

NOTICE OF MEETING



EXTRAORDINARY TRANSPORT AND INFRASTRUCTURE ADVISORY COMMITTEE MEETING

An Extraordinary Transport and Infrastructure Advisory Committee Meeting of Byron Shire Council will be held as follows:

Venue	Meeting Room 1, station Street, Mullumbimby
Date	Tuesday, 3 March 2020
Time	2:00pm

Phillip Holloway
Director Infrastructure Services

I2020/240
Distributed 25/02/20

CONFLICT OF INTERESTS

What is a “Conflict of Interests” - A conflict of interests can be of two types:

Pecuniary - an interest that a person has in a matter because of a reasonable likelihood or expectation of appreciable financial gain or loss to the person or another person with whom the person is associated.

Non-pecuniary – a private or personal interest that a Council official has that does not amount to a pecuniary interest as defined in the Code of Conduct for Councillors (eg. A friendship, membership of an association, society or trade union or involvement or interest in an activity and may include an interest of a financial nature).

Remoteness – a person does not have a pecuniary interest in a matter if the interest is so remote or insignificant that it could not reasonably be regarded as likely to influence any decision the person might make in relation to a matter or if the interest is of a kind specified in the Code of Conduct for Councillors.

Who has a Pecuniary Interest? - a person has a pecuniary interest in a matter if the pecuniary interest is the interest of the person, or another person with whom the person is associated (see below).

Relatives, Partners - a person is taken to have a pecuniary interest in a matter if:

- The person's spouse or de facto partner or a relative of the person has a pecuniary interest in the matter, or
- The person, or a nominee, partners or employer of the person, is a member of a company or other body that has a pecuniary interest in the matter.

N.B. “Relative”, in relation to a person means any of the following:

- (a) the parent, grandparent, brother, sister, uncle, aunt, nephew, niece, lineal descends or adopted child of the person or of the person's spouse;
- (b) the spouse or de facto partners of the person or of a person referred to in paragraph (a)

No Interest in the Matter - however, a person is not taken to have a pecuniary interest in a matter:

- If the person is unaware of the relevant pecuniary interest of the spouse, de facto partner, relative or company or other body, or
- Just because the person is a member of, or is employed by, the Council.
- Just because the person is a member of, or a delegate of the Council to, a company or other body that has a pecuniary interest in the matter provided that the person has no beneficial interest in any shares of the company or body.

Disclosure and participation in meetings

- A Councillor or a member of a Council Committee who has a pecuniary interest in any matter with which the Council is concerned and who is present at a meeting of the Council or Committee at which the matter is being considered must disclose the nature of the interest to the meeting as soon as practicable.
- The Councillor or member must not be present at, or in sight of, the meeting of the Council or Committee:
 - (a) at any time during which the matter is being considered or discussed by the Council or Committee, or
 - (b) at any time during which the Council or Committee is voting on any question in relation to the matter.

No Knowledge - a person does not breach this Clause if the person did not know and could not reasonably be expected to have known that the matter under consideration at the meeting was a matter in which he or she had a pecuniary interest.

Non-pecuniary Interests - Must be disclosed in meetings.

There are a broad range of options available for managing conflicts & the option chosen will depend on an assessment of the circumstances of the matter, the nature of the interest and the significance of the issue being dealt with. Non-pecuniary conflicts of interests must be dealt with in at least one of the following ways:

- It may be appropriate that no action be taken where the potential for conflict is minimal. However, Councillors should consider providing an explanation of why they consider a conflict does not exist.
- Limit involvement if practical (eg. Participate in discussion but not in decision making or vice-versa). Care needs to be taken when exercising this option.
- Remove the source of the conflict (eg. Relinquishing or divesting the personal interest that creates the conflict)
- Have no involvement by absenting yourself from and not taking part in any debate or voting on the issue as of the provisions in the Code of Conduct (particularly if you have a significant non-pecuniary interest)

RECORDING OF VOTING ON PLANNING MATTERS

Clause 375A of the Local Government Act 1993 – Recording of voting on planning matters

- (1) In this section, **planning decision** means a decision made in the exercise of a function of a council under the Environmental Planning and Assessment Act 1979:
 - (a) including a decision relating to a development application, an environmental planning instrument, a development control plan or a development contribution plan under that Act, but
 - (b) not including the making of an order under that Act.
- (2) The general manager is required to keep a register containing, for each planning decision made at a meeting of the council or a council committee, the names of the councillors who supported the decision and the names of any councillors who opposed (or are taken to have opposed) the decision.
- (3) For the purpose of maintaining the register, a division is required to be called whenever a motion for a planning decision is put at a meeting of the council or a council committee.
- (4) Each decision recorded in the register is to be described in the register or identified in a manner that enables the description to be obtained from another publicly available document, and is to include the information required by the regulations.
- (5) This section extends to a meeting that is closed to the public.

BYRON SHIRE COUNCIL
EXTRAORDINARY TRANSPORT AND INFRASTRUCTURE ADVISORY COMMITTEE MEETING

BUSINESS OF MEETING

1. APOLOGIES

2. DECLARATIONS OF INTEREST – PECUNIARY AND NON-PECUNIARY

3. ADOPTION OF MINUTES FROM PREVIOUS MEETINGS

3.1 Transport and Infrastructure Advisory Committee Meeting held on 30 January 2020

4. STAFF REPORTS

Infrastructure Services

4.1 DRAFT Integrated Transport Management Strategy4

STAFF REPORTS - INFRASTRUCTURE SERVICES

Report No. 4.1 DRAFT Integrated Transport Management Strategy

Directorate: Infrastructure Services

Report Author: Andrew Pearce, Traffic Engineer

File No: I2020/211

Summary:

The purpose of this TIC meeting is to present the *DRAFT Integrated Transport Management Strategy* with the consultant present and for TIAC to provide feed back to the consultant.

RECOMMENDATION:

That TIAC note the Draft Integrated Transport Management Strategy report and provide the following feedback to the consultant:

Attachments:

1 DRAFT Integrated Transport Management Strategy 2020, E2020/12435 , page 5 [↓](#)

FEBRUARY 2019

Byron Shire Council

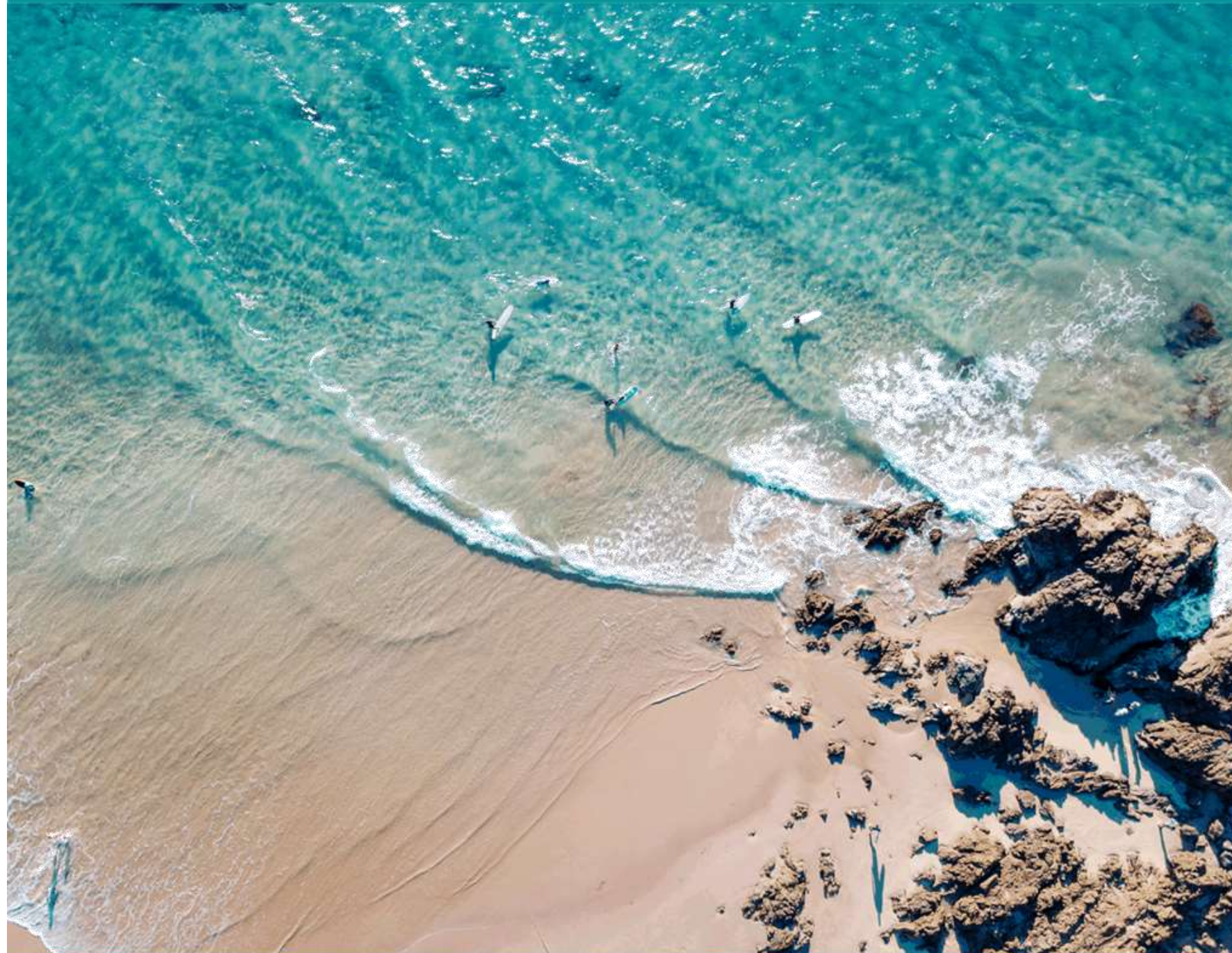
Draft Integrated
Transport Strategy

WORK IN PROGRESS

For preliminary internal review only

Reference: Draft v2 (dated 21/02/2020)





About this strategy

This Strategy sets out a proposed path forward over the coming decades to improve transport and support more environmentally sustainable ways of travel in Byron Shire.

The strategy builds on known issues raised through existing community feedback. Past community surveys and engagement has told us that better roads, more sustainable transport options and more resilient transport network are high priorities for the region, and this strategy focuses Council's resources and efforts on those issues.

The strategy aims to:

- Outline a clear set of choices and priority actions, to ensure the strategy is deliverable and actionable
- Focus on actions which Council and the community can own and deliver
- Focus on actions which address specific problems
- Outline the intended outcomes, but retain flexibility in the way those outcomes are delivered

This strategy is not intended to:

- Identify specific projects and their location, but will inform and help prioritise these projects.
- Outline actions which are predominantly under the jurisdiction of others, but Council and the community will continue to share views and priorities.
- Address every problem – the strategy identifies focus areas for improvement, acknowledging that funding and resources are finite.

ACKNOWLEDGEMENT
OF COUNTRY

In the preparation of this document Council acknowledges and pays respect to the Bundjalung of Byron Bay – Arakwal People as Traditional Custodians of the land within Byron Shire, and form part of the wider Aboriginal nation known as the Bundjalung.

In addition, Council acknowledges and respects the Widjabal and Mindjungbul people as Traditional Custodians within the Byron Shire. Council also acknowledges the Aboriginal and Torres Strait Islander people who now reside within this area.

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Snapshot of Byron

Byron is a special place – laid-back but conscientious, progressive but true to its roots, diverse and with a strong sense of community.



Live

More than 30,000 people call Byron Shire home¹, drawn to the spectacular setting, laid-back way of life, connection to the environment and characteristic vibe.

At the core of the region is our community, which is inclusive, creative and forward-thinking. We are proudly progressive and foster a culture of opportunity and open-mindedness, where people can tread their own path. Our community is engaged, passionate and invested in pursuing better outcomes for each other and the region.



Work

The sense of community and entrepreneurial spirit extends to our enterprises and ventures, where alternative thinking can flow freely and passions are pursued.

There are almost 13,000 people working in the region across a range of industries, with tourism and hospitality the largest employment sector^{2,3,9}. Most people both live and work in the region. Many businesses, from local makers to iconic names, were created in Byron and continue to thrive with creativity and energy.

The 'Byron' brand itself is an influential marketing mechanism, reflecting the region's core values and recognisable around the world.



Visit

'Byron' is a cultural symbol and a brand in its own right, recognised around the world as a haven of relaxation, lifestyle, wellbeing and sustainability.

More than two million people visit the Shire each year, growing by 60 per cent over the last three years⁴.

The Shire hosts national events and festivals across the year, with five per cent of all domestic visitors in the region to attend an event⁵.

Much is good about our towns and regions, which continue to evolve incrementally and organically. But as the region grows in popularity (both locals and visitors), some challenges have emerged in terms of how people move around parts of the Shire which would benefit from some tweaks and improved management.

For a range of reasons, people are very much reliant on cars for mobility in Byron Shire – almost nine in ten residents drive a car to work and three-quarters of tourists self-drive^{6,6}.

Local residents are owning more private vehicles, with growing numbers of two- or three-car households and fewer households with no vehicles⁷.

Very few people use public transport (less than 2 per cent to work in most subregions), with existing services relatively limited and irregular⁸.

Poor use is compounded by low population densities, which make it difficult to justify a more comprehensive or frequent public transport network to encourage regular use.

Key Highlights



72%
OF TOURISTS
SELF DRIVE

The median visitor makes two stops. 90% stop in Byron and about a third stop in Mullumbimby, Bangalow and/or Brunswick Heads⁶.

34,600
RESIDENTS¹



12,900
WORKERS²

Most people live and work in the Shire¹⁰

88%
OF TRAVEL TO
WORK BY CAR

Above average levels of cycling to work and working from home⁹.



2 million
ANNUAL TOURISTS

Three-quarters are domestic visitors and seven-in-ten are repeat visitors⁶.

However, heavily reliance on car travel has introduced a number of problems:



Reliability

Some roads (particularly around townships) become congested at peak times on weekday mornings and afternoons, as well as during tourist periods including weekends, holidays and events. Higher traffic volumes cause increases, or greater variability, in travel times. For example, a trip on Ewingsdale Road might take ten minutes on one day, but twenty minutes on the next⁸.



Liveability

Excessive car traffic generates noise, pollution and visual intrusion, as well making streets less pleasant for other activities, like shopping or eating out.
High car use deteriorates road surfaces, leading to higher maintenance costs (borne by Council and rate payers).



Climate

In 2018, Council declared a state of climate emergency⁹.
Road transport accounts for 30 per cent of the Byron Shire community's greenhouse gas emissions⁹.
Switching to more sustainable ways of travel can go some way to protecting and preserving the precious environment.



Resilience

Refers to the ability to recover from difficulties. In a transport sense, this means that options are made available and people are understanding and open to an alternative if needed, not just if demanded.
This is especially timely considering recent bushfire disasters, but also relating to high peaks of travel in the area.



and more...

Demand for parking can hinder the ability for people who need to drive to access services and opportunities.
Other factors, such as safety, physical activity, wellbeing and air quality can also be influenced by the way people travel.

Previous engagement activities have further confirmed that the community desires better roads, improved connectivity between towns and villages, improvements to parking and traffic management and more sustainable transport options¹⁰.

Goal of the Strategy

The goal of this strategy is to:
Generate meaningful mode shift away from car travel to more environmentally-conscious ways of travel.

This means continuing to provide a greater range of choices in walking, cycling, wheeling, public transport and shared mobility to reduce reliance on the car and make travel in Byron more sustainable, safe and connected.
This strategy aims to provide options for those that are able to choose the way they travel, enable the people that need to drive the ability to do so and make transport more efficient and effective.
Greater travel alternatives will also enable residents and workers to leave the car at home and will also enable people who are unable to drive (including those under driving age) to have greater mobility and independence.



The good news is that many of the foundations are already in place to achieve this goal:

- Byron Shire has amongst the highest proportion of people cycling to work of inner regional municipalities¹².
- Byron Shire also has a comparatively high level of people working from home, which means there is a lower share of people travelling for work¹³.
- The community is environmentally-minded and has been vocal in the need for greater transport provision and choice.
- Where a market exists, the private sector is already providing a range of alternate transport options, such as airport shuttle buses, solar-powered e-bike hire, ride hailing services and the world's only Solar Train.

Supporting the above, Council has recently:

- Initiated a car share pilot with Popcar to provide ten vehicles across the Shire¹⁴.
- Provided electric vehicle charging stations in Byron Bay and Mullumbimby¹⁵.

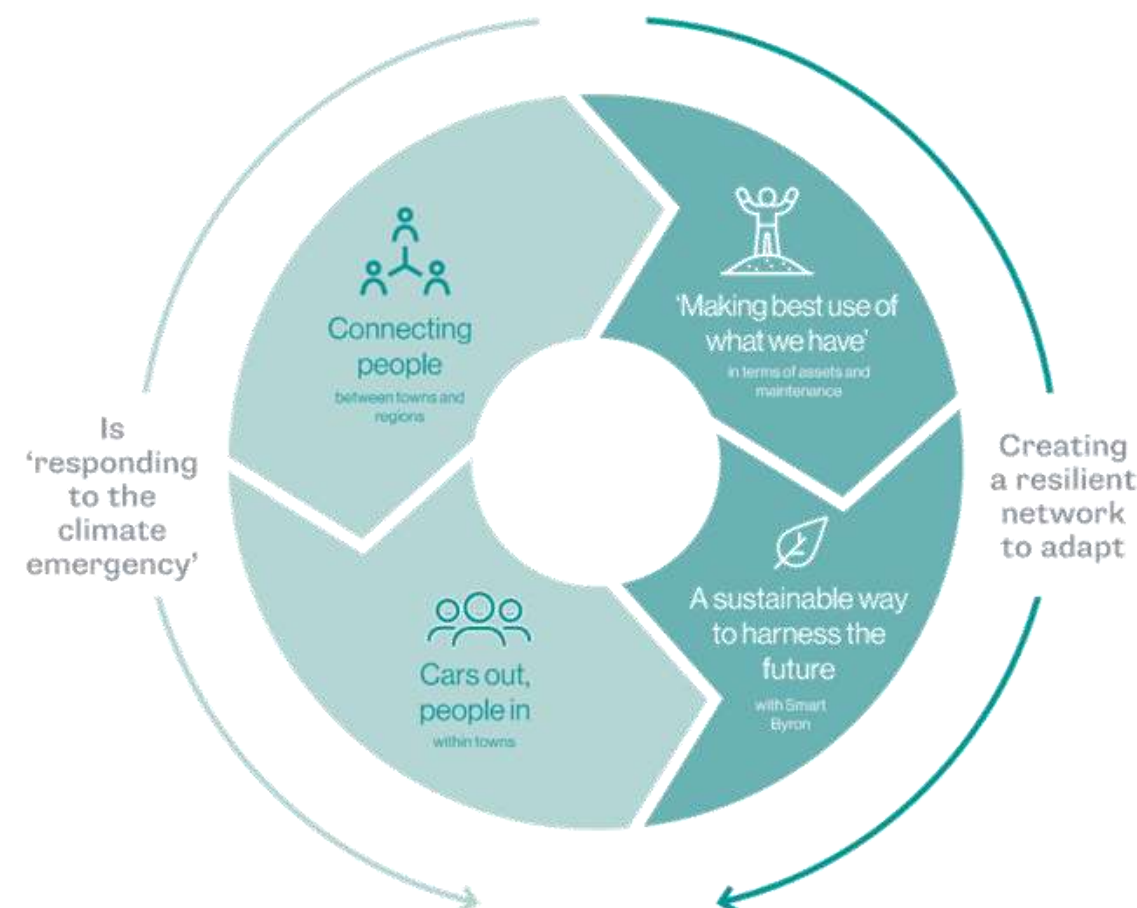
- Co-funded the Byron Bay Bypass to reduce the number of cars and prioritise pedestrians in the town centre¹⁶.
- Prepared and finalised a Pedestrian Access and Mobility Plan (PAMP) and Bike Plan to identify and prioritise pedestrian and cycling projects across the region^{17,18}.
- Commenced construction of part of the Byron Bay to Suffolk Park Cycleway¹⁹.
- Commissioned a study into the feasibility of reactivating the disused rail line as a 'multi-use' transport corridor²⁰.
- Partnered with Transport for NSW on a 'rail precinct' partnership in Byron Bay, including upgrade of Railway Park, Butler Street Reserve and the Bus Interchange²¹.
- Formed a cross-border commission with governments in Queensland to improve relationships and improve transport outcomes between the states.

This document brings together Council's projects, local and state government policies and initiatives to create a cohesive, integrated approach to planning our transport future.

The strategy focuses on what *Council and the community* can do to promote meaningful mode shift towards more sustainable travel and sets out a clear set of choices and direction for the coming decades.



Summary of Approach



01 Connecting people

Travel between towns and regions

Guiding Principles

Provide better public transport options and more opportunities to walk and cycle, giving greater travel choices for locals, workers and tourists alike.

Make strategic improvements which align with Council's direction and bring social, environmental and economic benefits.

Consider new infrastructure (particularly roads) with restraint, as the cost of maintenance over the life of the project (borne by Council and taxpayers) typically exceeds the initial construction cost.

Use trials to understand how various new proposals are likely to perform in the local conditions and adapt.

Most tourists drive to Byron, which means that roads can become busy during peak holiday periods.

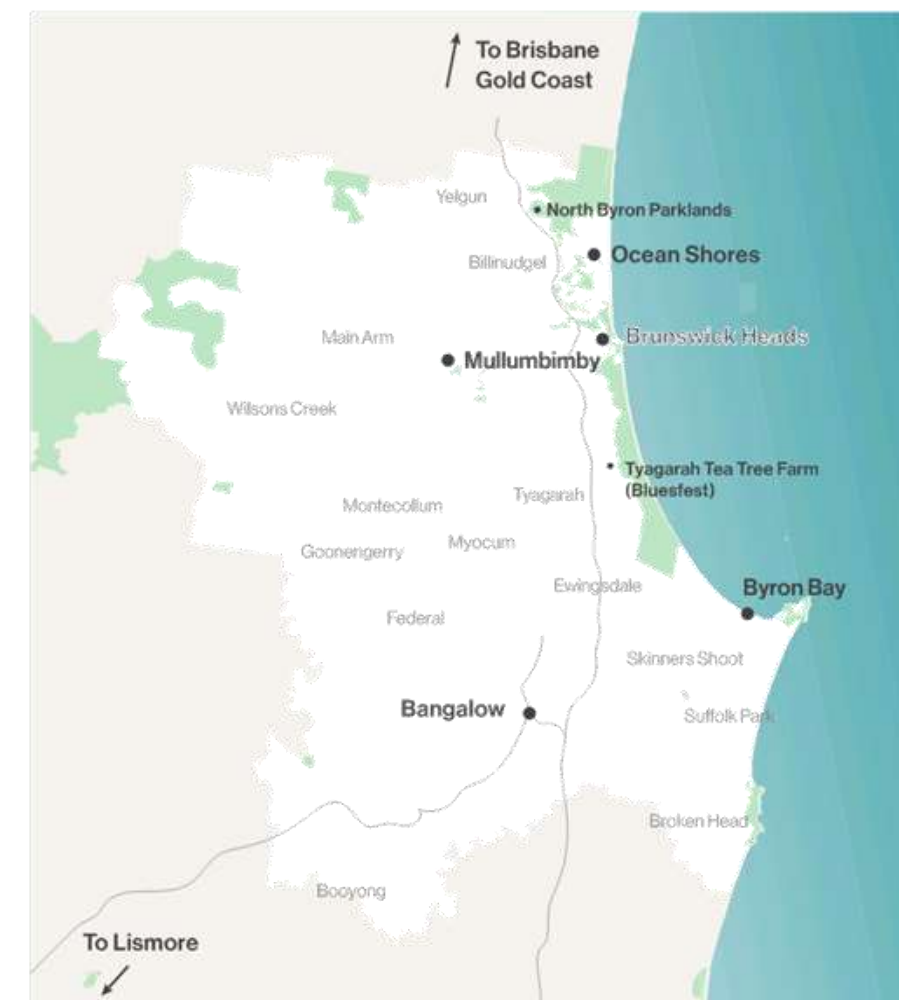
There is no doubt our Shire is a popular tourist destination. More than one million day-trippers and 800,000 overnight visitors travel from other parts of Australia to Byron Shire each year, with three-quarters of domestic visitors arriving from Queensland or New South Wales. The region also attracts a further 200,000 international visitors each year. Tourism brings a range of benefits to the region, with flow-on effects from visitation generating 1,600 jobs and \$193 million in economic output^{3,6}.

Most visitors (72 per cent) arrive by car, with a smaller share arriving by air or coach. In part, this may be because many key destinations are spread across the Shire and difficult to access without a vehicle, including beaches, festival and event sites and other nature, farm, art or cultural activities⁹.

Public transport can also be significantly more time-consuming, which is a deterrent for time-sensitive day-trippers. There may also be a perception that driving provides a flexibility and ability to carry family members and goods that other modes are unable to offer.

As a result, some of the Shire's roads can experience considerable queuing and delays during peak holiday and event periods, compounded by the tidal nature of traffic (time of year and direction of travel). Queues and congestion impact on productivity, can cause frustration and reduce the enjoyment and liveability of the region⁸.

Key communities and townships



Many locals also take the car to work or serve daily needs, which means busier roads are becoming the new norm.

There are about 13,000 employed people living in Byron Shire². Half of the Shire's working residents travel to another town, city or region to access employment, with about a quarter of residents travelling outside the municipality for work (predominantly to Ballina, Lismore, Tweed Heads and the Gold Coast). Brunswick Heads residents, in particular, tend to travel outside of the town for work, largely to Byron Bay or Mullumbimby. On the contrary, Byron Bay residents tend to work locally, as well as attracting people from other towns for employment²².

Across the Shire, nine in ten trips to work are undertaken by private vehicle, with very low levels of public transport use⁵. Towns where more people live and work locally tend to have shorter travel distances and higher levels of walking and cycling to work, however even the most localised workforces still make more than eight out of ten trips to work by car^{5,22,23}. This may be due to perceptions of infrequent services, longer journey times or the costs of public transport. It may also be because car travel is convenient and relatively unconstrained by comparison, with inexpensive permits exempting residents and workers from paying for parking in key locations.

As a result, some key roads (particularly into and out of Byron Bay, which attracts workers from other towns) can experience congested traffic conditions during morning and afternoon peak hours⁸. Ongoing congestion can cause uncertainty in travel times and reduce the resilience of the region's transport network in the event of an emergency or natural disaster.

There is an increasing focus on what Council and operators can do to improve public transport in the region.

While there is a bus network in Byron Shire servicing different towns, routes are generally planned by respective operators, generally in isolation and within designated operating areas. Services are also relatively infrequent, particularly in off-peak, evening or weekend periods. Studies show that time and effort are significant contributors to a person's transport choice, and the need to review timetables, interchange between services, travel for longer periods and pay for services all detract from the appeal of public transport²⁴. Indeed, the Byron Shire Community Survey 2016 found that public transport was important to the community, but fell significantly short of expectations²⁵.

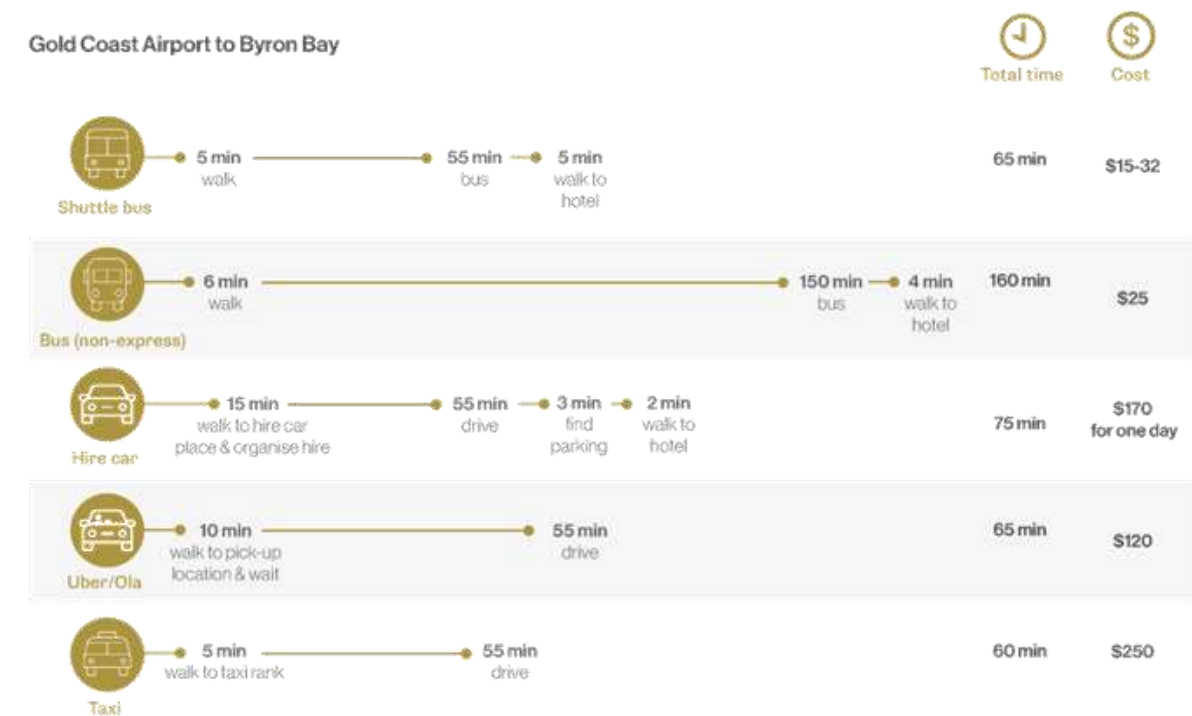
While public transport has traditionally been the realm of state government, there is an increasing focus on what Council and private operators can do to improve transport outcomes in the region, particularly given established state planning programs and timelines. The state government will support legislative and administrative changes within the corridor, but any activation needs to be funded and operated privately or by Council²⁶. Previous studies have indicated that rail-based solutions are high-cost and do not present a strong business case for investment under present conditions²⁷.

Instead, Council will focus on implementing staged interim solutions that create the conditions to make public transport more popular and viable, whilst not precluding other solutions (such as walking or cycling) in the rail corridor. Council will also support strategic partnerships which progress activation of the rail corridor, as discussed in the Smart Byron section.

Continuing to provide options for people to travel between towns and regions will enable workers to connect to jobs and workplaces to function productively. More generally, providing options for travel between destinations will enable everyone to access the services and amenities they need, whether locally, within the Shire or in larger centres and cities.

Comparison of journeys⁷⁶

Gold Coast Airport to Byron Bay



Brunswick Heads to Mullumbimby



Short Term Actions
(0 to 5 years)

Trial two Council-run shuttle bus routes between key townships

Council will trial two higher-frequency shuttle bus routes between selected towns in Byron Shire to provide a reliable alternative travel mode for residents and visitors. Subject to further investigation, the services are proposed to run express between Byron Bay and Mullumbimby and between Bangalow and Brunswick Heads, allowing for interchange at a central location (such as a potential Park and Ride – see below). Services would be closely monitored for viability and opportunities for improvement. Depending on the outcome of the trials, further adaptations could be made, such as on-demand shuttles in smaller towns, bus priority along key corridors such as Ewingsdale Road and further Park & Ride facilities.

Introduce a new central Park & Ride facility

Should trials prove successful (or as an adaptation to the shuttle services), enhancing access and patronage to the bus services would be supported by a Park and Ride facility. Ideally, the selected site would intercept car traffic in advance of congestion along Ewingsdale Road, being strategically sited near the interchange with the Pacific Highway and enabling interchange between trial services, such as Ewingsdale or Tyagarah. Council has run trial Park & Ride services over the summer period in previous years, with good levels of uptake, positive feedback and repeat patronage, despite residents being generally exempt from in-town parking restrictions^{28,29,30,31}.

Detailed investigations would be required to determine a suitable site which balances other needs, such as land availability and environmental impacts. Proposed connections within the Byron Shire Bike Plan could then enable Park & Ride facilities to function as a 'Park & Bike' hub where both visitors and Shire residents can park and then continue their journey by bike. Alternatively, users could cycle to their nearest public transport stop and use shuttle services to complete their journey.

CASE STUDY

PARK & RIDE TO ALLEVIATE PARKING & CONGESTION IN NEWCASTLE, NSW

Park & Ride Shuttle bus in Newcastle, NSW to relieve congestion: Newcastle City Council established a Park & Ride between the main sports stadium and the city centre to relieve parking demand and congestion until the Newcastle light rail was delivered. The service used the stadium car park and operated every 15 minutes in peak times.

The service cost Council approximately \$500,000 p.a. to run, co-funded with Transport for NSW, with passengers paying \$4.60 for a return trip. The service was used by approximately 1,000 passengers weekly^{32,33,34,35}.

Council has been adapting the service to local feedback and a recent survey found 93% of users were overall satisfied with the service, finding it easier, more relaxing and more cost effective than finding and paying for parking³⁶.

Proposed inter-town connectivity



Adapt parking arrangements to capitalise on benefits of broader changes

For a year-round Park & Ride service to be viable in support of the proposed bus services, it would require an adjustment of the parking arrangements in the Byron Bay town centre and other centres such as Mullumbimby, Bangalow and Brunswick Heads to provide the price incentives to use the bus and/or Park & Ride. This may include adjusting pricing, implementing further paid parking, adapting permit schemes or changing restrictions and supply to discourage driving into towns during peak periods. For instance, if parking prices in towns are undervalued relative to the level of driving and parking demand, then there will be little incentive to use other modes, with associated adverse effects of congestion from drivers looking for scarce parking spaces.

Leverage Smart Byron to build hubs

Innovative companies continue to roll out a range of alternate mobility options which are being delivered or trialled across the Shire, including solar-powered e-bike hire, ride share and car share. The additional mobility options will make it even easier for day-trippers and overnight tourists to travel to Byron Shire without a car. Through the Smart Byron program (see Smart Byron chapter), mobility options could be leveraged to help to transform public transport stops into 'mobility hubs', where users are provided multi-modal travel options to suit local contexts.

Continue to strengthen partnerships with external agencies

Council is currently involved in the Bus Operators Working Group, Transport and Infrastructure Advisory Committee and a cross-border commission with Queensland. Council will continue to work with these groups to seek better transport outcomes for the Shire, including exploring electric bus technology and improved advocacy outside of Byron where outcomes impact the Shire (such as airports).

Council will also work with partners to understand how we can better facilitate and accommodate improvements in the region. This is discussed further in the Smart Byron section.

CASE STUDY

INTEGRATED APPROACH TO CONGESTION IN QUEENSTOWN, NZ

Queenstown, one of the major tourist destinations in New Zealand, attracts millions of visitors annually.

To reduce the demand for car travel and parking, different levels of government worked together to increase parking prices to reflect parking demand, removed long-stay parking and took major steps to improve the bus network^{38,39,40}.

Fares were also subsidised to a flat rate of \$2 and the bus services were revamped to provide frequent routes between the airport and city centre. Based on this, bus patronage increased by 64% and fare revenue increased by 17% despite a lower fare⁴⁰.

The success of Queenstown's coordinated approach shows the potential transport benefits that Byron Shire could realise if a similar package of measures proposed in this strategy are implemented.

Focus on Bike Plan actions which rely on Council funding

The state government recently released new funding guidelines for active transport projects, including new walking and cycling infrastructure⁴². These new guidelines make it clearer that state funding favours travel to and within towns, and Council will align our funding arrangements accordingly.

This means that Council will seek state government funding for in-town improvements and focus Council funds on key inter-town links in the short term, starting with Byron Bay to Suffolk Park and Brunswick Heads to Mullumbimby.

Medium Term Actions (5 to 10 years)

Evaluate the outcome of shuttle trials and trial on-demand transport services

On-demand services use a central phone app or booking service to arrange door-to-door transport within small areas. The services are useful in smaller communities that would otherwise struggle to support a higher-capacity scheduled public transport service, as on-demand vehicles typically have a small capacity and travel along routes according to passenger demand. On-demand services could be used to take passengers from smaller communities to the larger towns, or for movement within townships, to access shops, supermarkets or other transport services. A trial would provide an understanding of usage patterns and build support for a more permanent service.

CASE STUDY

CYCLING POTENTIAL IN BRUNSWICK HEADS, NSW

Although many people travel between towns for work in Byron Shire, about 45% of commuting trips are less than ten kilometres in distance, achievable for many people by bike²³.

For example, one in six employed people living in Brunswick Heads travel to Mullumbimby for work – a trip which would take about 25 to 30 minutes by bike and is mostly flat^{22,43}.

The increasing availability of e-bikes (including for hire) makes it easier for locals and tourists to cycle between towns.

CASE STUDY

ON-DEMAND PROVIDING CONNECTIONS IN REGIONAL NSW

B-ConX is an on demand bus service that can be requested via mobile app, where the passenger can be picked up and dropped off anywhere within the service area or at a transport hub for regular route service buses.

The on-demand bus service that launched in Moree, NSW has been a success story with a patronage level of around 5,000 passengers per month – the second most popular pilot service in all of NSW (including Sydney) and will move into a permanent service in 2020⁴⁴.

02 Cars out, people in

Within town centres

Guiding Principles

Continue to build the walking and cycling network and support cycling as a more accessible, comfortable and attractive environment for everyone, particularly to town centres.

Reduce the number of vehicles entering town centres, through initiatives such as the Byron Bay Bypass and Park & Rides. This includes making changes to lock in the benefits of investment, such as transformations to public space and road use in step with delivery of the Bypass.

Manage parking demands to reflect the true cost of parking and discourage car use.

Ensure development is aligned to, and delivers outcomes which support, the objectives of this strategy.

Many streets within townships are trying to do too much.

Like many regional areas, the cores of townships in Byron Shire are centred around main streets which often try to service many roles – carrying cars, loading and waste traffic, providing access to properties and on-street car parking, buzzing with people walking and riding bikes and providing a place for people to dine, sit or shop. In some cases, these streets function organically, with a successful blend of activity, vibrance and accessibility.

In other cases, the mix can result in congested streets, difficulty accessing car parking, unsafe or unpleasant walking and cycling environments and uninviting places to spend time. Some streets in Byron's towns are beginning to shift towards the latter scenario, particularly during busier holiday periods.

Consultation for the Byron Bay Town Centre Masterplan found that traffic congestion, high parking demand and lack of pedestrian streets and cycle routes were key community concerns⁴⁵. Increasingly, these concerns are becoming prevalent in other townships, including Bangalow, Mullumbimby and Brunswick Heads. The consequences impact the environment (air quality, noise, emissions), economic activity (fewer wallets past shops and cafes) and safety (poor walking, cycling and personal safety outcomes).

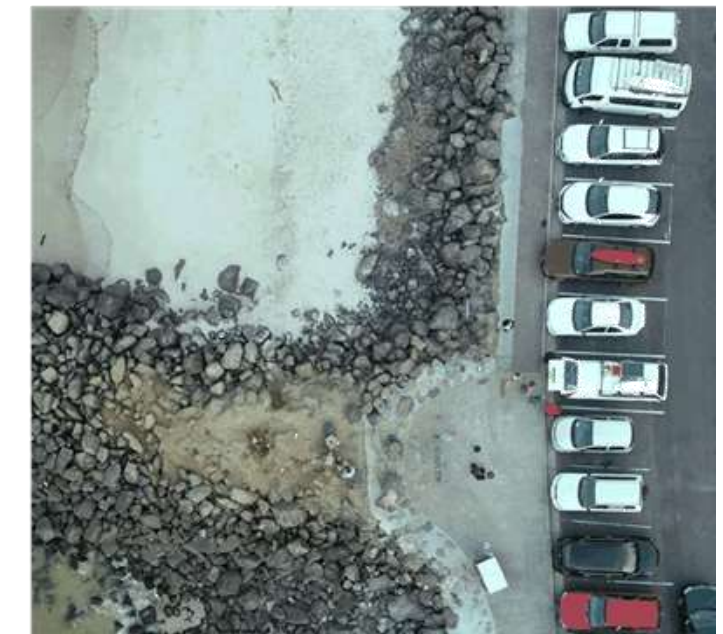
Car parking has been an ongoing challenge and is continuing to emerge as a problem in other townships, particularly during key holiday periods.

Community Survey results consistently rank parking as a top five issue, increasing in importance to the community over recent years. Half of respondents were 'not at all' or 'not very' satisfied with the current state of parking in the Shire²⁹.

In general, parking supply is generally adequate much of the time, however challenges are compounded by acute spikes in demand during weekend and peak holiday visitation periods. A recent study of parking in Brunswick Heads found that more than 90% of spaces in the town are occupied during peak weekend and holiday days and at some times, there were more parked vehicles than spaces available^{46,47,48,49,50,51}.

A similar study found that there are areas in Mullumbimby and Bangalow that approach, or reach, capacity in peak periods (weekends, school holidays). In all three towns, the vast majority of parking lasted less than one hour in duration (typically 30 minutes on average), which reflects high turnover, but also high levels of parking manoeuvres and traffic movements affecting other street activities^{47,48,49}.

Poor parking management can result in some of the symptoms currently experienced in towns and villages, including increased circulation as users seek a space, illegal or unsafe parking outcomes and reduce the amenity and liveability.



A recent study of parking in Brunswick Heads found that more than 90% of spaces in the town are occupied during peak weekend and holiday days⁴⁶.

Many short trips within towns are being made by car, which could be made by other modes.

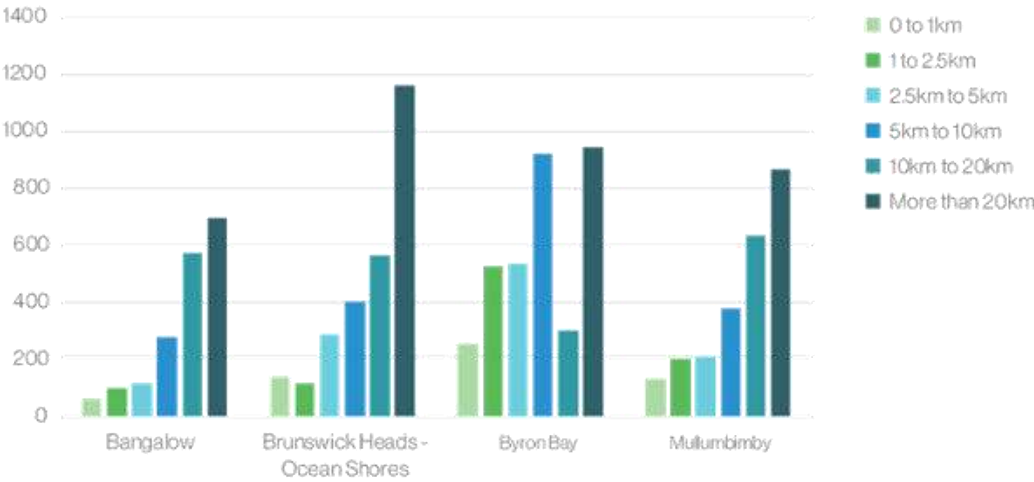
In the Byron Bay area, almost a quarter of trips to work are within walking distance and two-thirds of work trips are of less than ten kilometres, achievable by cycling. In other towns, about 10 per cent of trips are within walking distance and 30 to 40 per cent are within cycling distance of work, yet actual uptake remains much lower^{6,23,52}.

There are many reasons why people may choose not to walk or cycle, but in many cases, it is simply because there is no infrastructure, or conditions are unsafe or stressful. In many cases, this means people can feel obliged to drive, or uncomfortable to use certain public parts of the Shire.

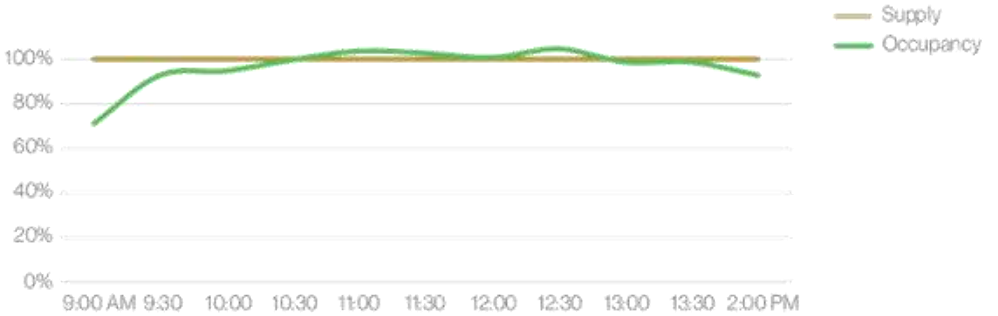
Feedback received for the Byron Arts and Industry Estate Precinct Plan demonstrated the desire for more footpaths and bike infrastructure, better connections to surrounds and more comfortable alternatives to busy traffic routes⁵³.

Other initiatives, such as narrower roads, dedicated cycling space, reduced speeds, more crossing opportunities and more pleasant and shaded walkways can also overcome many of the barriers that prevent people from walking and cycling.

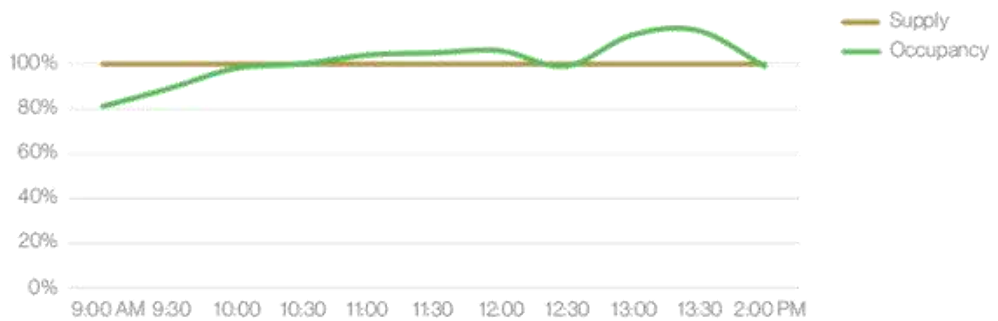
Travel distance to work by area²³



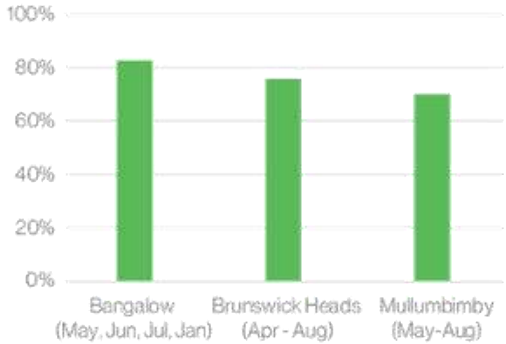
Parking demand on Burringbar Street, Mullumbimby on a Saturday during school holidays (Sept 2015)⁵⁰



Average parking demand in Brunswick Heads, Friday & Saturday during school holidays (Oct 2015)⁴⁶



Average parking occupancy during various 'typical' periods (2018-19)^{47,48,49}



Council will also make changes to lock in benefits of investment, such as reducing car access to the town centre following the delivery of the Byron Bay Bypass or increasing the cost of driving (parking) following an increase in public transport provision.

A map of the Byron Bay region in New South Wales, Australia. The map shows the coastline and surrounding land. Four locations are marked with green circles and numbered 1 through 4. Location 1 is Mullumbimby, located inland from the coast. Location 2 is Brunswick Heads, located on the coast. Location 3 is Bangalow, located inland from the coast. Location 4 is Byron Bay, located on the coast. Dashed lines connect the locations, showing a route from Mullumbimby to Brunswick Heads, then to Bangalow, and finally to Byron Bay.

Seek state government funding for links to town centres

Part of the attraction of townships are that many jobs, services and attractions are consolidated within a short distance. Most of our townships are relatively small, meaning that walking or wheeling between shops, services and home is achievable for many people. There are higher numbers of car use to work generated on the peripheries of more populated centres, such as Suffolk Park, Ocean Shores, west of Bangalow, outskirts of Mullumbimby and the Byron Arts & Industrial Precinct⁵⁴.

Peripheries of towns are also where there is the highest level of cycling to work, albeit relatively low as a percentage of all travel⁵⁵. Council will continue to deliver better access to town, consistent with the Bike Plan and Pedestrian Access and Mobility Plan.

The state government has recently released guidelines in the 2020/21 Walking and Cycling Program. Council will align projects with these criteria and outcomes⁴².

Enable delivery of the PAMP and Bike Plan through associated works

Where possible, Council will reallocate road space to enable items from the PAMP and Bike Plan to be delivered, such as new or upgraded footpaths, cycle paths or on-road cycle lanes.

This could be undertaken as part of road reconstruction or resurfacing works

Development applications for specific sites must also incorporate existing and future footpaths and cycleways as part of their development.

Influence new development to shape sustainable travel habits

Council has direct control over the maintenance and management of local roads, footpaths and shared paths for pedestrians and cyclists and are charged with reviewing and approving development applications.

When reviewing applications, Council's role is to ensure development is consistent with local and state planning policies. Council can also propose changes to influence car parking, the provision of footpaths, bicycle parking and land use planning controls can shape and influence the way our towns develop in the future.

Council will also pursue opportunities for large sites to provide new pedestrian and cyclist connections as part of new development applications and to ensure new developments create attractive environments for walking and cycling and demonstrate a commitment to more sustainable travel.

Reduce speed limits in key town centres to improve road safety and urban amenity

Impact forces of just 30km/hr are enough to be fatal to a pedestrian, with chance of a fatal outcome increasing significantly at higher speeds⁵⁶.

Reducing speed limits to 30-40km/h in town centres will reduce the probability of crashes, reduce the chance of fatal consequences and create a more comfortable environment for people to walk, ride and relax.

CASE STUDY

STRIKING THE BALANCE IN MAITLAND, NSW

In 1988, the Maitland Mall was converted from a riverside retail street to a pedestrian mall, removing all vehicles.

The conversion was not successful and by 2010, retail vacancy rates along the street had increased and business confidence was low. Through the 'Levee' project, the pedestrian mall was converted into a 10km/hour shared zone with a focus on the public realm.

Retail vacancies dropped to close to zero and average daily pedestrian traffic has increased by about a third^{57,58,59,60}.

CASE STUDY

CONSISTENCY AND PERSISTENCE PAY OFF IN KEMPSEY, NSW

Until Kempsey was bypassed in 2013, the Pacific Highway cut the town in half - bringing tourists and trucks through the centre of town.

Council's master plan set out to improve the urban environment in the town in conjunction with the introduction of the bypass. This included 30 different projects of various sizes to enhance the town centre through changing local traffic routes and adding more green space and landscaping, working cohesively to achieve an end goal.

Between 2013 and 2017 after the bypass opened, there has been an increase of 250 jobs - an increase of 22% over 2013 levels⁶¹.



Medium Term Actions (5 to 10 years)

Progressively relocate car parking outside of town centres

This may include implementing parking management measures which enforce use of Park & Ride facilities or making better use of peripheral car parking stations outside of town cores.

Continue to work with the community to introduce paid parking

Parking demand pressures in Byron Bay have led to Council implementing priced parking in Byron Bay. Despite peak pressures in Brunswick Heads, Bangalow and Mullumbimby, there is an absence of mechanisms in these towns to deter parking demand.

Paid parking is also one of few mechanisms available to Council to capture revenue from visitors to the region – it is estimated that the cost to Council of the additional tourist population using the Shire's public facilities is \$23 million per year – almost half of our annual road and water construction and maintenance budget^{3,62}.

Rolling out paid parking across the municipality would also represent a fairer outcome where road users pay for the usage of Council assets (rather than being subsidised by local residents) and where the benefits of revenue can be reinvested back into townships – at present, one third of Byron Bay's parking revenue is spent in other parts of the municipality⁶³.



03 Making the most of what we have

Maintenance & assets

Guiding Principles

Put emphasis on being both financially and environmentally sustainable.

Continually review new and emerging alternative materials as they continue to emerge.

Continue to work to meet community expectations of asset quality and condition.

Improve communication of works, progress and asset improvement to the community.

The challenges of road and path maintenance (and associated infrastructure, like bridges) in Byron Shire are well-known and publicised.

Roads and paths play an important role in Byron, carrying all of the region's movements. Council is responsible for the maintenance of more than 500 kilometres of sealed road, 96 kilometres of unsealed roads, 89 kilometres of paths and 45 bridges and footbridges, as well as kerbs, barriers, shelters, walls, car parks, roundabouts signs and other infrastructure⁶⁴.

Low number of rateable assets, high tourism volumes, historical underinvestment and environmental factors place pressure on assets and the maintenance task. Recent data collected in 2019 shows that 68 per cent of the Shire's road network is rated 'fair' to 'very poor' – that is, requires improvements beyond cyclical maintenance to prevent further deterioration. Some of these roads include key regional links between destinations, towns and villages^{65,67}.

Feedback for the Byron Shire Community Strategic Plan 2028 indicated that renewal of roads is clearly the most pressing component of Council's infrastructure renewal and maintenance task. Community Survey results also show a consistent gap between community expectations and satisfaction with respect to local roads^{10,25}.

Council is constantly working to improve asset condition.

Reviews in preparation of this strategy found that Council is currently implementing good-practice asset maintenance, using the modern technology, well-established and integrated systems and sound knowledge of local conditions. From an operational perspective, funding for road maintenance has continued to increase and on average, Council repairs more than 5,000 potholes every month⁶².

Council recently received a substantial grant from the state government to support road maintenance, which will go some way to holding road condition in its current state. Over the coming years, Council will continue to review operations and asset management and support shifts to modes with lower impacts on assets.



Funding for road maintenance has continued to increase and on average, Council replaces more than 5,000 potholes every month⁶²

Short Term Actions
(0 to 5 years)

Prepare for funding opportunities

In NSW, the state government administers a number of funding streams and programs, including the 'Fixing Country Roads' program, annual Walking and Cycling funding streams and the 'Fixing Local Roads' program. This fundings enables councils such as Byron Shire to assist in repairing, patching, maintaining or sealing local roads.

Looking forward, Council will work to ensure projects are scoped such that they meet objectives for other funding sources and with Future Transport 2056 and freight strategies.

Commit to continued operational improvements

Council will continue to review operations and asset maintenance and improve where possible. This includes investigating innovative solutions such as recycled materials (as the technology matures) and using local artists to enhance the vibrance of surfaces. As noted in other parts of this strategy, such improvements may include reducing the width of pavements to reduce maintenance costs or incorporating infrastructure (such as blue/green infrastructure) into resurfacing or reconstruction works.

CASE STUDY

HITTING THE ROAD WITH RECYCLED MATERIALS IN CRAIGIEBURN, VIC

'Plastiphalt' is an asphalt product made from plastic, glass and other products destined for landfill. Producers claim the product is "cost competitive and has a 65 per cent improvement in fatigue life, which means the road lasts longer and can better handle heavy traffic".

In May 2018, 300 metres of Rayfield Avenue, Craigieburn (VIC) was resurfaced using Plastiphalt. The new road contains the equivalent of 200,000 plastic bags, 63,000 glass bottles and toner from 4,500 printer cartridges. The cost of the product was approximately two per cent higher than standard asphalt and as of August 2018, there had been no issues with the pavement surface^{67,68}.

However, recent Austroads research has highlighted concerns about hazards road workers could be exposed to while handling recycled plastics, including the release of toxic emissions such as chloride, formaldehyde, toluene and ethylbenzene when the plastics are heated. Another major concern is microplastics leaching out from pavements into waterways, posing a serious threat to marine life.

As such, Austroads has recommended a precautionary approach be taken on the use of recycled products until more conclusive research has been conducted⁶⁹.

Identify opportunities to hand back infrastructure to the state government

Through consultation as part of this Strategy, TINSW noted the state government's 2019 election commitment for more regional roads to be handed back to the state government from council control to minimise the maintenance costs for local roads that serve a regional function. In 2020, a panel was formed to review the regional roads that could be reclassified to state control, with recommendations to be made to the state government in July 2021 at the earliest^{26,62}.

While there may be some time until selected regional roads across the state are transferred to the state government, Council will have a clear stance and be ready to make the case to the state government on the key roads in Byron Shire that may be transferrable, including key arterials such as Ewingsdale Road between Byron Bay and the Pacific Motorway.

Communicating success

Council will improve communication of maintenance efforts and initiatives to demonstrate efforts are being made to meet the 'Byron' brand. This includes through Council's website and social media channels, news releases, newsletters and magazines, as well as more bespoke opportunities through the year as major works are undertaken or milestones achieved.



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04

A sustainable way to harness the future

Smart Byron

Guiding Principles

Bring together businesses, community members, innovators and technology.

Generate new ideas and learn from experience from around the world.

Create a framework to make the most of new technologies, and the role Council should play.

Solve the region's transport challenges and improve liveability, efficiency and quality of life.

Pavement which converts traffic movements into electrical energy. Paying for public transport without pulling out your phone or wallet. Renting out your old or unused bike to people who need one. Using your electric vehicle to power your outdoor event (or your home during an emergency). Car-pooling to meet new people or potential customers. Services which drop your bags at your hotel while you go to the beach. Linking up nearby construction or business sites to make deliveries more efficient⁷¹.

Projects like this are happening in 'smart' towns, cities and regions all over the world, where technology is used to respond (at least in part) to a region's social, economic and environmental challenges.

There are hundreds of existing smart cities around the globe, with technology being deployed to improve mobility, resources, utilities, security, waste, resilience, climate change and housing. Clever ideas and smart thinking are brought to life, from brand new concepts to a new use for smartphone apps, new modes of transport, new providers or payment models, new vehicles, new sensors or new ways of sharing information or assets. Ultimately, the outcome is greater efficiency in the use of limited resources, improved cost-effectiveness and a better quality of life^{72,74}.

Council is launching a new 'Smart Byron' initiative for the region, bringing together the public and private sector to come up with some creative ideas and solve some of the region's mobility challenges. This approach is directly consistent with the Enterprising Byron 2025 action to "develop a platform for facilitating public and private partnerships to deliver economic development initiatives and enabling infrastructure"⁷³.

At its core, the aim of the Smart Byron program is to reframe the region's challenges and use our creativity, innovation, talented people and technology to solve them.

It is about Byron creating its own sustainable outcomes, and Council's response to managing external influences.

For example, a 'lack of public transport' could instead be seen as 'difficulty moving between towns without a car'. Technology could solve this problem in a number of ways, from a phone app which unlocks a share bike to a robot bus which picks up and drops off people along the route.

A Smart Byron group would establish a framework to choose between these outcomes, attract providers to the region and facilitate trials and implementation in a way that is low-cost or cost-neutral to Council. Council would, however, provide initial establishing support, funding and facilitation of projects (for example, approvals).

The 'Smart Cities' model is established and proven. A new Smart Byron platform needs:

- sufficient investment, leadership and resources to have meaningful impact
- to be separate from Council
- incentives and effort to attract investment in the region
- to be focussed and consistent in its approach to maximise impact
- to be aligned with key priorities and Council directions.

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graph TD; A[Global investment in smart technologies and new mobilities] --> B[Byron's ability to influence and attract global capital investment]; B --> C[Council has limited capital available to fund new projects]; C --> D[Develop sustainable system to respond to new technology and attract capital ('Smart Byron')];
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3 March 2020

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Council Actions

Establish a core partnership team responsible for development, planning and implementation of the Smart Byron program

A first step will be for Council to prepare an Expression of Interest and, subsequently, tender to identify organisations who would be interested in leading or providing services to enable Smart Byron. The Expression of Interest and tender request would include two parts:

- A suitably experienced organisation/consultant to lead Smart Byron. The leadership would manage a limited Council-funded budget to attract investment, nurture new businesses/innovators and use partnerships to overcome the region's transport challenges. The leader is responsible for liaising with Council and others to identify and prioritise mobility goals and to co-ordinate solutions from idea to implementation.
- Relevant parties to contribute and deliver services to Smart Byron. This includes private organisations, business owners, start-ups, mobility providers, developers, volunteers, advocacy and community groups who are interested in contributing to improving transport in Byron Shire and beyond. These parties should be capable of providing solutions which are low-cost or cost-neutral to Council (i.e. ideally, commercially independent from Council), noting that Council will aim to expedite approvals and work with providers to meet needs.

Smart Byron Actions⁷²

Articulate priorities for the region

Transport priorities should align with Council's goal to "generate meaningful mode shift away from car travel to more environmentally-conscious ways of travel" and the priorities outlined in this strategy.

Build a framework for selecting projects for delivery

For example, projects may be selected based on feasibility, cost and resources and likely contribution towards Council's plans, strategies and objectives.

Develop a method for monitoring and evaluating projects

For example, projects may be monitored based on uptake (usage) or impact. Longer-term impacts of transport projects may be measured by changes in the way people travel (mode share), consistent with this strategy. Success of other disciplines should be aligned with their respective strategies.

Generate ideas to overcome problems and challenges in Byron Shire and beyond

For example, solutions may include e-bike share, car share, electric vehicle charging stations, automated vehicles or on-demand public transport.

Build partnerships and work with technology providers and innovators to broaden ideas and opportunities.

It may be a product that exists elsewhere, or an idea we haven't thought of yet!

Implement projects on a trial basis, monitor and evaluate outcomes. Identify opportunities to refine and improve, or discontinue

Some things might make an immediate difference, others might work slowly and others might not work at all, or have unintended consequences. By working dynamically, the team can explore how things work in the Shire and adapt to community feedback, improve outcomes or increase efficiency.

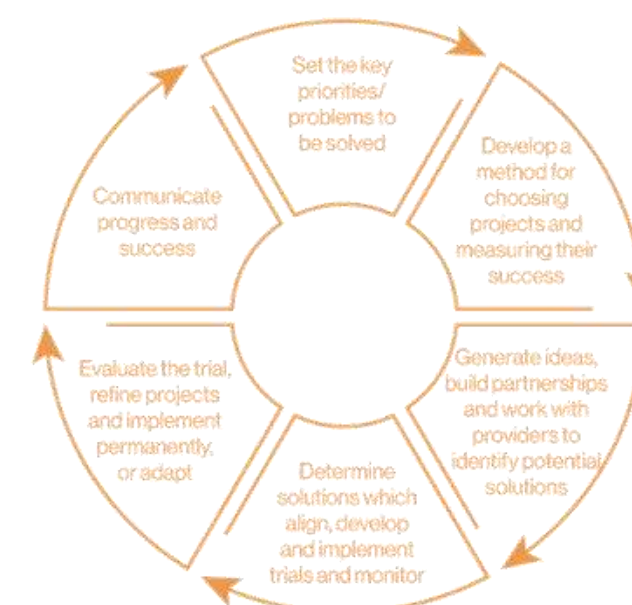
Resolve the future of projects

For successful projects, confirm funding arrangements and delivery timeframes and implement successful projects on a more widespread or permanent basis.

Monitor and refine projects

Monitor the success of projects using the established framework. Constantly update and refine as new innovations, technology and problems arise.

Smart Byron process⁷²



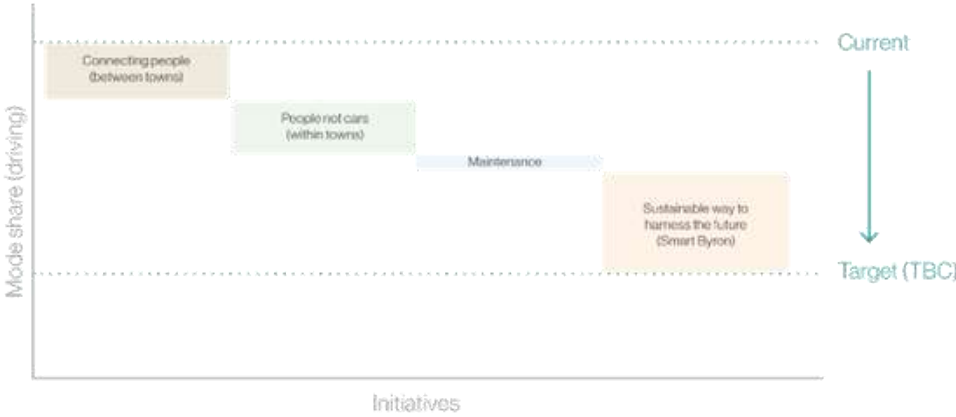
Measures of success

We use mode shares to track our progress. Mode shares are a useful tool because:

- They are directly relevant to our goal to support more sustainable ways of travel. Given the relationship between transport and other aspects of community life, they are also a proxy measure for many broader goals, such as environmental and social outcomes.
- They are a consistent metric and established professional tool which is easily understood.
- They are scalable and versatile – mode shares can be understood on a site, local or regional level and by different types of trip.
- They are already captured through a range of sources, including through the Australian Bureau of Statistics Census for trips to work and, subject to confirmation, for education trips from 2021⁷⁵. Tourism research can provide similar data on tourism mode shares.
- They capture the overall impact of our interventions, as well as broader community travel trends, guiding how the strategy needs to adapt over time.

Compared to neighbouring areas, Byron Shire has a high proportion of people working from home and high level of people walking and cycling to work⁸. This Strategy will set out principles and actions to build upon this momentum and continue to provide choices to travel more sustainably for other types of trips.

How will targets be achieved?



Summary of actions

[TO BE CONFIRMED]

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