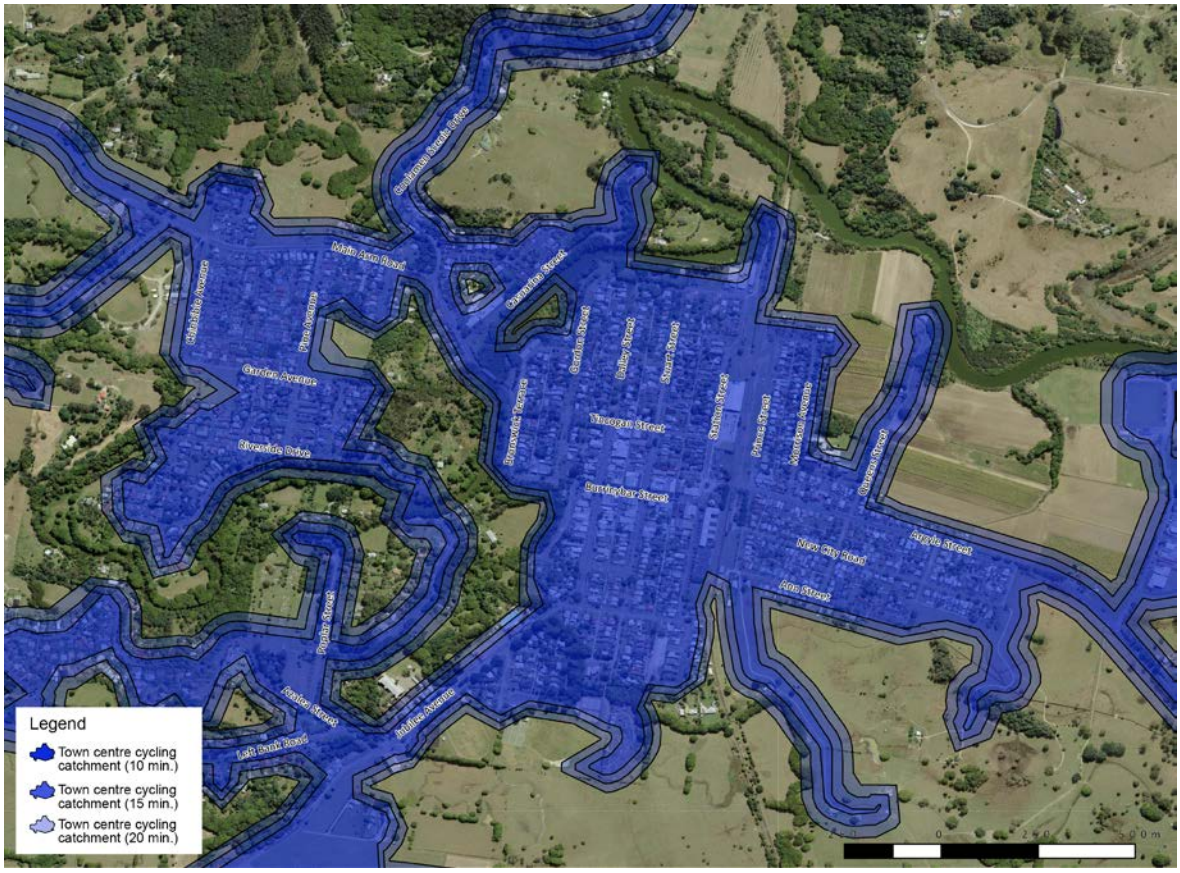


Figure 12: Cycling catchment, larger land area



3.2.1 Key streets for cycling

Key streets in Mullumbimby where cycling currently occurs are presented below.

Burringbar Street

Burringbar Street is the main street of Mullumbimby providing an important east-west link for all modes. It is currently defined by a wide street width, angle parking on both sides of the street and painted bike lanes behind the angled parking,

Burringbar Street is a priority street that in the future will act as a spine providing safe, accessible and efficient bike connections from east to west. The existing painted-on bike lanes imply that the road space is for cyclists however without adequate physical buffers from moving or parked traffic, the bike lanes do little to encourage great bike riding activity or alter the behaviour of motorists along Burringbar Street.

Currently, cycling activity is relatively low on Burringbar Street with some ad hoc trips being made by local community members. Children were not observed to represent a significant cross-section of cycling users and the overwhelming message reinforced during community engagement was that the present bike riding conditions are too unsafe for children, particularly in mixed traffic at Burringbar Street.

The community have aspirations that would see Burringbar reinvented as a people-first pedestrian spine of the town, where both cyclists and pedestrians can move freely and safely.

Figure 13: Cyclist in central Mullumbimby

Stuart Street

Stuart Street provides important north-south movements across central Mullumbimby and is defined by both active land uses and residential properties. The most active part of the street is where Stuart and Burringbar streets intersect. Some cycling activity was observed in this section of the street.

Stuart Street extends south to become predominantly residential with wide natures trips which are used for on-street parking, poor road surfacing which impacts cycling comfort and safety and a general absence of cycling infrastructure.

Dalley Street

Dalley Street provides important north-south movements across central Mullumbimby and is defined by both active land uses and residential properties. The most active part of the street is where Dalley and Burringbar streets intersect.

Dalley Street extends south to join Jubilee Avenue therefore is an important link in the broader network and could be retrofitted in the future to play a greater strategic role for bike riding purposes. Figure 14 shows the cycling conditions along the street. A generous on-street cycle lane is provided however moving vehicles on the right-hand side and reversing parked vehicles on the left present hazardous conditions for the less vigilant of cyclists.

Argyle Street/Mullumbimby Road

Mullumbimby Road is used to access Mullumbimby for trips originating from the east, particularly those using the Pacific Highway. Mullumbimby Road becomes Argyle Street at the entry to the township and terminates at the roundabout at Station Street and Burringbar Street. Existing cycling conditions along Mullumbimby Road and Argyle Street are poor with inadequate surfaces, lack of priority and line marking making the existing conditions seemingly unsafe.

Jubilee Avenue

Jubilee Avenue connects central Mullumbimby with the broader road network from the south west. It is an important section of the network due to its connection to Coolamon Road and Left Bank Road which service peripheral residential communities to the south west.

Jubilee Avenue forms an extension of the Mullumbimby town centre to the south west and is a strategic corridor. The Mullumbimby High School is located on Jubilee Avenue and the road is used to access Coolamon Scenic Drive and Left Bank Road. Existing conditions suggest the road is well used and Mullumbimby Immersion revealed that it is a key link for students from Mullumbimby High School and Shearwater Steiner School who would ride to school if it was safe to do so.

Figure 14: Existing on-street cycling provision, Dalley St - central Mullumbimby

Left Bank Road

Left Bank Road was a regularly referenced section of the network during Mullumbimby Immersion. The community feel that Left Bank Road is an important link that could be better utilised to support safe bike riding, particularly for students who attend Shearwater Steiner School.

Currently, there is an existing shared path that can be used by bike riders however the presence of driveways to adjacent properties present sight issues and potential safety hazards, particularly for school students. Traveling west, the path ends at Tuckeroo Avenue and beyond this section of the road there is no provision of bike riding or walking paths.

Given the need to cater for school students who attend Shearwater Steiner School, expanding the current provision of off-road paths could form part of future network planning. The community feel that this is an important project for the town and could significantly address traffic congestion in the morning and afternoon peaks by reducing the need for parents to pick up/drop off their children.

3.2.2 Quality of bike riding environment – separation and quality

There is currently no provision of on-street protected bike riding infrastructure in Mullumbimby with the broader network defined by a combination of off-road and on-street (painted-on) bike lanes.

On-street cycling infrastructure is an effective way to integrate street users with adjacent retail and hospitality providers while changing the risk profile of cycling in a central built up town centre environment. Protected bikeways in central active locations encourages a wider cross-section of users, particularly women and children.

On-street cycling infrastructure provides integrated land use solutions to town centre environments by allowing improved accessibility to shops, cafes, and other destinations without use of a private vehicle and without putting demand on on-street car parking. On-street cycling infrastructure that is protected from vehicles via a buffer is a highly accessible, safe, and sustainable way of travel within a local environment, something that is not only environmentally beneficial, but also socially and economically.

A network of protected bike lanes provided between the kerb and the parking lane on streets within the town centre is achievable in the short to medium terms and could be coordinated with other streetscape and road

maintenance works in Mullumbimby and is understood to have genuine support from the community. Modern examples of cycling infrastructure are provided in figures 15 and 16. The Newcastle example is a simple treatment that is also affordable while the North Melbourne example shows landscaping features that complement the existing qualities of the tree lined residential street.

The existing conditions of infrastructure in the Mullumbimby town centre support the future transition to a sustainable transport network due to the following considerations:

- The streets of Mullumbimby typically have ample space which allows the retrofitting of protected bike lanes to be pursued with relative ease without impacting on-street car parking
- On-street protected bike lanes would also reduce the width of Mullumbimby's streets, which are currently too wide. This would provide traffic calming benefits including slower vehicle speeds while improving the streetscape as a place for pedestrians to cross from both sides of the street with relative ease.
- Protected on-street bike lanes create a clear physical separation between parked cars and cyclists, and cyclists and pedestrians on the footpath
- Protected on-street bike lane between the kerb and the parking lane rather than between the parking lane and the travel lane provides bike riders a real physical barrier between car traffic ensuring safety for all users, including the elderly and unsupervised children.
- There is a growing cross section of residents in Mullumbimby who would like to travel by bicycle more regularly if it was safe to do so
- Protected on-street bike lanes support safe cycling activity in a managed town centre environment instead of dispersing trips to busy arterial roads that should be prioritised for vehicle traffic.

Figure 15: Protected bike lane North Melbourne, Victoria

Figure 16: Protected bike lane Newcastle, NSW

3.2.3 Expanding the network and the rail corridor

Using the rail corridor for cycling purposes was a commonly discussed option during Mullumbimby Immersion and it is understood that there is a general appetite across the Shire to re-use the non-operational rail line for cycling. This option would establish a regional cycling network for commuting, recreation and tourism purposes.

While there remains some uncertainty about the future use of the line, there is strong support for a cycle connection between the major townships in the region, including Mullumbimby, Bangalow, Byron Bay, Suffolk Park and Skinners Creek therefore repurposing the corridor as a key cycling connection warrants genuine consideration and should be assessed via a feasibility study against other uses.

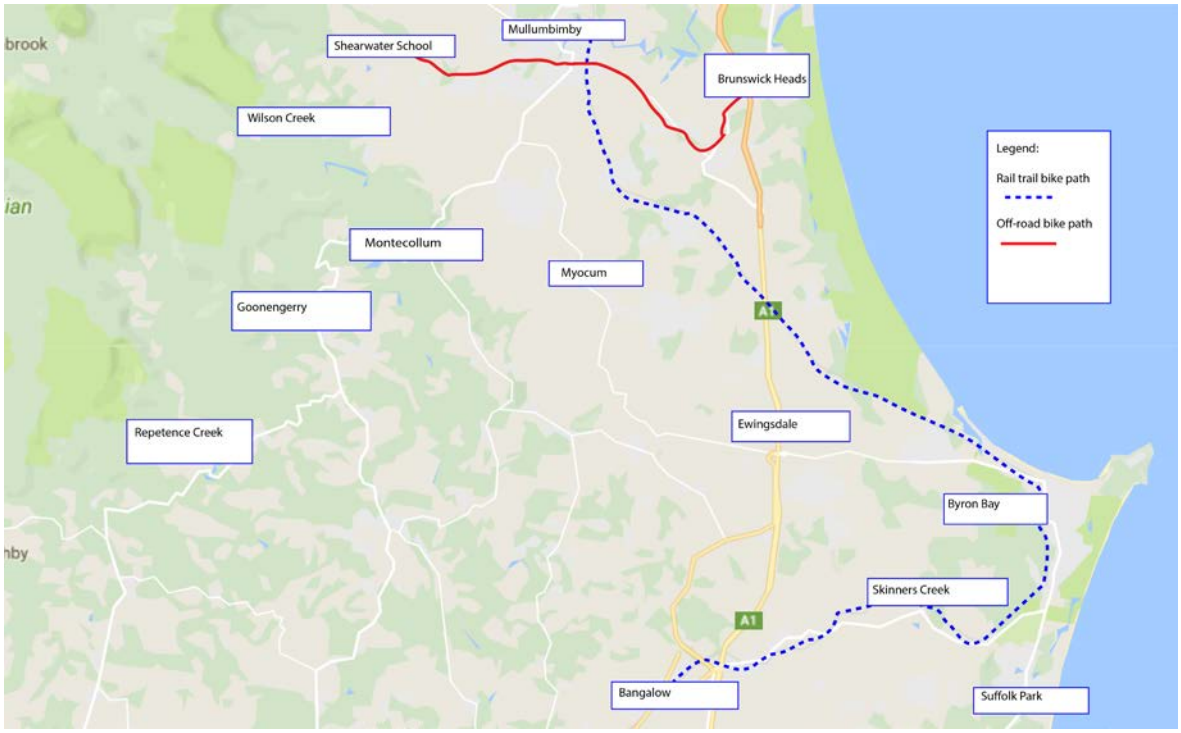
Utilising the rail corridor for walking and bike riding would represent a step-change in the quality of active transport infrastructure in Mullumbimby, and is the key to connecting key peripheral areas within central Mullumbimby and further afield.

Using the defunct rail corridor for a walking and cycling path was one of the most common suggestions received from the community during Mullumbimby Immersion. An active travel path along the rail corridor could provide several advantages:

- The rail corridor connects most key destinations in town, including the Mullumbimby Community Garden, Woolworths, Brunswick River and peripheral residential communities. The rail corridor presents an opportunity to create a central active travel spine through town.
- The rail corridor connects several key townships surrounding Mullumbimby, presenting the opportunity to create an active travel linkage between Mullumbimby and towns such as Byron Bay for tourism purposes as well as local trips.
- The rail corridor is currently unused and underutilised, however it is important that the community get some value from such an important asset. A walking and cycling path would be a practical and implementable re-purposing of the rail corridor.

Further to the rail trail, there are additional regional routes that the community identified as being important to the future cycling network of Mullumbimby. Connecting Brunswick Heads and Mullumbimby (see Figure 17) is an option that is believed to have strong community support and warrants further consideration given the proximity of the two towns and travel demands between the two centres. A route between Mullumbimby and Brunswick Heads that could run parallel with the road using the same or similar route to that of a car is one option however there may also be options for a more direct inland route or along the river. Another option would be to continue the rail trail north to Oceans Shores before diverting to the south east to connect with Brunswick Heads.

Figure 17: Regional cycling links



3.2.4 End of trip facilities

End of trip facilities are currently inadequate in Mullumbimby and must be improved to support the increase in cycling activity associated with infrastructure upgrades.

End of trip facilities and bicycle parking should be accessible, safe and prominent in street settings. They should be located in busy sections of the street where there is naturally a concentration of pedestrian activity due to high-demand retail and public spaces. Bike racks at prominent locations also ensures that users feel their bicycles are left in a safe place with high passive surveillance.

Some specific issues with Mullumbimby's end of trip facilities for bikes are:

- Lack of facilities in town centre including along Burringbar Street, Dalley Street and Stuart Street
- Potential undersupply of bike racks at the school
- Poor provisions at bus stops and key transit sites
- Lack of showers
- No bike repair stations in town.

Should Council seek options to introduce new bike parking facilities in Mullumbimby, we have provided some examples for consideration. Figure 18 provides an example of regular hoop bike racks located on the street as opposed to on the footpath. Here, one car park has been removed and six bike racks have been installed out the front of a local pub. The picture shows a total of 7 bicycles parked on the day which comfortably exceeds the amount of patrons able to access the pub by a private vehicle that would take up the same space. This bicycle parking arrangement is a feature that could be considered at the Middle Pub or at Santos – two locations that would both benefit from on-street bike parking facilities due to the high concentration of pedestrian activity at these two sites. Hoop parking facilities are the most practical option and cheapest to roll out.

Figure 19 demonstrates an alternative use of on-street car parking and provides a visual cue on the streetscape. By replacing one car space, there is potential for over 10 bikes to be parked which would correlate positively with potential retail spend per person as opposed to that of just one car. This option presents a design that is functional, simple and eye-catching and would be best suited at a central location like the Middle Pub or Santos on Burringbar Street.

Figure 18: Bike rack, Brunswick Victoria

Figure 19: Bike rack parklet, Burleigh Heads, Qld

3.3 Street network, cars and traffic

Regional towns are typically skewed towards private vehicle dependency, even in locations where walking and cycling are viable options. In Mullumbimby, the private vehicle is the preferred modal choice and this behaviour will continue in Mullumbimby for the foreseeable future. Burringbar Street experiences a build-up in traffic at peak times however overall traffic volumes across Mullumbimby are typical for a regional town of its size, although the presence of heavy vehicles in the town centre has been identified as an issue that warrants further assessment and attention. Typical of most regional towns this size, Mullumbimby is a service centre for surrounding towns including Ocean Shores, Billinudgel and Brunswick Heads, therefore some of the total traffic volumes on the local network is generated by users from outside of the Mullumbimby local area.

What is valuable to people in Mullumbimby is the village feel and the nature of the streets, particularly the Main Street - Burringbar Street. People enjoy the social interactions that result from intimate people-focused walkable villages and towns. From a transport perspective, it is important that we encourage the continuation of this behaviour. People interacting on their way to and from school, walking to shopping and dining destinations, walking for recreation and even walking to work, are vital to sustainable villages and towns and the community is keen for this behaviour to at least be maintained but preferably enhanced.

There is some potential that the very characteristics (the small-town feel, the community, the town centre, the heritage, the natural environment, the unique experiences and 'vibe') that people love about Mullumbimby may well deteriorate over time for the simple reason that road-based interventions are applied to traffic and car parking issues at the expense of consideration of more sustainable transport options.

3.3.1 Local traffic behaviours

Short unnecessary car trips can be induced by a number of factors: poor weather conditions; perceived convenience and time saving; and, free and available car parking. It is understood that in Mullumbimby certain behaviours are encouraged by some of these existing conditions and factors. A majority of trips in

Mullumbimby are relatively short, but they are still mostly made by car which is starting to detract from the very village atmosphere that people value so much. It is not so much that driving needs to be stopped, but everything possible needs to be done to provide people with the choice not to drive so that Mullumbimby can grow and prosper in a sustainable way without its core qualities being eroded by car traffic and car parking. While traffic congestion is not a particularly major issue, the car-dominance of the town centre is a prominent feature, something that will only get worse unless there is a positive shift to a less car dependent way of life.

From the Immersion and from examining transport behaviour in the town of Mullumbimby and the available traffic data, it is apparent that in a pure traffic sense, there are no issues of real congestion in Mullumbimby, and that people have not been denied access to the town by car through lack of capacity in the network.

It appears however that the predominant modal choice is private vehicle, even for those residents who live within a 1km walk or cycle trip from the town centre which was confirmed at Mullumbimby Immersion. Up until now, residents have been able to navigate the town conveniently by private vehicle however in the last five years, the traffic environment has become more congested and car parking increasingly more difficult to secure.

Transport is often driven too much by traffic data and not enough by place value or latent demand of non-vehicular transport options, which can be difficult to measure. As a result many towns and villages are ruined by catering to potential increases in car movement, and completely ignoring the values that make a town attractive and sustainable. A town like Mullumbimby cannot afford to be left to deteriorate as a result of car intrusion. The community have made it abundantly clear what is important to them (the community feel, the laid back environment, the diversity of the community, the town's history and values) and this must be respected and followed through.

3.3.2 Current conditions

Mullumbimby experiences some congestion in peak periods particularly on Burringbar Street however largely movements throughout the town are made without significant traffic delays. As a result of this, residents are prepared to make relatively short trips by car. Traffic congestion is manageable and has yet to significantly change local behaviours while parking is relatively convenient and free.

The 2016 Census reveals that 40.7% of occupied private dwellings had one registered motor vehicle garaged or parked at their address, 36.0% had two registered motor vehicles and 13.6% had three or more registered motor vehicles. [3] Relatively high ownership in private vehicles is consistent with the regional setting of Mullumbimby and the predominant built form of the town which invariably makes driving more favourable over other modes.

Council is currently looking at options to support residential growth in the region. Should land be released for residential development over the next 20 years, there will need to be a shift away from current transport behaviour. This gives Council scope to move forward with some innovative urban design treatments, should they be an outcome from the Masterplan. The amount of public realm currently allocated to road space and car parking space is excessive for the needs of Mullumbimby, and therefore a remarkable placemaking opportunity exists.

3.3.3 Key streets in the town centre

Burringbar Street

[3] ABS Census Quick Stats - http://www.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/SSC12828

Burringbar Street is Mullumbimby's main street which enables east-west movements and supports a range of active land uses. The street is an important spine of the town with an interesting built form and scale that celebrates the way of life, culture and history of the town.

Vehicle speeds are relatively low along Burringbar Street and generally do not negatively impact on footpath amenity or the quality of the trading environment for retailers and restaurants on the main street. However, vehicle speeds pose a greater issue for bike riders and pedestrians wishing to cross the street.

Current prevailing traffic speeds are also having some negative impacts on pedestrian movements across Burringbar Street particularly during peak periods. Ideally, slow (20/30 km/h or lower) traffic speeds would encourage discretionary crossing along the length of a successful main street, augmented by a number of formalised pedestrian crossings. Such behaviour is not regularly observable on Burringbar Street during peak periods, and pedestrians often even approach the formalised pedestrian crossing at Burringbar and Stuart Street with some trepidation and confusion.

Retrofitting a genuine slow speed environment on Burringbar Street is warranted to assist in positive future outcomes for the street. Furthermore, the intersection at Station Street and Burringbar Street is currently underperforming and will need to be addressed with consideration to a possible future diversion road that intends to see the majority of traffic volumes bypass Burringbar Street and the town centre or use peripheral parking to then access Burringbar Street on foot. Changes to this intersection would be required to prioritise north-south movements which will ensure use of the bypass for vehicles not needing to access the town centre and allowing future streetscape revitalisation of Burringbar Street, which is the most important place for the community to clearly establish and showcase its identity.

Argyle Street

Argyle Street is the entry point to the town centre from the eastern approach. Argyle Street extends over the rail line to terminate at the roundabout where Station Street runs north-south and Burringbar Street forms the western continuation. Future plans to reduce traffic impact on Burringbar Street will have some impact to Argyle Street, with various options being considered for an alternative road route, however this will depend on the final route option that Council and the community decide on (see Section 3.3.6).

Tincogan Street

Tincogan Street is predominantly a residential street that takes a significant amount of traffic due to its connection to Murwillumbah Road and role as an informal bypass around Mullumbimby. The street is well positioned to take a greater volume of traffic and has been identified as suitable to become a formal 'alternative route' that would see major through traffic diverted using the link.

While an increase in traffic volumes would be an outcome of a future alternative route on Tincogan Street, the community would also like to see this managed with pedestrian and community needs in mind.

The existing road width is particularly wide to support pedestrian considerations, therefore retrofitting some genuine crossing opportunities at key intersections (Gordon, Dalley and Stuart Streets) should be addressed to support pedestrian needs and to manage increased traffic volumes along Tincogan Street appropriately.

3.3.4 Maintenance of road assets

The status of Mullumbimby's road suggests that the constant demand that is put on these assets exceeds the level of resources apportioned for their maintenance. Much of the town's local roads and streets contain significant pot holes, poor surfacing and uneven verges which was revealed during Mullumbimby Immersion as a major annoyance and perennial problem that the community are sceptical of ever being addressed.

Figures 20 and 21 show the state of the local streets which is reflective of the broader town centre environment and region.

Figure 20: Existing conditions of roads in Mullumbimby

Figure 21: Poor road surface Stuart Street

3.3.5 Brunswick Terrace

Brunswick Terrace connects with Tincogan Street and Murwillumbah Road by an intersection which currently presents hazards for pedestrians and is currently underperforming for motorists. Turning movements into Brunswick Terrace are relatively low as are general traffic volumes however it is being used as an informal bus depot which is opposed by the community. Investigation into modifications to traffic movements in order to make the intersection safer is understood to have community support. Some ideas include making 'left turn only' requirements at all 4 approaches of the intersection or closing off the intersection at both Brunswick Terrace approaches. Figure 22 presents a concept design for the section of the street which would require closing off Brunswick Terrace on both approaches. This option requires detailed traffic engineering analysis to determine its impact across other sections of the road network.

Furthermore, a future design response will need to factor in the need for cyclists, particularly access Brunswick Terrace from the Murwillumbah Road from the northern approach, which is currently unsafe and hazardous for cyclists.

Figure 22: Brunswick Terrace vehicle closure concept

3.3.6 Town centre alternative routes

There is a growing need to develop an alternative route through Mullumbimby to spread some of the traffic away from Burringbar Street to protect and ensure that the centre is in the best possible place to cater for pedestrians, retail and social activity. An alternative route would also take heavy vehicles and general through-traffic from the centre. This was identified during Mullumbimby Immersion and there is strong community support for a town centre alternative route which would remove traffic from Burringbar Street and preserve the town centre as a place where pedestrians can interact and socialise in a less car dominated environment.

Figure 24 presents four available options for consideration for a future town centre alternative route. Each option requires careful planning and should be subject to feasibility studies as some of the options may lead to irreversible land use outcomes by extending low density residential development further from central Mullumbimby and further inducing private vehicle dependency.

Each option is summarised below:

- Option 1 – This option utilises the existing road network and redirects traffic away from Burringbar Street at Station Street. At the existing entry to Burringbar Street (corner of Argyle Street and Station Street), the intersection requires simple re-engineering to redirect traffic away from Burringbar Street as illustrated in Figure 23. To the north, traffic will be directed to Tincogan Street to then travel onwards via Murwillumbah Road. Traffic heading south at Station Street will travel along Fern Street to then join

Coolamon Scenic Drive. This option requires minimal construction works and makes better use of existing road infrastructure.

- Option 2 – Like Option 1, this option uses the existing road network however requires some new road construction to connect Argyle Street with Tincogan Street. The identified route is through the existing un-used reserve on Prince Street and potentially a portion of the Woolworths car park.
- Option 3 – This option predominately runs through an area to the south of town that has been identified for future residential development. The alternative route would extend from Argyle Street by running south through future residential areas with an option to connect with Fern Street while another segment of the road would continue running south before extending west to connect with Coolamon Scenic Drive
- Option 4 –This option allows connection at Main Arm Road and the showground to Tuckeroo Ave, via Coral Ave and Clay's road to allow the residents of these south western residential areas to access the showground and northern areas without having to drive through the centre of town.

Figure 23: Station Street intersection alternative route prioritisation

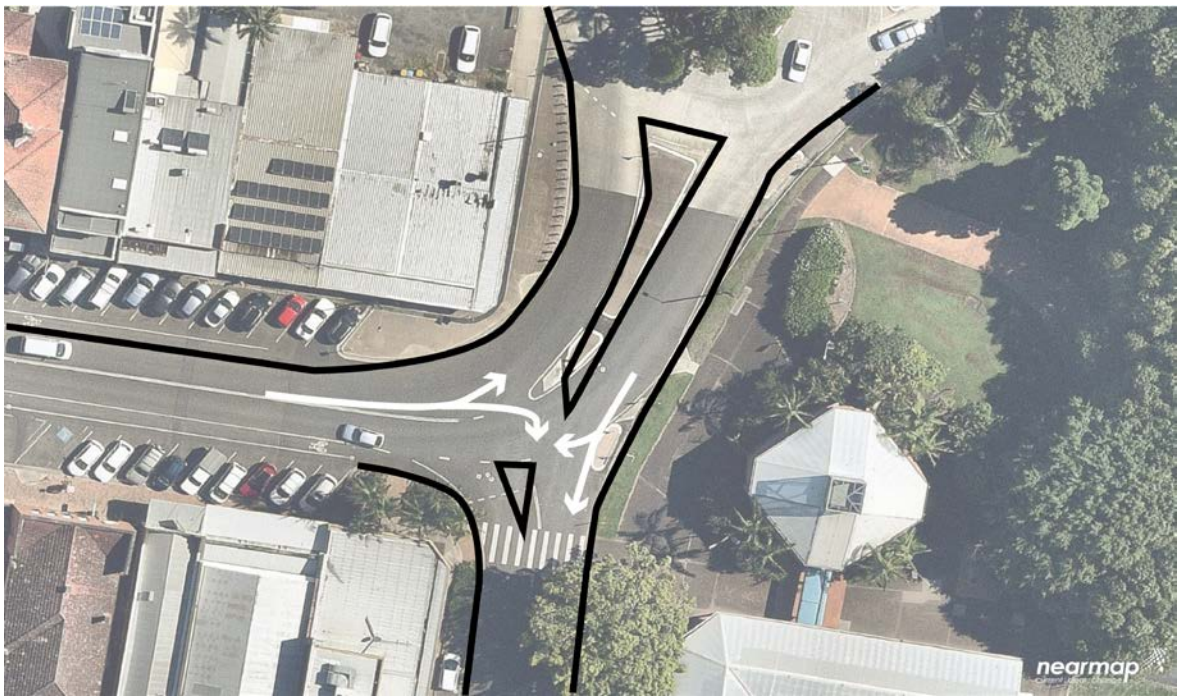
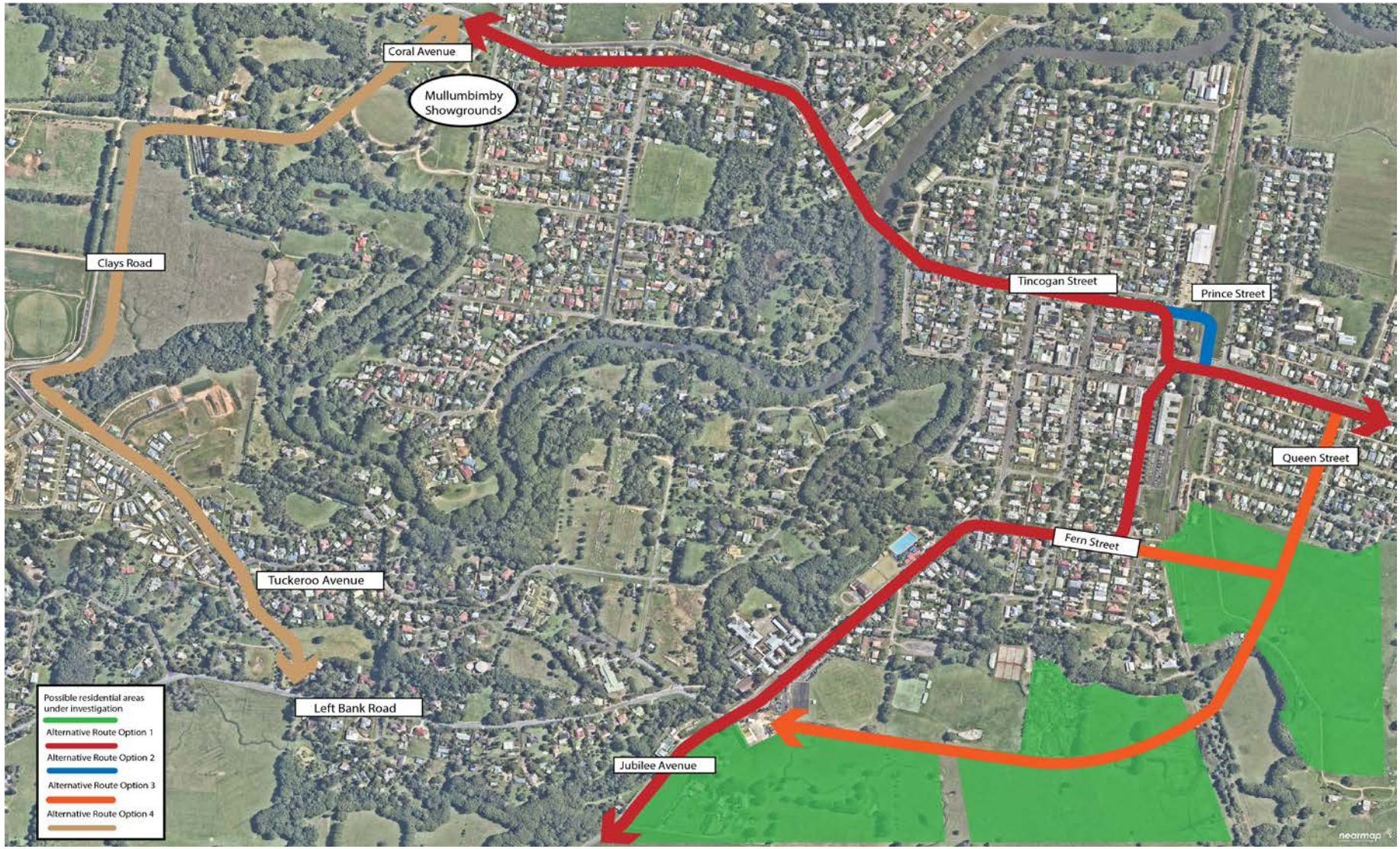


Figure 24: Mullumbimby Town Centre Alternative Route Options


Coral Avenue
Mullumbimby Showgrounds
Clays Road
Tincogan Street
Prince Street
Queen Street
Fern Street
Tuckeroo Avenue
Left Bank Road
Jubilee Avenue
Possible residential areas under investigation
Alternative Route Option 1
Alternative Route Option 2
Alternative Route Option 3
Alternative Route Option 4
nearmap

3.4 Car Parking

Typical of regional towns, car parking is perceived as a major issue in Mullumbimby and the cause of some comment and dissatisfaction among community members and local business. Managing car parking appropriately is a critical element to a successful regional town and is something that must be addressed to support broader land use and sustainable transport objectives in Mullumbimby.

The background material from the "Mullumbimby Have Your Say" community survey conducted in June 2016 indicated that people were very attached to the intimate village feel of Mullumbimby, but also disliked the lack of convenient parking. Ironically providing more convenient parking would seriously detract from the iconic village feel that is Mullumbimby, simply by encroaching on limited and valuable open public space and streetscapes which should be protected as places for people as a priority, not the storing of parked cars. Strange as this sounds, this sentiment is relatively typical of 'iconic' towns that are desirable destinations for visitors and locals. There is a tendency to try and protect what people are enjoying, while at the same time manage the impact of so many people visiting, which can sometimes result in destroying those very values that are trying to be protected.

Typically, an oversupply of car parking results in an environment that is less walkable, less intimate, and less unique, a place that would be distinctly at odds with the Mullumbimby that is so loved and cherished by the local community.

Parking policy can be a powerful tool to curb unnecessary short trips, change driving culture and behaviour while encouraging the uptake of walking and cycling, therefore is appreciated as a critical component of this strategy.

3.4.1 Paid parking

Paid parking has recently become operational in Byron Bay and Byron Shire Council is currently considering the feasibility of paid parking in Bangalow. During Mullumbimby Immersion, there was a genuine curiosity expressed about the perceived introduction of paid parking in Mullumbimby with a mix of community responses and sentiment regarding this possibility. The community are concerned that paid parking in Mullumbimby could likely be a 'cash grab' or 'revenue raiser' rather than a management tool to improve the parking environment in the town centre. This is a typical response in regional towns. The fact is however that revenue streams are extremely limited in modern local government and paid parking generates a legitimate income that can also double as a demand management tool that might induce more people to walk or ride a bike to the town centre.

Paid parking is a common management tool that Council could apply to manage the demand for on-street parking in Mullumbimby. Paid parking is an effective tool when introduced in appropriate locations where parking demand is high, typically when occupancy reaches consistently 85% or above and once the effectiveness of time-restrictions is exhausted. Paid parking can be viewed as the final step in the hierarchy of interventions for managing kerbside space.

While paid parking will fulfil its core function of managing the car parking environment more efficiently and sustainably, it also accrues important revenue streams that would be beneficial for Mullumbimby in the funding for sustainable transport infrastructure and maintenance of local roads. At minimum, paid parking revenue should be sufficient to:

- Pay for pedestrian infrastructure including streetscape beautification/revitalisation interventions as well as sustainable transport infrastructure including protected bike lanes and off-street bike paths
- Pay for the cost of new parking facilities which may include formalising on-street parking in the town centre and adjacent streets or funding off-street at-grade car parks in peripheral locations, if required in the long-term
- Pay for the cost of maintenance and enforcement – ie parking revenue streams should be sufficient to pay for operation of parking facilities.

While there was a modest appreciation directed towards paid parking as an option for Mullumbimby during community engagement, the general community sentiment remains against it. The idea of encouraging regular turnover of vehicles was seen to be at odds with the relaxed environment that community members enjoy however the issue of car parking demand and difficulty to find available car parking was overall one of the overarching issues that defined Mullumbimby Immersion.

There is an understanding that if paid parking is introduced in Mullumbimby, then the local community would be exempt from the regime. Given that the majority of visitors to the Mullumbimby town centre originate locally, the effectiveness of paid parking as both a management tool and a revenue source may not be satisfactory to justify its operation in the first place.

Parking occupancy was observed to be approaching 85% in the very core of the town centre which is an appropriate rate to consider introducing paid parking consistent with best practice. However, there was adequate parking capacity a very short walk from the town centre core. Should Council consider the introduction of parking management recommendations including the expansion of time restrictions, pricing and/or the development of the off-street car park, it would be useful to conduct parking occupancy surveys prior to ascertain the degree of parking demand in Mullumbimby in order to make a more informed and evidence-based decision.

3.4.2 Time restrictions

Time restrictions are currently operational in selected locations within the town centre, particularly within the immediate vicinity to Burringbar Street. Parking is restricted to 2 hours and less in some locations.

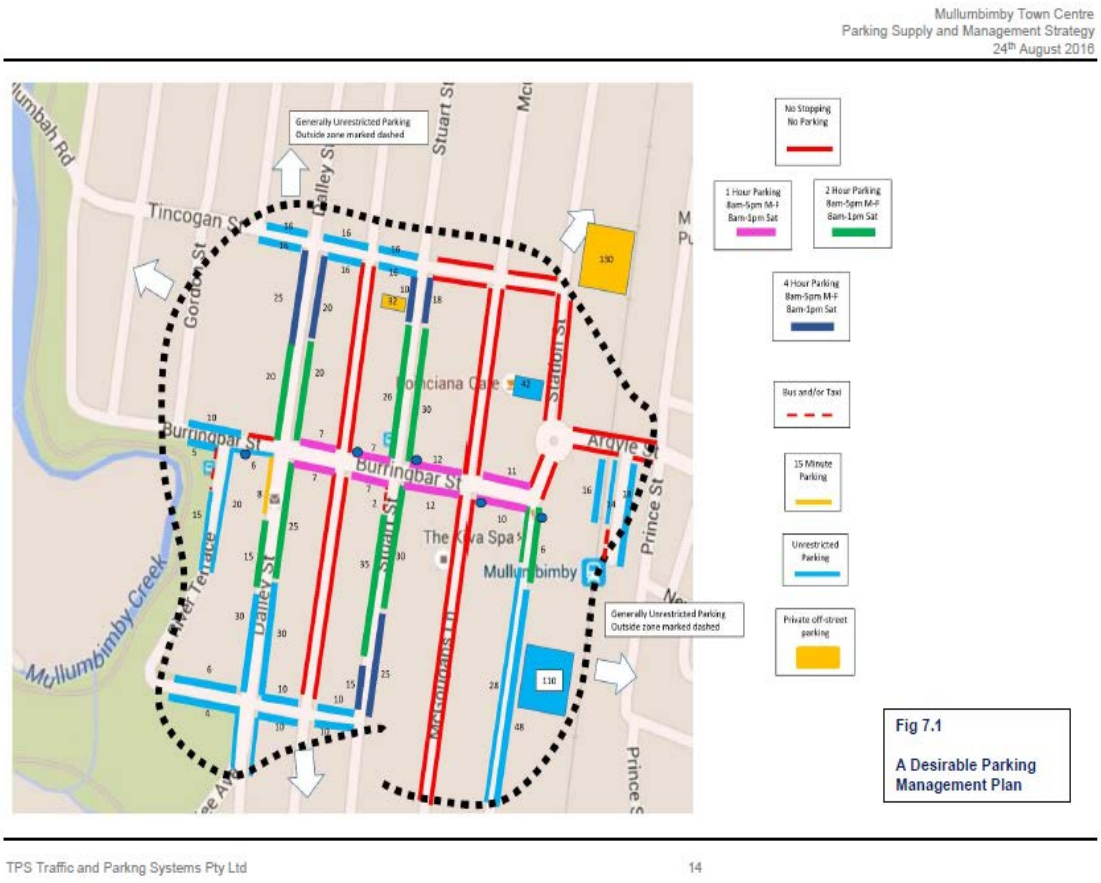
Time restrictions are an effective management tool to prevent employees taking up high demand spaces all day. They can also increase parking turnover by reducing time limits on spaces. This must be weighed up against the fact that time restricted parking does reduce the amount of time available for patrons to stay and spend money in the centre.

Factors that should be considered when expanding time restrictions and the level of restriction (1/2P,1P,2P and 4P) are as follows:

- Areas closest to the main activity centre should be set at 1P and 2P
- Time restrictions correspond with land use. For example parking spaces adjacent to retail and dining should be set at 1P and 2P
- Areas further from the main activity centre are set at 4P and/or longer to accommodate long term demands while encouraging ‘park and walk’ travel behaviour. This refers to visitors and/or employees who park further away from their destination to then access where they are going by foot
- New peripheral off-street car parks (railway sites and River Terrace) are set at all-day parking.

Figure 25 presents the proposed time restrictions for *Mullumbimby from the Mullumbimby Town Centre Parking Supply and Management Strategy* which supports the general principle of encouraging turnover in central locations with 30min and 1P parking while satisfying long term demands in more peripheral areas.

Figure 25: Existing proposed time restrictions (source: Mullumbimby Parking Study)



3.4.3 Peripheral car parking

There is strong support from a large cross-section of the community for Council to increase the supply of car parking in Mullumbimby, with a strong consensus for an off-street car park using vacant land at the railway site to the east of the town centre. Identified sites for potential future peripheral car parking include:

- Railway site 1 – Using vacant land on the railway line north of Argyle Street (this could accommodate parking needs of the primary school)
- Railway site 2 – Using vacant land on the railway line south of Argyle Street
- Railway site 3 – Building a double-storey car park above the existing Council car park to enable flood-free car parking
- Railway site 4 – Using a section of vacant land south of Argyle Street which is currently being used as an informal car parking site.

Peripheral car parking could significantly increase supply of car parking in Mullumbimby while compensating the potential repurposing of some existing on-street car parks in the town centre for streetscape improvement and active travel purposes. The advantage of peripheral parking is that it provides for employees, it provides certainty and convenience for the town centre patrons while also increasing walking around the town. The risks are that this is very expensive infrastructure, and there is some chance (especially in the absence of other measures/incentives that encourage walking and cycling) that people will continue to circulate around the town to look for parking spaces closer to their destination, rather than walk from the edge of the town.

Rail Parking Site 3 is understood to have strong community support due to the need to provide for parking during events of flooding. This double-storey parking option would mitigate flooding risks and ensure parking supply is not impacted when Mullumbimby experiences extreme weather.

An investment of this scale would come at a significant financial cost (approximately $25,000-$50,000 per space) which would be a significant investment for a town of Mullumbimby's size.

However, expanding parking supply in Mullumbimby by developing a site for parking on the centre's periphery would directly complement town centre streetscape projects and active travel initiatives by compensating any removal of on-street car parks in the town centre.

Figure 26: Peripheral car parking sites

Should Council expand its off-street peripheral parking supply in the future, Council should consider ways to soften the hard surfaces that are car parks. Elements include the use of planting and permeable paving which can help soften the visual impact of otherwise bare parking spaces and support adjacent built form rather than dominate it, as shown in Figure 27.

Figure 27: Landscape softening for car parking

3.4.4 Car parking behaviour

Informal parking using nature strips and road reserves is common practice in Mullumbimby, particularly on streets that run perpendicular to Burringbar Street including Dalley Street, Orchid Place and Stuart Street. This is largely a result of parking spillover from more centrally located areas and the cause of great discontent and frustration from local residents who have seen the quality of the grassed areas and nature strips adjacent to their properties deteriorate over many years (see Figure 28).

Formalising these areas to ensure the appropriate parking infrastructure is available for future demand is one option that warrants consideration and investment and could be introduced concurrently with road upgrades and sustainable transport infrastructure and streetscape interventions should Council take action on these matters. Council should formalise these areas in conjunction with other streetscape interventions outlined in this report.

Car parking areas in Mullumbimby that need to be formalised are defined by the study area (blue shade) in Figure 29. Areas within this study area, particularly the southern and northern sections of Stuart and Dalley streets should be prioritised as these are the extension of the town centre that are suitable for longer term parking. Subsequently, formalising car parking spaces at Station Street, Brunswick Terrace, Whian Street and River Terrace could form a more extensive package of infrastructure upgrade works.

Figure 28: Common parking behaviour in Mullumbimby

3.4.5 Car parking development controls

Currently, minimum parking rates dictate the amount of car parking provision that is required for each particular land use and development applications are required to provide on-site parking in order to be approved. When it is not possible to provide car parking on-site, the developer can pay Council in lieu of the car parking via a Section 94 contribution with the intention that the funds accrued will be used to develop off-street car parking in the future.

While there is currently a modest amount of development occurring in Mullumbimby, there is land available to develop an additional 800 dwellings in peripheral locations which will largely form low density detached dwellings. For Council to encourage more diverse housing stock, it could look to reform parking requirements in the town centre (approximately the area bounded by Station Street, Tincogan Street, Fern Street and Brunswick Terrace – see Figure 29) by relaxing minimum parking requirements. This would likely encourage infill development at a reduced price considering the cost of providing parking on-site.

Council needs to develop a rationale for car parking to encourage the sort of development that is best suited within the town centre area which should involve appropriate development (3-storey infill) that is sympathetic to its surrounds and within walking distance to the town centre, thus reducing car dependency.

Should Council look to reform its parking provision through a new policy rationale consistent with state government regulations, it should be noted that:

- Currently Council accrues funding where developers cant provide the required rate of parking on-site. If Council abandoned minimum rates, then there would be no statutory decree to maintain this arrangement, therefore Council would likely forgo an important revenue stream.
- While development in the town centre remains modest, it is unclear how effective the current scheme is in accruing a notable amount of funds simply due to the slow rate of development approvals. While relaxing parking minimums may halt the funds accrued by Council, it will likely stimulate better housing diversity in the town centre and support walkability and cycling objectives by reducing car dependency.

3.4.6 Using car parking funds

Should Council maintain the current development arrangements, another option that Council should investigate is the possibility of using Section 94 funds for sustainable transport purposes. This would see the use of funds accrued for investment purposes for cycling, public realm and streetscape works in the town centre. For example, Council could investigate ways to use these funds to specifically fund development of an on-street bike path, improvement in streetscapes or expansion of regional cycling networks.

Furthermore, Section 94 revenue accrued could also be used to fund development of a peripheral car parking site, which is understood to have community support. This option would apply to developments in the town centre where parking cannot be provided onsite.

It is understood that Section 94 funds accrued could significantly contribute to development of a preferred peripheral car parking site.

Figure 29: Town centre parking reforms for development and on-street parking formalisation

3.4.7 Loading Zones

Loading zones arose as an issue during Mullumbimby Immersion with a perceived undersupply of loading zones across the town centre. Loading zones allows delivery vehicles to park in a formal area for up to 30-minutes to unload goods. Appropriate allocation of loading zones is critical to ensure local retailers can receive goods and services while delivery drivers don't impact local traffic and parking conditions.

Expansion of current loading zones was regularly referenced by the community as a critical need in the town centre. The community would like to see the relocation of some loading zones to areas behind Burringbar Street in order to free up space on Burringbar Street and other central streets for other uses.

Recommendations for the relocation and expansion of loading zones is provided in Section 4.4.6.

3.5 Public Transport

Mullumbimby is currently serviced by four bus route services that operate regionally (the 610/635 to Byron Bay and Lismore, 640 to Lennox Head and Ballina Airport,645 to Ocean Shores and Billinudgel and 165 to Tweed Heads).There is not a local Mullumbimby service as the difficulty with towns and villages the size of Mullumbimby is that for such short distances, travel in and around the town is much more easily catered for by walking, bike trips and private car trips. The low-density surrounds make it difficult to provide any frequency for a local Mullumbimby bus service, meaning that in this environment public transport is not a real replacement proposition for other modes, but more of a social service for people who do not have access to other modes.

Regional inter urban services, which are services that operate across the regional and between major centres, provide an opportunity to reduce car dependency. These services will perform much better if they are more frequent and if there are more route pick up/drop off points across Mullumbimby and into residential areas. These inter urban services will become more viable if there is a more diverse range of housing which could include town houses and small sub divisions in order to increase residential density in key catchments. To be able to walk to frequent inter urban bus services (Byron/Ballina/Lismore/Tweed Heads) increases the attraction of towns like Mullumbimby to a much wider demographic and increases its social, economic and environmental robustness.

Common to all regional areas and low density urban areas is that the frequency of bus service provision is low due to the vastness of the catchment. It is often commercially difficult for a bus to operate in this environment on a frequent basis simply due to the patronage being very spread out. In Mullumbimby, bus frequency is low for this very reason. There is not a high enough concentration of people in the town or between key destinations to warrant expansion of services and improved frequency. This is particularly an issue for connections between different regional services as it is difficult for timetables to align appropriately which affects reliability across services to regional destinations including Byron Bay, Gold Coast and Ballina Airport.

3.5.1 The future role of buses

On demand bus services allow flexible user-oriented services that respond to different routing and scheduling based on patronage demand. On demand services typically operate with small and medium vehicles operating in shared-ride mode between pick-up and drop-off locations according to passenger's needs. There is possibly some demand for such a service in Mullumbimby and warrants further investigation. The services could be facilitated either by Council or the private sector, or in partnership.

However, the feasibility of a scheme like this is closely linked to how Council intends to manage car parking. If car parking remains relatively abundant and free in town, then there is no incentive for residents to switch to an on-demand bus service. However, this service could be of value to both younger and older cohorts of the community.

Use of smaller buses would support an efficient on-demand bus service. Smaller buses are perceived to be more flexible and better suited to the users of the service. There could also be opportunities for an on-demand service to connect with intertown services and simplify them.

Smaller vehicles may also be able to access established areas where the roads are not bus friendly and public transport access is not currently possible. This way of connecting up the bus network would allow for trialling a more flexible local service. The flexibility provided could include on-demand route diversions to provide to-home service, using taxis at low demand times, or demand-responsive service at nights and weekends for passengers connecting from an intertown service.

3.5.2 The return of rail to the region

Improving public transport access was a major theme that emerged from Mullumbimby Immersion with a base level of public transport service an essential right for all members of the community. Children should be able to access Byron Bay, Brunswick Heads and other regional towns as should other community members who wish to not be so reliant on their private vehicle.

The community would like to see the return of passenger rail to the region that would provide access from Mullumbimby to the towns of the region. Council is currently undertaking a feasibility study of the rail corridor to look at options for its re-use.

3.5.3 Car Share Policy

It is understood that Byron Shire Council is engaging with car share providers to introduce car sharing opportunities in Byron Bay which could extend to other towns including Mullumbimby. A car share program would offer additional transport options for a range of users including residents, tourists and other visitors to Mullumbimby under an affordable and flexible arrangement.

There is currently no Council policy for car share schemes and that a policy should be developed to support this initiative. A car share policy or strategic position on car sharing provision would develop a set of objectives and ensure transparency and consistency with regard to Council's other policy objectives. The policy would ensure objectives can achieve:

- Using on-street parking spaces more efficiently by replacing the parking demand created by underused private vehicles
- Reducing traffic congestion in Mullumbimby by reducing the number of vehicles that need to travel throughout the town centre
- Supporting economic outcomes by reducing the need of businesses and individuals to own a private vehicle and car space
- Supporting affordable and innovative development by reducing the need to provide on-site car parking spaces
- Supporting health outcomes including more walking and/or cycling throughout Mullumbimby

3.5.1 Peer-to-peer car sharing

Peer-to-peer car sharing is another car sharing model whereby existing car owners make their vehicles available for others to rent for short periods of time.

The main difference is that traditional car share fleets are owned by companies, whereas peer-to-peer cars belong to regular community members, who have made their cars available for others to share. This option could appeal to Mullumbimby residents who may own more than one car or who may not require their car regularly. Peer-to-peer car sharing could provide additional income for residents and contribute to sustainable outcomes in the community.

Peer-to-peer car sharing keeps money in the community and makes better use of the un-used privately owned vehicles by providing greater options for both car owner and potential user.

4 Strategies

In this section we provide recommendations and interventions to support a shift to more sustainable modes of travel in Mullumbimby as well as general guidance to support the Byron Shire Council in its management of the Mullumbimby transport system.

Project implementation will be managed under a sequencing model to ensure long-term transport objectives are achieved consistently with regard to every transport mode.

Here we introduce strategies for each mode of transport which have been categorised under the following modes:

- Pedestrian
- Bike riding
- Public transport
- Car parking
- Cars and traffic

4.1 Walking

Strategy

Create an environment where walking is a safe, enjoyable and accessible travel choice for both residents and visitors to Mullumbimby.

4.1.1 Action: Improve intersections

- Burringbar Street/Stuart Street intersection
  Provide pedestrian crossings at all approaches to the intersections of Burringbar Street/Stuart Street. Zebra crossings that protrude away from the kerb reduce the crossing distance for pedestrians by bringing both sides of the road closer together. The treatment will be raised and built up to further support a slow traffic environment and enable safer conditions for pedestrians as shown in Figure 30 and Figure 31. Figure 32 shows an example of this concept which demonstrates how it reduces the speed of vehicle movements through tighter kerb radii, as opposed to the conventional kerb return radius which is indicated by the dotted line. This concept can be used as a prototype for other key intersections listed herein.
- Burringbar Street/Dalley Street
  Provide pedestrian crossings at all approaches to the intersections of Burringbar Street/Dalley Street. Generous zebra crossing will reduce crossing distance for pedestrians and corner edges will tighten kerb radii and slow down moving vehicles because the kerb will protrude further into the street. The treatment will be raised and built up to further support a slow traffic environment and enable safer conditions for pedestrians.
- Dalley Street and Tincogan Street
  Subject to future use of Tincogan Street as an alternative route, introduce appropriate intersection treatment to slow vehicle traffic and provide improved crossing opportunities for pedestrians. The community have a preference for high-quality zebra crossings instead of pedestrian refuges. A future design response will need to consider these factors consistent with relevant design standards and the forecasted volumes of traffic expected on Tincogan Street, should it become a formal alternative route.
- Stuart Street and Tincogan Street

Subject to future use of Tincogan Street as an alternative route, introduce appropriate intersection treatment to slow vehicle traffic and provide improved crossing opportunities for pedestrians. The community have a preference for high-quality zebra crossings instead of pedestrian refuges. A future design response will need to consider these factors consistent with relevant design standards and the forecasted volumes of traffic expected on Tincogan Street, should it become a formal alternative route.

Figure 30: Burringbar Street and Stuart Street intersection

Figure 31: Burringbar Street Intersection concept treatment

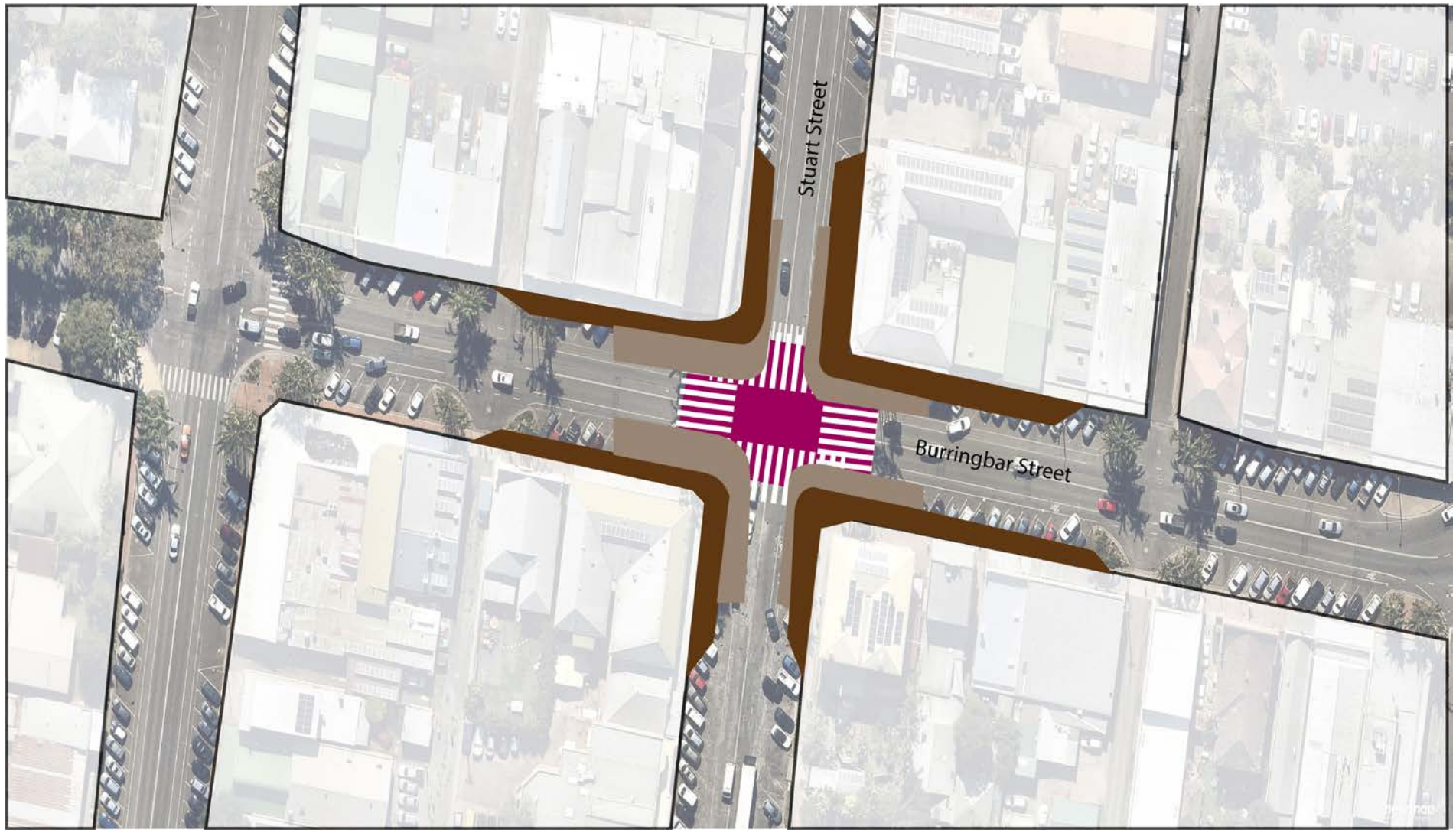
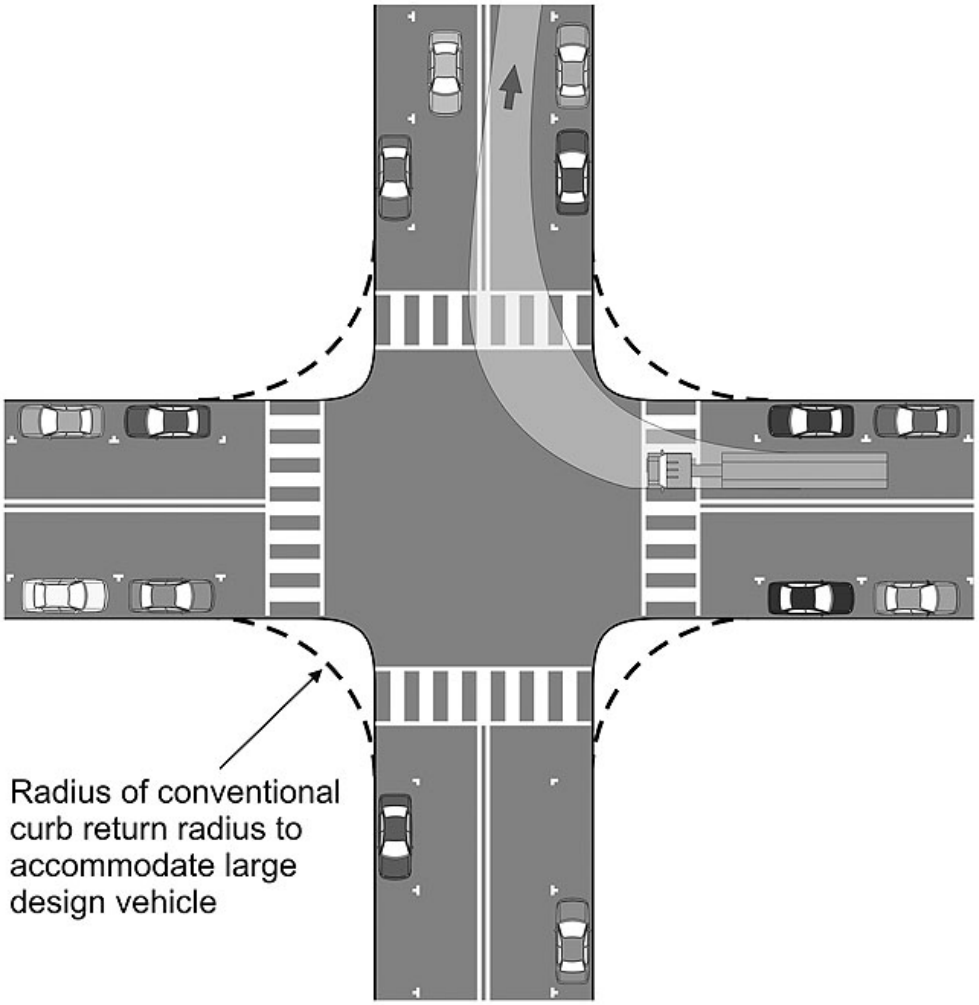


Figure 32: Intersection turning radii



4.1.2 Actions: Contain activity within walkable catchment

- **Infill development**
  Encourage infill development (residential and retail) within the walking catchment of Mullumbimby and coordinate reforms to Council's planning policy to enable this.

4.1.3 Action: Address river disconnect

- Expand pedestrian links to enable legible and permeable pedestrian linkages across both sides of the river. Introduce pedestrian bridges at the following locations:
  - The end of Burringbar Street connecting Palm Park to Riverside Drive across the river (this project is the number one priority)
  - Bridge to connect with the Tallowood Ridge Estate with Hakea/Rush/Kamala court area in Pine Avenue Estate.

The cost of connecting Burringbar Street to Riverside Drive and the residential settlements on the western side of the river represents a significant long-term investment for Council. The community strongly favour this project and would like to see it prioritised. Providing a direct link from Burringbar Street to the settlements on the western side of town will provide much needed walking and cycling connections and significantly reduce

the distance from these settlements to the town centre, which is currently limited to vehicle access by Murwillumbah Road.

4.2 Bike Riding

Strategy

Make cycling an enjoyable and accessible mode of transport for people of all confidence levels by committing to the provision of world class, safe and sustainable cycling infrastructure.

4.2.1 Action: Town centre cycling opportunities

- **Expand protected cycling network in Mullumbimby town centre**
  Introduce separated bike lanes along strategic routes to enable the provision of on-street protected cycling infrastructure. An example of a high-quality protected bike lane is provided in Figure 33 which shows the bike lane separated from the traffic lane together with some complementary landscape features.

  It is recommended that Council introduce protected bike lanes (separated from parked vehicle by concrete or landscaped buffer) at the following locations:

  - Stuart Street (Whian Street to Tincogan Street) This is a strategic north-south route and should be a priority project.
  - Dalley Street (Whian Street to Tincogan Street) This route would form a wider package of works should funding be available.

- **Burringbar Street**
  Burringbar Street will be a shared street environment in the future catering for cyclists and pedestrians in a safe and slow vehicle environment. Given Burringbar Street's role as an east-west spine of the town, cyclists should be given improved priority to enable safe and efficient trips.

  There are currently two options that would improve cycling along Burringbar Street. Firstly, a protected bike lane would enable safe, efficient, and direct cycling connections, catering for all user groups and confidence levels, along the street and provide a strategic link through the town centre to peripheral locations, including schools and residential areas.

  The second option is a shared street which would see cyclists share the street in a mixed traffic environment at slow (20/30 kmph) and managed vehicle speeds. This option would not require a protected bike lane. Applicable cross sections for both options for Burringbar Street are provided in Section 4.3.1.

  It is advised that Council, together with the Guidance Group and the broader community work together to select the preferred option for Burringbar Street. During this process, Council should test both options as part of a 'pop up' trial using tactical urbanism. See Section 4.3.3.

Figure 33: Protected bike lane, Sydney

4.2.2 Action: Improve regional cycling

- Expand regional cycling network to connect peripheral locations (schools, community gardens, showgrounds and sports fields) to town centre as shown in Figure 34 and 35 which includes:
  - Off-road cycling connections along Murwillumbah Road to Showgrounds and residential areas
  - Off-road cycling connections along Jubilee Avenue, Coolamon Scenic Drive and Left Bank Road to schools, sports facilities and community gardens
  - Off-road cycling connections along Argyle Street to Gulgan Road
  - Brunswick River bike path linking residential areas to the west of town as well as linking Mullumbimby with Brunswick Heads. A staged approach is advised for this project with the first section of path to commence from the south-western edge along to Murwillumbah Road. Following sections of the path (north of Murwillumbah Road) could follow subject to funding availability (refer to Implementation Plan)
  - Cycling route linking Mullumbimby with other regional towns in the Byron Shire including Brunswick Heads, Bangalow and Mullumbimby using the multi-purpose rail corridor
  - Burringbar Street to be used as a pedestrian spine of Mullumbimby with cycling opportunities in a shared street environment or protected bike lanes (to be decided by Council, Guidance Group and community) and improved connections to designated cycling corridors.

Figure 34: Town centre cycling interventions

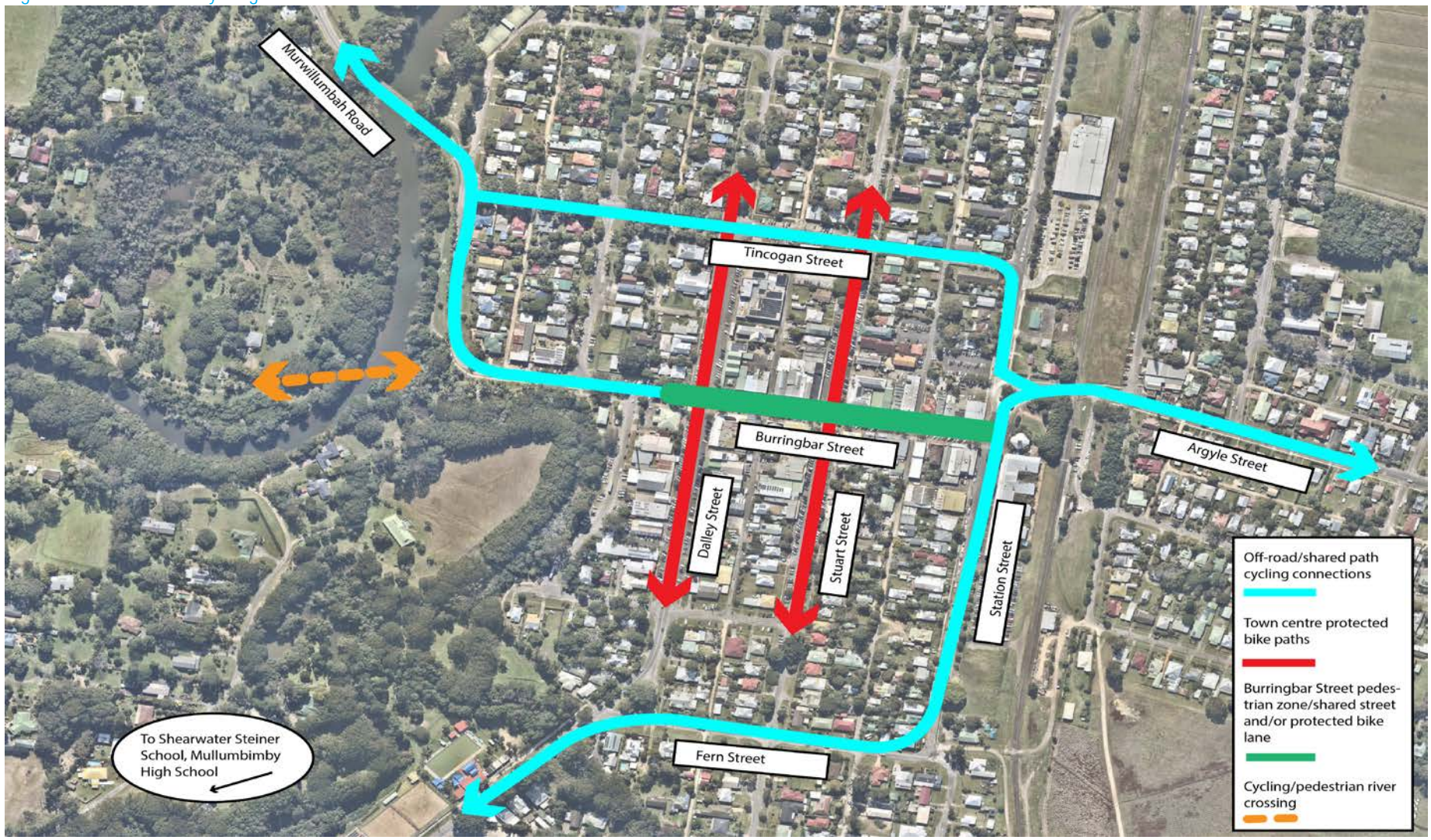


Figure 35: Cycling network overview

4.2.3 Action: Bike parking facilities

- **Bike Parking Facilities**

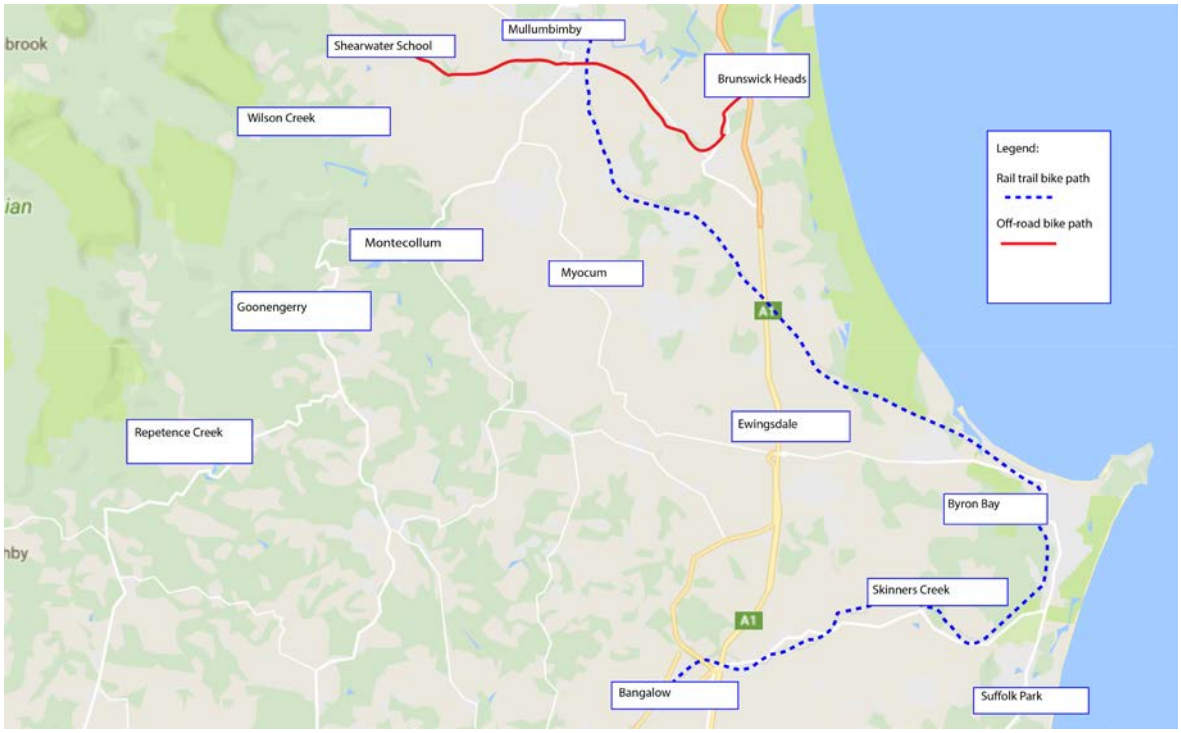
  High quality bike racks should be provided at several locations in Mullumbimby. Key locations are shown in Figure 36. Bike racks should be high quality and attractive street elements that contribute to the broader look and feel of the towns urban form. Bike parking facilities should be introduced using a distributed model.

Figure 36: Bike parking facilities map

4.2.4 Action: Re-use of rail corridor

- **Use existing rail line for regional cycling link**
  Commence detailed planning of a regional cycling network using the existing rail corridor to link up Mullumbimby to key regional townships including Bangalow and Byron Bay as presented in Figure 37. Council is currently looking at the feasibility of a light rail service to be operational along the existing corridor so any future cycle link would need to acknowledge this.

Figure 37: Regional cycling network using multi-purpose rail corridor



4.3 Street network, cars and traffic

Strategy

To ensure the street and road network operates effectively and safely for all users while supporting Mullumbimby's boarder sustainable transport goals.

4.3.1 Action: Street cross sections

- **Recommended cross-sections for key streets in Mullumbimby are outlined below. In general, the aim is to:**
  - Maximise footpath width;
  - Minimise pedestrian crossing width;
  - Minimise car lane width (3.0m)
  - Provide separated spaces for bikes where speeds exceed 30 km/h.

Cross sections are recommended to be introduced at the following locations (refer to Figures 38-43):

- Stuart Street

- Burringbar Street
- Dalley Street

Figure 38: Cross section Burringbar Street (Option 1: shared street)

Figure 39: Burringbar Street (Option 2: protected bike lanes)

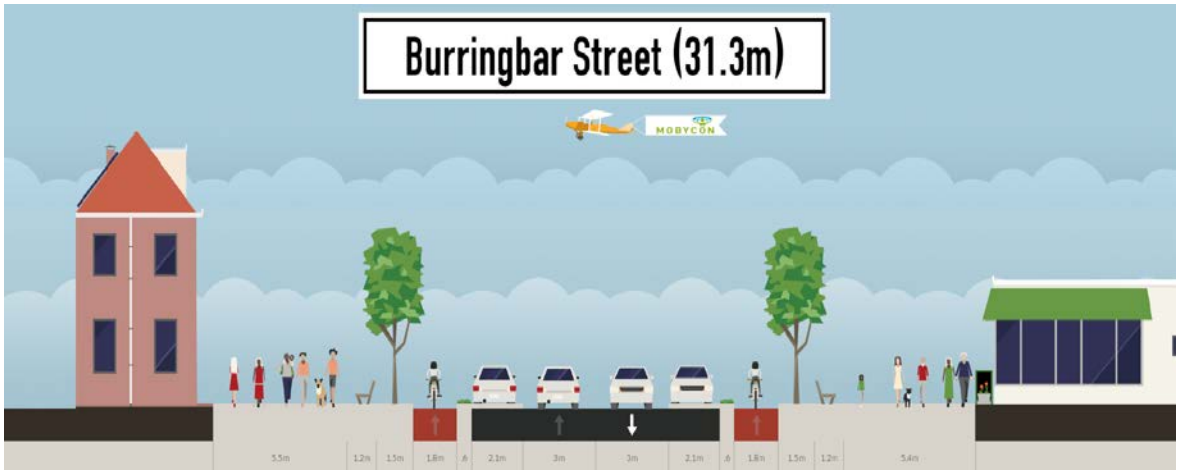


Figure 40: Cross section Dalley Street Option 1

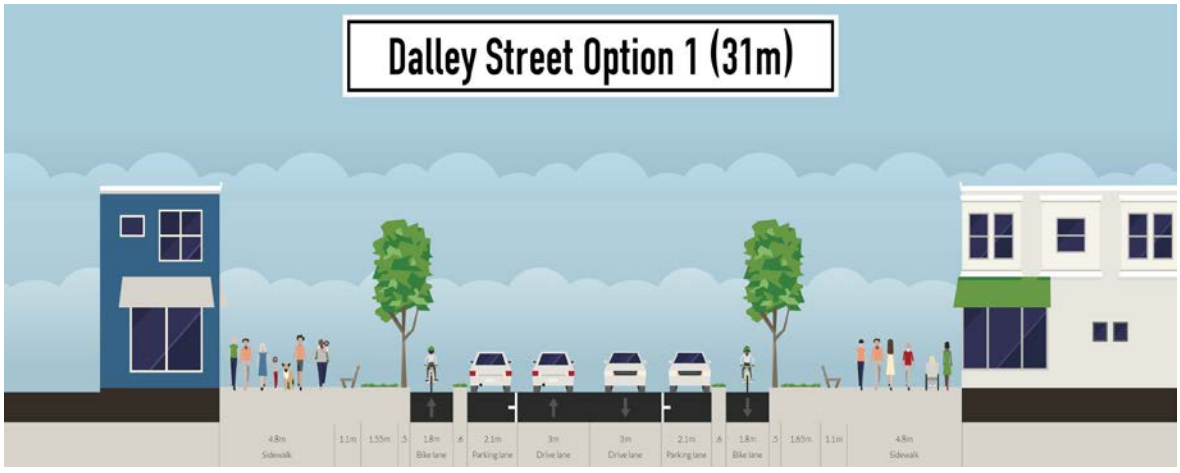


Figure 41: Cross section Dalley Street Option 2

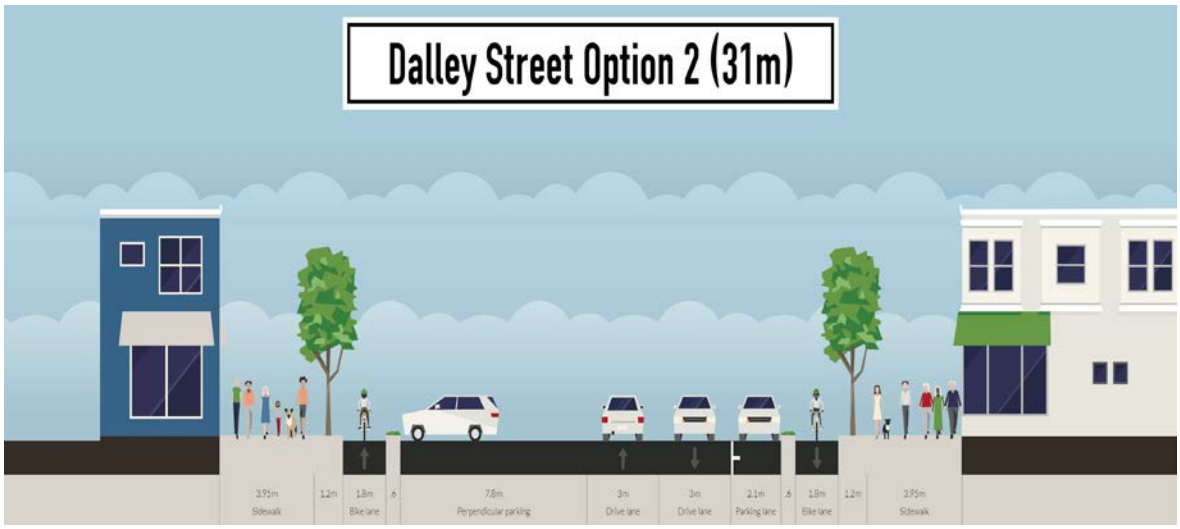


Figure 42: Cross section Stuart Street Option 1

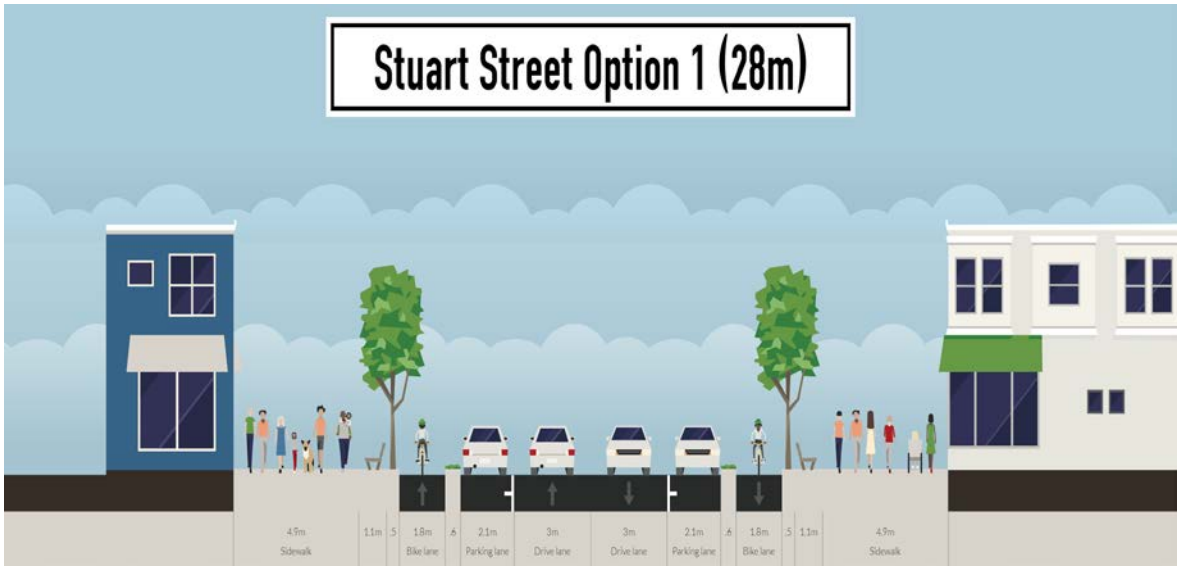
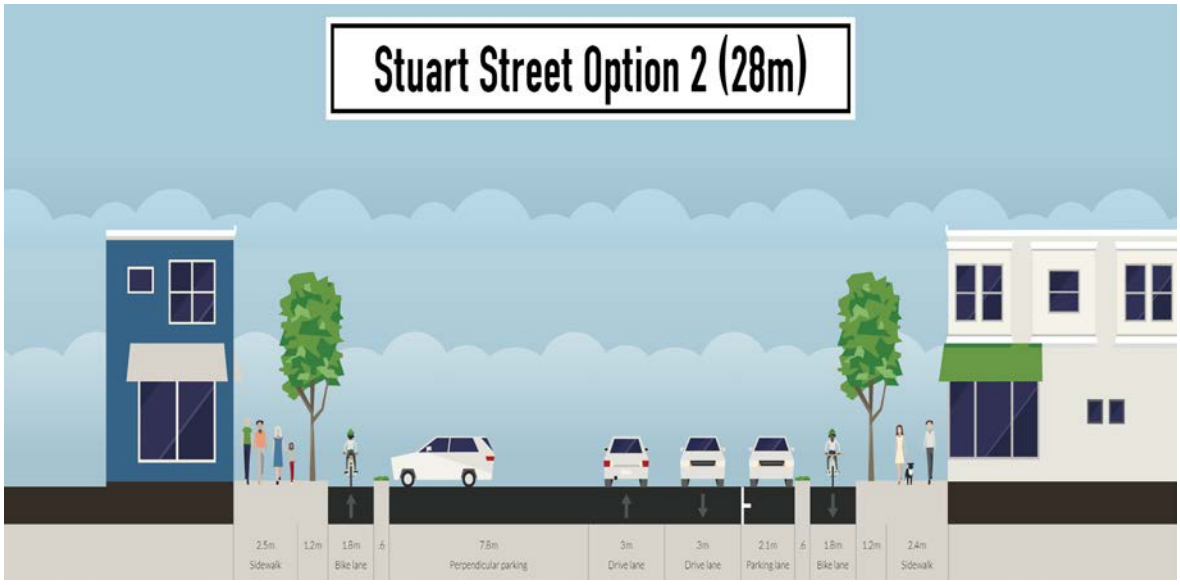


Figure 43: Cross section Stuart Street Option 2



All three major town centre streets share similar road dimensions. Property to property road dimensions for Burringbar Street is 31.3 metres, Dalley Street 31 metres and Stuart Street 28 metres.

Burringbar Street

Burringbar Street will become a pedestrian spine of the town centre creating a safe environment for pedestrians and cyclists to interact in a slow and managed traffic environment. Option 1 supports a shared street concept where cyclists, pedestrians, social activities, parking, and local car traffic are all co-managed in a shared environment. Shared streets are typically defined by having the following attributes:

- Kerb-free paving surface – no street level differences, however this isn't always required
- Signage – minimal road signage
- Street gateway – a transition element encourages drivers to adapt to the new shared environment
- Tactile paving – delineates use
- Reduced traffic speeds – visual street narrowing, street trees, landscaping, changes in materials and colors support a slower vehicle environment and encourage greater pedestrian activity.

The vision for Burringbar Street as a flat, paved, shared street is understood to have considerable community support.

Option 2 for Burringbar Street introduces protected bike lanes to the street which will provide important east-west connectivity for cyclists including school children, women and the elderly. Protected bike lanes encourage greater participation in cycling as they facilitate safe riding conditions separated from mixed traffic. Burringbar Street is a suitable location for protected bike lanes because it is the east-west spine of the town which in the future will need to cater for greater trips. Burringbar Street is also the most active part of the town centre where cyclists, pedestrians and vehicles currently interact.

Both Option 1 and Option 2 for Burringbar Street require the existing angle parking configuration changed to parallel parking in order to expand pedestrian/cycling facilities. It is understood that parking demands could be directed to a future consolidated parking site, in a peripheral location. See Section 4.4.3.

Stuart Street and Dalley Street

Option 1 (figures 40 and 42) maximise footpath space at 4.8 metres and 4.9 metres on both sides of the street for Dalley Street and Stuart Street respectively. Protected bike lanes are introduced to cater for safe cycling opportunities protected from traffic. Parking is maintained however repurposed to parallel parking and traffic lanes are formalised to 3 metres to support slower and safer vehicle movements.

Option 2 (figures 41 and 43) sacrifices footpath space in order to maintain angle parking on one side of the street. Footpaths are 3.95 metres and 2.5 metres for Dalley Street and Stuart Street respectively with protected bike lanes introduced at 1.8 metres wide. Parallel parking is introduced on one side of the street while traffic lanes are formalised at 3 metres to support slower and safer vehicle movements.

4.3.2 Action: Alterative town centre route

- **Commence planning an alternative town centre route**
  Commence detailed feasibility study to test the best option for an alternative town centre route. It is the MRCagney position that the preferred alternative route option is Option 1 due to the utilisation of

existing infrastructure and containment of possible outwards residential sprawl, as associated with Option 3.

Option 4 is an existing route that requires maintenance to cater for greater demands. Traffic management along Tincogan Street will need to be changed to prioritise east-west vehicle movements, as opposed to the current situation of north-south priority. See Section 3.3.6 for each option.

4.3.3 Action: Streetscape trials and tactical urbanism

- **Trial town centre street closures**

  Conduct a trial period of streetscape projects by undertaking tactical urbanism 'pop up' initiatives to test and trial recommended streetscape, active travel and street design projects for Burringbar Street. Street elements to test and trial could include introduction of parallel parking, bike lanes, expanded footpaths, and intersection treatments. See Figure 44 and 45 for examples.

Figure 44: Tactical urbanism trial, Kansas City, USA

Figure 45: Extended corner kerb, New Jersey, USA

4.3.4 Action: Brunswick Terrace

- **Close off Brunswick Terrace to traffic**
  Recommend Investigation of traffic modification treatments to either side of Brunswick Tce (which may include consideration of closure of both ends) to make intersection safer for traffic, cyclists and pedestrians. Existing conditions for cyclists transferring from Murwillumbah Road to Brunswick Terrace is unsafe and will need to addressed through a future design solution.

4.4 Car Parking

Strategy

Manage parking in Mullumbimby to support positive active travel outcomes and adequate accessibility for those with a genuine need for private car travel.

4.4.1 Action: Minimum parking requirements

- **Review minimum parking requirements for developments**
  Council should review its parking requirements for development/changing land uses in the town centre for the purpose of relaxing minimum parking requirements. The rationale for this process would be to improve housing diversity in the town centre, improve active travel outcomes, reduce parking demand, reduce traffic congestion and reduce the cost of development. Should Council relax/abolish minimum parking rates, it would apply to the areas shown in Figure 46.

Figure 46: Applicable area for relaxing parking minimums and formalisation of on-street parking

4.4.2 Action: Formalise parking in residential streets

- **Formalise on-street parking in residential areas**
  Enhance the quality of car parking by formalising spaces. This applies to the following areas within the study area (blue shade) in Figure 46 as a priority:
  - Stuart Street

- Dalley Street
- Whian Street
- Tincogan Street
- River Terrace
- Brunswick Terrace

4.4.3 Action: Peripheral car parking

Develop peripheral parking sites

Develop peripheral car parking sites consistent with community preferences. Identified locations include four sites along the railway corridor as illustrated in Figure 47. Site 3, which would form a double-storey parking facility above the existing Council car park is understood to have strong community support due to the need to provide flood-free parking. Site 4, which is currently being used to park informally, is suitable to cater for parking in the interim period. Council should fully fund its preferred car parking site using Section 94 funds.

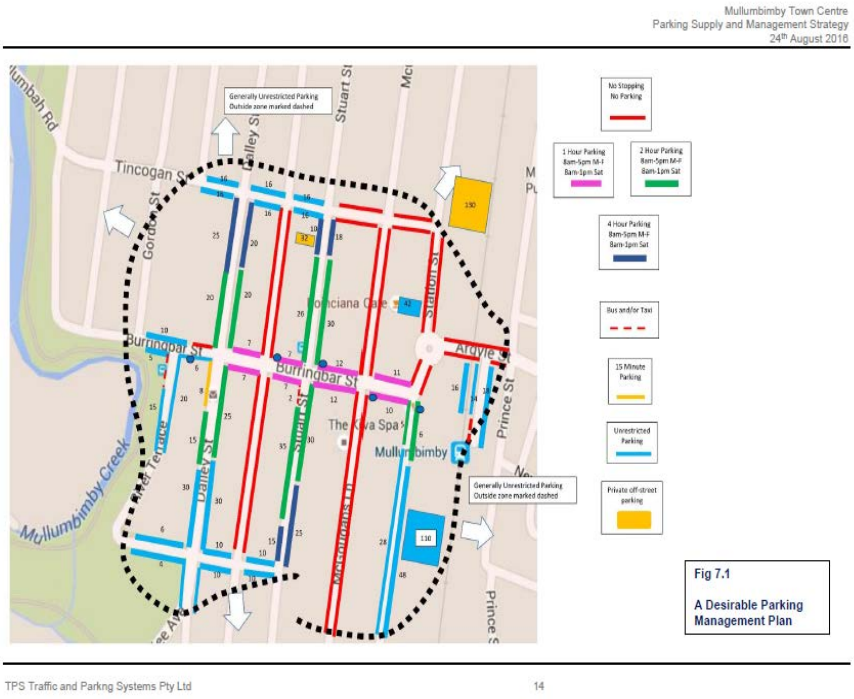
Figure 47: Peripheral parking locations

4.4.4 Action: Time restrictions

Introduce revised time restrictions

Introduce revised parking time restrictions as illustrated in Figure 48 and consistent with the Mullumbimby Town Centre Parking Supply Management Strategy.

Figure 48: Parking time restrictions



4.4.5 Action: Paid Parking

- **Monitor parking occupancy**

  Monitor car parking occupancy in Mullumbimby and investigate paid parking as a management tool, consistent with Council's policy for paid parking in Byron Bay.

4.4.6 Action: Loading zones

- **Expand loading zones**

  Council expand the provision of loading zones, consistent with the *Mullumbimby Town Centre Parking Supply and Management Strategy*, in the town centre as illustrated by Figure 49 to areas behind Burringbar Street with the intention of gradually removing some on-street loading zones.

Figure 49: Proposed loading zones

4.4.7 Action: Accessible parking

Ensure streetscape works include accessible parking provision

Council should ensure any streetscape works in central Mullumbimby include adequate provision of accessible parking for people with a disability.

4.5 Public transport

Strategy

Ensure that the provision of public transport is high-quality, accessible and efficient in serving community needs.

4.5.1 Action: Develop car share policy

- **Develop car share policy consistent with Council's transport objectives**

  It is recommended that Byron Shire Council develop a car share policy to articulate the role of car share services in the future Byron Shire transport sector and the systems that are needed to be put in place to enable this. While there is likely more demand for this service in Byron Bay, the policy should be a shire-wide document that includes smaller townships like Mullumbimby, Brunswick Heads and Bangalow, providing guidance on how to introduce and manage a service of this nature in the future in Mullumbimby.

4.5.2 Action: Shuttle bus service (on-demand)

- **Pursue on-demand shuttle bus options**

  A local on-demand bus service is a viable transit option for Mullumbimby that would operate like that of a shuttle bus service. This could be a private sector opportunity or more likely a collaboration between Council and/or state government together with a private operator. It is recommended that Council trial this service initially while assessing its ridership and use in order to determine its long-term feasibility.

4.5.3 Action: Public transport provision

- Advocate for improved service provision of the public transport network

It is recommended that Council continue to advocate for improved bus services in Mullumbimby and across the Shire to improve frequency and punctuality.

Given the existing land use context of Mullumbimby, there are some opportunities for improving service or advocating for projects that will enable improved service. There are also opportunities to leverage public transport for development of the town centre. These opportunities include:

- Intensifying development within the town centre (appropriate 3-storey development) to increase demand for public transport services
- Increasing frequency and span of service on bus routes in order to better serve a broader variety of trip types and broader customer demographic
- Streamlining the bus network to remove duplication and reallocating resources to improve span and frequency of the remaining services
- Developing a plan to improve bus stop access and facilities, based on evidence about stop usage and needs
- Supporting an increase in bus frequencies to 30-minute intervals
- Collaborating with the NSW Government to develop a policy framework that enables multiple funding partners to establish or upgrade public transport provision and service
- Advocate prioritising new services to settlements with high numbers of younger or older persons
- Collaborate with state government transport agencies to share more data about public transport
- Complete feasibility study for transport corridor (currently underway) and implement recommendations in collaboration with State Government agencies
- Conducting on-demand bus service study or trial.

5 Summary of Recommendations

The table below presents a summary of recommendations and actions that support long-term transport objectives for Byron Shire Council.

Transport mode	Strategy	Recommendation
Walking	*Create an environment where walking is a safe, enjoyable and accessible travel choice for both residents and visitors to Mullumbimby.*	**Introduce new intersections** ↘ Burringbar Street/ Stuart Street ↘ Burringbar Street/Dalley Street ↘ Tincogan Street/Stuart Street (subject to alternative route option) ↘ Tincogan Street/Dalley Street (subject to alternative route option) ↘ Tincogan Street/Gordon Street (subject to alternative route option)
		Contain activity to walkable catchment ↘ Encourage infill development within the walking catchment of Mullumbimby
		River crossings ↘ Introduce pedestrian bridges to connect both sides of the river at the following locations: o The end of Burringbar Street connecting Palm Park to Riverside Drive across the river (this is the priority project) o Bridge to connect with the Tallawood Ridge Estate with Hakea/Rush/Kamala court area in Pine Avenue Estate.
		Footpath upgrades ↘ Upgrade footpaths along key pedestrian networks through town centre and from residential areas to town centre and traffic generating areas (i.e. schools etc.)
Bike Riding	*Make cycling an enjoyable and accessible mode of transport for*	**Town centre cycling opportunities** ↘ Introduce protected on-street bike lanes at

	people of all confidence levels by committing to the provision of world class, safe and sustainable cycling infrastructure.	priority locations (see Figure 34): o Burringbar Street (if preferred option) o Stuart Street (Whian Street to Tincogan Street) o Dalley Street (Whian Street to Tincogan Street).
		Regional cycling opportunities ↘ Expand regional cycling network to connect peripheral locations (see Figure 35) including: o Off-road on Murwillumbah Road to Showgrounds and residential areas o Off-road connection on Coolamon Scenic Drive and Left Bank Road to schools, sports facilities and community gardens o Off-road cycling connections along Argyle Street to Gulgan Road o Brunswick River bike path linking residential areas to the west of town and route to Brunswick Heads (staged sequential approach) o Cycling path linking Mullumbimby with other regional towns using the multi-purpose rail corridor o Burringbar Street to be used as a pedestrian spine of Mullumbimby with cycling opportunities in a shred street environment or protected bike lane.
		Bike parking facilities ↘ Expand bike parking facilities consistent with locations identified in Figure 36.
		Rail corridor multi-purpose bike track ↘ Commence detailed design and planning for a bike path (in conjunction with keeping rail infrastructure for any future rail return) connecting Mullumbimby with other key towns along the existing rail

		line.
		Trial shared street treatments/cycling infrastructure in Burringbar Street ↘ Conduct a trial of treatments (either shared street treatments or protected bike lanes) in Burringbar Street to test impact on pedestrian and cyclist safety and vehicle behaviour. This trial will use tactical urbanism concepts and requires modification of existing angle parking to parallel parking.
Street network, cars and traffic	*To ensure the street and road network operates effectively and safely for all users while supporting Mullumbimby's boarder sustainable objectives.*	**Street cross-sections** ↘ Introduce standard town centre cross-sections at identified intersections (refer to figures 38-43, including: o Stuart Street o Burringbar Street o Dalley Street
		Town centre alternative route ↘ Conduct feasibility study to determine most suitable option for a future town centre alternative route, consistent with Council objectives and community values (see Section 3.3.6)
		Street closures ↘ Trial the closure of Burringbar Street for street festivals and other activations. Monitor outcomes for consideration of permanent interventions
		Brunswick Terrace ↘ Investigate traffic modifications to improve traffic safety at Brunswick Terrace/Tincogan Street intersection including consideration of closing off Brunswick Terrace to through traffic at the Tincogan Street/Murwillumbah Road approach. Future design responses should

		address cyclist and pedestrian safety.
Car parking	*Manage parking in Byron Bay to support positive active travel outcomes and adequate accessibility for those with a genuine need for private car travel.*	**Review minimum parking requirements** ↘ Review minimum parking requirements for developments within the town centre zone. See Section 4.4.1.
		Formalise on-street car parking ↘ Formalise on-street car parking at identified locations, including: o Stuart Street o Dalley Street o Tincogan Street o Areas identified in town centre - see Section 4.4.2.
		Peripheral Car parking ↘ Expand town centre car parking by developing peripheral car parking at preferred site, provided in Section 4.4.3.
		Time restrictions ↘ Introduce revised parking time restrictions as illustrated in Figure 48 and consistent with the *Mullumbimby Town Centre Parking Supply Management Strategy* .
		Paid parking ↘ Monitor car parking occupancy in Mullumbimby and investigate paid parking as a management tool, consistent with Council's policy for paid parking in Byron Bay.
		Loading Zones ↘ Council expand the provision of loading zones in the town centre, See Figure 49 consistent with guidance from

		Mullumbimby Parking Supply and Management Strategy.
		Accessible parking ↘ Ensure streetscape works include accessible parking provision
Public transport	*Ensure that the provision of public transport is high-quality, accessible and efficient in serving community needs.*	**Car share policy** ↘ Develop Byron Shire Car Share Policy
		Shuttle Bus Service (on-demand) ↘ Investigate options to introduce on-demand shuttle bus service in Mullumbimby
		Public Transport Services ↘ Continue to advocate for improved bus services to and from Mullumbimby

Mullumbimby Movement Strategy – Implementation Plan

Byron Shire Council

Prepared by

MRCagney Pty Ltd

8 May 2018

MRCagney

Document Information

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Client	Byron Shire
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1	First Draft Issue	TL	SB	SB	10.7.2017
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4	Final Plan V2	TL	SB	SB	7.5.2018

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1 Introduction

MRCagney has developed a Movement Strategy for Mullumbimby that identifies a suite of transport oriented projects designed to achieve the community's aspirations for the town with respect to sustainable movement networks, vibrant community spaces, and character of the public realm.

The Mullumbimby Implementation Plan completes the Mullumbimby Movement Strategy project and follows the Mullumbimby Issues and Needs Assessment.

This Implementation Plan provides further development of the Movement Strategy by prioritising the suite of projects identified for the town based on a range of criteria including community support, best practice transport planning and strategic efficacy. It articulates a rationale for selecting projects and culminates in a complete project schedule that includes projects that can be implemented in the immediate, short and longer terms.

1.1 Purpose

The Implementation Plan is a reference tool for Byron Shire Council that will support decision-making about the selection and implementation of projects and policies for Mullumbimby that will support Council and the community's sustainable transport goals.

A well resolved Implementation Plan is critical to ensure outcomes are delivered in line with community needs and Council's obligations. The Implementation Plan has been developed to help Byron Shire Council select appropriate transport projects from the Mullumbimby Movement Strategy to deliver the greatest benefit to the community.

Specifically, the Implementation Plan:

- Establishes a prioritised schedule of projects for delivery
- Identifies three project priority categories based on recommended timeframes for delivery
- Identifies key issues, prerequisites and consideration that should inform the implementation of the project schedule including projects that may need to be funded and implemented prior to rollout of other projects.

1.2 Implementation schedule

The implementation schedule groups projects into four priority categories corresponding with achievable timeframes for delivery, as follows:

- Strategic Priority 1: 0-1 year
- Strategic Priority 2: 2-5 years
- Strategic Priority 3: 6 + years

Strategic Priority 1 projects are some simple and cost-effective projects that can be undertaken immediately. These are critical projects as they offer immediate reward for the community's work during Mullumbimby Immersion, and can be implemented in the immediate term.

Strategic Priority 2 projects are high priority projects that will have some of the greatest benefits to the town. They may require some extra time to plan delivery but include some of the big-ticket town shaping projects with strong community support that need to be delivered in a reasonable timeframe (2-5 years).

Strategic Priority 3 projects are 'big ticket' items that will support the long-term transport objectives of Mullumbimby. Some of these projects may require longer term commitments to plan delivery due to high costs or negotiations with a number of project partners. These projects may also require implementation of Strategic Priority 1 and 2 projects to be completed prior to their planning, funding or implementation.

1.3 Implementation review

A review of implementation outcomes, timeframes and actions should be conducted annually. This will require monitoring and reporting in consultation with Council, Councillors, state government departments, the community, and the guidance group.

2 Assessment framework

Providing a rigorous assessment of project priorities requires the development of a prudent assessment framework. The assessment framework adopted for this Implementation Plan uses the following four criteria:

- **Strategic fit** – Is the project consistent with Council's policy frameworks and broader strategic objectives for Mullumbimby, and does the project conflict with any other initiatives identified in the Implementation Plan?
- **Effectiveness and efficiency** – Will the project have a significant positive impact for the community?
- **Community support** – Has the community provided a clear mandate to support the project during Mullumbimby Immersion?
- **Ease of implementation** – Can the project be implemented when considering the following relevant factors:
  - *Budget* – does Council have the available budget to fund the project
  - *Jurisdiction* – does Council have the support of any project partners that have jurisdiction over the project?
  - *Other projects* – is the project dependant on the prior completion of other interventions identified in the Implementation Plan?

3 Implementation partners

The successful and efficient implementation of the project schedule developed in this plan will require collaboration with a range of implementation partners. These partners are formed by a range of stakeholders, asset managers, community groups, traders and associations. Each project identified in this plan will engage a different set of implementation partners depending on its location and scope, however some major project partners include:

- Roads and Maritime Services
  RMS is the State roads authority and have jurisdiction over parts of Mullumbimby's road network. Council will need to engage with RMS with respect to any proposed changes to intersections or streetscapes on Lismore Road and Granuaille Road.
- RailCorp (NSW TrainLink?)
  RailCorp currently own land and rail tracks within the rail corridor, and will need to be consulted in order to negotiate an agreement to permit Council to implement any works within this corridor, including footpaths, bike paths, and crossings.
- Chamber of Commerce
  The Chamber of Commerce is a representative body for local traders and will be an important partner to consult in relation to a number of projects that aim to improve the main street trading environment in Mullumbimby.
- Bus Operators
  Bus operators, including NSW Rail Link, will require consultation regarding changes to stop facilities in town.
- Project Guidance Group
  The guidance group was established to provide ongoing local input and oversight during the development of the Movement Strategy and Implementation Plan. This partnership should be maintained throughout execution of project identified in the Implementation Plan.
- State government departments (TFNSW, OEH, NPWS)

  Council will be required to work with state government departments for the planning and implementation of specific projects outlined in the Movement Strategy

4 Schedule of projects

4.1 Project list

The following projects outlined in Table 1 were identified in the Movement Strategy based on feedback received from the community during Mullumbimby Immersion, review of Council's strategic policy objectives, and professional review of the town's movement network and urban environment.

The projects outlined in the Movement Strategy were arranged in five topics largely based on transport mode:

- Walking
- Bike Riding
- Street network, cars and traffic
- Car parking
- Public transport

Providing implementable guidance to Council regarding the delivery of these projects however requires the identification of a prioritised project schedule that includes clear and practical timeframes for delivery. This has been completed based on the criteria outlined in Section 2, and the recommended implementation schedule is provided in Section 4.2.

Table 1: Projects identified in Movement Strategy

Transport mode	Strategy	Recommendation
Walking	*Create an environment where walking is a safe, enjoyable and accessible travel choice for both residents and visitors to Mullumbimby.*	**Introduce new intersections** - Burringbar Street/ Stuart Street - Burringbar Street/Dalley Street - Tincogan Street/Stuart Street (subject to alternative route option) - Tincogan Street/Dalley Street (subject to alternative route option) - Tincogan Street/Gordon Street (subject to alternative route option)
		Contain activity to walkable catchment - Encourage infill development within the walking catchment of Mullumbimby
		River crossings - Introduce pedestrian bridges to connect both sides of the river at the following locations: - The end of Burringbar Street connecting Palm Park to Riverside Drive across the river

		(this is the priority project) o Bridge to connect with the Tallawood Ridge Estate with Hakea/Rush/Kamala court area in Pine Avenue Estate.
		Footpath upgrades ↘ Upgrade footpaths along key pedestrian networks through town centre and from residential areas to town centre and traffic generating areas (i.e. schools etc.)
Bike Riding	*Make cycling an enjoyable and accessible mode of transport for people of all confidence levels by committing to the provision of world class, safe and sustainable cycling infrastructure.*	**Town centre cycling opportunities** ↘ Introduce protected on-street bike lanes at priority locations (see Figure 34 of Movement Strategy): o Burringbar Street (if preferred option) o Stuart Street (Whian Street to Tincogan Street) o Dalley Street (Whian Street to Tincogan Street).
		Regional cycling opportunities ↘ Expand regional cycling network to connect peripheral locations (see Figure 35 of Movement Strategy) including: o Off-road on Murwillumbah Road to Showgrounds and residential areas o Off-road connection on Coolamon Scenic Drive and Left Bank Road to schools, sports facilities and community gardens o Off-road cycling connections along Argyle Street to Gulgan Road o Brunswick River bike path linking residential areas to the west of town and route to Brunswick Heads (staged sequential approach) o Cycling path linking Mullumbimby with other regional towns using the

		multi-purpose rail corridor o Burringbar Street to be used as a pedestrian spine of Mullumbimby with cycling opportunities in a shred street environment or protected bike lane.
		Bike parking facilities ↘ Expand bike parking facilities consistent with locations identified in Figure 36 of Movement Strategy.
		Rail corridor multi-purpose bike track ↘ Commence detailed design and planning for a bike path (in conjunction with keeping rail infrastructure for any future rail return) connecting Mullumbimby with other key towns along the existing rail line.
		Trial shared street treatments/cycling infrastructure in Burringbar Street ↘ Conduct a trial of treatments (either shared street treatments or protected bike lanes) in Burringbar Street to test impact on pedestrian and cyclist safety and vehicle behaviour. This trial will use tactical urbanism concepts and requires modification of existing angle parking to parallel parking.

Street network, cars and traffic	*To ensure the street and road network operates effectively and safely for all users while supporting Mullumbimby's boarder sustainable objectives.*	**Street cross-sections** ↘ Introduce standard town centre cross-sections at identified intersections (refer to figures 38-43 of Movement Strategy, including: o Stuart Street o Burringbar Street o Dalley Street
		Town centre alternative route ↘ Conduct feasibility study to determine most suitable option for a future town centre alternative route, consistent with Council objectives and community values (see Section 3.3.6 of Movement Strategy)
		Street closures ↘ Trial the closure of Burringbar Street for street festivals and other activations. Monitor outcomes for consideration of permanent interventions.
		Brunswick Terrace ↘ Investigate traffic modifications to improve traffic safety at Brunswick Terrace/Tincogan Street intersection including consideration of closing off Brunswick Terrace to through traffic at the Tincogan Street/Murwillumbah Road approach. Future design responses should address cyclist and pedestrian safety.
Car parking	*Manage parking in Mullumbimby to support positive active travel outcomes and adequate accessibility for those with a genuine need for private car travel.*	**Review minimum parking requirements** ↘ Review minimum parking requirements for developments within the town centre zone. See Section 4.4.1 of Movement Strategy.

		Formalise on-street car parking ↘ Formalise on-street car parking at identified locations, including: o Stuart Street o Dalley Street o Tincogan Street o Areas identified in town centre - see Section 4.4.2 of Movement Strategy.
		Peripheral Car parking ↘ Expand town centre car parking by developing peripheral car parking at preferred site, provided in Section 4.4.3 Movement Strategy.
		Time restrictions ↘ Introduce revised parking time restrictions as illustrated in Figure 48 of Movement Strategy and consistent with the *Mullumbimby Town Centre Parking Supply Management Strategy.*
		Paid parking ↘ Monitor car parking occupancy in Mullumbimby and investigate paid parking as a management tool, consistent with Council's policy for paid parking in Byron Bay.
		Loading Zones ↘ Council expand the provision of loading zones in the town centre, See Figure 49 of Movement Strategy, consistent with guidance from *Mullumbimby Parking Supply and Management Strategy.*
		Accessible parking ↘ Ensure streetscape works include accessible parking provision

Public transport	*Ensure that the provision of public transport is high-quality, accessible and efficient in serving community needs.*	**Car share policy** ↘ Develop Byron Shire Car Share Policy.
		Shuttle Bus Service (on-demand) ↘ Investigate options to introduce on-demand shuttle bus service in Mullumbimby.
		Public Transport Services ↘ Continue to advocate for improved bus services to and from Mullumbimby

4.2 Implementation plan

The prioritised implementation schedule is provided in Table 2 below. The schedule includes recommended timeframes for delivery, identification of major project partners, and specific notes identifying any perquisites, supporting projects or considerations for implementation. Supporting maps showing all projects identified in the implementation schedule are provided in Appendix A.

Table 2: Recommended implementation schedule

Project	Timeframe	Strategy Area	Partners	Comments
Expand bike parking facilities consistent with locations provided in Movement Strategy	Strategic Priority 1	Bike Riding		• Can be implemented immediately or when funding becomes a
Investigate traffic modification at Brunswick Terrace	Strategic Priority 1	Street network, cars and traffic	RMS	• Can be undertaken in the immediate term
Expand loading zones	Strategic Priority 1	Car parking		• Introduce loading zones consistent with Movement Strategy and *Mullumbimby Parking Management and Supply Strategy*
Introduce revised time restrictions	Strategic Priority 1	Car parking		• Introduce loading zones consistent with Movement Strategy and *Mullumbimby Parking Management and Supply Strategy*
Town Centre Alternative Route – Conduct Feasibility Study	Strategic Priority 1	Street network, cars and traffic	RMS	• Can be undertaken in the immediate term
Review car parking minimums	Strategic Priority 1	Car parking		• Can be undertaken in the immediate term (Council to conduct in-house)

Paid parking – monitor parking occupancy	Strategic Priority 1	Car parking	Community	• Review parking conditions with consideration for paid parking introduction, consistent with established Council policy
Develop Shire-wide car share policy	Strategic Priority 1	Public transport	Car share providers	• Commence development of a car share policy for Byron Shire
Conduct tactical urbanism trial for streetscape projects on Burringbar Street	Strategic Priority 1	Walking	Local business, stakeholders and RMS	• Run a trial of proposed streetscape projects (footpath widening, parallel parking, bike lanes, shared street) on Burringbar Street using a tactical urbanism 'pop up' approach.
Introduce new intersection: Burringbar Street/Stuart Street	Strategic Priority 2	Walking	Local business, stakeholders and RMS	• This project should be implemented during or subsequent to the development of a peripheral parking site (railway land)
Introduce new intersection: Burringbar Street/Dalley Street	Strategic Priority 2	Walking	Local business, stakeholders and RMS	• This project should be implemented in the same package of works associated with streetscape revitalisation projects (street cross sections)
River crossings: The end of Burringbar Street connecting Palm Park to Riverside Drive across the river	Strategic Priority 2	Walking	OEH, NPWS, Crown lands	• See Movement Strategy. This project complements future cycling/pedestrian activity on Burringbar Street
Town centre cycling - protected bike lanes:	Strategic	Bike Riding	RMS	• This project should be implemented during or subsequent to the development of a

Stuart Street (Whian Street to Tincogan Street)	Priority 2			peripheral parking site (railway land)
Town centre cycling – protected bike lanes: Dalley Street (Whian Street to Tincogan Street	Strategic Priority 2	Bike Riding	RMS	• This project should be implemented during or subsequent to the development of a peripheral parking site (railway land)
Regional cycling - expand network: Off-road connection on Coolamon Scenic Drive and Left Bank Road to schools, sports facilities and community gardens	Strategic Priority 2	Bike Riding	RMS	• See Movement Strategy
Regional cycling - expand network: Off-road cycling connections along Argyle Street to Gulgan Road	Strategic Priority 2	Bike Riding	RMS	• See Movement Strategy
Formalise car parking: Stuart Street	Strategic Priority 2	Car parking		• See Movement Strategy
Formalise car parking: Dalley Street	Strategic Priority 2	Car parking		• See Movement Strategy

Formalise car parking: Tincogan Street	Strategic Priority 2	Car parking		• See Movement Strategy
Peripheral car parking – sites a, 2 or 3 (subject to further detailed study)	Strategic Priority 2	Car parking		• See Movement Strategy
On-demand shuttle bus	Strategic Priority 2	Public transport	Transport for NSW	• See Movement Strategy
Introduce new intersection: Tincogan Street/Dalley Street	Strategic Priority 3	Walking	Local business, stakeholders and RMS	• Future design to be confirmed following selection of Alternative Town Centre Route
Introduce new intersection: Tincogan Street/Stuart Street	Strategic Priority 3	Walking	Local business, stakeholders and RMS	• Future design to be confirmed following selection of Alternative Town Centre Route
Introduce new intersection: Tincogan Street/Gordon Street	Strategic Priority 3	Walking	Local business, stakeholders and RMS	• Future design to be confirmed following selection of Alternative Town Centre Route
River crossings: Bridge to connect with the Tallawood Ridge Estate with Hakea/Rush/Kamala court area in Pine Avenue	Strategic Priority 3	Walking	OEH, NPWS	• See Movement Strategy. This project complements future cycling/pedestrian activity on Burringbar Street

Estate				
Town centre cycling: Burringbar Street – Pedestrian priority and cycling integration. Introduce preferred option(protected bike lanes or shared street)	Strategic Priority 3	Bike riding	RMS	• To be constructed as part of Burringbar Street streetscape works (cross sections) which should be prior to or subsequent to new peripheral parking sites (railway land)
Regional cycling – expand network: Brunswick River bike path linking residential areas to the west of town and route to Brunswick Heads	Strategic Priority 3	Bike Riding	RMS	• See Movement Strategy. Commence construction of southern section prior to northern section
Regional cycling – expand network: cycling link using multi-purpose rail line linking Mullumbimby with other regional towns	Strategic Priority 3	Bike riding	RMS, Transport for NSW	• Refer to Movement Strategy and Rail Corridor Feasibility Study (when complete)
Introduce street cross sections: Stuart Street	Strategic Priority 2	Street network, cars and traffic	RMS	• This project should be implemented during or subsequent to the development of a peripheral parking site (railway land)

Introduce street cross sections: Burringbar Street	Strategic Priority 3	Street network, cars and traffic	RMS	• This project should be implemented during or subsequent to the development of a peripheral parking site (railway land)
Introduce street cross sections: Dalley Street	Strategic Priority 3	Street network, cars and traffic	RMS	• This project should be implemented during or subsequent to peripheral car park
Town centre alternative route (construction following preferred route options analysis)	Strategic Priority 3	Street network, cars and traffic	RMS	• See Movement Strategy
Contain activity within walkable catchment	Ongoing	Walking	Department of Planning and Environment	• See Movement Strategy
Public transport service advocacy	Ongoing	Public transport	Transport for NSW	• See Movement Strategy

Appendix A Map of proposed interventions

Figure 1: Proposed Interventions – Mode: Walking and Public Transport

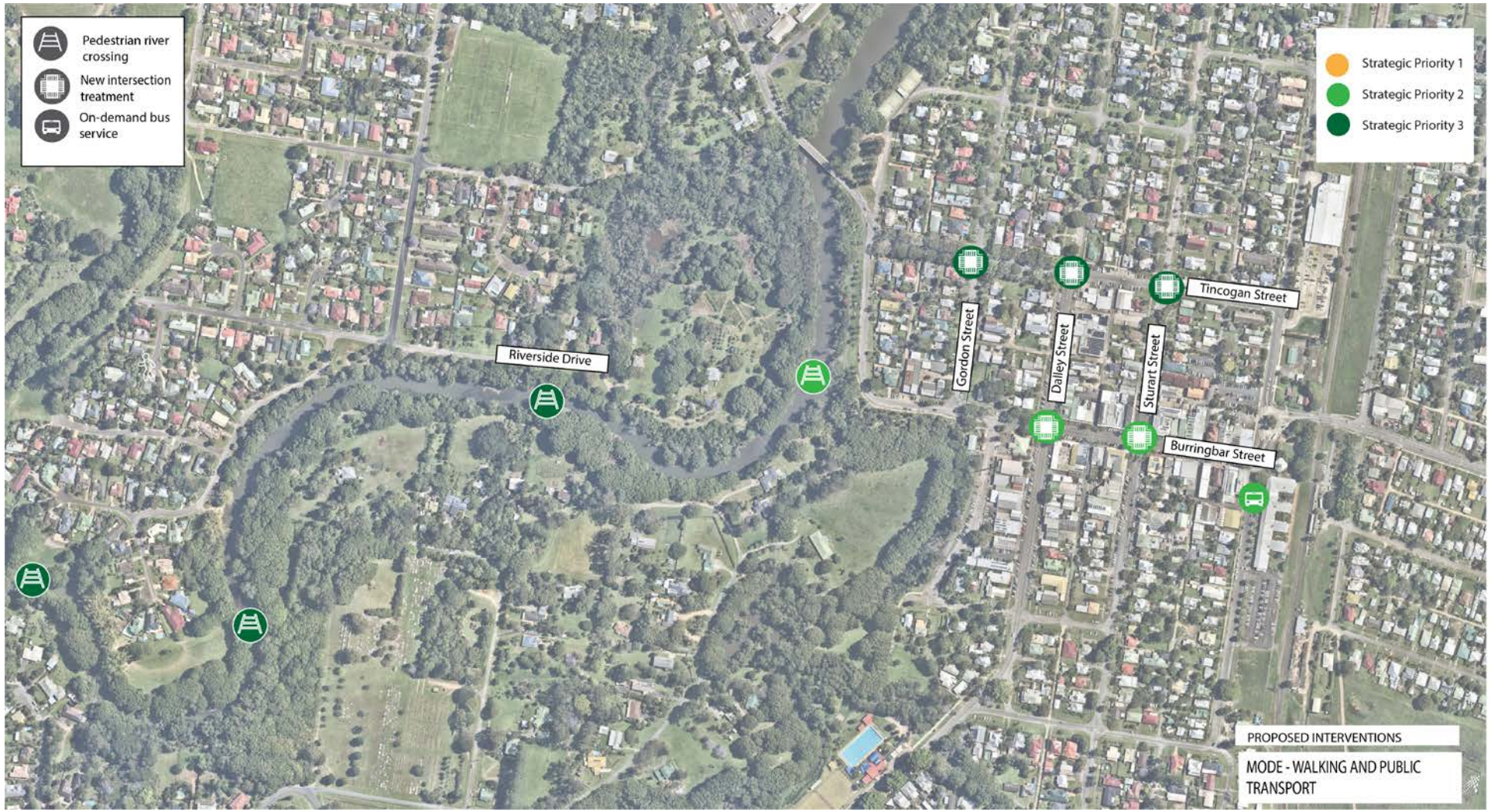

Figure 2: Proposed interventions – Mode: Car parking, streets network cars and traffic

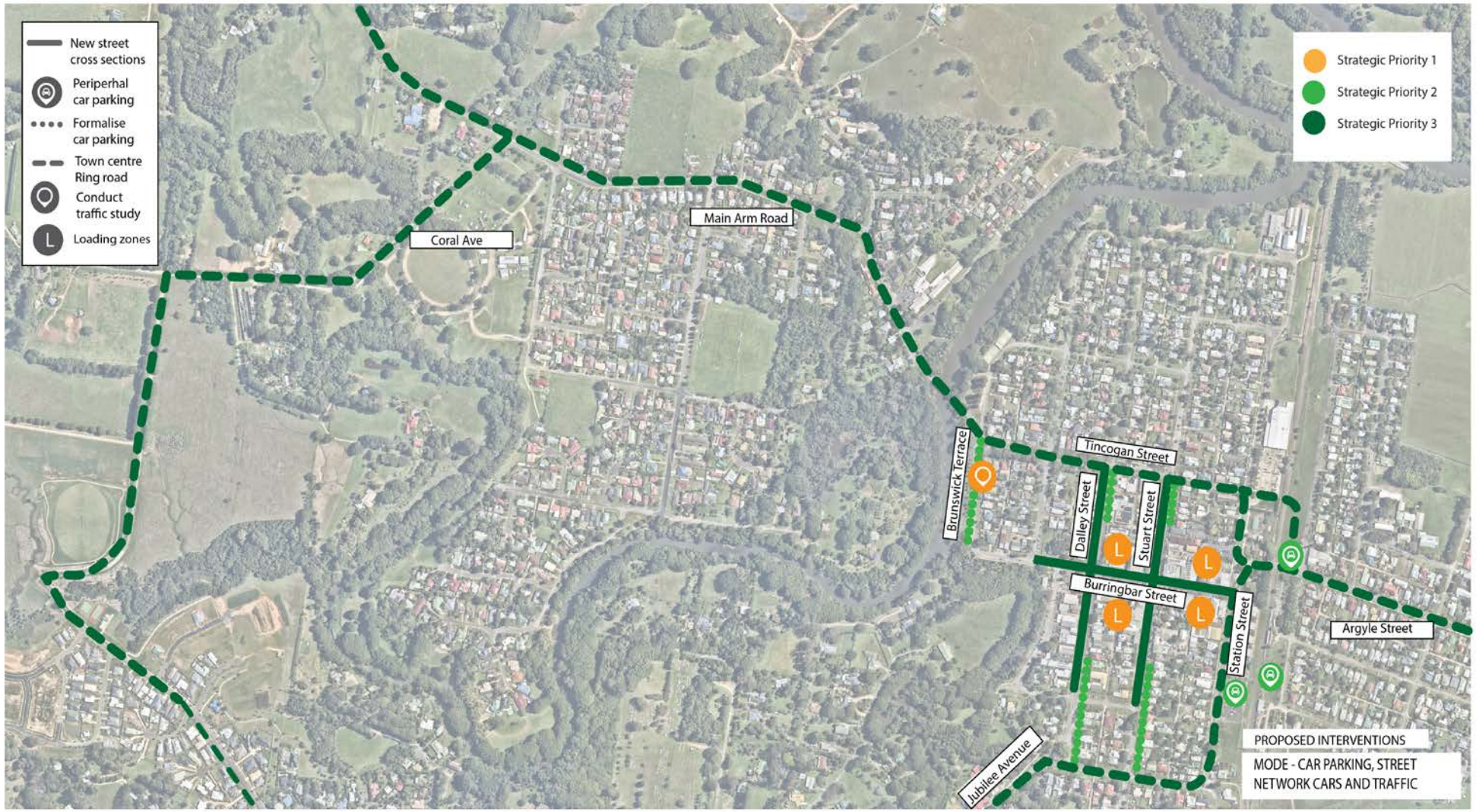

Figure 3: Proposed interventions – Mode: Bike riding