WAIMAKARIRI
DISTRICT COUNCIL

Activity Management Plan 2021

Transportation

Levels of Service

Roading | July 2021

Prepared by

Waimakariri District Council

215 High Street,

Private Bag 1005

Rangiora 7440,

New Zealand

waimakariri.govt.nz

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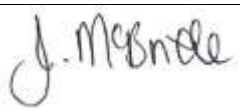
	Simon Collin	Infrastructure Strategy Manager		17/2/2021
Reviewed by	Joanne McBride	Roading and Transport Manager		17/2/2021
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1 Levels of service

Introduction

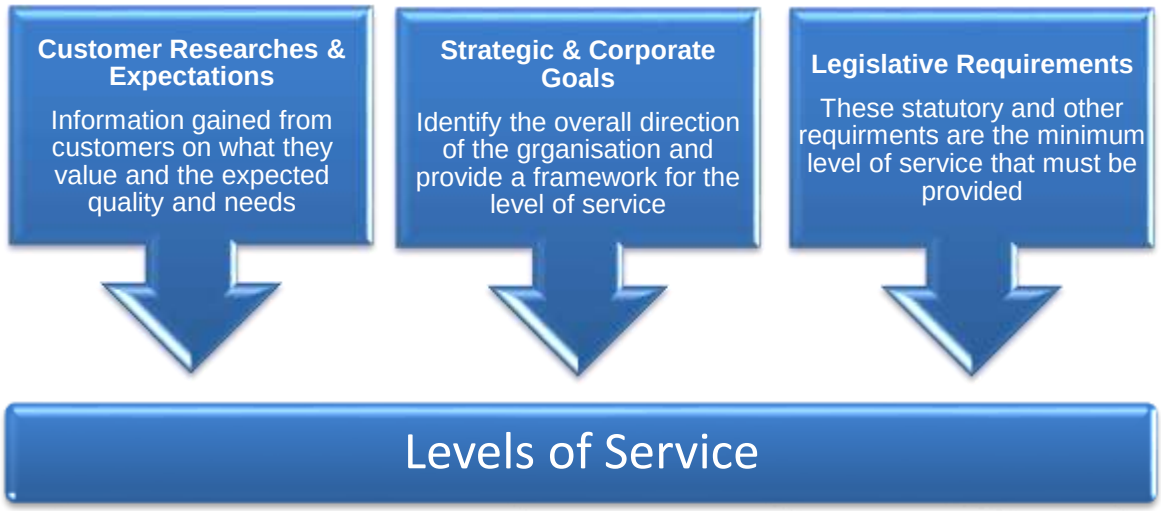
The Council operates, maintains and improves roads, footpaths, bridges, traffic services and other Roading ancillaries on behalf of ratepayers, residents, road users and the Crown. It strives to meet the levels of service sought by the community, and those required by law, statutory regulations, bylaws, and other quasi-statutory documents such as district and regional plans and resource consents.

A primary objective of this activity management plan is to match the level of service provided with agreed expectations of customers, within the limits imposed by these other considerations. This requires a clear understanding of user needs and preferences. The levels of services defined in this section will be used:

- To inform customers of the current level of service provided and any proposed changes to levels of service and the associated cost.
- To measure performance against these defined levels of service.
- To develop Asset Management strategies to deliver the required level of service
- To identify the costs and benefits of the services offered.
- To enable customers to assess suitability, affordability and equity of the services offered.

The Levels of Service are based on the following key input areas:

Figure 1: Levels of Service Key Inputs



Customer Research and Expectations

Expectations in the community are very important in determining future levels of service and in assessing how well the Council is performing with respect to current levels of service.

Customers and Stakeholders

Customers and stakeholders are those individuals and organisations that have interest in the management and / or operation of the assets, including, but not limited to:

- Road users: including motorist, cyclists, and pedestrians
- Disabled users: including wheelchair and mobility scooter users
- The community: citizens and ratepayers
- Customers of business
- Business owners and operators
- The farming community
- Schools and community organisations
- Visitors to the District
- Consultants and contractors
- The elected representatives (Councillors and Community Boards)
- Tangata Whenua
- New Zealand Transport Agency
- Regulatory and monitoring bodies including Environment Canterbury, Ministry of Health, Department of Conservation, Audit NZ
- Environmental and recreational interest groups including Fish and Game New Zealand
- Automobile Association
- Road Transport Association
- Environment Canterbury
- NZ Police
- Utility operators
- Developers

The Council endeavours to accommodate the interests of the customers and stakeholders and will involve them in the decision process as required by statute.

2 Consultation Record/How We Engage

Direct Consultation

Since its formation in 1989 the Waimakariri District Council has adopted a policy of consultation with its communities. It has surveyed its residents a number of times over the last 18 years and has undertaken a number of formal consultations on Roading matters or that have relevance to this plan. The annual LTP process provides very useful indicators of the stakeholders' concerns and whether levels of service are appropriate.

The Council's knowledge of customer expectations and preferences has traditionally been based on:

- Three yearly Customer Satisfaction Surveys
- Council's Long Term Plan (LTP)
- Feedback from elected members, the Community Board and Advisory Groups.
- Analysis of customer service requests and complaints.
- Feedback and submissions to specific projects such as walking and cycling projects, road safety projects, Woodend community street review, and town centre plans.

In addition to the previous methods, in the last AMP cycle Council carried out some additional targeted engagement. This included:

- An 'Investment Logic Workshop', designed to elicit views on the key problems facing the District from a group of key stakeholder representatives.
- A series of targeted consultations with individual stakeholders such as the manager of the local bus company, a logging company, amongst others.

a) Level of Service Engagement

The Council consulted with the public on its proposed levels of service for Roading in mid-2005. This process included mailing information to all ratepayers, public meetings in six different locations in the District, publication of a detailed Level of Service consultation document, and receiving, hearing and considering submissions.

b) Customer Satisfaction Surveys

Seven customer satisfaction surveys have been conducted over the last eighteen years. Surveys are now being conducted three yearly and they are designed to continually monitor a set of organisation-wide key performance areas. The following results are collated from previous and current customer satisfaction surveys. The most recent survey was conducted in 2019 with results presented to Council in the form of a report in August 2020.

The customer satisfaction surveys carried out in 2007, 2010, 2013, 2016 and 2019 (see below) indicate that the majority of ratepayers continue to be generally satisfied with the service received. In particular there has been a significant increase in satisfaction in with parking and traffic flow in both Kaiapoi and Rangiora, and with the provision for cycling, which would appear to indicate that the improvements carried out are working as hoped.

However, satisfaction continues to decline with sealed rural roads. Comments seem to revolve predominantly around potholes and how they are repaired. Work is underway currently to determine whether this is a contractor performance, level of service, or perception issue and will be addressed accordingly.

Table 1: Percentage of respondents satisfied with aspects of the Roading network

Aspect of Roading	Percent satisfied							Percentage Change					
	2001	2004	2007	2010	2013	2016	2019	' 01 to ' 04	' 04 to ' 07	' 07 to ' 10	' 10 to ' 13	' 13 to' 16	'16 to 19
Town roads	83.6	88.7	82.3	87.8	70.2	83.6	84.1	+5.1	-6.4	+5.5	-17.6	+13.4	+0.5
Town footpaths	63.1	74.8	75.4	82.9	65.3	81.1	83.7	+11.7	+0.6	+7.5	-17.6	+15.8	+2.8
Sealed rural roads	74.1	79	74.7	81.8	80.2	77.2	72	+4.9	-4.3	+7.1	-1.6	-3.0	-5.2
Unsealed rural roads	54.1	53.2	53.9	56	54.1	60.0	60.3	-0.9	+0.7	+3.9	-1.9	+5.9	0.3
Off-street parking in Rangiora	53.4	48.5	38.1	41.8	33.0	53.9	60.5	-4.9	-10.4	+3.7	-8.8	+20.9	6.6
Rangiora town traffic flow system	20.9	22.7	47.6	36.8	23.3	60.5	60.5	+1.8	+24.9	-10.8	-13.5	+37.2	0
Kaiapoi off street parking	42.7	47.4	48	51.6	39.4	49.6	53.2	+4.9	+0.6	+3.6	-12.2	+10.2	3.6
Kaiapoi town traffic flow system	38	37.9	36.6	41.3	33.2	50.6	49.6	-0.1	-1.3	+4.7	-8.1	+17.4	-1
Provision for cycling	NA	NA	33.1	39.5	29.3	34.4	54.1	NA	NA	+6.4	-10.2	=5.1	19.7
Provision for park and ride							34.9	NA	NA	NA	NA	NA	NA
Small settlement roads				74.2	65.7	70.6	73.3				-8.5	4.9	2.7
Small settlement footpaths				82.9	65.3	59.3	59.6				-17.6	-6	0.3

The Council plans to continue to survey its ratepayers, including questions relating to satisfaction with roads, and associated facilities, in those surveys. Where it is practical to do so questions will be repeated from survey to survey to allow trends to be ascertained.

C) Customer Service Requests

Another method of monitoring community expectations and current levels of service is by monitoring the customer service requests relevant to the activity. Relevant statistics for the last 6-years are shown below.

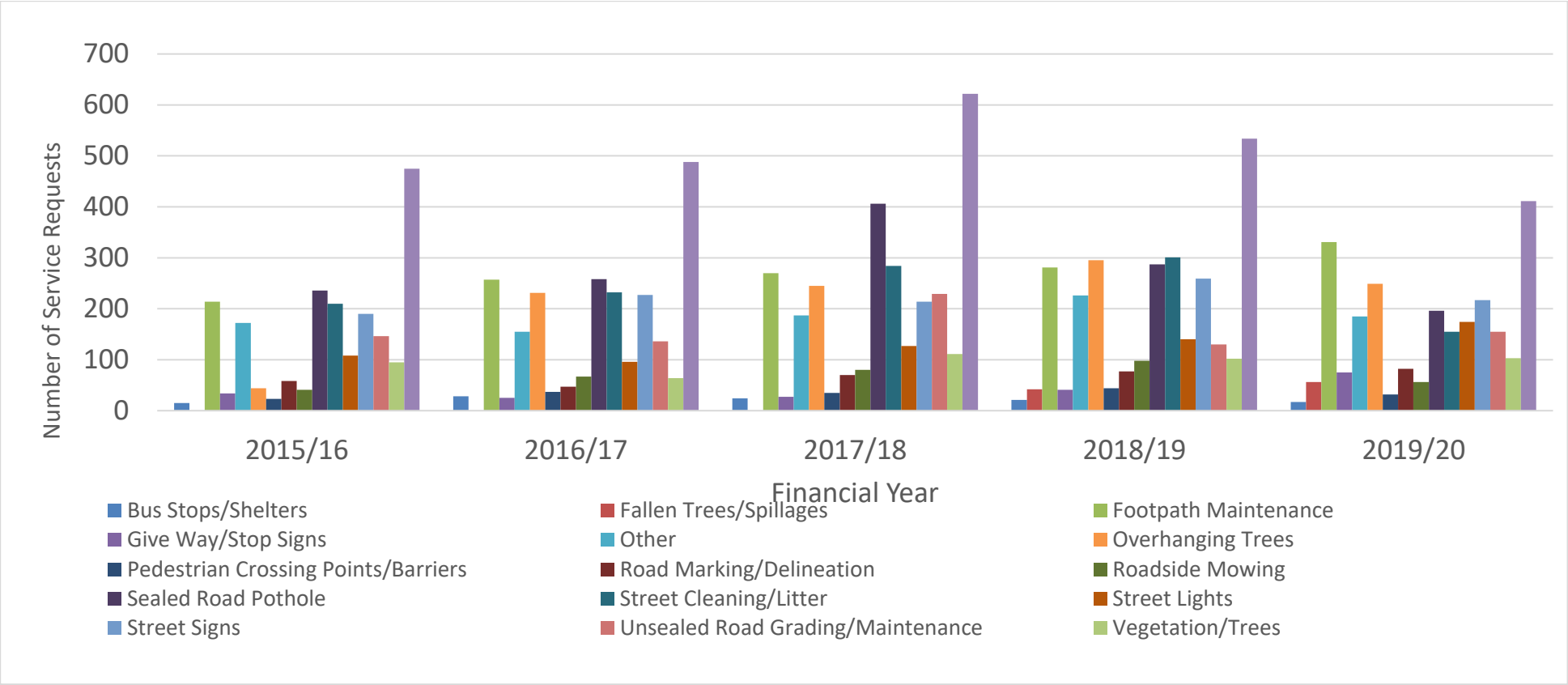
The largest number of requests, traffic management, including such things as requests for speed limit changes and traffic calming devices, has declined by over a third since last year and is at its lowest in the last five years.

Footpath complaints have slowly increased over the last 4 years, but had the highest increase in 19/20. This may be due to a higher number of problems, - tree roots continue to be a problem in Rangiora in particular – but possibly more people were out walking during lockdown and had more opportunity to spot pedestrian hazards.

Overhanging trees had the third highest number of complaints recorded, which was down from last year, but still the third most common complaint. The level of these complaints spiked in 2017/18.

Ironically, the number of pothole complaints was down significantly in 2019/20, even excluding the lockdown period, compared with previous years. This is in contrast to the customer satisfaction which showed an increase in pothole complaints. Increased monitoring and validating the work done in pothole repairs will show which is correct, but service requests are normally in response to an actual incident whereas customer satisfaction surveys call for a more general perception over a longer time period.

Figure 2 : Customer Service Request Trends



d) Investment Logic Workshops

In addition to the standard Council consultation such as the Satisfaction Surveys and Long Term Plan Consultation, Council sought to elicit further views through a process known as Investment Logic Mapping. As part of the 2018 AMP, workshops were held with a small number of key stakeholders and were designed to uncover the key issues facing the District as they perceived them, examining the evidence around these issues to determine the extent these views were supported by solid information, and defining these issues. They were then examined to determine the benefits to the District and appropriate solutions to the issues.

Three workshops were held in Waimakariri District, the first with the Road Safety Committee as a representative user group to test the proposed format, then one workshop to determine the issues and one to define the benefits of resolving the issues. The Strategic Issues have been re-examined internally and amended to suit future directions, including national and regional. Although some progress has been made to implement the work programmes required to address these, there is still considerable work required to complete all this work, monitor and review.

For the 2021 AMP it was felt that work was still ongoing on many of the projects identified to mitigate or eliminate the problems. The new Problem statements reframe the originals where appropriate, incorporating organisational and national direction.

e) Targeted Engagement

Following on from the ILMs, a number of meetings were held with other key stakeholders, in a one to one situation. This assisted not only in gaining a view into the 'big picture' issues, but also day to day detail where addressing these more minor issues could still assist in providing a more fit for purpose network which could help people with their day to day lives, businesses etc.

Initial discussions have been made with some of the original stakeholders and it is hoped to instigate regular meetings, as not only is their input useful from a planning perspective but they also provide a valuable viewpoint of issues as they arise through the AMP period.

f) Strategic and Corporate Goals

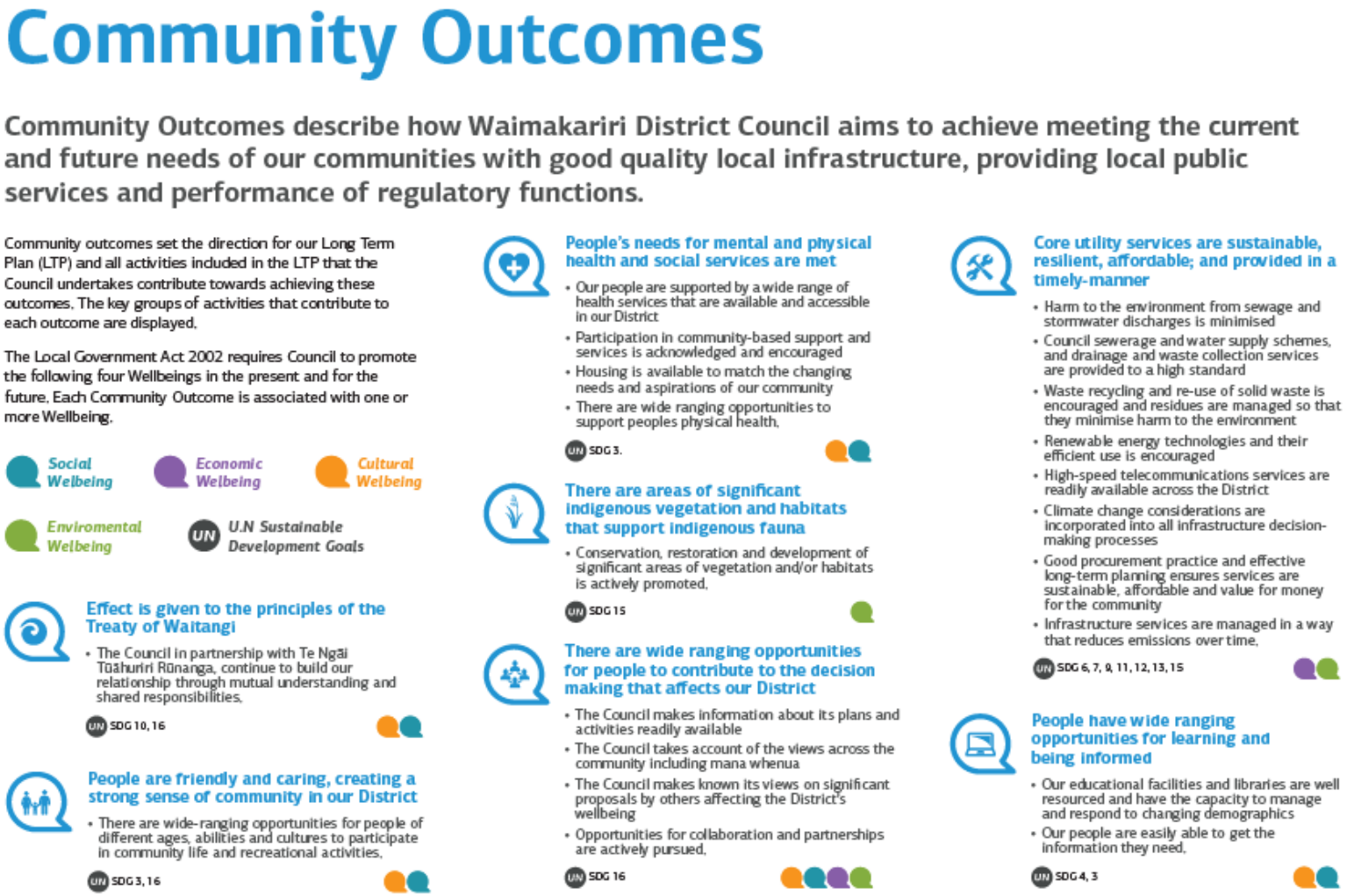
The primary purpose of Council is **'***to make Waimakariri a great place to be, in partnership with our Communities guided by our outcomes, through the following roles:*

1. As a service provider;
2. As a funder of activities by others;
3. As an advocate on behalf of our community;
4. As a regulator under legislation.'

The following goal for the provision of transport infrastructure in the Waimakariri District Council has been developed from the Community Outcomes. Our Transportation goal is:

"To plan, provide, maintain, develop and improve the Roading and Transport *network so that it is affordable, integrated, safe, responsive and sustainable and it contributes to the attainment of high quality natural, living and productive environments within the District and assists development of a strong sense o*f *community.*"

Figure 3 : Community Outcomes



Community Outcomes

Community Outcomes describe how Waimakariri District Council aims to achieve meeting the current and future needs of our communities with good quality local infrastructure, providing local public services and performance of regulatory functions.

Community outcomes set the direction for our Long Term Plan (LTP) and all activities included in the LTP that the Council undertakes contribute towards achieving these outcomes. The key groups of activities that contribute to each outcome are displayed.

The Local Government Act 2002 requires Council to promote the following four Wellbeings in the present and for the future. Each Community Outcome is associated with one or more Wellbeing.

Social Wellbeing
Economic Wellbeing
Cultural Wellbeing
Enviromental Wellbeing
U.N Sustainable Development Goals

Effect is given to the principles of the Treaty of Waitangi

- The Council in partnership with Te Ngāi Tūāhuriri Rūnanga, continue to build our relationship through mutual understanding and shared responsibilities.

UN SDG 10, 16

People are friendly and caring, creating a strong sense of community in our District

- There are wide-ranging opportunities for people of different ages, abilities and cultures to participate in community life and recreational activities.

UN SDG 3, 16

People's needs for mental and physical health and social services are met

- Our people are supported by a wide range of health services that are available and accessible in our District
- Participation in community-based support and services is acknowledged and encouraged
- Housing is available to match the changing needs and aspirations of our community
- There are wide ranging opportunities to support peoples physical health.

UN SDG 3.

There are areas of significant indigenous vegetation and habitats that support indigenous fauna

- Conservation, restoration and development of significant areas of vegetation and/or habitats is actively promoted.

UN SDG 15

There are wide ranging opportunities for people to contribute to the decision making that affects our District

- The Council makes information about its plans and activities readily available
- The Council takes account of the views across the community including mana whenua
- The Council makes known its views on significant proposals by others affecting the District's wellbeing
- Opportunities for collaboration and partnerships are actively pursued.

UN SDG 16

Core utility services are sustainable, resilient, affordable; and provided in a timely-manner

- Harm to the environment from sewage and stormwater discharges is minimised
- Council sewerage and water supply schemes, and drainage and waste collection services are provided to a high standard
- Waste recycling and re-use of solid waste is encouraged and residues are managed so that they minimise harm to the environment
- Renewable energy technologies and their efficient use is encouraged
- High-speed telecommunications services are readily available across the District
- Climate change considerations are incorporated into all infrastructure decision-making processes
- Good procurement practice and effective long-term planning ensures services are sustainable, affordable and value for money for the community
- Infrastructure services are managed in a way that reduces emissions over time.

UN SDG 6, 7, 9, 11, 12, 13, 15

People have wide ranging opportunities for learning and being informed

- Our educational facilities and libraries are well resourced and have the capacity to manage and respond to changing demographics
- Our people are easily able to get the information they need.

UN SDG 4, 3

There is a healthy and sustainable environment for all

- Harm to the environment from the impacts of land use, use of water resources and air emissions is minimised
- Cultural values relating to water are acknowledged and respected
- The demand for water is kept to a sustainable level
- Harm to the environment from the spread of contaminants into ground water and surface water is minimised
- The impacts from land use activities are usually only short term and/or seasonal
- Soils are protected from erosion and unsustainable land use practices
- Low carbon, climate-resilient development is promoted.

UN SDG 6, 11, 12, 13, 15

The community's cultures, arts and heritage are conserved and celebrated

- Mana whenua are acknowledged and respected
- All cultures are acknowledged, respected and welcomed in the District
- Heritage buildings and sites are protected and the cultural heritage links with our past are preserved
- There are wide-ranging opportunities to participate in arts and cultural activities.

UN SDG 3, 16.

Public spaces and facilities are plentiful, accessible and high quality

- People enjoy clean water at our beaches, rivers and lakes
- There is a wide variety of public places and spaces to meet people's needs
- There are wide-ranging opportunities for people to enjoy the outdoors
- The accessibility of community and recreation facilities meets the changing needs of our community.

UN SDG 3, 11

There is a safe environment for all

- Harm to people from natural and man-made hazards is minimised
- Our District has the capacity and resilience to quickly recover from natural disasters and adapt to the effects of climate change
- Crime, injury and harm from road crashes, gambling, and alcohol abuse are minimised
- Climate change challenges are addressed in an appropriate, timely, cost-effective and equitable manner
- Our District is well served by emergency services and volunteers are encouraged.

UN SDG 3, 13.

Transport is accessible, convenient, reliable and sustainable

- The standard of our District's roads is keeping pace with increasing traffic numbers
- Communities in our District are well linked with each other and Christchurch is readily accessible by a range of transport modes
- Public transport serves our District effectively
- Opportunities to increase the occupancy of commuter vehicles is actively encouraged

UN SDG 9, 11, 12

Businesses in the District are diverse, adaptable and growing

- There are growing numbers of businesses and employment opportunities in our District
- There are sufficient and appropriate places where businesses are able to set up in our District.

UN SDG 8

The distinctive character of our tākiwa – towns, villages and rural areas is maintained

- The centres of our towns are safe, convenient and attractive places to visit and do business
- Our rural areas retain their amenity and character.

UN SDG 11

SUSTAINABLE DEVELOPMENT GOALS

The U.N Sustainable Development Goals are the blueprint to achieve a better and more sustainable future for all by 2030. They address the global challenges including those related to poverty, inequality, climate change, environmental degradation, peace and justice. The community outcomes broadly align with these goals.

Learn more about each U.N goal at:
un.org/sustainabledevelopment/sustainable-development-goals/

Legislative Requirements

Waimakariri District Council is defined under legislation as the “Road Controlling Authority” for the District’s roads. As such it is required by law to control activities on roads, although it may choose the level at which it will maintain the assets providing these service.

Legislation sets the minimum standards of service which the assets must meet. The key legislation, policy and planning documents affecting the levels of service provided by the land transport activity are:

The Local Government Act 2002.

Particularly Schedule 10, which requires.

- The requirement to consider all options and to assess the benefits and costs of each option.
- The consultation requirements.
- The Local Government Act 1974, particularly Part 21 Roads (Other Than Regional Roads), Service Lanes, and Access Ways.
- The Land Transport Act 1998.
- The Government Roading Powers Act 1989.
- The Land Transport Management Act 2003.
- The Public Works Act 1987.
- The Telecommunications Act 1987.
- The Electricity Act 1992.
- The Railway and Corridor Management and Safety Act 1992.
- The Biosecurity Act 1993.
- The Summary Offences Act 1991.
- The Bylaws Act 1910.
- The Climate Change Response Act.
- The New Zealand Coastal Policy Statement 1994.
- The Civil Defence Emergency Management Act 2002 (Lifelines).
- The Government’s Sustainable Development Action Plan.
- The Resource Management Act 1991.
- The Local Government (Rating) Act 2002.
- The Health and Safety in Employment Act 1999.
- The Building Act.

Current Level of Service

The Levels of Service developed in this (Draft) Plan are based on the District's Community Outcomes. The Community Outcomes are the result of public consultation carried out up to and during preparation of the 2021/31 Long Term Plan (LTP).

In establishing the Levels of Service the Council has considered its legal obligations, comments made to it through formal consultation processes, the results of customer surveys, sound engineering practice, affordability and economic efficiency.

The Council has considered many factors in defining the levels of service on its Roading network. These included:

- Its statutory obligations
- The needs and expectations of the District community as a whole and other communities within the District
- The Council's vision, goals, objectives and policies.
- NZ Transport Agency requirements
- Sound asset management and accounting practice.

Levels of Service and Performance Measures

Council has a range of measures by which by which it can determine how well the community's needs and desires are being met. These range from customer service outcomes to technical measures used to evaluate contractor delivery.

Consideration of the Community Outcomes and the Roading and Transport contributions to them has led to the development of the following performance measures, which are used as the basis of reporting of Roading performance in the Annual Report. They have been selected on the basis of measurability, repeatability, relevance and consistency with measures reported to other agencies, e.g. NZTA. In addition to the consideration of Community Outcomes, the Department of Internal Affairs, in consultation with Local Government, has a need for performance measures to be measured and compared across all local authorities. It has derived a number of mandatory performance measures and these have been adopted by Council for future measurement. Several were the same or similar to existing measures and therefore should not have a significant impact on how Council measures its performance in this area.

The first five measures were set by The Department of Internal Affairs, with the targets set by council, and became the new LOS measures as of 1 July 2015. In addition Council amended a measure of its own related to Unsealed Roads, varying the measure from the previous 120 vehicles per day to 200 vehicles per day.

The new measures and targets for Waimakariri District Roading are shown in the table below. By the end of the 3 year period Council had met all its targets except length of network resurfaced. This will continue to be a target but variables such as the type of resurfacing, budget constraints and the needs of the network itself in any particular period are more likely to govern the quantity of work carried out. However, it does provide a good reminder of the quantity of work required in general to maintain a network wide standard.

The process of reporting overall progress towards achievement of Community Outcomes to which the Roading and Transport Activity primarily contributes is managed corporately through the Council Policy Team to ensure consistency between all activities. Performance against these targets is reported quarterly.

It should be noted that Waimakariri District Council up until recently, had considerably more LOS targets. These were rationalised, however the move to ONRC means more targets will be identified and modified to allow measurement and comparison across New Zealand

Table 2: Community Outcomes Measures and Targets

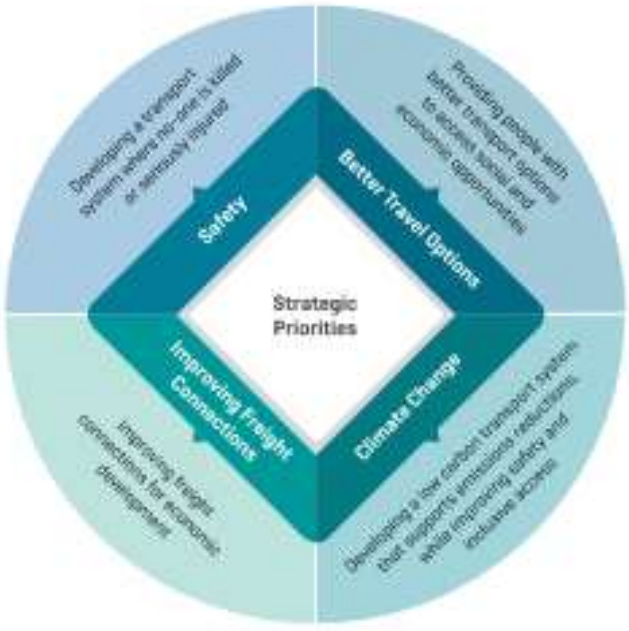
Roads and Footpaths							
Community Outcome	**Council Response**	**Level of Service**	**Measure**	**Targets**	**Achieved**		
					17/18	**18/19**	**19/20**
Crime, injury and harm from road accidents, gambling, and alcohol abuse are minimised There is a safe environment for all. The standard of our District's roads is keeping pace with increasing traffic numbers Transport is accessible, convenient, reliable, affordable and sustainable	Designing and maintaining roads to protect the safety of all road users (including pedestrians and cyclists).	The road network is increasingly free of fatal and serious injury crashes.	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 measure)	Reduction in fatalities and serious injury crashes	There were the same number of fatalities and 5 more serious crashes in Waimakariri District for the 2017/18 financial year compared with the previous one	One less fatality and six fewer serious injury crashes on Waimakariri local roads for the whole of 2018/19 financial year compared with 2017/18.7	One more fatality and 9 fewer serious crashes on Waimakariri local roads for the whole of 2019/20 financial year compared with 2018/19-8
	Maintaining and developing the District's roads, footpaths, cycleways and passenger transport facilities to provide a convenient, accessible, responsive, sustainable and comfortable transport network.	Sealed roads provide a level of comfort that is appropriate to the road type.	The average quality of ride on a sealed road network, measured by smooth travel exposure. (DIA measure)	95% for rural and 75% for urban roads	96%/81%	98% / 81%	98% / 80%
		Optimised programmes are delivered that are affordable and at a cost so that service productivity is improving.	The percentage of the sealed local road network that is resurfaced.(DIA measure)	5%	3.2% A larger proportion of asphalting was carried out this year compared with chipseal, which impacted on the overall programme	6%	4.45%
		Footpaths are safe, comfortable and convenient.	The percentage of footpath that falls within the level of service or service standard for the condition of footpaths. (DIA measure)	95%	98.9%	98.7%	99%
		Requests for service will be responded to in a prompt and timely manner.	The percentage of customer service requests relating to roads and footpaths responded to within service delivery standards. (DIA measure)	95%	96%	97.1%	96.4%
		Unsealed roads provide a level of comfort that is appropriate to the road type.	The percentage of unsealed roads that carry more than 200 vehicles per day. (WDC measure)	No more than 5%	0.75%	0.8%	0.91%

National Levels of Service

There are several strategic documents which outline national priorities. In preparing the three year programme it is important to be cognisant of these. NZTA (Waka Kotahi) uses these documents for prioritising the funding assistance it provides to Road Controlling Authorities.

Ministry of Transport Outcomes Frameworks

Government Policy Statement for Transport



One Network Road Classification – Level of Service

During 2013 the joint Local Government/Transport Agency implementation group, the Road Efficiency Group (REG), developed an integrated national road classification, the One Network Road Classification (ONRC).

The priority driver for developing a new single national road classification has been the nation-wide need to ensure the ongoing affordability of road maintenance and operations and the findings of the Ministerial Road Maintenance Task Force Report. The task force concluded that a national road classification could help to improve investment prioritisation.

The One Network Road Classification (ONRC) involves categorising roads based on the functions they perform as part of a national network. The classification will help local government and the Transport Agency to plan, invest in, maintain and operate the road network in a more strategic, consistent and affordable way throughout the country. It will also give road users more consistency and certainty about what standard and services to expect on the national road network.

A set of customer levels of service (CLoS) has been developed for each classification (see below).

These Levels of Service will be used to assess the level of funding NZTA consider appropriate from their funding perspective. Councils may choose to fund a higher level of service if that is the wish of their community. However the CLoS that have been developed are generally consistent with how the Waimakariri District Council is managed in practice, therefore no great change is anticipated. This is dependent on performance measures being developed and potential future Technical LOS which may not align with Council Technical LOS as applied through the maintenance contracts.

Going forward there is an intention to incorporate the One Network Framework. This incorporates Planning considerations, so Place and Function will also be utilised to determine hierarchy of the network. For example, a road with a high pedestrian function but low traffic volume may be considered as requiring a higher level of service than a road with a similar volume of traffic but low pedestrian numbers in the suburbs.

Figure 4: Customer levels of service (CLoS)

Road categories	Mobility			Safety	Amenity	Accessibility
	Travel time reliability	Resilience	Optimal speeds (safety and efficiency)			
Arterial	Generally road users experience consistent travel times with some exceptions in urban heavy peak, holidays, during major events or during moderate weather events.	Route is nearly always available except in major weather events or emergency event and where no other alternatives are likely to exist. Clearance of incidents affecting road users will have a high priority. Road users may be advised of issues and incidents	Higher speeds depending on assessed level of risk. Lower if mixed use, high intersection density, schools, shopping, concentrations of active road users. In urban areas travel speeds depend on assessed level of risk and recognise mixed use, schools, shopping strips and concentrations of active road users	Variable road standards, lower speeds and extra care required on some roads/sections particularly depending on topography, access, density and use. Road user safety guidance provided at high risk locations. Some separation of road space for active road users in urban areas	Good level of comfort, occasional areas of roughness. Aesthetics of adjacent road environment reflects journey experience needs of both road users and land use. Urban arterials reflect urban fabric and contribute to local character. Some separation of road space for active road users for amenity outcomes in urban areas. Clean and secure [lighting, good PT and cycle numbers, including park and ride and cycle park facilities, and weather protection for PT users]	Some landuse access restrictions for road users, both urban and rural. Road user connection at junctions with National, Arterial or Collector roads, and some restrictions may apply in urban areas to promote Arterials. Traffic on higher classified roads generally has priority over lower order roads. [Numerous bustops with high frequency services to key destinations and interchanges.] Some separation of road space for active road users in urban areas to provide network access and journey continuity. [Parking for all modes and facilities for mobility impaired at activity centres, and some shared spaces.] Extra care required around activity centres due to mixed use, including goods vehicles. Provision of quality information relevant to Arterial road user needs.
Primary collector	Generally road users experience consistent travel times except where affected by other road users (all modes) or weather conditions	Route is nearly always available except in major weather events or emergency event and alternatives may exist. Clearance of incidents affecting road users will have a moderate priority. Road users may be advised of issues and incidents	Travel speeds depend on assessed level of risk and recognise mixed use, schools, shopping strips and concentrations of active road users	Variable road standards and alignment. Lower speeds and greater driver vigilance required on some roads/sections particularly depending on topography, access, density and use. Active road users should expect mixed use environments with some variability in the road environment, including vehicle speed. Road user safety guidance provided at high risk locations.	Moderate level of comfort, occasional areas of roughness. Aesthetics of adjacent road environment reflects journey experience needs of all road users and adjacent land use. Urban collectors reflect urban fabric and contribute to local character. Specific provision where active road users present. Clean, safe and secure [lighting, reasonable PT and cycle numbers, accessible PT and parking facilities].	Landuse access for road users generally permitted but some restrictions may apply. Road user connection at junctions with Arterial or Collector roads, and some restrictions may apply in urban areas to promote Arterials. Traffic on higher classification roads generally has priority over lower classification roads. [Regular bus services to key destinations and interchanges.] Active road users should expect mixed use environments with some variability in the road environment, including vehicle speed. [Parking for all modes and facilities for mobility impaired at activity centres.] Provision of quality information relevant to Collector road user needs.
Secondary collector	Road users travel times may vary as a result of other road users (all modes), weather conditions or the physical condition of the road.				Moderate level of comfort, longer areas of roughness. Aesthetics of adjacent road environment reflects journey experience needs of all road users and adjacent land use. Urban collectors reflect urban fabric and contribute to local character. Specific provision where active road users present. Clean, safe and secure [lighting, reasonable PT and cycle numbers, accessible PT and parking facilities].	Landuse access for road users generally permitted but some restrictions may apply. Road user connection at junctions with other Collectors or Access roads. Collector road traffic generally has priority over Access road traffic. [Regular bus services to key destinations and interchanges.] Active road users should expect mixed use environments with some variability in the road environment, including vehicle speed. [Parking for all modes and facilities for mobility impaired at activity centres.] Provision of quality information relevant to Collector road user needs.
Access	Road users experience varied travel times as a result of other road users (all modes), weather conditions or the physical condition of the road.	Route may not be available in moderate weather events and alternatives may not exist. Clearance of incidents affecting road users and road user information will have a lower priority.	Travel speeds depend on assessed level of risk and recognise access and use values, particularly schools, shopping strips and concentrations of active road users	Variable road standards and alignment. Lower speeds and greater driver vigilance required on some roads/sections particularly depending on topography, access, density and use. Road users should expect mixed use environments with some variability in the road environment, including vehicle speed. Road user safety guidance may be provided at high risk locations.	Lowest level of comfort, may include extended areas of roughness and unsealed surfaces (on rural roads). Aesthetics of adjacent road environment strongly reflects land use and place function. Strong shared philosophy between active road users (if present) and vehicular traffic. Active road users expect evironment appropriate to their needs. Urban areas clean, safe [low vehicle speed] and secure [lighting].	Access to all adjacent properties for road users. Road user connection at junctions ideally with Collectors and other Access roads. Access road traffic generally has lower priority over traffic on all higher classification roads. Active road users should expect mixed use environments with some variability in the road environment, including vehicle speed. Enhanced accessibility via 'share the road' philosophy (active road users, mobility impaired and drivers), journey connectivity to key destinations via all modes, and provision of quality information.
Access (low volume)		Route may not be available in weather events and alternatives may not exist. Clearance of incidents affecting road users and road user information will have the lowest priority.				

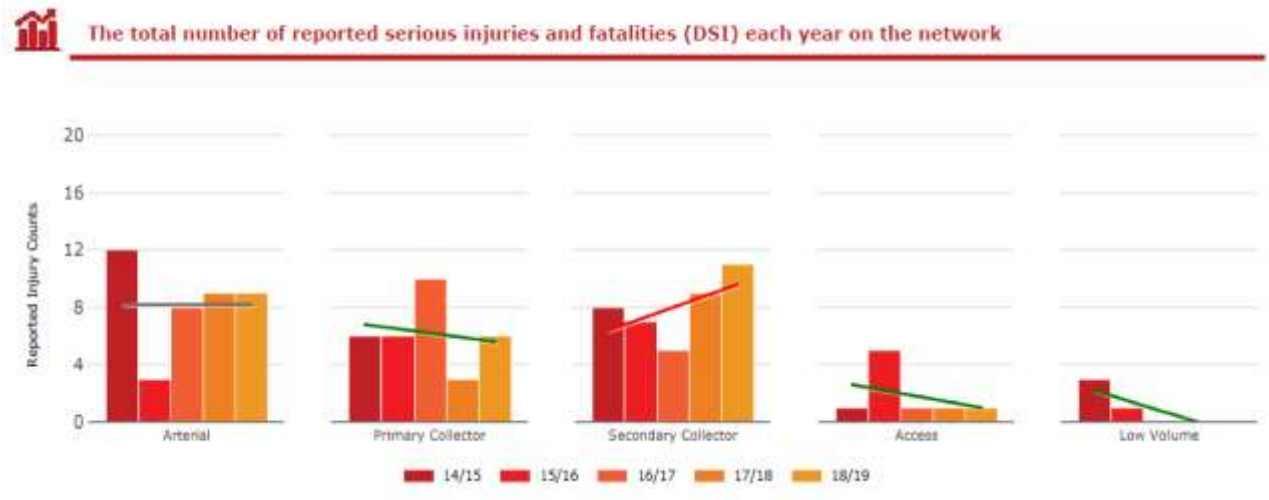
3 Regional Levels of Service Results

ONRC Performance Monitoring

A major tool in the RCA toolbox has been the development of the ONRC Performance Monitoring Tool. This has developed from a basic snapshot of an RCA's personal performance to one which provides national, regional and peer group comparisons.

In terms of performance, the road condition in WDC is generally better than the Canterbury, peer, and national averages. Combined with local customer satisfaction, and results of DTIMS (summarised in the Life Cycle Management Plan), this supports the current general management of the Roading network in Waimakariri District.

Figure 5 : Safety Customer Outcome 1 - Serious Injuries and Fatalities



As can be seen above, the numbers of fatalities and serious injuries on access and low volume roads remain low. Extra attention needs to be given to analysing the issues on secondary collector roads, and to a lesser extent, arterial roads.

Figure 6 : Safety Customer Outcome 2 – Collective Risk

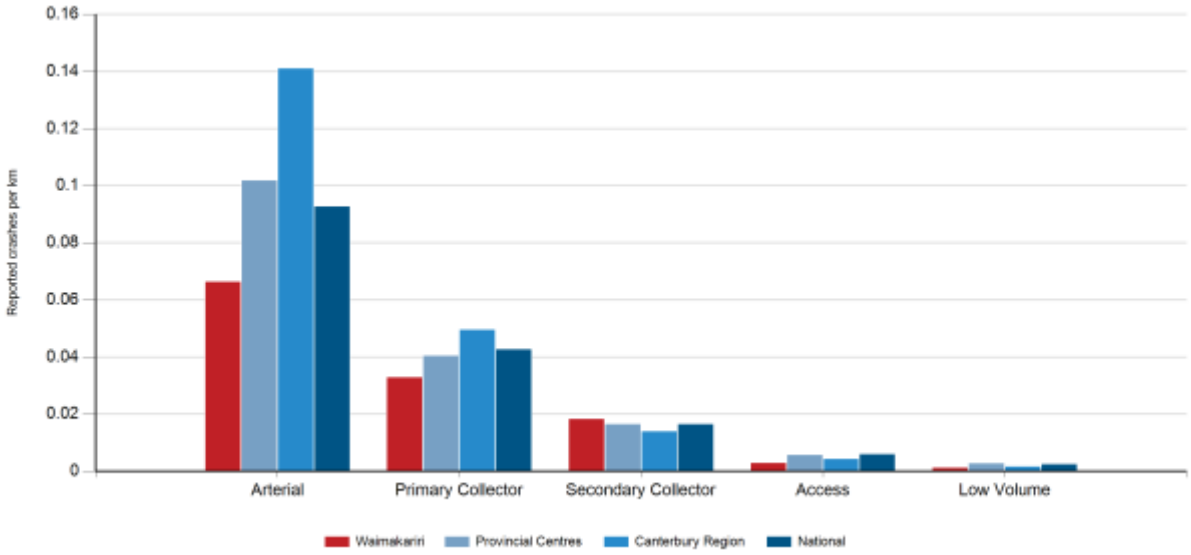
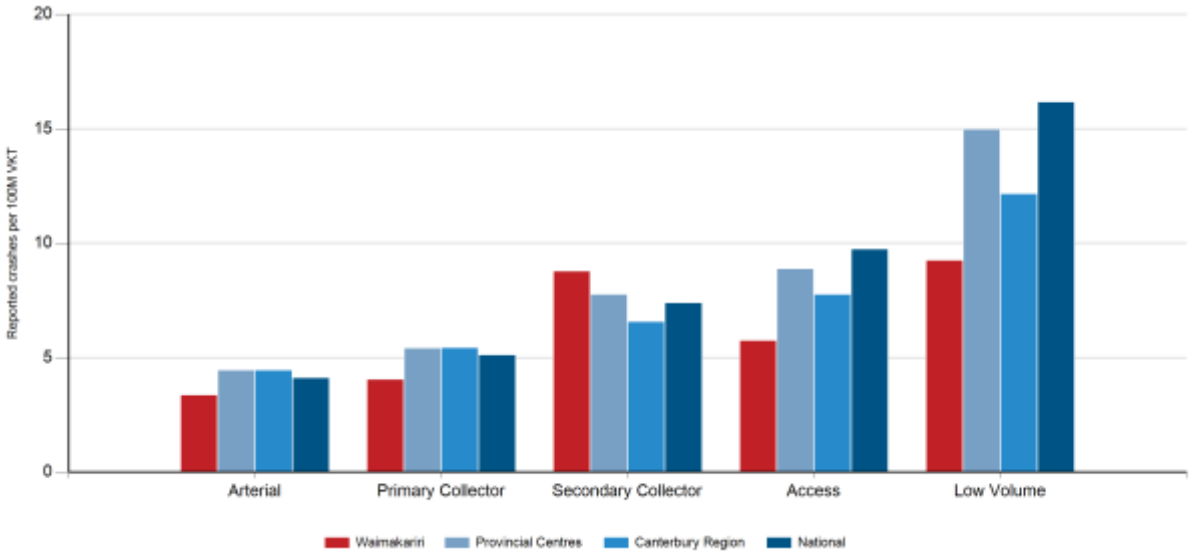
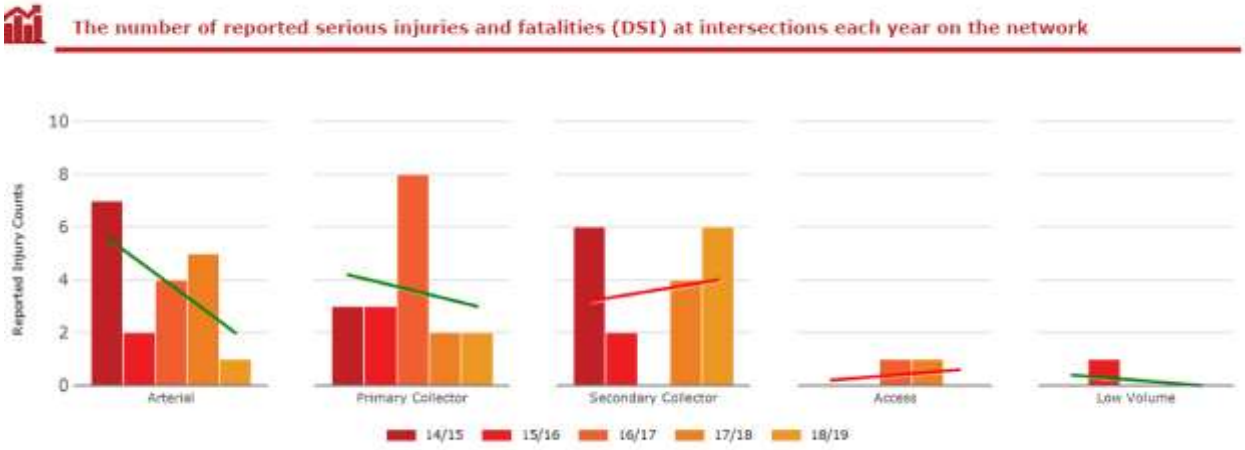


Figure 7 : Safety Customer Outcome 3 - Personal Risk

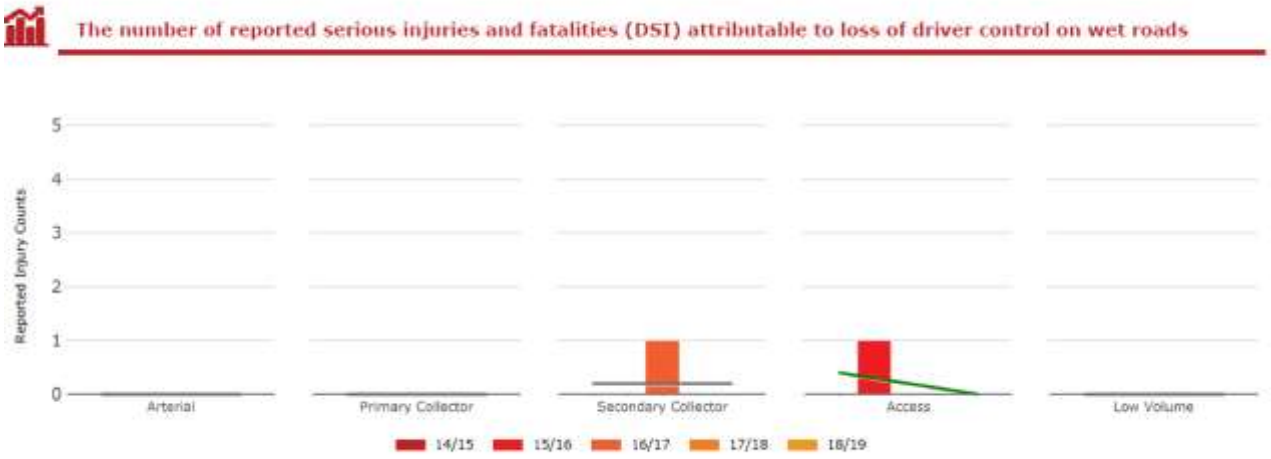


The increase in fatalities and serious injuries for secondary collector roads aligns with the general trend in crashes in the District, however as can be seen this is performing poorly against our peers and against the country as a whole. Secondary Collectors comprise 22% of the network (around 340 km) so this is not insubstantial.

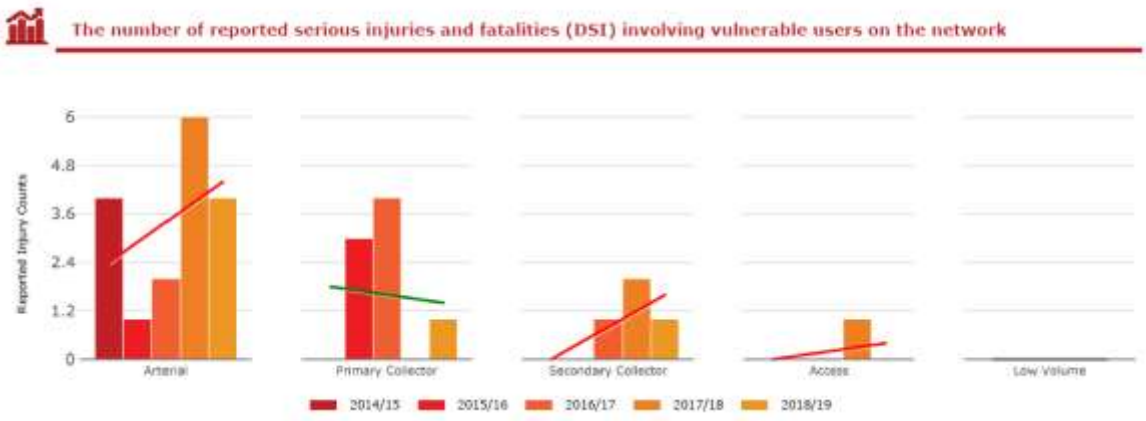
Figure 8 : Further Crash Measures



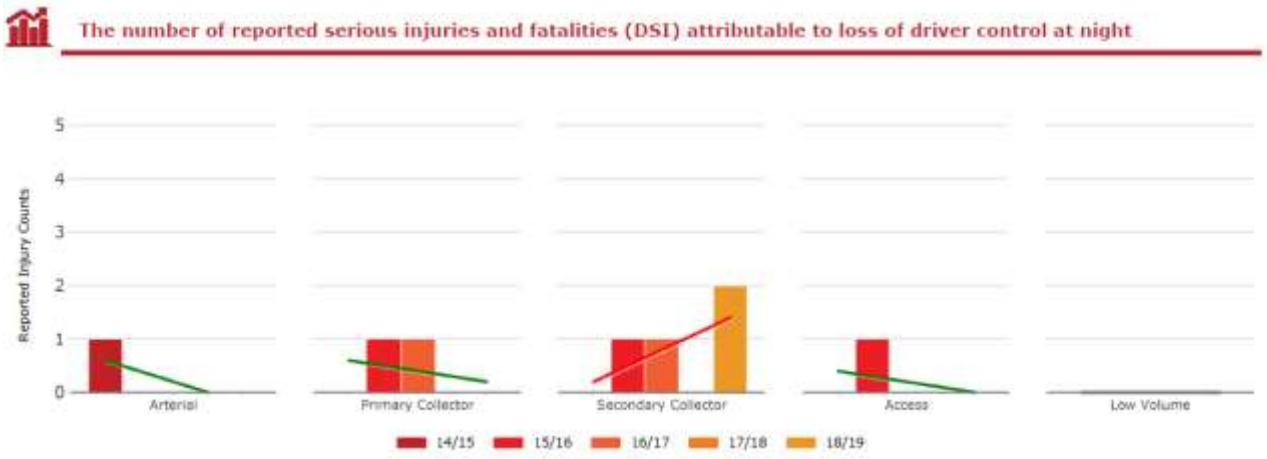
Once again, intersection crashes are the most noticeable on secondary collector roads.



Wet road crashes are not currently a major issue in Waimakariri.

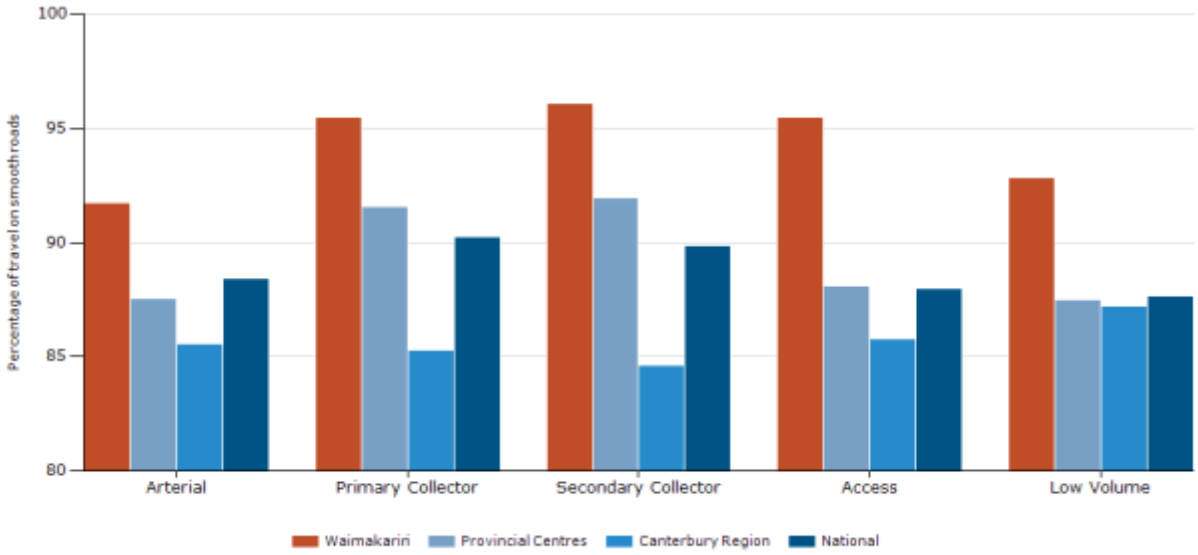


Crashes involving vulnerable users reached a high in 2018 but reduced again in 2019.



There are few serious and fatal crashes at night in the District.

Figure 9 : Smooth Travel Exposure



WDC's roads continue to have a smoother surface than its peers, neighbours or nationally. However, when broken down and compared with Canterbury, this comparison can be seen as similar to most of its neighbours other than those more recently or profoundly affected by the earthquakes.

Figure 10 : Smooth Travel Exposure - Comparison with Individual Councils

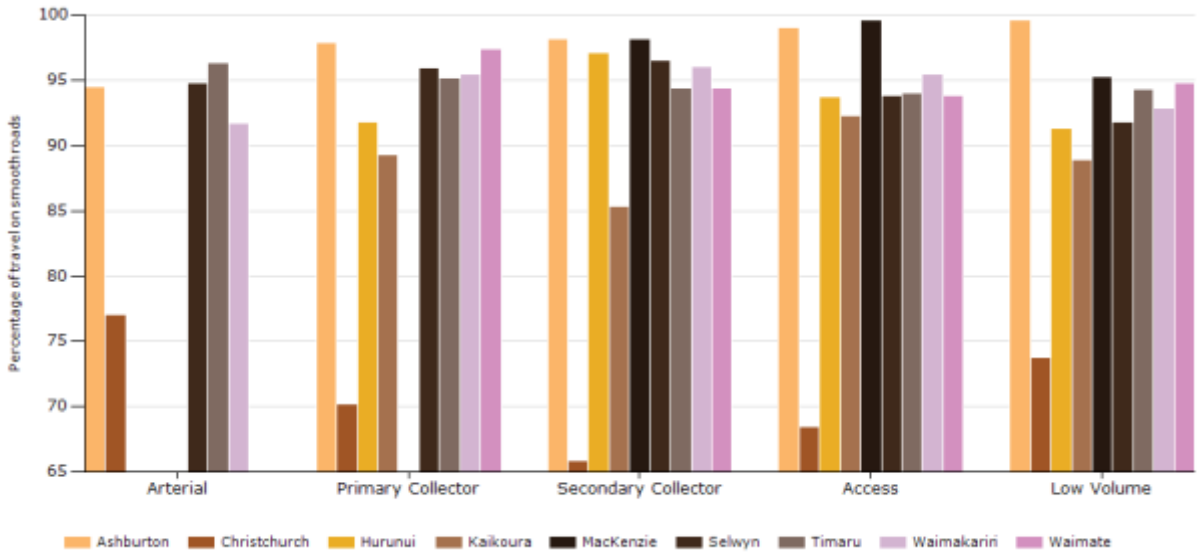
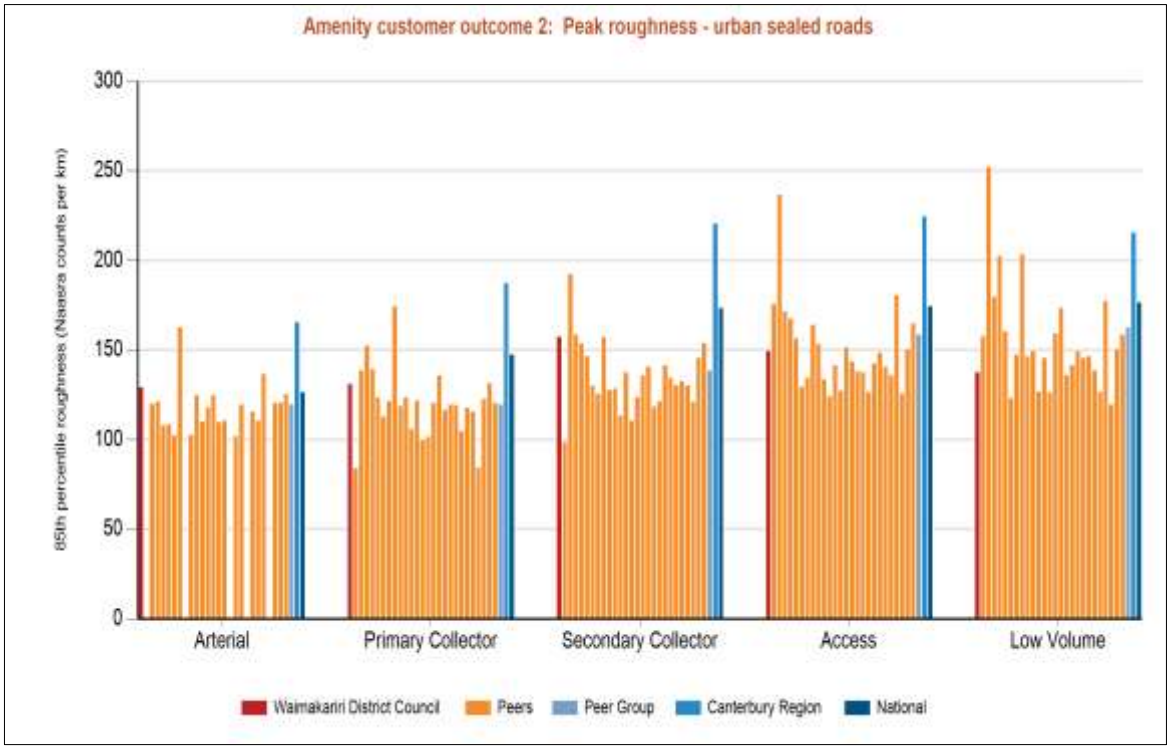
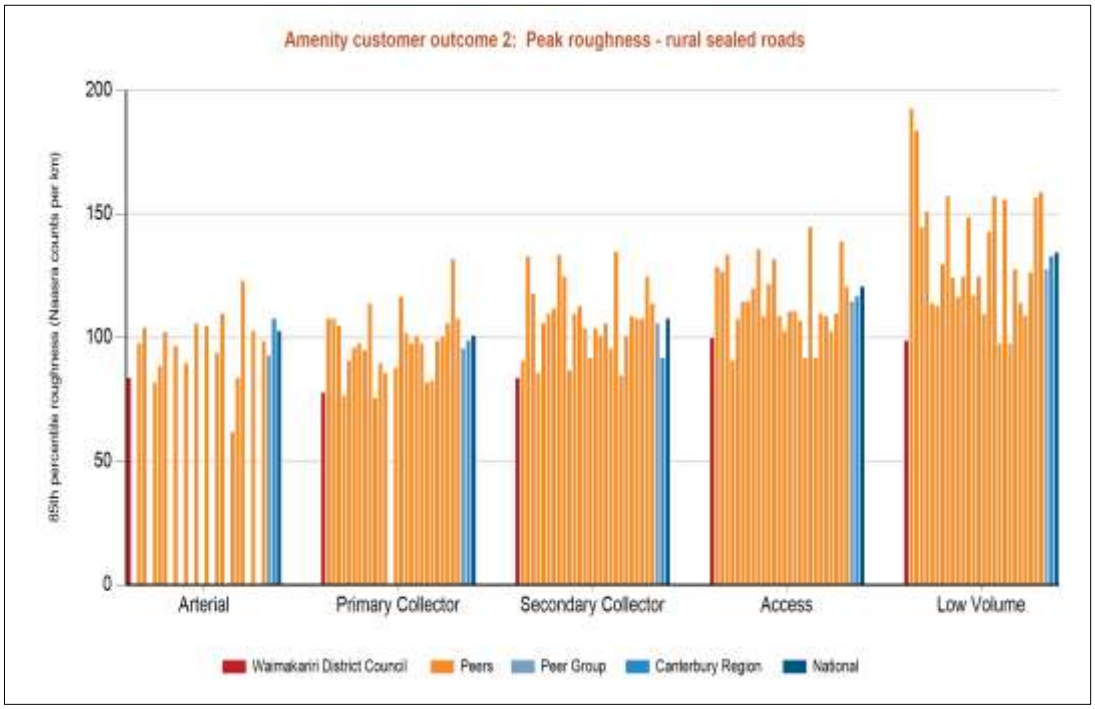


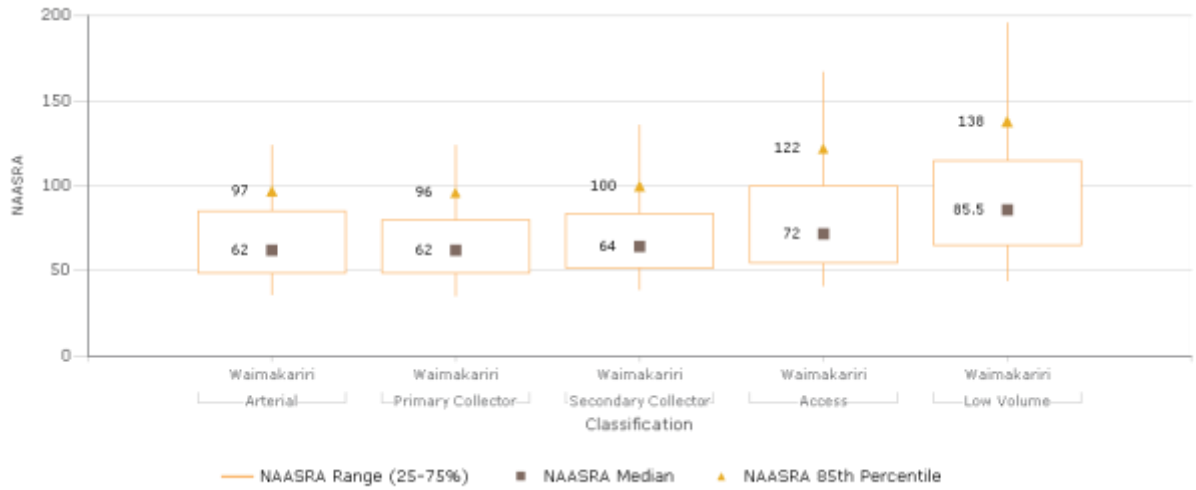
Figure 11 : Amenity Customer Outcome 2 – Peak Roughness – Urban Sealed Roads

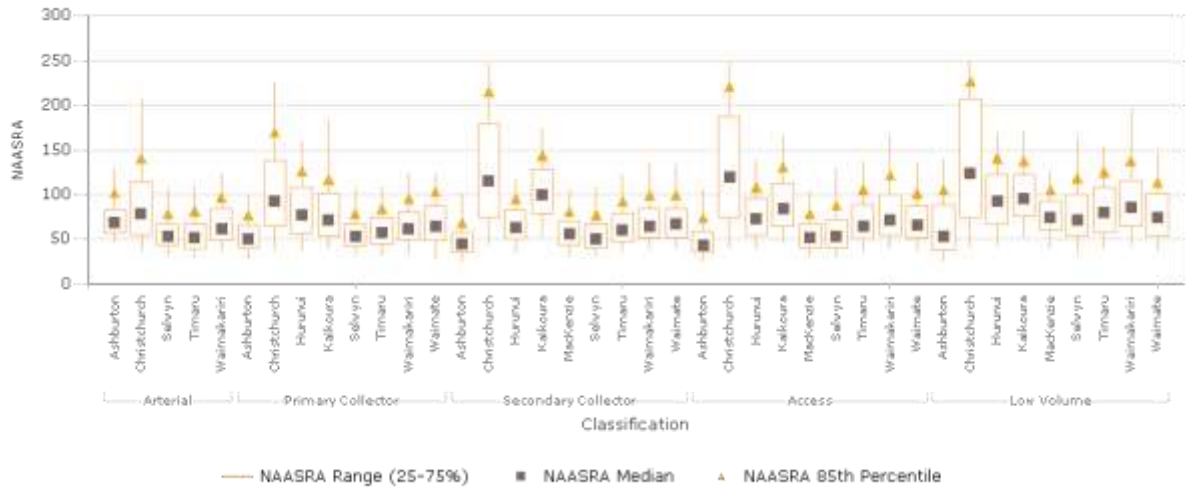


Peak roughness in WDC urban roads appears to be slightly above almost all its peers for all except low volume roads, which would be indicative of the growth in townships resulting in numerous trenches for services and higher traffic volumes. Rural roads by comparison are generally smoother than their peer equivalents, Canterbury and National roads.

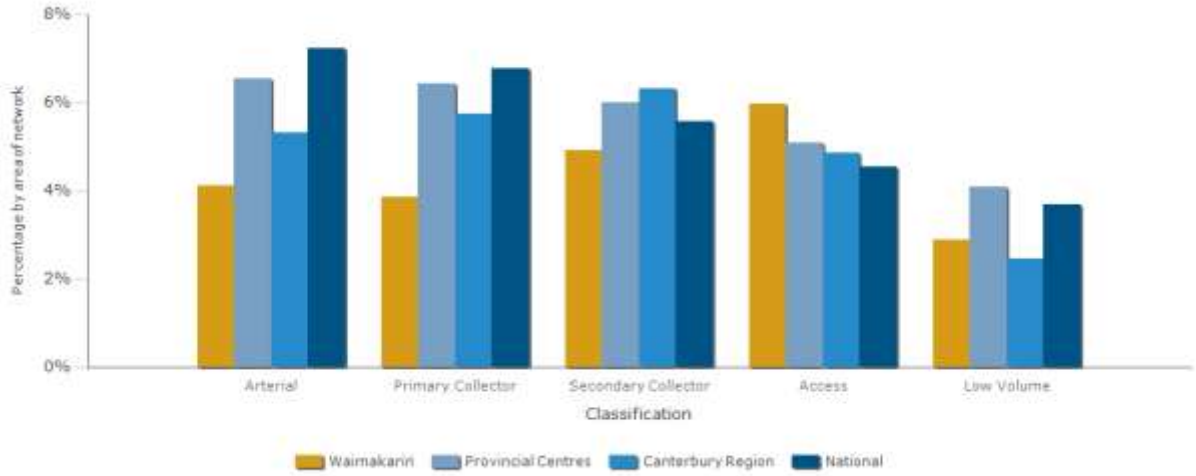
Figure 12 : Amenity Customer Outcome 2 – Peak Roughness – Rural Sealed Roads



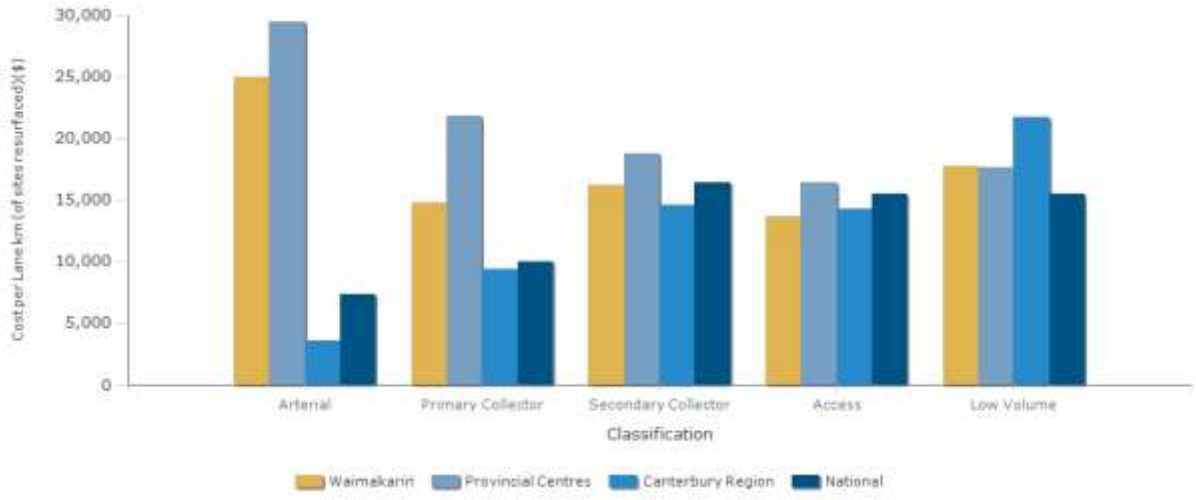




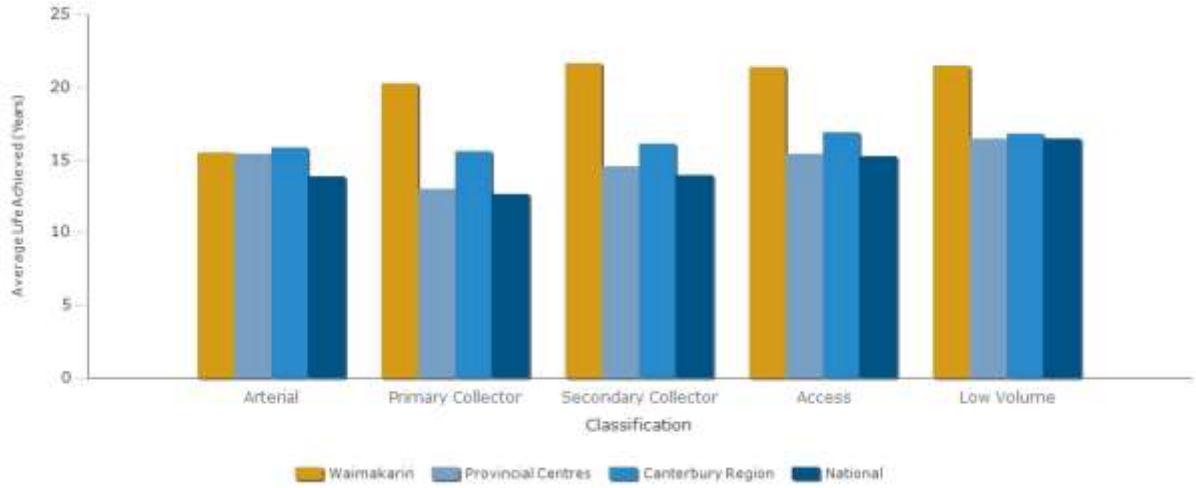
Percentage by area of network chipseal surfacing (Latest and Comparative Trend)



The total cost of chipseal resurfacing undertaken over the selected financial year



Chipseal resurfacing average life achieved, four year average to 2019/20



Cost of chipsealing is higher in Waimakariri than its peers, however average achieved life is also longer by 3-5 years than either its peers, the Canterbury Region, or nationally.

Figure 13 : 5 Year Average Annual Work Category Costs per Sealed Network Kilometre

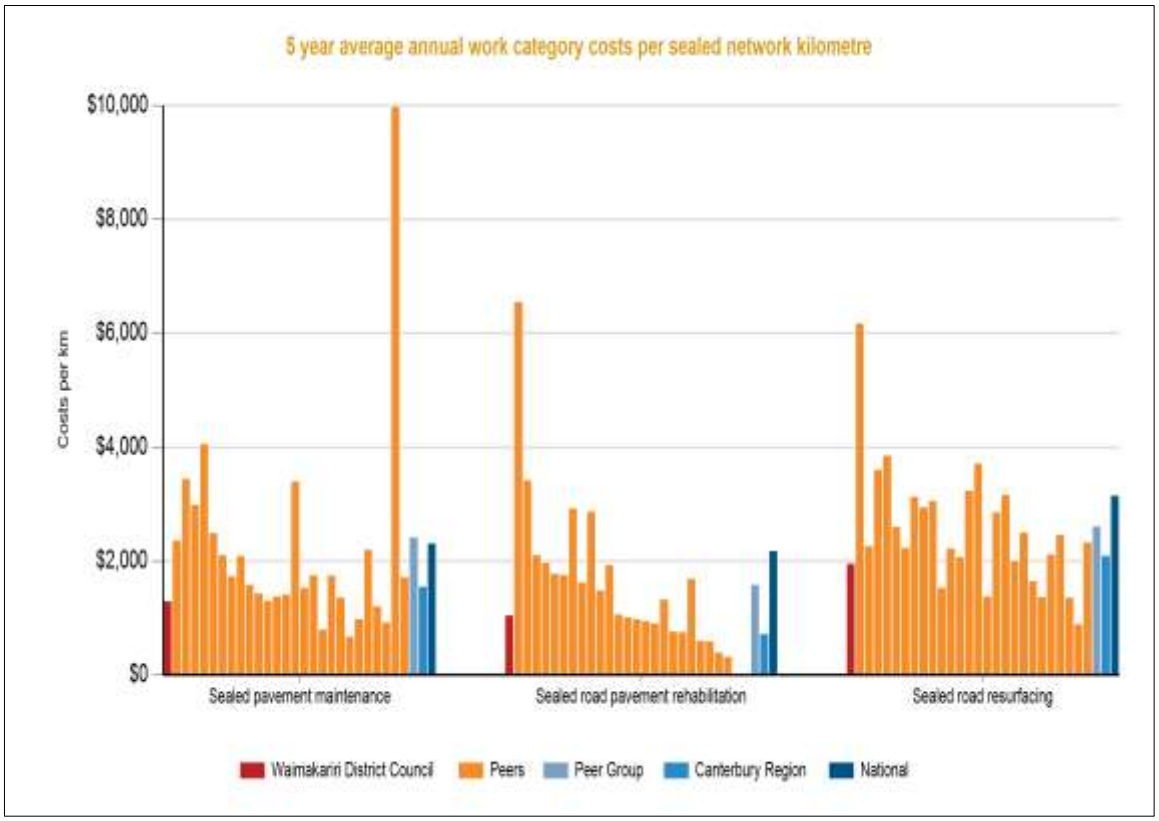


Figure 14 : 5 Year Average Annual costs Per Unsealed Network Kilometre

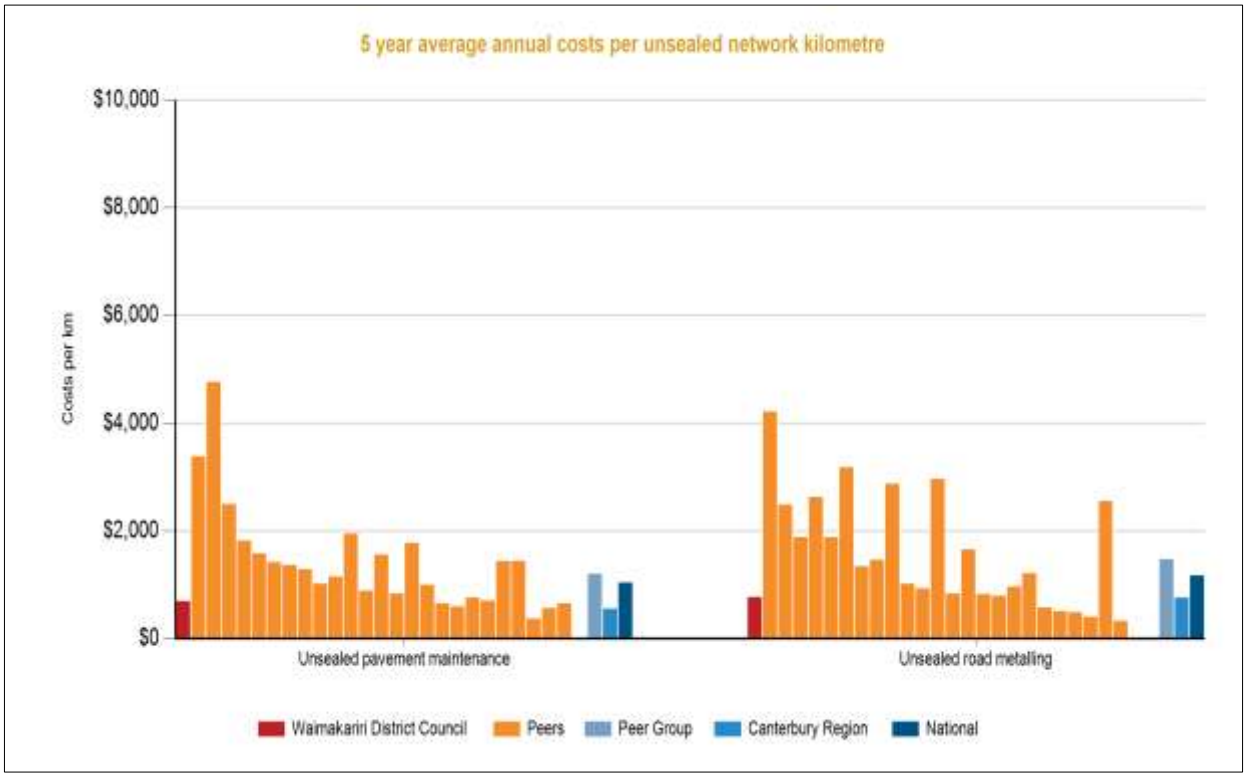


Figure 15 : Percentage by area of network asphalt surfacing (latest and comparative trend)

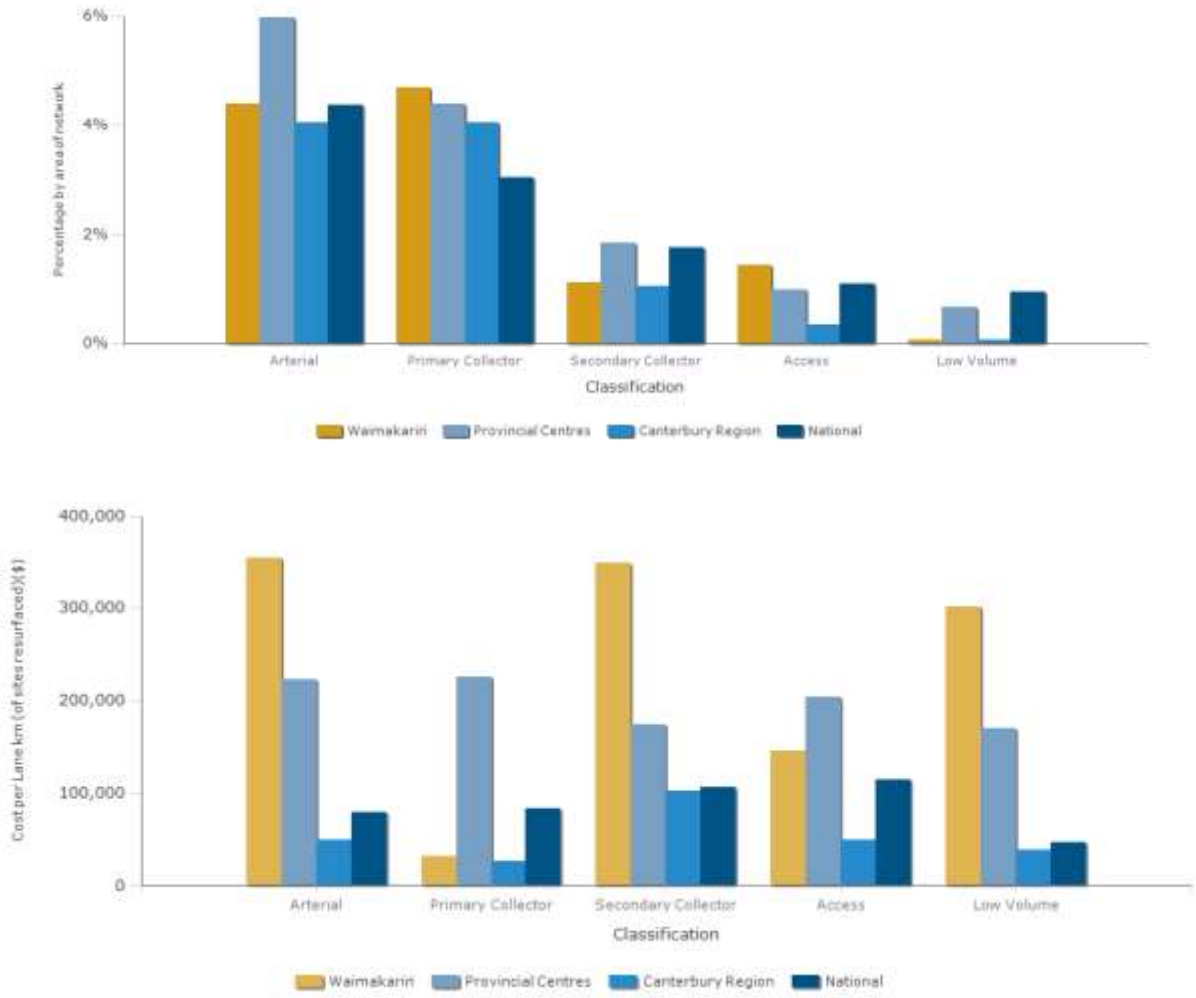
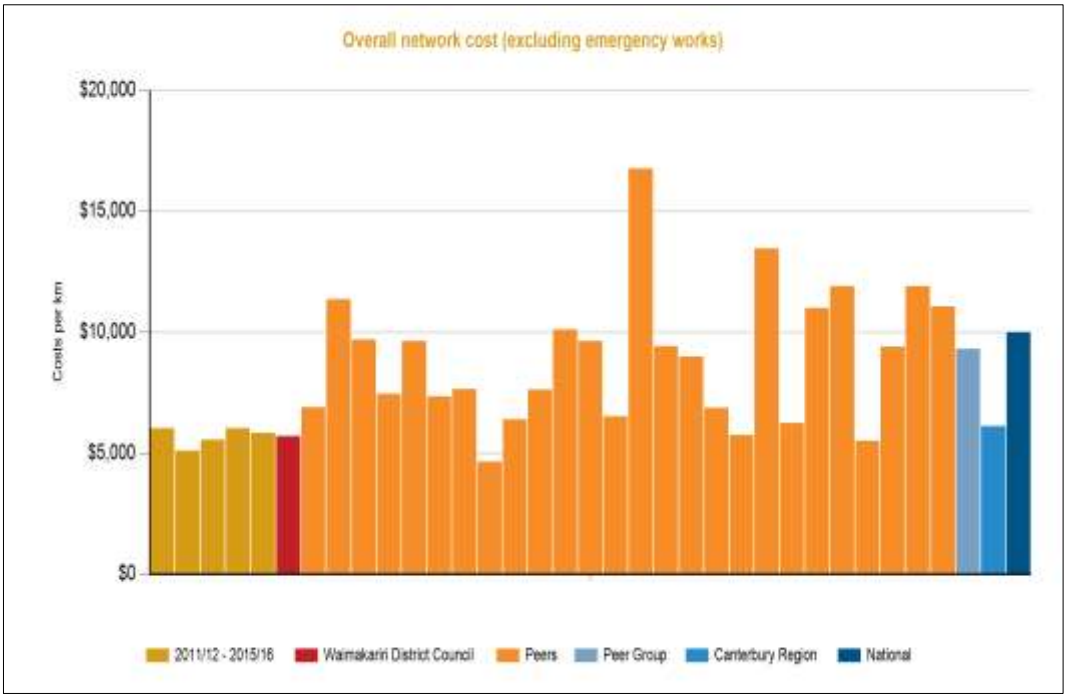


Figure 16: Overall Network Cost (excluding emergency works)



In general WDC achieves more for less compared with its peers. While costs/km are on a par with Canterbury, and lower than their peers, they achieve a greater life out of all their roads other than arterials. This reflects an experienced maintenance crew and careful management on a budget which has not grown significantly over the last few years in this area.

4 Gap Analysis

The analysis of the current level of service allows the identification of gaps in the data, as well as what areas of service provision could be targeted for improvement in the future. There are three gaps that should be considered:

- The current gaps between actual level of service and current level of service.
- The gaps that can be predicted to develop between intended and delivered levels of service in future years.
- The gap between the ONRC CLoS and the Council's LOS.

The gaps between actual and current levels of service are identified from network inspections, service requests and submissions to annual and LTP plan processes. When gaps are identified they are considered for improvement and programmed if budget allows and need is justified. Where gaps cannot be improved then consideration is to be given to changing the level of service.

Gaps that can be predicted to develop are identified when change of use occurs or when there are funding constraints. These gaps would then be managed by changing the level of service in consultation with the community.

Analysis of current information such as service requests, customer satisfaction surveys and network inspections suggest that generally, there are no significant gaps between actual and current levels of service and are in accord with the majority of the community wishes.

Negative Effects of this Activity

The transport activity does have some negative effects on the community and environments and is summarised in the following table:

Table 3: Summary of Negative Effects

Negative Impact	Social	Economic	Environmental	Cultural	Mitigation
Dust from unsealed roads could impact on social amenity and air quality	✓		✓		Sealing roads in accordance to Council policy. Properly maintaining unsealed roads Note that the Council does not apply dust suppression on roads
Contaminants from surfaces entering natural waterways may have adverse effects on water quality			✓		Council manages road maintenance to comply with consent condition

Positive Effects of this Activity

The positive effects of the transport activity are best summed up in Table 2

Key Improvement Initiatives

Key improvement initiatives relating to the level of service include the following:

Table 4: Key LoS Improvements

Section References	Improvement action	Priority	Proposed Completion date	Owner and Key Staff
Section 3 Levels of Service				
3.1`	Investigate what changes/improvements in monitoring could improve management decision making and performance throughout the year	Very High	August 2021	APE, RM
3.2	Instigate regular meetings with key stakeholders in order to utilise their expertise and resources to provide further information for good network management	Moderate	June 2020	APE