tasman district council | Te Kaunihera o te tai o Aorere

Transportation
Activity Management Plan
2021-2051

Quality Assurance Statement		
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Contents

1 Executive Summary

The overarching theme to this transport Activity Management Plan (AMP) is growth. We are a growing community, which is leading to more vehicles on the roads. These additional vehicles makes our residential areas less pleasant places to be, adds to congestion and delays which impacts the movement of people and freight, and creates barriers for those wanting to walk or cycle. In addition, the condition of sealed roads and drainage assets are deteriorating.

The Council will address these problems through:

- Improving and extending our public transport services.
- Creating an improved cycle network.
- A programme to temporarily lift the amount of sealed road and drainage maintenance and renewal.

There is now greater emphasis on everyone to reduce their impact on the environment. Transport has traditionally contributed a significant portion of greenhouse gas emissions, pollution of our waterways and the noise in our built environment. There is a community desire to mitigate these effects, be good stewards of the land and leave an environment that future generations are able to enjoy.

This AMP incorporates a business case approach to determine strategic issues and justify investment in the programmes of work against realisable benefits.

This AMP also addresses the risk of significant future costs brought about by years of restrained investment whilst continuing to meet the Council's financial strategy.

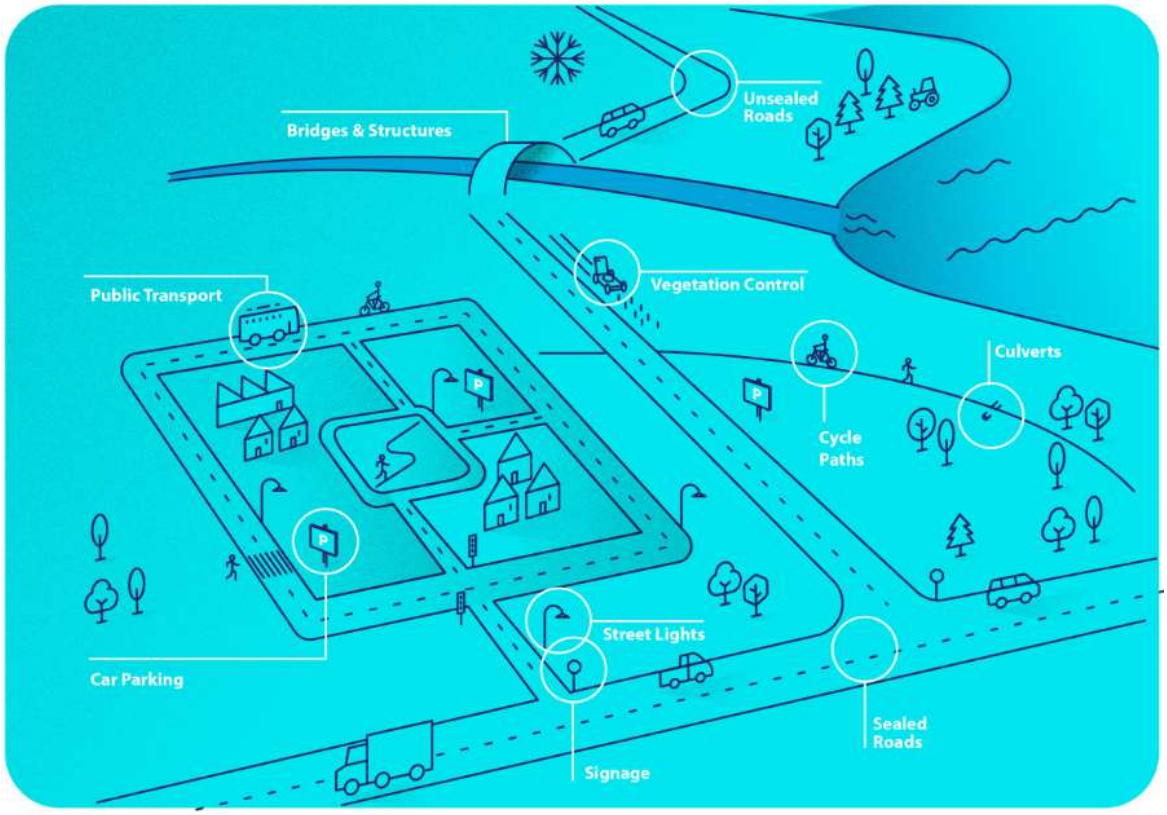
1.1 Why We Do It

Activity Goal
Proactively managing the Council's transportation activities to facilitate movement of people and goods within communities and around the District.

1.2 What We Do

The Council manages a range of transportation services and assets to facilitate transportation in the Tasman District. This can be as simple as keeping the roads free from debris and frost to undertaking major route changes to improve efficiency. The figure below has an overview of what the Council does; Section 8 covers the work undertaken on the assets in more detail.

Brief summary table of transport assets eg 970km sealed roads, 750km unsealed roads, 475 bridges, 12,000 culverts, 240km footpaths, 140km cycleways/shared paths, 2300 streetlights etc.



1.3 Levels of Service

The Council aims to provide the following levels of service for the Transportation activity.

"Our transportation network is becoming safer for its users."	"We proactively maintain roads in high risk areas to minimise unplanned road closures."	"Our transportation network enables the community to choose from various modes of travel."
"Our transportation network is maintained cost effectively and whole of life costs are optimised."	"The travel quality and aesthetics of our transportation network is managed at a level appropriate to the importance of the road and satisfies the community's expectations."	

We have incorporated a new performance measure that measures resident's perception of safety for their chosen form of transport. Knowing how safe people feel when they chose to drive, ride or walk is an important factor in understanding our transport networks.

We have changed the targets for the number of people cycling and using public transport to be an increase in the number of users per capita per year. Our aim is to see more people choosing to cycle or use public transport instead of relying on traditional car transport, as this will benefit all users of the transport network by limiting increases in congestion.

We have also budgeted to increase the amount of road resurfacing we undertake in order to minimise whole of life costs across the network For further detail, including measures and targets for the levels of service refer to Section 5.

1.4 Key Issues

To assist in shaping the programme of works in this document, the Council has developed problem statements that assist in focusing on the problems, what the benefits to solving the problems would be and how the Council will respond. This is outlined using in the investment logic map in the figure below.

	PROBLEM	BENEFIT	RESPONSE
	Traffic Capacity "Richmond's transportation network is unable to support the increasing demand from vehicles thereby eroding levels of service, delaying freight and affecting social wellbeing in urban areas."	• Impact on mode choice • Impact on user experience	• Extend and improve public transport services • Improve walking networks • Introduce paid parking to Richmond • Work with Waka Kotahi on strategic changes to the State Highway network to improve freight efficiency
	Active Transport "Increases in traffic volumes and a lack of safe route choices is creating barriers for people who wish to use active transport modes."	• Impact on mode choice • Impact on user experience	• Create an improved district wide walking and cycling network
	Road Maintenance "The current low levels of road pavement renewals is causing road pavements and surfaces to deteriorate at an	• Impact of resource efficiency	• Temporarily increase resurfacing to maximize pavement life, reduce relative maintenance and reduce whole-of-life costs

unsustainable rate."

Section 3.9 outlines the problems and the evidence that supports them. Section 8 addresses how the Council will respond to these problems.

1.5 Future Demand

With development mix of urban intensification, and lifestyle blocks particularly in coastal Tasman area, will have a range of impacts on transport system. Rural residents will still be reliant on private vehicles for transport.

Most of our network has the capacity to accommodate increased traffic although some roads and intersections will require minor improvements to ensure they are safe to use.

Some parts of the network, mostly within Richmond and Motueka, will experienced increased delays and congestions and the responses summarised in Section 1.4 will be needed. Increasing use of walking and cycling, and public transport, in urban areas will help ensure rural residents and freight operators are able to use the road network efficiently.

1.6 Maintenance, Operations and Renewal Programme

The transportation maintenance, operational renewal programme is the largest of the Council's activities. Together it constitutes around $16.7 million in annual spending. The major bodies of work in this programme and their forecast spend (uninflated) for the next 30 years are shown below.

Sealed Road Resurfacing	Sealed Road Maintenance	Environmental Maintenance	Unsealed Road Metaling
$120.9M	$63.8M	$52.5	$39.0M
Drainage Renewals	**Road Pavement Renewal**	**Public Transport**	**Unsealed Road Maintenance**
$27.9M	$24.2M	$21.8M	$18.6M

The Council contributes significant funding to the transportation programme.
Waka Kotahi/NZ Transport Agency is also a significant contributor, funding the majority of works at around 51% of the total cost. This plan is largely business as usual but there are some changes to address the two of the key issues.

1.7 Capital Programme

The Council has developed the capital programme of works based on prioritisation of projects that address safety, active transport and growth. The figure below shows the key capital improvements projects over the next 30 years. All costs include inflation.

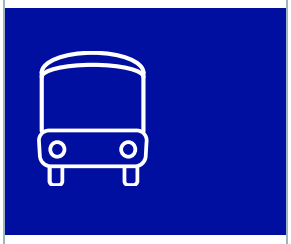
See the 'Capital Investment' sections in Chapter 8 for further detail on the scope of the projects.

TIMELINE OF KEY INFRASTRUCTURE PROJECTS – TRANSPORTATION

This timeline shows some of the major capital works planned for the next 30 years.

1.8 Key Changes

The key issues and customer expectations have changed the prioritisation of key bodies of work. Some of the biggest changes are shown below.

Improved Public Transport	New Cycle Network	Sealed Road Resurfacing Programme	Drainage Programme
			
Services to Motueka and Wakefield and improved frequency in Richmond over the next ten years	New cycle ways in Richmond, Motueka, Takaka and Mapua over the next ten years	21km of additional road resurfacing every year for the next 10 years	28km of additional roadside water channel dug out every year for the next three years

1.9 Key Risks and Assumptions

There are factors outside of the Council's control that can change having an impact on the Council's ability to do what it planned. Sometimes the impact can be significant. There is always uncertainty in any planning process but the key to good quality planning is to make clear assumptions to help address this uncertainty.

This section sets out the key risks and assumptions that relate to this activity:

- Natural hazard events continue largely as per historical experience, and there is no catastrophic event, over the next 30 years.
- The Richmond Network Operating Framework study identifies similar projects to those in this document.
- Waka Kotahi continues to provide a similar level of funding in the future.
- The revised Government Policy Statement on transportation does not change the priorities as defined in this document.
- Growth in the District is high for the first 15 years and then medium for the following 15 years.
- Technology does not significantly change the current transportation paradigm, for example significant increases in working from home.

2 Introduction

The purpose of this Activity Management Plan (AMP) is to outline and to summarise in one place, the Council's strategic management and long-term approach for the provision and maintenance of its transportation network to an agreed level of service.

2.1 Rationale for Council Involvement

This AMP demonstrates responsible management of the District's assets on behalf of customers and stakeholders and assists with the achievement of strategic goals and statutory compliance. This AMP combines management, financial, engineering and technical practices to ensure that the levels of service required by customers are provided at the lowest long-term cost to the community and are delivered in a sustainable manner.

The provision of a transportation network, facilities and services is a core service of local government and is something that the Council has always provided. The transportation activity provides many public benefits and it is considered necessary and beneficial to the community. The Council undertakes the planning, implementation and maintenance of the network to assist in promoting the economic, social, environment and cultural well-being of the District's communities.

2.2 Description of Assets and Services

The Council is responsible for connecting people and moving goods across the Tasman district.

Tasman's road network includes 1,751 kilometres of maintained roads and associated assets. The transport assets have a replacement value of $824 million and a current depreciated value of $618 million as summarised in Table 1~~Table 1~~ below.

Table 1: Transport Assets Overview

Transport Asset Group		Replacement Value	Depreciated Value
	1,769km of roads, (995km sealed and 774km unsealed)	$482M	$392M
	541 bridges (including footbridges)	$154M	$81M
	3.93km of Retaining Walls	$7.0M	$6.3M

Transport Asset Group		Replacement Value	Depreciated Value
	293km of footpaths and 18km walkways	$45M	$27M
	140 km of Recreational based Tasman Great Taste Trail	$15M	$11M
	22 off street carpark areas	$1.9M	$1.9M
	10,385 culverts with a total length of 102km 4,067 sumps	$184M	$117M
	3,075 Streetlights	$6.6M	$3.8M
	Other Road and Transport Assets	$10.7M	$5.4M
TOTAL VALUE OF TRANSPORT ASSETS AS AT 30 JUNE 2020		$906M	$645M

The Council uses the One Network Road Classification system to categorise the road network. This enables the Council to assess our road network for efficiencies in investment and relative performance against other road controlling authorities in New Zealand. Figure 1: Network Length and Journeys Travelled~~Figure 1: Network Length and Journeys Travelled~~ below, shows that arterial and primary collector roads make up a small proportion of the overall road network but constitute a significant proportion of total travel on the network. Conversely, the lower classification road (Access and Low Volume) make up a majority of the overall road network, but account for a small proportion of total journeys.

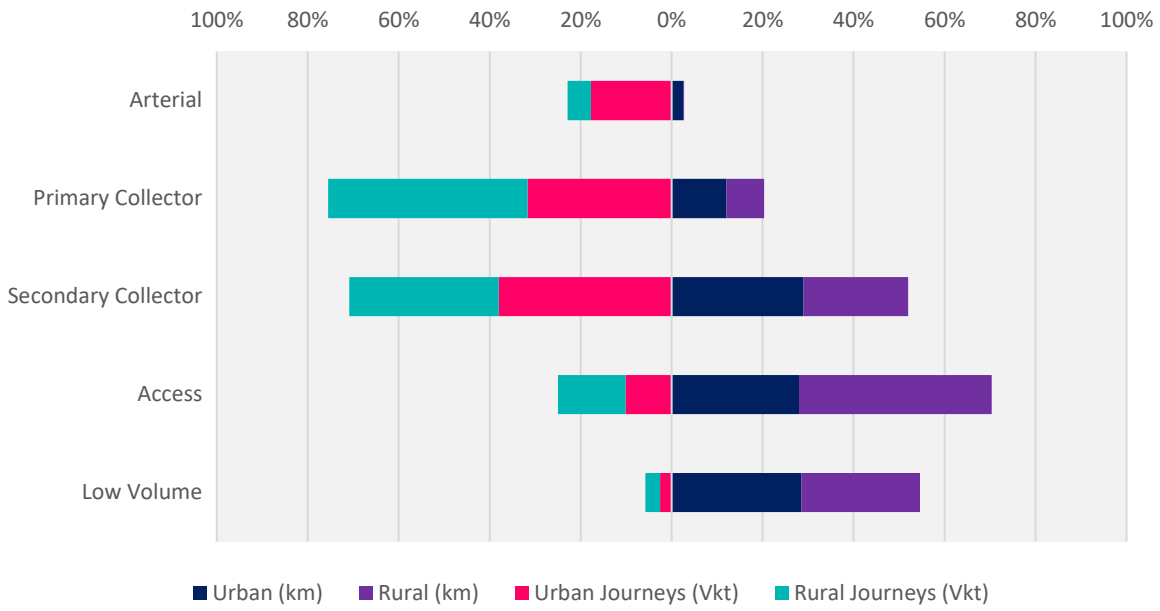


Figure 1: Network Length and Journeys Travelled

In addition to asset management, the Council undertakes transport related services. Table 2: Transport Services Overview~~Table 2: Transport Services Overview~~ below summaries the transport related service that the Council is involved in.

Table 2: Transport Services Overview

Transport Service		Influence
	Public Transport services around the District	400,000 passengers per year

Transport Service		Influence
	Door to door passenger transport scheme for people with disabilities	
	Transport safety programmes undertaken at schools to educate and encourage safe active transport	4,000 attendees
	Targeted training programmes at drivers that are identified as being at higher risk	600 attendees
	Driver safety education through targeted signage	+10,000 drivers

2.3 Transportation Asset Group Description

2.3.1 Sealed Pavement and Surfacing

The Council currently maintains a total of 1,769 km of road network, of which 995 km is sealed. Surface and pavement inventory data is held in the Council's Road Asset and Maintenance Management (RAMM) database. The RAMM database records go back to the 1960s with some of the pavement records noted as estimates. Generally, urban pavements have been constructed with reasonable depths of aggregate (eg, 300 mm) and there has been minimal pavement rehabilitation over the last 10 years. Many rural roads were developed in the 1960s at low cost with minimal amounts of pavement aggregate (eg, 50-100 mm) and were then sealed.

During the last 10 years, there has been considerable Falling Weight Deflectometer testing on the network. This involved load testing the pavement to measure pavement strength. Associated with this, test pits have been excavated at selected sites to measure the actual layer depths and then compared with what is in the RAMM database. A conclusion from the last five years of test pit information is that generally the test pit measures are showing a greater aggregate depth than what is shown in RAMM.

2.3.2 Unsealed Pavements

The Council maintains 774km of unsealed roads. These vary in width from 2m to 8m with an average width of 3.7m. Generally, the Council's unsealed road network carries low traffic volumes, with 63% of roads carrying less than 50 vehicles per day (vpd), and 33% carrying less than 25 vpd. The Council does not expect that this will change significantly. It is also unlikely that many unsealed roads will be sealed in future due to the greater total whole-of-life costs of upgrading unsealed roads to sealed and ongoing maintenance. The exception to this is if the capital upgrade cost is paid by a third party.

The Council have undertaken some testing of various maintenance metal types and the cost efficiency of using higher value aggregates especially on areas of high traction demand. This has identified products that are now used to minimise maintenance needs, and as more of the unsealed network is treated with these products over time unsealed road performance will improve.

Unsealed road inventory data is held in the Council's RAMM database. Figure 2~~Figure 2~~ shows the approximate traffic volumes across the Council's unsealed network.

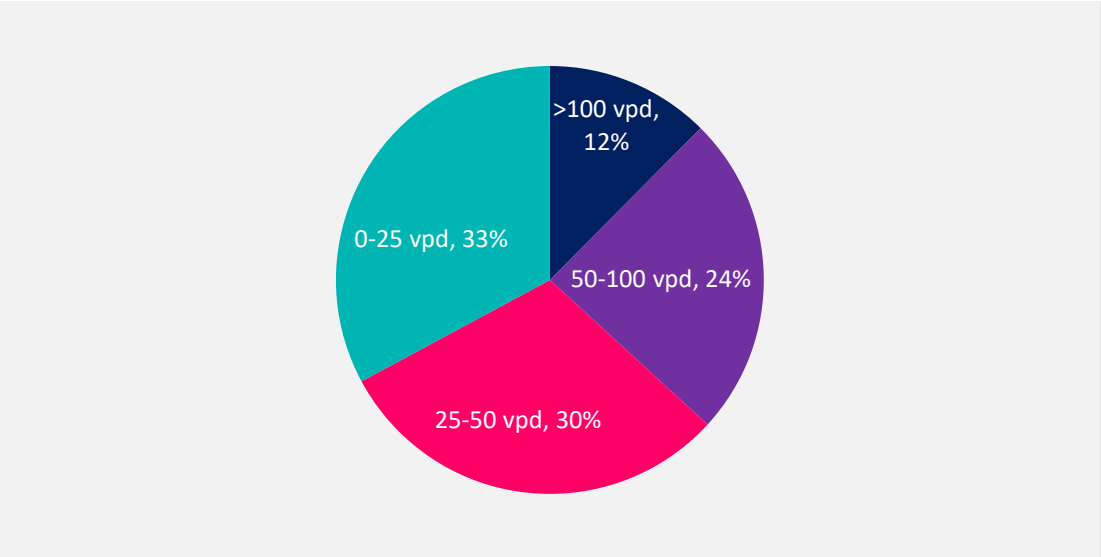


Figure 2: Traffic Volumes on Unsealed Roads

Historically pavement material and depth data has not been recorded for unsealed roads. Since 2012/13 the Council has been recording new pavement layers in RAMM when completing structural overlay activities. Routine maintenance metaling is not recorded in the RAMM inventory table, and the costs associated with the work are captured in RAMM under the Maintenance Cost table.

2.3.3 Drainage

Drainage assets include culverts, lined and unlined surface water channels, sumps and soak pits.

Poor condition, lack of maintenance and lack of adequate surface water channels were noted in the 2010 Waka Kotahi's technical report as a weakness for the Council's road network. Following receipt of this report, the transportation programme included significant emphasis on improving roadside drainage by forming new, deepening existing and reforming surface water channels. Since 2010 there has been a significant portion of roadside drainage improved. It is proposed to continue with the programme of improvements that includes the existing backlog of inadequate drainage and greater emphasis on drainage in the first five years of this AMP. This should help to minimise pavement deterioration, which would otherwise arise from poor drainage and associated saturated pavements and subgrades. This drainage improvement strategy supports the current pavement strategy of longer pavement and surfacing lifecycles.
Drainage improvements will be prioritised based on:

- Forward works programme and particularly reseal timing
- Traffic (Annual Average Daily Traffic and Heavy Commercial Vehicles)
- Risks to existing infrastructure
- Topography

Culvert inventory data is held in the Council's RAMM database. Approximately 94% of the Council's culverts are constructed of concrete. The remainder are PVC (2%), earthenware (1.5%), steel (1.5%) or recorded as 'unknown'. Culverts are relatively long-life assets and modern well-constructed reinforced concrete culverts could be expected to last up to 100 years and perhaps longer.

The installation date of a large majority of the Council's existing culverts is unknown. Therefore, relying on age-based renewal is not considered feasible or practical. The Council carries out condition inspection to determine renewal requirements.

A Waka Kohatu - NZ Transport Agency Technical Audit in 2018 commented that culverts inspected during the audit were not being adequately maintained. We have strengthened the inspection regime and this AMP allows for additional maintenance to ensure culverts, particularly critical culverts, are kept clean.

Approximately 50% of lined surface water channels have their construction dates recorded in RAMM. For the purposes of valuation, they are generally assigned a life of 50 years for concrete and 15 to 25 years for sealed or asphalt. Their actual life may vary considerably from what is assumed, and in practice, these assets are renewed based on condition. It is expected that the life achieved for a concrete channel may significantly exceed 50 years.

2.3.4 Bridges

A bridge or large culvert is classed as a bridge structure when the waterway area exceeds 3.4m². The Council's bridge stock is generally static in nature due to typically slow deterioration of the assets and little growth.

The Council owns and maintains 541 bridges as described in Bridge asset data is held in the Council's RAMM database and summarised in Table 3~~Table 3~~ below.

Table 3: Bridge Summary

Bridge Type	Number	Length (m)
Road – Two Lane	218	2,545
Road – Single Lane	310	6217
Footbridges/Cycle bridges	13	608

All bridges are inspected every two years (50% of bridges in year one and 50% of bridges in year two) on a cyclic basis. The Council receives overweight vehicle applications and issue permits based off a database that gives the allowable loading of each bridge in the District. Anything that has additional complication, a structural engineer undertakes an assessment and provides conditions to the use of bridges for specific transits.

2.3.5 Retaining Walls

Historically the collection of retaining wall inventory data was poor and the Council has had to identify the majority of its assets post construction. Retaining wall inventory data was first collected and recorded in RAMM during 2011/12. New walls added to the network are typically as a result of slips from either gradual processes or sudden events. New walls are considered on a case-by-case economic basis. Generally, the Council's preferred option is to realign the road rather than construct new structures. 3.93km of retaining walls are recorded in our asset management system.

2.3.6 Traffic Signs, Delineation and Road Markings

Signs and marking convey important information to road users to improve safety and ensure people and discover the way to their destination.

Traffic signs and road markings are recorded in the Council's RAMM database. Sign inventory data is summarised below in Table 4: Road Sign Inventory Summary~~Table 4: Road Sign Inventory Summary~~.

Edge marker posts and culvert markers are excluded from the database as asset data is not collected for these short-life and low-cost assets. To date no asset data for raised pavement markers has been captured or recorded. Road markings which have been classed as a safety exception by the Policy are recorded in a separate RAMM table.

Table 4: Road Sign Inventory Summary

Sign Type	Quantity
Guide	48
Hazard Markings	2,088
Information Signs	1,358
Miscellaneous	74
Motorist Service	77
Permanent Warning	2,646
Regulatory General	2,045
Regulatory Parking	360
Street Name	1,784
Tourist	57
Total	**10,537**

2.3.7 Traffic Signals

There are currently two Council-owned traffic signal-controlled intersections within the District. These are at the Talbot Street and Salisbury Road intersection, and the Arbor-Lea Avenue and Salisbury Road intersection in Richmond.

The Council uses the Wellington Transport Operations Centre (WTOC) which is an operational division of Waka Kotahi, to operate and monitor all traffic signals in the District. The maintenance of the traffic signals is also undertaken in conjunction with Nelson City Council's assets under their maintenance contract which is currently held by Powertech NZ Ltd.

New traffic signals may be installed in conjunction with intersection upgrades across the network.

2.3.8 Street Lights

The Council is responsible for 3,075 streetlights, this includes 2,901 Engineering Services and 93 Community Services assets. The non-transportation assets are not funded by the transportation budget but for efficiency purposes they are maintained within one maintenance contract managed by the transportation team. The Council's street light inventory data is held in its Confirm database.

The Council typically owns all streetlights, pedestrian crossing lights and poles constructed in road reserve since the early 1970s. Streetlights and poles constructed prior to this are typically owned by Network Tasman Limited who charge the Council for the leasing of those lights. The Council is responsible for the maintenance and operation of all public street lighting regardless of whether they are owned by the Council or Network Tasman Limited.

The Council has upgraded its entire transportation street light network to LED. The change to LED has reduced whole-of-life costs, primarily due to longer life fittings and less power consumption.

2.3.9 Footpaths and Walkways

Footpaths are a dedicated pedestrian path with an alignment alongside a carriageway within road reserve. Walkways are a dedicated pedestrian path with an alignment which connects between road reserves. For practicality purposes, walkways and footpaths are managed as one asset group. Cycleways and shared paths are considered separately.

Council's footpath and walkway inventory data is held in the RAMM database. There are currently about 311 km of formed footpaths and walkways in the District. Figure 3: Summary of Footpath and Walkway Surfaces~~Figure 3: Summary of Footpath and Walkway Surfaces~~ summaries the footpath network by surface type.

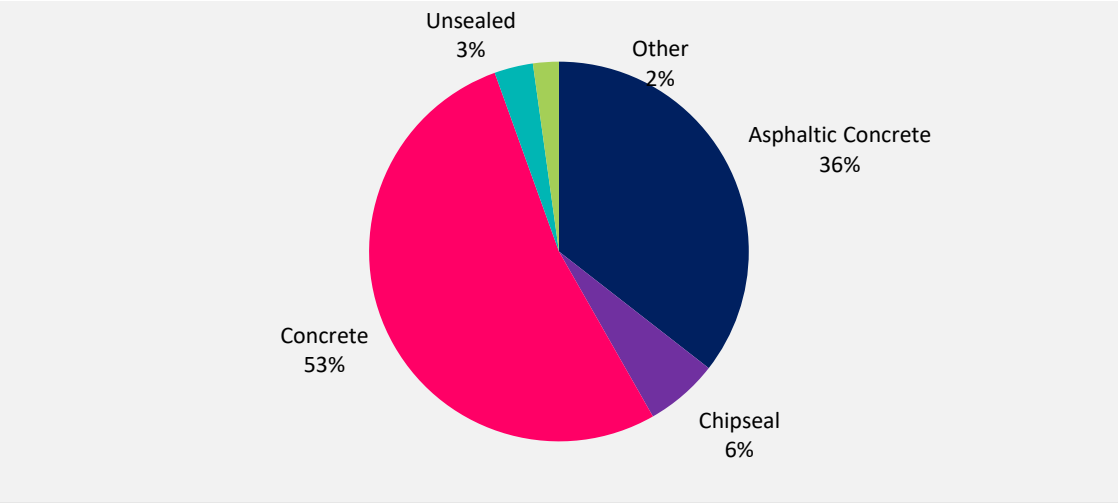


Figure 3: Summary of Footpath and Walkway Surfaces

2.3.10 Cycleways

Council's cycleways are grouped into three types; on-road, off-road and Tasman's Great Taste Trail. On-road cycleways form part of the sealed carriageway and as such are managed as part of the sealed pavement. The cycleway is in effect a function of that part of the carriageway and it is not considered to be a separate asset. Off-road shared paths may be constructed separately to the road carriageway or connected to the edge of the road. In this situation the cycleway is considered to be a separate physical asset and is managed and maintained similar to footpaths and walkways.

Tasman's Great Taste Trail was formed by incorporating existing assets where possible and then constructing new infrastructure to join the gaps. The trail extends across some of the Council's shared pathways, road sections, through parks and reserves, and across private property and Department of Conservation land. Development of the trail is planned to continue until it is completed in 2022.

Cycleways are not well defined or classified in the RAMM database. Some are listed as footpaths, some walkways, and some not at all. This requires improvement and has been identified the Improvement Plan. For completeness all have been listed below; however, this will not be consistent with RAMM.

Table 5: Cycleway Inventory

	Classification	Surface Type	Length (m)	Part of Tasman's Great Taste Trail
Oxford Street	On-road	N/A	-	No
Salisbury Road	On-road	N/A	-	No
Wensley Road	On-road	N/A	-	No
Richmond Railway Reserve	Off-road	Asphaltic Concrete	1550	Yes
Richmond Deviation	Off-road	Asphaltic Concrete	1500	Yes
Lodder Lane	Off-road	Slurry & Asphaltic Concrete	1630	Yes
Main Road Lower Moutere	Off-road	Asphaltic Concrete & Chip Seal	2700	Yes
Queen Victoria Street	Off-road	Asphaltic Concrete	1240	No
Abel Tasman Drive	Off-road	Asphaltic Concrete	315	No
High Street	Off-road	Asphaltic Concrete	292	Yes
Total			9227	

2.3.11 Car Parks

The Council owns and maintains 22 off-street car-parking areas. The provision of these off-street car-parking facilities is not funded by the Waka Kotahi and consequently activities associated with providing these facilities are considered to be non-subsidised. The Council's off-street car parking facilities include a range of assets, for example surfacing, pavements, signs, lighting and drainage sumps.

Presently all on-road and off-road carparking in Tasman is free, although there are a range of time restrictions that apply to some carparks.

Table 6: Carpark Inventory Summary~~Presently all on-road and off-road carparking in Tasman is free, although there are a range of time restrictions that apply to some carparks.~~

~~Table 6: Carpark Inventory Summary~~ provides a detailed summary of the Council's off-street car parking facilities. Off-street car parking inventory data is stored in the Council's RAMM database. Presently all on-road and off-road carparking in Tasman is free, although there are a range of time restrictions that apply to some carparks.

Table 6: Carpark Inventory Summary

	Number of Off Street Car Parking Areas	Total Area (m^2)	Total No. of Marked Parking Spaces
Brightwater	1	1020	6
Kaiteriteri	1	2430	80
Motueka	5	10554	290
Murchison	1	544	24
Richmond	7	20572	631
St Arnaud	1	280	0
Takaka	4	10855	141
Wakefield	2	2455	73
Total	22	48710	1239

2.3.12 Street Furniture

Council's street furniture is predominately located within the town centre areas across the District. Assets typically include seats, litter bins, shade structures and bus shelters. New street furniture is generally installed in conjunction with town centre renewal or upgrade projects. Litterbins are an exception to this and are replaced based on condition.

The inventory data for street furniture assets is stored in the Council's RAMM database. The summary of assets from the latest valuation undertaken in 2010 is shown below in Table 7: Street Furniture Inventory Summary~~Table 7: Street Furniture Inventory Summary~~.

Table 7: Street Furniture Inventory Summary

Description	Quantity
Bike Stand	14
Bus Shelter	5
Drinking Fountain	3
Rubbish Bin	152
Seat	68
Shade Structures	3
Water Feature	1

2.3.13 Public Transport

Public transport services are managed by Nelson City Council on behalf of Tasman with its bus service extending into Richmond connecting it with Nelson CBD. Nelson City Council also run the Total Mobility service, which assists those in our community with transportation limitations by subsidizing door to door travel.

3 Strategic Direction

There are three strategic priorities for transportation in Tasman that the Council looks after. They are, encouraging active transport, keeping our roads in an adequate condition and managing the effects of growth. These priorities align well with national and regional priorities direction, however, there are local and national pressures on funding that will mean our response to the priorities may be over a longer period of time than our community would prefer. The strategic responses to these priorities are creating active transport networks, lifting our road resurfacing programme, providing improved public transport services, and working with Waka Kotahi on strategic improvements to the State Highway network.

3.1 Our Goal

The Council will manage transportation activities to facilitate movement of people and goods within communities and around the District.

3.2 Contribution to Community Outcomes

Table 8: Community Outcomes~~Table 8: Community Outcomes~~ below presents how the transport activity contributes to the Joint Council's Community Outcomes.

Table 8: Community Outcomes

Community Outcomes	Does Our Activity Contribute to the Community Outcome	How Our Activity Contributes to the Community Outcomes
Our unique natural environment is healthy and protected.	Yes	We minimise the effect on our natural environment with routine road sweeping, sump cleaning, litter removal, and fish passage enhancements. We consider land use and sustainability in transport planning.
Our urban and rural environments are people friendly, well-planned and sustainably managed	Yes	We aim to provide a transportation network that is safe to use and accessible to all. Our road network is the backbone of our District and connects people to places.
Our infrastructure is efficient, cost effective and meets current and future needs.	Yes	We weigh up the immediate and long term costs and benefits when making investment decisions for the transport network. This enables us to meet the needs of the current and future users and community.

Community Outcomes	Does Our Activity Contribute to the Community Outcome	How Our Activity Contributes to the Community Outcomes
Our communities are healthy, safe, inclusive and resilient.	Yes	We provide a safe and resilient transport network, including active recreation, which has associated health benefits. A reliable transport network also allows for emergency services to safely get to people in need.
Our communities have opportunities to celebrate and explore their heritage, identity and creativity.	Yes	We take opportunities to incorporate heritage and creativity in streetscaping in town centres, and murals on some strucutres
Our communities have access to a range of social, educational and recreational facilities and activities.	Yes	Our transport network enables the community to travel to their social, educational, and recreational activities.
Our Council provides leadership and fosters partnerships, a regional perspective and community engagement.	Yes	We provide an integrated transport network with our partner, Waka Kotahi, as well as our neighbours, Nelson City Council and Marlborough District Council. Together we also prepare Regional Land Transport Plans that are aligned across the Top of the South.
Our region is supported by an innovative and sustainable economy.	Yes	Our transport system is operated in an effective and efficient way to meet the needs of residents and businesses. The road network is critical to the movement of goods which enables our economy to thrive and grow.

3.3 Government Policy Statement on Land Transport

The GPS is the Government's main document which sets priorities and funding levels for land transport investment.

The Government released the GPS (the GPS 2021) in September 2020 which includes:

- National objectives for land transport.
- The results the Government wishes to achieve from allocation of the National Land Transport Fund.
- The Government's land transport investment strategy in a framework that will guide investment over the next 10 years; and
- The Government's policy on borrowing for the purpose of managing the NLTP.

The GPS cannot determine which projects will be funded or how much funding any particular project will receive. Rather, the GPS sets ranges of funding which the Government will make available for different types of activities that best meet its objectives. The Transport Agency then determines which projects receive funding and to what level, within those overall funding ranges.

The strategic priorities in the 2021 GPS are shown below in Figure 4: GPS 2018 Strategic Priorities~~Figure 4: GPS 2018 Strategic Priorities~~ below.

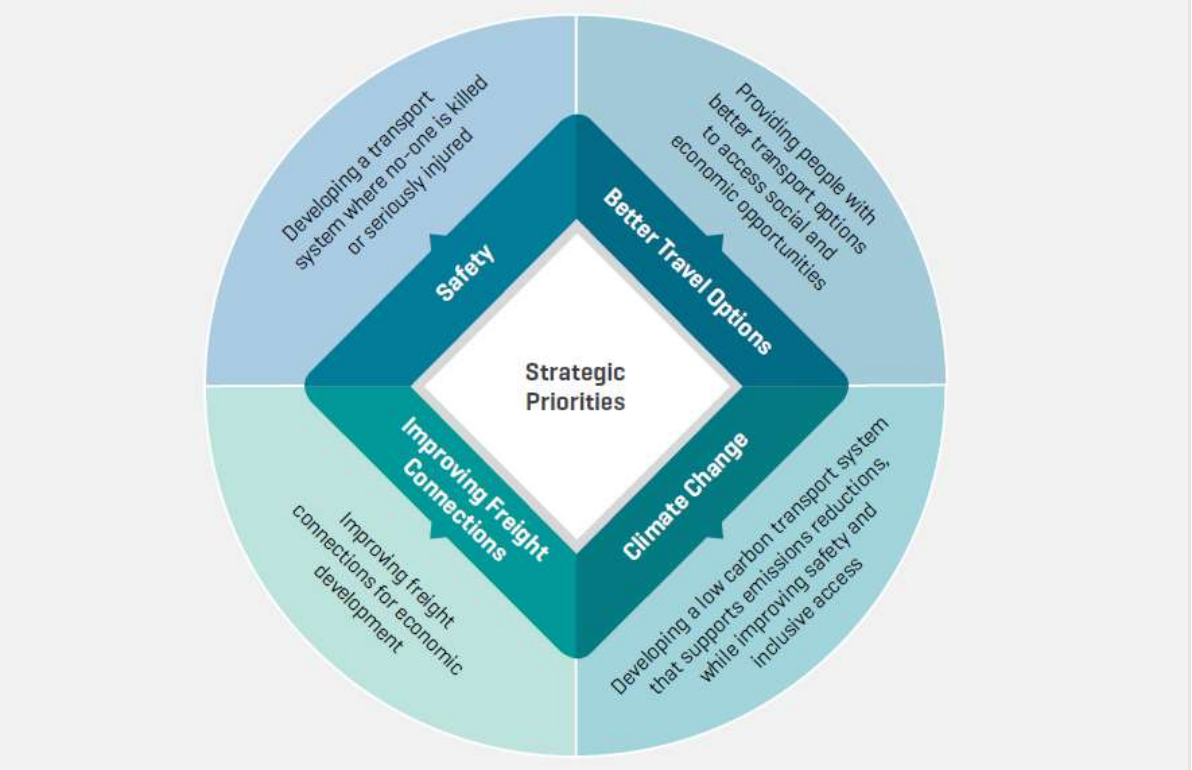


Figure 4: GPS 2018 Strategic Priorities

Considering the 10 year context (2021/22-2030/31), the Government has identified four strategic priorities for land transport investment to best contribute to improving our communities' wellbeing and liveability.

- **Safety:** Developing a transport system where no-one is killed or seriously injured.
- **Better Travel Option**s: Providing people with better transport options to access social and economic opportunities.
- **Improving Freight Connections:** Improving freight connections for economic development.
- **Climate Change:** Developing a low carbon transport system that supports emissions reductions, while improving safety and inclusive access.

They build on the strategic priorities set in GPS 2018. Each strategic priority will guide investment to meet outcomes identified in the Transport Outcomes Framework. Some priorities are more directly linked to specific outcomes – for example the Safety priority has a direct link to the Healthy and Safe People outcome. However, as the outcomes are inter-related, each strategic priority will deliver co-benefits across the Transport Outcomes Framework. For example, a reduction in greenhouse gas emissions will be achieved through action across all priorities, programmes and activity classes.

3.4 Arataki

Arataki presents Waka Kotahi's 10-year view of what is needed to deliver on the government's current priorities and long-term outcomes for the land transport system. It shares the evidence-base that informs Waka Kotahi's view and it helps us to better understand how our joint decisions and choices will shape the future land transport system.

Arataki identifies five step changes that are needed to achieve Ministry of Transport objectives. These step changes are:

1. Improve urban form.
2. Transform urban mobility.
3. Significantly reduce harms.
4. Tackle climate change; and
5. Support regional development.

Arataki identifies areas of focus specific to the Top of the South. Specific areas that are relevant to Tasman are shown in Table 9 below.

Table 9: Arataki Specific Areas of Focus for Tasman

Step change	Tackle climate change	Improve urban form	Transform urban mobility	Significantly reduce harm
Specific areas of focus	• Avoid areas of high risk of natural hazards • Prioritise interventions and response in high risk areas • Urban form and transport planning supports reduction in emissions • Make best use of existing systems to manage demand and reduce emissions	• Enhances existing communities • Support increases in active modes • Reduces the need to travel • Lower emissions per capita • Maintains or improves the safety and efficiency of the transport system	• Improve walking and cycling networks • Public transport options • Improve mobility for senior residents • Implement the findings of the Richmond Programme Business Case	• Safety treatments on high risk intersections and high risk rural roads • Separated facilities for vulnerable users • Speed management on high risk rural roads

3.5 Regional Land Transport Plan

The Regional Land Transport Plan (RLTP) provides an integrated approach to land transport planning across the local government boundaries in Te Tauihu (Top of the South) region. The RLTP includes a ten

year forward works programme that sets the direction for the transport system. It identifies what is needed to contribute to the aim of an effective, efficient, safe and sustainable land transport system for the public interest. The RLTP's purpose (once investment in the transport network has been secured) is to benefit Te Tauihu communities by providing a resilient and reliable network that will meet our current and future needs.

Te Tauihu has seen significant change over the last five years. The population has increased and development of the primary sector is resulting in a greater number of vehicles on our roads than ever before. Community values are starting to shift, which means that the environmental and cultural effects from more vehicles on the roads is becoming unacceptable. This conflict is realised most acutely in Picton, Blenheim, Nelson, Richmond and Motueka where the values of place and movement on our road networks coincide.

The local climate allows us to produce high quality agricultural products which are sought after around the world. In addition, secondary processing of many of these products has enabled value to be added. Most of our freight is consumed locally or sent directly overseas, which means Port Nelson and Port Marlborough, and the transport networks connecting them with our communities, are vitally important to our region. The significant growth in high quality products produced in the region means we have more heavy vehicles using the road network, all the way from rural roads in the hinterland to the national roads within the metro areas.

This RLTP recognises that the transport network we have traditionally relied on may not be appropriate for the future. The key transport issues in Te Tauihu in the next 10 years are:

- Vehicle usage growth and its effects on access.
- Safety on our roads.
- The design of our transport system is constraining access for those wanting to use more sustainable modes.
- Our communities are susceptible to losing access in weather events.
- Vehicle usage is affecting our natural environment.

In recent years, this growth in vehicles on our roads has been recognised by central government agencies, with a number of key planning projects being initiated to help determine how the transport network will cater for this in future. Most of the significant projects are still underway, but core outcomes and key projects have been reflected in this RLTP programme.

3.6 Infrastructure Strategy

Council's Infrastructure Strategy covers the provision of the Council's water supply, stormwater, wastewater, rivers and flood control, and transportation services. The purpose of the Strategy is to identify the significant infrastructure issues for Tasman over the next 30 years, and to identify the principal options for managing those issues and the implications of those options.

The key infrastructure priorities included in the Strategy are:

- Providing infrastructure services that meet the needs of our changing population.

- Planning, developing and maintaining resilient communities.
- Providing safe and secure infrastructure and services.
- Prudent management of our existing assets and environment .

Council's Infrastructure Strategy and infrastructure activity management plans are directly linked. Information flows between the Strategy and the plans in both directions. The table below describes the structure of the Strategy and how it connects to the activity management plans.

Table 10: Infrastructure Strategy Outline

Section	Section Overview	Connection to AMP
Executive Summary	• A short consolidated summary of the current situation, investment priorities, key actions and total level of investment.	This section is intended to provide an outline of the Strategy to the reader. It does not have a direct connection to individual activity management plans.

Strategic Direction	• Examines the context and issues surrounding the provision of infrastructure services.
	• Sets the direction for infrastructure management and investment priorities.
	• Sets out how the Council will:
	  ○ respond to growth or decline in demand;
	  ○ manage the renewal or replacement of existing assets over their lifetime;
	  ○ manage planned increases or decreases in levels of service will be allowed for,
	  ○ public health and environmental outcomes will be maintained or improved; and
	  ○ natural hazard risks will be addressed in terms of infrastructure resilience and financial planning.
		This section provides direction to the Council staff who prepare activity management plans for the relevant infrastructure activities. Each activity management plan is expected to consider the key priorities and identify actions that are in alignment with those priorities.
		
		It also provides a consolidated summary of this information from within the activity management plans.

Section	Section Overview	Connection to AMP
Activity Summaries	For each activity: • Provides an overview of the assets and their condition and performance; • Outlines the levels of service; • Considers the options to address key issues/priorities and identifies the preferred option; • Summarises investment in the activity for the next 10 and 30 years; • Lists the key assumptions and uncertainties.	This section provides a concise summary of the activity management plan for the topics listed in this table.

3.7 Financial Strategy

The Financial Strategy outlines the Council's financial vision for the next 10 to 20 years and the impacts on rates, debt, levels of service and investments. It guides the Council's future funding decisions and, along with the Infrastructure Strategy, informs the capital and operational spending for the Long Term Plan 2021-2031.

Infrastructure expenditure forms a large proportion of the Council's spending being 38% of operational expenditure and 79% of capital expenditure over the next 10 years. Because of this, the Infrastructure Strategy and Financial Strategy are closely linked to ensure the right balance is struck between providing the agreed levels of service within the agreed financial limits.

Over the next 10 years, forecast rate income increases and debt levels are projected to be very near the Council's limits. The Council has had to work hard to prioritise and plan a work programme which addresses the most pressing key issues while staying within these limits. This means there is very little scope to add further work to the programme within the next five years.

3.8 Tasman Climate Action Plan

In 2019, the Council adopted the 'Tasman Climate Action Plan' (Action Plan). The Action Plan is the Council's initial response to the urgent need to take action on climate change, to build climate resilience and reduce greenhouse gas emissions.

The Action Plan sets out goals, targets and actions relating to three key themes:

- Mitigation – how we can reduce greenhouse gas emissions from the Council's activities.
- Adaptation – ways we can respond to our changing environment, including positive opportunities.
- Leadership – how we can lead by example, advocate and encourage others to take action.

The following goals are the long-term aspirations of the Council. They represent the first step towards a cohesive package of activities that address climate change issues:

1. The Council contributes to New Zealand's efforts to reduce greenhouse gas emissions (including net carbon emissions)
2. Tasman District becomes more resilient to the impacts of climate change.
3. The Tasman Community is informed of climate change actions and options for response.
4. The Council shows clear leadership on climate change issues.

Goals will be measured against targets and achieved by implementing the actions set out in the Action Plan. Targets and actions of direct relevance to the transportation activity are listed in the table below. Several other actions are also relevant (e.g. those relating to information provision and leadership goals) - see the online version of the Action Plan for details: www.tasman.govt.nz/climate-change.

Table 11: Relevant targets and actions from the Tasman Climate Action Plan (2019)

Goal	Targets	Actions (short-term) 2019 - 2021	Actions (medium-term) 2021 - 2024	Actions (long-term) 2024+
1. The Council contributes to New Zealand's efforts to reduce greenhouse gas emissions (including net carbon emissions).	1(a) The Council's emissions* of methane reduce by 10% below 2017 levels by 2030 and 47% by 2050 or earlier. The Council's net emissions* of all other greenhouse gases reduce to zero by 2050. *from the Council's own activities. Targets are based on Zero Carbon Bill. If necessary, revise targets once enacted.	(iii) Facilitate and support a higher number of strategically located EV charging stations and electric bike docks/charging stations across the District. Continue to increase the number of plug-in hybrid vehicles in the Council's fleet and investigate use of electric vehicles.	Transition the majority of the Council's vehicle fleet away from fossil fuels (i.e. replace with plug-in hybrid and electric vehicles).	Transition the majority of the Council's vehicle fleet away from fossil fuels (i.e. replace with plug-in hybrid and electric vehicles).
	1(b) the Council decisions for planning and infrastructure design supports private individuals and businesses to reduce their emissions by 80% by 2050.	(ii) Implement the Nelson Tasman Future Development Strategy (NTFDS), including the housing intensification component, to reduce the need for car-travel.	Review and implement the NTFDS.	Review and implement the NTFDS.
	1(c) Year on year, use of alternative transport modes increases, whereas use of single-occupancy internal combustion-engine vehicle on roads in Tasman District declines.	In conjunction with Waka Kotahi and NCC, investigate options for increasing use of public transport (where this will provide the best outcome) and prepare action plan to increase public transport use.	Implement resulting action plan to increase public transport.	Implement resulting action plan to increase public transport.

Goal	Targets	Actions (short-term) 2019 - 2021	Actions (medium-term) 2021 - 2024	Actions (long-term) 2024+
		(ii) Investigate ways to incentivize use of alternative transport modes, such as ride sharing and EVs.	Promote, encourage and implement incentives to increase use of alternative transport modes (e.g. ride sharing and EV use).	Continue to promote, encourage and implement incentives to increase use of alternative transport modes (e.g. ride sharing and EV use).
	1(d) Use of active transport (e.g. walking, cycling etc) as a form of transportation increases year on year.	(i) Continued investment in new and (maintenance of) existing active transport networks.	Increased investment in new and maintenance of active transport networks. Impediments to use of network are steadily removed.	Increased investment in new and maintenance of active transport networks.
		(ii) Implement requirements on new developments to provide for active transport through the TRMP and Nelson Tasman Land Development Manual.	Effectiveness of provisions are monitored and reviewed as necessary.	Effectiveness of provisions are monitored and reviewed as necessary.
		(iii) In conjunction with Central Government and local agencies, fund infrastructure programmes and activities that support increased use of active transport network.	Fund active transport infrastructure programmes and activities.	Fund active transport infrastructure programmes and activities.
		(iv) Continue to seek and obtain co-funding for active transport network development and maintenance.	Continue to seek co-funding for active transport network development and maintenance.	Continue to seek co-funding for active transport network development and maintenance.

Goal	Targets	Actions (short-term) 2019 - 2021	Actions (medium-term) 2021 - 2024	Actions (long-term) 2024+
2. Tasman District becomes more resilient to the impacts of climate change.	2(a) Progressively improve network infrastructure resilience to climate change risks across all the Councils networks.	(i) Completion of the Council's Infrastructure Risk and Resilience project (2018 - 2020). This includes development of an Infrastructure Resilience Strategy, which will identify critical infrastructure (i.e. water supply sources, stormwater, wastewater, transportation and solid waste) and their vulnerability to natural hazards and climate change. It will also identify what infrastructure will become redundant.	Activity Management Plans (AMPs) account for climate change risks, uncertainty and resilience for the entire life of current and future infrastructure (i.e. future proof design). All assets should be assessed for climate change risks at their proposed location, before decisions on siting of a new asset/replacement of existing assets are made. Funding for repair or replacement of network infrastructure incorporates accounting for climate change risks and resilience.	Implementation of AMPs through network development projects. Funding maintained through future plans.
		(ii) Review the Council's policy on emergency funds, to ensure it anticipates repair/replacement and relocation costs that factor in climate change risks ("build back better"). Investigate the potential funding requirements of implementing this policy.	The Long Term Plan 2021 - 2031 incorporates 'Emergency funds' that anticipate repair/replacement/relocation costs that factor in climate change risks ("build back better").	Funding maintained or increased as risks increase.

3.9 Strategic Priorities

The Council used business case principals to determine priorities for transportation in line with Waka Kotahi recommendations. Development of the strategic priorities were established through a number of meetings of a working group consisting of Council staff, Councillors and Waka Kotahi Staff. The process to determine key issues was:

- Working Group decide on a number of strategic issues
- Working Group define problem statements
- Workshop with Councillors to test the problem statements
- Councillor survey to rank priorities
- Workshop with Councillors to test problem scores and strategic responses
- Refined problem statements based on evidence
-

These problem statements along with the benefits of addressing the benefits and the strategic responses align with advance State Highway planning process and are discussed in this section and summarised in Figure 5~~Figure 5~~ in below.

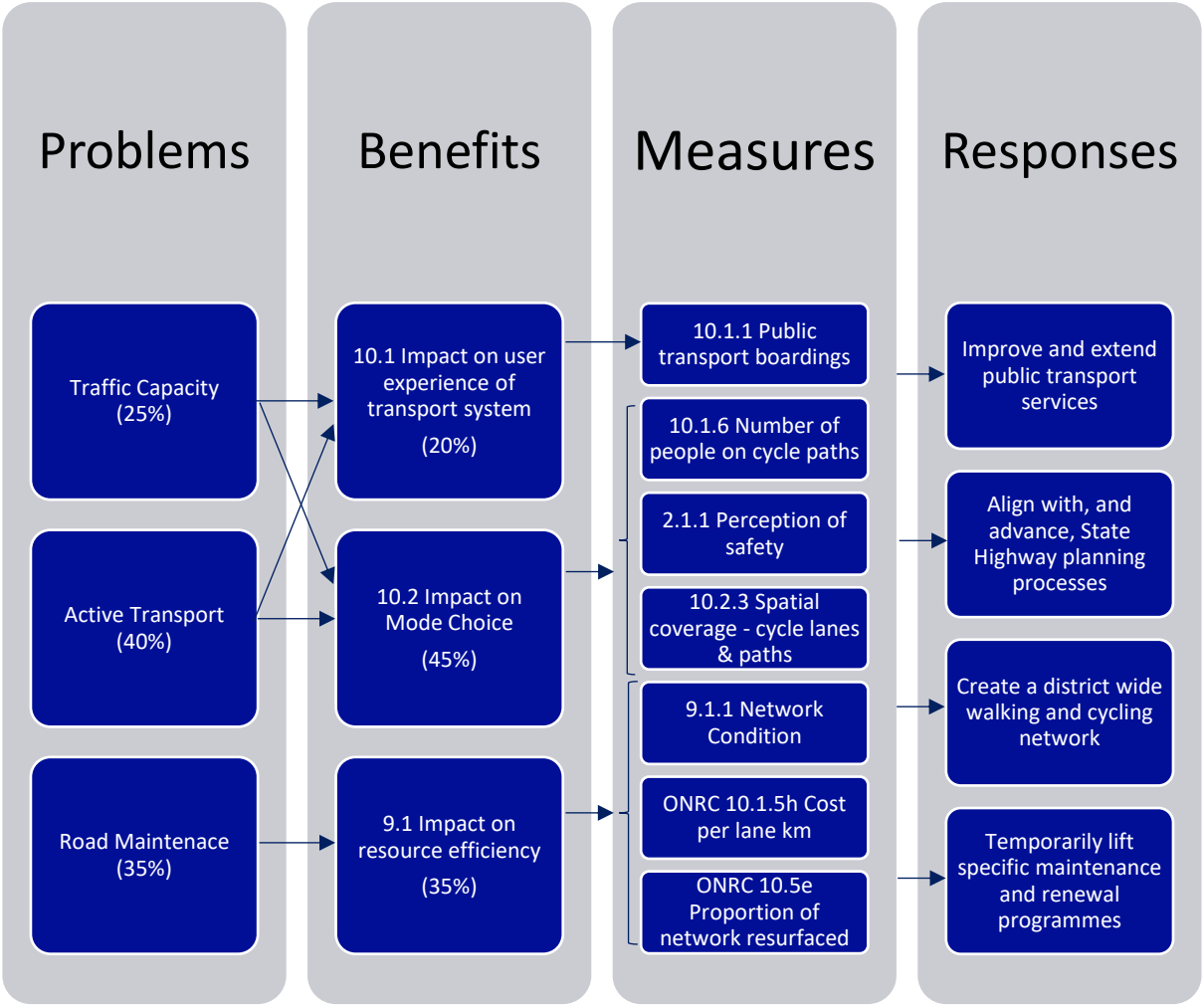


Figure 5: Investment logic map

3.9.1 Traffic Capacity

Population growth across the district has raised traffic at peak periods, which is focused at key nodes. The Queen Street/Gladstone Road confluence focuses traffic on a short stretch of State Highway around three sets of signalised intersections. Consequently, users are finding alternate routes to avoid 'congestion', which generally use residential neighbourhoods. In Motueka, High Street (SH60) serves as a through road, an arterial road for the town, the main shopping precinct and primary parking. This mix of uses is at its highest in the summer when self-drive tourists, seasonal workers and higher industrial and commercial activities are superimposed on the high base level activity. Like Richmond, alternative routes are being utilised to avoid the areas of 'congestion' raising the vehicle numbers on lower hierarchy roads through residential neighbourhoods. This has been refined into a problem statement specific to the Richmond area.

2021 GPS	
Better Travel Options "Providing people with better transport options to access social and economic opportunities"	Improving Freight Connections "Improving freight connections for economic development"

Tasman Community Outcomes	
Our infrastructure is efficient, cost effective and meets current and future needs	Our communities have access to a range of social, cultural, educational and recreational facilities and activities

Problem Statement
Traffic Capacity "Richmond's transportation network is unable to support the increasing demand from vehicles thereby eroding levels of service, delaying freight and affecting social wellbeing in urban areas." 25%

Benefits	
Impact of mode choice (45%)	Impact on user experience (20%)

Measures	
10.1.1 Public transport boarding's	10.4.3 Perception of safety

Responses		
Extend and improve public transport services	Align with, and advance, State Highway planning processes	Introduce paid parking

Figure 6: Network Capacity Priority Summary

The problem has been investigated in terms of:

- Increasing traffic volumes
- Future levels of service
- Severance
- Perceptions of 'Place'
- Other factors

3.9.1.1 Increasing Traffic Volumes

Ministry of Transport vehicle kilometres travelled data shows that traffic growth has been steady across the district over the last 10 years, but more there has been a higher growth in the last five years as seen on Figure 7~~Figure 7~~. The average population growth over the last five years has been 2.1% pa compared to the average traffic growth of 5.5% pa using Top of the South vehicle kilometres travelled (shown in Figure 7: Vehicle Kilometres Travelled in Top of the South~~Figure 7: Vehicle Kilometres Travelled in Top of the South~~) or 4.8% pa using Tasman State Highway AADT (shown in Figure 8: State Highway Traffic Growth~~Figure 8: State Highway Traffic Growth~~).

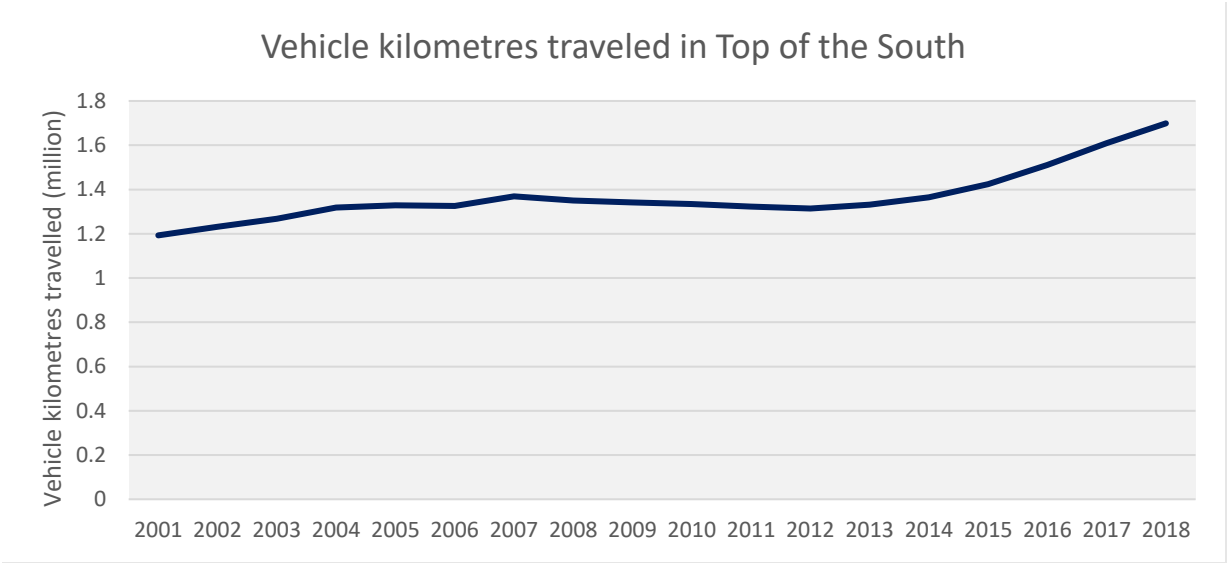


Figure 7: Vehicle Kilometres Travelled in Top of the South

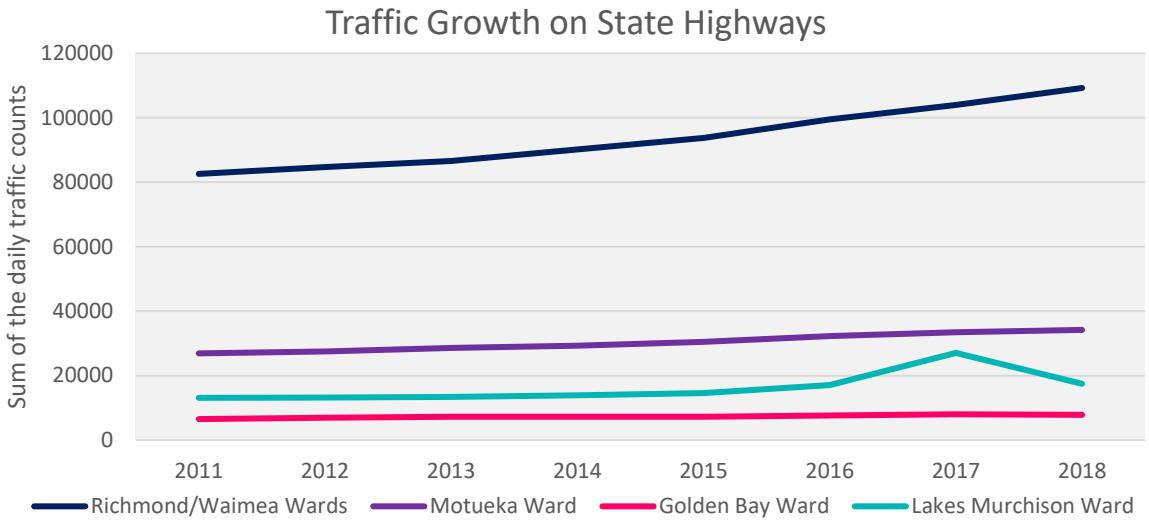
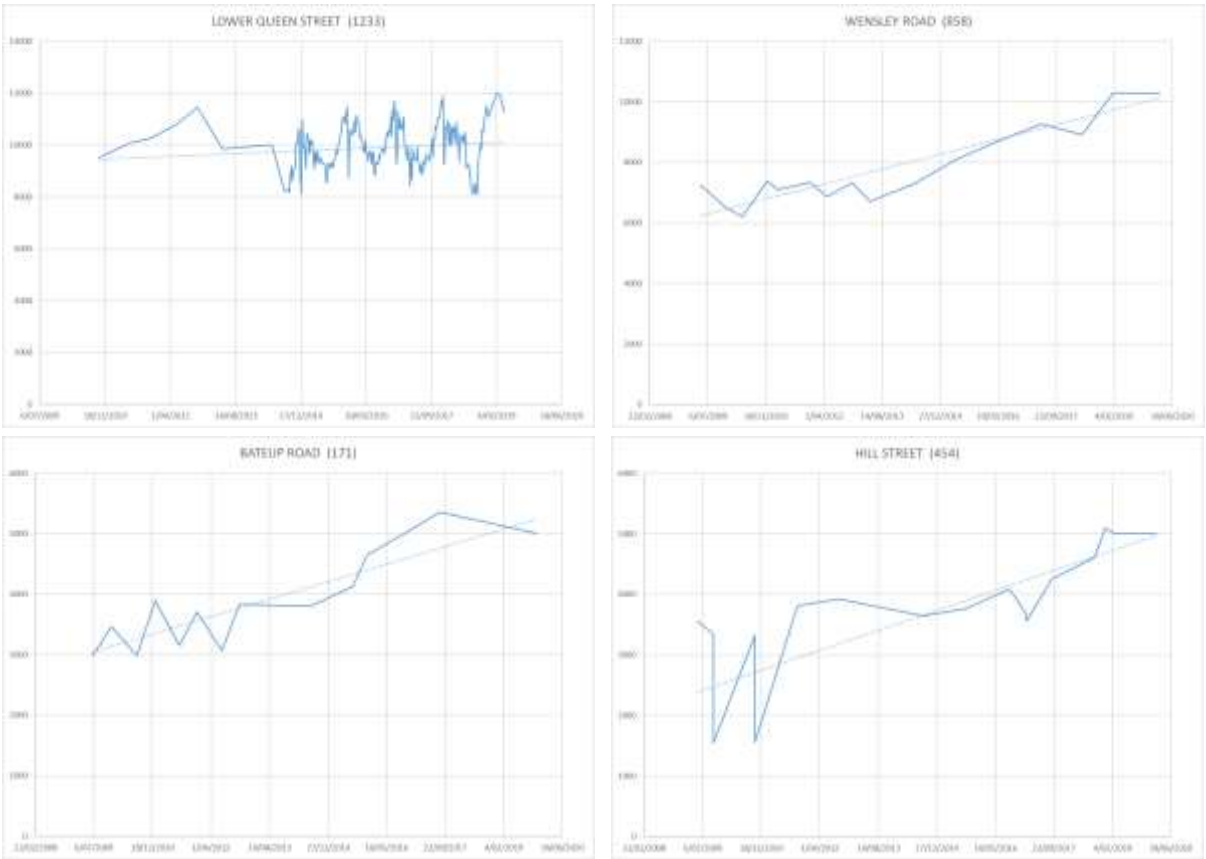


Figure 8: State Highway Traffic Growth

The same traffic growth has been seen on local roads, especially on key routes in the district. The local road traffic growth for different urban areas is shown in Figure 9: Richmond Traffic Growth~~Figure 9: Richmond Traffic Growth~~, Figure 10: Mapua Traffic Growth~~Figure 10: Mapua Traffic Growth~~, Figure 11: Brightwater Traffic Growth~~Figure 11: Brightwater Traffic Growth~~ and Figure 13: Motueka Traffic Growth~~Figure 13: Motueka Traffic Growth~~ below.



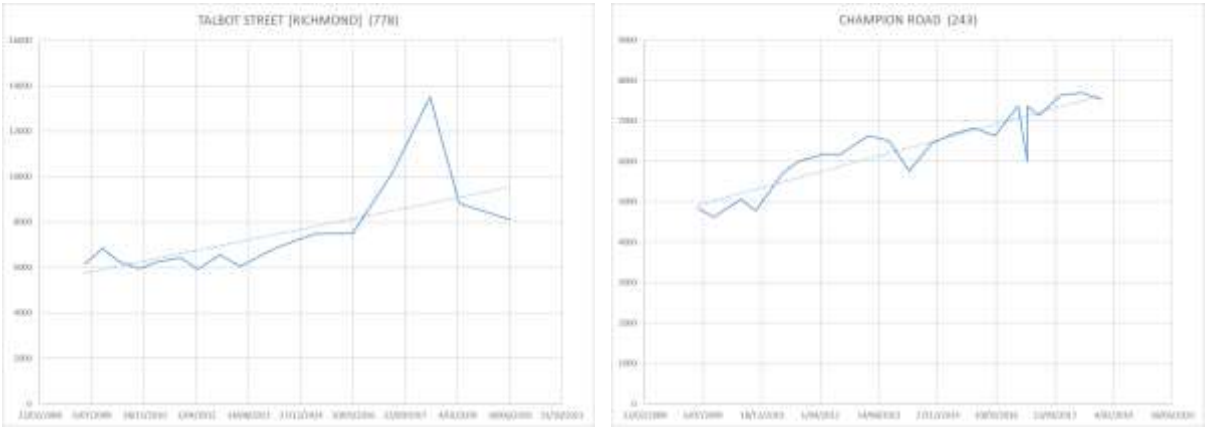


Figure 9: Richmond Traffic Growth

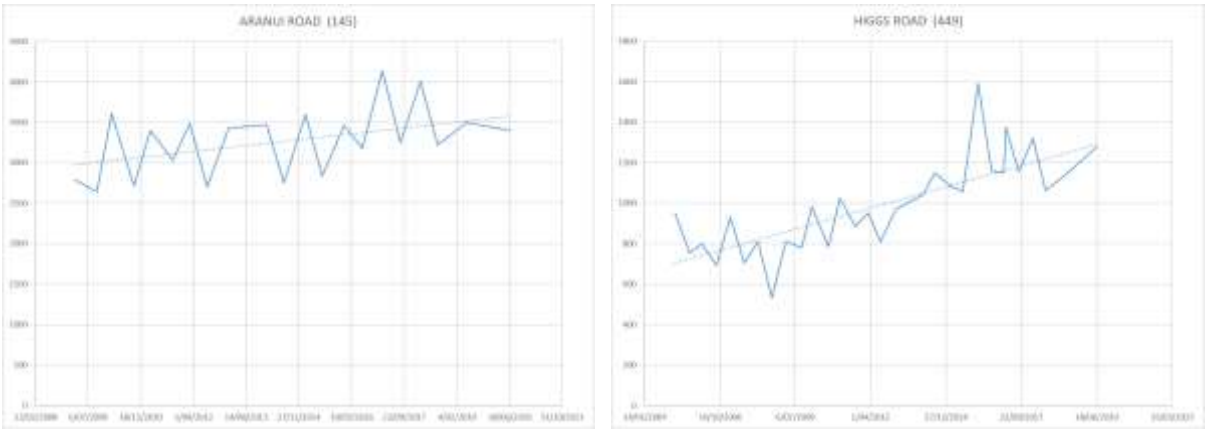


Figure 10: Mapua Traffic Growth

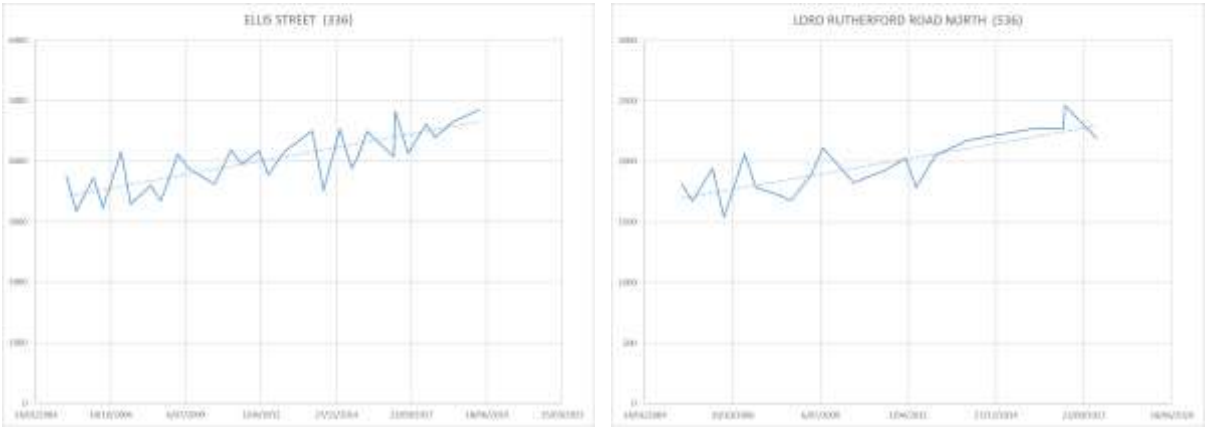


Figure 11: Brightwater Traffic Growth

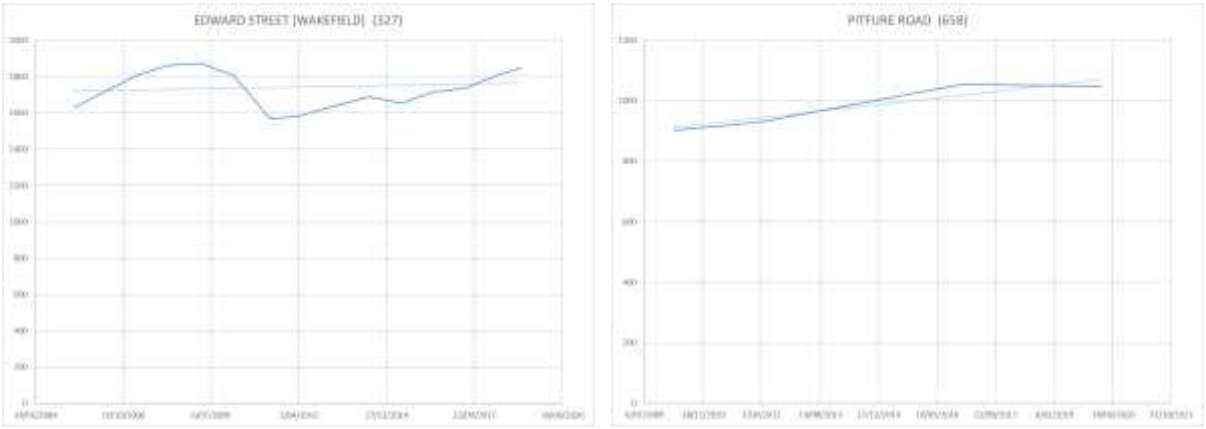


Figure 12: Wakefield Traffic Growth

Figure 13: Motueka Traffic Growth

Figure 14: Murchison Traffic Growth

The routes in the Richmond urban area show that there is significant traffic growth on local roads. Most of these routes have had traffic increase by 50% over the last 10 years (2010-2020) with some of them being closer to 100% growth. Other urban areas in the Waimea ward have seen more modest growth, but there are some higher growth exceptions like Higgs Road in Mapua.

Motueka has seen modest growth on local roads with the exception of Whakarewa Street. This reflects the residential development happening in that area.

3.9.1.2 Future Levels of Service

Increases in travel demand in the Tasman/Nelson area over the next 30 years are anticipated to increase network congestion in Richmond. The following images have been exported from the Nelson/Tasman strategic transport model. The roads where the greatest congestion will be experienced are shown in progressively darker shades. Roads coloured red (Level of Service E) are considered to be "at capacity" and roads coloured black (LoS F) are considered to be "over capacity".

The image in Figure 15: Richmond vehicle levels of service 2018~~Figure 15: Richmond vehicle levels of service 2018~~ relates to the 2018 PM peak. It shows that in the afternoon the section of SH6 through Stoke, the intersection of SH6/Lower Queen Street in Richmond and Gladstone Road at the Three Brothers corner were operating at capacity (LOS E).

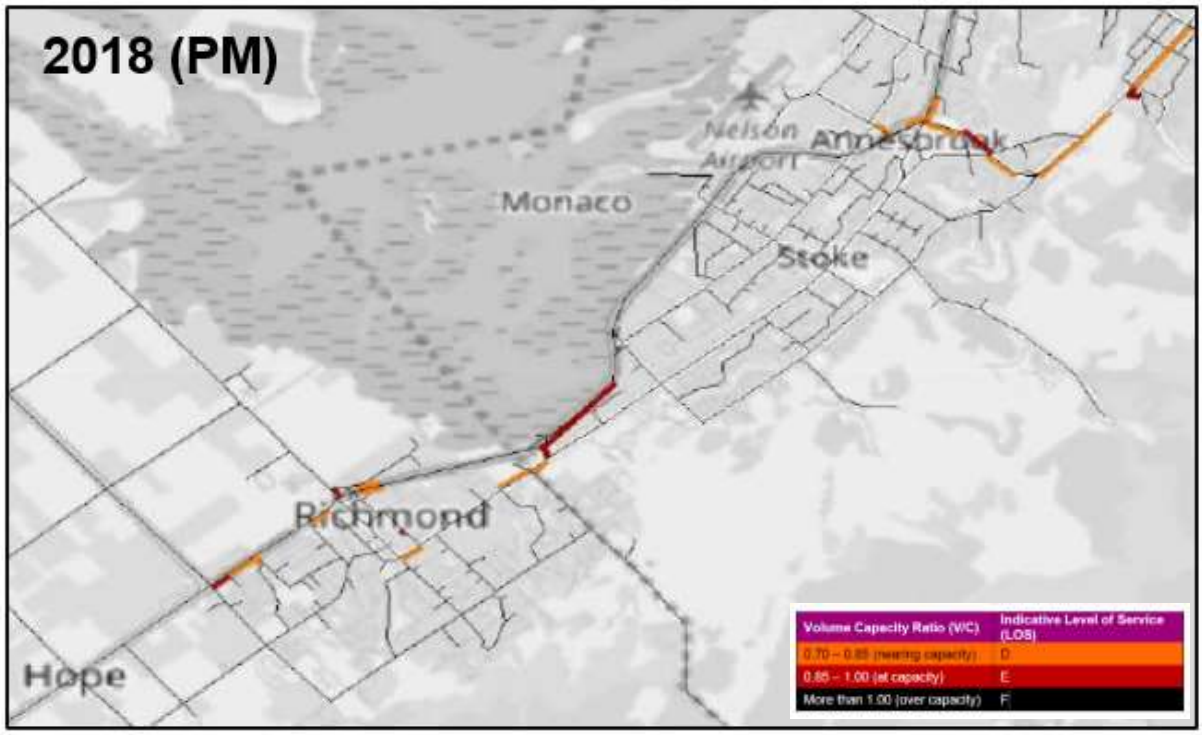


Figure 15: Richmond vehicle levels of service 2018

The image in Figure 16: Richmond vehicle levels of service 2028~~Figure 16: Richmond vehicle levels of service 2028~~ shows that by 2028, the Richmond Deviation is also operating at capacity (LOS E) and the intersection of SH6/Lower Queen Street is over capacity (LOS F).

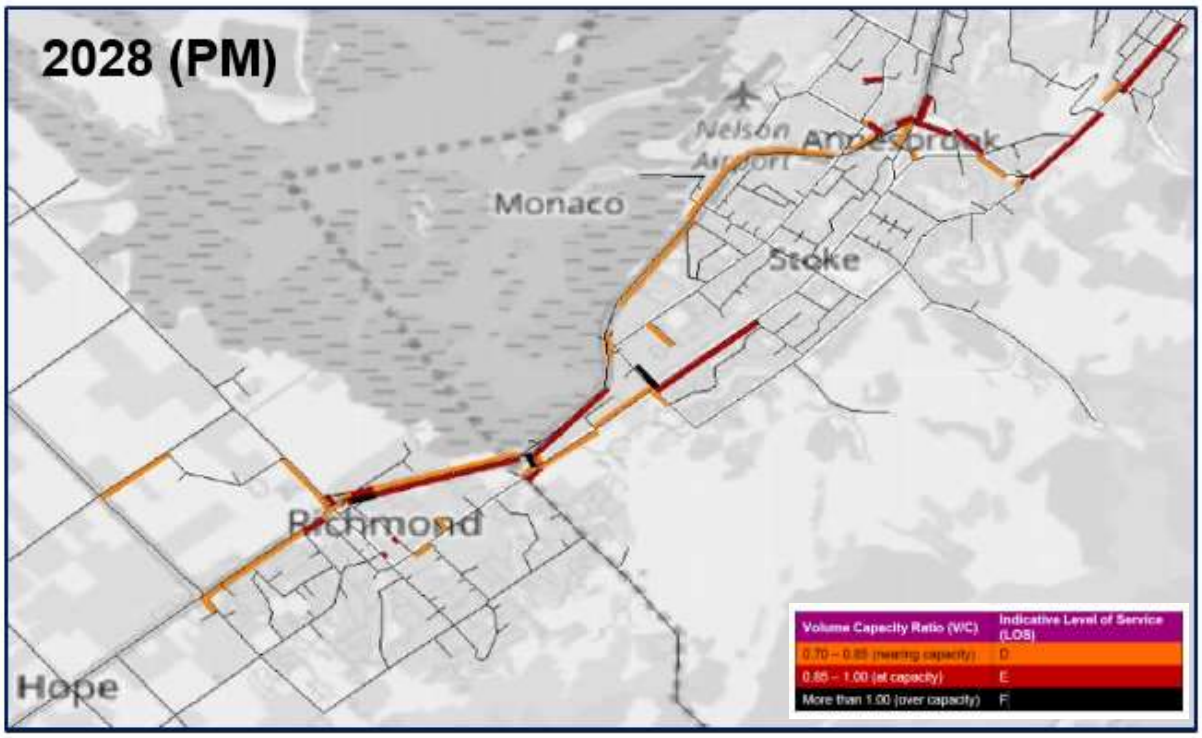


Figure 16: Richmond vehicle levels of service 2028

The situation changes dramatically by 2048. The images in Figure 17: Richmond vehicle levels of service 2048 (AM and PM)~~Figure 17: Richmond vehicle levels of service 2048 (AM and PM)~~ show that, during both the AM and PM peak, significant sections of the state highway network and the local road network through Richmond will be operating over capacity (LoS F).

This level of service reduction translates into a fourfold increase in travel time between the Three Roundabouts and SH60 Appleby Highway Roundabout, during the PM peak hour by 2048. This highlights that unless there is change to the number of vehicles on the road during the peak times, the level of service for motorists will be very poor. This will have significant detrimental effect on the Tasman and Nelson economies.

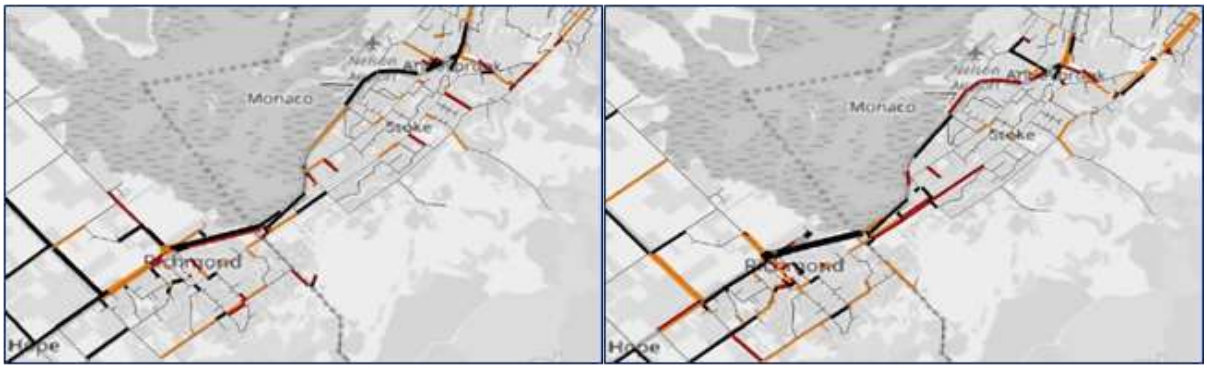


Figure 17: Richmond vehicle levels of service 2048 (AM and PM)

There has been no future modelling undertaken for other urban areas, but it is unlikely that they will have the same level of service degradation over time.

3.9.1.3 Severance

Severance occurs when the volume or speed of traffic on a road is significant enough to prevent people making a connection to the other side. The impact is often most severely felt by vulnerable road users due to associated risks. Figure 18: Severance in Richmond~~Figure 18: Severance in Richmond~~, Figure 19: Severance in Wakefield~~Figure 19: Severance in Wakefield~~ and Figure 20: Severance in Motueka~~Figure 20: Severance in Motueka~~ show roads that have traffic volumes nearing or greater than 1,000 vehicles per hour at peak time (shown in red). The figures also show commercial areas (red) and residential areas (orange) along with some key destinations.

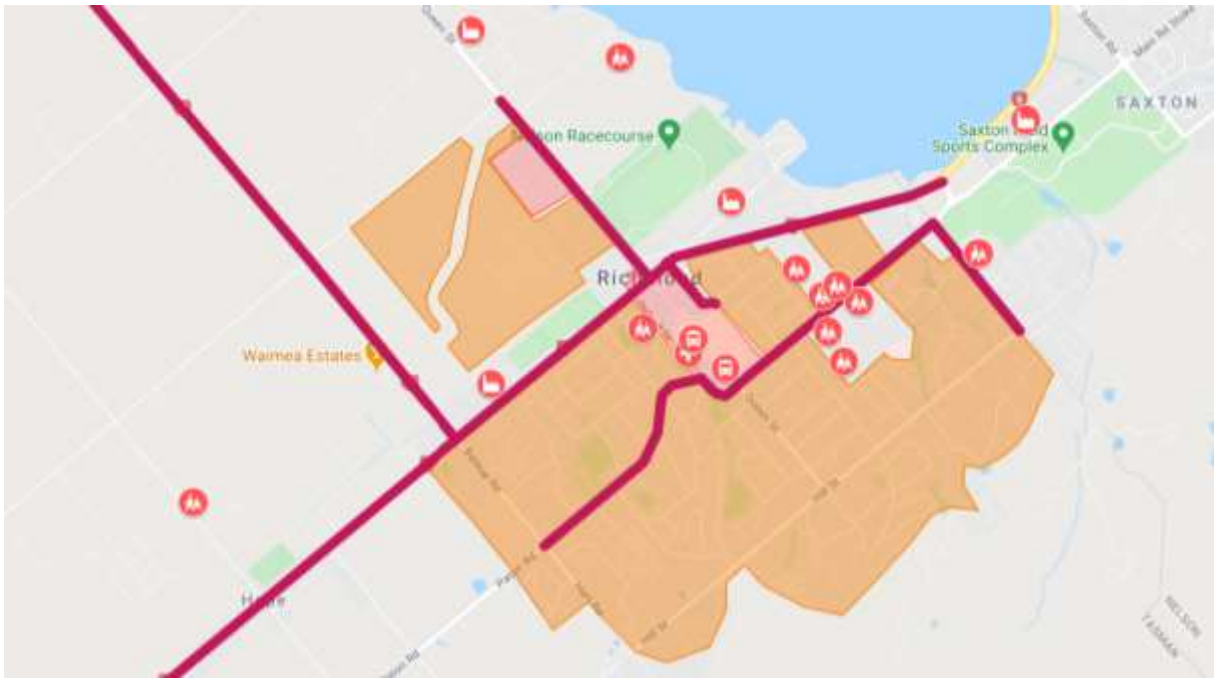


Figure 18: Severance in Richmond

Richmond has the greatest number of roads that create severance. Many of the roads are state highways, but there are several local roads that cut through residential areas. Gladstone Road (SH6) current carries 22,000 vehicles per day with peak hour significantly exceeding 1,000 vehicles per hour. Gladstone Road (SH6) also separates the majority of Richmond from the new development areas that will have over 1,300 new homes. The severance issues created by the state highways have been acknowledged by Waka Kotahi. The traffic volumes along Salisbury Road and Wensley Road are high due to 'rat running'. Rat-running occurs when high traffic volumes on main roads cause motorists to look for alternative routes on more minor roads. Frustration with congestion on Gladstone Road/SH6 is causing higher volumes on Richmond's local road network which in turn increases severance on these roads.

Figure 19: Severance in Wakefield

Wakefield township is separated by Whitby Road (SH6). This separates a large residential area from the commercial area and the school. Whitby road is the main freight route for goods coming from Christchurch and to move logs from forestry blocks to processing or export giving the route a higher proportion of heavy commercial vehicles. The community have requested that the Council and Waka Kotahi make changes to mitigate the severance.

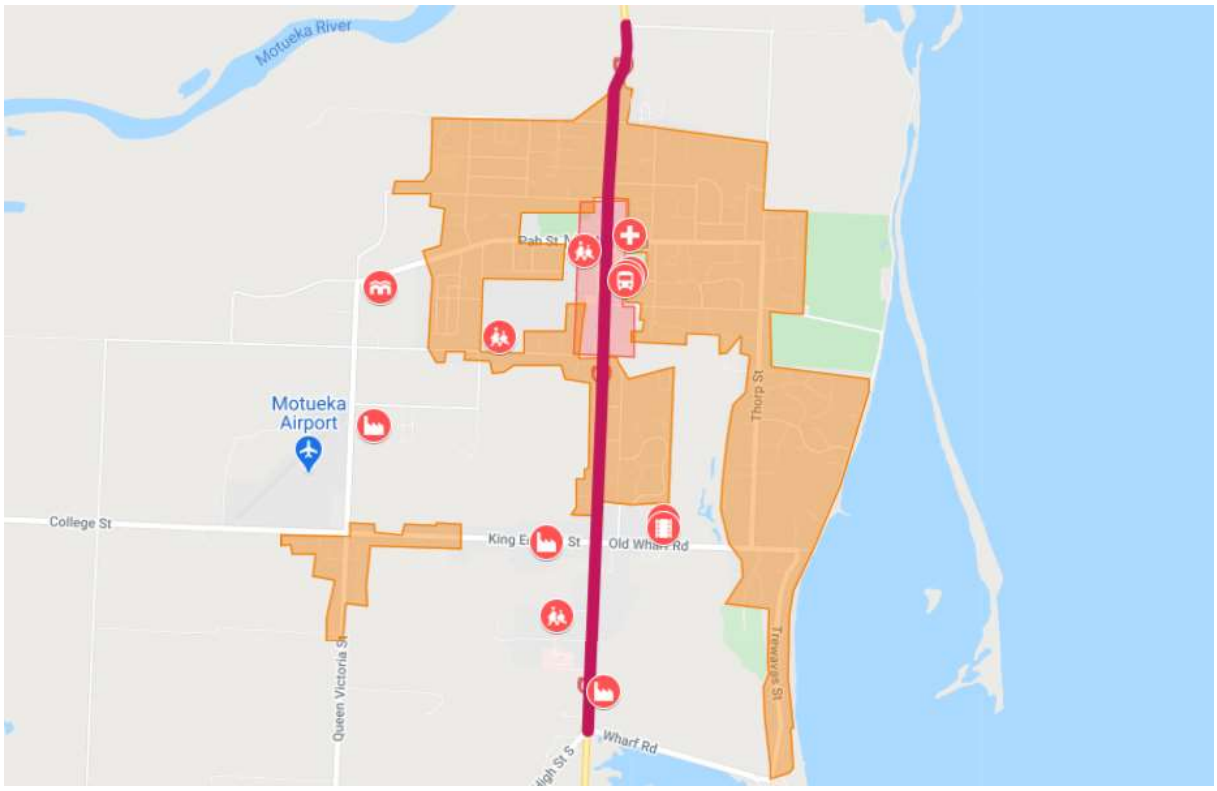


Figure 20: Severance in Motueka

Motueka has a severance issue with High Street (SH60) splitting the town in half. High Street is also the main north-south access route for Motueka, the local roads do not have the same level of connectivity. As well as serving a local function, High Street is the primary route to and from Golden Bay, which has a population of over 5,000 residents.

3.9.1.4 Perceptions of Place

Real and perceived safety has a large bearing on how a place feels, whether people want to visit and spend time. The environmental impact of very high volumes of traffic and resulting noise, vibration and vehicle emissions can also impact people's enjoyment of a place.

In May 2020, on the back of the COVID-19 Level 4 lockdown, the Council invited residents to participate in a survey about how the lockdown has changed their perception of their local streets and how they wanted their streets to look and feel when the COVID-19 restrictions were lifted. The survey was open for the month of May.

Of the approximately 1,200 surveys completed, 88% of respondents commented that walking and cycling felt safer during lockdown due to fewer cars being on the roads (as seen in Figure 21: Feelings of Safety for Walking and Cycling During Lockdown~~Figure 21: Feelings of Safety for Walking and Cycling During Lockdown~~). In addition, 84% said they wanted to see Tasman District Council focus more on creating neighbourhoods, rather than focusing mainly on motor vehicle transport.

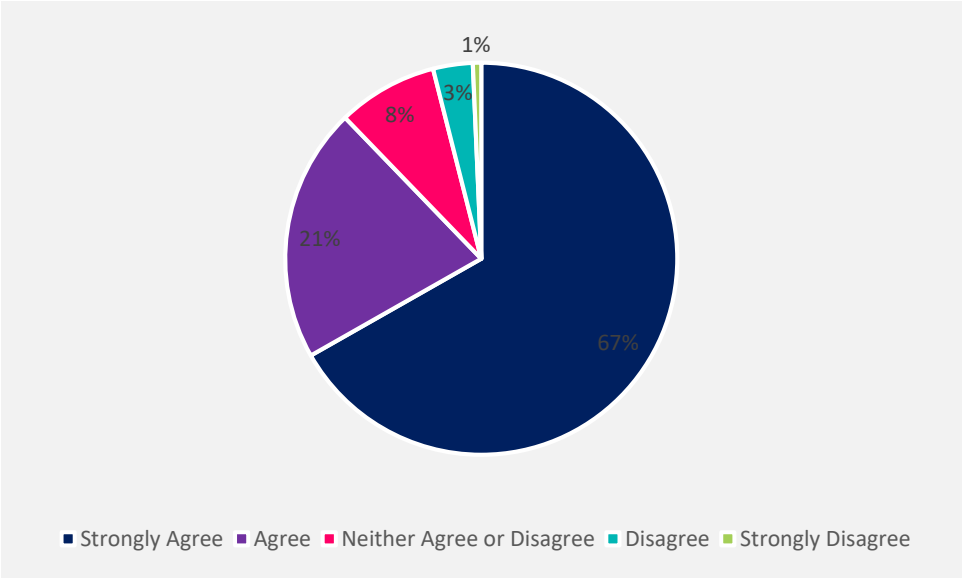


Figure 21: Feelings of Safety for Walking and Cycling During Lockdown

3.9.1.5 Case for Change

There is sufficient evidence to show that traffic growth is happening around the district and that it is eroding levels of service and creating barriers in urban communities. The areas that this is happening the greatest is Richmond and Motueka, however there is currently not enough evidence to show a future problem in Motueka. More information is needed to understand the situation better. Further study into Motueka, and the impacts of growth should be undertaken. A Network Operating Framework (NOF) has been included in in the improvement plan (Section 13.3). There is however, clear evidence that there is a current and future capacity issues in Richmond which is having an effect on residents. When combined with a similar problem in Nelson City Council, options to address this issue need to be viewed as an urban solution for the Nelson Urban Area (the combined urbans areas of Nelson and Richmond). This has been confirmed in the Richmond Programme Business Case (PBC), strategic case and the Richmond Network Operating Framework (NOF) undertaken in collaboration between Waka Kotahi and the Council.

Modelling suggests that we need to start making interventions now as we have already reached LoS E at key intersections and that these intersections will progressively get worse over the next seven years. Given the time needed to implement change, actions need to start within the next three years, but full implementation of any programme could be undertaken over the next 10 years. Failure to response to this problem result in further delay for freight when trying to access the major freight hubs. This delay will also mean that all vehicle are adding to emissions s they have longer waiting times while idling. Significant portions of traffic will seek to avoid areas of delay by using residential routes, resulting in further degradation of local place.

3.9.1.6 Strategic Option Analysis

The Council have undertaken a Multi Criteria Analysis (MCA) on the strategic options available to address this problem. It must be noted that this MCA analysis has been undertaken to address the problem that has been identified on local roads and to align with the outcomes of the Richmond NOF. Waka Kotahi is undertaking a separate process that includes state highways which may have slightly different results due to its broader scope. It should be accepted that the Council will work with Waka Kotahi and integrate local roads with state highways and as such this option has not been included in the options analysis. The analysis and results are shown in Table 12: Network Capacity Strategic Options Early Sifting~~Table 12: Network Capacity Strategic Options Early Sifting~~ and Table 13: Network Capacity Strategic Analysis~~Table 13: Network Capacity Strategic Analysis~~ below.

Table 12: Network Capacity Strategic Options Early Sifting

Option	Yes/No	Reason	Rank
1. Status Quo (Continue with low intervention)	No	Leads to a degradation in livability	4
2. Road Capacity (CAPEX Programme)	Yes	Will provide additional capacity for increased traffic	3
3. Active Transport Network (CAPEX Programme)	Yes	Will assist with reducing short distance road demand	1
4. Increased public transport services (OPEX Programme)	Yes	Has the ability to benefit a wider area than just Richmond	2
5. Travel demand management (Behaviour change)	No	Requires high quality alternatives	5

Table 13: Network Capacity Strategic Analysis

Criteria/Drivers to consider	Weighting	How good is this option					
		Active Transport		Public Transport		Road Capacity	
		Raw	Score	Raw	Score	Raw	Score
Meets GPS	10%	9	0.9	9	0.9	3	0.3
Addresses Problems	25%	6	1.5	7	1.75	6	1.5
Will realise Benefits							
Will meet Community Outcomes	25%	7	1.75	8	2	5	1.25
Will meet Customer							

Criteria/Drivers to consider	Weighting	How good is this option					
		Active Transport		Public Transport		Road Capacity	
		Raw	Score	Raw	Score	Raw	Score
Outcomes (CLOS)							
Provides high Performance impacts							
Provides high Environmental Impacts	10%	9	0.9	8	0.8	1	0.1
Provides Cultural Impacts							
How Costly	30%	5	1.5	5	1.5	3	0.9
Totals	100%		6.55		6.95		4.05

3.9.1.7 Summary

When looking at the strategic interventions, multi criteria analysis suggests that investment in public transport improvements is the best option. Adding road capacity struggles in the scoring due to degrading the place function of Richmond and cost to add road capacity (more traffic lanes) would be cost prohibitive. Adding lanes, also has the effect of moving the congestion problem further down the road into Nelson. Developing an active transport network also scores well, however, there is an active transport problem statement that will address some provide a strategic response to meet those issues. Increasing public transport service to cater for growth scores the best and aligns with environmental impact minimisation goals. Public transport, especially when extended beyond the current urban area will best meet growth in the growing settlements. However, improving public transport needs to be undertaken in conjunction with other activities to discourage moto vehicle use and ensure the first and last kilometre of people journeys are catered for. As mentioned above, working with Waka Kotahi on integrating state highways and local roads will form part of the solution to address this issue.

Section 8.8 will address specific changes to public transport services, Section 8.9 will address changes to parking and Section 8.6 will address changes to walkways.

3.9.2 Active Transport

Several towns within Tasman have grown to a point where they can cater to all activity within the town itself (work, school, shopping, recreation, etc). Along with this growth in population, has come an associated growth in the vehicles on roads. This is introducing congestion, noise, poor air quality, difficulty crossing roads and many other problems have not previously been there. In addition, the extra traffic on the roads have made people feel less safe using the roads for walking and cycling (active transport). All of the towns are small enough and have good geographical features that makes active transport viable forms of transport. Additionally, we are seeing increases in walking and cycling as forms of fitness and recreation, however we are not seeing active transport increasing as a mode of transport.

Draft 2021 GPS	
Better Travel Options "Providing people with better transport options to access social and economic opportunities"	Climate Change "Developing a low carbon transport system that supports emission reductions, while improving safety and inclusive access"

Tasman Community Outcomes	
Our infrastructure is efficient, cost effective and meets current and future needs	Our communities have access to a range of social, cultural, educational and recreational facilities and activities

Problem Statement
Active Transport "Increases in traffic volumes and a lack of safe route choices is creating barriers for people who wish to use active transport modes." 40%

Benefits	
Impact of mode choice (45%)	Impact on user experience (20%)

Measures		
10.1.6 Number of people on cycle paths	2.1.1 Perception of safety	10.2.3 Spatial Coverage – Cycle lanes and paths

Responses
Create an improved, district-wide walking and cycling network of dedicated facilities

Figure 22: Active Transport Priority Summary

The problem has been investigated in terms of:

- Increases in vehicle volumes
- Current active transport usage
- Active transport latent demand
- Existing cycle routes
- Barriers to uptake

3.9.2.1 Increases in vehicle volume

The evidence to support increasing traffic volumes can be found in Section 3.9.1.1 above. It shows that traffic is growing around 5% pa, with some local roads seeing significantly higher growth than others.

3.9.2.2 Current active transport usage

The proportion of people using active transport as a mode of transport to get to and from work is generally higher than the rest of New Zealand, however, the use of active transport has remained static. Using the travel to work census data (Figure 23: Proportion of people using active transport to travel to work~~Figure 23: Proportion of people using active transport to travel to work~~), it can be seen that there was growth in active transport use between 2006 and 2013, but from 2013 to 2018, there has been no significant growth.

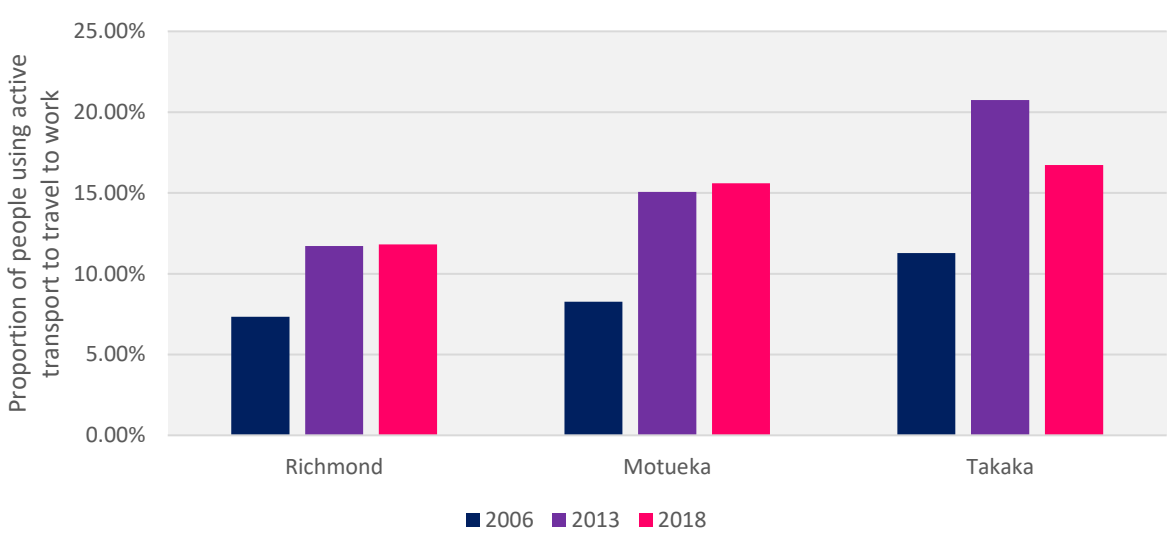


Figure 23: Proportion of people using active transport to travel to work

3.9.2.3 Active transport latent demand

Tasman is an area with a high number of residents who undertake active walking and cycling as a recreational activity. A high number of clubs and associations to support this supports this. The Nelson Mountain Bike club has over 3,500 active users. In addition to recreational groups, there are also a high number of groups advocating for active transport, reduced emissions and creating more liveable areas. One such group is the Golden Bay cycling and walkway society. This group have been advocating for mode shift in their area. To facilitate this, they have developed an active transport strategy.

In a recent survey, residents were asked what their current mode of transport to work and school was and what would be their preferred mode. Of the people who indicated that their current mode was using a private vehicle, 45% said their preferred mode was cycling as shown in Figure 24: Preferred mode for current private vehicle users~~Figure 24: Preferred mode for current private vehicle users~~ below.

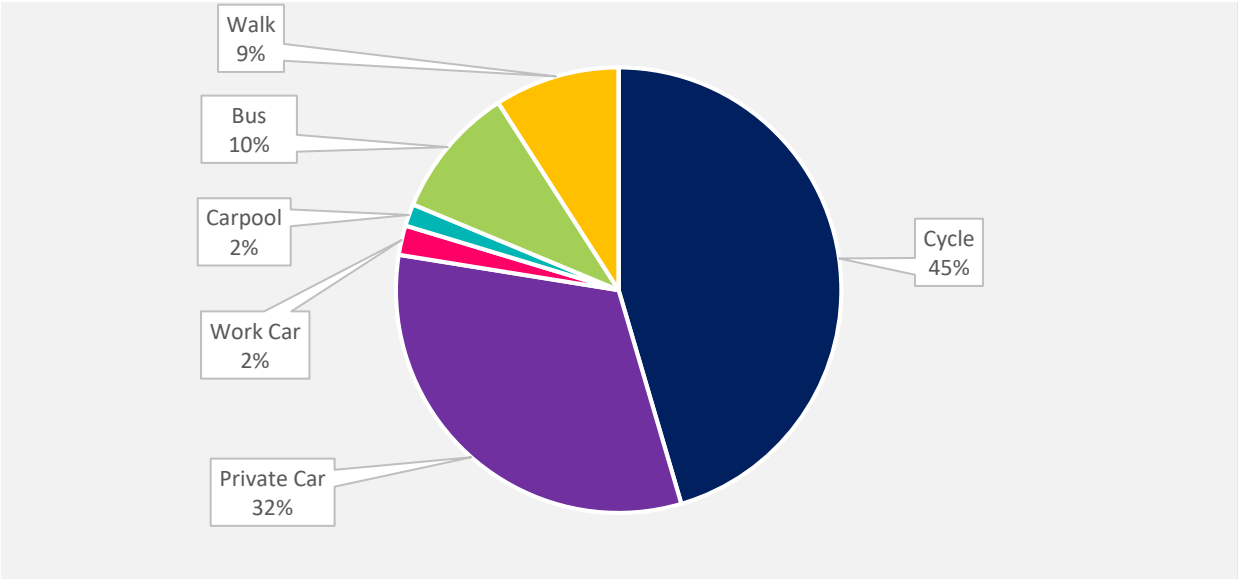


Figure 24: Preferred mode for current private vehicle users

Figure 24: Preferred mode for current private vehicle users~~Figure 24: Preferred mode for current private vehicle users~~ also shows that there is also demand for walking (9%) and public transport (10%) which has an active transport component.

In recent years, the Council have constructed a new shared path linking Takaka and Pohara. The Council undertook a cycle counts on the same month both prior to and following construction. The difference in the number of cyclists and what they travelled on can be seen in Figure 25: Usage change after new facility in Abel Tasman Drive was completed~~Figure 25: Usage change after new facility in Abel Tasman Drive was completed~~ below.

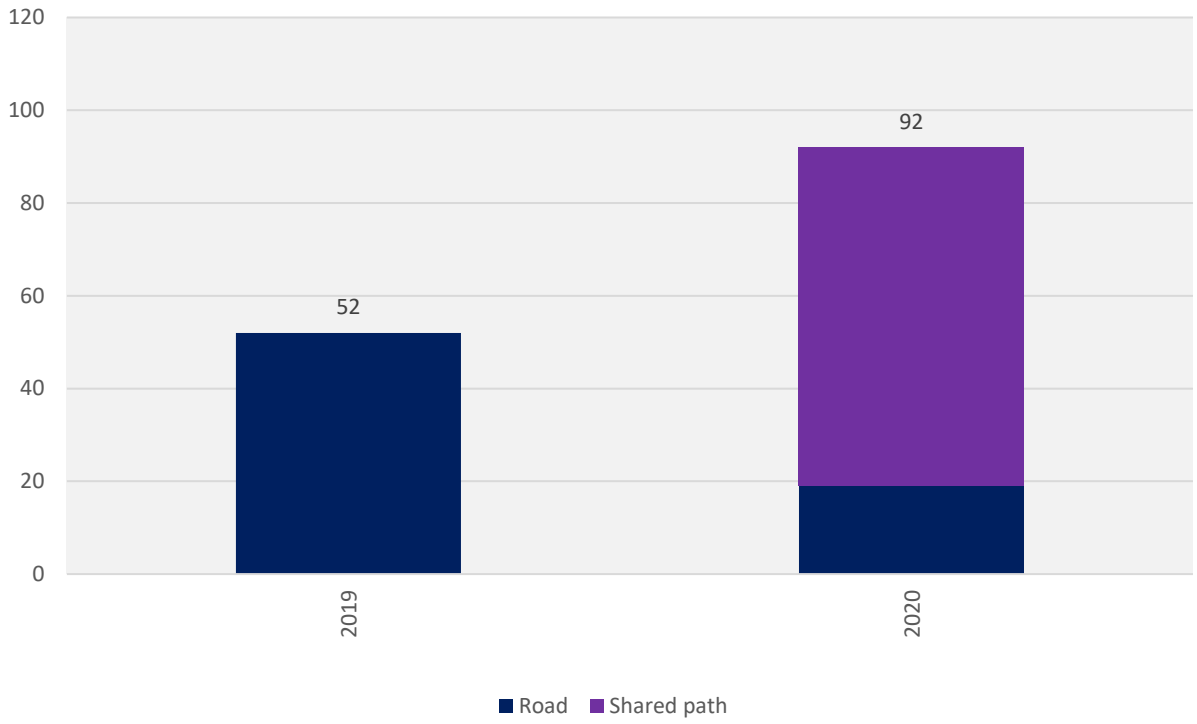


Figure 25: Usage change after new facility in Abel Tasman Drive was completed

The number of cyclists increased 77%, with 80% of the cyclists preferring to use the new shared path rather than the road.

In another survey that was undertaken following COVID-19 level 4 lockdown, the Council asked residents, following the lifting of the restrictions, what did residents see as important to the community (Figure 26: Importance of neighbourhood changes~~Figure 26: Importance of neighbourhood changes~~) and what changes would make the streets better to live on (Figure 27: Things that would make streets better to live on~~Figure 27: Things that would make streets better to live on~~).

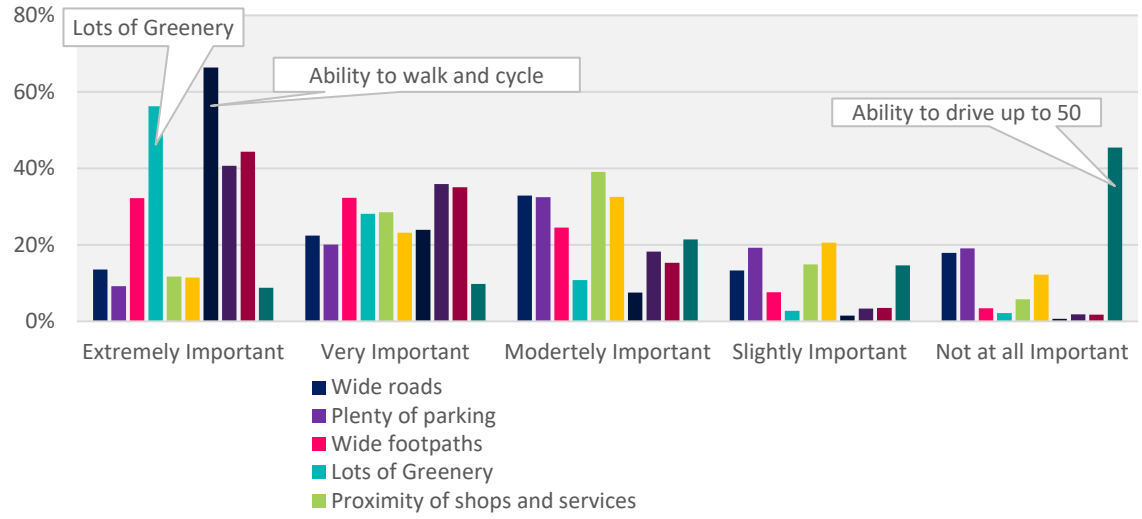


Figure 26: Importance of neighbourhood changes

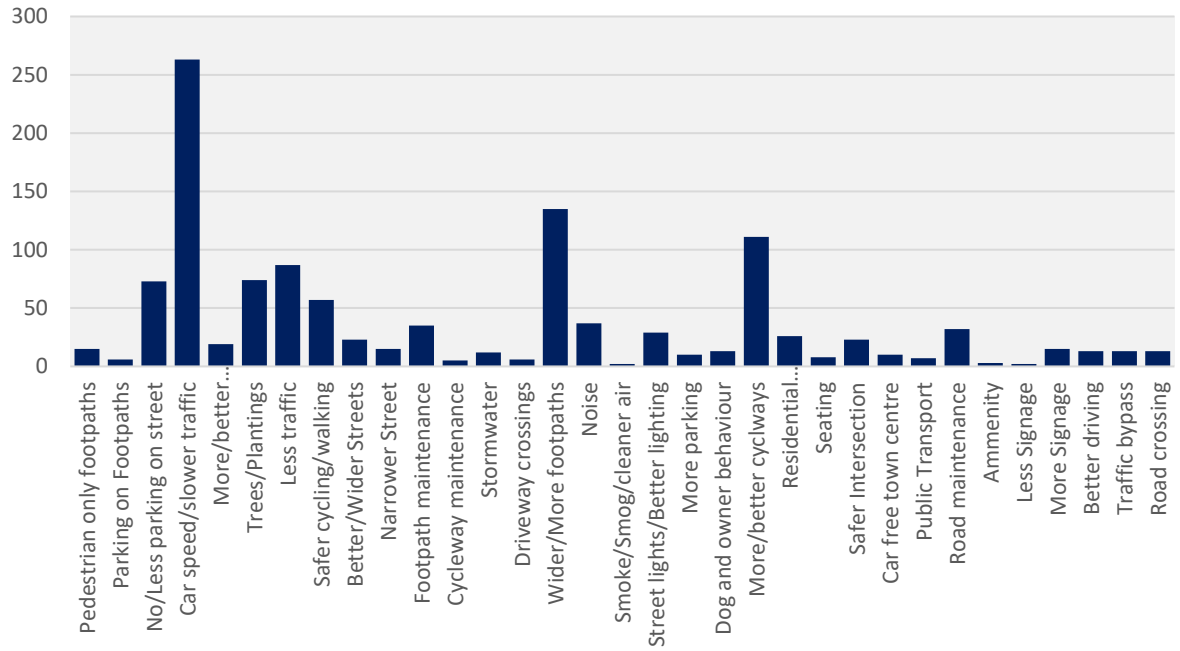


Figure 27: Things that would make streets better to live on

The most telling response is that 2/3 (or 66%) of respondents believe that having the ability to walk and cycle safely was extremely important and less than 1% thought it was not important at all (Figure 26: Importance of neighbourhood changes~~Figure 26: Importance of neighbourhood changes~~). Respondents see vehicle speeds as being problematic with 263 (22%) individual responses wanting to see reductions in speed limits to measures to reduce vehicle speeds on roads. This is reinforced with 45% of respondents believing that being able to drive up to 50km/h is not at all important. Other notable changes that would make streets better live on are wider or more footpaths (135 responses or 11%) and more or better cycleways (111 responses or 9%).

3.9.2.4 Existing cycle routes

Tasman's existing cycle network is predominately made up of shared pathways and on road routes. This cycle network is predominately in rural areas and have been established in the last six years as part of the central governments great rides and heartland rides initiatives as can be seen in Figure 28: Current cycle network~~Figure 28: Current cycle network~~ below. The most obvious of this network is Tasman's Great Taste Trail that follows Tasman Bay from Richmond to Kaiteriteri with a loop that links Richmond with Motueka via Brightwater, Wakefield, Kohatu, and Tapawera. This loop is still under construction with Tapawera to Motueka still to be completed. The trail is predominately off road unsealed shared pathways however there are on–road sections (Tasman View Road, Iwa Street, Lower Queen Street). The other notable path is the unsealed shared path between Takaka and Pohara which was constructed in 2019.

These routes were constructed for recreational activities, but they do serve a transportation function for cyclists especially sections of these trail close to urban areas like Motueka and Richmond.

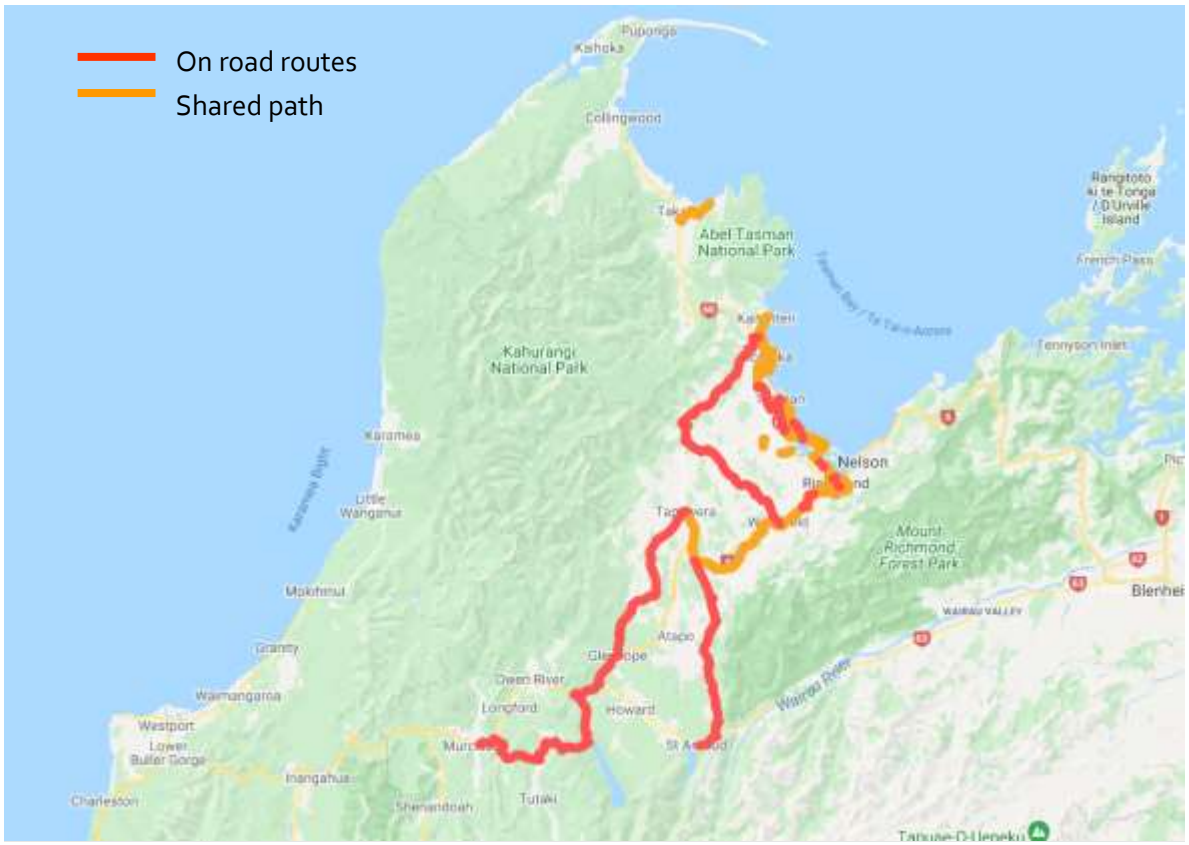


Figure 28: Current cycle network

The only location in the district where there is separated cycle lanes is in Richmond along Wensley Road (not continuous in this area), Oxford Street, Talbot Street and Salisbury Road as shown in Figure 29: Current separated cycle paths~~Figure 29: Current separated cycle paths~~ below.

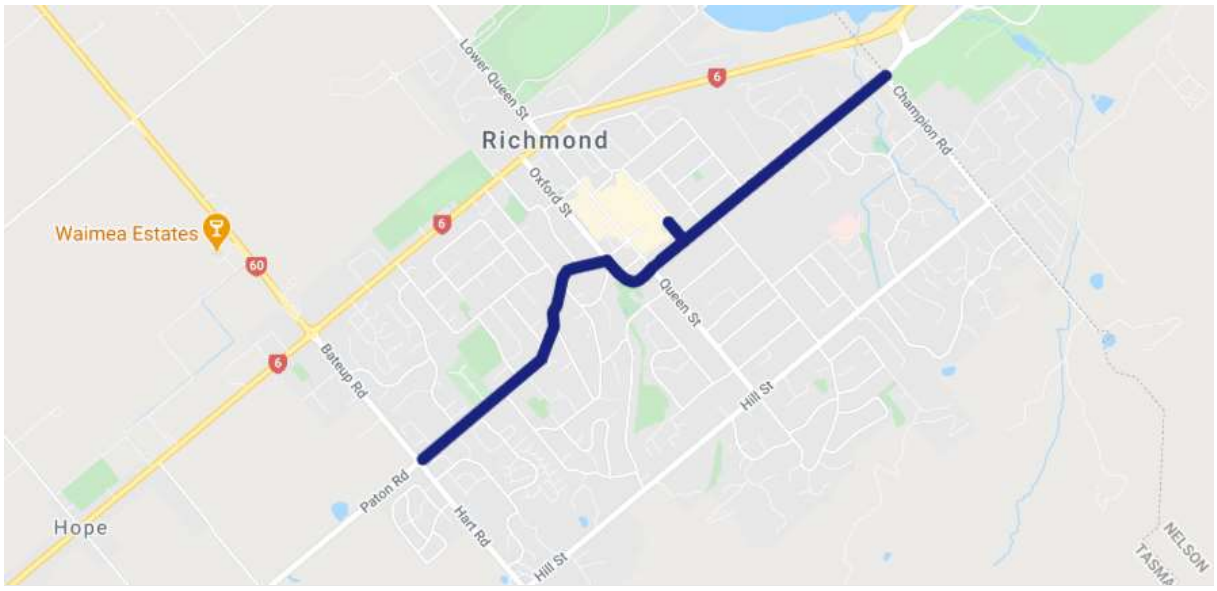


Figure 29: Current separated cycle paths

The cycle lanes are relatively continuous along the indicated sections of Oxford, Talbot and Salisbury, with gaps in the cycle lanes being at major intersections and at bus stops. However, the cycleway along Wensley Road is intermittent and has significant gaps as shown in Figure 30: Cycle lane delineation in Richmond~~Figure 30: Cycle lane delineation in Richmond~~ below.

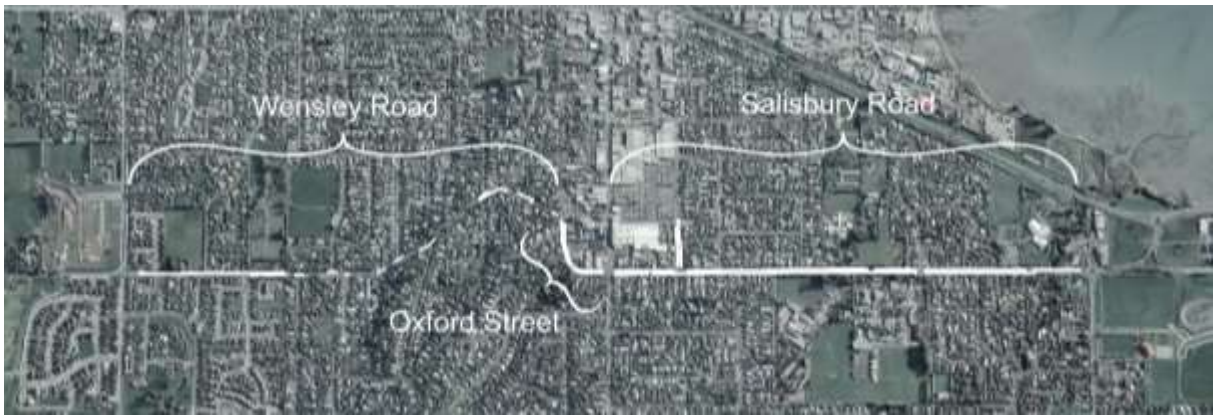


Figure 30: Cycle lane delineation in Richmond

On the streets with good continuous cycleways usage is high (Figure 31: Average daily cycle use of cycleway and adjacent footpath~~Figure 31: Average daily cycle use of cycleway and adjacent footpath~~), however, where cycleways are inconsistent, usage is significantly less.

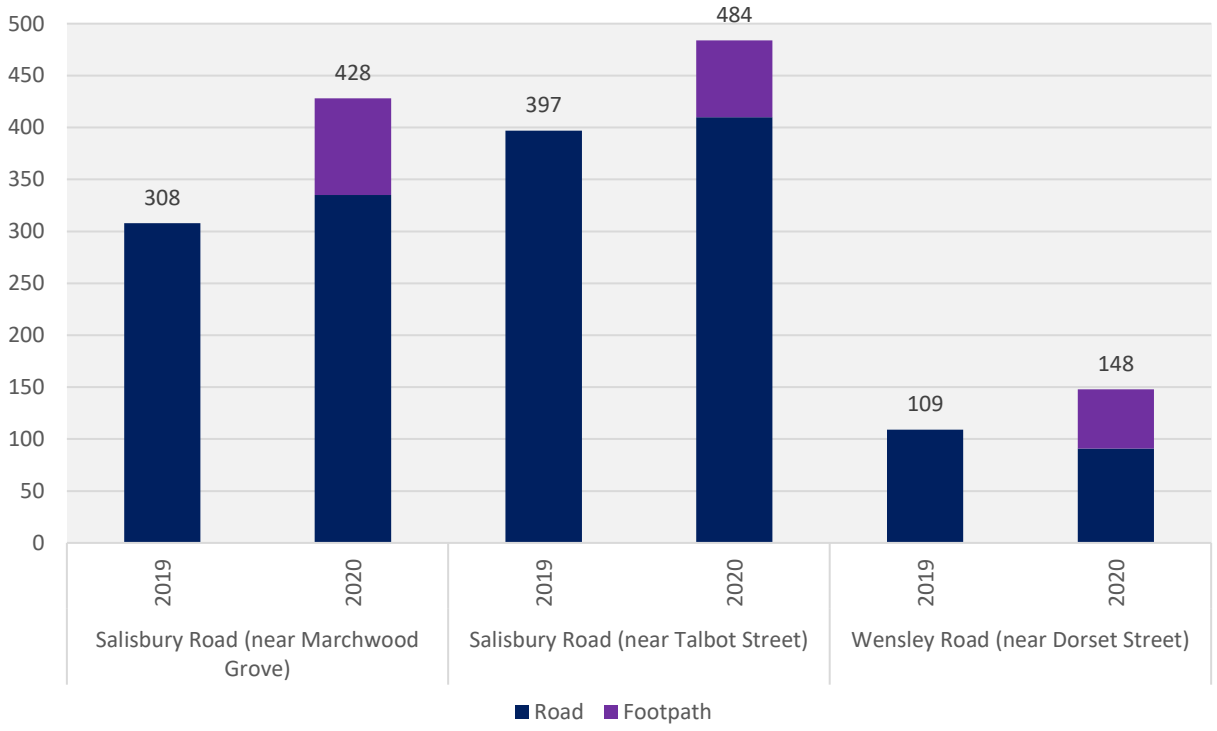


Figure 31: Average daily cycle use of cycleway and adjacent footpath

In addition to the regular cycle path count, in 2020 the Council counted the number of cyclists on the adjacent footpath, the results are shown in Figure 31: Average daily cycle use of cycleway and adjacent footpath~~Figure 31: Average daily cycle use of cycleway and adjacent footpath~~ above. The proportion of people using the footpath instead of the cycleway, can be used as a proxy for perceived safety. On Salisbury road where the cycle path has higher continuity and delineation, the proportion of people using the footpath is between 15 and 22%. In Wensley Road, where the cycle lane is inconsistent, the proportion of people using the footpath is 39%.

3.9.2.5 Barriers to uptake

In the 2017 active transport survey, we asked a question around the reasons stopping the respondents from sing active transport modes as their form of transport. The responses are shown in Figure 32: Top Three Reasons for not walking or cycling~~Figure 32: Top Three Reasons for not walking or cycling~~ below and generally show that time, distance and safety were the top reasons.

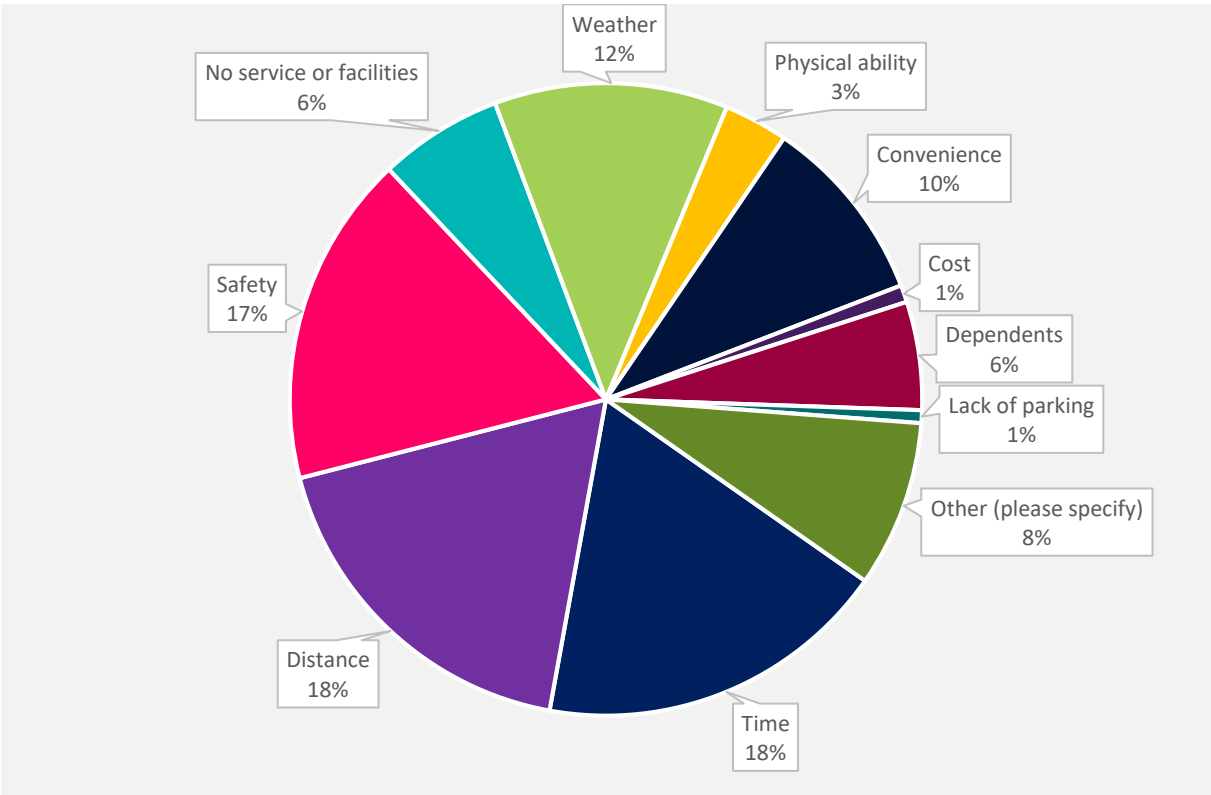


Figure 32: Top Three Reasons for not walking or cycling

For a district that has significant rural areas, time and distance being two of the top reasons for not walking or cycling make sense. A quick analysis of some of the "other" reasons indicated that there were two other themes. The first was a requirement to carry things as part of their journey (1.6% of total reasons) and the second was that there were no cycling facilities, which created a safety issue (2.9% of total reason). When this is added to safety it makes safety the top reason.

3.9.2.6 Case for Change

The evidence easily shows that there has been an increase in the numbers of vehicles using the road network, the growth in traffic easily exceeds the population growth which is in itself one of the highest in the country. Despite the traffic growth and a strong interest in using active modes, there has not been a proportional lift in the use of active transport, use of active transport has either stagnated or decreased. When surveying residents, the common themes are that they are feel unsafe on our roads. The types of interventions that they are talking about also indicates that there is a high concern around this traffic and safety. The people that are using our current active transport networks are favouring areas that have already have higher quality facility and that they are favouring 'safer' facilities like footpaths where they are not well catered for.

Population growth is predicted to continue for the foreseeable future, which will result greater transport demand. We know from the example of Nelson City, that where active modes are catered for people will make the change in habits. Failure to act within the next three years will mean make it harder to act in the future as more people become reliant on motor vehicles for their transport needs. This will mean that there will be more public demand for car centric infrastructure like parking spaces as there is no viable alternative.

3.9.2.7 Strategic Option Analysis

The Multi Criteria Analysis (MCA) in the Table 14: Active Transport Strategic Options Early Sifting~~Table 14: Active Transport Strategic Options Early Sifting~~ and Table 15: Active Transport Strategic Analysis~~Table 15: Active Transport Strategic Analysis~~ below indicate that creating a cycle network is the best option to address this key issue. Given the current proposal by Ministry of Transport to allow use of footpaths for cyclists and other micro mobility modes, this will likely start to happen anyway. However, as we have a high proportion of retirees with mobility impairments, use of footpaths for cyclists instead of the road space will only shift perceived safety risks elsewhere. Trying to make driving unattractive as a means to encourage active transport will have some benefits, but may have some unintended consequences for freight and public transport in the district. However, this may happen as part of creating a cycle network when deciding how to use the available road space.

Table 14: Active Transport Strategic Options Early Sifting

Option	Yes/No	Reason	Rank
1. Status Quo (No specific interventions)	No	Currently doesn't address the problem	4
2. Make driving un-attractive	Yes	This could be low cost	3
3. Travel Demand Management	No	Need to have a viable alternative to be effective	5
4. Create a district wide walking and cycling network	Yes	Creates specific infrastructure for cycling and uses current infrastructure for walking	1
5. Share current walking network	Yes	Utilises assets that are	2

		currently being used	

Table 15: Active Transport Strategic Analysis

Criteria/Drivers to consider	Weighting	How good is this option					
		Walk & Cycle Network		Shared footpaths		Driving un-attractive	
		Raw	Score	Raw	Score	Raw	Score
Meets GPS			0		0		0
Meets RLTP			0		0		0
Addresses Problems	20%	8	1.6	6	1.2	4	0.8
Will realise Benefits			0		0		0
Will meet Community Outcomes	30%	8	2.4	4	1.2	3	0.9
Will meet Customer Outcomes (CLOS)	20%	9	1.8	7	1.4	3	0.6
Provides high Performance impacts			0		0		0
Provides high Environmental Impacts			0		0		0
Provides Cultural Impacts			0		0		0
How Costly	30%	2	0.6	7	2.1	8	2.4
Totals	100%		6.4		5.9		4.7

3.9.2.8 Summary

When looking at what strategic interventions creating a walking and cycling network has the dual benefits of meeting this strategic issues whilst assisting the traffic capacity strategic issue as well. The preferred response aligns well with national and regional guidance, especially Arataki which is advocating for improving walking and cycling networks and creating separate facilities for vulnerable users. These strategic responses are further refine in programme business cases for walkways (Section 8.6) and cycleways (Section 8.7).

3.9.3 Road Maintenance

The road network in Tasman is generally maintained in a good condition. A key philosophy of the maintenance regime is based around keeping the water proof seal in good condition in order to keep the pavement dry and therefore limit degradation through water ingress. As Tasman has many relatively weak pavements, this is crucial to their longevity. This philosophy has been historically successful for the Council with the overall cost to maintain the road network being around 25% less than the peer group average.

Over the period 2013/14 to 2019/20 the Council has sought savings in the renewals programme to meet debt targets in the shorter term. The road renewal programme was reduced to meet these goals on the understanding that there will be an inevitable reinvestment and the programme will need to be returned to at least normal levels. This reduction in renewals has happened at a time when commercial vehicles are getting heavier through the introduction of High Productivity Motor Vehicles (HPMV) and commercial vehicle numbers are significantly growing. Additionally, the drainage network is deteriorating faster than originally anticipated.

Draft 2021 GPS
Improving Freight Connections "Improving freight connections for economic development"

Tasman Community Outcomes	
Our infrastructure is efficient, cost effective and meets current and future needs	Our urban and rural environments are people-friendly, well planned and sustainably managed.

Problem Statement
Road Maintenance "Our current levels of investment into sealed roads and drainage is causing the assets to deteriorate at an unsustainable rate." (35%)

Benefits
9.1 Impact on resource efficiency (35%)

Measures		
9.1.1 Network Condition	ONRC 10.1.5h Cost per lane km	ONRC 10.5e Proportion of network resurfaced

Responses

Temporarily lift specific maintenance and renewal programmes

Figure 33: Road Maintenance Priority Summary

The problem has been investigated in terms of:

- Current levels of investment
- Road pavement deterioration
- Sustainability of current levels of investment
- Drainage network condition

3.9.3.1 Sealed Road Investment

During the development of the 2012 Activity Management Plan, the Council deliberately reduced the amount of resealing that was being undertaken to assist in achieving its target of reducing the Council debt. The network was also in a very good condition at that time. As can be seen in Figure 34: Proportion of Network Resealed~~Figure 34: Proportion of Network Resealed~~ showing that from financial year 2013/14 to 2017/18, the proportion of renewals undertaken was less than the recommended 6%-7% long-term average required to ensure that the seal is renewed within its functional lifetime without taking on undue levels of risk. While effective in the short term to assist with debt management, this deliberate under investment in surface renewals must eventually be met with reinvestment to ensure a risk-managed and sustainable network into the future.

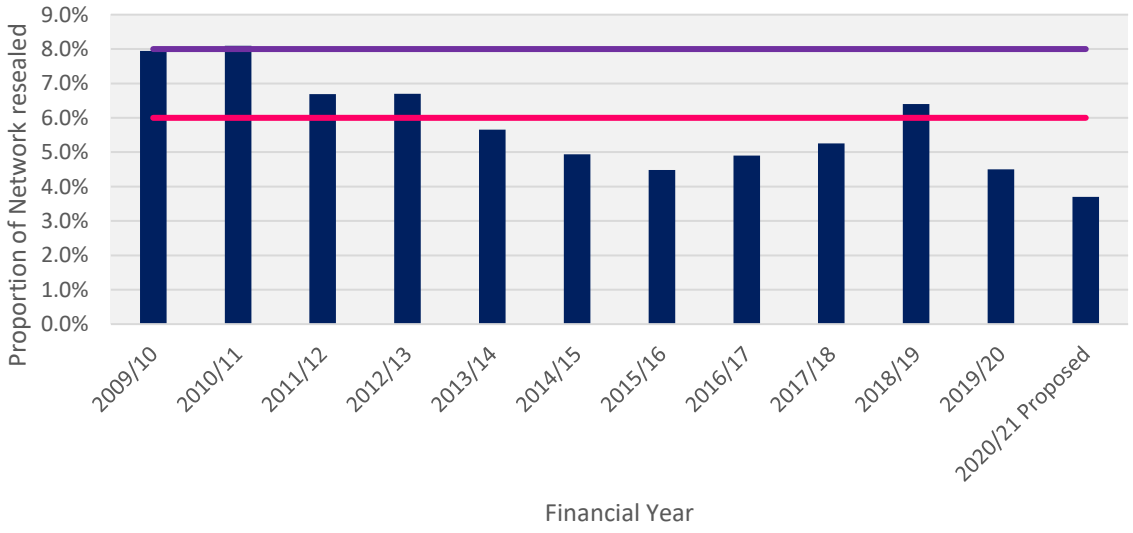


Figure 34: Proportion of Network Resealed

3.9.3.2 Road pavement deterioration

The Council undertakes RAMM condition rating inspections every two years. The overall condition index calculated from conditions inspections are shown in Figure 35: Tasman Road Condition Index~~Figure 35: Tasman Road Condition Index~~ below.

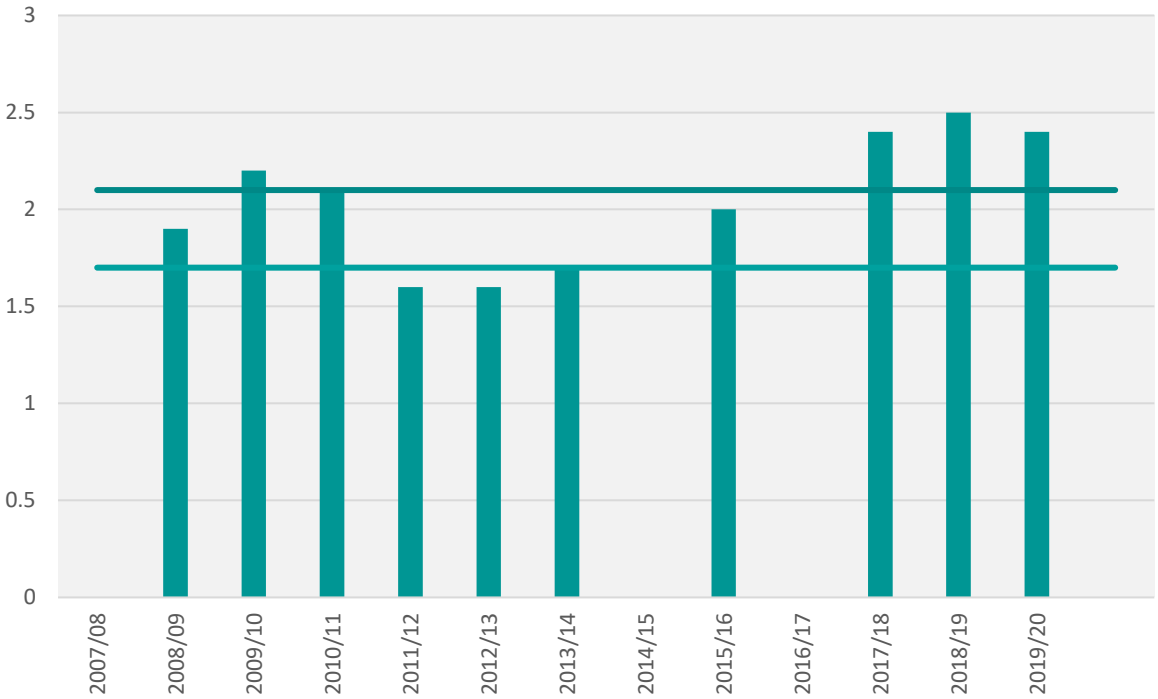


Figure 35: Tasman Road Condition Index

Figure 35: Tasman Road Condition Index~~Figure 35: Tasman Road Condition Index~~ shows that there is a long-term trend of progressive deterioration. This is confirmed by the Stantec 2020 condition report, which summarised the situation:

"Generally, the survey indicates a network for which the condition has deteriorated compared to previous years and, all things remaining the same, is likely to continue to deteriorate. In particularly, the increased levels of cracking will drive increased rates of rutting and shoving and vice versa."

Figure 36: Sealed road cracking trends~~Figure 36: Sealed road cracking trends~~ show that levels of cracking have increased over the last none years. Increased rates of seal cracking is indicative of a reduction in resealing rates.

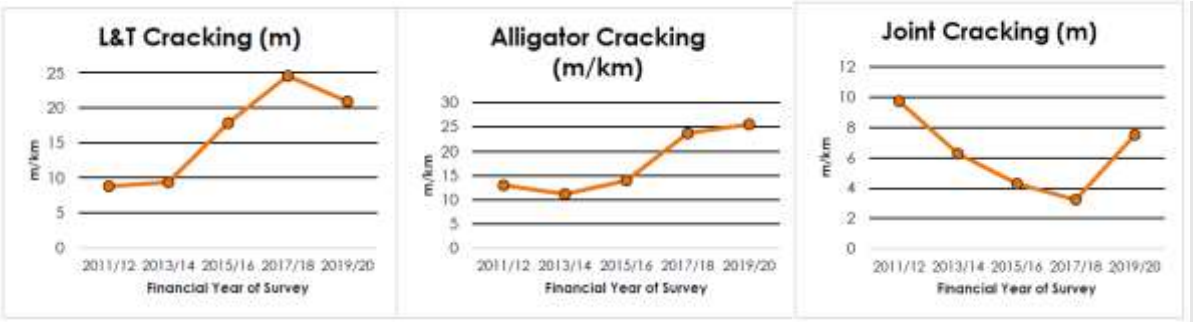


Figure 36: Sealed road cracking trends

3.9.3.3 Sustainability of current levels of investment

The Council have undertaken condition modelling using Juno Viewer on different resurfacing scenarios to understand what the long-term consequences of under investing in resurfacing. It should be recognised that modelling has limitations, but it does provide some general guidance for what could happen in the future. Based on secondary collector roads (as one of our highest used and longest length road classification), resurfacing at the current average 5% of our network, the defect score continues to rise from 2.8 to 3.0 over the next 10 years as shown in Figure 37 below. A resurfacing scenario that sustains the renewal programme (6.6% of the network per annum) drops the surface defect score from 2.8 to 2.5 over 10 years. This would appear to validate our assumption that continuing to invest in resurfacing at current investment levels will degrade the network.

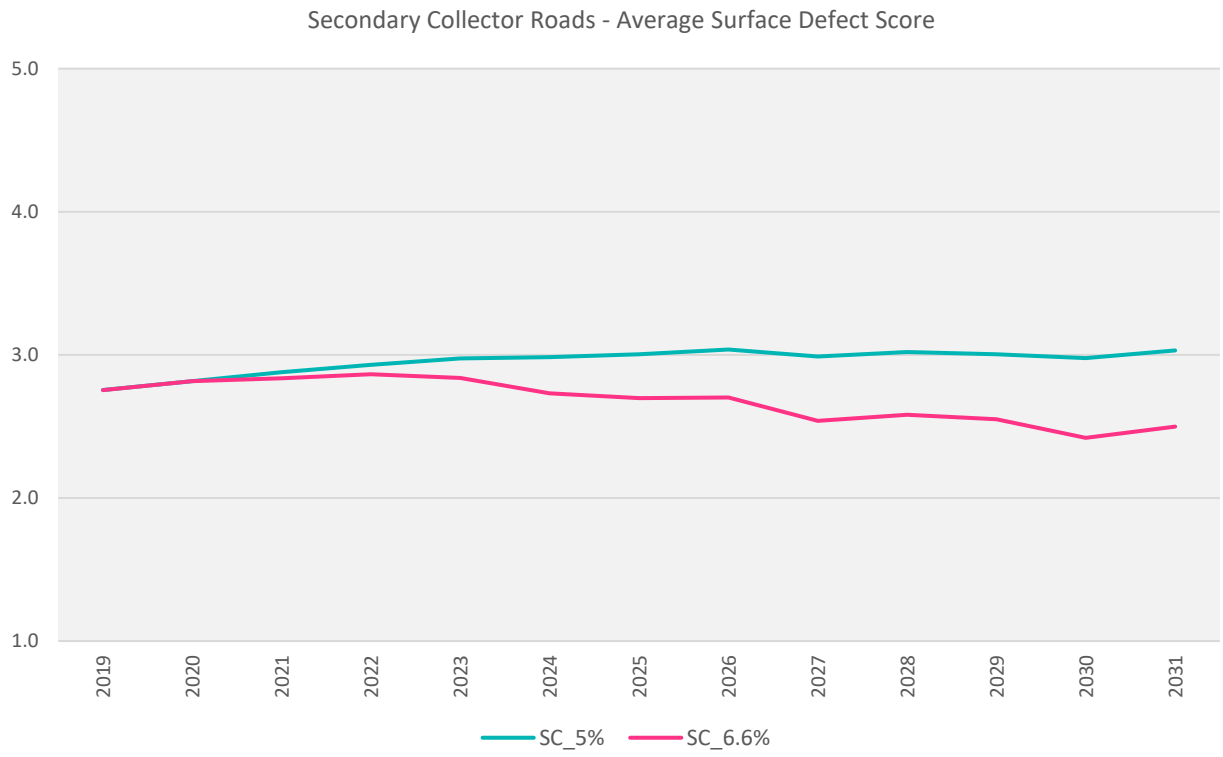


Figure 37: Surface Defect Score for Current Resurfacing Scenario

3.9.3.4 Drainage Network Condition

The latest condition rating survey indicates that the overall length of broken channel has been steadily increasing over the last five years and has again increased in the most recent survey as can be seen in Figure 38: Length of Broken Channel~~Figure 38: Length of Broken Channel~~.

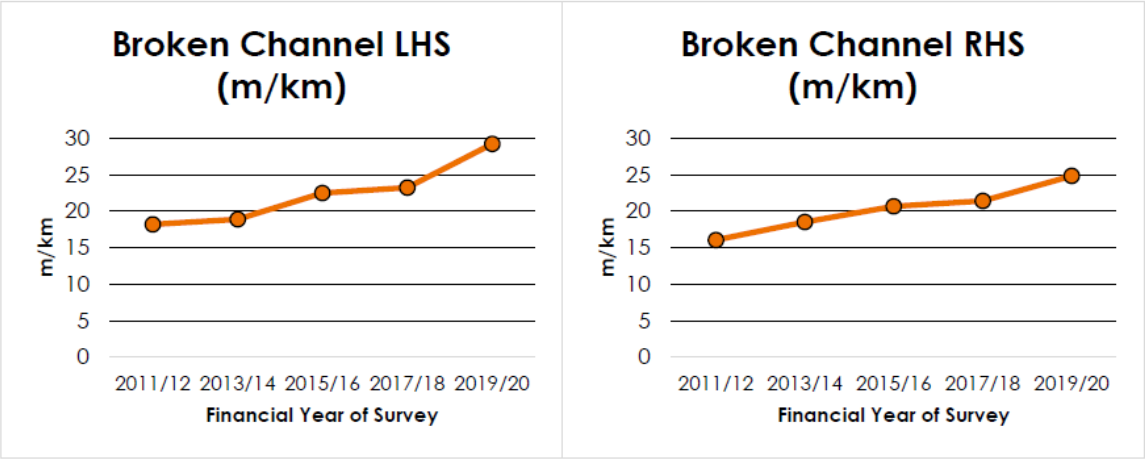


Figure 38: Length of Broken Channel

Figure 39: Length of SWC with a Lip~~Figure 39: Length of SWC with a Lip~~ shows that high lip has fluctuated slightly over the last five years however the overall length of high lip has decreased slightly since the last survey.

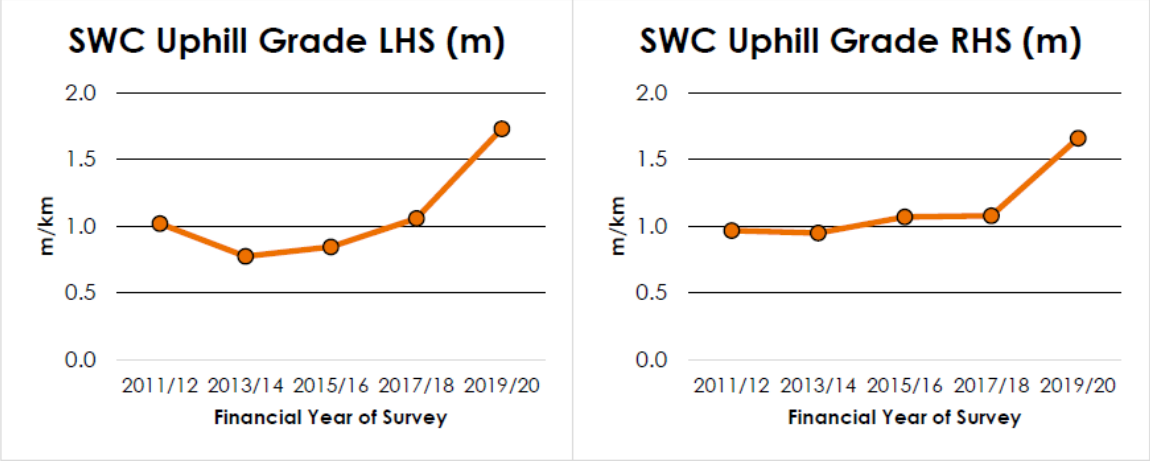


Figure 39: Length of SWC with a Lip

Figure 40: Length of Blocked Earth SWC~~Figure 40: Length of Blocked Earth SWC~~ shows the overall length of inadequate channel is showing a 'peak trough' pattern over the five years with the most recent survey showing a downward trend. Earth water channel blocked and ineffective shoulders have shown a major increase in this current survey.

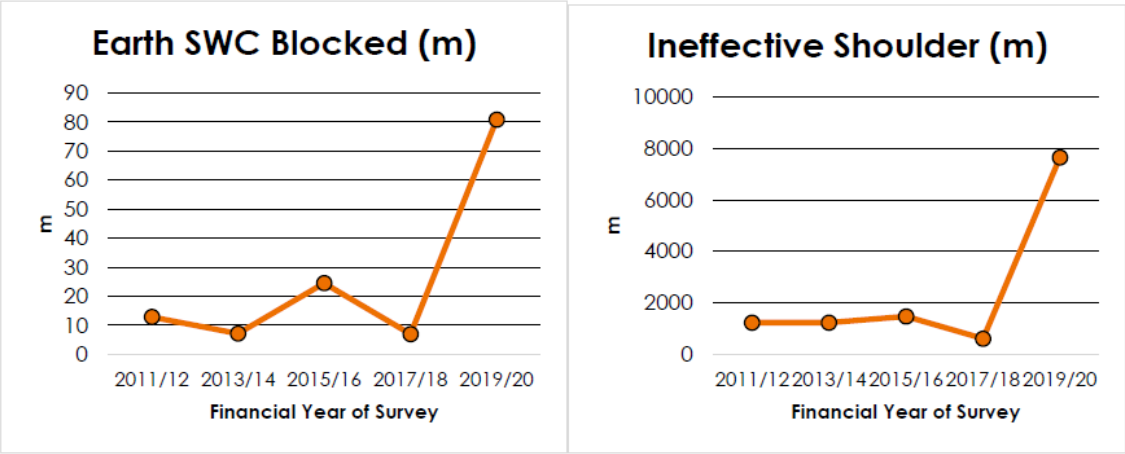


Figure 40: Length of Blocked Earth SWC

3.9.3.5 Case for Change

The evidence shows that investment in resurfacing has been lower than our normal resurfacing rate for the last eight years. The reduction in resurfacing has meant that the condition of the sealed road network has been steadily declining as. If we continue to reseal at a similar rate to the previous eight years, the condition of the network will deteriorate further and in all likelihood will eventually reach a point where recovery from this deterioration will require reinvestment beyond what the Council can afford, and certainly well beyond an economic renewal strategy. The evidence also shows that there is an increase in faults on the drainage network. Some of these faults (like broken water channel) have been building up for some time, whereas others are a relatively recent outcome (like blocked earth SWC or ineffective shoulders).

Not addressing these issues, both increases the cost to rectify the issue at a later stage and increases the risk of failure. Both the resurfacing can be delayed, however, this would have the effect of imposing a higher cost to ratepayers further down the track as well as contributing to ongoing higher maintenance costs. The main dis-benefit from the drainage is the increased risk of road washouts. Whilst not explicitly addressed in the evidence above, Tasman is experiencing higher frequency and greater intensity rain events which makes it more important to have 'fit for purpose' drainage networks.

3.9.3.6 Strategic Option Analysis

The Council have undertaken a Multi Criteria Analysis (MCA) on the strategic options to address the road maintenance problem. Table 16: Road Maintenance Strategic Options Early Sifting~~Table 16: Road Maintenance Strategic Options Early Sifting~~ looks at the long list of options and undertakes some early sifting. Divesting of road network and restricting HPMV routes have been discounted due to the Districts high reliance on the primary industries for economic prosperity.

Table 16: Road Maintenance Strategic Options Early Sifting

Option	Yes/No	Reason	Rank
1. Status Quo (Accept new lower condition)	Yes	Similar to other peer Councils around the Country	2
2. Divest of road network	No	High proportion of GDP from rural sector, effecting productivity	4
3. Restrict HPMV routes	No	Restrict freight movements from primary industries, effecting productivity	3
4. Temporarily lift specific maintenance and renewals programmes to retain historical condition	Yes	Returns network to previous efficient levels	1

Table 17: Road Maintenance Strategic Analysis

Criteria/Drivers to consider	Weighting	How good is this option			
		Lift programme		Lower Condition	
		Raw	Score	Raw	Score
Meets GPS			0		0
Meets RLTP	20%	9	1.8	6	1.2
Addresses Problems			0		0
Will realise Benefits	20%	9	1.8	8	1.6
Will meet Community Outcomes			0		0
Will meet Customer Outcomes (CLOS)	20%	9	1.8	8	1.6
Provides high Performance impacts			0		0
Provides high Environmental Impacts			0		0
Provides Cultural Impacts			0		0
How Costly	40%	4	1.6	3	1.2
Totals	100%		7.0		5.6

3.9.3.7 Summary

Table 17~~Table 17~~ above indicates that temporarily lifting the amount of maintenance and renewals on selected programmes like sealed road resurfacing and drainage maintenance is the best outcome for the community. This option will have a short term cost, but will enable the Council to continue with a lower overall cost of ownership compared to other similar networks in New Zealand. This option was also significantly better then the next best option that was assessed. It is worth noting however, that this option does rely on Waka Kotahi matching co-funding this additional investment. See Section 8.1 for specific changes to the sealed road network and Section 8.3 for specific changes to drainage.

3.9.3.8 Prioritisation

The Council provides many services on behalf of Tasman's residents and there is often competing demands for the Council's investment across and within these services. The Council needs to decide how much, and when, to invest in these services in a way that maintains affordability for customers and ratepayers.

There are multiple factors that affect the priority of individual projects or work streams. These include:

- The need to protect public health and safety
- The need to conserve and enhance the natural environment
- Statutory compliance
- Meeting the needs of tomorrow's population
- Readiness to implement works
- Co-funding opportunities
- Creating functional and attractive public places
- Benefits and risks
- District distribution
- Strategic fit

The Council has applied the following principles when developing its programme of works i:

- To continue to meet its fiscal prudence, sustainability and environmental sustainability obligations.
- To keep the medium to long term in focus i.e. rather than being overly diverted by the shorter term recovery from the Covid-19 pandemic.
- To understand the trade-off's or benefits across all of the well-being domains (social, environmental, economic and cultural).
- To capitalise on the economic environment (i.e. enhanced borrowing terms, and increased labour and skills availability).
- To make the most of the enhanced opportunities of Government funding, subsidies and other incentives to advance the community outcomes.

- To right size the Council staffing and operational expenditure.

The Council has taken all of the above into consideration in order to present a programme that is achievable and affordable. Generally, mandatory requirements such as statutory compliance take priority, and discretionary activities have been programmed second to this.

4 Key Linkages

There are multiple factors that influence how the Council manages this activity. They can be internal or external and include legislation, policies, regulations, strategies and standards. This section summarises these key linkages.

4.1 Overview

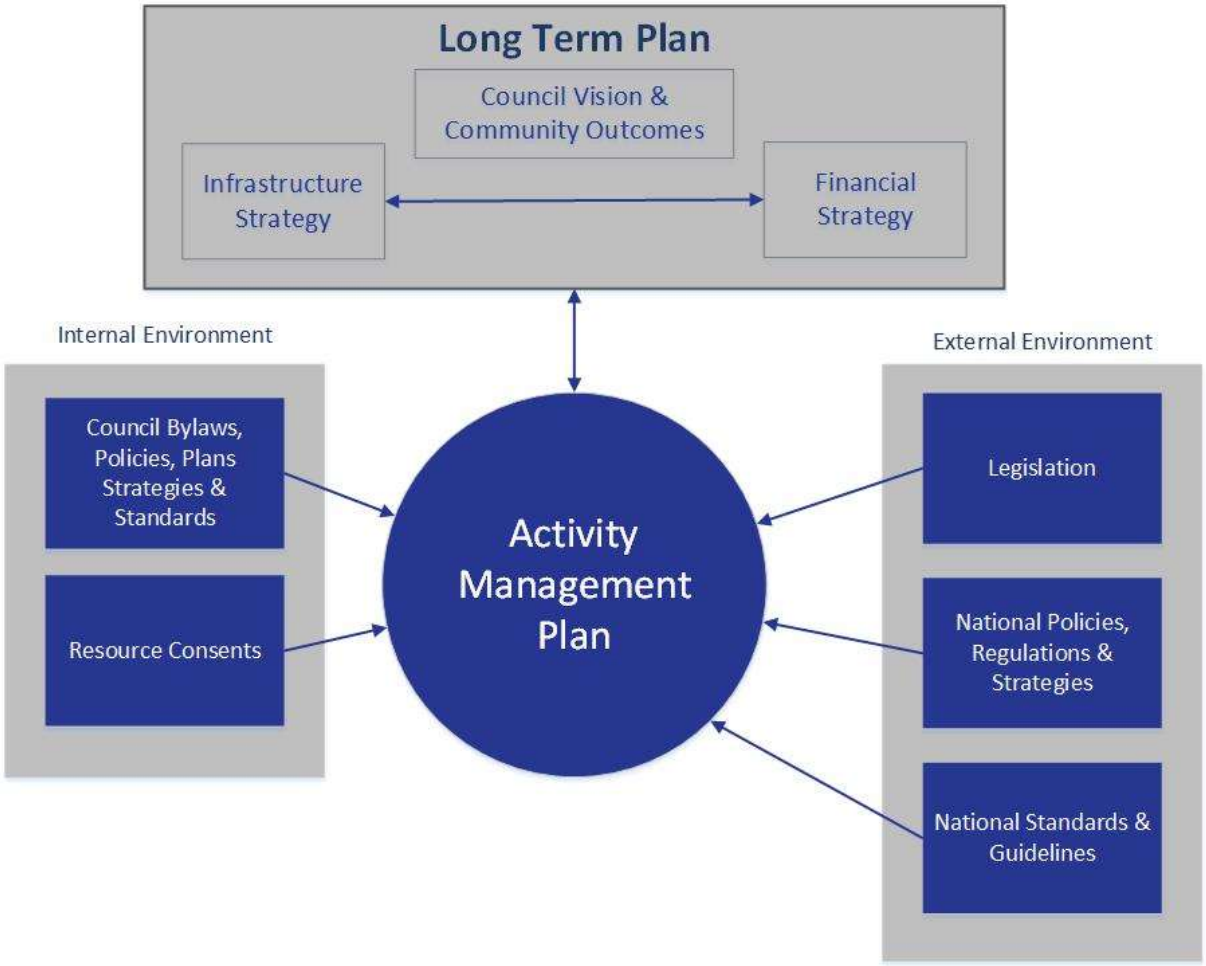


Figure 41: Transportation AMP Relationship with other Documents

4.2 Key Legislation

The key pieces of legislation are listed below in

Table 18: Legislation that influences Transportation

~~Table 18: Legislation that influences Transportation~~ along with how it relates to the Councils transportation activity. For the latest Act information, refer to http://www.legislation.govt.nz/

Table 18: Legislation that influences Transportation

Legislation	How it relates to Transportation Activity
Local Government Act 2002	The Local Government Act requires local authorities to prepare a ten-year Long Term Plan and 30-year Infrastructure Strategy, which are to be reviewed every three years. The Act requires local authorities to be rigorous in their decision-making by identifying all practicable options and assessing those options by considering the benefits and costs in terms of the present and future well-being of the community. This activity management plan provides information to support the decisions considered in the Long Term Plan
Land Transport Management Act 2003	Defines how transportation is organised in New Zealand. This includes: • Planning and funding of the land transport system; • Strategic documents; • National transport agency; • Regional transport committees; Specifically, the funding of the Tasman local road network by Waka Kotahi is defined by this Act.
Land Transport Act 1998	This Act defines the types of transportation that can be undertaken on the Tasman road network and how the system is licensed and administered.
Public Transport Management Act 2008	This Act defines how public transport is administered, planned, funded and procured by regions throughout New Zealand. Tasman as a unitary the Council is required to undertake this work.
Resource Management Act 1991	Sets out obligations to protect New Zealand's natural resources such as land, air, water, plants, ecology, and stream health. Resource consents draw their legal authority from the Resource Management Act 1991. Transportation has a large impact on the District and work requires Resource Consents from time to time.
Building Act 2004	This Act is fundamental in the development and management of the transportation structures such as retaining walls and bridges.
Public Works Act 1981	The Public Works Act provides the statutory authority to acquire and secure land for transport infrastructure.
Health and Safety in Employment Act 1992 & 2015	Health and Safety legislation requires that staff and contractors are kept safe at work. There is onus on principal to ensure that contractors are undertaking work in a safe manner.
Utilities Access Act 2010	The processes and rules for coordinating work done in transport corridors by utility operators, or that affects utility operators' assets.
Land Drainage Act 1908	Transportation is an owner of significant length of the drainage network. Some of which is located on the road reserve and is part of the larger drainage network and some of which is specifically to keep the road free of surface water. This act outlines the responsibilities as land owners and the local authority for drainage.

Legislation	How it relates to Transportation Activity
Te Tiriti o Waitangi – Treaty of Waitangi	The Treaty of Waitangi is an agreement between Māori and the Crown. Under Section 4 of the Local Government Act 2002 local authorities are required to 'recognise and respect the Crown's responsibility to take appropriate account of the principles of the Treaty of Waitangi and to maintain and improve opportunities for Māori to contribute to local government decision-making processes'. Further sections of the Act, particularly 77 and 81, detail the scale of requirement for local authorities to seek contributions and involvement from Māori in consultation and decision-making processes.

4.3 National Planning, Policies, Strategies, Standards and Guidelines

Along with legislation, there are a number of other important documents that influence the Councils transportation activities. These are listed below in Table 19: National influences on Transportation~~Table 19: National influences on Transportation~~ along with how it relates to the Councils transportation activity.

Table 19: National influences on Transportation

Document	How it relates to Transportation Activity
Government Policy Statement on Land Transport	The Ministry of Transport triennial policy statement details the Governments land transport priorities. These priorities are used to assess programmes of work that are put into the National Land Transport Plan. Tasman's transport programmes seeking funding. See Section 3.3 for further information.
One Network Road Classification	Waka Kotahi's ONRC is a system for measuring and classifying the condition of New Zealand's roads. The ONRC has been jointly developed by the Waka Kotahi and Local Government New Zealand (LGNZ) as a tool for moving to a consistent Level of Service experience by customers as they travel throughout the country.
Waka Kotahi Specifications, Rules, Policies an Guidelines	Waka Kotahi specifications, rules, polices and guidelines are embedded in the management of the transportation assets at the Council.
Austroads Guidelines and Manuals	The Council uses Austroads guidelines and manuals to guide best practice in design and specification of works in the District. It is extensively used by contractors in work undertaken for the Council.
Road to Zero	Road to Zero guides are Council's in programmes and initiatives around safety improvements.
National Policy Statement on Urban Development	The National Policy Statement on Urban Design requires the Councils to remove car-parking minimums from planning documents. This means that there may be more pressure on existing parking.

4.4 Local Planning, Policies and Strategies

The Council undertakes many plans, policies and strategies to inform residents and allow feedback as well as setting long-term direction and strategies. Some of these are requirements of legislation, but many are undertaken to shape transportation now and into the future. A list of these documents is below in Table 20: Local Influences on Transportation~~Table 20: Local Influences on Transportation~~ along with how it relates.

Table 20: Local Influences on Transportation

Document	How it relates to Transportation Activity
Regional Land Transport Plan	The Waka Kotahi subsidised components of this Activity Management Plan have been developed to be consistent with the objectives and policies set by the 2021 - 2031 Regional Land Transport Plan (RLTP). The RLTP has the objectives of better mode choice, safety, resilient, improved environmental outcomes and economic prosperity.
Tasman Regional Public Transport Plan	The Regional Public Transport Plan 2021 – 2031 (RPTP) sets out the subsidised transport prioritised programme for six years in accordance with the Waka Kotahi's Investment and Assessment Framework in accordance with the GPS and this Activity Management Plan.
Tasman Resource Management Plan	The plan is the guiding document for all activities undertaken in the District. It dictates and shapes the forward works and capital programmes but also influence the consent and permissions required when undertaking any construction.
Tasman District Council's Engineering Standards have been replaced by the Joint Tasman District Council and Nelson City Council- Land Development Manual	The Land Development Manual (LDM) sets out the requirements that all infrastructure must conform with. It is based on national guidelines and standards, but there are requirements that are specific to Tasman and ensures that Councils infrastructure assets achieve acceptable levels of service, they are modern, cost-effective and durable. This document also dictates the standards that developers have to abide with when undertaking work that will be vested with the Council. The LDM is available on the Council's website.
Tasman District Council Infrastructure Strategy	In 2014 the Local Government Act 2002 was amended to require local authorities to prepare an infrastructure strategy as part of the Long-Term Plan. The strategy is expected to look at least thirty years into the future and detail the issues that the local authority can reasonably foresee. The office of the Auditor General has provided guidance documents for authorities to use when developing the strategy.

Document	How it relates to Transportation Activity
Carpark Strategy	The carpark strategy sets out the Council's approach to managing town centre car parking in Motueka and Richmond. The strategy provides will inform decisions that create or manages car parks in these areas.
Walking and Cycling Strategy	The walking and cycling strategy set goals and sets out how the Council will achieve the goals of increasing walking and cycling as a transport mode in the district.

4.5 Local Bylaws

The Council has a number of bylaws to assist in the transportation activity around the District. A list of the bylaws is below in Table 21: Local Influences on Transportation~~Table 21: Local Influences on Transportation~~ along with how it relates.

Table 21: Local Influences on Transportation

Bylaw	How it relates to Transportation Activity
Speed Limits Bylaw 2016	This bylaw provides the ability to change speed limits and/or set new speed limits by Council resolution. Such changes are likely to be to the maps and schedules that accompany the bylaw and will be an efficient and cost effective alternative to a full bylaw review.
Tasman's Great Taste Trail Bylaw	This bylaw promotes, protects, and maintains the safety of people using, working, and living in proximity to the trail. The trail is administered by the transportation activity.
Traffic Control Bylaw 2016	This bylaw facilitates traffic management and parking control measures with respect to roads, public places and parking areas. All areas that is administered by the transportation activity
Stock Control Bylaw (Expired)	The Council adopted this bylaw in 2005 with the objective of providing for the control and orderly droving and grazing of stock on all roads within the District. This bylaw is now expired and will be review in 2018.

5 Levels of Service

A key objective of this plan is to match the levels of service provided by this activity with the agreed expectations of our customers and their willingness to pay for that level of service. These levels of service provide the basis for the life cycle management strategies and works programmes identified in this Plan.

Levels of service can be strategic, tactical or operational. They should reflect the current industry standards and be based on:

- **Customer Research and Expectations:** information gained from stakeholders on expected types and quality of service provided.
- **Statutory Requirements:** Legislation, regulations, environmental standards and the Council bylaws that impact on the way assets are managed (eg, resource consents, building regulations, health and safety legislation). These requirements set the minimum level of service to be provided.
- **Strategic and Corporate Goals:** Provide guidelines for the scope of current and future services offered and manner of service delivery, and define specific levels of service, which the organisation wishes to achieve.
- **Best Practices and Standards**: Specify the design and construction requirements to meet the levels of service and needs of stakeholders.

5.1 Our Levels of Service

Table 22~~Table 22~~ summarises the levels of service and performance measures for this activity. The light blue shaded rows show those that are included in the Long Term Plan and reported in the Annual Report. Unshaded white rows are technical measures that are only included in the activity management plan.

Table 22: Levels of Service

Levels of Service (we provide)	Performance Measure (we will know we are meeting the level of service if …)	Current Performance	Future Performance Targets			
			Year 1	Year 2	Year 3	Year 10
			2021/22	2022/23	2023/24	2031/32
Safety Our transportation network is becoming safer for its users.	There is a downward trend in the number of serious and fatal injury crashes occurring on our road network. Measured using the Waka Kotahi's crash database. (ONRC Safety Customer Outcome 1)	2019/20: 10 2018/19: 17 2017/18: 30 See Figure 42~~Figure 42~~.	Decreasing	Decreasing	Decreasing	Decreasing
	The change from the previous financial year in the number of fatalities and serious injury crashes on the local road network, expressed as a number. (DIA Mandatory Measure 1)	2019/20: -7 2018/19: -13 2017/18: +17 See Figure 42~~Figure 42~~.	≤ 0	≤ 0	≤ 0	-1
	Proportion of residents perceive the road environment to be safe for each mode. As measured through the annual residents' survey. (Custom Safety Measure)	New measure. No existing data	Vehicles:70% Cycling:70% Walking:70%	Vehicles:70% Cycling:70% Walking:70%	Vehicles:70% Cycling:70% Walking:70%	Vehicles:70% Cycling:70% Walking:70%
	Proportion of the road network with safe and appropriate speed limits. As measured using Waka Kotahi's MegaMAP database. (Custom Safety Measure)	Actual = 13%	100%	100%	100%	100%
Resilience We proactively maintain roads in high risk areas to minimise unplanned road closures.	The number instances where road access is lost. This measure shows the number of unplanned road closures with no detour and the number of vehicle trips affected by those closures annually. Measured through the road maintenance contractor's monthly reports. (ONRC Resilience Customer Outcome 1)	Delay in implementing data capture	< 500 trips	< 500 trips	< 500 trips	< 500 trips per year
Accessibility Our transportation network enables the community to choose from various modes of travel.	The annual growth in use of cycle routes exceeds specified levels. Measured using daily cycle counts on selected routes and per capita. (Benefits Framework 10.1.1, Throughput of Cyclists)	2019/20: 3,756 cyclists per day or 6.66 per 100 residents See Figure 43	Per capita measure increasing	Per capita measure increasing	Per capita measure increasing	Per capita measure increasing

Levels of Service (we provide)	Performance Measure (we will know we are meeting the level of service if …)	Current Performance	Future Performance Targets			
			Year 1	Year 2	Year 3	Year 10
			2021/22	2022/23	2023/24	2031/32
	The annual growth in use of passenger transport exceeds specified levels. Measured using annual boarding and per capita boarding's (Nelson and Tasman). (Benefits Framework 10.1.1, Public Transport Boarding's)	2019/20: 357,868 or 3.22 per capita 2018/19: 417,727 or 3.84 per capita 2017/18: 397,595 or 3.73 per capita See Figure 44	Per capita measure increasing	Per capita measure increasing	Per capita measure increasing	Per capita measure increasing
	The proportion of Active Transport network completed. Measured using Active Transport strategy and RAMM database. (Benefits Framework 10.2.3, Spatial Coverage – Cycle Lanes and Paths)	Actual = New measure	100%	100%	100%	100%
Value for Money Our transportation network is maintained cost effectively and whole of life costs are optimised	The Council maintains the Condition Index (CI) for sealed roads within the specified range. As reported through RAMM. CI is a measure of visual defects identified during Condition Rating inspections completed biennially. The lower the CI, the better the condition. (Benefits Framework 9.1.1, Resource Efficiency)	2019/20: 2.4 2018/19: 2.5 2017/18: 2.4 See Figure 46: Seal and Pavement Condition Index~~Figure 46: Seal and Pavement Condition Index~~.	1.7 to 2.1	1.7 to 2.1	1.7 to 2.1	1.7 to 2.1
	The Council maintains the Pavement Integrity Index (PII) within the specified range. As reported through RAMM. PII combines surface faults (CI) with structural defects rutting, roughness and shoving. The lower the PII, the better the condition. (Benefits Framework 9.1.1, Resource Efficiency)	2019/20: 2.4 2018/19: 1.2 2017/18: 1.2 See Figure 46: Seal and Pavement Condition Index~~Figure 46: Seal and Pavement Condition Index~~.	3.0 to 4.0	3.0 to 4.0	3.0 to 4.0	3.0 to 4.0
Value for Money Our transportation network is maintained cost effectively and whole of life costs are optimised	The percentage of sealed local road that is resurfaced each financial year. (DIA Mandatory Measure 3)	2019/20: 4.5% 2018/19: 6.4% 2017/18: 5.3% See Figure 47~~Figure 47~~	6% - 8%	6% - 8%	6% - 8%	6% - 7%
Amenity The travel quality and aesthetics of our transportation network is managed at a level appropriate to the importance of the road and satisfies the community's expectations	The percentage of footpaths with the Tasman District that are maintained to a condition of fair or better. As measured through the triennial footpath condition rating survey (DIA Mandatory Measure 4)	2018/19: 95.8% See Figure 48~~Figure 48~~	No survey planned	≥95%	No survey planned	≥95%

Levels of Service (we provide)	Performance Measure (we will know we are meeting the level of service if …)	Current Performance	Future Performance Targets			
			Year 1	Year 2	Year 3	Year 10
			2021/22	2022/23	2023/24	2031/32
Amenity The travel quality and aesthetics of our transportation network is managed at a level appropriate to the importance of the road and satisfies the community's expectations	The proportion of travel undertaken on the sealed road network meets the specified comfort levels. Known as Smooth Travel Exposure (STE). Smooth travel exposure is defined as the proportion of vehicle kilometres travelled on roads with roughness below the following thresholds: As reported through RAMM, based on traffic count and roughness survey data. (ONRC Amenity Customer Outcome 1) (DIA Mandatory Measure 2)	Arterial 2019/20: 89.5% 2018/19: 88.9% 2017/18: 88.8% Primary Collector 2019/20: 95.1% 2018/19: 94.5% 2017/18: 93.1% Secondary Collector 2019/20: 94.9% 2018/19: 95.2% 2017/18: 94.4% Access 2019/20: 93.1% 2018/19: 93.0% 2017/18: 92.8% Low Volume 2019/20: 94.4% 2018/19: 94.4% 2017/18: 93.3% See Figure 49: Smooth Travel Exposure~~Figure 49: Smooth Travel Exposure~~.	Arterial ≥ 95% Primary Collector ≥ 95% Secondary Collector ≥ 95% Access ≥ 90% Access (LV) ≥ 90%	Arterial ≥ 95% Primary Collector ≥ 95% Secondary Collector ≥ 95% Access ≥ 90% Access (LV) ≥ 90%	Arterial ≥ 95% Primary Collector ≥ 95% Secondary Collector ≥ 95% Access ≥ 90% Access (LV) ≥ 90%	Arterial ≥ 95% Primary Collector ≥ 95% Secondary Collector ≥ 95% Access ≥ 90% Access (LV) ≥ 90%

Levels of Service (we provide)	Performance Measure (we will know we are meeting the level of service if …)	Current Performance	Future Performance Targets			
			Year 1	Year 2	Year 3	Year 10
			2021/22	2022/23	2023/24	2031/32
	Residents are satisfied with the Council's roads, footpaths and cycle paths in the District. As measured through the annual Community survey. (Custom Amenity Measure)	2019/20: Roads: 72% Footpaths: 74% Cycle paths: No data 2018/19: Roads: 69% Footpaths: 68% Cycle paths: No data 2017/18: Roads: 67% Footpaths: 68% Cycle paths: No data See Figure 52: Satisfaction with Roads~~Figure 52: Satisfaction with Roads~~ and Figure 53: Satisfaction with Footpaths~~Figure 53: Satisfaction with Footpaths~~.	Roads ≥ 70% Footpaths ≥ 70% Cycle paths ≥ 20%	Roads ≥ 70% Footpaths ≥ 70% Cycle paths ≥ 20%	Roads ≥ 70% Footpaths ≥ 70% Cycle paths ≥ 25%	Roads ≥ 70% Footpaths ≥ 70% Cycle paths ≥ 50%
Amenity The travel quality and aesthetics of our transportation network is managed at a level appropriate to the importance of the road and satisfies the community's expectations	Customer Service Requests relating to the transportation network and activities are completed on time. As measured by the maintenance contractor's compliance with fault response time requirements (using RAMM Contractor), and the percentage of requests assigned to Council staff which are attended to within 5 days (using NCS). (DIA Mandatory Measure 5)	2019/20: 86% **2018/19:** Contractor:74% Council:82% 2017/18: Contractor:73% Council:79%	≥ 90%	≥ 90%	≥ 90%	≥ 90%

5.2 Level of Service Changes

The Council reviews its levels of service every three years, as part of the Long Term Plan development. Table 23: Summary of areas where we made changes to our levels of service~~Table 23: Summary of areas where we made changes to our levels of service~~ below summaries the key changes the Council has made during development of the Long Term Plan 2021 – 2031.

Table 23: Summary of areas where we made changes to our levels of service

Performance Measure	Summary of change
Crashes on bends	Remove this performance measure does not provide any further information than the total number of crashes. Given the comparatively small number of death and serious injury crashes, this measure does not provide an additional information.
Residents perception of safety	Added a new performance measure to understand how the community views the safety of our transport networks. Poor perceptions of safety can limit mobility as some people will not undertake the journey it they perceive it to be unsafe.
Safe and appropriate speeds	Added a new measure to ensure our speed limits are appropriate for the corridor that is being used.
Accessibility (Walking and Cycling)	Modified the measure to include cycling network as well as walking network.
Accessibility (cycling)	Modified the measure to be per capita to take into account population growth rather than relying on the target to take into account population growth.
Accessibility (public transport)	Modified the measure to be per capita to take into account population growth rather than relying on the target to take into account population growth.
Value for Money (road resurfacing)	Modified the target from a maximum of 7% to 8% to match the increased investment to 'catch up' on deferred road resurfacing over the next 10 years.
Amenity (Resident satisfaction)	Modify the performance measure to include residents satisfaction with cycle paths.

5.3 Levels of Service Analysis and Performance

5.3.1 Safety

5.3.1.1 Deaths and Serious Injuries

Prior to 2017/18 there is a long-term downward trend in the number of Death and Serious Injury (DSI) crashes occurring on our road network. However a series of crashes in 2017/18 meant the10 year trend has a small increase despite the return to normal levels of DSI's (see Figure 42: Death and Serious Injuries Crashes~~Figure 42: Death and Serious Injuries Crashes~~).

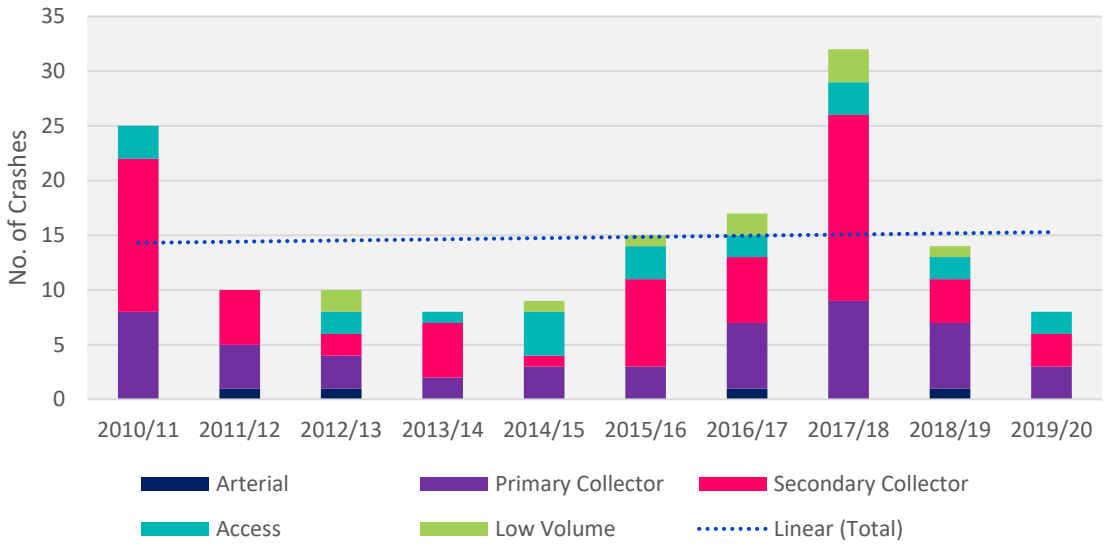


Figure 42: Death and Serious Injuries Crashes

The number of crashes is decreasing, but the low number of DSI's means that a few additional serious crashes can affect the level of service, as it did in 2017/18. Because the number of DSI's has returned to normal levels, there is no obvious trend. Whilst there is not a trend indicating that we are getting worse, we our goal is to have no deaths on our roads as proposed by the Ministry of Transport's 'Road to Zero' target.

5.3.1.2 Perceptions of Safety

Recording the numbers of DSI's to measure safety only alerts the Council to issues after accidents have happened. The Council will use an additional measure to understand how safe the community feel using different modes of transport. This may give us an indication of problems before significant accidents happen.

5.3.1.3 Safe Roads

It is well understood that speed can have a significant impact on the number of accidents and the severity of the crash. Waka Kotahi maintain a database of the likely safe and appropriate speed is for every road in Tasman. Speeds have traditionally been set based on the land use type, and doesn't take into account surface, grade, visibility, width and alignment. The Council will undertake a review of all speeds around the district. Currently only 13% of our roads are equal or less than the safe and appropriate speed.

5.3.2 Resilience

The measure used to monitor resilience is based on our main road contractor recording the amount of time a road is out of service. This time, when multiplied by the daily VKT will give the number of vehicles effected by the unplanned road closure. This measure is based on the ONRC resilience outcome 1.

The Council currently does not collect the amount of time that a road is closed due to an unplanned event. This has been included in the improvements plan in Section 13.3.1.

5.3.3 Accessibility

5.3.3.1 People using Cycleways

This measure takes the sum of average daily cycle count for a number of key routes across the district and divides by the resident population to estimate cycle usage per capita. Cycle counts have been undertaken on key routes have been undertaken for a number of years. In 2019, the Council changed the method of count from estimated daily usage using a peak hour sample to using traffic counting tubes to find the average daily count for a week. The new method is more robust and limits poor weather conditions on the day of count. The change in counting method means that cycle counts prior to 2019 cannot be used for comparison. Additionally, after 2019, the Council decided to include the number of people using the adjacent footpath in the total count. Figure 43, shows the average daily counts across the rotes that we monitor. It can be seen that on some routes (like High Street in Motueka), the number of people using the footpath exceeds 50% of the total number of people using the route. It is worth noting that 'Road' included a painted on-road cycle lane. 'Footpaths' include shared paths.

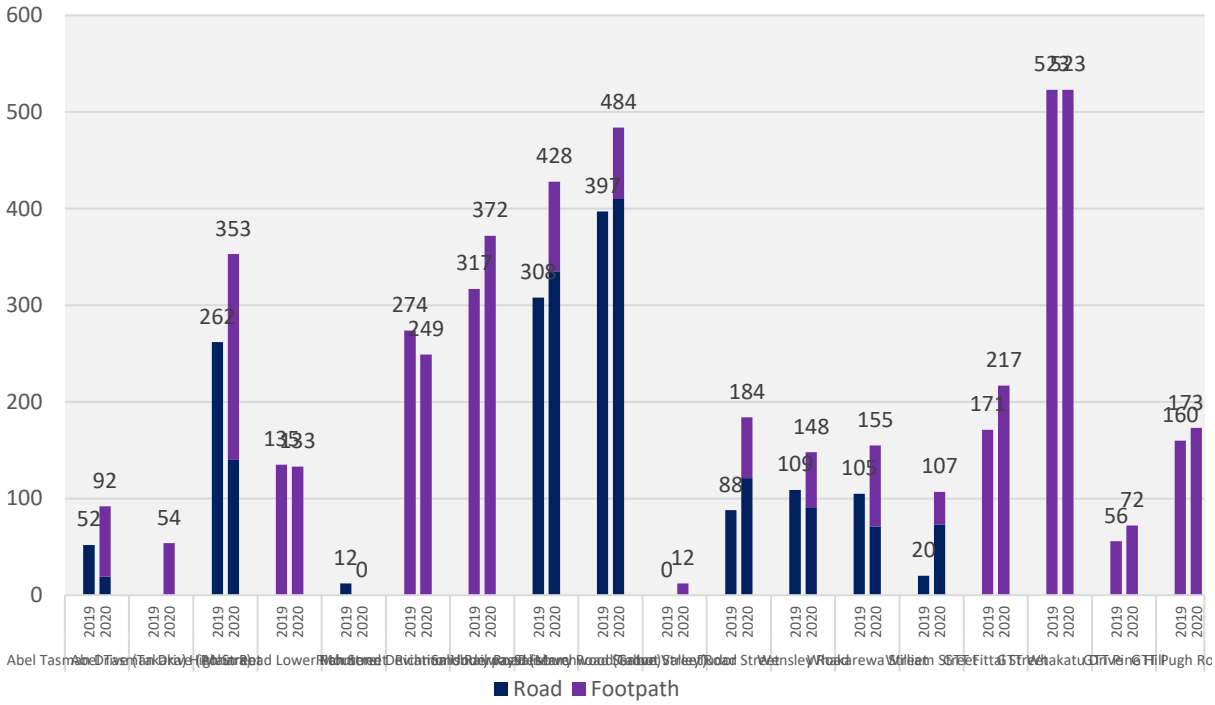


Figure 43: Cycle Counts on Key Routes

5.3.3.2 Public Transport

The public transport measure uses the annual boarding on all subsidised bus services and the current population of Nelson City Council and Tasman District Council to understand the patronage per capita. Current patronage is based on boarding's on the NBus service as shown in Figure 44 below, but going forward, boarding's from community Trust services will be included. Patronage has been stagnant since 2015 with changes in patronage largely due to changes routes. It must be acknowledged the reduction in 2019/20 is due to COVID alert levels and additional requirements to limit social interaction.

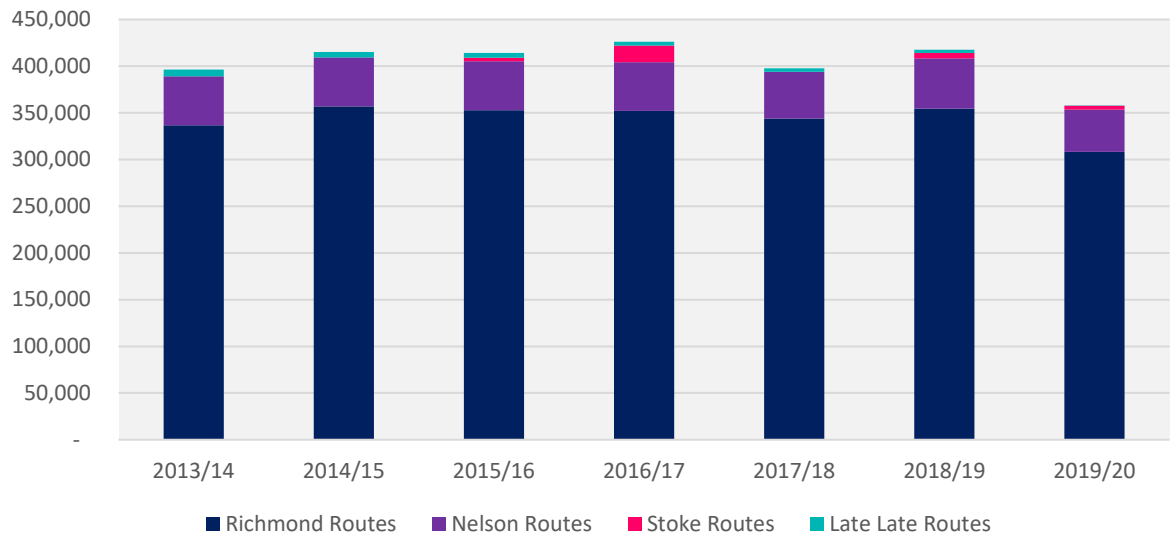


Figure 44: NBus Annual Patronage

5.3.3.3 Walking and Cycling Network

This walking and cycling measure is new to the Council and is based on the Walking and Cycling Strategy. The measure will make an assessment every year about how much of the strategic network has been completed by total length of routes. An initial assessment has not yet been made, but it is expected that initial assessments will be around 40% as the strategy includes significant portions of the existing Tasman's Great Taste Trail.

The target has been set at 100% as the strategy identifies the network as being bare minimum to create viable mode choice to most of the community.

5.3.4 Value for Money

5.3.4.1 Condition and Pavement Index

The Council maintains the Condition Index (CI) for sealed roads within the specified range. CI is a measure of visual defects identified during Condition Rating inspections completed biennially, and is calculated by RAMM. The measure is to have a CI between 1.7 and 2.1. The past 13 financial years performance are shown in Figure 45: Tasman Roads Condition Index~~Figure 45: Tasman Roads Condition Index~~ below. As can been seen from the trend line, the three most recent years have been greater than 2.1 and the network condition has been reducing over time.

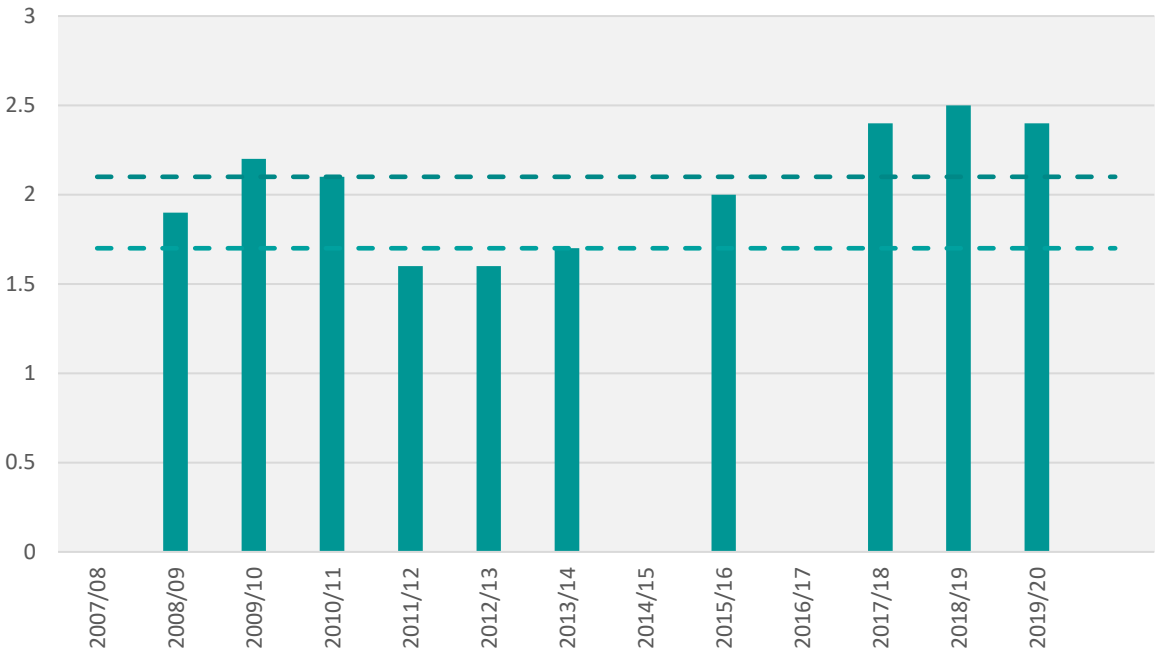


Figure 45: Tasman Roads Condition Index

Likewise, the Council maintains the average Pavement Integrity Index (PII) within the specified range. PII combines surface faults (CI) with structural defects rutting, roughness and shoving. The Council has a target to have PII between 3.0 and 4.0. Over the past three years, actual PII has been lower than the target with an average of 1.6 as shown in Figure 46~~Figure 46~~ below.

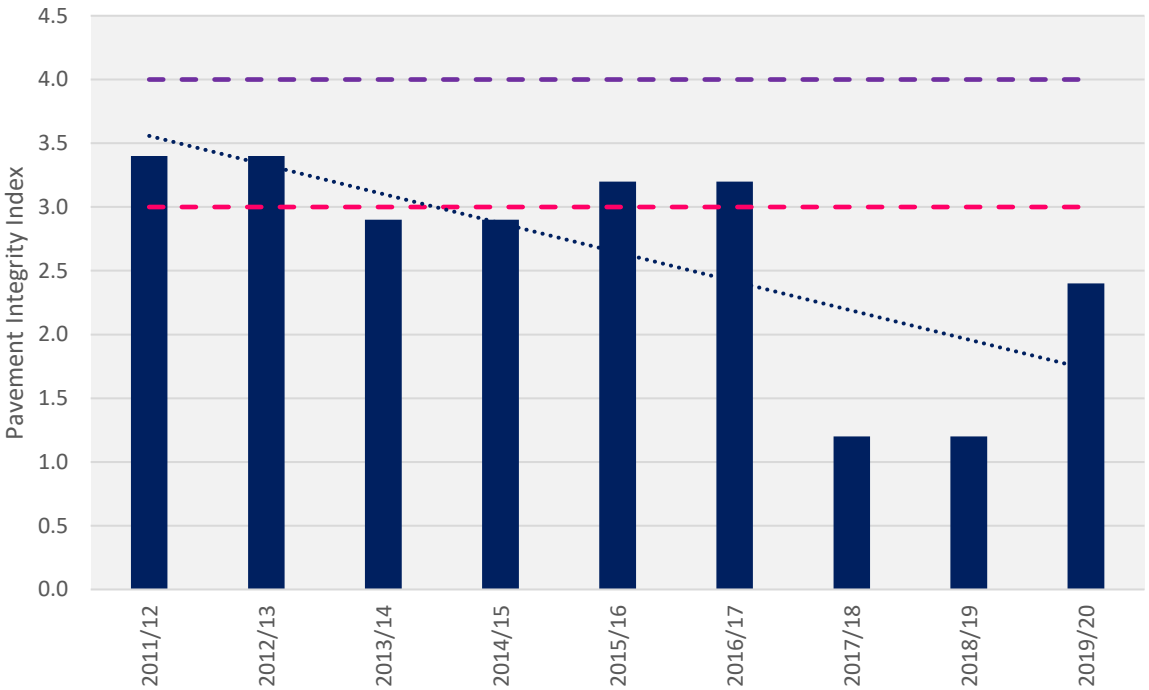


Figure 46: Seal and Pavement Condition Index

Work will need to be undertaken to improve the seal condition to return to with targeted range. Section 8.1 will review and detail the response to this level of service gap.

5.3.4.2 Annual Resurfacing

The target percentage of sealed local roads that are resurfaced each financial year is between 6% and 8% which directly equates to a projected surface age at renewal of between 12.5 and 16.7 years. While this is not especially impressive compared to Tasman's peers, the actual surface age at renewal is likely to be significantly higher over the next decade due to inevitably required flattening of a bow wave caused by the aforementioned deliberate reduction in the renewals programme. Figure 47~~Figure 47~~ shows that the Council has been generally missing this level of service other than in 2018/19 and what is proposed for 202021. Section 8.1 will review and detail the response to this level of service gap.

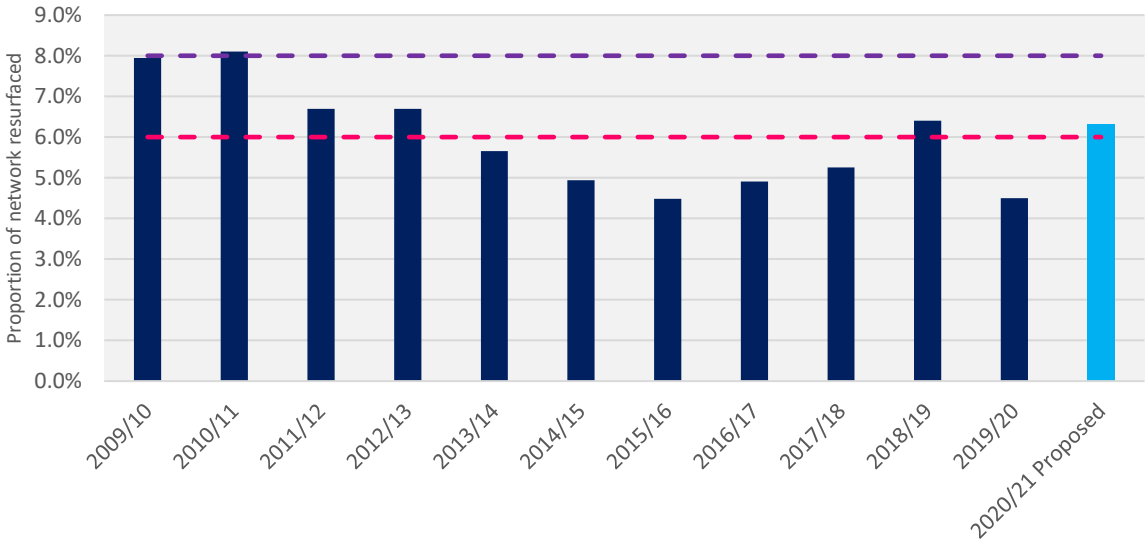


Figure 47: Proportion of Network Resurfaced

5.3.5 Amenity

5.3.5.1 Footpath Condition

The performance measure, percentage of footpaths with the District that are maintained to a condition of average of 95% or better is summarised in Figure 48~~Figure 48~~. As can be seen the actual condition has met the target for the most recent condition survey in 2020, but did not meet the target for previous condition surveys.

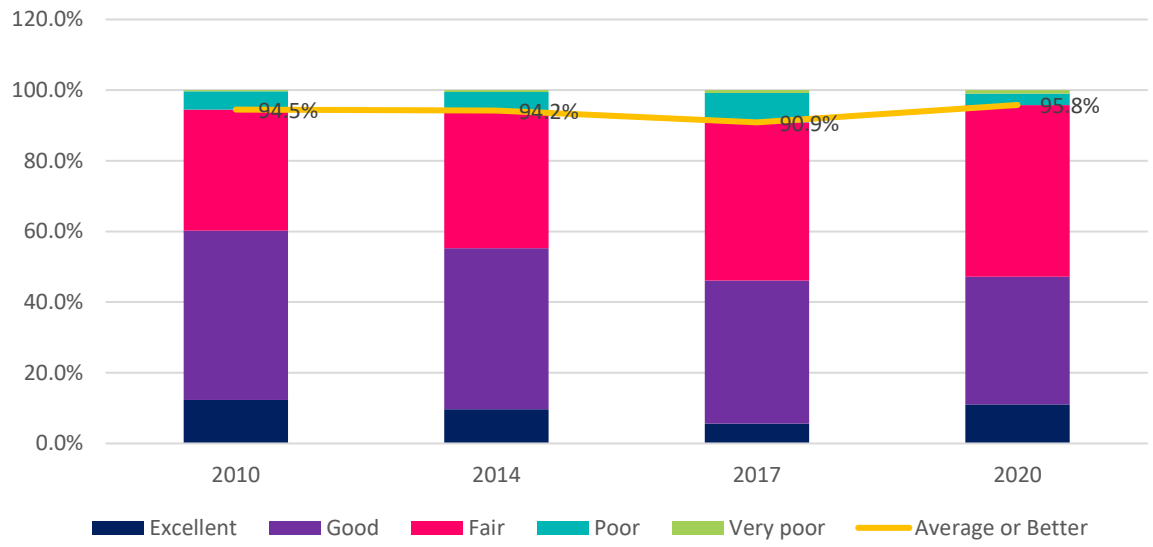


Figure 48: Footpath Condition Rating

5.3.5.2 Road Roughness

The Smooth travel exposure (STE) results against the target are shown in Figure 49: Smooth Travel Exposure~~Figure 49: Smooth Travel Exposure~~ below. The evidence shows that most rad categories are meeting or exceeding targets. Arterial roads however have been degrading over time and are now significantly under the target. See Section 8.1 for more details on this and responses to address this issue.

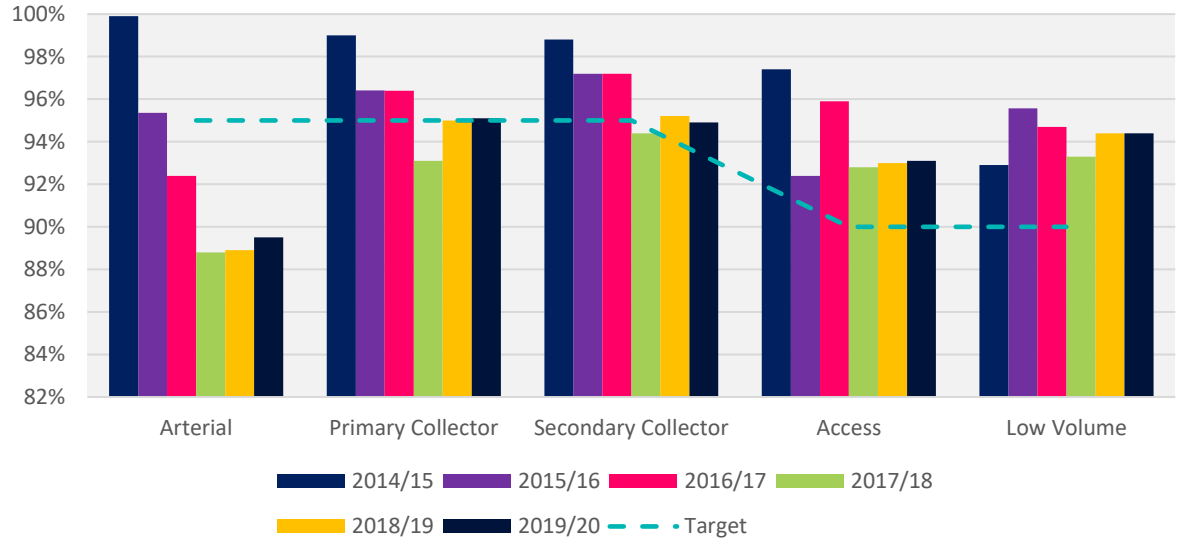


Figure 49: Smooth Travel Exposure

5.3.5.3 Customer Satisfaction

Figure 50 and Figure 51~~Figure 51~~ show the community satisfaction with local roads and footpaths respectively. Both show that generally the community have been satisfied with roads and footpaths. However, three years ago, the satisfaction level for roads and footpaths dropped below the target and have only recently improved enough to meet the target. These results broadly follow similar trends in road (**Error! Reference source not found.**) and footpaths (Figure 48~~Figure 48~~) above. This may show that there is a correlation between asset condition and customer satisfaction.

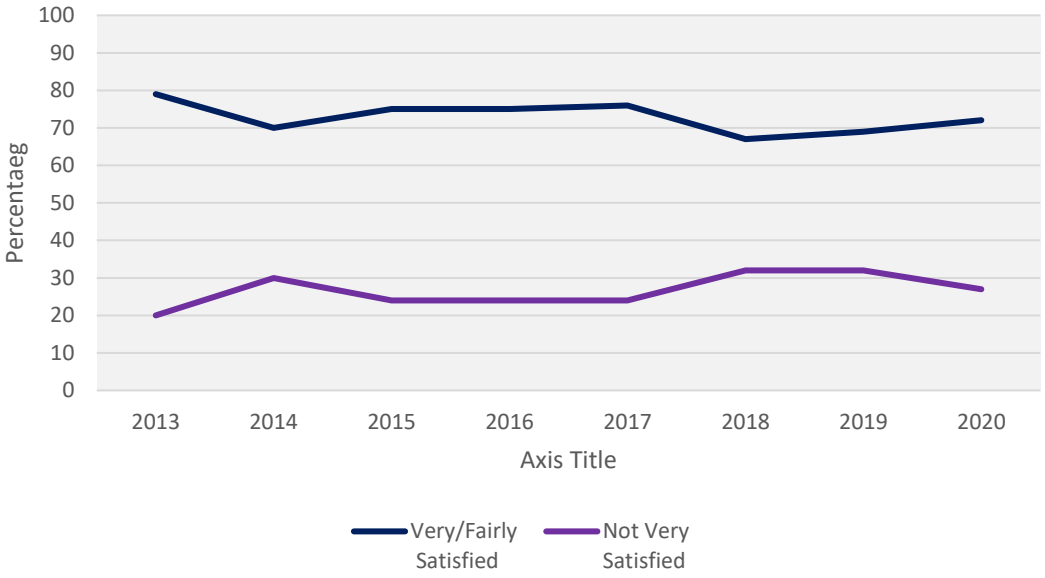


Figure 50: Community Satisfaction with Roads (excluding State Highways 2013-2020)

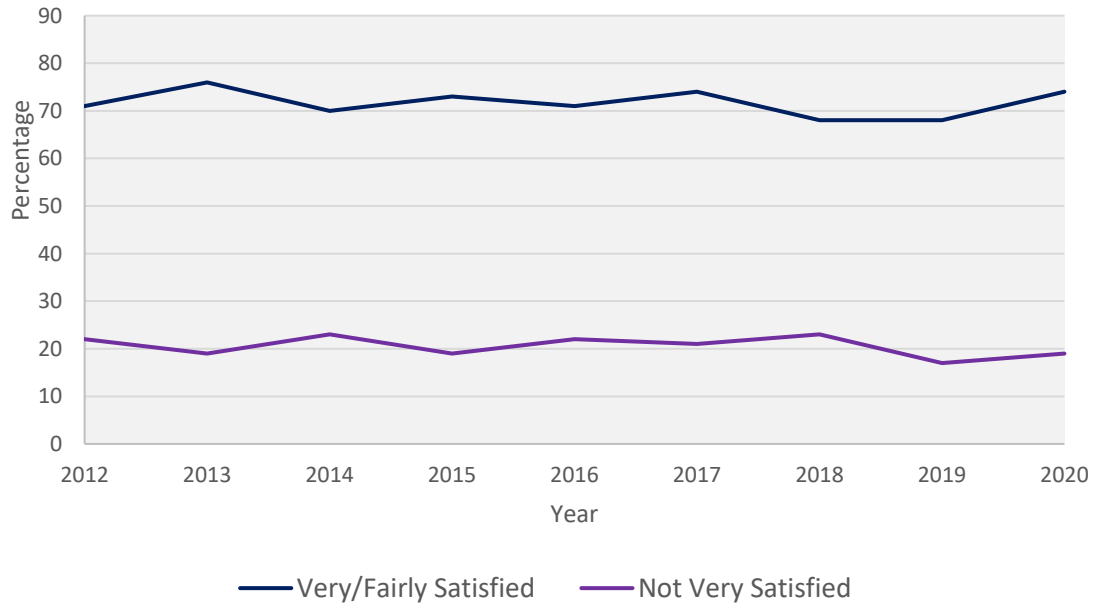


Figure 51: Community Satisfaction with Footpaths

5.3.6 One Network Road Classification (ONRC)

The One Network Road Classification (ONRC) has been developed by the Road Efficiency Group (REG) which includes representatives from local government and the Waka Kotahi and is to be implemented by road controlling authorities across New Zealand by 2018.

The ONRC involves categorising roads based on the functions they perform as part of an integrated national network. The classification will help local government and the Waka Kotahi to plan, invest in, maintain and operate the road network in a more strategic, consistent and affordable way throughout the country. In addition to this the Waka Kotahi has set out the customer levels of service and associated performance measures for each road hierarchy within the ONRC.

The Council has aligned with the ONRC by including the six key factors; safety, resilience, amenity, value for money, travel time and accessibility into its levels of service and assessing the Tasman network performance and cost efficiency against our peer group and nationally. The Council will need to focus on implementing the ONRC through its operation team and contractors.

5.3.7 Suitability of Levels of Service

New levels of service have been created to ensure that both the outcomes of the GPS and the strategic problems are able to be tracked and reported on as show in Table 24: Activity classes and Themes that Level of Service Address~~Table 24: Activity classes and Themes that Level of Service Address~~ below. New levels of service have been added to ensure that actions to address strategic themes can be monitored and reported to determine effectiveness.

Table 24: Activity classes and Themes that Level of Service Address

	Transport GPS Priorities					Tasman District Strategic Themes		
	Safety	Better Travel Options	Improving Freight	Climate Change		Network Capacity	Active Transport	Road Maintenance
Crash Trend (ONRC)	X							
Crash Reduction (LGA)	X							
Perceptions of Safety*	X	X						
Safe speed limits*	X							
Road Closures (ONRC)				X				
Cycling Growth (Benefits Framework)		X		X		X	X	
Public Transport Growth (Benefits Framework)		X		X		X	X	
Active Transport Network		X		X		X	X	

	Transport GPS Priorities					Tasman District Strategic Themes		
	Safety	Better Travel Options	Improving Freight	Climate Change		Network Capacity	Active Transport	Road Maintenance
(Benefits Framework)*								
Condition Index (Benefits Framework)			X					X
Pavement Index (Benefits Framework)			X					X
Resurfacing percentage (LGA)			X					X
Footpath Condition (ONRC) (LGA)		X		X			X	X
STE % (ONRC) (LGA)			X					X
Resident Satisfaction		X				X	X	X

* Indicates that this is a new measure

Where applicable, industry standard performance measures have been used, but a few new measures have been created if there was not an appropriate existing measure or the measure required a higher degree of specificity.

5.3.7.1 Safety

Tasman has proportionally few death and serious injury crashes, that a single serious accident that has multiple occupants can make the difference between meeting targets and not. Additionally, many active transport accidents go un-reported giving a false sense of safety. The two new measures have been introduced to target proactive responses to safety rather than reactive (after accidents have happened) responses.

5.3.7.2 Active Transport

A new active transport measure has been added to monitor the Councils performance in delivering active transport networks. The measure is based on the proposed network that will be included in the walking and cycling strategy, and the proportion of the agreed network is complete. It is recognised that active transport networks that have gaps will limit usage due to the perceptions of safety around those gaps.

6 Our Partners, Customers and Stakeholders

The Council engages and consults with iwi partners, customers, and stakeholders to gain an understanding of their needs, expectations and preferences. This enables the Council to provide outcomes that better meet the community's needs.

6.1 Iwi Partners

Māori are tangata whenua of Aotearoa / New Zealand. They have a long and rich association with Te Tauihu o te Waka-a-Māui (Te Tauihu) / the Top of the South Island. There are eight iwi that whakapapa and have Statutory Acknowledgements to places within Te Tauihu and Tasman District. They are represented by the following post settlement governance entities:

- Ngāti Apa ki te Rā Tō
- Ngāti Koata Trust
- Te Rūnanga o Ngāti Kuia Trust
- Te Rūnanga a Rangitāne O Wairau
- Te Rūnanga o Ngāti Rārua
- Ngāti Tama ki te Waipounamu Trust
- Te Ātiawa o te Waka-a-Māui
- Te Rūnanga o Toa Rangatira

Tasman District also covers the northern-western part of the Ngāi Tahu takiwā (tribal area/territory). Murchison is within the Ngāi Tahu takiwā and Ngāti Waewae are the Papatipu Rūnanga on this northwestern side.

Each iwi has their own unique history and association with places across Tasman District. These areas are not easily defined and do not match or stay entirely within the boundaries of Tasman District.

The Council staff aim to engage with iwi / Māori on matters that are of interest and importance to them. Extra care will be taken to consider and apply the principles of the Tiriti o Waitangi / Treaty of Waitangi. The Council acknowledge that it is important to agree the appropriate level of engagement with iwi / Māori at the outset of a project. This may range from informing through to opportunities for co-governance.

More information about iwi of Te Tauihu can be found on the Council's website at https://www.tasman.govt.nz/my-region/iwi/ and their own websites and social media channels.

6.2 Nelson City Council

The Council works with a number of other Councils on shared interests. However, the Council has an especially close relationship with Nelson City Council due to the proximity and combined nature of the Nelson/Richmond urban area. The two Councils currently share public transport and total mobility services as well as previous work to discover if there were cost advantages for a single maintenance contractor to treat both Councils like having greater quantity of work by undertaking both contract concurrently.

Transport activities that both councils work together on are:

- Road safety programmes
- Nelson/Tasman Active Transport Forum (along with other interested parties)
- Accessibility for All (along with other interested parties)
- Studies that affect each other (Nelson Future Access Project and Richmond Programme Business Case)
- Nelson/Richmond TRACKS and SATURN transport model
- Regional Land Transport Plan (along with Marlborough District Council)
- Regional Public Transport Plan
- Walking and Cycling Strategies
- Nelson Tasman Land Development Manual
- Nelson/Tasman Future Development Strategy

6.3 Transport Advocacy Membership

The Council is a member of a number of groups to advocate for and promote improvements in transport activities, these include:

- Road Efficiency Group (REG), staff are on the 'Sector Excellence Group' and previously chaired the 'Governance Group'.
- Transport Special Interest Group – Regional Council Transport advocacy.
- South Island Chairs Group – Advocacy for South Island transport issues, elected official currently chairing the group.
- Road Controlling Authority Forum (RCA Forum) – assist councils in making better and informed transport decisions.

6.4 Stakeholders

There are many individuals and organisations that have an interest in the management and/or operation of the Council's assets and activities. The Council has a Community Engagement Policy which is designed to guide the expectations with the relationship between the Council and the Tasman community. The Council has made a promise to seek out opportunities to ensure the communities and people it represents and provides services to, have the opportunity to be:

- Fully informed
- Provide reasonable time for those participating to come to a view

- Listen to what they have to say with an open mind
- Acknowledge what we have been told
- Inform contributors how their input influenced the decision the Council made or is contemplating.

Engagement or consultation:

- Is about providing more than information or meeting a legal requirement
- Aids decision making
- Is about reaching a common understanding of issues
- Is about the quality of contact not the amount
- Is an opportunity for a fully informed community to contribute to decision-making.

The key stakeholders the Council consults with about the transportation activity are:

- Elected members (Community Board members)
- New Zealand Transport Agency
- Iwi (Councils Treaty Partners)
- Regulatory (Consent compliance, Public Health)
- Fisheries organisations
- Heritage New Zealand
- Regional Transport Committee (including Nelson City Council and Marlborough District Council)
- Road Transport Association
- Accessibility for All
- New Zealand Police
- Automobile Association
- Civil Contractors Federation (Nelson - Marlborough)
- Service providers / suppliers (Network Tasman, Power Companies)
- Nelson City and Marlborough District Councils
- South Island Regional Transport Committee Chair group
- Richmond Unlimited
- Bicycle Nelson Bays
- Greypower

6.5 Consultation

6.5.1 Purpose and Types of Consultation

The Council consults with the public to gain an understanding of customer expectations and preferences. This enables the Council to provide a level of service that better meets the community's needs.

Council's knowledge of customer expectations and preferences is based on:

- Feedback from resident's surveys
- Other customer/user surveys, such as Yardstick visitor measures
- Levels of service consultation on specific issues
- Feedback from staff customer contact
- Ongoing staff liaison with community organisations, user groups and individuals
- Public meetings
- Feedback from elected members, advisory groups and working parties
- Analysis of customer service requests and complaints
- Consultation via the Annual Plan and Long-Term Plan processes; and
- Consultation on Strategies and Reserve Management Plans.

The Council commissions resident's surveys on a regular basis (the National Research Bureau Ltd has provided this service since 2008). These resident's surveys assess the levels of satisfaction with key services, including provision of community facilities, and the willingness across the community to pay to improve services. Other informal consultation is undertaken with community and stakeholder groups on an issue by issue basis, as required. From time to time the Council undertakes focused surveys to get information on specific subjects or projects.

The Council also has five non-voting Regional Transport Committee members that represent the following interests:

- Mana Whenua
- Police
- Health
- Industry; and
- Mobility

These members are involved in transport decisions through the Regional Transport Committee, but are used as a working group for transport related consultation.

6.5.2 Consultation Outcomes

6.5.2.1 Residents Survey

The most recent resident's survey was undertaken in May 2020. This asked whether residents were satisfied with roads, footpaths and public transport in their local town. In addition, the Council has undertaken a number of other surveys that provide background to transport decisions.

Figure 52: Satisfaction with RoadsFigure 52: Satisfaction with Roads shows that 72% of residents are satisfied with road networks in the District, just over the target of 70%. This shows an increase over the last three years but not as high as 2017 when satisfaction was around 76%. This is better than the Peer Group average of 68%, on par with the national average of 72%.

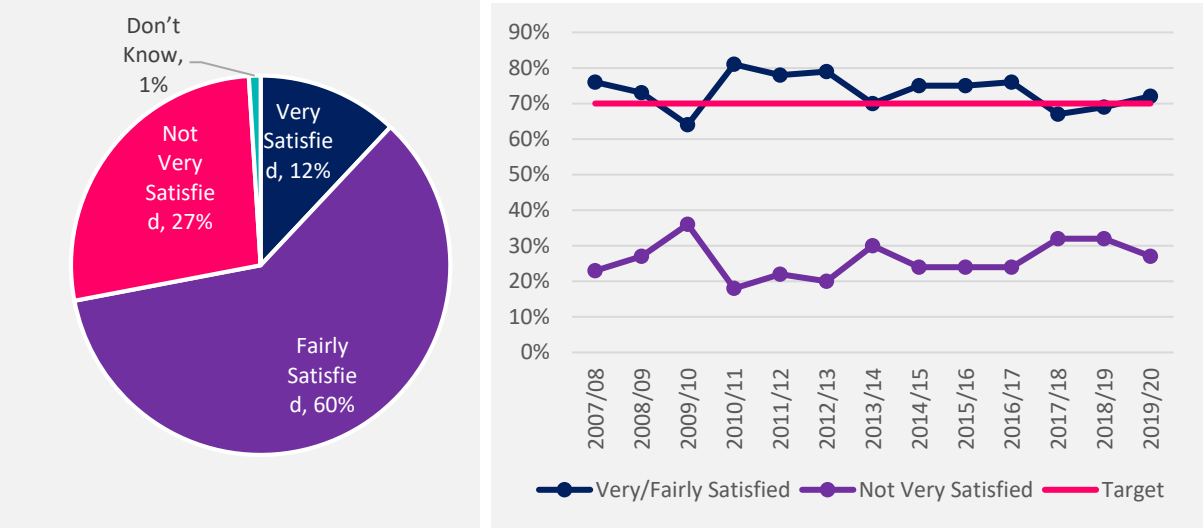


Figure 52: Satisfaction with Roads

The main reasons residents were not very satisfied with roads are:

- Potholes / uneven / rough / bumpy
- Poor quality of work/materials used/patching/unfinished/slow to repair
- Narrow/windy roads/dangerous corners/bad camber.

When asked whether they would like more, less or about the same to be spent on roads, given that the Council cannot spend more without increasing rates, 41% said they would like to see more spent and 3% said they would like to see less spent. The proportion of residents who would like to see more spent has grown over the last 12 years from 29% in 2008. In the Lakes Murchison Ward, 51% of residents would like to see more spent on roads.

Figure 53: Satisfaction with FootpathsFigure 53: Satisfaction with Footpaths shows that 74% of residents are satisfied with footpaths in the District. This shows a stable long-term trend. This level of satisfaction is higher than the Peer Group average of 64%, but on par with the national average of 74%.

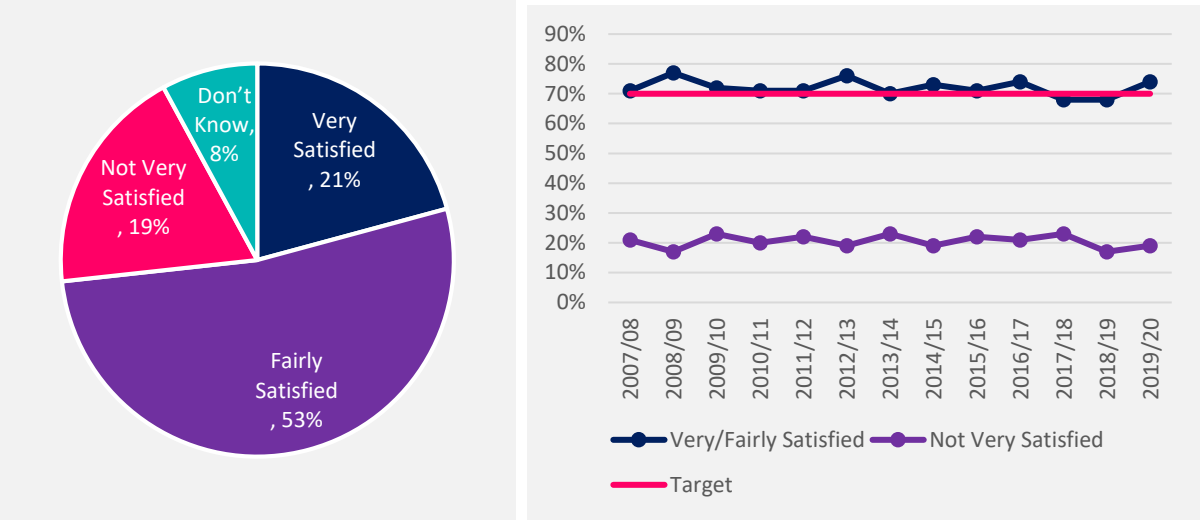


Figure 53: Satisfaction with Footpaths

The main reasons given for not being very satisfied with footpaths are:

- No footpaths/lack of footpaths/only on one side.
- Uneven/cracked/rough/broken/bumpy/potholes.
- Poor condition/need maintaining/upgrading.

When asked whether they would like more, less or about the same spent on footpaths, given that the Council cannot spend more without increasing rates, 29% said they would like to see more spent and 29% said they would like more spent on walkways and cycleways.

6.5.3 Public Transport

A public transport issues and needs survey was conducted for Nelson and Tasman residents between March and May 2020. Respondents were asked questions about their household's use of public transport and given the opportunity to provide feedback to open ended questions in their own words. The survey received 490 responses, 41% from households that use public transport and 59% from those that do not.

Respondents most like the bus drivers, timetables, and routes, however the proportions are low (less than 20% each). This indicates that there are a wide range of aspects that people like about the service, but that no one thing particularly stands out.

There was much more consensus about what respondents dislike about the service. Of the responses received to this question, 45% dislike the timetables and 39% dislike the routes. The substantial difference between those that like and those that dislike timetables and routes suggests that there is an issue with timetables and routes that needs to be addressed. Less than 20% of respondents raised fares as an issue, and a similar number highlighted "other" issues, including things such as "lots of empty buses" and "not possible to practise social distancing". Reliability was not raised as a major issue, which is significant, as traffic delays are a problem on the Route 1 and 2 corridors, and reliability is generally very important to public transport users.

Responses to the question about what they would want to change, were generally aligned with what respondents did not like about public transport services, with improvements to timetables, routes and fares being the priority. More than 60% suggested changes to the routes or timetables, covering service to new destinations (particularly in Tasman) and improvements to days of service, hours of service, and particularly frequency. Over 20% suggested changes to the fares (particularly fare reductions), or the ticketing system. It is important to note that the survey was conducted prior to the introduction of the new Richmond routes, and fares and ticketing changes that reduced the average fare, so some suggested timetable, route, fare and ticketing priorities have since been at least partially addressed.

Bus priority, bus stop, information, park and ride, and safety changes were raised in response to the last question, but only in relatively small numbers. However, it is clear from the comments that some people feel that the service could be better promoted. 20% of responses were generic, such as "make it better".

6.5.4 Active Transport Survey

The Council undertook an active transport survey in February 2019 to gather community sentiment as part of developing a walking and cycling strategy. The survey had 556 responses and although it was intended to be for Tasman residents, a number of Nelson residents also completed the survey. The Nelson results have been included as a number or respondents live in Nelson but work in Tasman.

65% of the respondents identified private vehicle as being the current mode of transport to work and school and 47% said that there preferred mode of transport was by cycle. Time, distance and safety were identified as being the top three reasons for not using walking or cycling as their form of transport.

When asked what improvements the Council can make to improve walking, creating more dedicated walkways was the top response, although, improving walkway surface and improving walkway amenity also scored well. When asked what improvements the Council can make to improve cycling, separating cycle paths from the road and creating more cycle paths were the top results. Improving cyclepath surface and making cyclepaths wider also scored well. Figure 54 shows how the improvements scored.

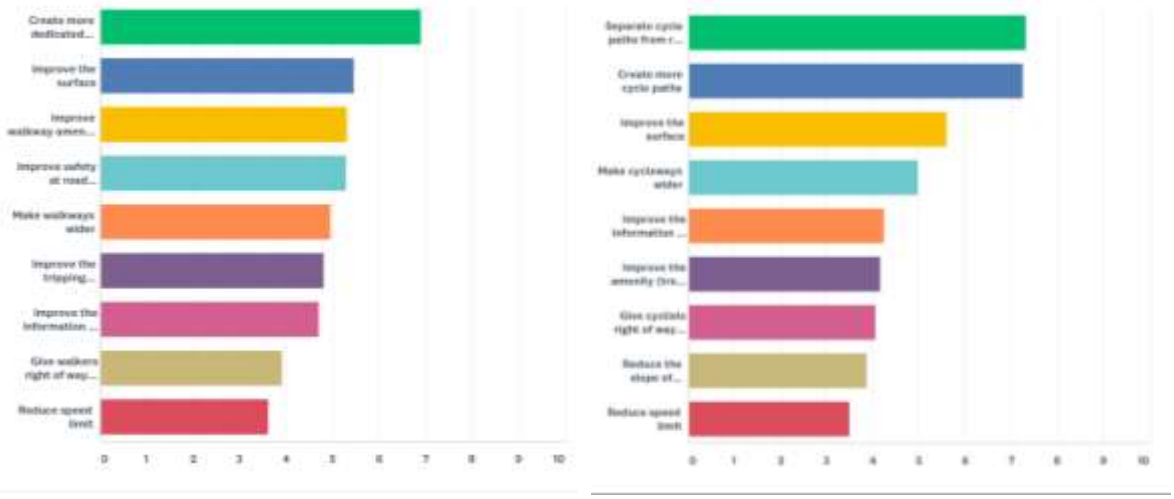


Figure 54: Improvements to encourage walking and cycling

When asked how much should the Council invest into different modes of transport, over 70% of respondents wanted the Council to spend more on cycling and public transport, over 50% of respondents wanted more spent on walking and electric vehicles and only 13% of respondents wanted more spent on motor vehicles.

6.5.5 Streets for People Survey

In May 2020, the Council undertook a survey to understand community sentiment of their neighbourhoods following level 4 lockdown. The survey had over 1,100 responses from Tasman and Nelson. Most respondents agreed that they felt safer walking and cycling and enjoyed many of the other aspects that came with a slower pace of life.

When asked how important changes in their neighbourhood would be, 66% of respondents thought the ability to walk and cycle safely was extremely important and the ability to drive up to 50km/h was not at all important, as show in Figure 55 below.

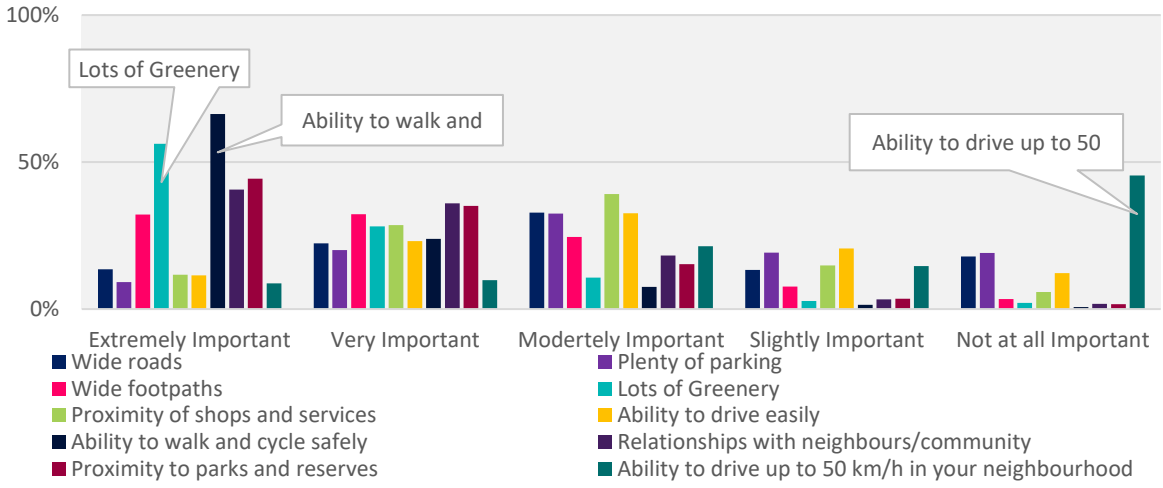


Figure 55: Importance of neighbourhood changes

6.5.6 Town Centre Survey

In February and March 2020, the Council undertook a survey on town centres within the district. The survey asked what people liked and disliked about various town centres. The aspects of the town centres that people disliked showed a number of key themes that are relevant to transport. Motueka, Takaka, Mapua, Collingwood and Upper Moutere all listed pedestrian safety as the greatest aspect of their town that they dislike, whilst Takaka and St Arnaud listed it as the second aspect that they disliked. Almost all towns identified other transport related aspects that they disliked including:

- Heavy traffic
- Too many cars on the main road
- Too much parking
- Vehicle speeds
- Cycling safety

7 Current and Future Demand

The ability to predict future demand for services enables the Council to plan ahead and identify the best way of meeting that demand. That may be through a combination of demand management and investing in improvements. This section provides and overview of key drivers of demand and what demand management measures the Council has planned to implement.

7.1 Demand Drivers

Through development of the strategic Business Case, the working group identified two key themes:

- Growth of the District.
- Natural hazards influence on the District.

Of these themes, general growth including growth in the aging population constituted the greatest problem. This is due to Tasman having one of the highest rates of growth of older people and the benefits to health and wellbeing of good transportation connections.

The growth of Heavy Commercial Vehicles (HCV) and High Productivity Motor Vehicles (HPMV) vehicles is closely related to growth in GDP of the entire region. This is generally in line with the growth that many regions around New Zealand are experiencing, however, we are see deterioration along our main HCV routes which is likely to get worse if not addressed due to forecast industry growth.

The population growth is causing issues around unexpected delays on major routes through Motueka and Richmond which is causing traffic to use lower hierarchy roads to avoid congestion. Additionally, the alternate routes are undergoing localised development growth which will only make this problem worse. Many of the problems can be offset by making changes to state highways and work is currently underway with Waka Kotahi to address state highways through the Richmond Network Operating Framework and the State Highway 60 business case.

There is an ongoing concern that with a higher frequency of natural hazard events some of the more isolated settlements in the District can be cut off and reinstatement of basic services could be days or months in the case of significant events. In comparison to other Districts we are well serviced by other potential modes of transport such as via sea that whilst not established, could be pulled into service to provide vital emergency access and linkages.

7.1.1 Population Growth

Population growth leads to intensification of development (infill housing) and new subdivisions.

Potential effects from increased population growth on the stormwater systems are:

- Increased flooding due to urbanisation and increased impervious surfaces; faster and larger runoff flows, which exceed system capacities.
- Decreased water quality due to change in land use and increasing urbanisation and;
- Decreased stream health and aquatic habitat due to change in land use and increasing urbanisation.

Population growth is assessed through the Councils growth modelling. The purpose of the growth model is to provide predictive information (demand and supply) for future physical development, to inform the programming of a range of services, such as network infrastructure and facilities, and District plan reviews. The model generates residential and business projections for 17 settlement areas and five ward remainder areas. The Council's growth assumptions have been reviewed and amended recently in light of the Covid-19 pandemic.

The key demographic assumptions under the updated medium growth scenario are:

- Tasman's population is projected to increase by 7,700 between 2021 and 2031, to reach 64,300. Across the 30 years from 2021 to 2051, Tasman's population is projected to increase by 19,500, to reach 76,100.
- Dwelling numbers are projected to increase from 24,600 to 28,900 over the next 10 years (+4,300), and to 36,500 over the 30 years (+11,900 or 50%).

Tasman is expected to see an additional 160 new business lots developed over the next 10 years, and a further 335 between 2031 and 2051.

7.2 Assessing Demand

The future demand for services will change over time in response to a wide range of influences, including:

- Local population trends
- Accuracy of predicted future populations
- Local economic trends
- Land use change
- Changing technologies
- Changing legislative requirements
- Changing regional and District planning requirements
- Climate and climate change.

Increasing demand for services can generate the need for additional infrastructure or demand management interventions. The land transport network enables efficient movement of people and goods throughout the District and to neighbouring Districts. The land transport network is a core facility maintained by the Council to assist it in meeting its Community Outcomes. The present road network was set up many decades ago and has been gradually upgraded to the present standard. Over that time community expectations in transportation have increased which may require ongoing development of the transportation network.

Generally, the network copes with the demands on it. While there is little demand for the supply of new infrastructure right now, apart from that required in subdivision work, the present network will need redevelopment on key locations over the next 30 years to meet this community expectation and the growth forecasts.

7.2.1 An increase in population

This will increase traffic on the roads, which will increase congestion and reduce the level of service provided by the road. This will increase wear and tear on the roads, which will increase maintenance costs and renewal frequency.

7.2.2 A change in the way a road is used

There is a greater demand for alternative modes of transport, especially in areas where no viable alternate to private motor vehicles exists. This is especially true in settlements where public amenities have been developed some distance from central areas.

7.2.3 A change in the level of service demanded by the road users

Over time, communities tend to expect improving service from their assets. Roads and the activities involved in managing the roads may need to be improved to satisfy these future needs.

7.2.4 A change in the strategic management of the assets

The Council's policies and management strategies are in continual evolution to keep pace with the changing needs of the community, statutory requirements, funding organisation's and central government.

People moving from urban areas to lifestyle properties in rural areas tend to expect a high level of service. These rural roads which were once used by local farmers now have a much wider range of people and vehicle types driving on them. This has resulted in factors such as smoothness of ride, no loose metal and higher speeds becoming more important to more road users. Changes to policies and management strategies can also have a significant effect on how assets are managed.

Around New Zealand, Councils are grappling with an aging population as the baby boomers start a post-employment period of their lives. The elderly population in Tasman has been rising steadily and is forecast to increase faster than the rest of New Zealand. Tasman is an attractive District to retire to due to its temperate climate, high sunshine hours, coastal location, moderate population and perception of safety. This adds to the demand for recreation facilities like cycling and walking trails. As people age, the ability to remain mobile is of greater importance especially as freedom of movement and strength diminish.

Technology is playing a larger part in transportation than is has in the last 100 years. Recent developments in smart phones has enabled ride sharing and other non-traditional transport as a service initiates'. Recently electric motor vehicles have regained their popularity, driven in part by a need to save on running costs and a desire to reduce carbon emissions. Electric cars are one of the fastest selling type of vehicle in Nelson/Tasman. There has been a surge in adoption worldwide leading to almost all car manufactures introducing a line of electric vehicle in the next three years with buses and trucks in development. Almost all car manufacturers are working on autonomous vehicle technology to complement the development of electric cars. Whilst the technology is there, autonomous vehicle adoption may take longer due to the legal, ethical and trust issues that need to be worked through.

The direction of future land use changes and their effects on the transportation network are difficult to determine with accuracy, but it is important that the Council plans ahead and adapts to these changes.

Demand for new or upgraded facilities arises from the needs of the existing population i.e. meeting the level of service standards, changing habits, and population growth. This demand is seen in the need for:

- New roads
- Sealing of unsealed roads
- Widening and alignment improvements
- Upgraded intersections
- New and upgraded bridges
- New dedicated cycle and footpaths
- Appropriate urban facilities in closely settled areas e.g. street lights, kerb and channel, footpaths.

The Council intends to maintain its awareness of these issues and plans to provide a transportation network, which meets the community's expectations.

The business case approach to determining the transport maintenance programme has been developed by The Treasury. Waka Kotahi is a funder of the Councils transportation programme and requires that the maintenance programme be developed as part of the AMP document using business case approach principals. The approach also utilises the Investment Logic Mapping (ILM). The ILM is a series of structured workshops that brings together key stakeholders to ensure that there is early agreement on problems, outcomes and benefits before any investment decisions are made or a specific solution is identified. At the end of the ILM, a problem has been defined through a statement, the benefits of addressing these problems have been defined and key performance indicators (KPI) to measure the success of addressing problem. This has been undertaken for each of the key issues and are included below for each issue.

7.3 Demand Management

The objective of demand management (sometimes called non-asset solutions) is to actively seek to modify customer demands for services in order to:

- Optimise utilisation/performance of existing assets
- Meet the organisation's strategic objectives (including social, environmental and political)
- Deliver a more sustainable service
- Respond to customer needs.

7.3.1 The Council's Approach to Demand Management

The Council's approach to demand management centres around five key areas:

- Public transport
- Ridesharing
- Support active modes
- Parking Management
- Changing route hierarchy
- Investment succeeds growth.

The Council works with Nelson City Council to undertake public transport within the Nelson Richmond area. This is principally due to Nelson and Richmond sharing the same problem with congestion during peak periods. Nelson undertakes all coordination of the public transport system including administration and marketing with the Council providing financial support. Likewise, Nelson is undertaking a ridesharing initiative which will be available to all Tasman residents to facilitate ride sharing. This includes a website portal in which all Tasman residents can find differing modes of transport and arrange with other people to share resources.

With growth in Richmond and Motueka, finding space to park has become an issue for many residents. The Council is currently developing a car parking strategy which will look to manage demand by time limiting parks convenient to commercial premises to allow turnover of parking. This will be supported by a greater degree of enforcement to ensure these time limits on these parks are being respected.

With increases in traffic at points on the network, residents are using lower classification roads to avoid congestion. The Council plans to implement measures to disincentives the alternatives routes and make the main route more attractive.

Road network upgrade is one of the few pieces of infrastructure that is not required to proceed construction. The Council have made investment decisions based on likely traffic growth.

8 Lifecycle Management

Lifecycle cost is the total cost to the Council of an asset throughout its life including, creation, operations and maintenance, renewal, and disposal. The Council aims to manage its assets in a way that optimises the balance of these costs. This section summarises how the Council plans to manage each part of the lifecycle for this activity.

8.1 Sealed Roads

8.1.1 Summary

National Priority	Regional Priority	Local Priority	Response
	NA		
Improving Freight Connections		"Our current levels of investment into sealed roads and drainage is causing the assets to deteriorate at an unsustainable rate." 35%	Increased road renewals

8.1.2 Current Activity

The maintenance and renewal of our sealed road network is the single largest expense for the Council. Previously, maintenance and renewal would have been undertaken on an as required basis to match asset management best practice. However, the 2015 LTP introduced a change by reducing the resurfacing programme to match budgets, in order to reduce the Council debt. The 2015 budgets are not enough to renew the entire network within the seal lifetime (<6% pa of the total road length). In recent years the size of our network has grown and the number of heavy commercial vehicles has grown meaning that maintenance costs have significantly exceeded budgets.

The size of the sealed network is growing predominately due to residential development with approximately 15.3km added every year. Areas of significant sealed road network include, Richmond West, Richmond South, Motueka West and Moutere Hills. The resident population has grown faster than Stats NZ projections (see Section 7.1.1) over the last seven years.

The increase of vehicles on roads has resulted in increases in delay times at key intersections throughout the district. As urban areas grow, the Council has been undertaking road and intersection improvements to take into account the additional vehicles on roads and through intersections. These improvements improve the efficiency and safety of the existing infrastructure, but they do not add more road capacity. Growth of commercial vehicles on roads has also led to a faster rate of road damage than we would previously have expected.

The Council has under invested in the road resurfacing programme which has led to a decline in condition. Information and evidence for this can be found in Section 3.9.3. This has shown itself with a declining network condition, which will eventually increase costs if levels of services are retained.

The cost to undertake sealed road activities has come under stress over the last three years. The sealed road maintenance and resurfacing costs are now 30 – 40% greater than what they have been previously. The Council sought additional funding from Waka Kotahi in the 2019/20 and 2020/21 financial years to help meet the new cost reality.

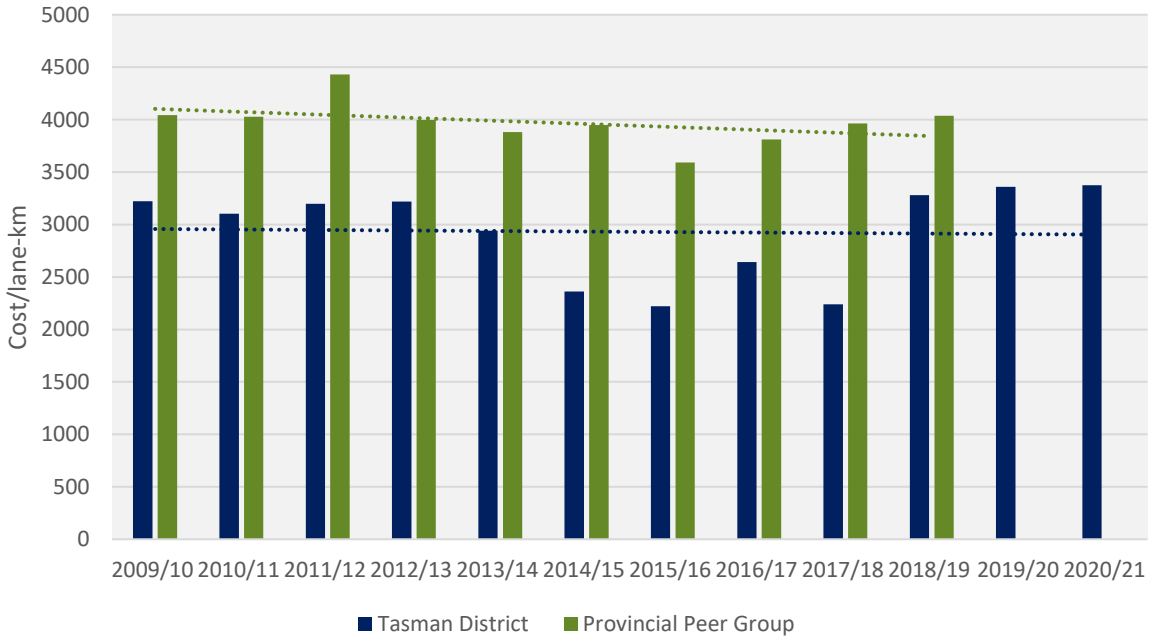


Figure 56: Sealed Roads Maintenance and Renewals Expenditure

8.1.3 Asset Condition and Performance

Section 3.9.3 provides evidence to show that there is an increasing number of heavy commercial vehicles using the road and growing at a rate of around 5% per annum, against a population growth of 2% per annum. The most recent condition report shows that whilst there were some positive indicators, most measures of sealed road condition were getting worse and the seal condition is worsening over time.

Section 5.3.4 summarises network condition trends. These trends provide the Council with useful indicators on how investment in the network is translating into actual condition. The 2020 condition rating survey identified that. For further detail on the condition of the sealed road network see Section 3.9.3.

8.1.4 Programme Development

8.1.4.1 Drivers

- National Priority

The GPS identifies improving freight connections as a strategic priority. The GPS also goes on to identify road maintenance being crucial to link key production and distribution points. Tasman's local road network links our primary industries with locations to undertake secondary processing and to our main export hub at port Nelson. Tasman does not have a rail network as a method or reducing deterioration of the road pavement.

- Regional Priority

The RLTP does not specifically have a priority that can be addressed by changes in the sealed road network. There is a growth regional priority with responses being around development of public transport and active transport modes in addition to undertaking the actions of the Richmond Programme Business Case. There are a number of projects that provide improved access to all modes, which will require investment in improving existing sealed roads.

- Local Priority

The strategic case identifies sealed road deterioration from heavy commercial vehicles as being a priority to be addressed. The strategic case identified lifting the re-surfacing programme as the best strategic response. The Council have not been meeting it levels of service targets, with condition dropping outside of the acceptable range, and the proportion of the sealed road network being resurfaced every year.

8.1.4.2 Analysis

Table 25: Sealed Road Options Shortlisting

Option - Can we make	Yes/No	Rank	Reason
Option 1 - Status Quo (make no changes)	No	4	This will lead to a progressively deteriorating condition
Option 2 - Increase maintenance to cover increased defects	Yes	3	Is a solution to managing the network
Option 3 - Accept a lower level of condition	No	5	Similar to option 1, this will have longer term cost implications
Option 4 - Lift programme to catch up on deferments over 10 years	Yes	2	okay long term cost outcomes but takes more risk
Option 5 - Lift programme to catch up on deferments over five years	Yes	1	The best long term cost outcomes

Table 26: Sealed Road Multi-Criteria Analysis

Criteria	Weighting	How good is this option					
		5 Year catch up		10 Year catch up		Maintenance increase	
		Raw	Score	Raw	Score	Raw	Score

Closing Customer and Technical LoS gaps and impacts	15%	8	1.2	6	0.9	3	0.45
Total Cost of Ownership (whole of life Costs)	30%	8	2.4	7	2.1	2	0.6
Life Cycle Management	15%	9	1.35	6	0.9	2	0.3
Council affordability	40%	3	1.2	5	2	6	2.4
Totals	100%		6.15		5.9		3.75

8.1.4.3 Preferred option

Using criteria analysis in Table 26: Sealed Road Multi-Criteria Analysis~~Table 26: Sealed Road Multi-Criteria Analysis~~ favours increasing the resurfacing programme of the next five years to 'catch up' on the roads that where not resurfaced in the preceding nine years. The high scores in 'Total Cost of Ownership' and 'Life Cycle Management' are the greatest influence in why this option has scored so well. However, development of the Council's Long Term Plan and indicate significant pressure on debt and rates. Additionally, The National Land Transport Fund will also be constrained due to reduced income during several periods of lockdown. The Council will instead elect to undertake a resurfacing programme over the next 10 years to 'catch-up' on the roads that where not resurfaced in the preceding nine years. It is recognised that this strategy will increase risk to the Council and will likely increase the total cost of ownership compared to the recommended 5-year catch-up option.

8.1.5 Operations, Maintenance and Renewals

The Council will increase the resurfacing programme to 'catch up' on the treatment lengths that have been deferred over the previous eight years. The resurfacing programme will increase the proportion of network that is resurfaced every year to 7.6% per annum (or 71km) over the next 10 years. This programme increases the resurfacing budget by 38%. At 2031/32, the renewal programme will drop back to 6.6% of the network as shown in Figure 57~~Figure 57~~ below.

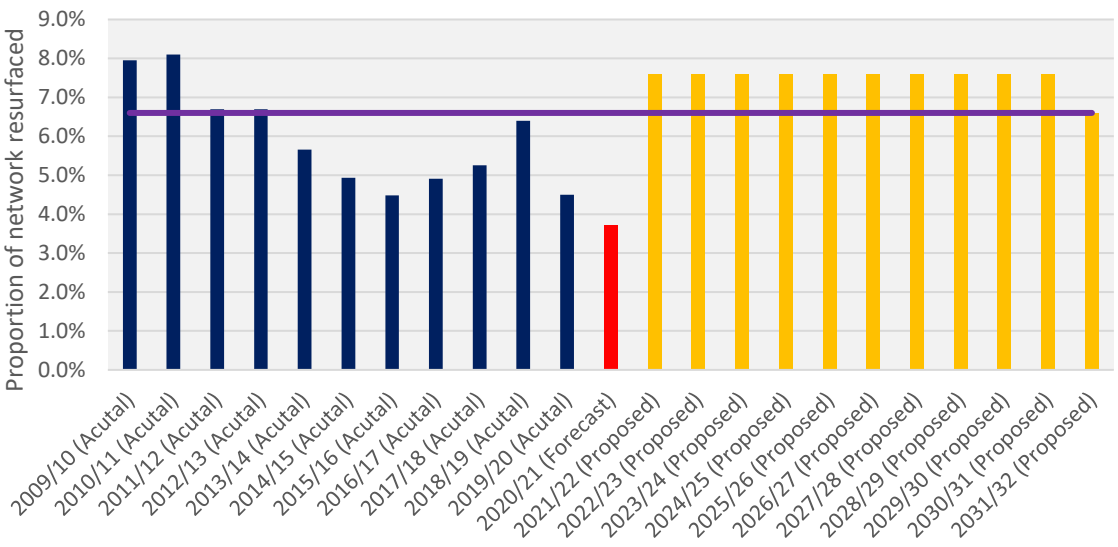


Figure 57: Proportion of Network resurfaced

The resurfacing programme will temporarily increase the average age of the surface at the time of renewal as shown in Figure 58 below. The Council will revise the forward works programme from a five-year 'catch up' to the preferred 10-year catch up.

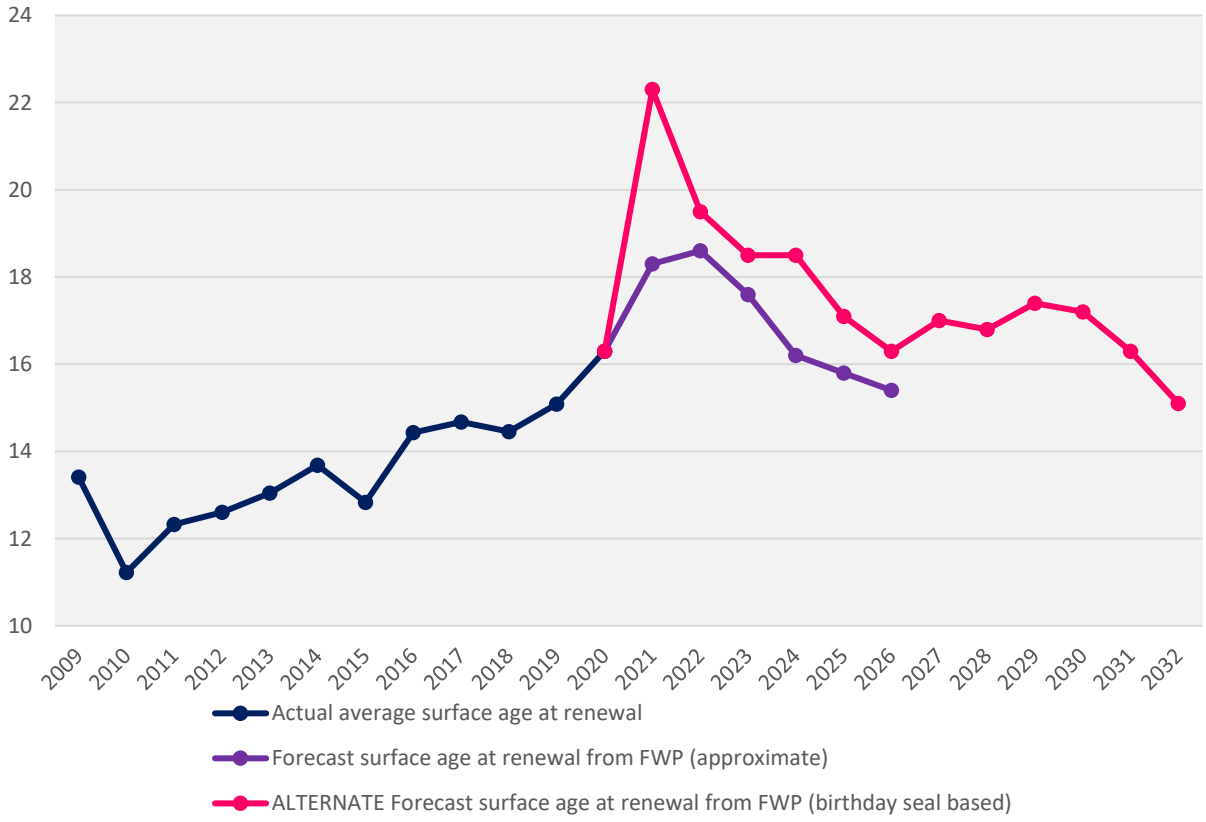


Figure 58: Average Surface life at Renewal

The Council will also increase the amount of pre-seal maintenance that is undertaken in proportion to the increase in resurfacing undertaken.

The cost to undertake sealed road works has increased considerably over the last three years. As an example, the Council have seen the cost to undertake chip seal resurfacing has gone from $4.64/m² in 2017/18 to $7.90/m² in 2020/21. Factors outside of the Councils control that have contributed to these cost increases are:

- Requirements for the use of emulsion binders instead of cut back
- Greater awareness of safety around temporary traffic management
- Labour and material cost increases
- Fresh water management requirements.

The expected expenditure on sealed pavement maintenance is forecast at $7.2m (excluding inflation) per year in the 2021 - 2024 programme. This is an increase of 52% or approximately $2.4m per year (inflation adjusted) above the level in the 2018 - 2021 Activity Management Plan.
These increases in costs are made up from:

- The increased cost in undertaking the maintenance work itself; and
- The increase in the amount of work undertaken to catch up of deferrals.

Likewise the quantity of sealed pavement maintenance repairs has also increased by 38%.
Street cleaning and pavement rehabilitation will continue at similar levels as described in the 2018 AMP.

The breakdown of all the activities that are included in sealed road maintenance, operations and renewals work category are:

- Street Cleaning
- Sealed Pavement Maintenance
- Lower Cobb Dam Road Maintenance
- State Highway Street Cleaning
- SPR - Sealed Pavement Maintenance
- Upper Cobb Dam Road Resurfacing
- Sealed Road Resurfacing
- Lower Cobb Dam Road Resurfacing
- Pavement Rehabilitation
- SPR - Sealed Road Resurfacing

8.1.6 Capital Investment

There is not programme of investing into new sealed roads. The Council re-committed in 2018 to maintaining its stance of not undertaking any seal extensions, however, there are some projects to cater for growth that improves the road corridor for all modes. Many of the projects are around Richmond West, and allow all modes to safety access the developments or the wider network.

Likewise there are some improvements to rural roads to make them more acceptable for the additional vehicles that development brings. These projects identified to be undertaken within the next 10 years are:

- Seaton Valley Road Improvements
- Lower Queen Street Widening Stage 1
- Lower Queen Street Widening Stage 2
- Rural Development Road Improvements
- McShane Road Upgrade
- Berryfield/Lower Queen Intersection Upgrade
- McShane/Lower Queen Intersection Upgrade
- Berryfield/Appleby Hwy Intersection Upgrade.

8.2 Unsealed Roads

National Priority	Regional Priority	Local Priority	Response
NA	NA	NA	BAU

8.2.1 Current Activity

Unsealed roads continue to see modest growth in usage across the district. However, usage is often related to areas of primary industry harvesting. In particular, forest harvesting has a significant impact on vehicle usage of particular roads. The Council works with the forestry industry to target maintenance on routes that will be used during harvesting of forestry blocks. Other than these routes, maintenance activities on unsealed roads are undertaken on an 'as required' basis. Road maintenance engineers periodically assess the unsealed network to determine if any unsealed road needs re-metaling or grading.

In 2018, the Council increased the amount of grading on the unseal road network by 50%.

8.2.2 Asset Condition and Performance

The Council does not collect specific condition data for unsealed roads. These roads tend to be very dynamic with the conditions changing rapidly based on climatic effects and maintenance activities such as grading. However, ONRC have compared annual unsealed maintenance and metaling costs against the Council's peers, which shows that the Council spends very little on maintenance and spends just under average for metaling as shown in Figure 59: Maintenance costs of Unsealed Roads Compared with Peers~~Figure 59: Maintenance costs of Unsealed Roads Compared with Peers~~ below.

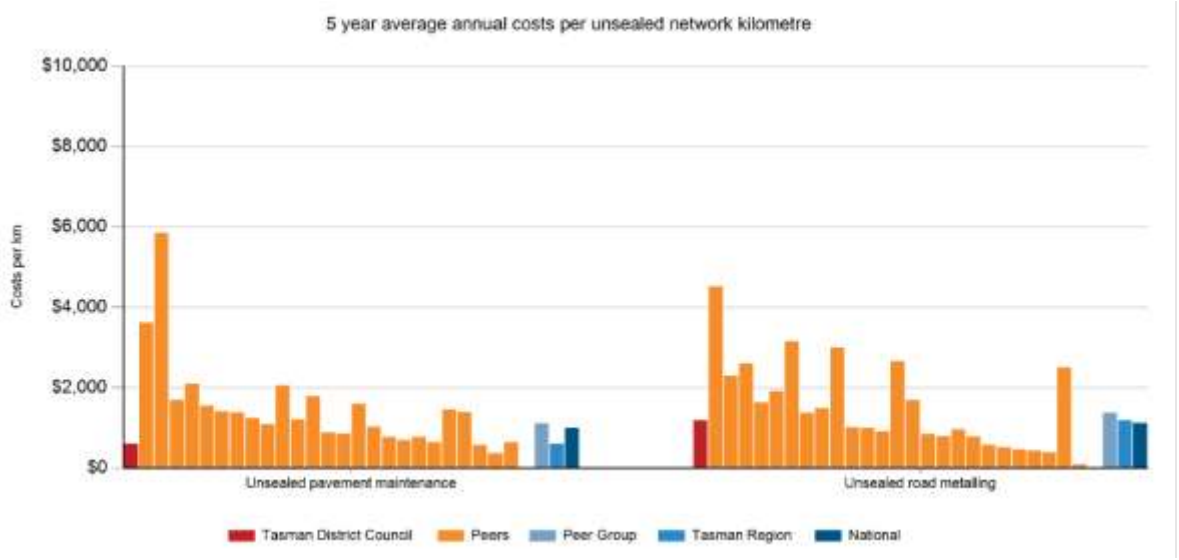


Figure 59: Maintenance costs of Unsealed Roads Compared with Peers

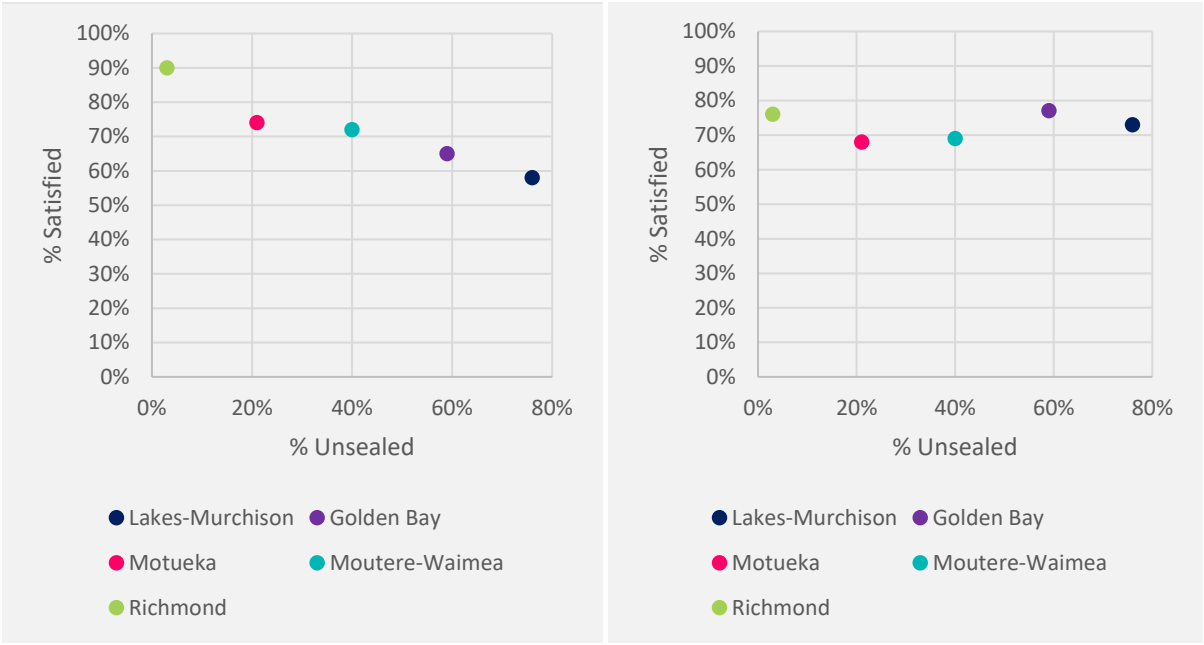


Figure 60: Satisfaction with Unsealed Roads (2017 and 2020)

When satisfaction with the road network is compared with proportion of unsealed roads around the District (Figure 60: Satisfaction with Unsealed Roads~~Figure 60: Satisfaction with Unsealed Roads~~), there used to be a correlation that indicated that the higher the proportion of unsealed road the lower the satisfaction. However, there is no longer an obvious correlation.

The additional maintenance of the gravel roads has improved customer perception, with a net reduction in customer service requests for unsealed roads as can be seen in Figure 61: Service Requests for Un-sealed Roads~~Figure 61: Service Requests for Un-sealed Roads~~ below.

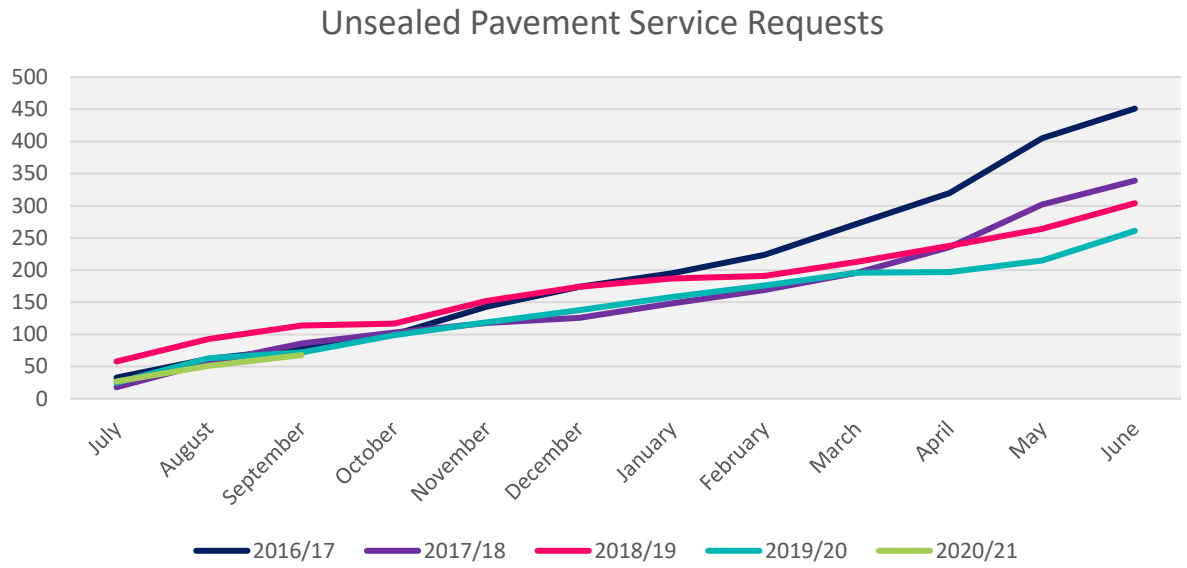


Figure 61: Service Requests for Un-sealed Roads

8.2.3 Programme Development

8.2.3.1 Drivers

The neither the strategic case nor the asset performance indicated a need to make a change to how un-sealed roads.

8.2.4 Operations, Maintenance and Renewals

Unsealed pavement maintenance operations and renewal activities will stay the same as what it has over the previous three years, which include:

- Upper Cobb Dam Road Maintenance
- Graham Valley Road
- Unsealed Pavement Maintenance
- SPR - Unsealed Pavement Maintenance
- Unsealed Road Metalling
- SPR - Unsealed Road Metalling

8.2.5 Capital Investment

There are no capital projects planned for unsealed roads. However, the Council will undertake improvements on rural roads to support residential developments. It is anticipated that the roads will predominately be sealed, but there may be occasions where development is happening along gravel roads.

8.3 Drainage

National Priority	Regional Priority	Local Priority	Response
			
Improving Freight Connections	The susceptibility of our network leads to loss of access for the community. 15%	Our current levels of investment into sealed roads and drainage is causing the assets to deteriorate at an unsustainable rate." 35%	Enhanced maintenance

8.3.1 Current Activity

The Council considers drainage maintenance to be a core activity and good maintenance is essential in providing a safe and cost-effective road network. The effects of poor drainage maintenance range from accelerated deterioration of pavements and surfacing, to catastrophic failure of roads, damage to private property and risk to life.

Three areas are currently identified as 'high risk drainage areas', due to historic issues with damage and high-cost reinstatement works. These areas are proactively maintained in advance of forecast rainfall events. These areas are:

- Riwaka – Kaiteriteri – Marahau loop (Riwaka-Kaiteriteri Road, Riwaka Sandy Bay Road and Kaiteriteri-Sandy Bay Road).
- Aniseed Hill (Aniseed Valley Road).
- Wainui Hill (Abel Tasman Drive).

Maintenance activities on the other drainage assets are undertaken on an 'as required' basis. Road maintenance engineers assess the network in rain events to determine if there are any assets that require maintenance or replacement.

8.3.2 Asset Condition and Performance

8.3.2.1 Culverts

The culvert condition data was collected in 2014 for approximately 80% of the 10,300 recorded culverts. This data is presented in Figure 62: Culvert Condition Summary~~Figure 62: Culvert Condition Summary~~.

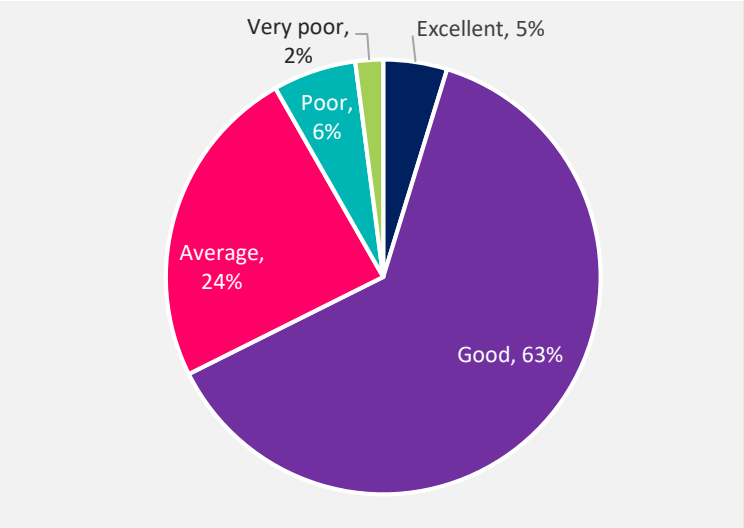


Figure 62: Culvert Condition Summary

The majority of culverts are in good condition with a small number of culverts (8%, or 824 culverts) in poor or very poor condition. This condition data is used as an input into the development of the drainage renewal programme.

The Council's road maintenance contractor for the Tasman maintenance contract is required to complete an annual drainage inspection of all drainage structures including culverts, sumps and soak pits. The contractor is required to validate inventory data and report on asset condition. The Golden Bay and Murchison network contracts do not include a requirement to assess condition of drainage structures, but will be included in the renewal of new maintenance contracts.

The Council commissioned a full drainage inspection of the entire network in 2014. There are currently no plans to repeat this process in the short term. The condition of drainage assets on the Murchison network has not been assessed to date. It is expected that when the current contracts expire, an annual drainage inspection will form part of the new contracts.

8.3.2.2 Surface Water Channels

The condition of the surface water channels is covered in Section 3.9.3.4. Effectively, there is the condition of the drainage network has decrease over the last few years.

8.3.3 Programme Development

8.3.3.1 Drivers

- National Priority

The GPS identifies improving freight connections as a strategic priority. The GPS also goes on to identify road maintenance being crucial to link key production and distribution points. Tasman's local road network links our primary industries with locations to undertake secondary processing and to our main export hub at port Nelson. Tasman does not have a rail network as a method or reducing deterioration of the road pavement.

- Regional Priority

The RLTP identifies resilience as a priority due to the susceptibility of the network to lose access to parts of our community. One of the responses identified in the RLTP is to maintain and improve drainage assets on our network.

- Local Priority

The strategic case identifies drainage network deterioration as being a priority to be addressed. The strategic case identified lifting the maintenance programme as the best strategic response.

8.3.3.2 Analysis

Table 27: Drainage Options Shortlisting

Option - Can we make	Yes/No	Rank	Reason
Option 1: Status Quo (10% of network maintained every year)	Yes	3	The Council will prioritise most at risk sections of road, but will add risk to the road network
Option 2: six year programme to repair and maintain SWC (11% of network maintained over six years)	Yes	2	Resolves defects but adds some risk by undertaking over two AMP cycles
Option 3: three year programme to repair and maintain SWC (12% of network maintained over three years)	Yes	1	Resolves defects within current AMP cycle
Option 4: one year programme to repair and maintain SWC (16% of network maintained in the first year)	No	4	Adds cost in Y1 of AMP when budgets are most pressured

See Table 25: Sealed Road Options Shortlisting~~Table 25: Sealed Road Options Shortlisting~~.

Table 28: Drainage Multi-Criteria Analysis

	Weighting	How good is this option					
		3 Year programme		6 Year programme		Status Quo	
		Raw	Score	Raw	Score	Raw	Score
Community Outcomes Achieved	20%	7	1.4	5	1.0	2	0.4
Total Cost of Ownership (whole of life Costs)	15%	6	0.9	5	0.75	4	0.6
Risk Resilience	40%	7	2.8	6	2.4	2	0.8
Rates Impact	25%	5	1.25	7	1.75	9	2.25

Totals	100%		6.35		5.9		4.05

8.3.3.3 Preferred option

Based on Table 28 above, the preferred option is increase the amount of storm water channels we maintain and repair every year to by 2% over the next three years to slow down the decline in network condition. This will help us improve our resilience from risks associated from rainfall events.

8.3.4 Operations, Maintenance and Renewals

8.3.4.1 Urban Kerb and Channel and Sump Cleaning

The current strategy and specification in the maintenance contracts are:

- Key township roads are swept monthly.
- Full network sweep four times per year, with some additional sweeping as required during autumn to minimise potential blockages caused by fallen leaves.
- Suction cleaning of each sump annually.

This strategy is considered to be providing an acceptable level of service and no changes are proposed.

Unlike other maintenance activities, this work is eligible for a 30 percent subsidy from the Waka Kotahi.

8.3.4.2 Culvert Maintenance

The 2018/21 maintenance programme, programmed cleaning up to 900 culverts per year, which equates to around nine percent at a similar cost. This will be undertaken through a mix of fixing defects and preventive maintenance targeting high risk and prone areas. A small amount of reactive maintenance is included to address issue identified through natural events. This programme of work is deemed to be sufficient and will continue as a basis of the 2021/24 maintenance programme.

8.3.4.3 Unlined Surface Water Channel Maintenance

An increased surface water channel maintenance programme is proposed for 2021/24 in line with the preferred option from the multi criteria analysis. The Council will undertake mechanical cleaning of 12% of the recorded 1,400km of earth surface water channels for the first three years, and then reduce the proportion to 10% thereafter.

8.3.4.4 Drainage Renewals

The Council has developed a simple stochastic deterioration model to predict the likely future condition of culvert assets based on current condition and investment/rate of renewal. This model considers the probability of an asset in a certain condition state transitioning to another (lower) condition state in a given time period. The transition probability has been assumed using age and condition information where both these data fields are recorded. Using this model, 8% of culverts rated 'poor' or 'very poor', it is considered reasonable to be conservative.

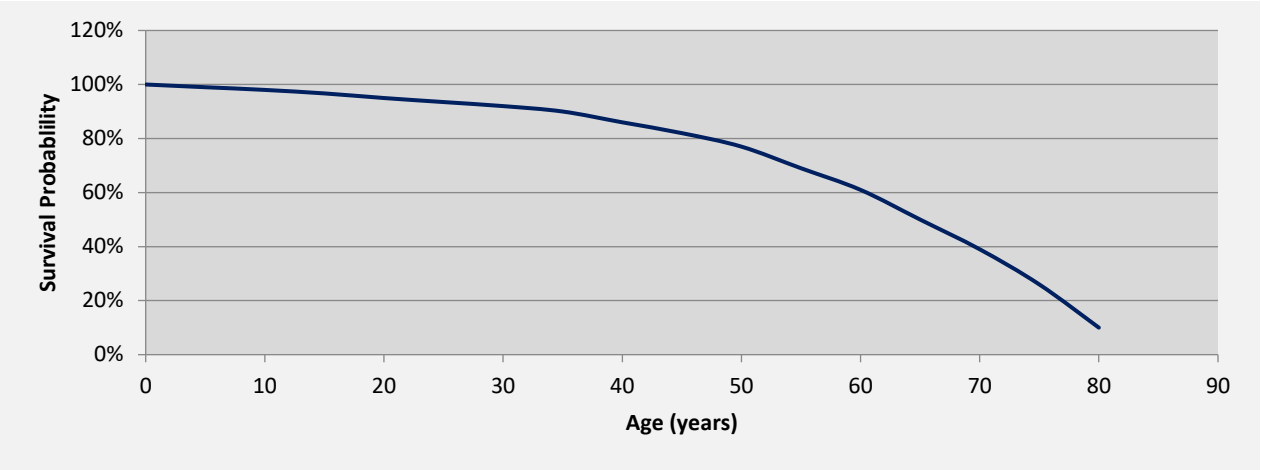


Figure 63: Typical Survival Probability Profile for Concrete Culverts

Climatic effects are expected to induce demand changes on the existing culverts due to more intense rainfall occurring more regularly. Climatic effects are expected to induce demand changes on the existing culverts due to more intense rainfall occurring more regularly. Based on anecdotal evidence, many existing culverts could be considered to be undersized, and when analysed using runoff calculations, they would not meet Council's Land Development Manual standards which require capacity for 1-in-10 year return period plus climate change.

Topographical or land-use changes can alter runoff characteristics of existing catchments, eg, forest harvesting typically decreases run-off time and consequently increases peak flows. This can exacerbate any existing drainage issues and necessitate the installation of new or larger culverts.

An annual allowance of $100,000 has been included in the drainage renewals budget to improve existing or install new culverts to ensure they meet appropriate standards. Culvert renewals will be prioritised based on need including existing culvert condition and consideration of risk/consequences to the transportation network and its users.

The renewal strategy is to replace culverts in the poorest condition or most significantly undersized first, and then renew at a rate that ensures the proportion of culverts rated 'poor' or 'very poor' does not increase above current levels over the 30 year planning timeframe. The level of investment required to achieve this has been modelled at $250,000 per year for Year 1 to Year 10, and then increasing to $300,000 per year in year 11 and beyond.

8.3.4.5 Lined Surface Water Channels (SWC)

A broad relationship between condition and expected life has been estimated to provide a condition-based renewal investment profile, as described in Table 29: Estimated Renewal Timing and Costs for Lined Surface Water Channels~~Table 29: Estimated Renewal Timing and Costs for Lined Surface Water Channels~~.

Table 29: Estimated Renewal Timing and Costs for Lined Surface Water Channels

Condition	Estimated Renewal Timing	Average Annual Cost
>5% Broken	0-10 years	$112,000
2-5% Broken	11-20 years	$327,000
0-2% Broken	21-40 years	$729,000
Unbroken	41-50 years	$733,000

Renewal requirements are low over the first 10 years, increasing significantly through years 20 to 50. This is considered a worst-case scenario, and lives in excess of 50 years are achieved as expected this will go some way to smoothing out future renewal costs. Future renewal costs are very likely to be higher than at present with an approaching bow-wave in ageing assets associated with historic growth patterns.

8.3.4.6 Unlined Surface Water Channels (SWC)

Unlined surface water channels are generally renewed during mechanical maintenance which restores the formation depth and width. There are many of examples of roads which have inadequate unlined surface water channels, either missing altogether or of insufficient shape or depth to be effective in draining the pavement layers. This data is collected during condition rating inspections and recorded as "Inadequate SWC". Table 30: Inadequate Surface Water Channel Length~~Table 30: Inadequate Surface Water Channel Length~~ summarises the length of road considered to have inadequate surface water channels during the 2016 condition rating survey.

Table 30: Inadequate Surface Water Channel Length

Side	Inadequate SWC Length (m)
LHS	61,692
RHS	59.890
Total	121,582

The highest priority sites, including those on High Productivity Motor Vehicle routes, have largely already been improved. The longer term timeframe for completing improvements has not been risky as many sites carry low traffic volumes (and low heavy commercial vehicle numbers) and have been functioning adequately without overt signs of pavement distress for a number of years. However, improving surface water channels will significantly extend the expected life of these pavements and reduce whole of life costs.

8.3.4.7 Sumps

Sumps have a long assumed life of 80 years for valuation purposes, and anecdotally a significant majority of sumps are considered to be in average to good condition, with few requiring renewal in the next 10 years.

8.3.4.8 Activities

The specific activities that min up drainage maintenance, operations and renewals are:

- Routine Drainage Maintenance
- SPR- Routine Drainage Maintenance
- Drainage Renewals
- SPR - Drainage Renewals.

8.3.5 Capital Investment

There is no specific investment into new drainage, but drainage is incorporated into any new or upgraded road project. It is worth noting that with the National Policy Statement (NPS) on Fresh Water, many road improvements in urban areas will include storm water treatment. This will generally be grassed swales or raingardens, but in constrained sites be catch pits with filtration media.

8.4 Structures

8.4.1 Current Activity

8.4.1.1 Bridges

The Council engages a consultant to complete biennial inspections of its bridges. In order to manage the workload, half the bridge stock is inspected annually. The inspector will record the severity and extent of defects, which items the Council needs to prioritise for repair, and photographs of the bridge. They may also compare notes and photographs from previous inspections to monitor any changes.

A report summarising inspection results is provided to the Council from which the condition data is used to determine the Bridge Stock Condition Index (BSCI). The index is an overall summary of the condition of the Council's bridges, and was introduced to New Zealand by the Waka Kotahi in 2014 in its Bridge Inspection Policy S6.

Historic bridge inspections have not collected condition information to enable BSCI to be calculated. In the future the BSCI will be an important guide in determining the right investment levels for bridge maintenance and renewals. It will also enable the Council to benchmark its overall bridge condition with other road controlling authorities.

In some situations, a bridge may be 'posted' to limit to maximum speed or weight that can cross the bridge. This usually occurs for bridges that have very few users. The Council has 25 speed and/or weight posted bridges.

8.4.1.2 Retaining Walls

Tasman generally has very few retaining walls and they are treated like other sections of road in which they are inspected by the road contractor just like any other section of road.

Going forward, retaining wall routine maintenance and repairs will identified during biennial bridge inspections, and prioritised based on the severity of the defect and the consequence of failure. This work is usually packaged with similar bridge maintenance activities and completed by the bridge maintenance contractor accordingly.

Renewal decisions will be made on a case-by-case basis, as replacement of a structure may not be the preferred economic decision. In some cases, it may be more economic to avoid replacing the wall by realigning the road and/or accepting a lower level of service (narrower carriageway). The Council has also been trialling 'non-traditional' retaining structures using layered willow which grows a significant root structure, acting in a similar manner to traditional engineered walls. These willow walls are substantially cheaper (60% to 70%) and less disruptive than traditional walls. So far these have been a success.

8.4.2 Asset Condition and Performance

8.4.2.1 Bridges

Cyclone Gita in 2017, caused damage to many of the bridges in the Motueka area. Work was prioritised to make repairs to the bridges that were most at risk. However, there is a small list of low level maintenance tasks from the cyclone and other general deterioration that still need to be completed. Example include, removing debris around piers, cutting back vegetation and cleaning the deck surface. Despite this, the last two inspection report reported the overall condition of the bridges as good, particularly in the Murchison and Golden Bay areas.

8.4.2.2 Retaining Walls

The Council considers that this dataset is not complete and there are likely to be retaining walls in existence that have not yet been added to the database. The Council is confident that the most significant structures from both a value and risk point of view have been recorded. Retaining walls will be added to the database over time as the Council becomes aware of their existence.

8.4.3 Programme Development

The strategic case has not identified a gap in the current programme of maintenance operations and renewals. The programme will continue to use 2018/21 programme as a base line, and vary the timing of renewal projects as required to match the recommendations of the BSCI report.

8.4.4 Operations, Maintenance and Renewals

8.4.4.1 Structures

Recent inspections show that the general bridge condition is good and that there is minimal backlog in routine maintenance items.

The Road Maintenance Programme Leader prioritises the list of maintenance items from the annual bridge inspection report. Priorities are based on the element importance factor (EIF, defined in Waka Kotahi S6) and risks to road users and the structure itself. Maintenance works are procured through an appropriate contractor for completion through either the relevant road maintenance contract, or included in the annual tendered Structural Component Replacements contract.

The Road Maintenance Programme Leader chooses the procurement method that provides the best value to the Council. The Council uses RAMM Contractor to manage completion of maintenance work on structures which is better linking maintenance details with asset records held in RAMM.

8.4.4.2 Bridge Component Replacements

The Council's bridge consultant is engaged to complete detailed inspections (if required) and/or detailed design of more complex repairs identified during the routine inspections. Examples of these items include repainting structural steel elements, underpinning piers or abutments, replacing or improving barriers and significant concrete repairs. This work is packaged together and tendered in an annual Structural Component Replacements contract.

8.4.4.3 Bridge Replacement

The Council has developed an indicative bridge replacement programme. Figure 64: Bridge Replacement Programme~~Figure 64: Bridge Replacement Programme~~ shows the future estimated costs of this programme and the average age of bridges at the time of replacement. Bridges shown as "null" age in Figure 64: Bridge Replacement Programme~~Figure 64: Bridge Replacement Programme~~ are actually null points and indicate that there are no bridge replacements planned for that financial year.

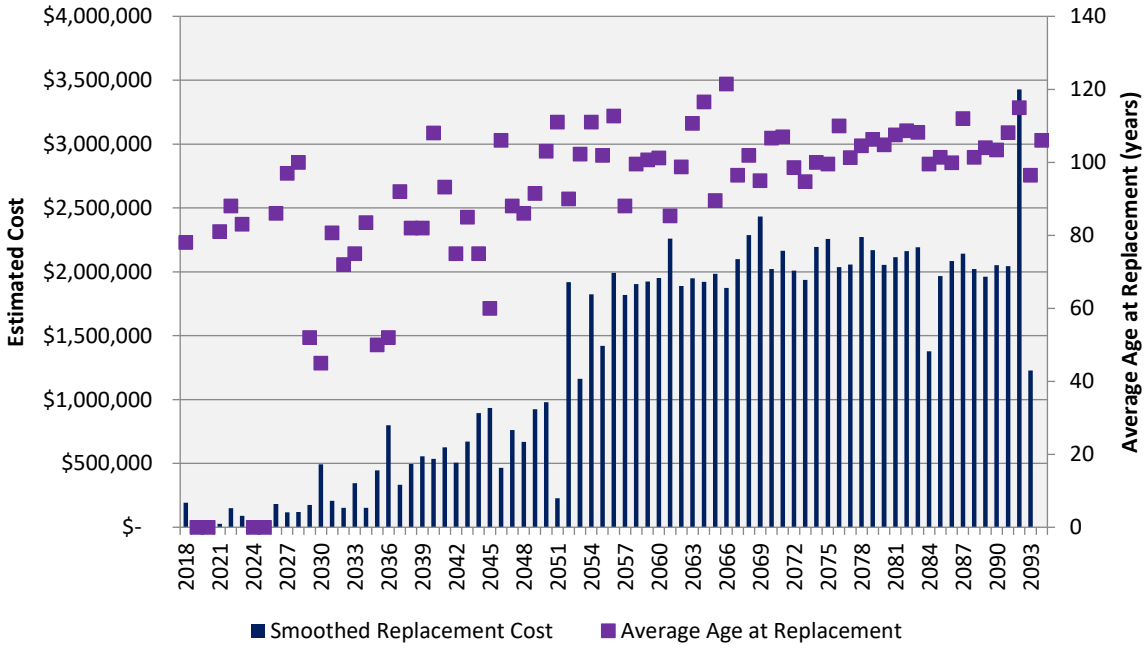


Figure 64: Bridge Replacement Programme

The programme shows that minimal bridge replacements are likely to be required until 2030, at which time the annual replacement expenditure will vary from $500,000 to $1 million. From approximately 2050, the expenditure increases substantially to around $2 million per year.

Bridges are typically long-life structures and in most cases, will last at least 100 years. Figure 64: Bridge Replacement Programme~~Figure 64: Bridge Replacement Programme~~ demonstrates this expectation, although it also shows that some of the Council's bridges have an expected useful life of as little as 50 years. Examples of expected short-life bridges are found on Dry Road on Golden Bay's west coast, where some concrete hollow core deck units constructed in 1985 have been found to have insufficient cover to the steel pre-stressing and reinforcing strands. These deck units will need to be replaced well before their intended 100-year design life.

The 'end of life' scenario for a bridge will vary based on where the bridge is located, and the type of traffic it is required to cater for. In situations where mainly light traffic (cars) use the bridge, and/or it is uneconomic to replace, the Council may defer replacement of the bridge by reducing the weight limit for traffic using the bridge (known as 'posting').

The Council's bridge consultant has estimated the remaining useful life (RUL) of the Council's bridges based on bridge construction date, type, condition, and whether posting is possible. The Council has not accounted for any future demand changes from land use changes, or changes to the vehicle fleet (heavier trucks), in the indicative replacement programme.

The Council has developed an Economic Network Plan (ENP) which models export freight value flows across its road and bridge network. The ENP gives the Council the ability to create scenarios involving changes to land use on the road and bridge network, and test the effect on freight movement and property access. This will assist in optimising investment in bridge replacements and improvement projects.

8.4.4.4 Activities

The specific activities that make up structures maintenance, operations and renewals are:

- Cobb Powerhouse Bridge Maintenance
- Structures Maintenance
- SPR - Structures Maintenance
- Structures Component Replacements
- Bridge Renewals
- Cobb Powerhouse Bridge Renewal

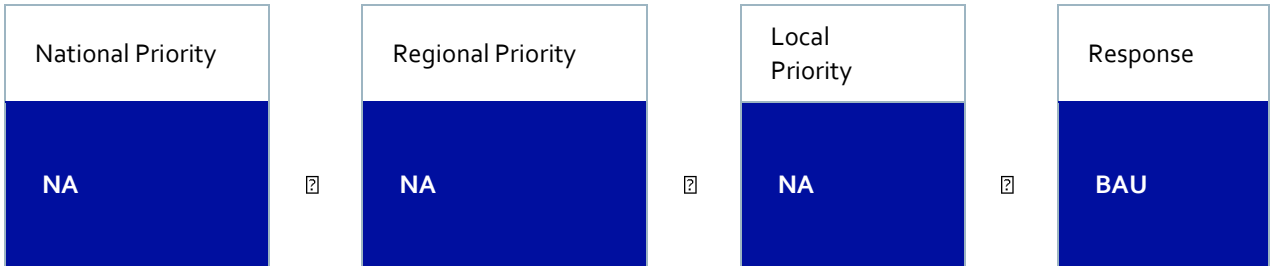
8.4.5 Capital Investment

There are two projects that will include structures assets.

1. The Wensley Road Hierarchy Improvements Project will include retaining walls to extend the usable road reserve width.

2. Lower Queen Street Bridge Capacity Upgrade will include a new bridge over a widened Borck Creek in Richmond West.

8.5 Traffic Services



8.5.1 Current Activity

8.5.1.1 Signs and Delineation

Maintenance requirements are specified in the Council's road maintenance contracts and generally include:

- Inspection and cleaning of signs (annually or as required)
- Checking sign fixings
- Ensuring posts or poles are within 5 degrees of vertical
- Painting of posts
- Repairing crash or vandalism damage

Response times for attending to sign faults are scaled according to the importance of the sign, with regulatory signs (for example, stop and speed limit signs) given highest priority, followed by warning signs, then other signs.

8.5.1.2 Street Lighting

In 2015 the Council significantly changed its street light strategy by upgrading to LED technology. Completion of those renewal works immediately and significantly reduced maintenance and power costs for the long term.

Maintenance and power costs have been reduced by $5.95 million over 30 years when compared with previous costs. In addition to the normal maintenance, contractors undertake non-destructive testing to monitor strength and electrical testing. This started in 2017 in response to an identification of and safety risk.

Future consideration will be given to a centralised management system for street lighting. This has been made possible with the new LED fittings as a management system can be installed as an optional extra. Such systems can enable greater energy savings through controlling levels of light output to where and when it is required, eg, light dimming between midnight and dawn instead of all lights operating at full output throughout the hours of darkness.

8.5.1.3 Traffic Signals

The Council's traffic signals are relatively new with the oldest set installed in 2009. The signals are LED which require very little maintenance and have an expected life of approximately 15 years. Routine and reactive maintenance costs are expected to be minimal due to the good condition of the signals and the associated controlling gear. The ongoing maintenance costs have therefore been based on historic trends.

Traffic signal are monitored and controlled by the Wellington Transport Operations Centre (WTOC). WTOC uses a range of operating procedures that ensure events are managed correctly and consistently.

8.5.1.4 Signs and Delineation

Historic sign renewal rates appear to be well below the 'steady state' renewal rate of 1,300 signs per year, based on an assumed 10-year life scenario. This infers that the actual average life of a sign commonly exceeds 10 years. For this reason, the Council has planned to review signs on a 15 year lifecycle.

The useful lives for pegs are considered reasonable for life-cycle costing, with renewals estimated to cost $70,000 per year.

8.5.2 Asset Condition and Performance

The Tasman network maintenance contractors are required to complete day and night time sign inspections. Signs that are in poor condition with generally poor reflectivity and/or the legend has become illegible will be identified for replacement.

Targeted road marking inspections are undertaken by the Council's contractor twice a year. During these inspections the condition of the marking is assessed and a decision on the need to remark is made. Condition data from these inspections is not recorded in the Council's RAMM database as markings typically have a very short life eg, one to two years.

The Council's Delineation Policy determines the base level of markings to be applied to road sections based on their hierarchy. Sites are then identified on a case by case basis as candidates for additional markings to address specific safety concerns, eg, poor alignments.

8.5.2.1 Traffic Signals

Between the two existing intersections there are a total of nine signals. The asset data for these signals is held in the Council's Confirm database. The condition of the assets are good as they are all less than ten years old.

8.5.2.2 Street Lights

The street light maintenance contractor is required to collect and maintain asset condition data during each visit to an asset. In addition to the normal maintenance, contractors now undertake non-destructive testing to monitor pole strength and electrical testing. This started in 2017 in response to an identification of safety risks. The contractor carries a tablet in the field which allows

for the condition data to be updated immediately in Confirm using Confirm Mobile software. Figure 65: Street Light Condition Summary summarises the condition of the Council's street light pole assets.

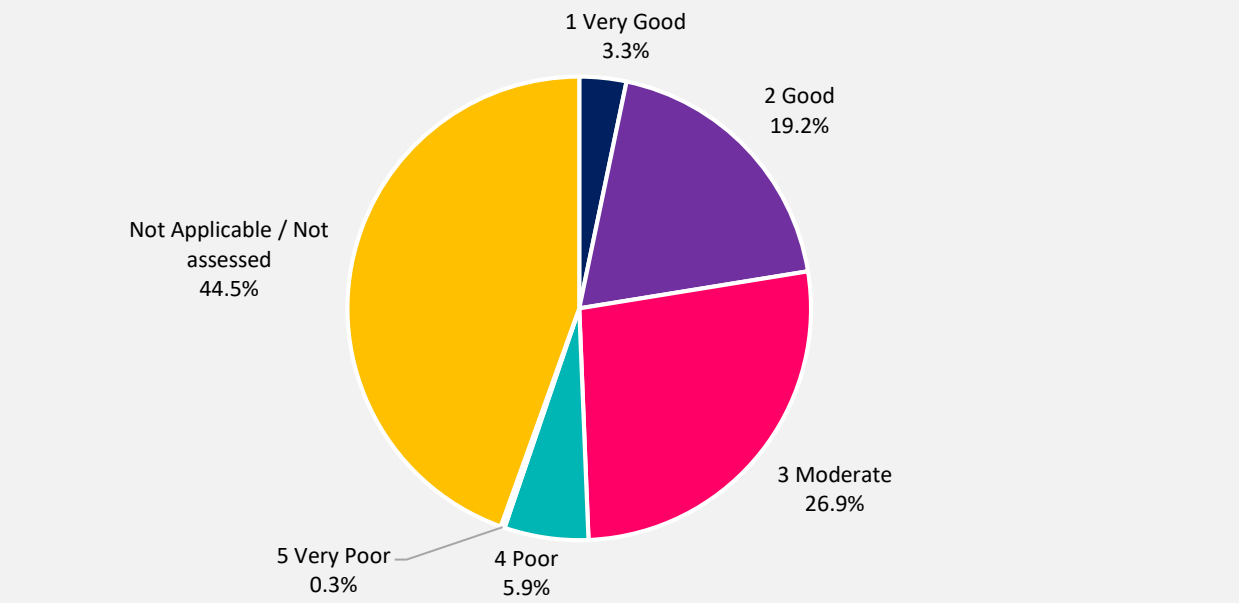


Figure 65: Street Light Condition Summary

8.5.3 Programme Development

There are no national, regional or local priorities that require the development of a new programme to our traffic services activities.

8.5.4 Operations, Maintenance and Renewals

The will be no change in the maintenance programmes, however, the operational costs will increase to take into account new signal added at Berryfiled/Lower Queen Street, Wensley/Oxford and Queen/Salisbury. Signs and lighting fittings will need to be replaced at a greater rate as the network grows. The specific activities that make up traffic services maintenance, operations and renewals are:

- Traffic Services Maintenance
- Operational Traffic Management
- SPR - Traffic Services Maintenance
- Traffic Services Renewals
- SPR - Traffic Services Renewals

8.5.5 Capital Investment

There is on specific traffic service capital investment other than the new assets that are added as part of walking projects (8.6.5), cycling projects (8.7.5) or road improvement projects (8.1.6).

8.6 Walkways

National Priority	Regional Priority	Local Priority	Response
			
Better Travel Options	Current transport form and design constrains access for healthy, safe and sustainable transport choices 30%	Increases in traffic volumes and a lack of safe route choices is creating barriers for people who wish to use active transport modes. 70%	Implement walking part of Walking and Cycling Strategy

8.6.1 Current Activity

The Council currently does not record footpath and walkway usage other than Tasman's Great Taste Trail. However, we know from the 2018 census data that walking as a form of transport to work has not significantly increased. The Council has observed that there have been more use in walkways since the 2020 COVID lockdown periods, however, it has also been observed that much of this increase in usage has been for recreational purposes.

The Active transport strategy foresees increases in people using walkways for transport purposes. Additionally, the Regional Public Transport Plan also anticipates increase in public transport usage that are likely to walk as part of the overall journey.

The Council generally maintains its footpaths and walkways in a reactive manner through the network maintenance contracts. Footpaths are generally subjected to very little loading and consequently they deteriorate slowly. The majority of the Council's footpaths are concrete which have expected lives in excess of 75 years, with the remainder comprised of asphaltic concrete (35%) and chip seal (7.5%). It is uncommon for concrete paths to require maintenance, however when maintenance is necessary it is typically due to lips or tripping hazards caused by tree roots cracking and uplifting sections or subsidence.

The integrity of the surface of asphaltic concrete and chip seal footpaths can be affected if weed growth is allowed to occur within or on the edge of the sealed surface. The weeds can break up the surface, reducing its waterproofing, which can lead to potholing. Therefore, it is important that a weed spray regime is maintained to ensure the surfaces do not prematurely deteriorate.

The Council's town centre footpaths are hot washed on a biannual basis; this usually occurs prior to Christmas each year. The pavers in Sundial Square in Richmond require more frequent maintenance due to the colour and the high volume of pedestrians; this area is cleaned annually. In addition, the Sundial Square pavers are resealed to maintain their integrity.

The walking and cycling strategy identifies maintenance as being important to ensure walkways are suitable for all users. This is especially important for those with limited mobility, or those that rely on devices with wheels. The 2020 footpath condition survey identifies 12 km of existing footpath that is in poor or very poor condition. These footpaths will be remediated through our maintenance contract using an enhanced maintenance programme over the next 20 years.

8.6.2 Asset Condition and Performance

The last condition rating on footpaths was completed in February 2020. The results are shown below in Figure 66: 2017 Footpaths Condition Rating Summary~~Figure 66: 2017 Footpaths Condition Rating Summary~~.

Footpaths that are graded Bad or Poor are assessed for maintenance and/or rehabilitation needs and will be included in the Footpath Rehabilitation Matrix where appropriate. Condition rating is programmed to be completed on a three yearly cycle.

Four condition rating surveys have been completed to date for footpaths and walkways. Whist it is a small sample size there are no obvious trends emerging in the overall condition which are shown in Figure 67: Footpath Condition Trends~~Figure 67: Footpath Condition Trends~~ below.

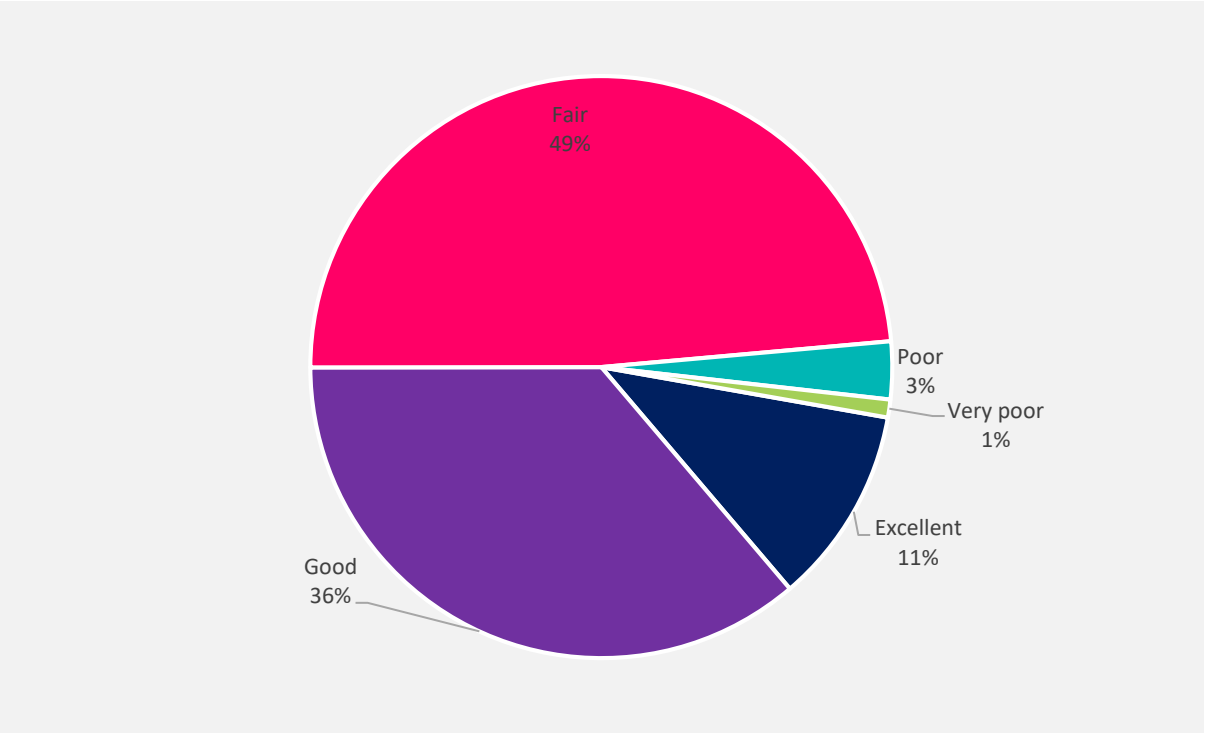


Figure 66: 2017 Footpaths Condition Rating Summary

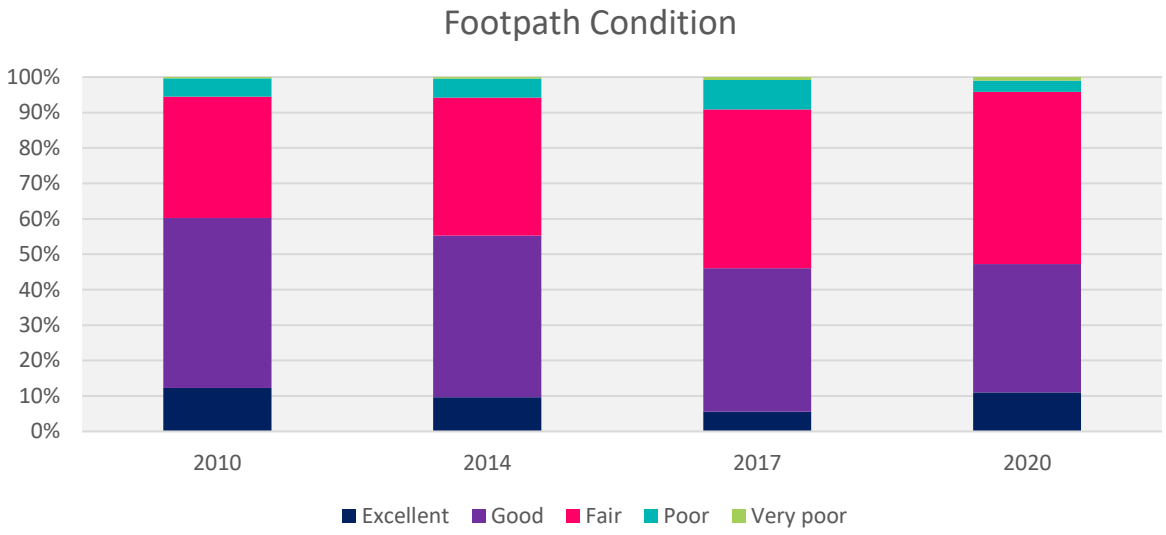


Figure 67: Footpath Condition Trends

Despite there being no obvious deterioration trends, customer services requests for footpaths have been increasing over the last four years as seen in Figure 68: Footpath Customer Service Requests~~Figure 68: Footpath Customer Service Requests~~ below.

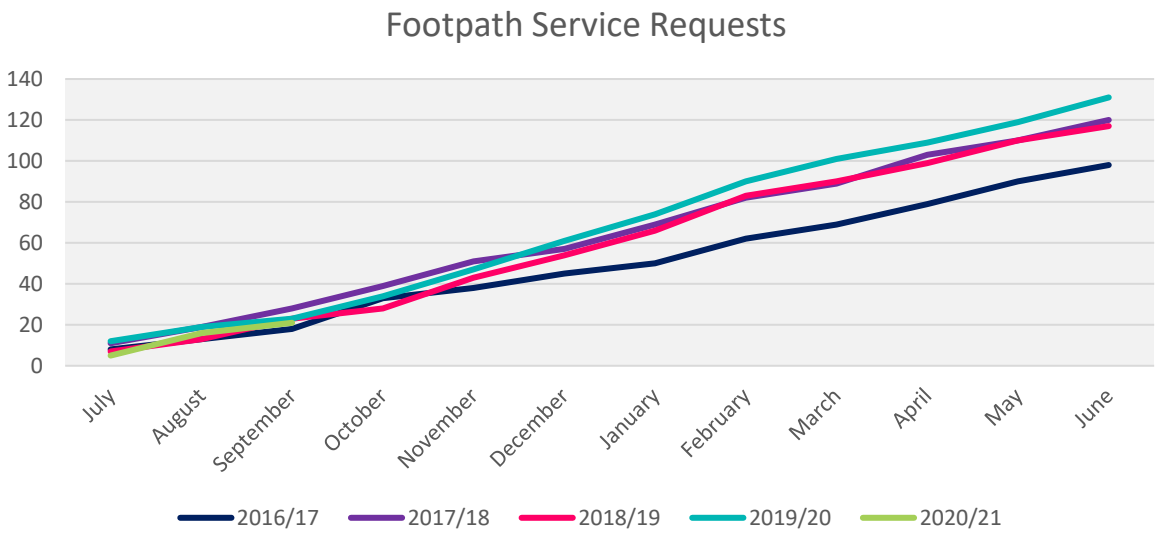


Figure 68: Footpath Customer Service Requests

8.6.3 Programme Development

8.6.3.1 Drivers

- National Priorities

The GPS have a strategic priority on creating better transport options. This is broadly defined as providing people with better travel options to access places for earning, learning, and participating in society.

- Regional Priorities

The RLTP identifies mode choice as a key regional priority. The key responses include implementing the Tasman Walking and cycling strategy which identifies key primary and secondary walking routes around the district.

- Local Priorities

Mode choice has been identified as a key priority. The strategic case identified implementing the walking and cycling strategy the preferred strategic option. Additionally, the strategic case also identified improvements in public transport as a preferred strategic option. Because walking often makes up a portion of any public transport journey, it is logical that footpaths and walkways will need to be improved to support update of public transport services.

8.6.3.2 Analysis

Table 31: Walkways Options Shortlisting

Option - Can we make	Yes/No	Rank	Reason
Option 1: Status Quo (Continue with current investment)	No	5	Does not meet objective for improved public transport
Option 2: Improve footpath condition	Yes	3	Improves condition on existing footpaths
Option 3: Programme of new footpaths (30 years)	No	4	New footpaths are generally away from bus stops
Option 4: Walking and cycling strategy (20 years)	Yes	2	The strategy considers public transport
Option 5: Walking and cycling strategy (10 years)	Yes	1	The strategy considers public transport

Table 32: Walkways Multi-Criteria Analysis~~Table 32: Walkways Multi-Criteria Analysis~~ below

Table 32: Walkways Multi-Criteria Analysis

Criteria	Weighting	How good is this option					
		10 year strategy		20 year strategy		Condition improvement	
		Raw	Score	Raw	Score	Raw	Score
Benefits realised	10%	9	0.9	7	0.7	3	0.3
Improves access (both temporal and spatial)	20%	8	1.6	8	1.6	4	0.8
Supports mode shift (viable travel alternative)	30%	8	2.4	8	2.4	6	1.8

Criteria	Weighting	How good is this option					
		10 year strategy		20 year strategy		Condition improvement	
		Raw	Score	Raw	Score	Raw	Score
Council affordability	40%	4	1.6	6	2.4	8	3.2
Totals	100%		6.5		7.1		6.1

8.6.3.3 Preferred option

Using criteria analysis in Table 32: Walkways Multi-Criteria Analysis~~Table 32: Walkways Multi-Criteria Analysis~~ favours implementing the walking and cycling strategy over 20 years. Implementing the walking and cycling strategy over 10 years meets many of the other criteria, the affordability (with its associated high weighting) means it cannot be recommended.

8.6.4 Operations, Maintenance and Renewals

Footpath and footbridge maintenance will generally stay the same. There is some increased costs of undertaking the work which is reflected in the new budgets. Footpath rehabilitation will be increased to take into account the high number of footpath that have been damaged due to roots. This type of damage cannot be repaired under maintenance, the footpath needs to be removed, the root dealt with and the footpath reinstated.

The Council staff will undertake a process of working with the community over the adoption of the Walking and Cycling Strategy. This will involve talking with community groups around what the strategy will be for different locations.

Specific activities that make up walkways maintenance operations and renewals are:

- Active Transport Integration Consultation
- Footpath Maintenance
- Footbridge Maintenance
- Footpath Rehabilitation
- Brightwater Underpass Component Renewal

8.6.5 Capital Investment

The Walking and Cycling Strategy identifies primary and secondary walking routes around the district. These routes meet a number of key destination criteria (including current and future bus stops). The budget for providing new footpaths has been changed to include improvements to existing footpaths in line with the strategy. This is most likely to occur where an existing footpath is not wide enough to meet the minimum width for a primary walkway. The budget has been lifted from 2027/28 to 2030/31 to include $200,000 per year of additional spending and then $100,000 of additional spending from there on. In addition, $300,000 had been allocated from 2026/27 for new shared paths.

There are several other capital budgets that will indirectly improve walkways including:

- $1,430,000 over six years from 2021/22 to manage vehicle speeds around schools.
- Extra $100,000 pa to make road safety improvements.
- $10.800.000 over 30 years to convert urban residential streets into 'Greenways'.

Specific walkway capital projects are:

- New Footpaths
- Kerb and Channel
- Waimea Inlet Bridge (Mapua)
- New Shared Paths
- Richmond West Active Transport Connections
- Mapua Village Centre Active Transport Integration
- Motueka High Street Active Transport Integration
- Takaka Town Centre Active Transport Integration
- Salisbury Road Active Transport Improvements
- Queen Street and Salisbury Road Intersection Improvements
- Upper Oxford Street Cyclepath
- Oxford / Wensley Intersection Improvements
- Wensley Road Hierarchy Improvements
- Tasman's Great Taste Trail Construction
- Tasman's Great Taste Trail Improvements

8.7 Cycleways

National Priority	Regional Priority	Local Priority	Response
			
Better Travel Options	Current transport form and design constrains access for healthy, safe and sustainable transport choices	Increases in traffic volumes and a lack of safe route choices is creating barriers for people who wish to use active transport modes.	Implement Cycling part of Walking and Cycling Strategy

	20%	35%	

8.7.1 Current Activity

The Council records cyclist using roads, footpath and cycleways as well as using Tasman's Great Taste Trail. Based on the cycle count data, the number of cyclists using on road cycleways has been stable as can been seen in Figure 69~~Figure 69~~ below.

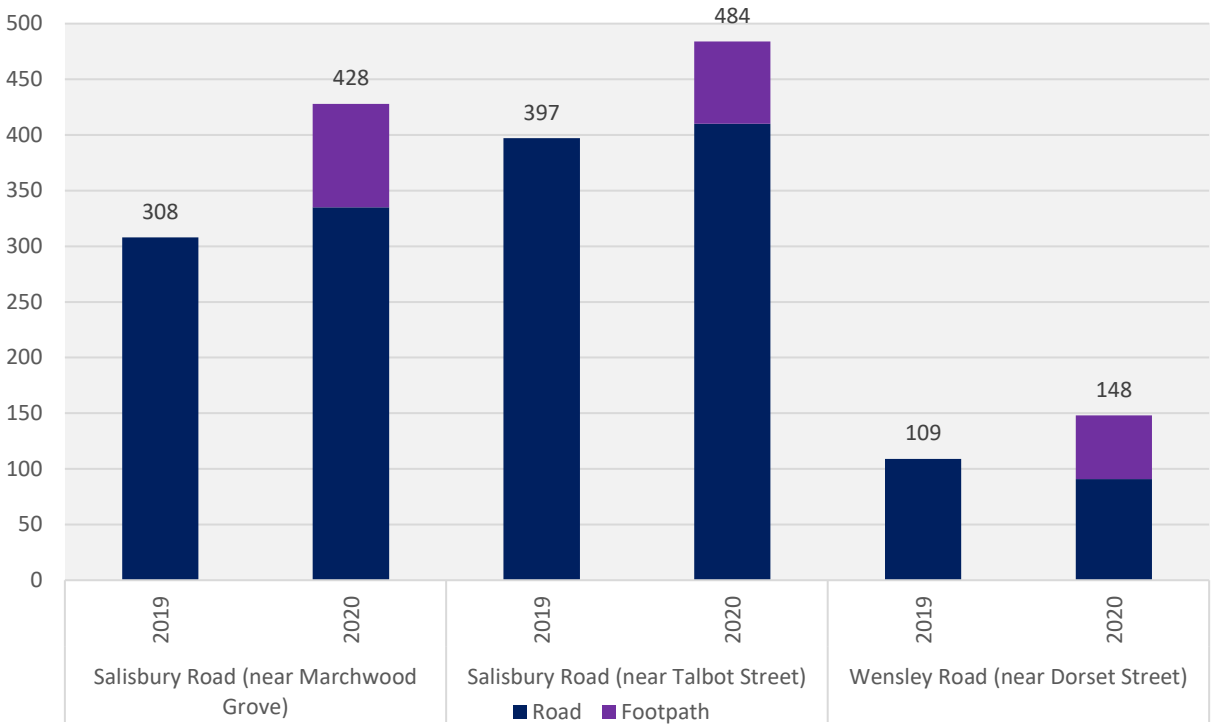


Figure 69: Cycle Path Count Sites (Summer)

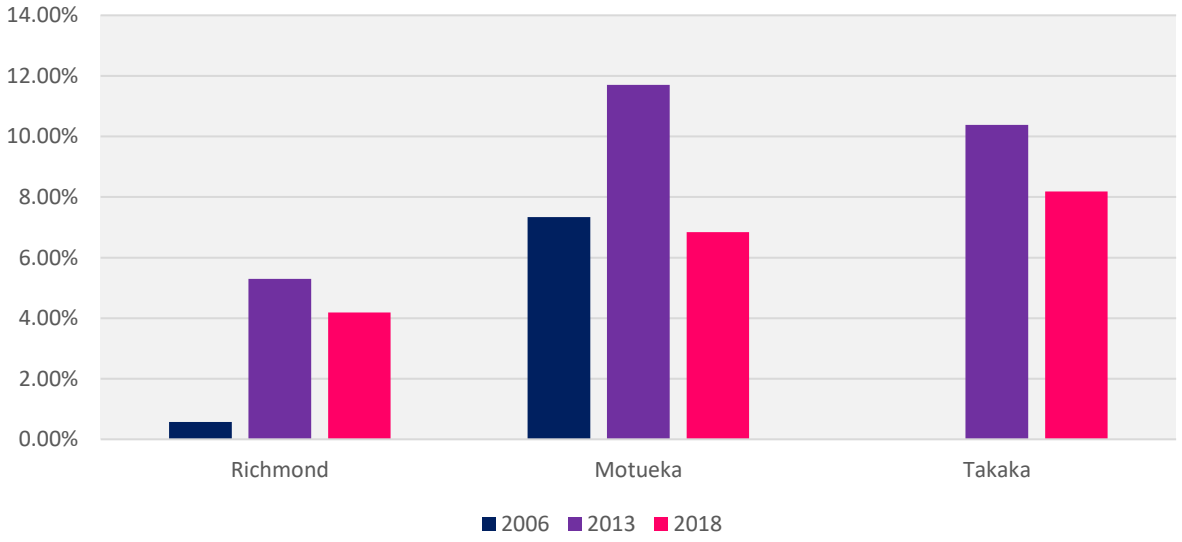


Figure 70: Proportion of People Cycling to Work on Census Day

This modest growth in confirmed by the 2018 census data that cycling as a form of transport to work has not significantly increased in the previous five years. The Council has observed that during there have been more use in cycling since the 2020 COVID lockdown periods as can be seen from the shared path and the walkway count. It should be noted that much of this increase in usage has been for recreational purposes.

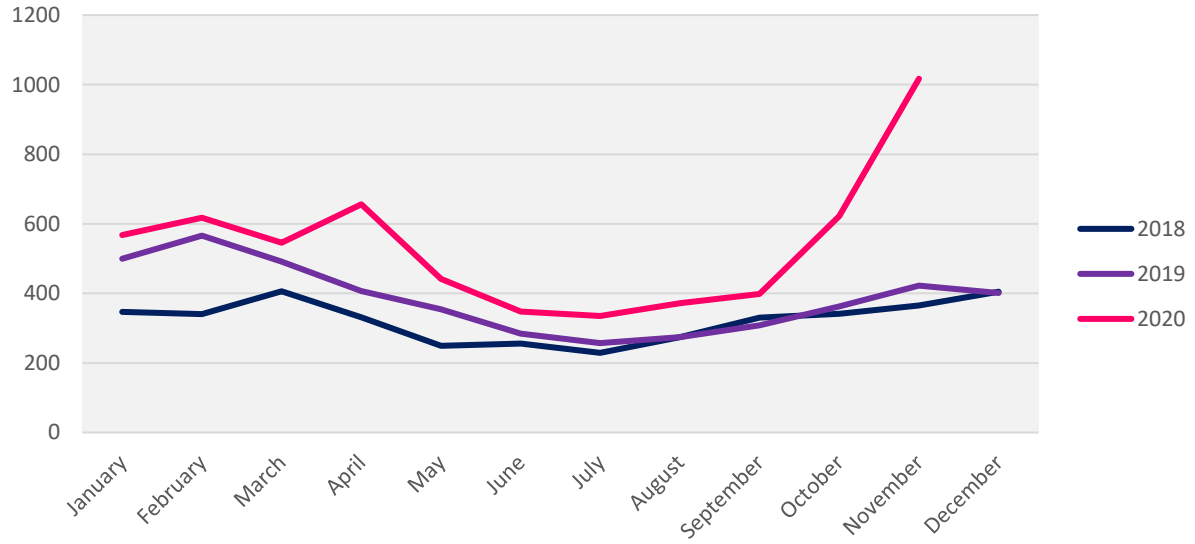


Figure 71: Whakatu Drive Path Count

The Active transport strategy foresees increases in people using cycleways for transport purposes. Cycleways, (similar to the road) maintained using a combination of visual inspections, customer service requests and network condition monitoring.

8.7.2 Asset Condition and Performance

Currently the majority of Tasman's cycleways are Tasman's Great Taste Trail. This is predominately off road shared path, but does also include a small section of on road cycleway along Salisbury Road, Oxford Street and Wensley Road. Currently the Council does not ask for resident satisfaction levels with the districts cycleways, but the Great Taste Trail undertakes a survey every year.

The last condition rating survey was undertaken in May 2014 for the off-road cycleways listed in Table 5: Cycleway Inventory. The results of the survey are shown in Figure 72~~Figure 72~~. The Council has not undertaken another condition survey since then, but did undertake a Great Rides trail warrant of fitness in May 2019. The majority of the Council's off-road cycleways are in good to excellent condition (96%), and the remainder in average condition (4%). This condition survey reflects the recent construction of the Great Taste Trail. The 2019 warrant of fitness did not identify any condition issues, but the surface was only one of a number of parameters under review. Whilst there is not a recent condition survey and the condition is assumed to be less than 2014, it is expected that the Great Taste Trail condition is in good condition due to the maintenance contractors requirements to ride the entire trail every month and undertake maintenance to maintain Great Rides condition.

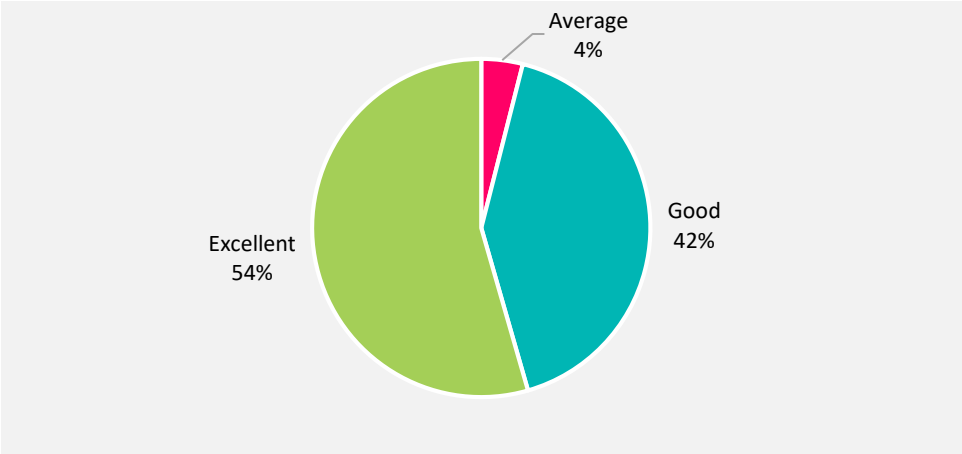


Figure 72: Cycleways Condition Rating Summary

8.7.3 Programme Development

8.7.3.1 Drivers

- National Priorities

The GPS have a strategic priority on creating better transport options. This is broadly defined as providing people with better travel options to access places for earning, learning, and participating in society.

- Regional Priorities

The RLTP identifies mode choice as a key regional priority. The key responses include implementing the Tasman Walking and cycling strategy, which identifies key cycling primary and secondary routes around the district.

- Local priorities

Creating a cycleway network has been identified as the strategic response to addressing the active transport key issue. Additionally, the Council has struggled to meet the level of service around increases in the number of people using the cycleways.

8.7.3.2 Analysis

Table 33: Cycleways Options Shortlisting

Option - Can we make	Yes/No	Rank	Reason
Option 1: Status Quo (Continue with current investment)	No	5	Current investment focusses on the Great Taste Trail
Option 2: Improve existing cycleways only	No	4	Current cycleways don't connect key locations
Option 3: Walking and cycling strategy (key routes programme)	Yes	3	Meets objectives and optimises programme
Option 4: Walking and cycling strategy (20 year programme)	Yes	2	Meets objectives and includes interium interventions

Option - Can we make	Yes/No	Rank	Reason
Option 5: Walking and cycling strategy (10 year programme)	Yes	1	Best meets objectives

Table 34: Cycleways Multi-Criteria Analysis

Criteria	Weighting	How good is this option					
		10 year strategy		20 year strategy		Key routes strategy	
		Raw	Score	Raw	Score	Raw	Score
	10%	9	0.9	9	0.9	6	0.6
	20%	9	1.8	9	1.8	7	1.4
	30%	9	2.7	9	2.7	5	1.5
	40%	3	1.2	4	1.6	9	3.6
	100%		6.6		7		7.1

8.7.3.3 Preferred option

Using criteria analysis in Table 34: Cycleways Multi-Criteria Analysis~~Table 34: Cycleways Multi-Criteria Analysis~~ favours implementing key routes in the walking and cycling strategy. Implementing the walking and cycling strategy over 10 years meets many of the other criteria, except for affordability (with its associated high weighting), whilst it would be a preferred option, it cannot be recommended option.

8.7.4 Operations, Maintenance and Renewals

8.7.4.1 On-Road

On-road cycleways currently form part of the sealed carriageway and as such are maintained as part of the sealed pavement. There are no specific on-road cycleway maintenance activities undertaken.

8.7.4.2 Off-Road Shared Paths

Off-road shared paths are managed and maintained the same as for the Council's footpath assets.

8.7.4.3 Tasman's Great Taste Trail

The Trail is comprised of concrete, asphaltic concrete, chip seal and unsealed surfaces. Some sections of the trail existed prior to the conception of Tasman's Great Taste Trail. These sections were either maintained by Transportation, or Parks and Reserves depending on their location. The pre-existing sections continue to be maintained by the original department. The sections of Trail that were not pre-existing assets are maintained under a separate term maintenance contract which is currently held by the Nelson Tasman Cycle Trails Trust. Key maintenance items include surface repairs, vegetation control and sign maintenance. Maintenance of the gravel surface including 'top-ups' as required to maintain the running surface is included as part of the maintenance works.

8.7.4.4 Activities

Specific maintenance, operations and renewals activities are:

- Active Transport Integration Consultation
- Footpath Maintenance
- Footbridge Maintenance
- Cycle Path Maintenance
- Tasman's Great Taste Trail Maintenance
- Great Taste Trail Unforeseen Events
- Footpath Rehabilitation
- Brightwater Underpass Component Renewal
- Cycle Path Resurfacing

8.7.5 Capital Investment

Cycling capital projects include:

- Borck Creek Cycle Trail Bridge
- Richmond Cycle Lanes
- Mapua Cycle Lanes
- Motueka Cycle Lanes
- Takaka Cycle Lanes
- New Residential Greenways
- Waimea Inlet Bridge (Mapua)
- New Shared Paths
- Mapua Village Centre Active Transport Integration
- Motueka High Street Active Transport Integration
- Takaka Town Centre Active Transport Integration
- Salisbury Road Active Transport Improvements
- Queen Street and Salisbury Road Intersection Improvements

- Upper Oxford Street Cyclepath
- Oxford / Wensley Intersection Improvements
- Wensley Road Hierarchy Improvements
- Tasman's Great Taste Trail Construction
- Tasman's Great Taste Trail Improvements

8.8 Public Transport

National Priority	Regional Priority	Local Priority	Response
			
Better Travel Options	The transport network is unable to cope with the demands of sustained population and economic growth and is constraining access to social and economic opportunities. 30%	Tasman's transportation network are unable to support the increasing vehicles thereby eroding levels of service, creating barriers and effecting social wellbeing in urban areas. 70%	Enhanced public transport services that are available most times

8.8.1 Current Activity

Public transport services between Richmond and Nelson have been slowly improving over that last five years with additional late night, weekend services and Wi-Fi services. August 2020 saw the single most significant change to public transport services with changing of the fare structures and introduction of electronically ticketing. This made a one-way journey between Richmond and Nelson CBD change from $4.00 to $2.80 (using the electronic ticket).

In August 2020, the Council also introduced a bus service that provides connection within Richmond and a link with the routes 1 and 2 that travel into Nelson. This service was procured through Nelson City Council's existing bus services contract to ensure that there would be a seamless connection for users.

In July 2019, a not for profit community trust started running a public transport service between Wakefield and Richmond. This initially started as one service one day a week, but is growing and now provides two services per week with additional services under development. In addition, the trust also has a service for Mapua residents. Another trust runs a service within and from Golden Bay to Nelson for medical appointments.

8.8.2 Performance

Public transport connecting Richmond with Nelson is generally well supported by the community but the patronage levels have been stagnant for the last five years. There was a small increase in the Richmond route patronage 2019 as shown in Figure 73 below, but COVID-19 meant that the first half of 2020 patronage has been down. Irrespective of patronage, it was difficult to understand how many Tasman residents use public transport given the routes cross the boundary.

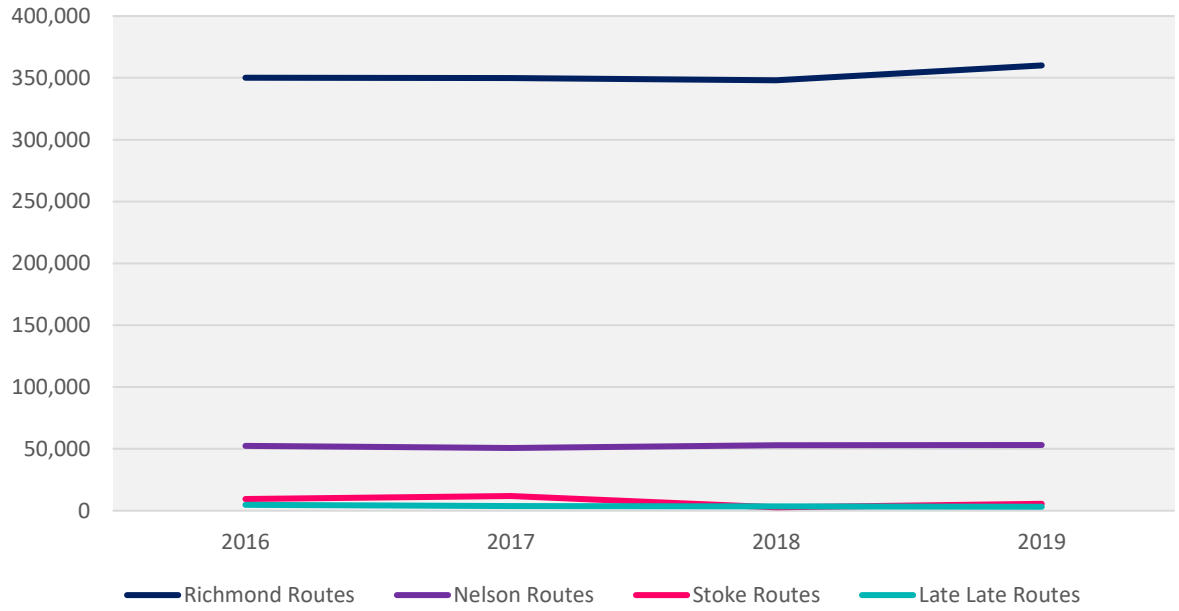


Figure 73: Yearly Patronage on Public Transport

The introduction of the electronic ticket service allows a greater level of information than we previously had. We will require multiple years to fully understand the trends, but information from the first few month with the electronic ticket system will be able to show the number of people get on or off routes 1 or 2 in Tasman.

Golden Bay Community Services Transport Trust has been slowly increasing the number of passengers. Nelson Tasman Community Transport Trust has also seen a steady increase in the number of passengers on the Wakefield Community Bus. Mapua Willing Wheels started in August with the aim to provide on demand transport services for Mapua and surrounding districts residents.

8.8.3 Programme Development

8.8.3.1 Drivers

- National Priorities

The GPS have a strategic priority on creating better transport options. This is broadly defined as providing people with better travel options to access places for earning, learning, and participating in society.

- Regional Priorities

The RLTP identifies mode choice as a key regional priority. The key responses include implementing the Regional Public Transport Plan (RPTP), which identifies key improvements to public transport services.

8.8.3.2 Programmes Definition

Name	Urban Routes	Urban fares	Rural Routes	Other rural	Rural Fares	Capital Investment
Option 1 - Steady progression (do minimum)	Current	Proposed 3 zone	CT x 3	None	None	Low emission bus
Option 2 - Cheaper and nearby	New network	Low single	Full CT	CT	None	Superstops, bus stop improvements, low emission bus
Option 3 - Available most times	777	Low single	Low emission	CT	2 outer zones	Superstops, bus stop improvements, low emission bus
Option 4 - Easy to remember	777 + frequency	Low single	5 days (6/4 per day)	CT	2 outer zones	Showgrounds P&R trial, superstops, bus stop improvements, low emission bus (plus feasibility studies for ferry and Todds Bush)
Option 5 - Get about with ease	777 + freq + peak	Low single	7 days (6/4 per day)	CT	2 outer zones	Showgrounds P&R trial, superstops, bus stop improvements, low emission bus (plus feasibility

						studies for ferry and Todds Bush)
Option 6 - Ditch the car (do maximum)	777 + freq + peak + evening	Low single	7 days (6/4 per day + ferry)	CT	2 outer zones	Showgrounds and Todds Valley P&R, superstops, bus stop improvements, low emission bus

8.8.3.3 Analysis

Option - Can we make	Yes/No	Rank	Reason
Option 1 - Steady progression (do minimum)	No	6	Won't respond to requirements or public expectations
Option 2 - Cheaper and nearby	Yes	3	
Option 3 - Available most times	Yes	1	
Option 4 - Easy to remember	Yes	2	
Option 5 - Get about with ease	No	4	Unfordable as an intermediate step
Option 6 - Ditch the car (do maximum)	No	5	Desirable but not afforable in 10 years

Criteria	Weighting (Importance) (Total to 100%)	How good is this option					
		Option 2		Option 3		Option 4	
		Raw	Score	Raw	Score	Raw	Score
Good Environmental impacts	7%	4	0.28	6	0.42	7	0.49
Closing Customer and Technical LoS gaps and impacts	7%	7	0.49	8	0.56	9	0.63
Improves access (both temporal and spatial)	7%	5	0.35	6	0.42	7	0.49
Supports mode shift (viable travel alternative)	29%	4	1.16	6	1.74	7	2.03
Supports positive growth (urban development)	10%	4	0.4	6	0.6	7	0.7
Council affordability	40%	9	3.6	8	3.2	6	2.4
Totals	100%		6.28		6.94		6.74

8.8.3.4 Preferred Option

The MCA above indicates that the 'Avaliable Most Times' option best meets the criteria. This option gave a good balance of service and cost. Greater details of new services are included in the RPTP 2021.

8.8.4 Operations, Maintenance and Renewals

The Council will work with Nelson City Council to change the public transport services inline with the preferred option. This will include creation of single entity to setup and operate the new public transport services. The existing 8 routes will be consolidated into 4 urban routes with some routes extending into rural zones in the AM and PM peak as shown in Figure 74: New Public Transport Routes~~Figure 74: New Public Transport Routes~~.

The Council will extend bus services around Richmond and will investigate what additional services will be of benefit to the wider community. This is in response to changes in central government priorities and public demand for extended and prioritised services.

The Nelson/Tasman Regional Public Transport Plan (RPTP) provides a higher level of information of the routes, fares, frequency and other details.

Figure 74: New Public Transport Routes

Specific public transport maintenance operations and renewals activities are:

- Total Mobility
- Bus Service Marketing

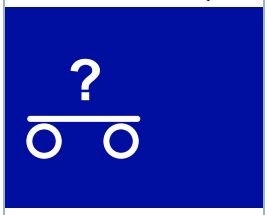
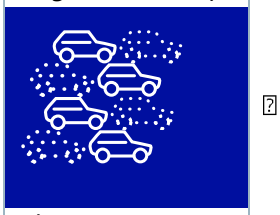
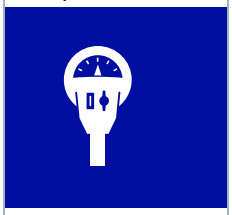
- Travel Demand Management
- Richmond Public Transport Services
- Richmond Bus Extensions
- Motueka Public Transport Services
- Wakefield Public Transport Services
- Regional Transport Services
- Public Transport Management
- Mapua Ferry

8.8.5 Capital Investment

Public transport capital projects include:

- Public Transport Infrastructure
- Richmond Bus Terminus

8.9 Parking

National Priority	Regional Priority	Local Priority	Response
			
Better Travel Options	The transport network is unable to cope with the demands of sustained population and economic growth and is constraining access to social and economic opportunities. 30%	Tasman's transportation network are unable to support the increasing vehicles thereby eroding levels of service, creating barriers and effecting social wellbeing in urban areas. 70%	Makes parking changes to support public transport services

8.9.1 Current Activity

In 2018, the Council approved a parking strategy for Richmond and Motueka town centres. This was in response to increasing calls for more parking spaces to meeting demand. The strategy allows parking to grow into adjacent residential streets rather than creating additional off street car parks. The balance of long term and short term parking will be inline with Figure ??. The change in numbers of short and long term parking would be based on levels of service. To reduce demand on car parks, the Council will encourage other modes of transport that reduce the need for car parking spaces. The Council will allow the use of funds, earmarked for parking to be spent on active transport and public transport infrastructure.

8.9.2 Asset Condition and Performance

The last condition rating of carparks was completed in May 2014. Carparks are rated on the same faults as sealed carriageways. Since this condition inspection and rating, the Council undertakes maintenance inspection on a regular basis and to ensure that all components of the carpark are in good condition. From these inspections, maintenance contractors are instructed to make repairs as necessary.

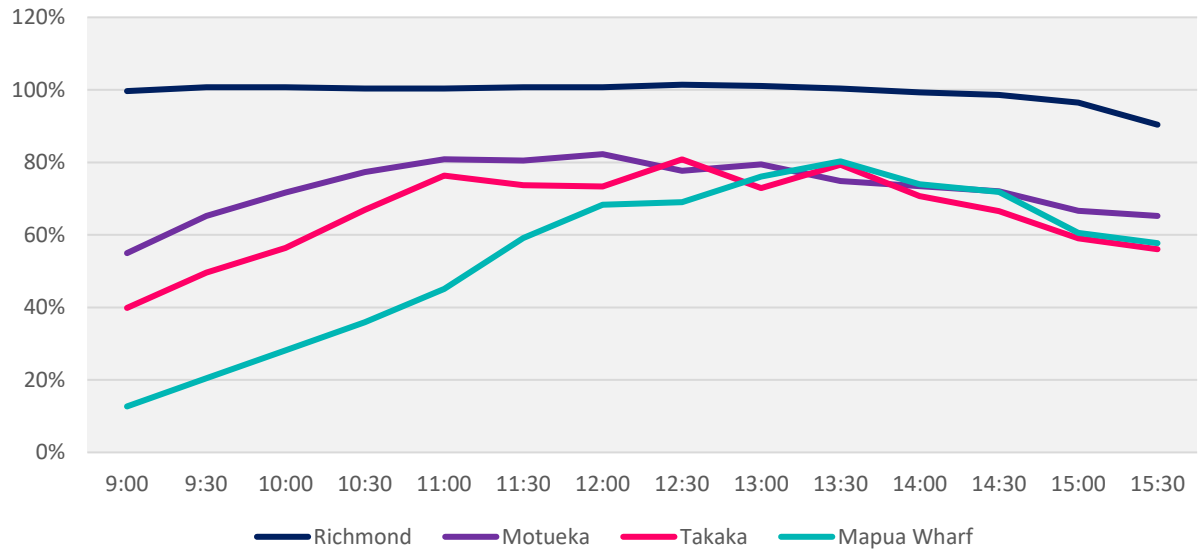


Figure 75: Unrestricted Parking Occupancy, Summer 2019/20

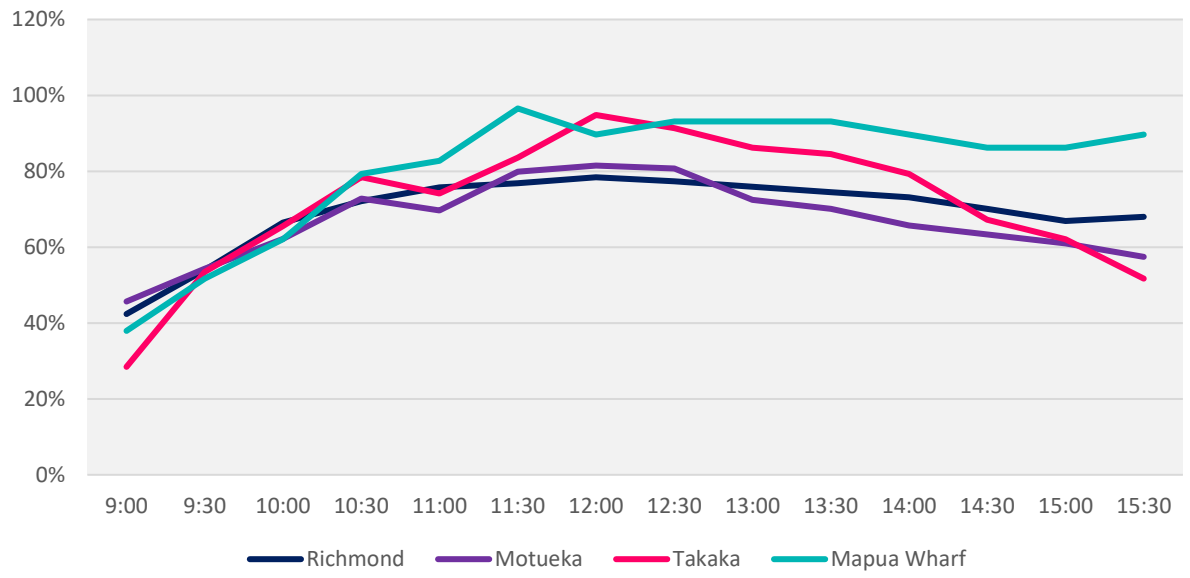


Figure 76: Restricted Parking Occupancy, Summer 2019/20

8.9.3 Programme Development

A programme of interventions into parking has been optioned, considered and consulted on in the Richmond and Motueka Town Centre Parking Strategy. The programme will broadly follow the proposed plan on page 11.

8.9.4 Operations, Maintenance and Renewals

All aspects of the maintenance of the Council's off-street car parking areas are not subsidised by the Waka Kotahi. Consequently, carpark maintenance activities do not need to be broken down into the Waka Kotahi's work categories. Therefore, carpark maintenance activities are practically managed and maintained at an activity level but are funded from an overarching account.

Carpark maintenance activities include:

- Sealed pavement maintenance
- Vegetation control
- Signs and pavement markings
- Detritus and litter
- Drainage.

The annual maintenance budget allows for all of the above activities and forecast expenditure is based on historic actual expenditure and maintenance trends.

8.9.5 Capital Investment

Parking capital investment is limited to lighting improvements and installation of parking meters in line with the parking strategy.

8.10 Safety

National Priority	Regional Priority	Local Priority	Response
		NA	
Safety	User behaviour and roads are no longer fit for purpose and cause death and serious injuries. 25%	.	Speed Management

8.10.1 Current Activity

The Council's safety activities are broadly broken into two categories.

The Council undertakes a programme of asset safety improvements in response to identified safety issues. This can include intersection improvements, crossing interventions or removal of a tree. The larger projects are programmed to ensure that funding is available, but there is a programme of low cost projects that are not scheduled and are able to responds to immediate needs as they are identified. These projects are often identified by the community bring an issue to the attention of the Council.

The Council also administers a suite of safety programmes that target high risk transport users. These programmes have recently focussed on young drivers, children on bikes and motor cycle riders. These programmes also includes targeted advertising to address a specific safety issue like wearing seat belts, driving whilst under the influence of drugs or keeping to the left. The Council can also target a specific area using roadside advertisements.

8.10.2 Asset Condition and Performance

Whist the death and serious injury crashes (DSI) have been higher since 2015, the DSI's in 2017/18 was abnormally high. If the number of DSI crashes in 2017/18 was averaged out, the 10 year trend is decreasing. When collective and personal risk is compared to other similar road networks in New Zealand, it can be seen that we compare about the same or better than the average as can be seen in Figure 77: Tasman's Collective Safety Risk Compared with Peers~~Figure 77: Tasman's Collective Safety Risk Compared with Peers~~ and Figure 78: Tasman's Personal Safety Risk Compared with Peers~~Figure 78: Tasman's Personal Safety Risk Compared with Peers~~ below. Considering the relative low numbers of DSI crashes and no significant increasing trend, safety is not considered a significant issue on local Tasman roads.

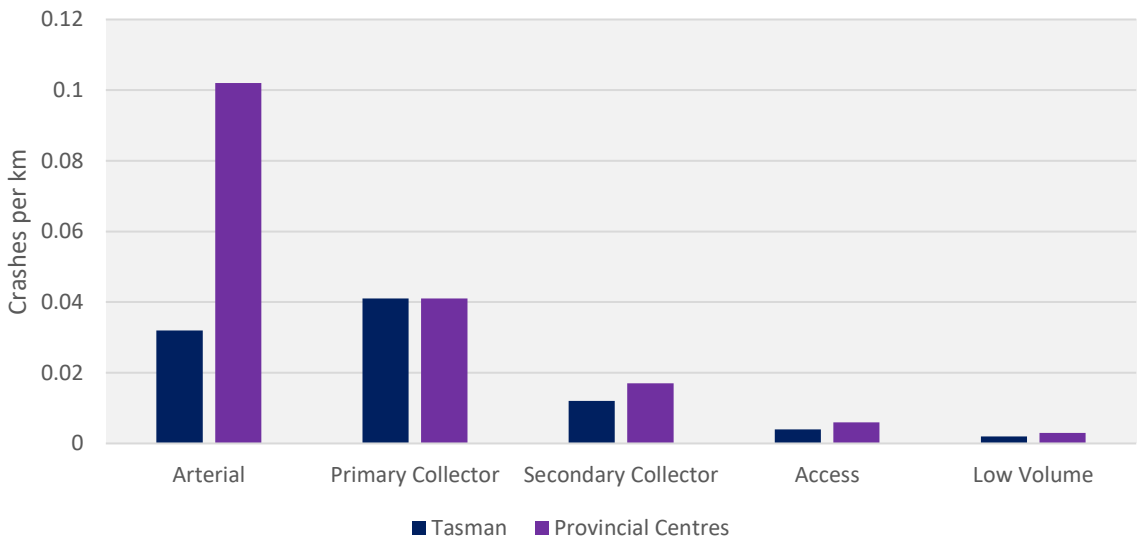


Figure 77: Tasman's Collective Safety Risk Compared with Peers

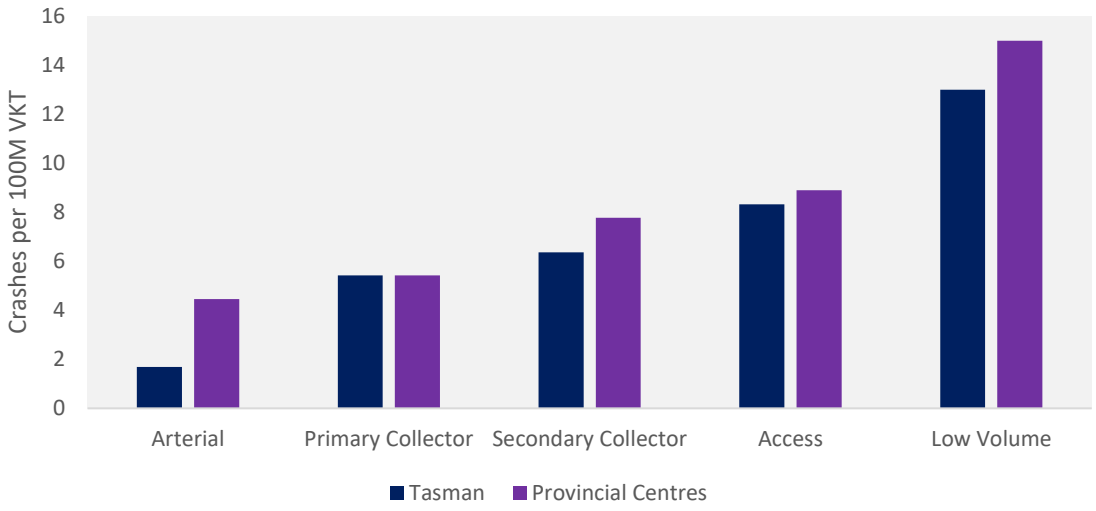


Figure 78: Tasman's Personal Safety Risk Compared with Peers

When the collective and personal risk is reviewed across all the road classifications, the two classifications that there is an obvious increase in risk is Primary Collector and Low Volume roads as seen in Figure 79: Collective Risk across Road Classifications~~Figure 79: Collective Risk across Road Classifications~~ and Figure 80: Personal Risk across Road Classifications~~Figure 80: Personal Risk across Road Classifications~~ below. Further examination shows that rural Primary Collector and urban Low Volume roads are the highest risk.

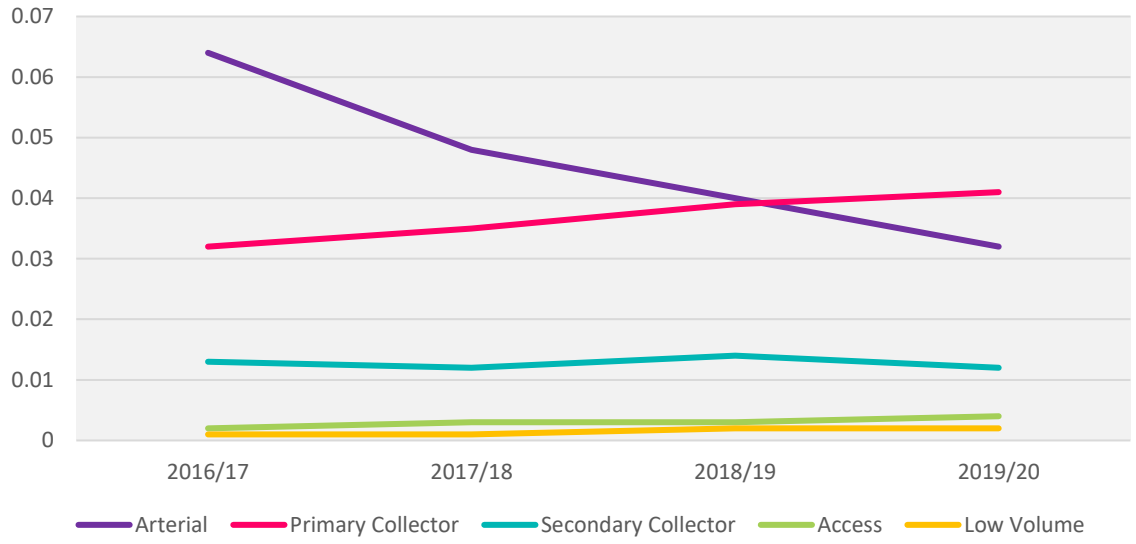


Figure 79: Collective Risk across Road Classifications

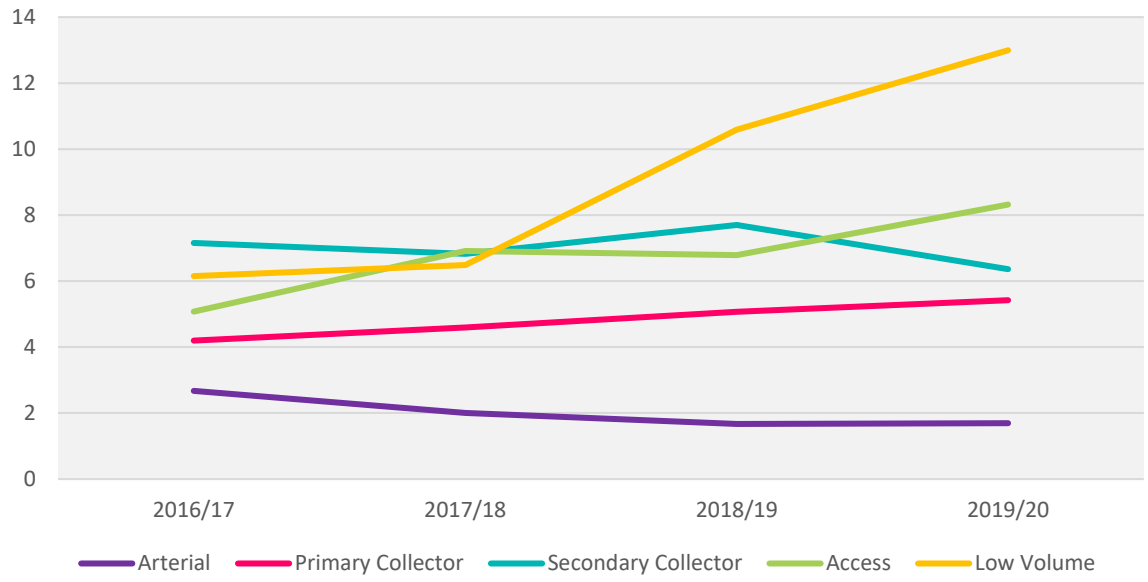


Figure 80: Personal Risk across Road Classifications

Given the low DSI numbers, in addition to mandatory reactive monitoring of the number of DSI crashes, the Council are monitoring community perceptions of safety and whether speed limits are appropriate for the road environment.

8.10.3 Programme Development

The performance of the district is generally at a level that is better than similar networks in New Zealand. The crashes that do happen on Tasman local roads

8.10.4 Operations, Maintenance and Renewals

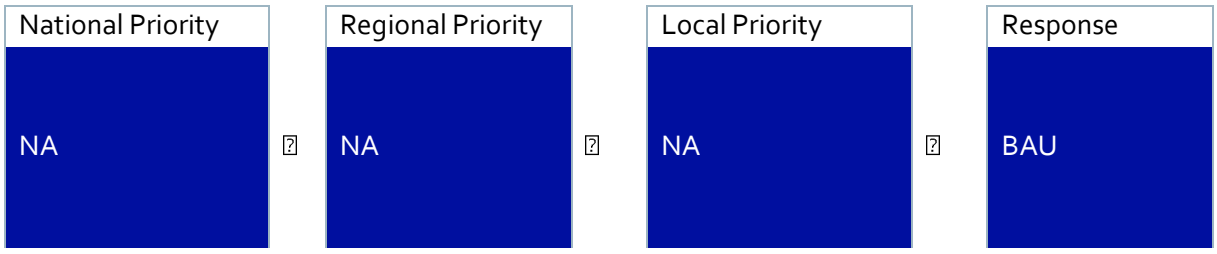
The only maintenance, operational or renewal activity is the road safety programmes. Any new assets that are constructed or installed are maintained under other activities.

8.10.5 Capital Investment

There are three capital investment programmes:

1. Roadside safety mitigation is removal of obstacles on the sides of roads that increases the risk of death or serious injury when a driver makes a mistake. This is generally removing trees, but can be other hazards such as poles or increasing the seal width.
2. Reactive safety improvements undertakes minor safety improvements as they are identified. This can be anything form constructing a kerb drop to reforming a curve in the road.
3. School speed management is a programme to install safety interventions around schools to encourage drivers to observe the posted speed limit, which improves safety for children.

8.11 Vegetation



8.11.1 Current Activity

8.11.1.1 Minor Slips and Trees

This is generally reactive maintenance, with weather events and natural processes causing slips and/or trees to fall onto the carriageway, shoulder and/or drainage channel. In these situations, it usually requires rapid response by contractors to restore road access and/or protect transportation assets. Forecast costs are based on historic expenditure. The Council has been investigating opportunities for proactive works to reduce reactive costs by identifying and procuring tree removal and/or batter trimming in a cost-effective manner.

8.11.1.2 Pest Plant Control

Pest plant control within the local roading network corridor is currently 100% funded by the Council, i.e., no funding assistance is received from Waka Kotahi. Target species are typically Gorse and Broom but also include Blackberry, Old Man's Beard, Banana Passionfruit, Spanish Heath, Pampas Grass and Yellow Bristle Grass. Specialist contractors are engaged to chemically treat the plants when it is most effective to do so and when the risk to adjacent vegetation and crops is minimal, typically early spring and late autumn. Although this work has a healthy budget, with the relatively recent and increasing presence of species such as Yellow Bristle Grass this will likely need to be reassessed in the near future.

8.11.2 Programme Development

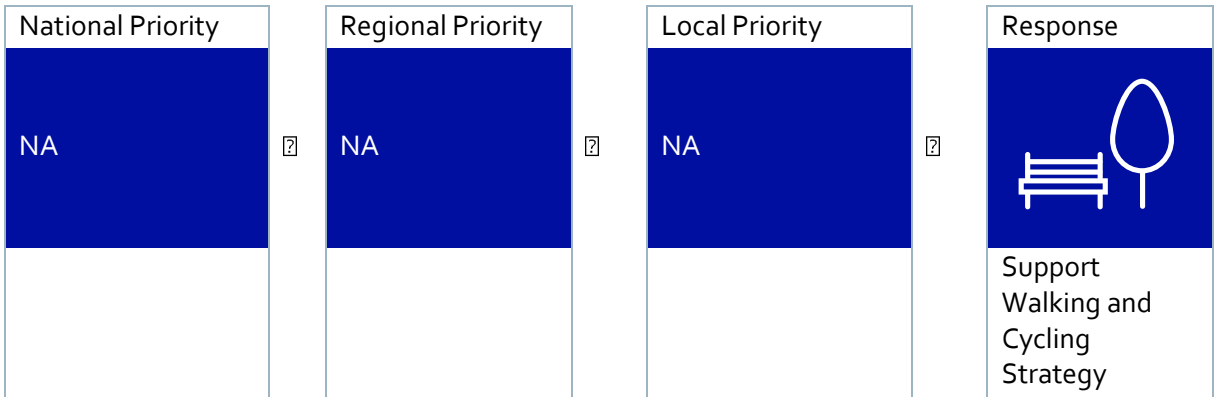
8.11.2.1 Operations, Maintenance and Renewals

Historically both mowing and spraying have been performance-based activities with the contractor paid a lump sum per month to achieve required minimum outcomes, eg, maximum grass height. At times, particularly during spring, this resulted in frequent mowing and relatively high associated costs due to the contractors pricing for the risk of rampant grass growth occurring.

In 2012, the Council changed its mowing specification for the Tasman Urban and Rural contracts to specify two network wide mows per year, this removed most of the risk from the contractor. The specification change made a saving, this however led to a greater level of customer dissatisfaction. This AMP includes funding for a consistent mowing level of service of four mows per year around the District, more in line with public expectations.

In addition to spraying and mowing this activity includes maintaining roadside plantings and cleaning up after storm events.

8.12 Amenity



8.12.1 Current Activity

8.12.1.1 Asset Condition and Performance

The Council does not currently collect condition data for street furniture assets.

8.12.2 Operations, Maintenance and Renewals

The maintenance of the Council's amenity involves the following activities:

- Maintaining and repairing litter bins
- Maintaining and repairing seats, including periodic oiling of wooden slats
- Maintenance and operation of the Sundial Square water feature
- Maintenance and repair of decorative bollards, shade structures and other miscellaneous furniture items
- Environmental maintenance
- Street cleaning.

Maintenance is generally conducted in a reactive manner due to vandalism or vehicle damage. The network maintenance contractor is responsible for the maintenance of all street furniture except for the Sundial Square water feature; this asset is maintained by under a separate contract. At times of water shortage, the water feature is turned off.

Emptying of the litter bins is a requirement of the network maintenance contractor. The frequency requirements for emptying the bins is set out in the network maintenance contract specifications.

The transportation team are investigating how the Council could combine emptying of road side littler bins with the parks and reserves bins to achieve better efficiencies. Some high use and remote bins have been replaced with 'big-belly' compacting bins which require emptying less often.

Reactive renewal of street furniture is generally due to vandalism or vehicle damage. Most of the time this type of damage can be repaired through maintenance but from time-to-time complete renewal of the asset eg, a seat or bus shelter may be required. There has been and are proposed a number of capital projects that will significantly increase the total number of these types assets. It is expected that replacement will occur infrequently and therefore the Council has only budgeted $16,000 per year for reactive renewals. An additional budget of $7,700 per year has also been included to allow for replacement of litter bins.

The Council takes a proactive approach to street furniture renewal at the time of undertaking town centre renewals. Town centre renewal projects look to improve the functionality and aesthetics of shared spaces within the town centre and usually result in the installation of new and/or replacement furniture. The Council has planned to undertake town centre renewals on a 15-year cycle.

8.12.3 Capital Investment

There is no capital investment projects planned to deliberately improve amenity within the next ten years. However, several projects will include assets to improve the look, feel and liveability of a road environment. The scope of the projects are likely to include public seating, rubbish bins, street art and specific surface treatments. The projects that are likely to include these feature are shown in

8.13 Operations and Maintenance Summary

8.13.1 Key Maintenance and Operational Themes

8.13.1.1 Damage from Natural Hazard Events

In November 2017 Tasman experienced two significant storm events, one was coastal inundation and the the other was extremely heavy rainfall. Both events led to flooding, slips and debris flows resulting in damage to the Council's infrastructure and private property. Damage to the Council's transport infrastructure cost around $6 million for both events, in contrast to annual spending of $1million annually to clean up and make repairs from regular events.

As well as these more significant events, there has been an increase in the severity and frequency of storm events occurring in Tasman during recent years. This has resulted in a significant increase in emergency works costs. Consequently, forecast average expenditure has been increased to $2 million per year to align with recent trends. Actual expenditure is expected to vary in any given year, so the Council have budgeted for this amount to be placed in a reserve fund.

8.13.1.2 National Land Transport Fund

Waka Kotahi has signalled that the anticipated requests for funding will exceed the provisional budget for 2021/24 and that full funding of programmes will be influenced by the Council making a solid case for investment.

Waka Kotahi has signalled that co-funding of special purpose roads will reduce from 2024/25 onwards to match the level of funding that is applied to local roads. This would have the effect of reducing the funds available to manage roads and other transportation activities. The Council has been working with Department of Conservation to manage the effects of Special Purpose Road (SPR) funding changes and minimise their impact on the Council's road maintenance programme.

8.13.2 Forecast Operations and Maintenance Expenditure

The forecasts for the total 10-year operations and maintenance costs are shown in Figure 81. For a more detailed programme see Appendix A.

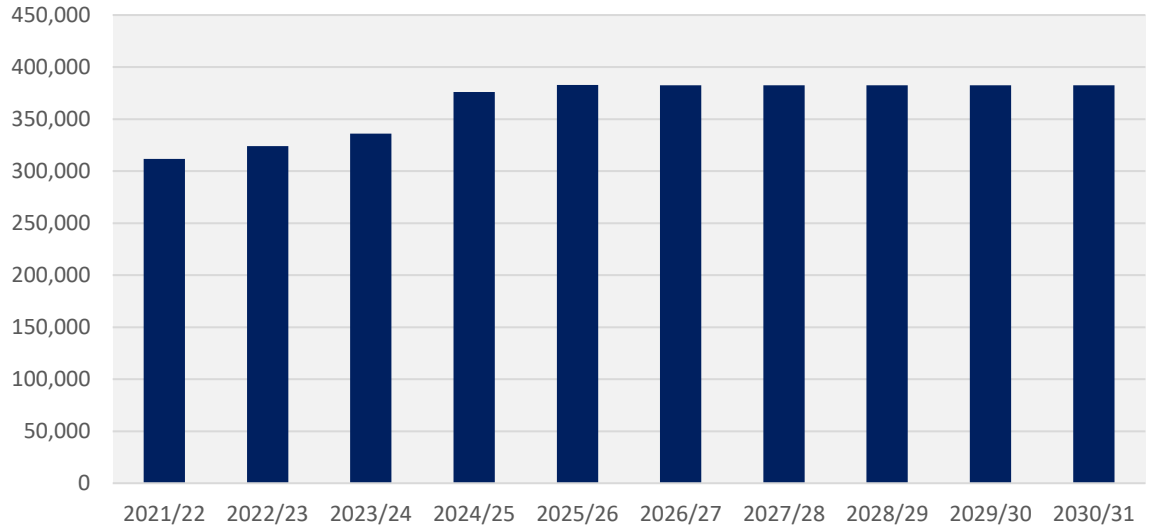


Figure 81: Operations and maintenance expenditure forecasts

8.14 Asset Renewal/Replacement

Renewal expenditure is major work that does not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original capacity. Funding of work over and above restoring an asset to its original capacity is considered to be new capital works expenditure.

8.14.1 Deferred Renewals

Deferred renewal is the shortfall in renewals required to maintain the service potential of the assets. This can include:

- Renewal work that is scheduled but not performed when it should have been and which has been put off for a later date (this can often be due to cost and affordability reasons).
- An overall lack of investment in renewals that allows the asset to be consumed or run-down, causing increasing maintenance and replacement expenditure for future communities.

The extent of deferred renewals can be identified by comparing the accumulated investment in renewals and accumulated investment in capital with the accumulated annual depreciation as shown in Figure 82~~Figure 82~~.

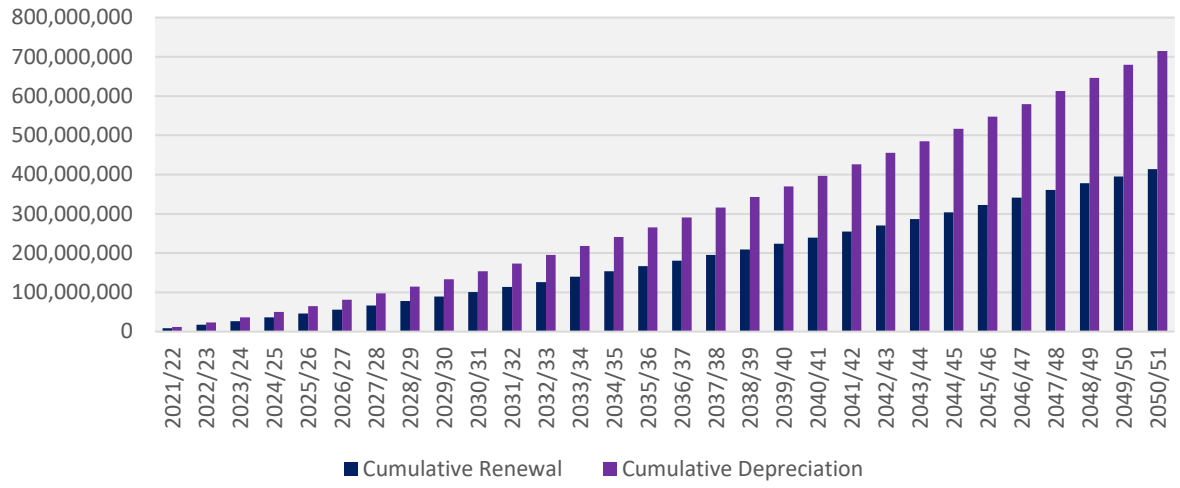


Figure 82: 30 Accumulated Renewal and Depreciation Comparison Including Inflation

The apparent divergence between the investment in renewals and depreciation over the 30-year period initially suggests that the Council may be under-investing in renewals. This is not believed to be the case due to the reasons detailed in the discussion below.

The annual depreciation costs for each asset group are calculated using assumed total useful lives and replacement costs. The calculation does not take into account actual asset condition or condition modelling results. In reality some assets will expire prior to the assumed total useful life, and some will expire after. What actually occurs is heavily dependent on asset condition and use. For example, the sealed pavement surfacing asset group accounts for approximately 37% of the total annual depreciation for the Transportation activity, condition modelling supports an investment in renewals that is significantly less than the annual depreciation for this asset group which suggests that depreciation is overstated for this particular asset group.

The transportation network includes some long-life asset groups such as bridges and major culverts, pavements and footpaths. These assets account for approximately 33% of the total annual depreciation costs for the Transportation activity. All of these assets have an expected total useful life in excess of 50 years. In general, the current condition of these assets groups does not require significant investment in their renewal within the next 30 years. For example, due to the nature of the historic development of the network a significant proportion of the bridges across the network are not expected to require renewal until 2050. At this point the investment in renewals, specifically for bridge assets will increase significantly. A longer-term comparison between the cumulative investment in renewals and cumulative depreciation would show this 'bow-wave' in renewals, and consequently a reduction in the gap between renewals and depreciation.

In some situations, the Council is purposely deferring renewals or 'sweating asset lives' to optimise whole-of-life costs while accepting some risk of premature asset failure and/or long term effects on condition and expenditure requirements. The Council will closely monitor and compare renewal expenditure, depreciation and asset condition, to allow for early mitigation/management of the negative effects associated with this strategy.

8.14.2 Forecast Renewal Expenditure

Figure 83~~Figure 83~~ shows the forecast renewal spend. The forecast is generally trending up in relation to anticipated renewal of bridge structural components.

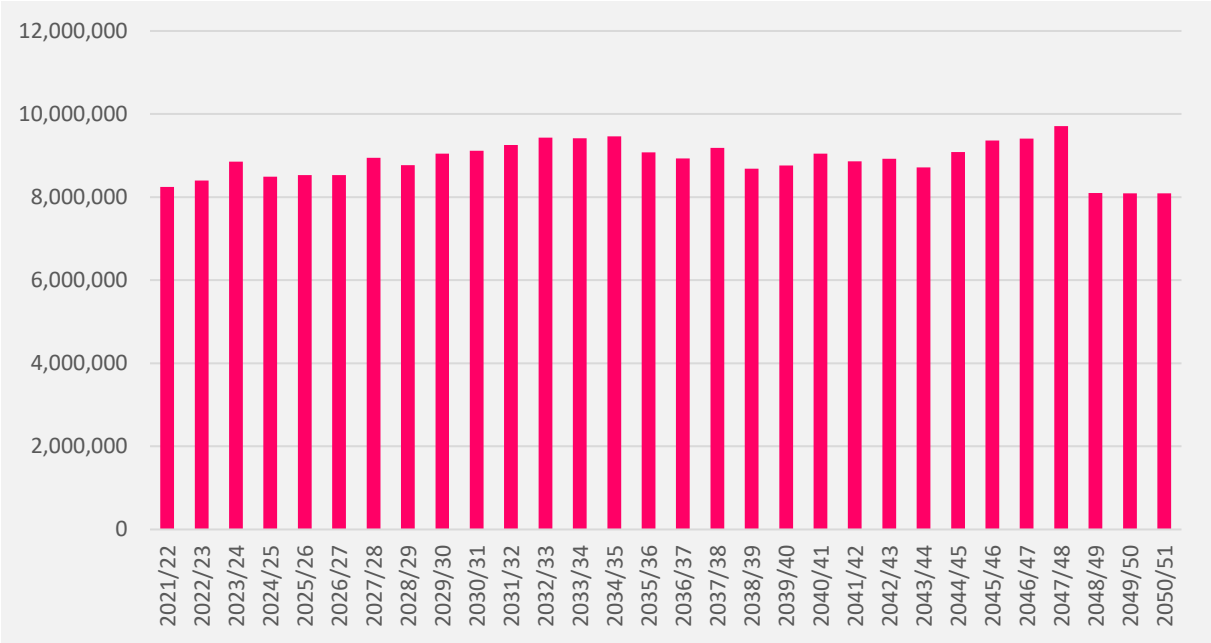


Figure 83: 2021 – 2051 Forecast Renewal Expenditure Excluding Inflation

8.15 Asset Development

New capital expenditure is used to create new assets, expand or upgrade existing assets, or increase the capacity of existing assets beyond their original design capacity or service potential. This section summarises future new capital work requirements for this activity.

8.15.1 Key Asset Development Issues

General activity key issues are addressed in Section 3. Specific asset development issues are detailed below.

8.15.1.1 Government Funding Changes

Waka Kotahi have undertaken many changes over the past six years, the biggest of which is to capital funding projects. The Agency has made the following changes:

- Change the name of the category from 'Minor Improvements' to Low Cost, Low Risk'.
- Low Cost, Low Risk funding will cover projects up to $2 million, an increase from $300,000 prior to 2018.
- All other capital projects require a strategic case and/or business case.
- Projects up to $5M may be eligible to use the Single Stage Lite process which uses a simplified form to reduce the work required to apply for comparatively cheaper projects.
- Rail projects are eligible for funding from the National Land Transport Fund.
- Bridge replacements will use the structures renewal work category irrespective of the cost. This recognises that like for like replacement of a bridge shouldn't need to be justified using a business case.

Waka Kotahi has signalled that the anticipated requests for funding will exceed the provisional budget in the 2021 – 2024 National Land Transport Fund (NLTF) and that full funding of programmes will be influenced by the Council making a solid case for investment.

8.15.1.2 Focus on Maintaining the Existing Network and Critical Improvements

The Council is under increasing pressure to minimise its long-term debt forecast and keep rate raises to a minimum. In order achieve this, the Council has reduced its planned expenditure on transportation by approximately $20 million over 30 years. The Council is focusing on delivering critical core infrastructure projects and maintaining its existing network, rather than providing new assets or improved assets that will require on-going maintenance and expenditure.

8.15.1.3 Richmond Programme Business Case

Waka Kotahi and the Council have initiated a Programme Business Case (PBC) for Richmond in response to the heavy traffic at key intersections along State Highway 6 and traffic modelling which shows congestion in the future. This business case was started in 2020 and has not been completed at the time of writing this AMP. The PBC determines packages of work to address the problems and meet the objectives. Whilst the PBC has not been completed, several other studies (such as the Network Operating Framework and determination of the One Network Framework hierarchy) provide enough direction to provide confidence that the proposed changes in infrastructure will be complimentary to the PBC. Key assumptions include:

- The Wensley Road and Salisbury Road, north/south route will be a prioritised for movement of people using public transport, walking and cycling.
- Queen Street (around the CBD) will have a greater place function than it currently has.
- Lower Queen Street will have to cater for vehicles, freight, walking and cycling as well as becoming a commercial centre.

- Bateup/Hart Road, Oxford Street, McGlashen Street and Champion Road will be used to convene people to SH6 as the main route North and South.

8.15.1.4 Developer Created Assets

Private developers generally construct new subdivisions with consent from the Council. It is very seldom that the Council itself constructs subdivisions to service growth. The Council is normally responsible for the upgrading/upsizing of existing assets to provide for increased volumes associated with growth, or provision of trunk services and headworks with the developer responsible for the construction of the actual subdivision.

The Council does oversee the subdivision process, from consenting through to construction and handover to the Council. The Council's engineers inspect design plans and finished works to ensure the assets meet the required standards and are in an acceptable condition to be accepted as a Council-owned asset. Should any work not meet the required standards the Council will require the developer to remedy the issue prior to accepting ownership.

8.15.2 Projects to Support Increasing Levels of Service

The Council is planning the following key projects to increase level of service:

- Carpark Lighting Improvements
- Borck Creek Cycle Trail Bridge
- Richmond Cycle Lanes
- Richmond East Primary Cycle Routes
- Wakefield Primary Cycle Routes
- Mapua Cycle Lanes
- Mapua Primary Cycle Routes
- Motueka Cycle Lanes
- Motueka Primary Cycle Routes
- Takaka Cycle Lanes
- Commercial Street Primary Route
- Waimea Inlet Bridge (Mapua)
- Golden Bay On-road Routes
- Mapua Village Centre Active Transport Integration
- Motueka High Street Active Transport Integration
- Takaka Town Centre Active Transport Integration
- Public Transport Infrastructure
- Richmond Bus Terminus
- Salisbury Road Active Transport Improvements
- William Street Shared Path

- Oxford / Wensley Intersection Improvements
- Lower Queen St / McShane Rd Intersection Improvements
- Tudor Street Pedestrian Crossing Facility
- Whakarewa St / Queen Victoria St Intersection Improvements
- Roadside Hazard Mitigation
- Reactive Safety Improvements
- Ellis Street Power Undergrounding
- Riwaka-Kaiteriteri Road Improvements
- School Speed Management
- Tasman's Great Taste Trail Construction
- Tasman's Great Taste Trail Improvements

8.15.3 Projects to Support Growth

The Council is planning the following key projects to address growth:

- Wensley Road Hierarchy Improvements
- Queen Street and Salisbury Road Intersection Improvements
- Upper Oxford Street Cyclepath
- Borck Creek Shared Pathway Crossing
- Lower Oxford Street Hierarchy Improvements
- Champion / Salisbury Road Route Improvements
- Lord Rutherford Ellis Intersection Upgrade
- Berryfield/Lower Queen Intersection Upgrade
- McShane/Lower Queen Intersection Upgrade
- Berryfield/Appleby Hwy Intersection Upgrade
- Lower Moutere Settlement Transport Infrastructure
- New Car Parking
- New Footpaths
- Kerb and Channel
- Paton Road Improvements
- Seaton Valley Road Improvements
- New Residential Greenways
- New Shared Paths
- Richmond West Connection Land Purchase
- Richmond West Active Transport Connections
- District Land Purchase

- Lower Queen Street Widening
- Rural Development Road Improvements
- Bird Lane Improvements
- McShane Road Upgrade
- Brightwater Town Centre Upgrade

8.15.4 Forecast New Capital Expenditure

The capital programme that has been forecast for this activity where the primary driver is classed as 'New Works' is shown in Figure 84: Forecast New Capital Expenditure 2021 - 2051~~Figure 84: Forecast New Capital Expenditure 2021 - 2051~~ below.

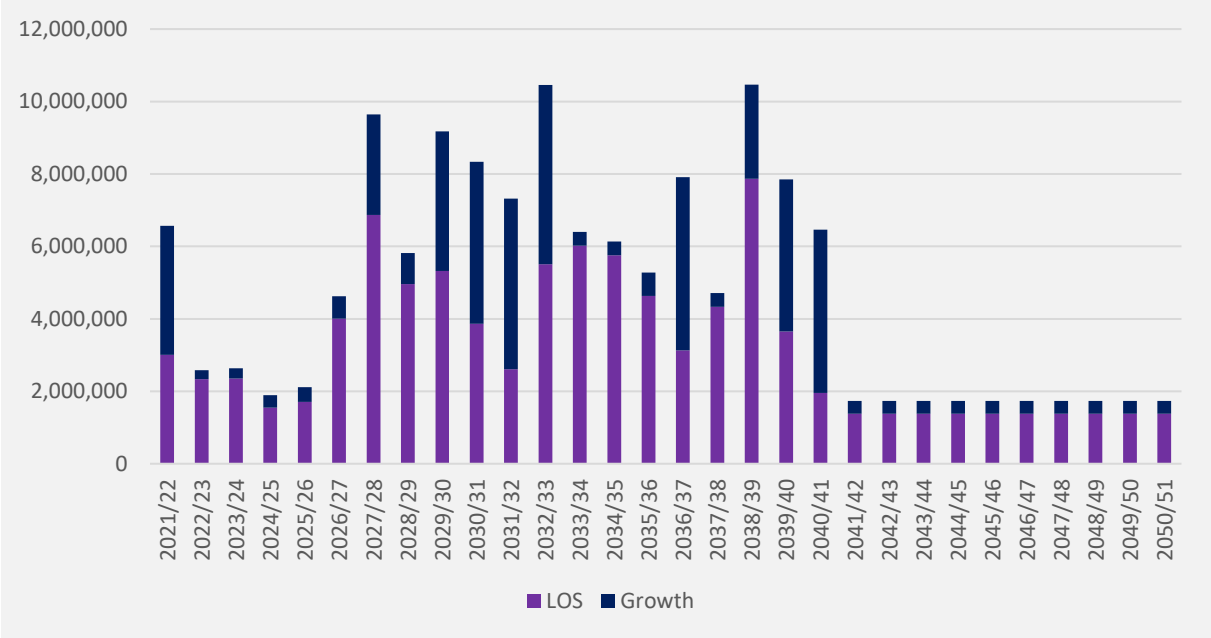


Figure 84: Forecast New Capital Expenditure 2021 - 2051

Figure 84: Forecast New Capital Expenditure 2021 - 2051~~Figure 84: Forecast New Capital Expenditure 2021 - 2051~~ shows a high level of new capital expenditure from 2026/27 to 2040/41. It would be preferable to make substantial inroads in improving active transport infrastructure as soon as possible. However, this investment has been staged, starting modestly in the initial years of the LTP 2021-2027 and increasing later through the period to help us stay within the financial caps.

8.16 Asset Disposal

8.16.1 Asset Disposal Strategy

The Council does not have a formal strategy on asset disposal and as such it will treat each asset individually on a case-by-case basis when it reaches a state that disposal needs to be considered.

Asset disposal is generally a by-product of renewal or upgrade decisions that involve the replacement of assets.

Assets may also become redundant for any of the followings reasons:

- Under utilisation
- Obsolescence

- Provision of the asset exceeds the required level of service
- Uneconomic to upgrade or operate
- Policy change
- The service is provided by other means (e.g. private sector involvement)
- Potential risk of ownership (financial, environmental, legal, social, vandalism).

Depending on the nature, location, condition and value of an asset it is either:

- Made safe and left in place
- Removed and disposed of
- Removed and sold
- Ownership transferred to other stakeholders by agreement.

In most situations assets are replaced at the end of their useful life and are generally in poor physical condition. Consequently, the asset with be disposed of to waste upon its removal. In some situations, an asset may require removal or replacement prior to the end of its useful life. In this circumstance the Council may hold the asset in stock for reuse elsewhere on the network. Otherwise, if this is not appropriate it could be sold off, transferred or disposed of.

When assets sales take place, the Council aims to obtain the best available return from the sale and any net income will be credited to that activity. The Council follows practices that comply with the relevant legislative requirements for local government when selling off assets.

8.16.2 Paper Roads

From time to time areas of unformed legal road reserve, also referred to as paper roads, that have little or no public access value may become surplus to requirements and the most economic approach is to explore the possibility of the road reserve being closed and sold to the adjoining property owner. Whenever this occurs the Council is required to follow a very prescriptive legislative process which includes public notification.

8.16.3 Bridges

Bridge structures that provide little to no public access value may be considered for disposal. These structures are usually located within a legal road reserve that does not have a formed or maintained road adjacent to the structure. In all situations the bridge being considered for disposal will be treated and consulted on a case by case basis.

Transfer to the adjacent property owner may be by way of a direct sale, or either transfer for a nominal fee. There may need to be extensive negotiation between the Council and the adjacent property owner before the terms of the transfer can be agreed.

The Council does not currently have a policy to support this process and has identified the need to prepare a policy to support the divesting of bridge assets.

9 Financials

The Council has planned a prudent financial approach to managing its assets and services. This section provides a summary of the total value of the activity and the investment that the Council has planned to make over the next 30 years.

9.1 Funding Sources

The transportation activity is currently funded through a mixture of the following sources:

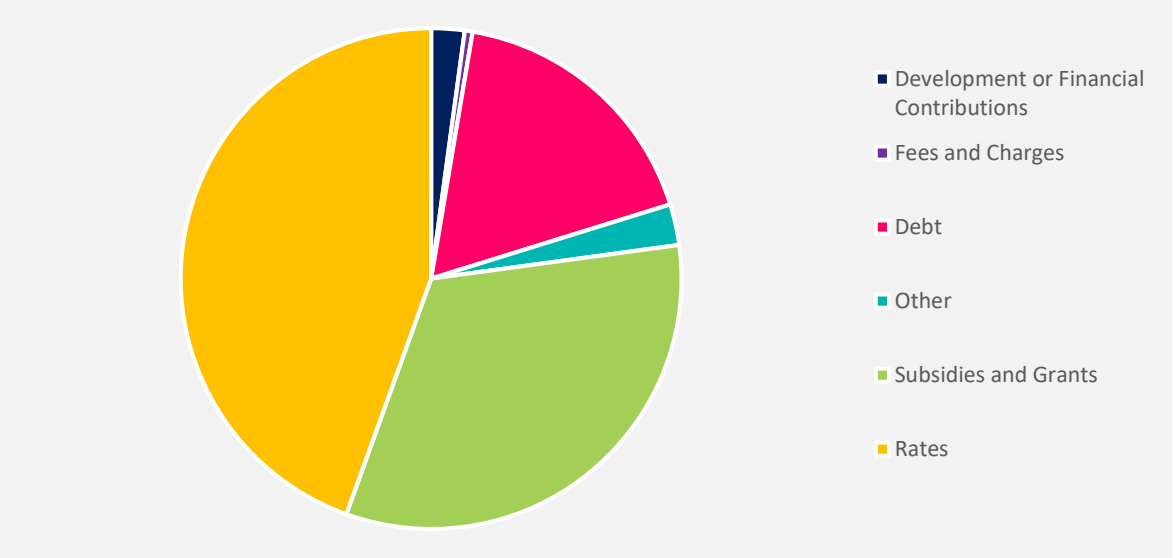


Figure 85: Sources of Transportation Funding

9.1.1 Funding Strategy

The Council's strategy is to maximise the funding sourced through Waka Kotahi for all works qualifying for co-investment. The current Waka Kotahi co-investment rate and local share proportions for subsidised works are detailed below in Table 35: Waka Kotahi Co-Investment Rates~~Table 35: Waka Kotahi Co-Investment Rates~~.

Table 35: Waka Kotahi Co-Investment Rates

Activity Type	2021/22 and beyond	
	Waka Kotahi	Council
Operations and Maintenance	51%	49%
Renewals	51%	49%
Public Transport	51%	49%
Total Mobility	60%	40%
Special Purpose Roads	100%*	0%

* Waka Kotahi have signalled that they will reduce their financial contribution to 51% for special purpose roads from financial year 2024/25 onwards.

Waka Kotahi will co-invest in maintenance, renewals and new capital works to assist the Council achieve:

- Optimal national land transport outcomes within the combined financial resources.
- An integrated and appropriately consistent land transport network throughout the country.
- Appropriately share the costs of the land transport network between land transport system users and local communities, recognising that the national and local benefits that are derived from investment in the network.

Waka Kotahi's co-investment subsidises 7%-8% of all transportation works undertaken by the Council. Some of the works that are not subsidised include:

- Car parks
- Road reserve pest control
- Amenity

Totaranui and Pupu Springs Roads are designated Special Purpose Roads because of their national significance. The operations and maintenance cost are currently 100% funded by Waka Kotahi. Waka Kotahi have signalled that they will reduce their subsidy on these roads to their normal rate of subsidy in Tasman of 51% from 2024/25 onwards. The Council also receives funding from the Department of Conservation and Trust Power towards the maintenance of Cobb Dam Road.

Further information on the Council's funding sources can be found in the schedule of fees and charges, and the Revenue and Financing Policy.

9.1.2 Development Contributions

The Council's Development and Financial Contributions Policy can be found on our website at: www.tasman.govt.nz/policy/policies/development-contributions-policy.

The next update of the Policy will be adopted in conjunction with the Council's Long Term Plan and will come into effect on 1 July 2021.

The Policy sets out the development contributions payable by developers, how and when they are to be calculated and paid, and a summary of the methodology and rationale used in calculating the level of contributions. The key purpose of the Policy is to ensure that growth, and the cost of infrastructure to meet that growth, is funded by those who cause the need for and the benefit from the new or additional infrastructure, or infrastructure of increased capacity. The cost per household unit of development is $2,332 excl GST.

9.2 Asset Valuation and Depreciation

The Local Government Act 1974 and subsequent amendments contain a general requirement for local authorities to comply with Generally Accepted Accounting Practice ("GAAP").

The Council requires its infrastructure asset register and valuation to be updated in accordance with Financial Reporting Standards and the AMP improvement plan.

The valuations summarised below have been completed in accordance with the following standards and are suitable for inclusion in the financial statements for the year ending June 2020:

- NAMS Group Infrastructure Asset Valuation Guidelines – Edition 2.0.
- New Zealand International Public Sector Accounting Standard 17; Property, Plant and Equipment (PBE IPSAS 17) and PBE IPSAS 21 (Impairment of Non Cash Generating Assets).

9.2.1 2020 Valuation

Assets are valued every three years. The transport assets were last revalued in September 2020 and are reported under separate cover. Key assumptions in assessing the asset valuations are described in detail in the valuation report.

The majority of information for valuing the assets was obtained from the Council's Confirm database. The data confidence is detailed in Table 36: Data Confidence~~Table 36: Data Confidence~~ below.

Format

Table 36: Data Confidence

Asset Description	Confidence	Comments
Road Pavement Formation	B - Reliable	
Pavement Surfacing	B – Reliable	
Sealed Pavement Layers	B – Reliable	
Unsealed Pavement Layers	B – Reliable	
Bridges and Major Culverts	B – Reliable	Major culverts (with cross sectional area greater than 3.4 m²) in the drainage table have also been included in the bridge valuation, and are reported as Bridge Culverts.
Drainage	B – Reliable	Where there was no construction date in RAMM these were assigned a default construction date which equated to an age 50% through the expected life of the asset.
Footpath	B – Reliable	Where there was no construction date in the RAMM database they were assigned a default construction date based on the assumed condition of the asset.
Miscellaneous Road Furniture	B – Reliable	Where there was no construction date in the RAMM database a default construction date was applied.
Railings	B – Reliable	Where there were no installation dates available for rails an assumed value, depending upon material was used for missing dates.

Asset Description	Confidence	Comments
Retaining Walls	B – Reliable	
Signs	B – Reliable	Where there was no installation date in RAMM an assumed date representing 50% of the useful life was used.
Surface Water Channels	B – Reliable	Earth surface water channel was not valued as this is accounted for in Formation rates. Where there was no construction date in the RAMM database they were assigned a default construction representing an age 50% of the total useful life.
Carparks and Walkways	C - Uncertain	
Traffic Facilities	C – Uncertain	
Tasman Great Taste Trail	C - Uncertain	

Based on NZ Infrastructure Asset Valuation and Depreciation Guidelines – Edition 2, Table 4.3.1: Data confidence grading system.

The Base Useful Lives for each asset type as published in the NZIAVDG Manual were used as a guideline for the lives of the assets in the valuation. Generally, lives are taken as from the mid-range of the typical lives indicated in the Valuation Manual where no better information is available. Lives used in the valuation are presented in Table 37~~Table 37~~ following.

Format

Table 37: Asset Lives

Item	Life (years)	Minimum Remaining Life (years)
Road Pavements	30 - indefinite	2
Unsealed Pavement Layers	30	2
Bridges and Major Culverts	100	1
Drainage	80 - 120	4
Footpath	25 - 75	1
Miscellaneous Road Furniture	15 - 75	3
Railings	25	7
Retaining Walls	50 - 80	-
Signs	15	1
Surface Water Channels	30 - 75	1

Item	Life (years)	Minimum Remaining Life (years)
Carparks and Walkways	30 - indefinite	-
Traffic Facilities	-	-
Tasman Great Taste Trail	25 - 75	-

9.2.2 Depreciation

Depreciation of assets must be charged over their useful life. The Council calculates depreciation on a straight line basis on most infrastructural assets at rates which will write off the cost (or valuation) of the assets to their estimated residual values, over their useful lives.

The optimised replacement value, optimised depreciated replacement value, total depreciation to date, and the annual depreciation of the water supply assets are summarised in Table 38: Transport Valuation Summary 30 June ~~Table 38: Transport Valuation Summary 30 June~~ and Table 39: 2017 / 2020 Valuation Comparison~~Table 39: 2017 / 2020 Valuation Comparison~~ below.

Table 38: Transport Valuation Summary 30 June 2020

Asset Type	Optimised Replacement Value ($000)	Optimised Depreciated Replacement Value ($000)	Annual Depreciation ($000/yr)
Formation	$293,785,951	$293,785,951	-
Pavement	$132,798,119	$65,987,279	$1,979,746
Surface	$55,534,138	$32,580,948	2,668,872
Carparks, Service Lanes & Walkways	$2,902,860	$2,755,676	$14,286
Footpaths	$44,268,329	$26,534,610	$729,33
Surface Water Channels	$37,287,035	$24,096,494	$499,856
Bridges & Major Culverts	$154,117,300	$80,733,630	$1,541,173
Railing	$4,975,224	$2,492,655	$199,009
Drainage	$146,655,123	$92,411,085	$1,331,615
Signs	$4,383,080	$2,098,315	$292,205
Great Taste Trail	$14,512,155	$11,187,975	$415,522
Great Taste Trail Signs	$271,080	$124,415	$18,072
Minor Structures	$1,375,487	$786,296	$72,516

Retaining Walls	$7,027,393	$6,285,329	$101,091
Total	$899,893,274	$641,860,658	$9,863,298

Table 39: 2017 / 2020 Valuation Comparison

Year	Optimised Replacement Value ($000)	Optimised Depreciated Replacement Value ($000)	Annual Depreciation ($000/yr)
2017	$815,463,521	$618,323,315	$9,642,449
2020	$899,893,274	$641,860,658	$9,863,298
% Increase	10%	4%	2%

Overall the transport assets have increased in optimised replacement value by 10% since the 2017 valuations. The increase in the replacement values is due to the following reasons:

- The addition of new assets to the network since 2017.
- The cost of labour and materials to undertake replacement has increased.

9.3 Financial Summary

9.3.1 Funding Impact Statement

The Council's Funding Impact Statement (FIS) for this activity is included in the table below. It summarises in one place how this activity will be funded and how those funds will be applied over the next 10 years.

Table 40: Funding Impact Statement

	2020/21 AP $000	2021/22 Budget $000	2022/23 Budget $000	2023/24 Budget $000	2024/25 Budget $000	2025/26 Budget $000	2026/27 Budget $000	2027/28 Budget $000	2028/29 Budget $000	2029/30 Budget $000	2030/31 Budget $000
SOURCES OF OPERATING FUNDING											
General rates, uniform annual general charges, rates penalties	12,100	13,002	14,005	14,631	15,870	18,699	20,195	20,912	21,468	22,785	23,572
Targeted rates	0	0	0	0	0	0	0	0	0	0	0
Subsidies and grants for operating purposes	3,803	4,649	4,994	5,349	5,206	5,456	5,637	6,027	6,282	6,438	6,701
Fees and charges	165	185	191	196	201	207	213	219	226	233	241
Internal charges and overheads recovered	0	0	0	0	0	0	0	0	0	0	0
Local authorities fuel tax, fines, infringement fees, and other receipts	1,044	895	950	1,036	1,093	1,112	1,133	1,155	1,179	1,204	1,229
Total operating funding	17,112	18,731	20,140	21,212	22,370	25,474	27,178	28,313	29,155	30,660	31,743
APPLICATIONS OF OPERATING FUNDING											
Payments to staff and suppliers	6,899	9,228	9,954	10,533	10,480	10,888	11,203	11,963	12,565	12,877	13,381
Finance costs	1,387	1,400	1,323	1,192	1,243	1,139	944	808	745	695	616
Internal charges and overheads applied	2,517	2,468	2,700	2,779	2,919	3,065	3,288	3,506	3,789	4,078	4,334
Other operating funding applications	0	0	0	0	0	0	0	0	0	0	0
Total applications of operating funding	10,803	13,096	13,977	14,504	14,642	15,092	15,435	16,277	17,099	17,650	18,331
Surplus/(deficit) of operating funding	6,309	5,635	6,163	6,708	7,728	10,382	11,743	12,036	12,056	13,010	13,412
SOURCES OF CAPITAL FUNDING											
Subsidies and grants for capital expenditure	4,287	7,350	5,693	6,041	5,559	5,969	7,613	10,943	8,953	11,309	9,674
Development and financial contributions	477	1,078	1,078	1,078	1,024	1,024	1,024	1,024	301	301	1,011
Increase (decrease) in debt	58	383	(425)	(386)	(1,804)	(3,815)	(3,144)	(1,045)	(2,238)	(2,312)	(2,998)
Gross proceeds from sale of assets	0	0	0	0	0	0	0	0	0	0	0
Lump sum contributions	0	0	0	0	0	0	0	0	0	0	0
Other dedicated capital funding	0	0	0	0	0	0	0	0	0	0	0
Total sources of capital funding	4,822	8,811	6,346	6,733	4,779	3,178	5,493	10,922	7,016	9,298	7,687
APPLICATIONS OF CAPITAL FUNDING											
Capital expenditure											
- to meet additional demand	0	0	0	0	0	0	0	0	0	0	0

	2020/21 AP $000	2021/22 Budget $000	2022/23 Budget $000	2023/24 Budget $000	2024/25 Budget $000	2025/26 Budget $000	2026/27 Budget $000	2027/28 Budget $000	2028/29 Budget $000	2029/30 Budget $000	2030/31 Budget $000
- to improve the level of service	3,346	2,173	611	778	743	661	678	1,057	2,940	991	1,018
- to replace existing assets	6,777	12,981	10,960	11,640	10,776	11,468	14,700	21,281	15,077	22,167	21,759
Increase (decrease) in reserves	1,008	(708)	938	1,023	988	1,431	1,858	620	1,055	(850)	(1,678)
Increase (decrease) in investments	0	0	0	0	0	0	0	0	0	0	0
Total applications of capital funding	11,131	14,446	12,509	13,441	12,507	13,560	17,236	22,958	19,072	22,308	21,099
Surplus/(deficit) of capital funding	(6,309)	(5,635)	(6,163)	(6,708)	(7,728)	(10,382)	(11,743)	(12,036)	(12,056)	(13,010)	(13,412)
Funding balance	0	0	0	0	0	0	0	0	0	0	0

9.3.2 Project Drivers

All expenditure must be allocated against at least one of the following project drivers.

- **Operation and Maintenance:** operational activities that do not involve the renewal or upgrade of assets, or work that is necessary in order to provide on-going services at the agreed levels.
- **Renewals:** significant work that restores or replaces an existing asset towards its original size, condition or capacity.
- **Increase Level of Service:** works to create a new asset, or to upgrade or improve an existing asset, beyond its original capacity or performance.
- **Growth:** works to create a new asset, or to upgrade or improve an existing asset, beyond its original capacity or performance to provide for the anticipated demands of future growth.

This is necessary for two reasons as follows.

- Schedule 13(1) (a) and section 106 of the Local Government Act require the Council to identify the total costs it expects to have to meet relating to increased demand resulting from growth when intending to introduce a Development Contributions Policy.
- Schedule 10(2)(1)(d)(l)-(iv) of the Local Government Act requires the Council to identify the estimated costs of the provision of additional capacity and the division of these costs between changes to demand for, or consumption of, the service, and changes to service provision levels and standards.

All new works have been assessed against these project drivers. Some projects may be driven by a combination of these factors and an assessment has been made of the proportion attributed to each driver.

9.3.3 Total Expenditure

The estimated expenditure needs for the transportation activity have been prepared for the next 30 years. Figure 86~~Figure 86~~ and Figure 87~~Figure 87~~ show the total expenditure for the transportation activity for the first 10 and 30 years respectively.

Format

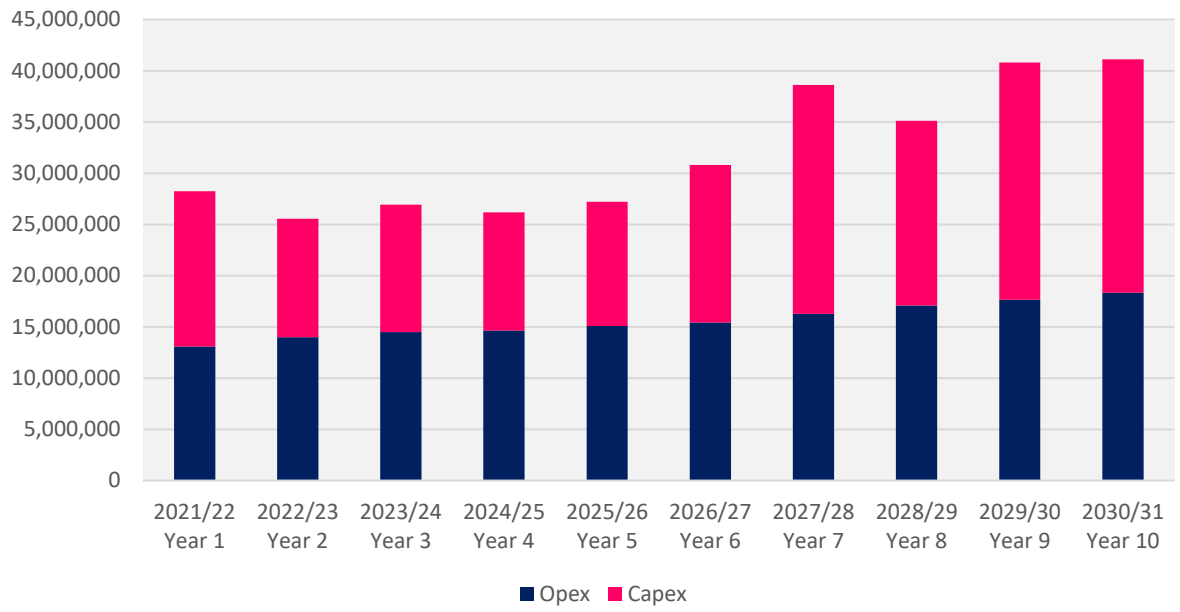


Figure 86: Total Annual Expenditure Years 1 to 10 Including Inflation

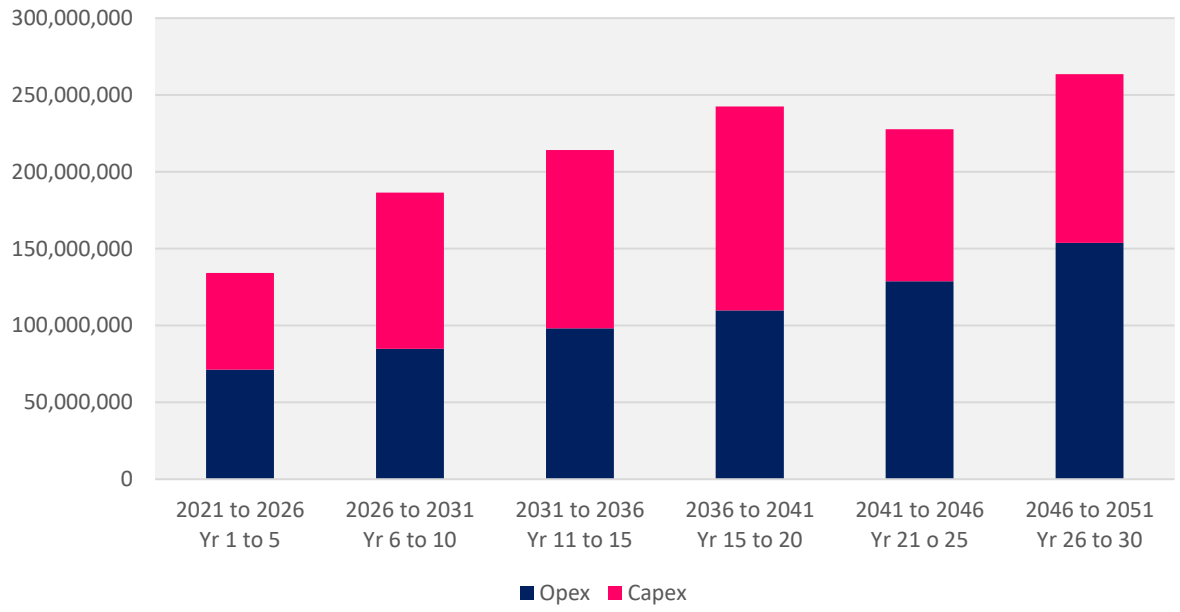


Figure 87: Five Yearly Total Expenditure Years 1 to 30 Including Inflation

9.3.4 Total Income

Figure 88~~Figure 88~~ and Figure 89~~Figure 89~~ show the total income for the transportation activity for the first 10 and 30 years respectively. Rate increases account for the majority of the increase in income, along with the associated subsidy from Waka Kotahi that is in line with increases in the Council's share.

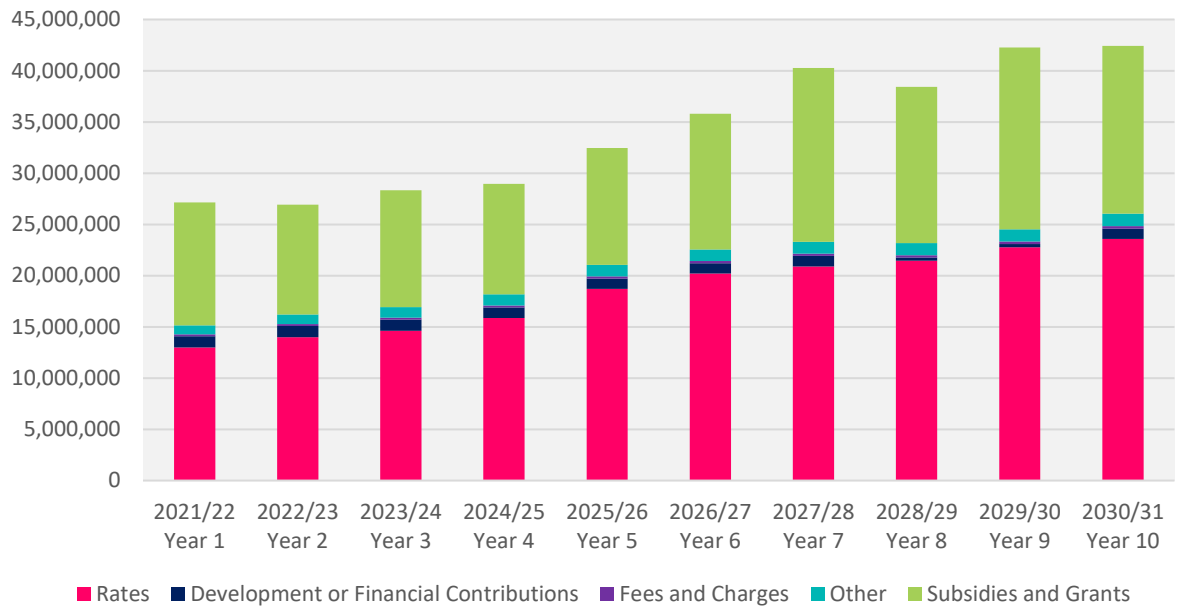


Figure 88: Total Annual Income Years 1 to 10 Including Inflation

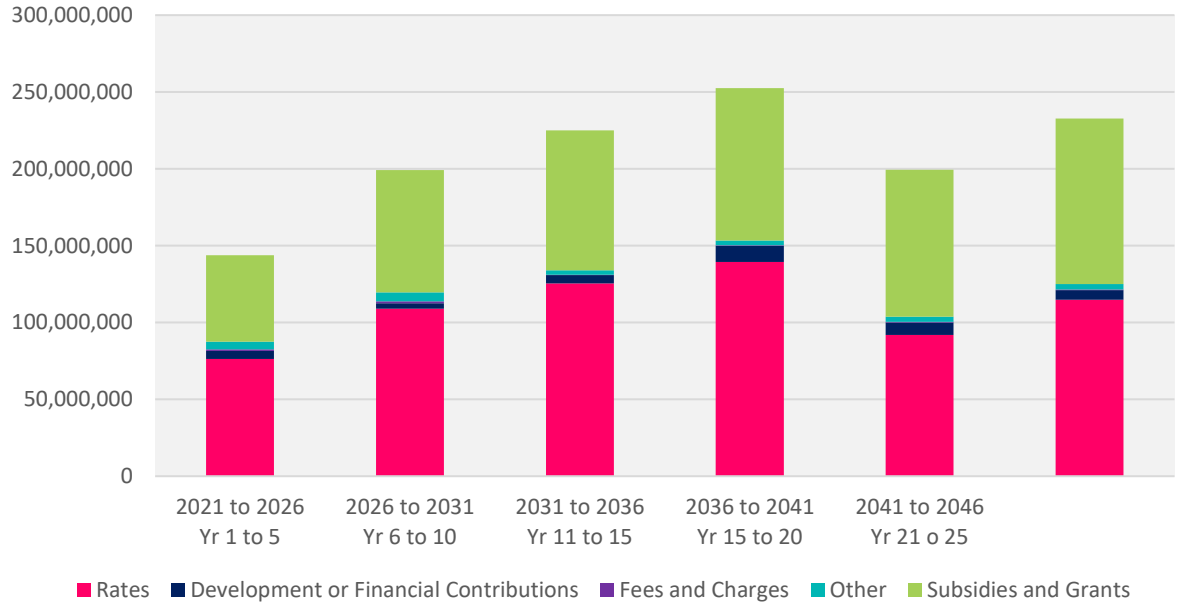


Figure 89: Five Yearly Total Income Years 1 to 30 Including Inflation

9.3.5 Operational Costs

Figure 90~~Figure 90~~ and Figure 91~~Figure 91~~ shows the operational costs for the transportation activity are forecast to increase by around 4.0% per year for the first 10 years, and 5.0% per year over 30 years.

For the first three years, there are increases in the direct costs associated with sealed pavement maintenance and public transport. After that, there are increases in the public transport budgets in Year 7 and Year 9 associated with planned improvements to bus services.

Within the first 10 years, indirect costs increase more significantly due to loan interest and depreciation costs associated with changes in the capital programme for this activity. These increases are less notable in the following 20 years.

Both direct and indirect costs increase due to inflation across the 30 years.

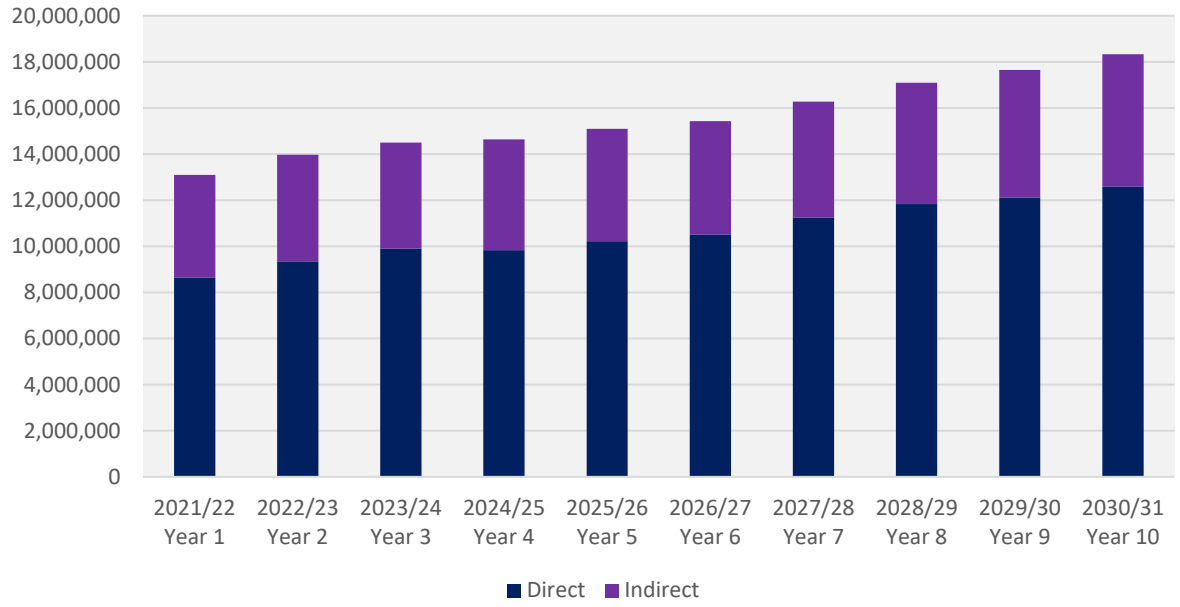


Figure 90: Annual Operating Costs Years 1 to 10 Including Inflation

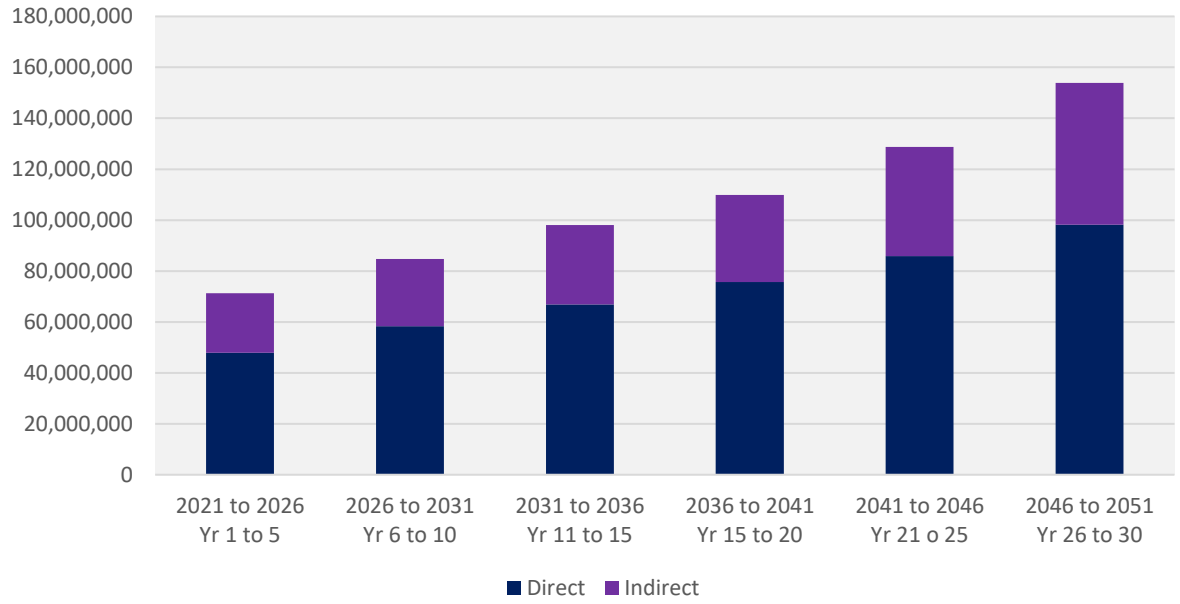


Figure 91: Five Yearly Operating Costs Years 1 to 30 Including Inflation

9.3.6 Capital Expenditure

Figure 92~~Figure 92~~ and Figure 93~~Figure 93~~ show the Council plans to spend around $164 million on capital improvements over the next 10 years. Of this, 13% is attributable to growth, 26% for level of service improvements, and 61% for asset renewal. Our clear priority for the transportation activity is to maintain the road network in a good condition which requires a steady investment in road renewal. Figure 37 shows that our capital investment is primarily for renewal and that this investment is steady for the next 30 years, only increasing due to inflation.

Format

In Year 7 to Year 10, there is a notable increase in growth and level of service expenditure. The level of service increase is due an increase in investment in active transport projects. The growth increase is due to a number of planned intersection and road upgrades in Richmond West.

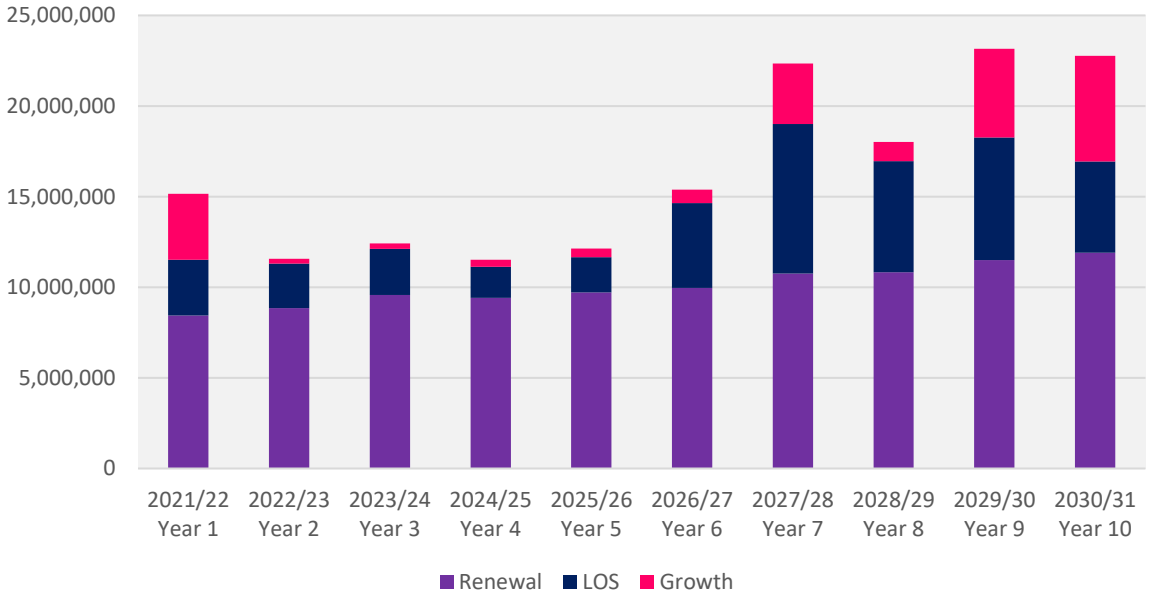


Figure 92: Annual Capital Expenditure Years 1 to 10 Including Inflation

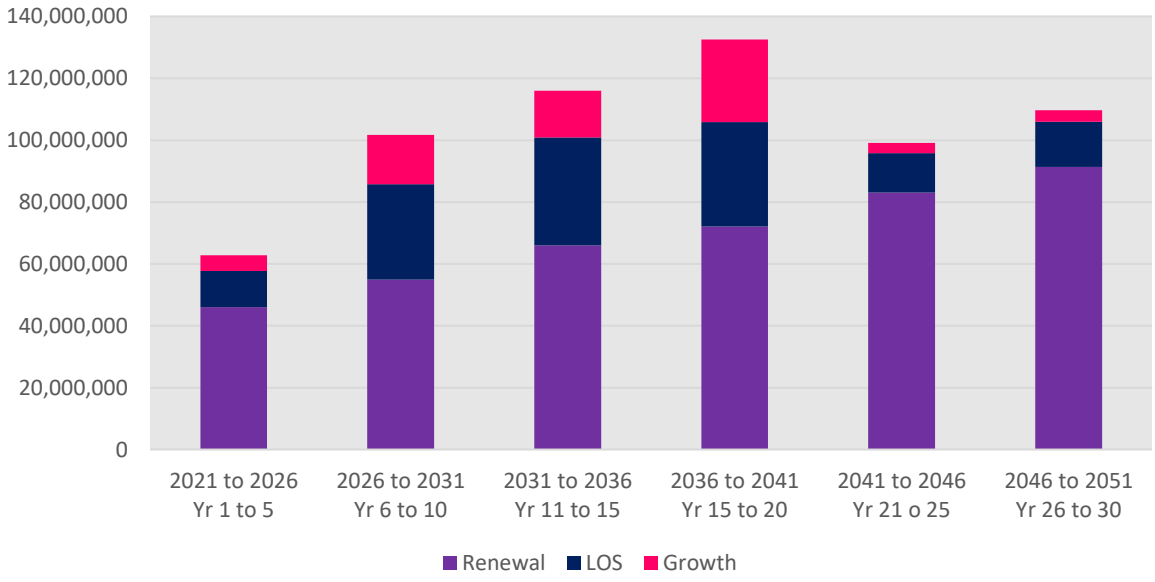


Figure 93: Five Yearly Capital Expenditure Years 1 to 30 Including Inflation

10 Sustainability

Transport needs to find the right balance of allowing good access (people), ensuring economic prosperity (profit) and minimising our impact planet). Tasman is currently doing well with profit, doing okay with people, but doing poorly with planet. This AMP needs to find that balance, by lifting our performance in supporting all people in our community, and significantly improving transports impact on the environment. This AMP makes some initial steps to achieve this by providing more opportunity to those that cannot or choose not to use motor vehicles. These same actions also have the additional benefit of improving transport impact on the environment. The most significant actions are providing an improved and extended public transport service and enabling walking and cycling as a form of transport by providing safe infrastructure.

The Local Government Act 2002 requires local authorities to take a sustainable development approach while conducting their business, taking into account the current and future needs of communities for good-quality local infrastructure, and the efficient and effective delivery of services.

Sustainable development is a fundamental philosophy that is embraced in the Council's Vision, Mission and Objectives, and is reflected in the Council's community outcomes. The levels of service and the performance measures that flow from these inherently incorporate the achievement of sustainable outcomes.

We measure sustainability against the triple bottom line framework that aims to create a balance between the three dimensions of performance, often referred to as people, planet and profit (3P's).

People – The effects of the activity on the social and cultural wellbeing of our community.

Transport in Tasman has provided for the majority of residents who have motor vehicles, but there is an increasing elderly and younger population that driving isn't a viable form of transport. Likewise, the dominance of motor vehicles impacts residents through noise pollution and making access harder for those living in urban areas.

Planet – The effects of the activity on the environment.

Transport makes up a significant portion of the districts greenhouse gas emissions. Vehicle movements are growing faster than the growth in population. This means that detrimental effects like heavy metals to our waterways and greenhouse gas emissions to the atmosphere and smog to the air is from transport is also growing.

Profit – The economic benefit of the activity to the community and overall long-term economic viability of the activity.

The Council operates, maintains and improves transport assets on behalf of its ratepayers and uses its Financial Strategy to guide the development of an affordable work programme. The Council's finances are managed within the set debt limits and rates income rises to ensure economic viability for current and future generations.

This section reviews both the positive and negative effects of this activity and ensure that the negative effects have adequate mitigation measures in place.

10.1 Negative Effects

Potential significant negative effects and the proposed mitigation measures are listed below in Table 41 below.

Table 41: Negative Effects

Effect	Description	Mitigation Measures
Noise Generation	Vehicle use within the network produces noise. Social - The level of noise generated generally depends on the speed of vehicles, and the type of road surface and/or vehicle tyre types.	The Council addresses noise generation by selecting suitable road surface materials such as chip seal or asphaltic concrete during the treatment selection process. In the urban areas a smaller size sealing chip or asphalt surfacing may be used to reduce noise. Asphalt is the most expensive; however, it is also the most effective and typically provides a longer surface life than a chip sealed surface. The Council can also reduce noise by encouraging slow streets, implementing traffic calming and ensuring the hierarchy of roads is followed in accordance with Council's Land Development Manual available of the Website. The Council will implement a programme of works in Richmond to prioritise different modes of transport on different parts of the network. This will encourage modes of transport that are comparatively quieter on residential streets, where noise is most likely to be a nuisance.
Light Spill	The Council installs lighting in public areas and along roads to improve the safety and amenity of the area. Social – This can have an adverse effect on neighboring properties due to light spill. Environmental – Upward light spill can adversely affect user groups by 'polluting' the night skies.	The Council has upgraded all street lighting across the District to new LED lighting. LED lighting provides improved light cut-off and direction control which minimises light spill and upward waste light. Where appropriate, the Council can use lower lighting interventions like path lighting to further mitigate light spill.

Effect	Description	Mitigation Measures
Vehicle Emissions	Vehicles using the road network produce emissions. Environmental – Discharges from motor vehicles have the potential to diminish water quality in adjacent streams from surface water run-off from roads. Air quality can be affected by exhaust emissions and dust generation from vehicles travelling on unsealed roads.	Compliance with vehicle emission standards is targeted at a national level with requirements for all vehicles to meet during testing for warrant/certificate of fitness. Vehicle emissions are increased under times of acceleration and braking. The Council can reduce the effect of this by reducing road speeds and the using traffic engineering design techniques which encourage smooth traffic flow on the main routes. The Council can show leadership by purchase no or low emission vehicles.
Traffic Congestion	Increasing traffic volumes may result in congestion of urban arterial links. Economic – Traffic congestion causes delays to the road users and has the potential to affect the cost of freight. Access – Heavy traffic on roads can have the effect of prohibiting or discouraging people from crossing specific routes. This is especially true for vulnerable forms of transport like walking or cycling.	The Council will invest in walking and cycling infrastructure to encourage a greater proportion of people to walk or cycle in place of using motor vehicles. The Council will provide improvement s in public transport services to encourage the use of public transport over motor vehicle use. The Council will implement a programme of works in Richmond to prioritise different modes of transport on different parts of the network. This will encourage walking and cycling on specific routes and prioritise vehicles and freight on other routes to allow convenient movement.
Road Crashes	Social – Road users face potential crashes and associated injury or death.	The Council will look to implement safer speeds across the district to reduce the risk of an accident and to mitigate the impact should an accident happen. The Council will continue to target safety programmes for transport user groups that are most at risk of having accidents. The Council will continue to undertake small changes to the road network to reduce the risk of accidents.
Community Cost	Economic – The costs of providing transportation services.	The Council uses a combination of in house services and competitive tendering processes to achieve best value for money for the works it undertakes. It also uses priority decision making tools to prioritise funding allocations.

Effect	Description	Mitigation Measures
Severance	Social/Economic – The impact of traffic on people's ability to travel where they want whenever they want and by whatever mode they want.	The Council will implement a programme of works in Richmond to prioritise different modes of transport on different parts of the network. This will encourage vehicles on key routes that limits the severance.
Damage to Historic Sites	Cultural – The provision of roads and transportation services has the potential to affect historic and wahi tapu sites.	The Council undertakes consultation with the Heritage NZ and local iwi prior to undertaking work to identify sites of significance to avoid these locations at an early point in the design phase of the project. The Council also maintains a record of known heritage sites. If a heritage site may be damaged or destroyed, due to the Council's work, a Heritage NZ Authority is required.

Policies and strategies for mitigation, monitoring and reporting of those effects are at various stages of development. Where specific resource consent is applicable, reporting is part of the consent process. Safety is addressed at a national and local level of reporting through the location, severity, number and type of crashes in the Waka Kotahi's CAS database.

10.2 Positive Effects

Potential significant positive effects are listed below in Table 42 below.

Table 42: Positive Effects

Effect	Description
Economic Development	Provision of an efficient road network allows for the movement of freight between key hubs and markets, therefore allowing economic growth and prosperity. A high quality road network that allows access to the National Parks and other destinations encourages and facilitates tourist activities.
Safety and Personal Security	The Council aims to improve the safety of the transportation network for all modes of travel, for example this includes the implementation of the Minor Improvements programme and provision of lighting for pedestrians.
Access and Mobility	The Council aims to provide a transport system that is integrated with land use planning, optimising access and mobility for all. Providing access also allows emergency services to access the majority of the community with ease.
Public Health	The Council's management of the transport network encourages active modes of travel eg, walkways and cycleways which can

Effect	Description
	enhance people's health and well-being.
Environmental Sustainability	The Council aims to achieve environmental sustainability whilst managing the transportation activity. This is generally managed by the resource consent process and the Tasman Resource Management Plan.
Economic Efficiency	The Council's management of the transportation activity uses best practice and competitive tendering to provide value for money for the ratepayers and provides jobs for contractors. The Council manages the transportation assets to optimise the whole of life costs to provide economic efficiency.

10.3 Resource Management

The statutory framework defining what activities require resource consent is the Resource Management Act (RMA) 1991.

The RMA is administered locally by the Council, a Unitary Authority, through the Tasman Resource Management Plan (TRMP) which sets out Policies, Objectives and Rules controlling activities to ensure they meet the Purpose and Principles of the RMA.

The Council's network of public roads generally has existing use rights or permitted activity status in land use terms. Bridges and other structures in or across rivers, or along the coast were generally authorised prior to the RMA being enacted.

10.3.1 Resource Consents

Resource consents related to the transportation activity are listed in Table 43 below. Please note that the list may not be exhaustive and is subject to change. Short-term consents that are required from time-to-time for construction activities have not been included.

Table 43: Schedule of Current Resource Consents Relating to the Transportation Activity

Location	Consent No.	Consent Type	Effective Date	Expiry Date
District Wide	RM120440	Discharge to Land Permit for Calcium Magnesium Acetate (road de-icing).	28/06/2012	1/10/2037
District Wide	RM080624	Discharge to Land Permit for roadside spraying.	18/03/2009	1/03/2024
Bridge Maintenance	RM161201	Discharge Permit	17/03/2017	5/09/2041

The control of roadside vegetation by spraying of herbicides require a discharge permit.

Additional resource consents may be required to allow for construction works involved with new capital or renewal projects where the scope of the project exceeds the permitted activities set out in the TRMP. A case-by-case assessment is undertaken at the beginning of each project to determine the resource consent requirements and an application is made if necessary.

10.3.2 Resource Consent Reporting and Monitoring

The Council aims to achieve compliance with all consents and/or operating conditions. BraveGen, a consent database is maintained to allow for the accurate programming of all actions required by the consents, including renewal prior to consent expiry. The database is actively updated to ensure all consent conditions are complied with and that all relevant report requirements are adhered to.

10.3.3 Property Designations

Adoption of this AMP may require the Council to seek amendments or new designations for future transport corridors. This will be started in 2022.

11 Risk Management and Assumptions

This AMP and the financial forecasts within it have been developed from information that has varying degrees of completeness and accuracy. In order to make decisions in the face of these uncertainties, assumptions have to be made. It is acknowledged that there are some significant uncertainties around growth, climate change and funding. This AMP has been developed on a set of assumptions, but must be agile to respond should these assumptions be incorrect.

11.1 Our Approach to Risk Management

A risk is any event that has the potential to impact on the achievement of the Council's objectives. The potential impact of a risk is measured by a combination of the likelihood it could occur, and the magnitude of its consequences on objectives.

The Council will follow the Risk management Framework to ensure that possible risks that it is exposed to are either avoided or if it is not possible to avoid those risks controlled to an acceptable level.

The Council's Risk Management Framework process is to capture and maintain information on identified risks using the risk register. The register will use the following key stages to manage risk:

1. Identify the risk
2. Analysis the risk
3. Evaluate the risk
4. Treat the risk; and
5. Review the risk.

The Council has adopted this approach to risk management which follows the Australian/New Zealand Standard ISO 31000:2009 Risk Management – Principles and guidelines.

Refer to the Council's Risk Management Policy and the Enterprise Risk Management Framework for further information.

11.2 Activity Risks and Mitigation

The key risks relevant to the transportation activity are summarised in Table 44 below.

Table 44: Key Risks

Risk Event	Mitigation Measures
Catastrophic failure of a network structure.	Current: • routine maintenance and inspections are included in the network road maintenance contracts; • detailed inspections are completed for the entire bridge and retaining wall network every two years; • reactive inspection following extreme weather events. Proposed: • Rating assessments for bridges and retaining walls that have not yet been rated and where inventory is not well known.
Premature deterioration or obsolescence of an asset.	Current: • maintenance performance measures included in the network maintenance contracts; • routine inspections; • Street light replacements are LED.
Sub-optimal design and/or construction practices or materials.	Current: • Waka Kotahi material inspections; • contract quality plans; • professional services and construction contract specifications; • Third party reviews. Proposed: • Ongoing staff training.
Ineffective stakeholder engagement e.g. iwi, Heritage NZ, community groups.	Current: • The Council holds regular iwi meetings; • The Council's GIS software includes layers identifying cultural heritage sites and precincts. The Council staff apply for Heritage NZ authorities when these known sites are at risk of damage or destruction; • project management processes and the Council's consultation guidelines are followed.
Failure to gain property access.	Current: • stakeholder management; • works entry agreements; • use of the Council's property team to undertake land purchase negotiations; • Public Works Act.

An asset management improvement item included in Section 13.3 is to implement the Council's new risk management framework.

11.2.1 Natural Hazards and Resilience

The size and diverse nature of the Tasman landscape makes the region susceptible to a wide range of natural hazards. Tasman lies within a seismically active zone, has five major river catchments and a large coastal environment. As a result, Tasman residents have experienced the damaging effects of landslides, flooding and coastal inundation.

Some hazards have a slower onset period, for example sea level rise associated with the effects of climate change, and other hazards such as earthquakes can have little to no warning. Regardless of these timeframes, the Council needs to plan for these hazards and determine whether adaption, mitigation, or retreat is appropriate.

The Council's Infrastructure Strategy provides details of the relevant natural hazards in context to the Council infrastructure and outlines how we intend to manage risk and improve resilience. In addition to this, the Regional Civil Defence Emergency Management Group Plan provides a risk profile that outlines and ranks these natural (and other) hazards. The risk assessment determines the likelihood and consequence of the hazard occurring ranges between low to very high likelihood and insignificant to catastrophic consequences. For example on the extreme end of the scale, an Alpine Fault earthquake is considered possible and would result in catastrophic consequences for both people and infrastructure.

The Council needs to ensure it has robust planning in place and provides infrastructure that is resilient. The Council is taking a long term strategic approach by undertaking risk, resilience and recovery planning to provide better information on infrastructure resilience requirements. The Council will also continue to focus on planning and managing its critical assets and lifelines networks to ensure that the appropriate level of effort is being made to better manage, maintain and renew them.

As well as ensuring its assets are resilient, the Council has a range of financial provisions to assist with response to and recovery from major damaging events. These include:

- Annual emergency funding.
- An established Emergency Fund that the Council aims to maintain to a value of $12.8 million.
- Ability to reprioritise the Council's capital programme.
- Insurance cover of 40% of the costs of a catastrophic disaster event, up to $125m.
- Central Government support of up to 60% through the Local Authority Protection Programme.
- Waka Kotahi subsidy of at least 51% for subsidies transportation asset reinstatement.

11.3 Assumptions and Uncertainties

This section documents the uncertainties and assumptions that the Council considers could have a significant effect on the financial forecasts, and discusses the potential risks that this creates as seen in Table 45 and Table 46 below.

Table 45: Generic Assumption and Uncertainties

Type	Uncertainties	Assumption	Discussion
Financial	Unless stated it can be unclear whether financial figures include inflation or not, as well as whether GST has been included or not.	That all expenditure has been stated in 1 July 2020 dollar values and no allowance has been made for inflation and all financial projections exclude GST unless specifically stated.	The LTP will incorporate inflation factors. This could have a significant impact on the affordability of each activity if inflation is higher than allowed for. The Council is using the best information practically available from Business and Economic Research Limited (BERL) to reduce this risk.
Asset Data Knowledge	The Council has inspection and data collection regimes in place for assets. These regimes do not allow for entire network coverage at all times. The Council's aim is to strike the right balance between adequate knowledge and what is practical.	That the Council has adequate knowledge of the assets and their condition so that planned renewal works will allow the Council to meet the proposed levels of service.	There are several areas where the Council needs to improve its knowledge and assessments, but there is a low risk that the improved knowledge will cause a significant change to the level of expenditure required.

Type	Uncertainties	Assumption	Discussion
Growth Forecasts	Growth forecasts are inherently uncertain and involve many assumptions. The Council commissioned population projections for the LTP 2021-2031 as the basis for its growth planning. However, growth will vary depending on actual birth and death rates, as well as net migration.	That the district will grow or decline as forecast in the Council's Growth Model. The overall population of Tasman is expected to increase by 7,700 residents between 2021 and 2031, to reach 64,300. The District will experience ongoing population growth over the next 30 years but the rate of growth will slow over time. Based on these assumptions, the Council is planning a further 4,300 dwellings and 160 new commercial or industrial buildings will be required by 2031.	Growth forecasts are used to determine infrastructure capacity and when that capacity will be required. If actual growth varies significantly from what was projected, it could have a moderate impact on the Council's plans. If growth is higher than forecast, additional infrastructure may be required quicker than anticipated. If growth is lower, the Council may be able to defer the delivery of new or additional infrastructure.
Project Timing	Multiple factors affect the actual timing of projects e.g.: Consents Access to and acquisition of land Population growth Timing of private developments Funding and partnership opportunities	That projects will be undertaken when planned.	The risk of the timing of projects changing is high due to factors like resource consents, third party funding, and land acquisition and access. The Council tries to mitigate these issues by undertaking the investigation, consultation and design phases sufficiently in advance of when construction is planned. If delays occur, it could have an impact on the levels of service and the Council's financing arrangements.

Type	Uncertainties	Assumption	Discussion
Project Funding	The Council cannot be certain that it will receive the full amount of anticipated subsidy or contribution. It depends on the funder's decision making criteria and their own ability to raise funds.	That projects will receive subsidy or third party contributions at the anticipated levels.	The risk of not securing funding varies and depends on the third party involved. If the anticipated funding is not received it is likely that the project will be deferred which may impact levels of service.
Accuracy of Cost Estimates	Project scope is often uncertain until investigation and design work has been completed, even then the scope can change due to unforeseen circumstances. Even if the scope has certainty there can be changes in the actual cost of work due to market competition or resource availability.	That project cost estimates are sufficiently accurate enough to determine the required funding level.	The risk of large underestimation is low; however, the importance is moderate as the Council may not be able to afford the true cost of the project. The Council tries to reduce this risk by undertaking reviews of all estimates and including an allowance for scope risk based on the complexity of the project.
Land Access and Acquisition	Land access and acquisition is inherently uncertain. Until negotiations commence, it is difficult to predict how an owner will respond to the request for access or transfer.	That the Council will be able to secure land and/or access to enable completion of projects.	The risk of delays to projects or changes in scope is high due to the possibility of delays in obtaining access. Where possible, the Council undertakes land negotiations well in advance of construction to minimise delays and scope change. If delays do occur, they may affect the level of service that the Council provides.

Type	Uncertainties	Assumption	Discussion
Legislation Changes	Often Central Government changes legislation to respond to emerging national issues and opportunities. It is difficult to predict what changes there will be to legislation and their implications for the Council.	The Council assumes that it will be affected by changes to Government legislation. However, as the nature of these changes is not known no financial provision has been made for them except where noted elsewhere in the LTP 2021-2031 forecasting assumptions.	The risk of major changes that impact the Council is moderate. If major changes occur, it is likely to have an impact on the required expenditure. The Council has not planned expenditure to specifically mitigate this risk. It may be necessary for the Council to reprioritise planned work to respond to future legislation.
Emergency Reserves	It is impossible to accurately predict when and where a natural hazard event will occur. Using historic trends to predict the future provides an indication but is not comprehensive. The effects of climate change are likely to include more frequent emergency events.	That the level of funding reserves combined with insurance cover and access to borrowing capacity will be adequate to cover reinstatement following emergency events.	Funding levels are based on historic requirements. The risk of requiring additional funding is moderate and may have a moderate effect on planned works due to reprioritisation of funds.
Network Capacity	The Council uses a combination of as built data, network modelling and performance information to assess network capacity. The accuracy of the capacity assessment is based on the accuracy of asset and performance data.	That the Council's knowledge of network capacity is sufficient enough to accurately programme works.	If the network capacity is higher than assumed, the Council may be able to defer works. The risk of this occurring is low, however it should have a positive impact on the community because the level of service can be provided for longer before requiring additional capital expenditure. If the network capacity is lower than assumed, the Council may be required to advance capital works projects to provide the additional capacity sooner than anticipated. The risk of this occurring is low, however it could have a significant impact on expenditure.

Type	Uncertainties	Assumption	Discussion
Climate change	Continued greenhouse gas emissions will cause further warming and changes in all parts of the climate system. The level of continued emissions of greenhouse gases and the effectiveness of worldwide efforts to reduce them are not known. The full extent of the impacts of climate change and the timing of these impacts are uncertain.	The Council uses the latest climate predictions that have been prepared by NIWA for the Tasman District. The Council assumes that it is not possible to reduce the mid-century warming, due to the amount of carbon dioxide already accumulated in the atmosphere – i.e. that the projections for mid-century are already 'locked in'. As a consequence of climate change, natural disasters will occur with increasing frequency and intensity. The weather-related and wildfire events the District has experienced in recent years are consistent with predictions of climate change impacts. For low lying coastal land there will be increasing inundation and erosion from sea level rise and storm surge. Adaptation can help reduce our vulnerability and increase our resilience to natural hazards.	It is likely that risk of low lying land being inundated from the sea, and damage to the Council property and infrastructure from severe weather events, will increase. The Council will need to monitor the level of sea level rise and other impacts of climate change over time and review its budgets, programme or work and levels of service accordingly. The Council will continue to take actions to mitigate its own greenhouse gas emissions, to work with the community on responses to climate change and show leadership on climate change issues.

Type	Uncertainties	Assumption	Discussion
		We assume that sea levels will continue to rise and are likely to rise at an accelerated rate over time. Our plans assume a sea level rise (SLR) of up to 0.3m by 2045, 0.9m by 2090 and 1.9m to 2150 (metres above 1986-2005 baseline), in line with the Ministry for the Environment's Coastal Hazards and Climate Change Guidance (2017). For coastal subdivisions, greenfield developments and major new infrastructure, we are planning for 1.9m SLR by 2150. All sea-level rise assumptions are based on the RCP8.5H+ scenario set out in the MfE guidance (2017).	

Table 46: Transportation Specific Assumptions and Uncertainties

Type of Uncertainty	Description
Resources Consents	The need to secure and comply with resource consents can materially affect asset activities and the delivery of capital projects. The need to comply with resource consent conditions can affect the cost and time required to perform an activity. In some instances it determines whether or not the activity can continue. The Council has assumed that there will be no material change in operations due to consenting requirements over the period of the AMP. There may be some risk of change in requirements for roadside spraying as the current consent is due to expire in 2024. Securing resource consents is often a significant task in the successful delivery of a capital project or in the management of a particular facility. Consent applications may consume considerable time and resources, particularly in the instance of a publically-notified application or where a decision is subject to appeal. The Council has assumed that there will be no material change in the need to secure consents for construction activities and that consent costs for future projects will be broadly in line with the cost of consents in the past.
Emissions reduction plan	The Climate Change Commission (He Pou a Rangi) will release a draft package of advice to the government on actions it must take to reach net carbon zero by 2050. It is recognised that, under current policy settings, New Zealand is unlikely to reach net carbon zero by 2050. It is likely that the reductions plan and any legislation will require faster adoption of zero emissions vehicles, public transport and active transport. This AMP tries to anticipate this for Tasman, but recognises that more significant actions may be required to meet recommended actions.
Richmond Network Operating Framework	The Council is currently undertaking a study of the transportation network in Richmond in conjunction with Nelson City Council and Waka Kotahi. The study is currently in the processes of modelling current and future developments. The capital programme has been developed based on the work undertaken to date that assesses the current level of service of primary and secondary routes for different transport modes against the current levels of service. The Council assumes that once the Framework is complete, that the scope and cost of the individual projects will not materially change and that the planned budgets will be sufficient.
Significant Natural Hazard	The maintenance and renewal programmes assume that there will be no natural hazard events that the emergency reserve fund cannot cover the costs of remediation. Should such an event happen, the wider programme of work will be superseded by recovery works.
Technology Shift	Until now, self-drive vehicles have been the predominant form of transport throughout the District. In recent years, significant investment has been made in new technologies that have potential to change how vehicles operate and the demands that they may place on the road network. In the future, it is likely that driverless automated vehicles become commonplace. The Council assumes that these changes in technology will not significantly impact the way the transportation network functions.

12 Asset Management Processes and Practices

Good quality data and asset management processes are the heart of effective planning. This section outlines our approach to asset management, our processes, and provides an overview of the data management systems and strategies that underpin our transportation activities.

12.1 Appropriate Practice Levels

The Office of the Auditor General (OAG) has chosen to use the International Infrastructure Management Manual (IIMM) as the benchmark against which New Zealand councils measure their activity management practices. There are five maturity levels in the IIMM; Aware, Basic, Core, Intermediate and Advanced. The IIMM sets out what the requirements are for each level against each area of the activity management system.

In 2017, the Council reviewed its Activity Management Policy and adopted an updated version. The Policy sets out the Council's activity management objectives and appropriate levels of practice. For transportation activities, the Council has determined that the appropriate level of practice is intermediate with advanced level of practice for demand forecasting, asset register data and asset condition.

12.2 Service Delivery

12.2.1 Activity and Asset Management Teams

The Council has an organisational structure and capability that supports effective asset management planning. Multiple teams across the Council are responsibility for the different aspects of activity and asset management. The focus of the teams ranges from a strategic focus at the Long Term Plan/Infrastructure Strategy level which involves a cross-Council team, through to detail/operational focus at the Operational team level.

Within the Engineering Services department, the asset management planning function is managed by the Activity Planning team. Operations are the responsibility of the Utilities and Transportation teams, while Projects and Contracts are managed by the Programme Delivery team.

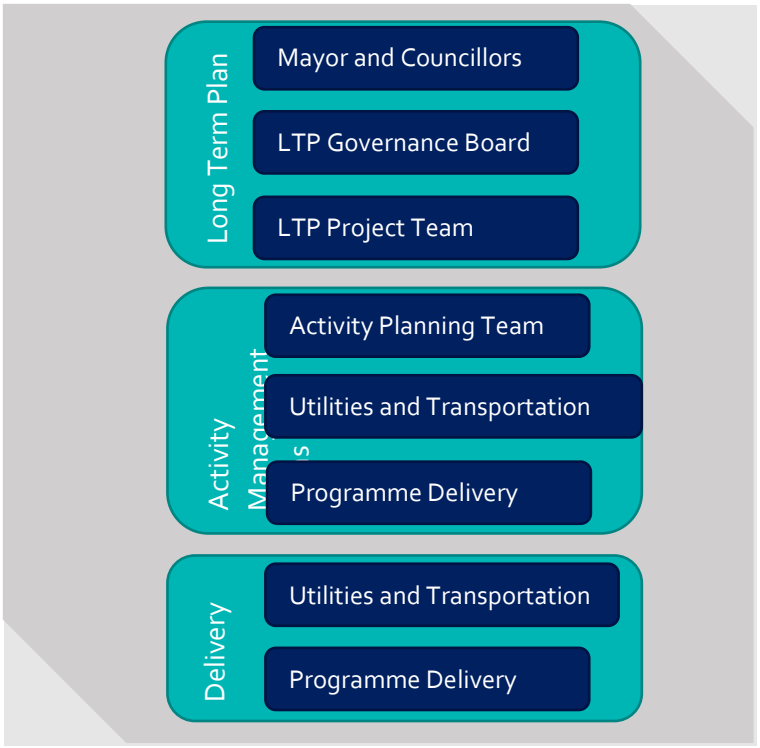


Figure 94: Teams Involved in Activity and Asset Management

The Activity Planning Team is responsible for the update of the activity management plans every three years, as well as implementation of the improvement plan. Each plan is assigned to the respective Activity Planning Advisor who is responsible for updating it. The Activity Planning Advisor works in with the activity's Asset Engineers to ensure that the current and future operating and maintenance aspects of the activities are adequately incorporated into the document. All activity management plans are reviewed by the Activity Planning Programme Leader who holds a National Diploma in Infrastructure Asset Management. The quality assurance process for the Engineering Services activity management plans is as follows;

- Preparation (Activity Planning Advisor)
- Check (Utilities or Transportation Manager, and relevant Asset Engineer)
- Review (Activity Planning Programme Leader)
- Approve (Engineering Services Manager)
- Adopt (Full Council)

12.2.2 Maintenance Contracts

The service delivery role is primarily outsourced. Key functions in the road maintenance and their outsourcing mechanisms are outlined in the following Table 47~~Table 47~~ below.

Table 47: Maintenance Contracts

Function	Operations and Maintenance
Road Corridor and Carriageway	Maintenance Contracts Murchison – Fulton Hogan (until 1 April 2023) Golden Bay – Fulton Hogan (until 1 April 2023) Tasman – Tasman Roading Alliance (until 1 July 2024)
Bridges and Structures	Maintenance Contracts Murchison – Fulton Hogan (until 1 April 2023) Golden Bay – Fulton Hogan (until 1 April 2023) Tasman – Tasman Roading Alliance (until 1 July 2024)
Streetlighting	Streetlighting Contract (Powertech until 30 June 2021)
Road marking	Maintenance Contracts Murchison – Fulton Hogan (until 1 April 2023) Golden Bay – Fulton Hogan (until 1 April 2023) Tasman – Tasman Roading Alliance (until 1 July 2024)
Footpaths and vehicle crossings (unsubsidised)	Maintenance Contracts Murchison – Fulton Hogan (until 1 April 2023) Golden Bay – Fulton Hogan (until 1 April 2023) Tasman – Tasman Roading Alliance (until 1 July 2024)
Traffic Counting	Traffic Engineering and Management Limited (TEAM) until October 2021

Network Maintenance Contracts are presently split into distinct geographic areas Golden Bay, Murchison and Tasman. Golden Bay and Murchison are a joint principal's contract with Waka Kotahi to supply road maintenance services to both state highway and local roads.

The geographic splitting of contract areas has been in place for many years and generally meets community preferences, recognising that the District covers a large area with a range of environments and challenges, as well as enhancing opportunities for a competitive supplier market.

Each contract uses several ways of specifying how work is to be undertaken in order to achieve the best overall result for the network and users. These methods are summarised below:

- Performance based
    - Specifications in the maintenance contract state the required level of service and the timeframe the contractor has to complete the work. This is frequently used for routine works where the contractor can apply innovation and efficiency in undertaking the tasks;
- Scheduled work / unit rate
    - This is used where the contractor is best suited to define the unit cost and control their costs, but the total quantity of work to be undertaken during the contract may be known or unknown;
- Lump sum or fixed price
    - This is used where a package of work is well defined and the contractor is able to clearly identify the required resources (plant/labour), materials and risks involved;
- Hourly rates
    - This is typically used for emergency works and where it is not realistic to define the scope of work. It can also be used for day works when the scope is not well defined.

All three road maintenance contracts include sealed and unsealed pavement maintenance, drainage systems maintenance, routine bridge maintenance (detritus, cleanliness and vegetation), footpath and walkway maintenance, vegetation control, detritus removal, street cleaning, litter removal, signs maintenance, barrier maintenance and street furniture maintenance. Incident response (eg, vehicle crashes) and emergency event response (e.g., slips, floods, fallen trees) are also included.

Work excluded from these contracts includes:

- Street light maintenance is procured through one contract that covers the entire District. The contractor for this work is Powertech Nelson NZ Ltd and the contract expires on June 2021 with the potential for an extension to June 2022. The contract includes quarterly inspections at which time defects are noted and attended to along with a check of the assets inventory data. The maintenance contractor is also responsible for following up defects reported by the public (Customer Service Requests or "CSR's") and attending to other reactive maintenance issues such as vandalism or damage caused by vehicle accidents.
- Structural bridge and retaining wall renewals which s procured through a separate contract that is typically let annually.
- The maintenance of Tasman's Great Taste Trail is procured through a separate maintenance contract that is currently held by the Nelson Tasman Cycle Trail Trust.
- Traffic signals are managed by Wellington Transport Operations Control (WTOC) and Powertech NZ Ltd complete physical maintenance works.

The key maintenance types are described below:

- Routine Maintenance – includes sealed and unsealed pavement maintenance, routine drainage maintenance, routine bridge maintenance which includes guardrails and retaining walls;
- Corridor Maintenance – includes those items above the pavement and adjacent to the carriageway such as road marking, signs, vegetation, street lighting, street furniture, sweeping and street litter, managing ice and gritting, responding to incidents and minor emergency works;
- Emergency Reinstatement – this covers the initial reinstatement of the networks roads to allow single lane traffic to pass either during or immediately post major flooding events, wind and snow storms and slips. Where this is a substantial sum, and subject to the Council policies and specific approval, this is usually paid for through additional funding requests to the Waka Kotahi;
- Network and Asset Management – includes professional engineering services provided by the Council staff and external consultants to investigate, develop, programme, monitor and report on the work undertaken on the road network;
- Special Purpose Roading – includes all of the above activity groups for the Totaranui Road and Pupu Springs Road which the Council manages but are subsidised at a special rate (100%) by the Waka Kotahi;
- Non-Subsidised Roading – this includes the maintenance, operation and management of those components of the transportation network such as carparks and footpaths that are not eligible for subsidy from the Waka Kotahi and typically, solely funded by the Council;

12.2.3 Staff Training

The Council maintains an annual budget for staff training that is managed by the Engineering Services Manager for the Engineering Services department. This budget allows for continued development of staff to ensure that best practice is maintained and that the Council retains the skills needed to make improvements in asset management practices. This includes on-going technical and professional training as well as specific asset management training.

12.2.4 Professional Support

The Engineering Services Department has a need to access a broad range of professional service capabilities to undertake investigation, design and procurement management in support of its significant transport, utilities, coastal management, flood protection and solid waste capital works programme, as well as support with activity management practice. There is also a need to access specialist skills for design, planning and policy to support the in-house management of the Council's networks, operations and maintenance.

To achieve this the Council went to the open market in late 2013 for a primary professional services provider as a single preferred consultant to undertake a minimum of 60% in value of the Council's infrastructure professional services programmes. The contract was awarded to Stantec NZ, beginning on 1 July 2014 with an initial three-year term and two three-year extensions to be awarded at the Council's sole discretion. In 2020, the second of these discretionary three-year extensions was granted, with the proportion of the Council's professional services programmes reduced to 50%. In addition to this, a secondary professional service panel was also appointed through an open market tender process for a period of three years, to provide professional services that will not be supplied by Stantec.

12.2.5 Procurement Strategy

The Council has a formal Procurement Strategy that it follows in order to engage contractors and consultants to assist the Engineering Services department. This strategy has been prepared to meet Waka Kotahi's requirements for expenditure from the National Land Transport Fund, and it describes the procurement environment that exists within the Tasman District. It was developed following review of the strategy and was approved in July 2019. It principally focuses on Engineering Services activities but is framed in the Waka Kotahi procurement plan format, which is consistent with whole-of-government procurement initiatives. Tenders pipeline, supplier panels and the procurement strategy can be found at: https://tasman.govt.nz/my-business/tenders-and-supplier-panel/

Changes in costs to undertake road maintenance activities has necessitated frank conversations with the contractor for the Tasman Road Maintenance contract. These conversations have resulted in a change in contracting model to an alliance model. This change in model has meant that the Council should see the following benefits:

- Ability to utilise additional expertise and tools the contractor has to better understand and plan maintenance activities.
- minimize the tasks associated with administering the contract.
- Greater ability make changes to the maintenance programme and to react to unforeseen events.

However this contract change also means that the Council now takes on greater cost risk that the previous contract.

12.2.6 Service Delivery Reviews

In 2014, Section 17A was inserted into the Local Government Act which requires the Council to review the cost effectiveness of its current arrangements for providing local infrastructure, services, and regulatory functions at regular intervals. Reviews must be undertaken when service levels are significantly changed, before current contracts expire, and in any case not more than six years after the last review. In addition to the regular reviews, the Act requires the Council to complete an initial review of all functions by August 2017.

Table 48~~Table 48~~ below summarises the reviews that have been completed to date and when the next review is required for this activity.

Table 48: Summary of Reviews

Scope of Review	Summary of Review	Review Date	Next Review
Transport maintenance service delivery	An initial review found the current maintenance structure is still the most cost-effective option for the delivery of governance, funding and service delivery. Additionally, the Council continue to be involved in any regional initiatives around the delivery of various functions within the transportation activity	August 2017	2022

In addition to the Section 17A reviews, the Engineering Services department reviewed its current capability and capacity against the requirements of the future programmes of work set out in its activity management plans. To enhance the department's ability to deliver the capital works programme the following actions have been taken:

- Undertaken a detailed review of the capital programme for the next five years to better understand project complexities and delivery requirements.
- Implemented Planview a new project management system to track and report project delivery progress.
- Increased the number of Project Managers from 4 to 5.5 full time equivalent staff resources.
- Introduced enhanced performance requirements for our lead technical consultant for delivery of technical advice and engineering design.
- Tendered for a new supporting professional services paned with enhanced performance requirements.

12.2.7 Management

Transportation activities are the responsibility of the Transportation Manager, who reports to the Engineering Services Manager, who reports to the Chief Executive.

A Road Maintenance Programme Leader, Road Operations and Safety Co-ordinator, three Road Engineers, a Technical officer and Administration Officer report to the Transportation Manager. These positions are employed by the Council within an internal business unit of the Council, and deliver the operations, maintenance and renewals programmes.

Activity planning is undertaken by the activity planning team which is charged with strategic planning and policy development, asset data management, managing the impact of new development on infrastructure and providing regulatory services associated with the RMA to the rest of Engineering Services. The activity planning manage reports to the Engineering Services Manager.

Capital works is primarily delivered through a Programme Delivery team who provide project management services to the transport team, and report to the Engineering Services Manager. The design, specification and construction monitoring of capital and major renewal work is generally outsourced.

All professional services and physical works associated with the transport activity is procured in accordance with the Council's Waka Kotahi approved Procurement Strategy.

12.2.8 Governance

The Tasman District Council comprises a Mayor and 13 Councillors, which provide governance for the transportation activity within the Tasman District. As a unitary authority, the Council is also represented on the Tasman Regional Transport Committee. Tasman, Nelson and Marlborough Councils have aligned their Regional Land Transport Plans to produce a combined Top of the South Regional Land Transport Plan.

12.2.9 Decision Making

Councillors set out direction and budgets in three year block in the Long Term Planning process. The public are consulted on this plan through the Special Consultancy Procedure before the Council makes a decision to adopt. The Long Term Plan, can be varied through the annual plan process that the Council also have to adopt. If the annual plan is a significant variance to the Long Term Plan, the Council will consult with the public through the Special Consultancy Procedure.

The Council staff are authorised to undertake activities within the approved Long Term Plan budgets or as varied by the Annual Plan. The Council staff have authority to approve spending up to an amount as described in the Delegations Register.

12.2.10 Smart Buyer Self-Assessment

The Road Efficiency Group (REG) through the Procurement sub-committee determined that expertise and understanding of delivery models, industry practices and understanding the whole cost of maintenance creates 'Smart Buyers'. Smart Buyers have a better chance to making sound and informed decisions during maintenance contracts renewal and often have better outcomes. REG developed a Smart Buyer Assessment to assist Road Controlling Authorities to determine where they can make improvements. This assessment has been undertaken by the Council and results are shown in Table 49 below.

Table 49: Smart Buyer Assessment

Assessment statement Our organisation:	1	2	3	4	5
1. Fully understands the different contracting models available. Staff have recently undertaken an investigation into different contract models for our road maintenance contract in the Waimea area. The process looked at a number of options and involved ground trothing some of the benefits by visiting other Councils that use these models.					?
2. Holds meetings that update the contracting industry on the forward works programme and any changes in approach, and proactively engages with the contracting industry to ensure it gains optimal value from any changes being implemented. We have regular, formal meetings with the local branch of Contractor's Federation to inform them of the forward works programme and discuss industry issues. However, we are aware that these conversations may not yield quality feedback from existing contractors because of our position as a significant client.				?	
3. Has sufficient robust data (or is in the process of gathering robust data) on our networks to enable optimal integrated decision-making. We have reasonably good coverage of our network by High Speed Data, FWD strength data. We have a significant traffic counting programme. DTIMS is used to test and refine investment decisions. However, our data quality scores have regressed recently and we are not using the all tools to assist with every day decision making			?		

Assessment statement Our organisation:	1	2	3	4	5
4. Has access to expertise that fully enables best use of the data available. The internal team has good capability with support from external specialists as required. Data-led decision making is part of how we do business.				☒	
5. Is open to alternative solutions to those proposed in the contract documents. We maintain ongoing open conversations with suppliers regarding contract conditions and specifications to seek out best value. For example, unsealed metalling where alternative materials are actively sought, tested and valued.					☒
6. Understands risk and how to allocate and manage it. Risks are always a consideration when making decisions around investment, as well as with supplier engagement. For example, key risks are identified and allocated within our maintenance contracts.				☒	
7. Has a Council that is prepared to pay more now to achieve a lower whole of life cost. The Council have invested in upgrading our streetlights to LED.				☒	
8. Actively pursues value for money & does not always award contracts to the lowest price. Our supplier selection methods for key activities like road maintenance mainly involve the use of the Price Quality Method with high weighting on non-price attributes – most recently 60% for C1096.					☒
9. Is able to manage supplier relationships/contracts to ensure optimal expenditure, which sustains infrastructural assets at appropriate levels of service. Excellent relationships are maintained with suppliers through regular formal and informal meetings at various levels within the respective organisations. However, we are still settling into a new alliance contract, and learning how we can leverage this.				☒	
10. Supports ongoing skill and competency training and development for staff. Very low barriers to staff being able to access training opportunities, and staff regularly attend industry events including conferences. However, as an organisation we could sometimes be more proactive in identifying opportunities.				☒	
11. Actively shares and gains knowledge within the sector. Various staff are active in sector initiatives such as Road Efficiency Group (REG).					☒

Assessment statement Our organisation:	1	2	3	4	5
12. Is effective in keeping up with best practice in procurement, including best practice RFP/contract documentation. Staff keep up with this through involvement with REG.					☒
13. Regularly seeks and receives candid feedback from suppliers on its own performance as a client and consistently looks to improve its performance. We encourage suppliers to give us feedback in an informal way. Our good supplier relationships enable conversations around performance improvements.					☒
14. Explores opportunities for collaboration by either sharing in-house resources with neighbours, or by procuring together or tendering together. That exploration could be through an LGA s17A evaluation of transport function delivery options. We actively seek out collaborative opportunities and demonstrated this recently with a joint process with NCC procuring road maintenance contracts. We have an active TAG for the Top of the South and prepare a joint RLTP with Nelson and Marlborough.					☒
Number of ticks in each column			1	6	7
Multiplying factor	x 1	x 2	x 3	x 4	x 5
Total Score in Column			3	2 4	3 5
Total Score	62				

A score of 62 in this assessment show that the Council are smart transportation buyers and have good processes, expertise and training for achieving good value for money in the transportation activity. This assessment also indicates that there are some areas that the Council can make improvements.

12.3 Asset Management Systems and Data

12.3.1 Information Systems and Tools

The Council has a variety of systems and tools that support effective operation and maintenance, record asset data, and enable that data to be analysed to support optimised life-cycle management. These are detailed below in Figure 95. There is a continual push to incorporate all asset data into the core asset management systems where possible; where not possible, attempts are made to integrate or link systems so that they can be easily accessed.

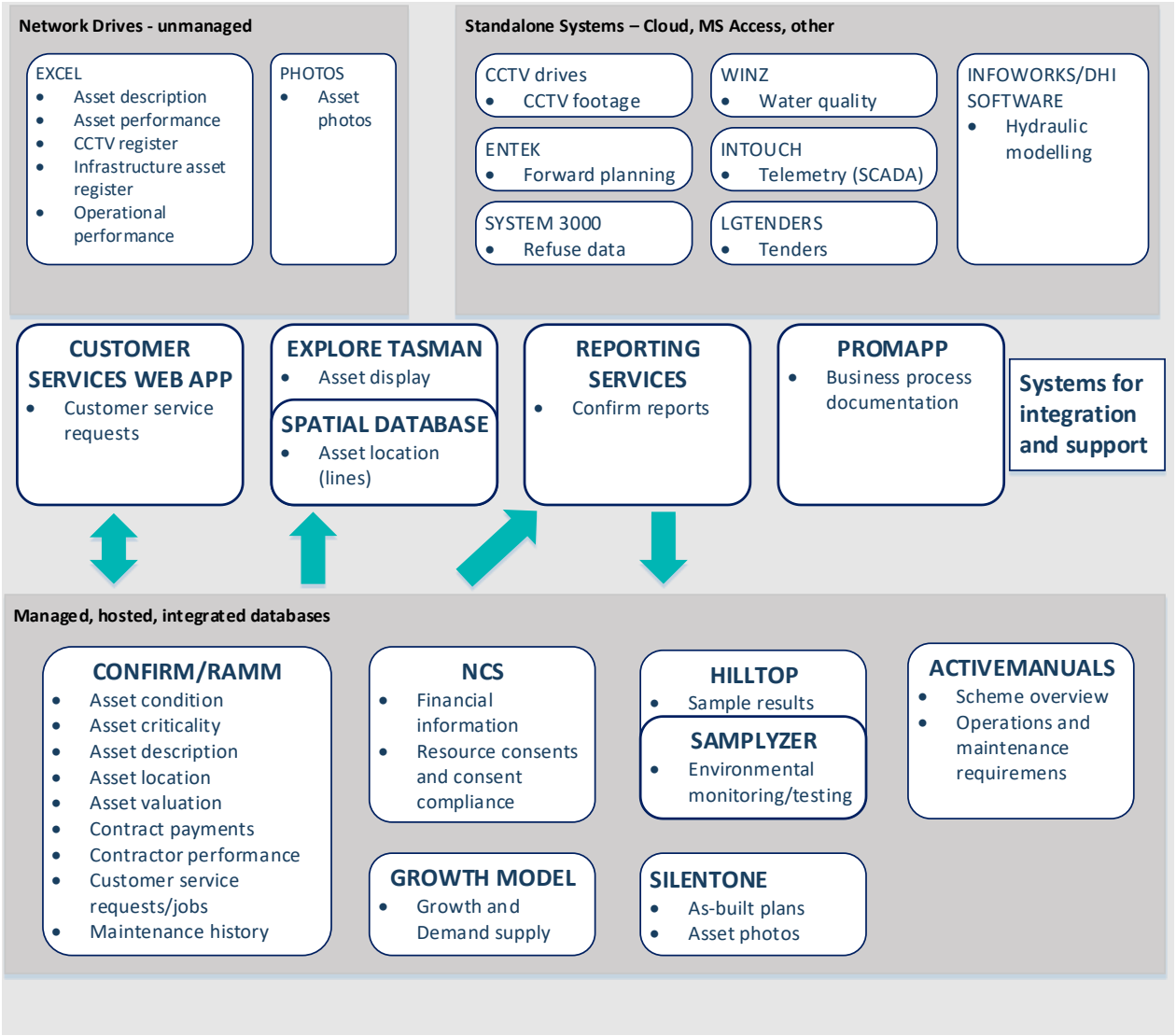


Figure 95: Systems Used for Asset Management

12.3.2 Asset Data

Table 50~~Table 50~~ summarises the various data types, data source and how they are managed within the Council. It also provides a grading on data accuracy and completeness where appropriate.

Table 50: Data Types and Information Systems

Data Type	Information System	Management strategy	Data Accuracy	Data Completeness
As-built plans	DORIS (Digital Office and Record Information System)	As-built plans are uploaded to DORIS, allowing digital retrieval. Each plan is audited on receipt to ensure a consistent standard and quality.	2	2

Data Type	Information System	Management strategy	Data Accuracy	Data Completeness
Asset condition	Confirm/RAMM	Assets are inspected by a consultant or staff and the inspection information in entered directly into RAMM using and Pocket RAMM mobile applications.	N/A	N/A
Asset criticality	Confirm/RAMM	When a new asset is created, the activity planner and engineer will make an assessment on criticality. Criticality of asset can be modified by authorized users should circumstances change.	4	3
Asset description	RAMM / Confirm	All assets are captured in RAMM or Confirm's Site and Asset modules, from as-built plans and maintenance notes. Hierarchy is defined by Site and three levels of Asset ID (whole site, whole asset or asset). Assets are not broken down to component level except where required for valuation purposes. It is also possible to set up asset connectivity, but this hasn't been prioritised for the future yet.	2	2
Asset location	RAMM (point data) / GIS (line data)	Co-ordinates for point data completely (NZTM) describe spatial location. Line data links to GIS layers that describe the shape.	2	2
Asset valuation	Confirm/RAMM	Valuation of assets done based on data in both RAMM and Confirm.	2	2
Contract payments	Confirm/RAMM	Maintenance and capital works contract payments are done predominately through RAMM but will also include Confirm. Data on expenditure is extracted and uploaded to NCS.	N/A	N/A
Contractor performance	RAMM	Time to complete jobs is measured against contract KPIs through RAMM's Maintenance Management module.	N/A	N/A
Corporate GIS browser	ArcGIS	Selected datasets are made available to all the Council staff through this internal GIS browser via individual layers and associated reports.	N/A	N/A
Customer service requests	Customer Services Application to RAMM or Confirm	Customer calls relating to asset maintenance are captured in the custom-made Customer Services Application and passed to Confirm's Enquiry module or as a RAMM Contractor Dispatch.	N/A	N/A

Data Type	Information System	Management strategy	Data Accuracy	Data Completeness
Financial information	NCS	The Council's corporate financial system is NCS, a specialist supplier of integrated financial, regulatory and administration systems for Local Government. Contract payment summaries are reported from RAMM and imported into NCS for financial tracking of budgets.	N/A	N/A
Infrastructure Asset Register	Spreadsheet	High level financial tracking spreadsheet for monitoring asset addition, disposals and depreciation. High level data is checked against detail data in the AM system and reconciled when a valuation is performed.	2	2
Forward planning	Spreadsheets, GIS Mapping	Forward works programmes for the Council's activities are compiled in excel, These are loaded onto GIS based maps for information and in order to identify clashes and opportunities.	N/A	N/A
Growth and Demand Supply	Growth Model	A series of linked processes that underpin the Council's long term planning, by predicting expected development areas, revenues and costs, and estimating income for the long term.	2	2
Maintenance history	RAMM	Contractor work is issued RAMM's Contractor module. History of maintenance is stored against individual assets.	2	2
Photos	Network drives	Electronic photos of assets are mainly stored on the Council's network drives.	N/A	N/A
Processes and documentation	Promapp	Promapp is process management software that provides a central online repository where the Council's process diagrams and documentation is stored.	2	5
Resource consents and consent compliance	NCS / Brave Gen	Detail on Resource Consents and their compliance of conditions (e.g. sample testing) are recorded in the NCS Resource Consents module.	2	2
Reports	RAMM	Report are generated from RAMM software directly. The Council also uses REG reports for consistency of reporting across the country which pulls the information from the RAMM database.	N/A	N/A

Data Type	Information System	Management strategy	Data Accuracy	Data Completeness
Tenders	GETS (NZ Governments Electronic Tendering Service)	Almost all New Zealand councils use this system to advertise their tenders and to conduct the complete tendering process electronically.	N/A	N/A

Table 51: Asset Data Accuracy and Completeness Grades

Grade	Description	% Accurate
1	Accurate	100
2	Minor inaccuracies	± 5
3	50% estimated	± 20
4	Significant data estimated	± 30
5	All data estimated	± 40

Grade	Description	% Complete
1	Complete	100
2	Minor gaps	90 – 99
3	Major gaps	60 – 90
4	Significant gaps	20 – 60
5	Limited data available	0 – 20

12.4 Critical Assets

Knowing what's most important is fundamental to managing risk well. By knowing this, the Council can invest where it is needed most, and it can tailor this investment at the right level. This will avoid over investing in assets that have little consequence of failure, and will ensure assets that have a high consequence of failure are well managed and maintained. For infrastructure, this is knowing Tasman's critical assets and lifelines. These typically include:

- Arterial road links including bridges
- Water and wastewater treatment plants
- Trunk mains
- Main pump stations
- Key water reservoirs
- Stopbanks
- Detention dams

During 2016, the Council in partnership with Nelson City Council, the Regional Civil Defence Emergency Management Group and other utility providers, prepared the Nelson Tasman Lifelines Report. This report summarises all lifelines within Nelson and Tasman. Within the report there was a number of actions identified to improve the Region's infrastructure resilience.

Over the next three years, as part of the Council's risk, resilience and recovery planning work, it will focus on the identification, planning and management of its critical assets and lifelines. This will help to ensure that the appropriate level of effort is being made to manage, maintain and renew them, and will extend to ensuring that the Council has adequate asset data to enable robust decisions to be made regarding the management of those assets.

12.5 Quality Management

The Council has not implemented a formal Quality Management system across the organisation. Quality is ensured by audits, checks and reviews that are managed on a case by case basis. Table 52~~Table 52~~ outlines the quality management approaches that support the Council's asset management processes and systems.

Table 52: Quality Management Approaches

Activity	Description
Process documentation	The Council uses Promapp software to document and store process descriptions. Over time, staff are capturing organisational knowledge in an area accessible to all, to ensure business continuity and consistency. Detailed documentation, forms and templates can be linked to each activity in a process. Processes are shown in flowchart or swim lane format, and can be shared with external parties.
Planning	The Long Term Plan and associated planning process are formalised across the Council. There is a LTP project team, LTP governance team, and AMP project team that undertakes internal reviews prior to the Council approval stages. Following completion of the AMPs, a peer review is done, and the outcomes used to update the AMP improvement plans.
Programme Delivery	This strictly follows a gateway system with inbuilt checks and balances at every stage. Projects cannot proceed until all criteria of a certain stage have been completely met and formally signed off.
Subdivision Works	Subdivision sites are audited for accuracy of data against the plans submitted. CCTV is performed on all subdivision stormwater and wastewater assets at completion of works and again before the assets are vested in the Council. If defects are found, the Council requires that they are repaired before it will accept the assets.
Asset Creation	As-built plans are reviewed on receipt for completeness and adherence to the Engineering Standards and Policies. If anomalies are discovered during data entry, these are investigated and corrected. As-built information and accompanying documentation is required to accompany maintenance contract claims.
Asset Data Integrity	Monthly reports are run to ensure data accuracy and completeness. Stormwater, water, wastewater, coastal structures, solid waste and streetlight assets are shown on the corporate GIS browser, Explore Tasman, and viewers are encouraged to report anomalies to the Activity Planning Data Management team.

Activity	Description
Operations	Audits of a percentage of contract maintenance works are done every month to ensure that performance standards are maintained. Failure to comply with standards is often linked to financial penalties for the contractor.
Levels of Service	Key performance indicators are reported annually via the Council's Annual Report. This is audited by the Office of the Auditor General.
Reports to the Council	All reports that are presented to the Council by staff are reviewed and approved by the Senior Management Team prior to release.

Table 53: Opportunities for Improvement

Assessment Statement	Priority
Data to Enable Optimised Integrated Decision-Making We will continue to understand and refine our data needs by understanding and implementing industry best-practice, including utilising work by REG. The ONRC is giving us better context and a framework to help us focus on our data needs.	High
Understand Risk and How to Allocate and manage it We could be more explicit and complete in describing our risks and how they are allocated and managed. This is linked to a wider organisational Risk Framework project currently underway.	High
Supports ongoing skill and competency training and development for staff We will more actively assist staff to attend training and development opportunities such as RCA forum, REG workshops, and industry conferences by setting up a register of opportunities and events.	High
Has a Council that is prepared to pay more now to achieve a lower whole of life cost We could do more to better inform our governance of these types of opportunities and how this is already part of business as usual on our network.	Medium
Contracting Models Staff could build their knowledge of alliance-model contracts by observing these in practice in other places, and identifying and discussing opportunities for where they may be of value to this Council. However, this is not a high priority, as the REG delivery model guidelines indicate that an Alliance would not necessarily be an optimal model at present for our network maintenance management and delivery.	Low

13 Improvement Planning

The activity management plans have been developed as a tool to help the Council manage their assets, deliver on the agreed levels of service and identify the expenditure and funding requirements of the activity. Continuous improvements are necessary to ensure the Council continues to achieve the appropriate level of activity management practice along with delivering services in the most sustainable way while meeting the community's needs.

Establishment of a robust, continuous improvement process ensures that the Council is making the most effective use of resources to achieve an appropriate level of asset management practice.

13.1 Assessment of our Activity Management Practices

In 2020, the Council undertook an assessment of its current asset management practices for the transportation activity. This was a self-assessment with the targets developed in consultation with Waugh Infrastructure Management Ltd to ensure they were appropriate for the activity given:

- Criticality of the Assets
- Value of the Assets
- Value spent on maintaining the assets

The maturity levels were based on the International Infrastructure Management Manual descriptions to maturity.

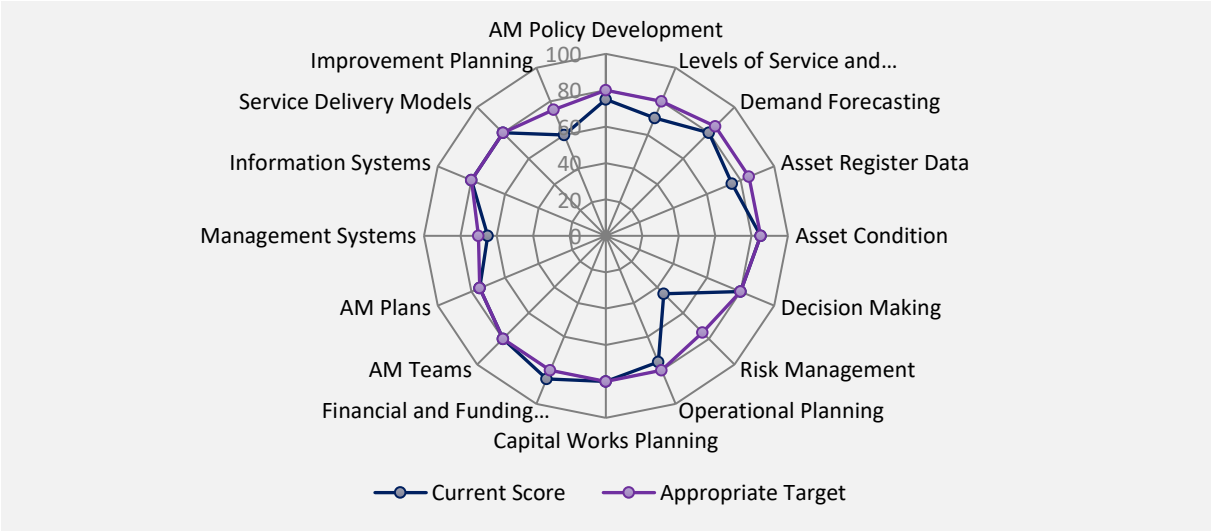


Figure 96: Transportation Maturity Levels

Figure 96~~Figure 96~~ shows that there are some gaps between where the Council's current practice is and where it is desired to be. Focus areas for improvements are Improvement Planning and Risk Management. The actions required to close these gaps have been included in the Improvement Plan.

13.2 Peer Reviews

13.2.1 Waugh Peer Reviews

In early 2018, the Council engaged Waugh Infrastructure Management Ltd to undertake a peer review on the consultation version of this activity management plan. The peer review considered all Engineering Services activities and included the following analysis:

- Overview analysis and consideration of AMP progress completed since the Waugh Infrastructure detailed 2011 AMP Compliance Report (in summary not detail).
- Review of AMPs against general industry practice as observed by Waugh Infrastructure in the past 12 months.
- Review and commentary on the adequacy of the AMP structure against current industry practice and requirements, as set out in IIMM 2015, ISO 55000.
- Analysis of AMP individual section strengths and emphasis, including analysis of overall AMP 'message' verses issues identified.
- Overview analysis of AMP status against appropriate asset management practice levels adopted in the Council's Activity Management Policy (summary not detail).
- Analysis of the AMPs against Local Government Act 2002 amendment requirements, both 2012, and 2014 – identification of any issues or 'misses'.
- Provide review comments of AMP strengths and weaknesses identified, with commentary on any suggested priority changes to be completed before LTP 2018.

It is important to note that the peer review only considered what was included in the consultation version of this activity management plan. There are aspects of the Council's asset management processes that are not discussed in this activity management plan and are therefore not incorporated into the scoring.

The overall findings of the Peer Review were that the Council's AMPs are well developed to support the Council's Long Term Plan. Some of the AMPs had sections that required completion, but overall missing elements noted were relatively minor.

The AMP template has been updated to incorporate recent Local Government Act changes. The AMP template developed and used by the Council has allowed clear, concise presentation of information in a logical manner.

The overall compliance status is shown below in Figure 97~~Figure 97~~.

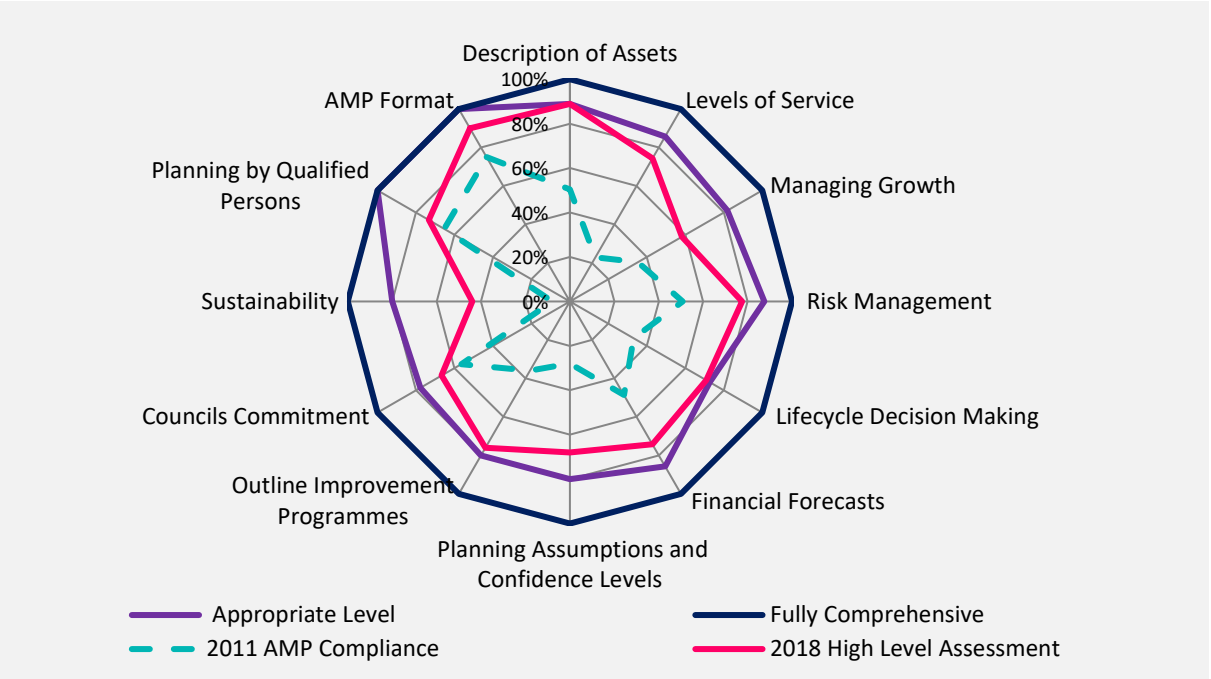


Figure 97: 2018 Peer Review Compliance Status Summary

The Council staff have reviewed and prioritised the feedback received in the peer review report. Improvements that could be made immediately have been incorporated into the final version of this activity management plan. Other improvements have been ranked and included in the Improvement Plan.

13.2.2 Waka Kotahi Peer Reviews

In November 2018, Waka Kotahi undertook an investment audit of the Councils land transport investment programme. The Audit covered network management, activity management plan, databases and safety performance. A summary of the audit is a follows.

- Tasman District Council's road asset is well managed and in very good condition. From an asset view, the Council's road maintenance and operations present as value for money. However, two areas for improvement are compliance with the Transport Agency's funding rules and network safety.
- The Council has a very good understanding of its road network and is generally following good practice in managing the road network.
- We identified issues of non-compliance with the Transport Agency's funding rules regarding Net Present Value analysis and Road Safety Audits. It is important the Council review its practices and comply with conditions of funding or it may jeopardise future funding requests.
- Safety performance across the network for Deaths and Serious Injuries (DSI) is deteriorating and warrants investigation by the Council to identify solutions to halt the decline. This is most relevant to Secondary Collector and Access roads, which account for 63 % of the network.
- Opportunities were identified that would enhance network management, resilience and potentially halt the increase in DSIs on the network

The audit made the following recommendations:

- Ensure compliance with the transport Agency funding rules that requires Net Present Value analysis for Pavement rehabilitation projects.
- Extend the coverage of High Speed Data and Falling Weight surveys.
- Review the audit process for drainage assets
- Implement the actions identified in the 2018 AM Improvement Plan.
- Review the improvement actions identified in the Pavement Performance Modelling report and seek to implement these improvements within current contracts
- Ensure compliance with the transport Agency funding rules that requires Road Safety Audits for all renewal and improvement projects
- Investigate rural road crashes and identify where appropriate, cost effective engineering solutions.
- Ensure that all traffic signs and markings are well maintained and comply with the Manual of Traffic Signs and Markings and/or Traffic Control Devices manual.

Most of these recommendations have been completed. Not all actions of the 2018 improvement plan have been completed. As identified in the audit, the capacity of internal staff to complete these actions was inadequate. The Council has doubled the transport activity management planning resource to achieve revised timelines. Additionally, the Council can now utlise addition expert resources from the Tasman Roads Alliance to assist in undertaking improvements. Data improvement actions are being addressed under a data improvement action on the improvement plan.

In August 2019, Waka Kotahi undertook an investment audit of the Councils land transport investment programme. The Audit covered previous audit issues, financial processes, procurement procedures, contract management and professional services. A summary of the audit is a follows.

Tasman District Council's Land Transport Disbursement Account is well structured and clearly separates expenditure across the range of activities receiving funding assistance.

End of year claiming procedures could be improved to ensure all eligible expenditure is captured and claimed in the correct year. We suggest stronger linkages between Finance and Engineering Services are put in place to address this.

Procurement procedures are generally sound, but the Council needs to ensure that a qualified Proposal Evaluator is included in tender evaluations for all contracts over $200,000 estimated value.

Professional services costs and overheads charged to subsided accounts were reasonable, but a flat rate administration on-cost is no longer permissible. The Council must calculate the true cost of administration related to financially assisted activities.

The audit made the following recommendations:

- The Council ceases applying the 2.25% administration on-charge and applies the actual costs of administration to financially assisted activities.
- The Council ensures there is a Qualified Proposal Evaluator on the tender evaluation team for all Waka Kotahi financially assisted contracts with an estimated value exceeding $200,000.
- The Council considers improving linkages between Finance and Engineering Services to ensure all eligible disbursements are captured and claimed within the three-year National Land Transport Programme (NLTP) funding cycle.
- This would include regular reconciliations between the general ledger and the claims submitted to the Transport Agency.
- All of these recommendations have been completed.

13.3 Improvement Plan

Establishment of a robust, continuous improvement process ensures that the Council is making the most effective use of resources to achieve the appropriate level of asset management practice. The continuous improvement process includes:

- Identification of improvements
- Prioritisation of improvements
- Establishment of an improvement programme
- Delivery of improvements
- On-going review and monitoring of the programme

All improvements identified are included in a single improvement programme encompassing all Engineering Services activities and is managed by the Activity Planning Programme Leader. In this way opportunities to identify and deliver cross-activity or generic improvements can be managed more efficiently, and overall delivery of the improvement programme can be monitored easily.

13.3.1 Summary of Improvements

A list of improvements for this activity is provided in Table 54 below. Some tasks identified in the 2018 AMP have not been completed. These tasks have been re-assessed and assigned revised timelines. Additional resources have been procured to ensure the revised timelines can be met.

Table 54: Transport Specific Improvement Items

Improvement Item	Further Information	Priority	Status	Expected Completion Date	Team Responsible	Cost/Resource Type
Condition Rating: Develop model for condition rating of the unsealed network.	Based on ONRC performance measures	Low	Not started. It was hoped that REG would develop some measures by now. The Council may have to undertake this independently.	December 2023	Transportation	Staff time
Improve road data quality	As identified in ONRC data quality report	High	In Progress. Significant work was undertaken in 2018 and 2019 which saw an improvement in data quality. However recent reports show that this has slipped.	On going	Activity Planning	Staff time
Define and classify cycleways in RAMM Database	Ensure all cycleways are clearly defined and assets identified by the walking and cycling strategy are incorporated.	Med	This has been started as part of the walking and cycling strategy development. The strategy is in the process of defining existing cycleways that are of strategic importance and those that serve a recreational function.	July 2024	Activity Planning	Staff time

Improvement Item	Further Information	Priority	Status	Expected Completion Date	Team Responsible	Cost/Resource Type
Update transport policies		Low	This has been started, with the intent to update all the policies at once. However, this approach will be changed to focus on the most important policies first and address the others later.	Import policies July 2022. All other policies July 2024	Activity Planning	Staff time
Create retaining wall condition records	Inspect all retaining walls in accordance with Waka Kotahi's specification	Med	Not Started	December 2023	Transportation	Consultant and staff time
Assumption sensitivity testing	Test sensitivity and impacts of various assumptions to improve AMP quality	Low	Not Started	October 2024	Activity Planning	Staff Time
Motueka NOF	Undertake a Network Operating Framework study of Motueka to discover the effects of traffic and population growth and establish the network hierarchy by mode	Med	Not Started	July 2024	Activity Planning	Staff Time Network modelling

Improvement Item	Further Information	Priority	Status	Expected Completion Date	Team Responsible	Cost/Resource Type
Speed Management Plan	Update the speed management plan	High	Completed initial update on most critical areas. Agreed with Councilors to undertake a network wide review. This has already started.	June 2023	Activity Planning	Staff Time
Reserves Walkways	Identify walkways through reserves that are transit links for Waka Kotahi maintenance subsidy	High	Partially completed in April 2019 as part of the Richmond Network Operating Framework. The remaining parts of the network will be completed as part of the walking and cycling strategy.	July 2024	Activity Planning/Parks & Reserves	Staff Time
Road closure data collection	Create and implement a process to record the time a road is closed due to an unplanned event.	Med	Not Started	June 2021	Transportation	Staff and Contractor time
Remote bridges policy	Develop a policy on what we do with very remote brides on very low volume roads.	Low	Not Started	December 2024	Activity Planning	Staff Time

Improvement Item	Further Information	Priority	Status	Expected Completion Date	Team Responsible	Cost/Resource Type
Improve procurement procedures	As identified in the Waka Kotahi investment audit and Smart Buyer assessment	Med	Completed August 2019	-	Transportation	Staff time
Parking Strategy	Create a parking strategy to cater for demand in Richmond and Motueka	High	Completed October 2018. However, strategy may need to be updated in light of National Policy Statement on Urban Design	-	Activity Planning	Staff time
Public Transport Plan	Review and update public transport services in Tasman	High	Undertook a review with Nelson City Council and created a new joint plan. Completed June 2021.	-	Activity Planning	Consultant and staff time
Safety Management Systems	Review the management systems regarding safety	Med	Management systems were reviewed and changes have been made in reporting to Councilors and safety auditing of projects. Completed in September 2018.	-	Transportation	Staff Time

A list of general across activity improvement items is given in Table 55 below.

Table 55: General Activity Management Improvement Items

Improvement Item	Further Information	Priority	Status	Expected Completion Date	Team Responsible	Cost/Resource Type
Create Critical Asset Framework	Describe in AMP how it is used to prioritise asset information and condition assessments, adjust economic lives (renewal profiles) prioritise renewals and expenditure, operation and maintenance.	High	This work is in progress as part of a larger risk and resilience project.	December 2023	Activity Planning	Consultant and staff time
Consider how levels of service options are presented to the community	Consider how to better engage the community in agreeing appropriate levels of service through specific work streams (e.g. Risk, Resilience, Recovery Planning).	Medium	Not started, but associated with other work streams like the Critical asset framework and condition rating for unsealed networks.	December 2023	Activity Planning	Staff Time

Appendix A: Detailed Operating Budgets

ID	Name	Description	Total Budget	Financial Year Budget ($)										Total Budget	
			2021-51	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	3030/31	2031-41	2041-51
42001	Regional Land Transport Planning	Preparation of Regional Land Transport Programme and Strategy and Regional Land Transport Committee administration	620,000	0	32,000	30,000	0	32,000	30,000	0	32,000	30,000	0	218,000	216,000
42002	Travel Demand Management	Undertaking programmes to encourage the community to walk, cycle or take the bus as part of their travel	1,500,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	500,000	500,000
42003	Transport Planning Documents	Updates to key transport planning documents such as AMP, RPTP, RSAP and Procurement Manual.	1,110,000	13,000	60,000	38,000	13,000	60,000	38,000	13,000	60,000	38,000	13,000	393,000	371,000
42004	dTIMs Modelling	dTims modelling excluding dTims validation	350,000	0	35,000	0	0	35,000	0	0	35,000	0	0	140,000	105,000
42005	Sealed Pavement Maintenance	Maintenance of sealed pavements	63,800,000	2,000,000	2,200,000	2,200,000	2,200,000	2,200,000	2,200,000	2,200,000	2,200,000	2,200,000	2,200,000	21,000,000	21,000,000
42006	SPR - Sealed Pavement Maintenance	Maintenance of Pupu Springs Road sealed pavement	4,500	1,500	1,500	1,500	0	0	0	0	0	0	0	0	0
42007	Unsealed Pavement Maintenance	Maintenance of unsealed pavements	18,870,000	620,000	620,000	620,000	630,000	630,000	630,000	630,000	630,000	630,000	630,000	6,300,000	6,300,000
42008	SPR - Unsealed Pavement Maintenance	Maintenance of Totaranui Road unsealed pavement	38,700	12,900	12,900	12,900	0	0	0	0	0	0	0	0	0
42009	Routine Drainage Maintenance	Maintenance and cleaning of drainage assets including culverts, sumps and water tables	17,340,000	650,000	650,000	650,000	570,000	570,000	570,000	570,000	570,000	570,000	570,000	5,700,000	5,700,000
42010	SPR- Routine Drainage Maintenance	Maintenance and cleaning of drainage assets on Pupu Springs Road and Totaranui Road	60,600	20,200	20,200	20,200	0	0	0	0	0	0	0	0	0
42011	State Highway Street Cleaning	State Highway portion of street cleaning	276,000	9,200	9,200	9,200	9,200	9,200	9,200	9,200	9,200	9,200	9,200	92,000	92,000
42012	Structures Maintenance	Maintenance of bridges and retaining walls	7,350,000	200,000	200,000	200,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	2,500,000	2,500,000
42013	SPR - Structures Maintenance	Maintenance of bridges and retaining walls on Pupu Springs Road and Totaranui Road	1,620	540	540	540	0	0	0	0	0	0	0	0	0
42014	Environmental Maintenance	Spraying, mowing, minor slip clearance, fallen trees, frost and ice control, and rubbish removal from rural roadsides	53,850,000	1,750,000	1,750,000	1,750,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	18,000,000	18,000,000
42015	SPR - Environmental Maintenance	Spraying, mowing, minor slip clearance, fallen trees, frost and ice control, and rubbish removal from rural roadsides for Pupu Springs Road and Totaranui Road	193,800	64,600	64,600	64,600	0	0	0	0	0	0	0	0	0
42016	Traffic Services Maintenance	Maintenance of road signs, markings and street lights	16,980,000	566,000	566,000	566,000	566,000	566,000	566,000	566,000	566,000	566,000	566,000	5,660,000	5,660,000
42017	SPR - Traffic Services Maintenance	Maintenance of road signs and markings on Pupu Springs Road and Totaranui Road	2,400	800	800	800	0	0	0	0	0	0	0	0	0
42018	Database and Asset Data Management	RAMM fees, training, data validation, dTims fees	1,650,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	550,000	550,000
42019	Bus Service Marketing	Undertake marketing in preparation and during operation of new Richmond extension service	855,000	15,000	15,000	25,000	25,000	25,000	30,000	30,000	30,000	30,000	30,000	300,000	300,000
42020	Road Legalisation	Survey and legalisation of existing roads outside legal road reserve	600,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	200,000	200,000
42021	Bridge Rating Assessments	Bridge rating assessments for bridges that have not yet been rated	450,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	150,000	150,000

ID	Name	Description	Total Budget	Financial Year Budget ($)										Total Budget	
			2021-51	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	3030/31	2031-41	2041-51
42022	Road Asset Valuation	Bi-annual asset revaluation	250,000	0	25,000	0	0	25,000	0	0	25,000	0	0	100,000	75,000
42023	Traffic Data Collection	Traffic counting professional service contract	3,600,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	1,200,000	1,200,000
42024	Asset Condition Monitoring	Routine structural inspections, pavement testing and condition rating	3,721,655	141,417	175,417	146,057	152,640	124,000	32,000	141,417	158,417	146,057	152,640	1,176,365	1,175,228
42025	Forward Works Programme	Development of forward works programme for pavement and surface renewals	600,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	200,000	200,000
42026	Asset Management Professional Services	Specialist asset management support	1,800,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	600,000	600,000
42027	Road Safety Programmes	Promotion, education and advertising to promote safe use of the transport network	4,320,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	1,440,000	1,440,000
42028	Operational Traffic Management	Maintenance of traffic signals	648,000	12,000	16,000	16,000	16,000	16,000	16,000	20,000	20,000	20,000	20,000	236,000	240,000
42029	Cycle Path Maintenance	Maintenance of subsidised cycleways	1,022,500	30,000	30,500	31,000	31,500	32,000	32,500	33,000	33,500	34,000	34,500	350,000	350,000
42030	Richmond Bus Extensions	Extension of the Richmond bus route	276,000	138,000	138,000	0	0	0	0	0	0	0	0	0	0
42031	Lower Cobb Dam Road Maintenance	Routine and reactive maintenance of the lower road	1,035,000	33,500	33,500	38,500	38,500	38,500	33,500	33,500	33,500	33,500	33,500	350,000	335,000
42032	Upper Cobb Dam Road Maintenance	Routine and reactive maintenance of the upper road	795,000	31,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	265,000	265,000
42033	Cobb Powerhouse Bridge Maintenance	Routine bridge maintenance of the Powerhouse Bridge	45,000	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	15,000	15,000
42034	Graham Valley Road	Shared maintenance with DoC	900,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	300,000	300,000
42035	Consent Procurement	External consent application support	60,000	0	0	30,000	0	0	0	0	0	0	0	30,000	0
42036	Strategic Planning Professional Services	Costs for using external professional services to assist in strategic planning	900,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	300,000	300,000
42037	Motueka Public Transport Services	Public transport services between Motueka and Richmond which includes Tasman and Mapua	5,434,000	10,000	10,000	50,000	47,000	39,000	38,000	205,000	197,000	181,000	275,000	2,302,000	2,080,000
42038	Carpark Maintenance	Routine and reactive maintenance of off street car parking facilities	900,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	300,000	300,000
42039	Town Centre Paver Cleaning	Maintenance of pavers including hot washing and sealing	1,170,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	390,000	410,000
42040	Footpath Maintenance	District wide footpath maintenance	4,800,000	160,000	160,000	160,000	160,000	160,000	160,000	160,000	160,000	160,000	160,000	1,600,000	1,600,000
42041	Tasman's Great Taste Trail Maintenance	Renewal of road signs and street lights	5,654,000	144,000	190,000	190,000	190,000	190,000	190,000	190,000	190,000	190,000	190,000	1,900,000	1,900,000
42042	Carpark Lighting Electricity	Electricity costs for carparks lighting	319,285	7,273	7,454	7,641	7,832	8,028	8,228	8,434	8,645	8,861	9,082	104,297	133,510
42043	Carpark Lighting Maintenance	Maintenance of car park lighting	162,375	7,325	3,575	2,450	2,450	2,450	6,200	2,450	7,325	11,075	3,575	54,875	58,625
42044	Street Cleaning	Street Cleaning	4,407,247	126,700	127,967	129,247	130,539	131,845	133,163	134,495	135,840	137,198	138,570	1,464,245	1,617,438
42045	Street Furniture Maintenance	Routine and reactive maintenance of street furniture	510,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	170,000	170,000
42046	Footbridge Maintenance	Maintenance of footbridges	335,000	15,000	15,000	15,000	5,000	35,000	10,000	10,000	10,000	10,000	10,000	100,000	100,000
42047	Wakefield Public Transport Services	Public transport services between Wakefield and Richmond which includes Brightwater and Hope	5,434,000	10,000	10,000	50,000	47,000	39,000	38,000	205,000	197,000	181,000	275,000	2,302,000	2,080,000
42048	Great Taste Trail Unforeseen Events	Budget to undertake remedial work following damaging natural events	870,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	290,000	290,000

ID	Name	Description	Total Budget	Financial Year Budget ($)										Total Budget	
			2021-51	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	3030/31	2031-41	2041-51
42049	Pest Control	Vegetation and pest control of non-subsidised road areas	3,000,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,000,000	1,000,000
42050	Landscape Maintenance	Maintenance of roadside planting areas	5,100,000	170,000	170,000	170,000	170,000	170,000	170,000	170,000	170,000	170,000	170,000	1,700,000	1,700,000
42051	Richmond Public Transport Services	Operation of public services in Richmond	21,808,000	166,000	166,000	488,000	478,000	464,000	724,000	710,000	686,000	866,000	854,000	8,180,000	8,026,000
42052	Mapua Ferry	Costs associated with running a ferry between Mapua and Rabbit Island	210,000	41,000	41,500	42,000	42,500	43,000	0	0	0	0	0	0	0
42053	Total Mobility	Contribution to the service that is administered by Nelson City Council	4,934,555	85,000	107,000	128,000	130,560	133,171	135,835	138,551	141,322	144,149	147,032	1,642,156	2,001,779
42054	Regional Transport Services	Community Transport Service to smaller townships in the District	1,280,000	10,000	10,000	10,000	10,000	20,000	30,000	40,000	50,000	50,000	50,000	500,000	500,000
42055	Public Transport Management	Cost to operate public transport service in the District	1,500,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	500,000	500,000
42057	Road Widening House Insurance		44,750	3,438	3,679	3,937	4,212	4,212	4,212	4,212	4,212	4,212	4,212	4,212	0
42058	Carpark House Insurance	Insurance costs for the Council owned houses on carpark land	18,869	1,450	1,551	1,660	1,776	1,776	1,776	1,776	1,776	1,776	1,776	1,776	0
42059	Rates & Water	Rates and water charges	157,000	15,700	15,700	15,700	15,700	15,700	15,700	15,700	15,700	15,700	15,700	0	0
42060	Carpark Rates	Rates associated with carpark land	430,000	43,000	43,000	43,000	43,000	43,000	43,000	43,000	43,000	43,000	43,000	0	0
42062	Litter Bins Servicing	Emptying of litter bins in town centres	8,340,000	278,000	278,000	278,000	278,000	278,000	278,000	278,000	278,000	278,000	278,000	2,780,000	2,780,000
	Active Transport Integration Consultation	Consultation with community around upcoming changes to create an active transport network	90,000	30,000	30,000	30,000	0	0	0	0	0	0	0	0	0
	Carpark Housing Mtce		30,330	3,033	3,033	3,033	3,033	3,033	3,033	3,033	3,033	3,033	3,033	0	0
	Feasibility Studies	Feasibility Studies	0	0	0	0	0	0	0	0	0	0	0	0	0
	Transport Modelling	Development and renewal of TRACKS and SATURN traffic models.	528,000	0	0	88,000	0	0	0	0	88,000	0	0	176,000	176,000

Appendix B: Detailed Capital Budgets

ID	Name	Description	Project Driver %			Total Budget	Financial Year Budget ($)										Total Budget	
			Growth	Inc LOS	Renewals	2021-51	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	3030/31	2031-41	2041-51
46001	Cycle Path Resurfacing	Resurfacing of subsidised cycleways	0	0	100	1,487,000	16,000	44,000	43,000	24,000	12,000	64,000	2,000	47,000	124,000	184,000	367,000	560,000
46002	Unsealed Road Metalling	Routine metalling of unsealed roads to mitigate gravel loss	0	0	100	39,486,000	1,300,000	1,300,000	1,300,000	1,318,000	1,318,000	1,318,000	1,318,000	1,318,000	1,318,000	1,318,000	13,180,000	13,180,000
46003	SPR - Unsealed Road Metalling	Routine metalling of Totaranui Road to mitigate gravel loss	0	0	100	56,100	18,700	18,700	18,700	0	0	0	0	0	0	0	0	0
46004	Sealed Road Resurfacing	Resurfacing of sealed roads	0	0	100	121,095,000	4,093,000	4,093,000	4,093,000	4,093,000	4,093,000	4,129,000	4,093,000	4,093,000	4,093,000	4,093,000	40,129,000	40,000,000
46006	Drainage Renewals	Renewal of drainage assets including culverts, kerb and channel, surface water channels and sumps	0	0	100	28,089,000	930,000	930,000	930,000	937,000	937,000	937,000	937,000	937,000	937,000	937,000	9,370,000	9,370,000
46007	SPR - Drainage Renewals	Renewal of drainage assets on Pupu Springs Road and Totaranui Road	0	0	100	22,800	7,600	7,600	7,600	0	0	0	0	0	0	0	0	0
46008	Pavement Rehabilitation	Pavement rehabilitation of sealed roads that meet Waka Kotahi funding criteria	0	0	100	24,200,000	800,000	800,000	1,000,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	8,000,000	8,000,000
46009	Structures Component Replacements	Bridge component replacements	0	0	100	12,343,000	400,000	400,000	400,000	379,000	414,000	414,000	414,000	414,000	414,000	414,000	4,140,000	4,140,000
46010	Murchison Stock Effluent Facility	Renewal of telemetry and electronics	0	0	100	50,000	0	0	0	0	0	0	0	50,000	0	0	0	0
46011	Traffic Services Renewals	Renewal of road signs and street lights	0	0	100	16,390,000	390,000	427,000	465,000	466,000	595,000	496,000	595,000	670,000	670,000	782,000	7,376,000	3,458,000
46012	SPR - Traffic Services Renewals	Renewal of traffic signs and markings on Pupu Springs Road and Totaranui Road	0	0	100	3,300	1,100	1,100	1,100	0	0	0	0	0	0	0	0	0
46013	Bridge Renewals	Renewal of subsidised road bridges	0	0	100	12,347,100	0	53,800	215,200	107,600	0	0	215,200	161,400	161,400	215,200	4,573,000	6,644,300
46014	Brightwater Underpass Component Renewal	Replacement of pumps and components of underpass structure	0	0	100	150,000	0	0	0	75,000	0	0	0	0	0	0	75,000	0
46015	Cobb Powerhouse Bridge Renewal	Repainting of the structural steel components	0	0	100	55,000	0	0	55,000	0	0	0	0	0	0	0	0	0

ID	Name	Description	Project Driver %			Total Budget	Financial Year Budget ($)										Total Budget	
			Growth	Inc LOS	Renewals	2021-51	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	3030/31	2031-41	2041-51
46016	Lower Cobb Dam Road Resurfacing	Seal resurfacing	0	0	100	480,000	0	0	0	0	80,000	80,000	80,000	0	0	0	160,000	80,000
46017	Upper Cobb Dam Road Resurfacing	Seal resurfacing	0	0	100	128,555	0	0	42,657	0	0	0	0	0	0	0	42,949	42,949
46018	Carpark Resurfacing	Resurfacing of off street car parking facilities	0	0	100	1,659,360	10,200	40,500	0	14,100	0	12,900	214,980	0	248,400	92,250	995,580	30,450
46019	New Car Parking	Development of new car parking facilities. Extent to be determined by separate studies.	23	77	0	240,000	0	0	140,000	0	0	0	100,000	0	0	0	0	0
46021	Footpath Rehabilitation	District wide footpath renewal	0	0	100	7,531,028	249,000	249,000	249,000	249,000	249,000	249,000	249,000	249,000	249,000	249,000	2,518,908	2,522,120
46022	New Footpaths - 1 to 10 yr	Construction of new footpaths	17	83	0	2,800,000	200,000	200,000	200,000	200,000	200,000	200,000	400,000	400,000	400,000	400,000	0	0
46023	Tasman's Great Taste Trail Construction	Construction Spooner's Tunnel to Motueka	0	100	0	1,543,852	1,543,852	0	0	0	0	0	0	0	0	0	0	0
46024	Bird Lane Improvements	Improvements to Bird Lane including left turning lane onto SH6 to enable projected residential growth	84	16	0	3,213,000	0	0	0	0	0	0	0	0	0	0	3,213,000	0
46025	Kerb and Channel - 11 to 20 yr	Construction of new kerb and channel in conjunction with non-subsidised works e.g. footpaths	18	82	0	900,000	0	0	0	0	0	0	0	0	0	0	900,000	0
46026	Carpark Lighting Renewal	Reactive renewal and car park lighting	0	0	100	235,980	7,866	7,866	7,866	7,866	7,866	7,866	7,866	7,866	7,866	7,866	78,660	78,660
46027	Carpark Lighting Improvements	New or improved lighting of carparks	0	100	0	228,000	45,600	0	0	45,600	0	0	45,600	0	0	45,600	45,600	0
46028	Litter Bin Renewals	Renewal of Engineering Services' litter bins	0	0	100	256,800	8,560	8,560	8,560	8,560	8,560	8,560	8,560	8,560	8,560	8,560	85,600	85,600
46029	Street Furniture Renewals	Reactive renewal of street furniture	0	0	100	480,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	160,000	160,000
46030	Motueka High Street Active Transport Integration	Upgrade of High Street to better provide for a shared environment	0	100	0	2,407,000	0	0	0	0	263,000	2,144,000	0	0	0	0	0	0
46032	Takaka Town Centre Active Transport Integration	Upgrade of Commercial Street to better provide for a shared environment	0	100	0	1,303,500	0	0	0	0	0	0	187,500	1,116,000	0	0	0	0

ID	Name	Description	Project Driver %			Total Budget	Financial Year Budget ($)										Total Budget	
			Growth	Inc LOS	Renewals	2021-51	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	3030/31	2031-41	2041-51
46033	Mapua Village Centre Active Transport Integration	Upgrade of Aranui Road to better provide for a shared environment	0	100	0	1,376,000	0	0	0	0	0	0	0	0	204,000	1,172,000	0	0
46040	Lower Oxford Street Hierarchy Improvements	Reconstruction of Oxford Street between Wensley Road and Gladstone Road to improve flows on the Richmond Ring Route	41	59	0	960,841	0	0	0	0	0	0	0	0	0	0	960,841	0
46041	Richmond Cycle Lanes	Creation of buffered cycle lanes on primary collector roads in Richmond	0	100	0	1,560,000	200,000	650,000	710,000	0	0	0	0	0	0	0	0	0
46043	Queen Street and Salisbury Road Intersection Improvements	Intersection upgrade to improve efficiency	41	59	0	1,061,000	0	0	0	90,000	0	0	0	0	971,000	0	0	0
46044	District Land Purchase	District wide land purchase to cover Notice of Requirements	17	83	0	2,500,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	0	0
46046	McShane Road Upgrade	Road improvement to align with adjacent residential development	80	20	0	2,850,000	291,000	0	0	0	0	0	0	0	153,000	2,406,000	0	0
46048	Oxford / Wensley Intersection Improvements	Improvements to the sight lines and pedestrian access at the intersection.	0	100	0	1,690,000	0	0	0	90,000	0	0	0	1,600,000	0	0	0	0
46049	Tasman's Great Taste Trail Improvements	Improve the trail to address maintenance cost or safety issues	0	100	0	1,200,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	400,000	400,000
46050	New Footpaths - 11 to 20 yr	Construction of new footpaths	18	82	0	3,000,000	0	0	0	0	0	0	0	0	0	0	3,000,000	0
46052	New Footpaths - 21 to 30 yr	Construction of new footpaths	13	87	0	3,000,000	0	0	0	0	0	0	0	0	0	0	0	3,000,000
46053	Kerb and Channel - 1 to 10 yr	Construction of new kerb and channel in conjunction with non-subsidised works e.g. footpaths	17	83	0	900,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	0	0
46054	Kerb and Channel - 21 to 30 yr	Construction of new kerb and channel in conjunction with non-subsidised works e.g. footpaths	13	87	0	900,000	0	0	0	0	0	0	0	0	0	0	0	900,000

ID	Name	Description	Project Driver %			Total Budget	Financial Year Budget ($)										Total Budget	
			Growth	Inc LOS	Renewals	2021-51	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	3030/31	2031-41	2041-51
46058	District Land Purchase - 11 to 20 yr	District wide land purchase to cover Notice of Requirements	18	82	0	2,500,000	0	0	0	0	0	0	0	0	0	0	2,500,000	0
46059	District Land Purchase - 21 to 30 yr	District wide land purchase to cover Notice of Requirements	13	87	0	2,500,000	0	0	0	0	0	0	0	0	0	0	0	2,500,000
46065	Upper Oxford Street Cyclepath	Upgrade road to meet arterial road to include a bi-directional cycleway	41	59	0	447,033	0	0	0	30,000	0	0	0	417,033	0	0	0	0
46067	Salisbury Road Active Transport Improvements	Changes to road carriageway to provide balanced access for vehicles, cyclists and pedestrians	41	59	0	2,200,000	0	0	0	100,000	0	0	0	0	2,100,000	0	0	0
46068	Wensley Road Hierarchy Improvements	Changes to Wensley Road to improve the road to primary walking route and primary cycling route	41	59	0	6,710,000	0	0	0	150,000	520,000	0	6,040,000	0	0	0	0	0
46069	William Street Shared Path	Changes to road carriageway to improve access for pedestrians and cyclists on a school route	0	100	0	450,000	0	0	0	0	0	0	0	0	0	0	450,000	0
46081	Roadside Hazard Mitigation	Removal of trees and other obstructions close to the carriageway to reduce risk to drivers involved in loss of control crashes in high speed areas	0	100	0	900,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	300,000	300,000
46082	Reactive Safety Improvements	Allows to address emerging road safety issues	0	100	0	6,000,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	2,000,000	2,000,000
46083	Richmond East Primary Cycle Routes	Creation of high quality seperated cycleway facilities on the eastern side of Richmond	0	100	0	2,924,000	0	0	0	0	0	0	0	0	0	0	2,924,000	0
46084	Lower Queen Street Widening Stage 1	Reconstruction of Lower Queen Street to provide for future growth in Richmond West (Stage 1)	59	41	0	4,667,000	0	0	0	0	0	647,000	0	498,000	3,522,000	0	0	0

ID	Name	Description	Project Driver %			Total Budget	Financial Year Budget ($)										Total Budget	
			Growth	Inc LOS	Renewals	2021-51	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	3030/31	2031-41	2041-51
46085	Lower Queen Street Widening Stage 2	Reconstruction of Lower Queen Street to provide for future growth in Richmond West (Stage 2)	59	41	0	3,631,500	0	0	0	0	0	0	0	0	0	90,500	3,541,000	0
46090	Borck Creek Cycle Trail Bridge	New crossing of widened Borck Creek on Tasman's Great Taste Trail	0	100	0	50,000	0	0	0	50,000	0	0	0	0	0	0	0	0
46091	Public Transport Infrastructure	Construct and purchase new infrastructure to facilitate public transport services	0	100	0	724,500	24,150	24,150	24,150	24,150	24,150	24,150	24,150	24,150	24,150	24,150	241,500	241,500
46092	Berryfield/Lower Queen Intersection Upgrade	Upgrade the intersection at Berryfield Drive and Lower Queen Street to cater for residential and commercial growth in Richmond West	98	2	0	2,790,000	2,790,000	0	0	0	0	0	0	0	0	0	0	0
46093	McShane/Lower Queen Intersection Upgrade	Upgrade the intersection at McShane Road and Lower Queen Street to cater for residential and commercial growth in Richmond West	80	20	0	2,000,000	0	0	0	0	0	0	0	0	0	2,000,000	0	0
46094	Berryfield/Appleby Hwy Intersection Upgrade	Upgrade the intersection at Berryfield Drive and Appleby Highway (SH60) to cater for residential and commercial growth in Richmond West	100	0	0	214,747	0	0	0	0	0	0	0	0	0	214,747	0	0
46097	Paton Road Improvements	Make improvements to Patton Road for Residential Development	88	12	0	5,300,000	0	0	0	0	0	0	0	0	0	0	5,300,000	0
46098	Wakefield Primary Cycle Routes	Creation of high quality separated cycleway facilities in Wakefield	0	100	0	1,500,000	0	0	0	0	0	0	0	0	0	0	1,500,000	0
46101	Mapua Cycle Lanes	Creation of buffered cycle lanes on primary	0	100	0	260,000	0	0	0	0	0	0	0	0	40,000	220,000	0	0

ID	Name	Description	Project Driver %			Total Budget	Financial Year Budget ($)										Total Budget	
			Growth	Inc LOS	Renewals	2021-51	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	3030/31	2031-41	2041-51
		collector roads in Mapua																
46103	Seaton Valley Road Improvements (Stage 1)	Stage 1 of road improvements in Seaton Valley to cater for new residential zone	82	18	0	5,350,000	0	0	0	0	0	0	0	0	0	350,000	5,000,000	0
46104	Seaton Valley Road Improvements (Stage 2)	Stage 2 of road improvements in Seaton Valley to cater for new residential zone	40	60	0	5,000,000	0	0	0	0	0	0	0	0	0	0	5,000,000	0
46105	Mapua Primary Cycle Routes	Creation of high quality separated cycleway facilities in Mapua	0	100	0	3,200,000	0	0	0	0	0	0	0	0	0	0	3,200,000	0
46106	Motueka Cycle Lanes	Creation of buffered cycle lanes on primary collector roads in Motueka	0	100	0	1,560,000	80,000	350,000	350,000	0	0	0	80,000	350,000	350,000	0	0	0
46107	Motueka Primary Cycle Routes	Creation of high quality separated cycleway facilities in Motueka	0	100	0	8,000,000	0	0	0	0	0	0	0	0	0	0	8,000,000	0
46108	Takaka Cycle Lanes	Creation of buffered cycle lanes on primary collector roads in Takaka	0	100	0	420,000	0	0	0	0	0	50,000	370,000	0	0	0	0	0
46114	Commercial Street Primary Route	New separated cycleway along Commercial Street	0	100	0	3,236,000	0	0	0	0	0	0	0	0	0	0	3,236,000	0
46115	New Residential Greenways	Create new slow speed residential areas in townships	41	59	0	10,800,000	100,000	250,000	250,000	250,000	250,000	250,000	250,000	400,000	400,000	400,000	4,000,000	4,000,000
46116	Waimea Inlet Bridge (Mapua)	New walking and cycling bridge across the Waimea Inlet between Mapua and Rabbit Island	0	100	0	4,826,000	0	0	0	0	0	0	0	0	0	0	4,826,000	0
46117	New Shared Paths	Construction of new shared paths district wide	16	84	0	7,500,000	0	0	0	0	0	300,000	300,000	300,000	300,000	300,000	3,000,000	3,000,000
46119	Golden Bay On-road Routes	Connection of cycle infrastructure around Golden Bay using on-road routes	0	100	0	450,000	0	0	0	0	0	0	0	0	0	0	450,000	0

ID	Name	Description	Project Driver %			Total Budget	Financial Year Budget ($)										Total Budget	
			Growth	Inc LOS	Renewals	2021-51	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	3030/31	2031-41	2041-51
46121	Richmond West Active Transport Connections	Complete active transport connections at Richmond West development area	100	0	0	400,000	400,000	0	0	0	0	0	0	0	0	0	0	0
46123	Richmond Bus Terminus	New bus terminal in Richmond to cater for new bus routes	0	100	0	1,534,000	0	150,000	0	0	0	150,000	1,234,000	0	0	0	0	0
46124	Rural Development Road Improvements	Improvements to rural roads to cater for rural residential growth	55	45	0	2,600,000	100,000	100,000	100,000	0	0	0	0	100,000	100,000	100,000	1,000,000	1,000,000
46126	Lower Moutere Settlement Transport Infrastructure	New transport infrastructure to cater for Upper Moutere growth area	97	3	0	8,000,000	0	0	0	0	0	0	0	0	0	0	8,000,000	0
46127	School Speed Management	New infrastructure outside schools to better manage vehicle speeds	0	100	0	1,430,000	180,000	250,000	250,000	250,000	250,000	250,000	0	0	0	0	0	0