Proposed variations to the

OTAGO SOUTHLAND
Regional Land Transport Plans

December 2017

2015 – 2021

Otago Regional Council

environment SOUTHLAND REGIONAL COUNCIL
Te Taiao Tonga

Otago and Southland RTC Chair's foreword

The Otago and Southland Regional Transport Committees (RTCs) are pleased to present, for consultation, this proposed mid-term update of the 2015-2021 Otago Southland Regional Land Transport Plans (RLTPs). These plans set our vision of transport in the future and how we - the 10 local authorities in our two regions and the NZ Transport Agency (NZTA) - intend to achieve this by funding and providing transport services and infrastructure, and concentrating over the next few years on achieving a safer and more sustainable transport system that supports and enhances regional development.

Covering almost half of the South Island, the Otago and Southland regions share opportunities to improve transport and face common challenges. These shared issues and opportunities led us to jointly develop our Regional Land Transport Plans.

The prosperity of both Otago and Southland, and our quality of life, depends heavily on good land transport infrastructure and services. Our primary industries drive much of the area's economic growth, so good access and freight services linking farms and forests, suppliers, processors and export gateways are critical. Tourism, another major economic driver in Otago and Southland, also depends on quality road links.

Our common challenges include a very large land area and road network but comparatively low rating population in many areas. For the majority of our two regions, the major emphasis in these plans needs to be on maintaining and operating the roading networks, in most cases to existing levels of service. Providing funds to keep the network at similar levels of service to those that exist today is a major challenge. At the same time, unprecedented growth, centred on the Queenstown area, also challenges the ability of ratepayers to fund the massive improvement programme needed to this area's transport system.

Our two regions share many road safety issues. We also face many of the same types of natural hazards, challenging the resilience of our transport networks and our communities.

Many of the projects proposed in these plans will be of wider benefit than just to ratepayers in a single district. These include:

- a suite of changes to the Queenstown and Dunedin transport networks
- two improvement projects on the visitor journey between Queenstown and Milford Sound
- improvement projects on SH1 in Otago and Southland, from Invercargill to Oamaru.

Joining together to create these plans has heightened our awareness that journeys do not stop at administrative boundaries. Many journeys, whether by freight or visitors, span Otago and Southland, and beyond. At a larger scale, there are critical freight and visitor journeys crossing regions, extending along and across the South Island, and connecting to both Stewart Island and the North Island.

Recognising the interconnectedness of South Island regional economies and communities, the chairs of the seven RTCs in the South Island have formed a Chair's Group and a work programme for those matters best addressed at this scale. Chairs agree they can make greater progress toward realising common goals if they work together.

The South Island has a relatively small and dispersed population of around one million. Christchurch is the largest urban area and is centrally located, and there are several other main centres located throughout the island. Small communities are often at a significant distance from main centres, and depend on the products transported to their locality every

day, as well as the ability to move products to be processed, distributed and exported. This makes resilience transport linkages between South Island communities critically important.

As in Otago Southland, the efficient movement of both goods and people is essential to the South Island's economy, and the social and economic wellbeing of its residents. Across the South Island, a large proportion of the freight task is moved by road, with substantial freight growth being projected. Freight demand in the South Island is currently driven by a mix of primary sector and export growth, as well as by population change.

There has also been significant growth in the tourism sector, with the South Island being recognised as a tourism destination, in its own right. These critical freight and tourism journeys do not stop at regional boundaries – they extend across the South Island.

The South Island Regional Transport Committee Chairs established a group to significantly improve transport outcomes in the South Island, to help drive our economy and better serve our communities, through collaboration and integration.

The three key collaborative priorities for the South Island Group are to:

- identify and facilitate integrated freight and visitor journey improvements across the South Island
- advocate for an enabling funding approach which supports both innovative multi-modal (road, rail, air, sea) solutions to transport problems, and small communities with a low ratepayer base to maintain and enhance their local transport network
- identify and assess options for improving the resilience and security of the transport network across the South Island, as well as vital linkages to the North Island.

These are to be advanced through a joint South Island transport planning project, co-funded by the regional and unitary councils in the South Island.

For Otago and Southland, the benefits that this update to our RLTPs seeks to realise are:

- improved network performance and capability, and network resilience
- improved safety and reduced social impact of fatalities and injuries
- a focus on areas of regional economic development, productivity and connectivity
- increased customer voice on connectivity, accessibility and mode shifts
- optimisation of the transport system through communication technology, innovation and improved people capability
- greater value for money delivered by transport investments.

To achieve these benefits, we intend to focus on addressing the following problems and opportunities over the next three to ten years:

- Inability to assess, plan, fund and respond to changing mobility user demands in a timely way results in some poor investment prioritisation and decisions, and inadequate future-proofing.
- Attitudes and behaviour together with inconsistent quality of routes in the two regions results in fatal and serious injury crashes.
- Parts of the network are vulnerable to closure from adverse events resulting in economic and social disruptions, of which there is increased recognition.
- Tourism growth creates the opportunity to disperse visitors throughout southern NZ for the benefit of smaller communities.
- The opportunity to create a network of cycle rides in southern New Zealand.
- The opportunity for better integration of rail and coastal shipping at the South Island scale.

We are proud of these collaborations. We would like to thank the participating organisations for their time and assistance in updating these plans, and to acknowledge the hard work of elected RTC members and staff.

Trevor Kempton
Chairman, Otago Regional Transport Committee

Eric Roy
Chairman, Southland Regional Transport Committee

The Government has indicated that an engagement draft of a revised Government Policy Statement on Land Transport 2018-/19-2027/28 (GPS) will be made available in early 2018. Meanwhile, the Minister of Transport has provided some early signals of likely revisions to the current draft GPS.

At this stage (December 2017), the variations proposed in this draft appear consistent with the signals from the Minister. Some changes might, however, be required to this RLTP variation when the revised GPS 2018 is released.

Please note that cost estimates and timelines for individual activities and projects in this plan are indicative, for the purposes of consultation. They may change, particularly as approved organisations complete their activity management plans and as cost estimates are tightened up as project planning proceeds.

Please also note that the final decision on whether any of the activities proposed in these Otago Southland plans are included in the National Land Transport Programme rests with the NZTA. NZTA is expected to announce the National Land Transport Programme in August 2018.

Glossary of participating organisations, terms and acronyms

Approved organisations participating in this plan

CDC	Clutha District Council
CODC	Central Otago District Council
DCC	Dunedin City Council
DoC	Department of Conservation
ES	Environment Southland
GDC	Gore District Council
ICC	Invercargill City Council
NZTA	New Zealand Transport Agency. The Government agency with statutory functions to manage the funding of the land transport system and manage the state highway system.
ORC	Otago Regional Council
QLDC	Queenstown Lakes District Council
SDC	Southland District Council
WDC	Waitaki District Council

Other terms and acronyms used in this plan

Accessibility	Accessibility in relation to public transport means infrastructure, services and information is accessible to those with different access and mobility requirements.
Activity	Defined in the Land Transport Management Act 2003 as a land transport output or capital project, or both.
Activity class	Refers to a grouping of similar activities.
Active modes	Transport by walking, cycling or other methods which involve the direct application of kinetic energy by the person travelling.
AMP	Activity Management Plan
AO	Approved Organisation. Organisations eligible to receive funding from the National Land Transport Fund. Approved organisations are defined in the Land Transport Management Act 2003 as regional councils, territorial authorities or a public organisation approved by the Governor-General by Order-in-Council.
Arterial road	A high-capacity urban road, the primary function of which is to deliver traffic from collector roads to motorways, or between urban centres, at the

	highest level of service possible. As such, many arterial roads have restrictions on private access.
ATP	Audio Tactile Profiled road markings. Also known by road users as rumble strips).
C funding	Crown (C) funding
CAS	Crash Analysis System. The police use this system to record traffic crashes and injuries.
CBD	Central business district
CLOS	Customer level of service. A term used in the One Network Road Classification scheme.
Committed activity	Project or activity for which NZTA has already approved funding
Crash	Includes both motorised and non-motorised incidents, including incidents such as tripping or falling down bus stairs (crashes are sometimes referred to as accidents, particularly when no motorised vehicle is involved).
DC	District council
DoC	Department of Conservation
dTims	Deighton Total Infrastructure Management System tool
ENP	Economic network plan. A new type of geo-spatial modelling which models the flow of products and sometimes tourists.
Excluded service	Excluded passenger service means a service for that transports passengers for hire or reward and: (a) is contracted or funded by the Ministry of Education for the sole or primary purpose of transporting school children to and from school; (b) is not available to the public generally, and is operated for the sole or primary purpose of transporting to or from a predetermined event all the passengers carried by the service; (c) is not available to the public generally, and is operated for the sole or primary purpose of tourism; or (d) does not fall within any of paragraphs (a) to (c), and is not operated to a schedule. (s 5 LTMA).
Exempt service	A public transport service that is exempt under Section 130(2) of the LTMA or deemed exempt under Section 153(2) of the LTMA. (s 5 LTMA).
FAR	Funding Assistance Rate
Fuel excise duty	A tax imposed by the Government on fuel and used to fund land transport activities.
GPS	Government Policy Statement on Land Transport
HCV	Heavy commercial vehicle
HPMV	High productivity motor vehicle. A class of heavy vehicle that, with permit, is allowed to exceed standard length and mass limits.

ICT	Information and communication technologies
ILM	Intervention Logical Mapping. The RTCs used this technique to identify key problems and benefits facing Otago and Southland).
km	Kilometre
kph or km/hr	Kilometres per hour
Land transport revenue	Revenue paid into the National Land Transport Fund under the Land Transport Management Act 2003.
LED	Light emitting diode (lighting)
LOS	Level of service
LTP	Long Term Plan
LTMA	Land Transport Management Act 2003. The main act governing the land transport planning and funding system.
m	Metre
M	Million
Maintenance	Repairing a road so that it can deliver a defined level of service, while leaving the fundamental structure of the existing road intact.
MBIE	Ministry of Business, Innovation and Employment
mm	Millimetre
Motor vehicle registration and licensing fees	Motor vehicle registration and licensing fees are defined as land transport revenue and are a charge paid by vehicle owners and operators. The Motor Vehicle Register established under the Transport (Vehicle and Driver Registration and Licensing) Act 1986, which is continued under Part 17 of the Land Transport Act 1998. It records the details of vehicles that are registered to operate on the road.
N/a	Not applicable
National road	Category of road classification in the One Network Road classification scheme.
N funding	National (N) funding
NLTF	National Land Transport Fund. The set of resources, including land transport revenue, available for land transport activities under the National Land Transport Programme.
NLTP	National Land Transport Programme. A programme, prepared by NZTA, that sets out land transport activities likely to receive funding from the National Land Transport Fund. It is a three-yearly programme of investment in land transport infrastructure and services.

ONRC	One Network Road Classification
Otago RLTP	Otago Regional Land Transport Plan
PBC	Programme business case. This is the second stage of preparing a full business case, undertaken after completing the strategic case.
Primary collector road	Category of road classification in the One Network Road classification scheme.
PT	Public transport
PTOM	Public Transport Operating Model
TAG	Technical Advisory Group, comprising transport or roading staff from approved organisations in the region and chaired by a regional council. This group advises the RTC. Otago and Southland have a combined TAG.
R/A	Risk assessment.
Regional road	Category of road classification in the One Network Road classification scheme.
Reliability	The consistency of travel times that road users can expect,as defined in the One Network Road Classification scheme.
Resilience	Includes: ■ availability and restoration of each road when there is a weather or emergency event, whether there is an alternative route available and the road user information provided (One Network Road Classification) ■ resilience of the transport system when/if changes to oil prices and supply occur.
RLTP	Regional Land Transport Plan
RPS	Regional Policy Statement
RPTP	Regional Public Transport Plan
RMA	Resource Management Act
Road controlling authorities	Authorities and agencies which have control of the roads, including the NZTA, territorial authorities, and the Department of Conservation.
Road user charges	Charges on diesel and heavy vehicles paid to the Government and used to fund land transport activity
RSAP	Road safety action plan. This is prepared by a road controlling authority.
RTC	Regional Transport Committee. A transport committee which must be established by every regional council or unitary authority for its region. The main function of a RTC is to prepare a Regional Land Transport Plan.
SH	State highway. A road operated by the NZTA, as defined under the Land Transport Management Act 2003.
SHIP	State Highway Investment Plan

SPR	Special purpose road
SOI	A government agency's Statement of Intent (e.g. NZTA).
SORDS	Southland Regional Development Strategy
TA	Territorial authority
TAMP	Transportation activity management plan
TIO	Transport investment online, the online database of project proposals and decisions operated by NZTA.
Total Mobility Scheme	Subsidised taxi services.
Transport-disadvantaged	People whom a local authority or NZTA considers are least able to get to basic community activities and services (e.g. work, education, health care, welfare and food shopping).
vpd	Vehicles per day
Vulnerable road users	Road users who are more likely than others to suffer a serious injury or to die if they are involved in an accident, including pedestrians, cyclists, motorcylists, and horse users.
Yr	year
50MAX	A heavy vehicle with one more axle than conventional 44 tonne trucks, to spread a load further and reduce wear on roads. A permit is required, and they are only allowed on specified routes.

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Note, A new Figure 1 map, showing high use roads rather than state highways, and using ONRC classification, will be inserted in the second edition of the online document in/by early January.

1 Introduction and summary

1.1 Purpose of these plans and the area they cover

In 2014-2015, the Otago and Southland RTCs worked together to produce a combined document, their six-year regional land transport plans covering 2015-21. The Land Transport Management Act requires a mid-term review of each Regional Land Transport Plan. In undertaking this review, the RTCs have identified proposed updates (known legally as a varying the plan) they wish to make to the Otago and Southland RLTPs.

This mid-term review provides the opportunity to update the activities in the RLTPs which, in turn, will allow the NZTA to update the 2018-21 National Land Transport Programme (NLTP). To be eligible for funding from the National Land Transport Fund (NLTF), which NZTA administers, an activity must first be included in an RLTP. Hence the need to update the RLTPs first.

Acknowledging shared challenges and opportunities, the Otago and Southland RTCs are continuing to collaborate closely on the review and update of these plans. The focus of this update is to provide a safe and sustainable transport system that supports and enhances regional development.

This document is a consultation document, setting out the updates to the Otago and Southland Regional Land Transport Plans 2015–2021 that each of the RTCs proposes to make by way of a variation to its plan. The Otago and Southland RTCs are consulting on these proposed updates, to help them determine whether and how each committee should then formally vary its respective Regional Land Transport Plan 2015–2021.

As with the 2015-21 RLTPs, these proposed updates to the Otago and Southland plans are combined into this single document, referred to here as ‘the plans’ or the RLTPs.

Area covered by these plans

These plans cover the two regions shown on the map on the next page, including all of Waitaki District (see Figure 1).

Approved organisations are those eligible to seek funding from the National Land Transport Fund and have proposed projects for inclusion in these Otago Southland RLTPs. They are:

Otago	**Southland**
Otago Regional Council	Environment Southland
Central Otago District Council	Gore District Council
Clutha District Council	Invercargill City Council
Dunedin City Council	Southland District Council
Queenstown Lakes District Council	
Waitaki District Council	

NZ Transport Agency; Department of Conservation

DOC is responsible for roads on the conservation estate that provide public access to this estate. In the past, these roads have been maintained on an ad hoc basis; the department is now eligible to seek funding from the NLTF.

The funding of rail falls outside of these two RLTPs and the National Land Transport Fund.

Figure 1: Area covered by the Otago and Southland RLTPs

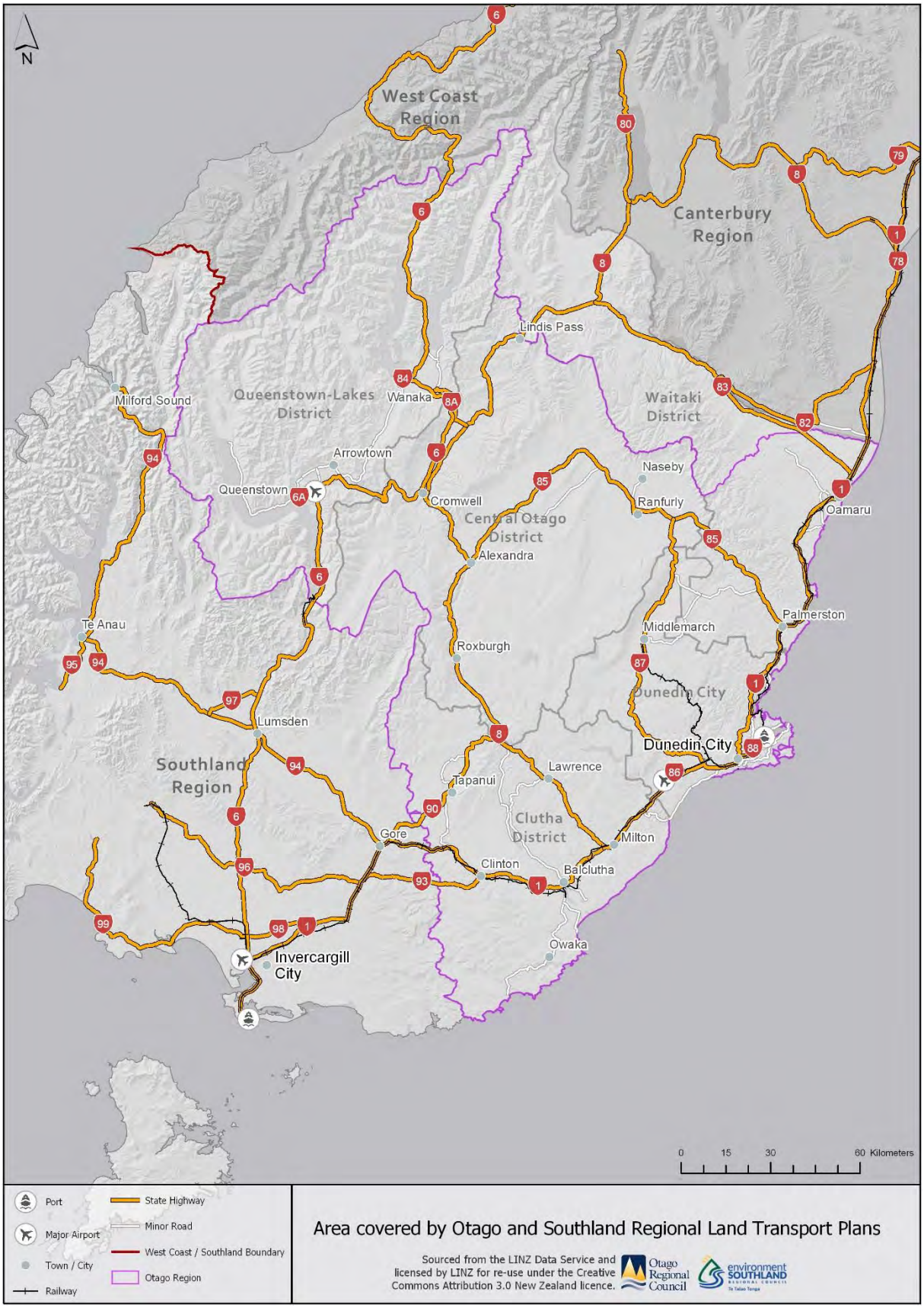
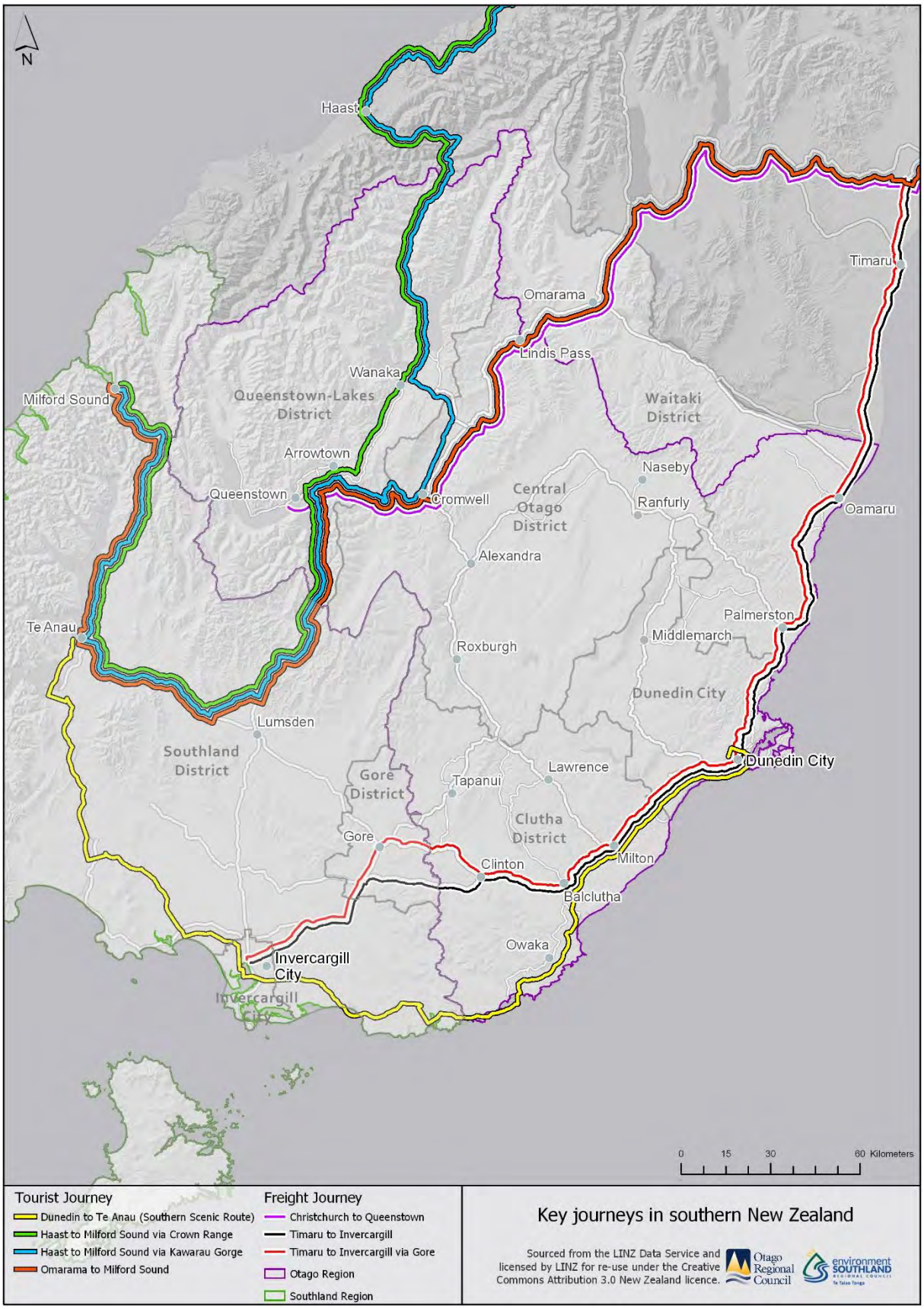


Figure 2: Key journeys in and across Otago and Southland



1.2 Building on the progress made since 2015-16

Otago Regional Council and Environment Southland each adopted their respective RLTP 2015-21 in April 2015. NZTA made its funding National Land Transport Programme decisions that same month, and approved organisations began implementing their approved projects and activities from July 2015.

In the two and a-half years since then, what has been done?

- There has been considerable focus on undertaking good planning:
  - All territorial authorities and NZTA have prepared activity management plans using the One Network Road Classification information.
  - Preparation of major business cases such as for Queenstown integrated transport and for SH1, Christchurch-Dunedin plus the realignment at Edendale.
  - Preparation of corridor management plans for state highways.
  - Development of a strategic results framework for incorporation into these RLTPs.
- Several major projects have been undertaken:
  - Construction of Hawthorne Drive, Frankton Flats, Queenstown, a major connector across Frankton Flats, that avoids the intersection of SH6 and SH6A.
  - Roll-out of new, improved public transport systems in Dunedin and Queenstown.
  - Sealing of the unsealed sections of the Southern Penguin Route though the Catlins, to improve road safety and enhance visitor experience.
  - Safety improvements for visiting drivers in Otago and Southland.
- Other major projects are underway (or about to get underway):
  - The Southern Road Safety Influencing Group's pilot project on road risk, which is being undertaken in partnership with NZTA's national safety team.
  - The new Kawarau Falls Bridge is due to be completed in early 2018.
  - Planning and procurement for replacement of streetlighting with LEDs in many Otago and Southland urban centres is largely complete. Installation is beginning, or about to begin, in Waitaki, Clutha and Queenstown Lakes districts and Invercargill City.
  - A new bus hub in central Dunedin is about to be constructed.
  - An upgrade of Otago Peninsula roading is about to begin.
  - Cycleway improvements are about to be made to Dunedin's central city cycle network, and construction of a separated cycleway on the one-way system is about to begin.
- Establishment of the Queenstown multi-agency transport initiative, to provide clear, united leadership in the planning, delivery and funding of improvements to Queenstown Lakes' transport system.

It is generally too early to assess what effect most of these projects have had. The RTCs will be tracking the results of these initiatives from 2018/19 onwards.

1.3 What is being updated?

This consultation document updates both the strategic direction for land transport in Otago Southland and the activities the RTCs propose to recommend for funding from the National Land Transport Fund (NLTF) during 2018-21. Over the last twelve months, our RTCs reviewed the common transport strategy for the two regions, applying business case planning principles. The key change in direction is the greater focus on future-proofing our transport network, and on addressing the problems facing the Queenstown area. The rate of economic and population growth occurring in this area is placing further demand on an already-stretched transport network.

The strategy also responds to the need to listen to customers and provide better mode choice, including better public transport and safe walking and cycling linkages, to improve road safety and the resilience of the transport network.

All the approved organisations in Otago and Southland have updated the list of activities and projects for which they are seeking NLTF funding during 2018-21. These updates have been brought about not just by the RTCs' recent strategic planning, but also by a shared focus among territorial authorities and NZTA on better activity management planning, including the application of business case planning principles and implementation of the One Network Classification schema. By working together on these two RLTPs, the committees have identified which of these proposed projects are top priority, as shown in Table 1. (Please see section 4.2 for summaries of the projects in Table 1.)

Table 1: Top priority projects proposed in Otago Southland, 2018-2021

Proposed project	Project focus/ problem being addressed	Delivery organisation
Southland region		
SH1 – Edendale Realignment	Safety	NZTA
SH1 – Elles Road Roundabout	Safety	NZTA
SH94 – Milford Rockfall / Avalanche Protection	Resilience	NZTA
Otago region		
Dunedin Urban Cycleways	Continuing the Connecting Dunedin initiative and responding to changing mobility user demands: delivering a safer, better integrated walking, cycling and public transport network.	DCC
City to Harbour Cycle/Pedestrian connection		DCC
Dunedin Central City Safety & Accessibility Upgrade		DCC
Tertiary Precinct		DCC
Public Transport Infrastructure Improvements		ORC
Public Transport Improvements for Dunedin		ORC
Wakatipu Walking/Cycling Improvements	Delivering the Queenstown integrated transport business case, to meet the economic and population growth challenges of this area, to respond to changing mobility user demands and to improve network performance, liveability and visitor experience	NZTA
Queenstown Town Centre Pedestrianisation		QLDC
Wakatipu Active Travel Network		QLDC
Park and Ride Transport Services		QLDC
SH6 Park and Ride Facilities		NZTA
Wakatipu Basin Public Transport		ORC
Public Transport Improvements – Hubs		QLDC
Wakatipu Basin Public Transport Hub Improvements Support		ORC
Water Taxi Service/ Ferry Network		QLDC
Wakatipu Public Transport - Further Small Ferry Service		ORC
Queenstown Town Centre Arterial		QLDC, NZTA
Queenstown Traffic Management Facilities		QLDC
SH6A Corridor Improvements		NZTA
SH6- Ladies Mile Improvements		NZTA
Housing Infrastructure Fund projects, Ladies Mile & Quail Rise		QLDC
Shotover River Bridge (Arthurs Point) Duplication – initial work		QLDC
Ballantyne Road Seal Extension (Wanaka)	Safety	QLDC
SH6 – Nevis Rockfall Protection	Resilience	NZTA
SH1, Oamaru - Dunedin Safety Improvements	Safety	NZTA
Hina Hina Bridge Replacement	Safety and regional development	CDC

These projects in Table 1 respond to three problems the RTCs have, with public input, identified as being the main ones facing Otago and Southland's transport system. The problems (described further in section 2.3) are:

- **Responding to changing mobility user demands.** Inability to assess, plan, fund and respond to changing mobility user demands in a timely way results in some poor investment prioritisation and decisions, and inadequate future-proofing.
- **Safety.** Attitudes and behaviour, together with inconsistent quality of routes in the two regions, results in fatal and serious injury crashes.
- **Resilience.** Parts of the network are vulnerable to closure from adverse events, resulting in economic and social disruptions, of which there is increased recognition.

Sections 1 and 2 of this consultation document update the strategic context and Section 3 sets out the updated strategic direction proposed by the committees. Section 4 sets out the updated programmes: the revised lists of activities and projects for 2018-21 (i.e. years 4 to 6 of the six-year RLTPs) the committees propose to recommend receive NLTF funding.

Section 4 lists all projects that the committees propose to include in these updated RLTPs – there are some priority 2 and 3 projects, additional to those in Table 1 – and explains how these projects are prioritised. As a result, the committees now propose to change their recommendations regarding which activities and projects should receive NLTF funding for 2018-2021.

The RTCs are proposing to vary each of the current RLTPs to replace their common sections 1 to 3 with the content of sections 1 to 4 in this consultation document. Consequential changes will then be made to the appendices in the current RLTPs.

The appendix contains a summary of changes to projects in the present RLTPs 2015-21: see tables 15 and 16. These two tables list the projects in the current RLTPs, that under these proposed variations, would be varied, abandoned or suspended.

Decision-making on what should be funded

The activities and projects included in this document represent each region's bid for national financial assistance from the NLTF for 2018-21. It is based on the best, most up-to-date information from Transport Investment Online (the database into which approved organisations enter their activities), and from the approved organisations themselves, as at 4 December 2017.

To assist NZTA in making funding allocations, these plans identify which of the proposed projects the RTCs consider being regional and inter-regionally significant, including the priority the RTCs place on each project. The final decision on which activities and projects receive national funding rests with the board of the NZTA.

Please note:

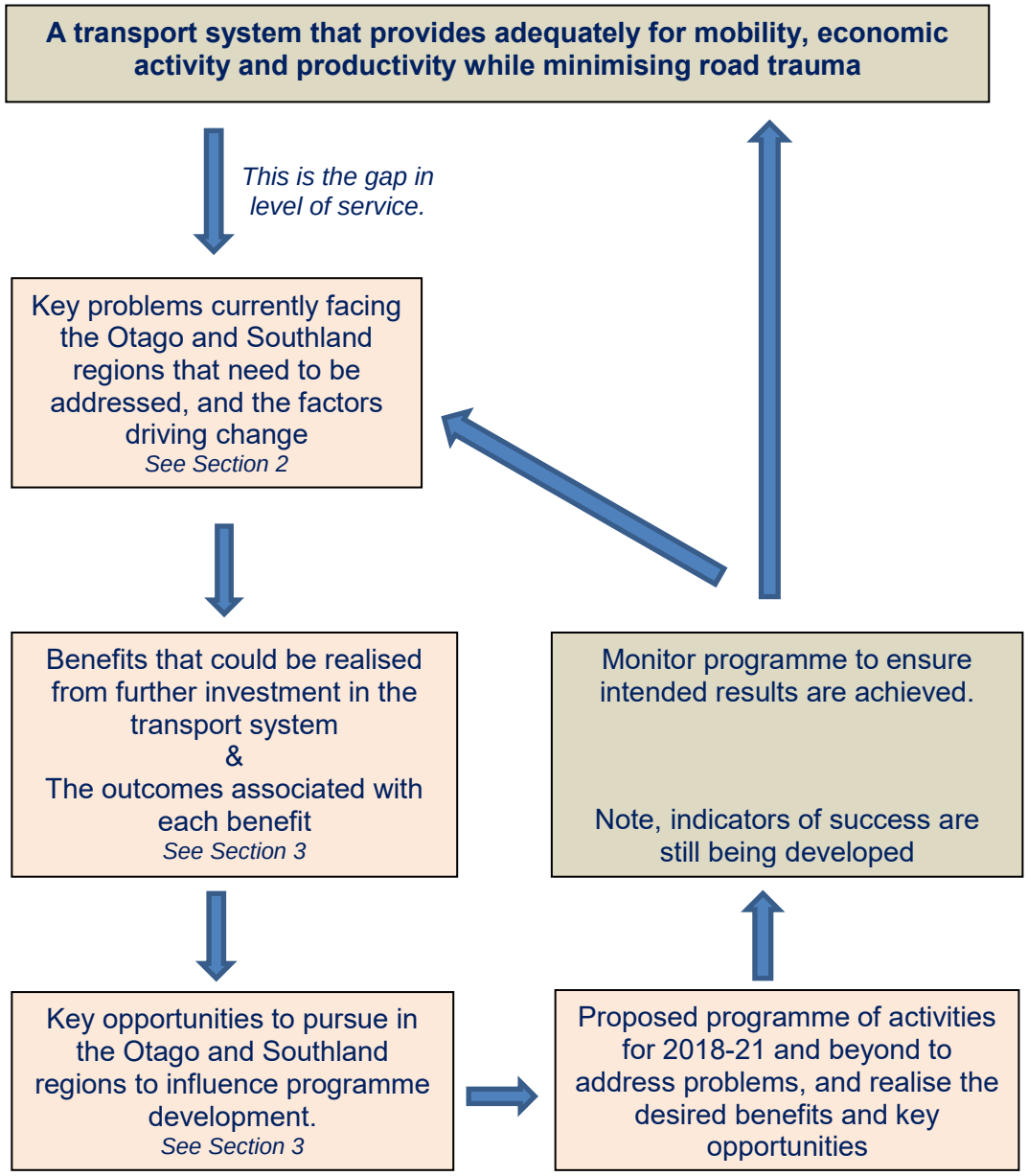
- Cost estimates and timelines for individual activities and projects in this plan are indicative for the purposes of consultation. They may change, particularly as approved organisations complete their activity management plans and as cost estimates are tightened up as project planning proceeds.
- Because NZTA prioritises and cashflows its own work programme on a national basis (rather than a regional one), the timings indicated in these RLTPs for NZTA's own

projects – such as state highway improvement projects – are indicative and subject to change[1]. Agency projects are often either brought forward or delayed.

- RTCs are consulting on these updated plans before any of the local authorities consult on their draft long-term plans (LTPs) 2018-2027. The timelines set by NZTA necessitate this.

1.4 The line of thinking behind this update of the RLTPs

This diagram shows the line of thinking followed by the RTCs, in developing the programme of activities for Otago and Southland, 2018-21 and beyond (i.e. the programme set out in Section 4).



[1] NZTA's role in managing the state highway network is distinct from its role in making decisions about whether activities undertaken by approved organisations should be funded from the national land transport fund. While state highway activities are fully funded from the national land transport fund, those activities of other approved organisations are only partly funded, at a set financial assistance particular to an organisation or sometimes to a type of activity.

1.5 Summary of projected expenditure

Southland

Recommended expenditure for Southland transport projects 2018-2021 (those eligible for NLTF funding) is $242 million. Table 2 gives a detailed breakdown of projected costs for each activity class by organisation. The numbers in this table are indicative – compiled for the purpose of seeking public consultation on the proposed programme for 2018-2021. The costs of already-approved projects are not included.

Table 2: Proposed cost of activities subsidised by NZTA in Southland region, 2018-2021 ($)

Organisation name	Activity Class	DOC	ES	GDC	ICC	SDC	NZTA	Proposed total for 2018-21	Current RLTP total for 2015-18
Transport Planning	1	0	768,000	0	230,000	0	0	998,000	892,178
Road Safety	2	0	0	0	1,076,450	0	0	1,076,450	968,895
Public Transport Services	4	0	0	0	6,814,307	0	0	6,814,307	5,272,787
Public Transport Infrastructure	5	0	0	0	0	0	0	0	499,012
Maintenance and Renewals Local Roads	8	164,270	247,940	12,335,797	26,834,200	70,542,582	0	110,124,789	50,802,158
Maintenance and Renewals State Highways	9	0	0	0	0	$0	70,187,198	70,187,198	50,998,630
Local Road Renewals	10	Now included in Activity Class 7							59,471,382
State Highway Renewals	11	Now included in Activity Class 8							11,986,480
Local Roads Improvements	12	100,000	364,740	928,541	2,844,400	5,730,000	0	9,967,681	13,932,025
State Highway Improvements	13	0	0	0	0	0	15,736,734	15,736,734	23,996,890
Regional Improvements	20	0	0	0	0	0	24,008,400	24,008,400	0
TOTAL		**264,270**	**1,380,680**	**13,264,338**	**37,799,357**	**76,272,582**	**109,932,332**	**238,913,559**	**218,820,437**

Otago

Recommended expenditure for Otago transport projects 2018-2021 (those eligible for NLTF funding) is $798 million. Table 3 gives a detailed breakdown of projected costs for each activity class by organisation. The numbers in this table are indicative – compiled for the purpose of seeking public consultation on the proposed programme for 2018-2021. The costs of already-approved projects are not included.

Table 3: Proposed cost of activities subsidised by NZTA in Otago region, 2018-2021 ($)

Activity Class	Activity Class	CODC	CDC	DOC	DCC	NZTA	ORC	QLDC	WDC	Proposed total for 2018-21	Current RLTP total for 2015-18
Transport Planning	1	193,888	238,620	0	457,900	150,000	2,038,544	1,455,000	368,275	4,902,227	4,689,605
Road Safety	2	295,200	328,000	0	$1,998,168	$0	$0	442,000	510,600	3,573,968	2,700,857
Walking & Cycling	3	0	0	0	17,157,900	9,316,080	0	18,117,250	0	44,591,230	19,784,000
Public Transport Services	4	0	0	0	0	4,822,200	67,010,998	2,705,000	0	74,538,198	36,801,022
Public Transport Infrastructure	5	In 2018-21, included in Activity Class 4									3,574,669
Maintenance and Renewals Local Roads	8	21,953,907	36,587,212	236,709	84,109,693	0	414,000	31,945,160	29,124,288	204,370,934	93,331,732
Maintenance and Renewals State Highways	9	0	0	0	0	117,338,864	0	0	0	117,338,864	54,420,720
Local Road Renewals	10	In 2018-21, included in Activity Class 8									106,764,839
State Highway Renewals	11	In 2018-21, included in Activity Class 49									29,667,470
Local Roads Improvements	12	3,912,000	8,060,000	100,000	29,592,800	0	0	95,606,500	13,331,000	150,602,300	57,488,963
State Highway Improvements	13	0	0	0	0	138,855,449	0	0	0	138,855,449	18,185,964
Regional Improvements	20	0	0	0	0	14,283,724	0	0	0	14,283,724	0
Super Gold Card		0	0	0	0	0	0	0	0	0	2,375,000
TOTAL		**26,354,995**	**45,213,832**	**336,709**	**133,316,461**	**284,766,317**	**69,463,542**	**150,270,910**	**43,334,163**	**750,571,173**	**429,784,841**

1.6 Making a submission

This document sets out proposed variations to the Otago and Southland RLTPs, and has been prepared by the RTCs of Otago and Southland. Submissions can be made on either or both the Otago and Southland projects.

Note:

- Submissions made about plan provisions relating to both Otago and Southland will be taken to be made on both the Otago and the Southland RLTPs.
- For plan provisions relating to only one region, submissions will be taken to be made on only the RLTP of that region.
- RTCs are consulting on these plans before any of the local authorities consult on their draft long-term plans (LTPs) 2018-2027.

How do I make a submission on the proposed variations to the RLTP(s)?

Write a letter or complete the submission form, and send it to:

Otago Southland RLTP Consultation
Otago Regional Council
Private Bag 1954
Dunedin 9054

OR

Otago Southland RLTP Consultation
Environment Southland
Private Bag 90116
Invercargill 9840

Additional information in support of your submission may be included in your letter or on your submission form.

Alternatively, you can email your submission to transport_submissions@orc.govt.nz or service@es.govt.nz. **Please include your telephone number.**

All submissions must be received at the Otago Regional Council or Environment Southland by:

5.30 pm, Monday, 29 January 2018

Do I have to come and speak at the hearing of submissions?

You are welcome to attend a hearing to speak. If you decide not to attend the hearing of submissions, your written submission will be given full consideration.

Submitters wishing to speak in support of their submission should indicate this on their submission.

Hearing dates and locations are yet to be confirmed but are likely to take place between 13th and 27th February 2018.

What happens after the hearing?

The RTCs will finalise their updated RLTPs after hearing submissions, and will then recommend to their respective Regional Council adoption of a variation to each of their RLTPs.

All submissions will be acknowledged, and the final decision will be communicated to the submitter in writing.

Copies of the final document will be available on regional council websites in August 2018.

Submission Form

Proposed variations to the Otago Southland Regional Land Transport Plans 2015-2021 (RLTPs)

- Submissions made about plan provisions relating to both Otago and Southland will be taken to be made on both the Otago and the Southland RLTPs.
- For plan provisions relating to only one region, submissions will be taken to be made on only the RLTP of that region.

Full name of submitter

.....

Name of organisation (if applicable)

.....

Postal address

.....

.....

.....

Postcode .....

Telephone .....

Email .....

Fax .....

I **wish /do not wish** to speak in support of my submission in person (delete one option).

Signature of submitter_____

Date_____

Note: **Hearing locations and dates have yet to be confirmed but are likely to take place between 13th and 27th February 2018**.

All submissions are made available for public inspection.

My submission is:

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(Please attach additional sheets if necessary)

Submissions must be received by **5.30 pm, Monday 29 January 2018.**

Send to one of the following:

Otago Southland RLTP consultation

Otago Regional Council
Private Bag 1954
Dunedin 9054
Facsimile: (03) 479-0015
Email: transport_submissions@orc.govt.nz

Otago Southland RLTP consultation

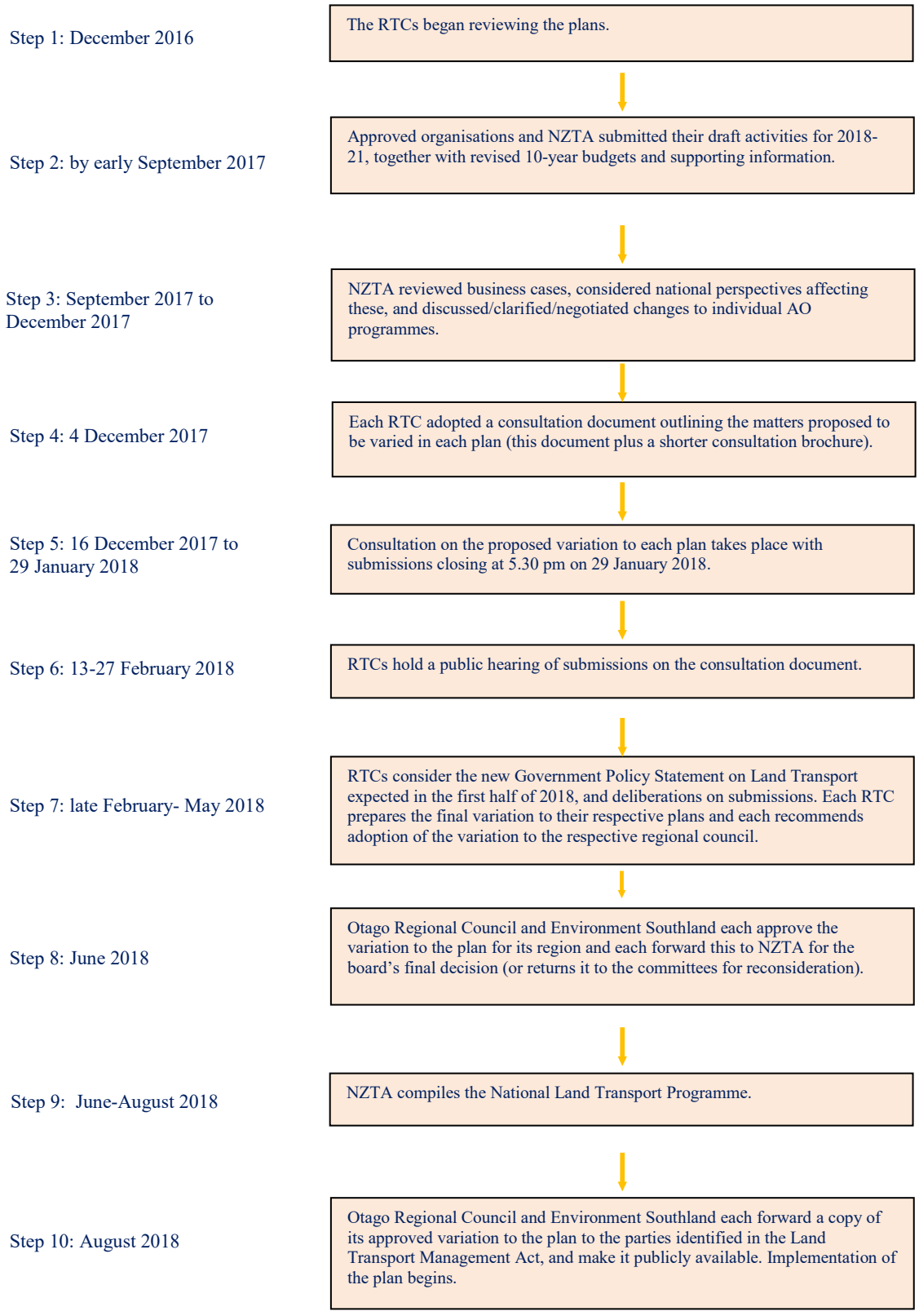
Environment Southland
Private Bag 90116
Invercargill
Facsimile: 03 211 5252
Email: service@es.govt.nz

Need help?

Otago Regional Council - Freephone on 03 474 0827 or phone 0800 474 082.

Environment Southland - Freephone 0800 76 88 45 (Southland only) or phone 03 211 5115.

Figure 3: Timeline for preparation of the Otago Southland Regional Land Transport Plans



2 The current situation

2.1 Characteristics of our economy and transport network

The base of the economy in Otago and Southland

In 2015/6, Otago accounted for 4.3 per cent of national GDP, and Southland 2.0 per cent. The economy of both our regions relies largely on agriculture and other primary industry, and on downstream manufacturing industries. These industries are heavily dependent on land transport infrastructure for their continued economic growth.

Both Otago and Southland also have a strong tourism industry, with the coastal, lake and mountain areas and scenery being major attractions. Tourism is one of the three fastest growing sectors of the combined regions' economies; tourism growth - particularly from international visitors accessing southern New Zealand through Queenstown – is projected to continue to increase. The tourism sector depends on both the roading network and air services, as well on as the cruise ship visits to Milford Sound, Bluff and Dunedin.

The economic base of Southland region is relatively narrow, while Otago's is somewhat broader. Southland's economy relies heavily on a small number of products such as farming and the aluminum smelter at Tiwai Point near Bluff. The main urban area of Southland, Invercargill, primarily services the farming community, and also houses the Southern Institute of Technology. Rural activities still provide the main driver for Southland's economy.

Dunedin is the largest city in the Otago Southland area, and the sixth largest city in New Zealand. Education and health care are the focus of its economy, with just over a quarter (26.4 per cent) of all employment being in one of those two industries[2]. This reflects the importance of Dunedin's education assets; the University of Otago alone has been estimated to contribute to around 15 per cent of the city's GDP[3].

After education, business services and health services Dunedin's largest employment sectors are accommodation, cafés and restaurants, retail, community services, construction, food retailing and manufacturing. Manufacturing employment has been declining in Dunedin, although this is being offset with gains in the high-tech and ICT sectors. Major employers are the University of Otago, Otago Polytechnic and the region's base hospital in Dunedin, which includes specialist services.

The Queenstown economy is a challenging one. As a key selling point for NZ's tourist industry, the district has a large impact on the national tourism economy. Distance from markets for goods and services, coupled with the small local market, mean that local businesses struggle to achieve the economies of scale in the same industries in larger markets. This constrains productivity and thus profitability and incomes[4]. Moreover, high housing prices and high building costs challenge affordability.

Summary of the transport network

Otago and Southland are the southernmost regions in New Zealand, together comprising nearly half of the South Island's land area and are similar in size. They are among the largest regions in New Zealand. Southland's land area is 34,000 km^2 and Otago's is 32,000 km^2.

[2] Ministry of Business, Innovation and Employment (MBIE) Regional Economic Activity Report (REAR) report. 2015.

[3] See the University of Otago's Annual Economic Impact Report for 2015.

[4] Queenstown Lakes District Council land transport activity management plan 2018/19 – 2032/33. September 2017.

Stretching from the Waitaki River in the north to the Brother's Point / Waiparau Head in the Catlins, Otago is bounded by the Southland, Canterbury and West Coast regions, and to the east by the Pacific Ocean. Southland region, covering the south of the South Island plus Stewart Island, is flanked by coastal waters on the east, south and west. To the north, Southland adjoins Otago and, in the northwest corner at Awarua Point, the West Coast region.

The Otago region has:[5]

- 1,300 km of state highway (managed by NZTA)
- 9,219 km of local roads (managed by TAs), 39.5 per cent of which is sealed
- 279 km of main trunk rail line and 10 km of branch line
- Two urban bus networks and long-distance buses between Otago towns and to other regions.

The Southland region has:[1]

- 777 km of state highway (managed by NZTA)
- 6,418 km of local roads (managed by TAs), 41.3 per cent of which is sealed
- 90 km of main trunk rail line and 105 km of branch line
- One urban bus network and long-distance buses between Southland towns and to other regions.

Figure 1 shows the state highways in Otago and Southland. Figure 2 shows key freight and tourism journeys; local roads connects these journeys with local businesses and communities.

The key tourism and (internal) freight journeys, which are shown on Figure 2, are:

Freight journeys

- Timaru – Invercargill: SH 1 via Clinton, Mataura to Invercargill.
- Timaru – Invercargill: SH 1 via Gore, Mataura to Invercargill.
- Christchurch – Queenstown: SH1, SH8, SH 79, SH8, SH6 and SH 6A.

Tourist journeys

- Haast – Milford Sound: SH6, Kawarau Gorge, SH6, SH97 and SH94.
- Haast – Milford Sound: SH6, SH84, Crown Range Road, SH6 and SH94 to Milford Sound.
- Omarama – Milford Sound: SH83, SH6, SH97, SH94 to Milford.
- Dunedin – Te Anau (Southern Scenic Route): SH1 to Balclutha, Owaka, Papatowai, (plus alternate route via Purakanui Falls), Chaslands, Niagara, Gorge Rd, Invercargill, SH1, SH6, SH99, Clifden, Blackmount, Manapouri and Te Anau.

Large parts of Otago and Southland are within three national parks, with limited roading: Fiordland National Park (New Zealand's largest national park) and Rakiura National Park on Stewart Island, are in Southland. Aspiring National Park is partly in Otago and partly in the West Coast region.

[5] Ministry of Transport statistics for roads available at http://www.transport.govt.nz/ourwork/tmif/infrastructureandinvestment/; the measures of state highways are for 2014/15 and the measures of local roads are for 2013/14. For rail: Neil Campbell, KiwiRail Dunedin, *pers. comm*. 27 January 2015.

Modes of travel

Land transport in Otago and Southland is mainly road-based and focused on the use of private cars and trucks e.g. as illustrated by responses in the last census, summarised in Table 4. It is likely that road transport will continue to be the primary mode of transport in the years to come.

In the 2013 census, areas that were mostly rural had higher proportions of people working at home. Southland district had the third highest proportion of employed people working at home, for all NZ territorial authorities – 25 per cent (3,897 people), see Table 4.

The appendix sets out in detail the role the RTCs expect each mode of transport take under these RLTPs.

Table 4: Percentage of people travelling to work by a particular mode

District/city	Percentage of people in each district travelling to work by a particular mode, census day, 2013 (%)								
	Drove a private car, truck or van	Drove a company car, truck or van	Passenger in a car, truck, van or company bus	Public bus	Motor or power cycle	Bicycle	Walk-ed or jogged	Work-ed at home	Did not go to work that day
Central Otago	42	17	4	0	1	4	7	14	11
Clutha	44	11	5	0	3	1	6	20	9
Dunedin	51	10	5	3	1	2	9	6	12
Gore	49	14	4	0	1	2	6	13	11
Invercargill	56	13	6	1	1	2	5	4	12
Queenstown Lakes	43	13	3	1	1	3	11	11	12
Southland	36	12	3	0	6	1	6	25	10
Waitaki	46	12	4	0	2	2	7	14	12

Source: Statistics NZ table builder

On and off-road cycle network

There are urban cycle networks in Dunedin and Invercargill. Queenstown is currently planning how to expand its incipient commuter cycling network.

The two regions have an extensive off-road cycle network, which is economically important. The network includes both official and unofficial trails. There are around 500 km of official trails, including several Great Rides, listed below:

- Alps 2 Ocean Cycle Trail
- Around the Mountain Cycle Trail

- Clutha Gold Trail
- Otago Central Rail Trail
- Roxburgh Gorge Trail
- The Queenstown Trails.

Several other trails are under construction or planned to connect Dunedin and Queenstown via Lawrence.

There is one Heartland Ride that is partially in Otago and partially in Southland: along SH6, on the West Coast road, to Wanaka. Heartland Rides aim to encourage cyclists away from busy state highways and onto scenic, quiet, back-country roads where they will experience heartland New Zealand.

The roading network

The two regions have an extensive network of state highways and local roads, as well as a freight rail connection linking Invercargill and Dunedin. Key transportation routes cross Otago and Southland, linking cities and towns in Otago and further north with those in Southland.

Figure 1 shows the infrastructure links between Otago and Southland, West Coast and Canterbury. One of these key links, SH1, runs north-south along the eastern coast of Otago, through key population centres in Southland, ending at the bottom of the Southland region at Stirling Point. This state highway provides the key transport link for internal freight, export freight and movement of people through the South Island. As such maintaining this link is considered critical to the whole South Island transport network.

SH6, SH8 and SH90 provide links between inland Otago, Southland, West Coast and Canterbury.

The remaining state highways in Otago and Southland form strategic links throughout the region for freight, visitors, and other traffic.

SH6 and SH94 connect two of New Zealand's iconic tourist destinations: Queenstown and Milford Sound. SH6 also provides the key links into and out of Queenstown: east to Cromwell and south to Invercargill. It is worth noting that just over half of all visitors are believed to be arriving in Queenstown by road (although there is no current, reliable evidence on this).

Most of the freight to Queenstown comes from Christchurch on SH6 over the Lindis Pass and via Cromwell, which acts as a freight hub. Smaller trucks are then used to distribute the goods to Queenstown along SH6.

A large proportion of the roading network within Otago and Southland is local roads (rather than state highways): 88 per cent in Otago and 89 per cent in Southland. On Stewart Island, the short network of roads is part of Southland District Council's roading network.

The extensive local network across the two regions is vital for travel across the large land area, for carrying freight link between farm gate and the state highway network, and for linking to Port Otago and South Port.

This extensive road network in Otago and Southland, combined with a sparse population and the rising costs of road maintenance, places a relatively high burden of road maintenance on the population.

Generally, the capacity of the road network in Otago Southland is adequate, except in the Queenstown area. While most of the congestion in the Queenstown is confined to the state highways at present, the capacity of the network is under pressure.

Until recently, the forecasted increase in freight (which has been based on increasing visitor numbers and on anticipated population growth) has been expected to come within the capacity of SH 6, from Queenstown east to Cromwell, to handle. But two issues have highlighted the need to revisit this assumption. The first is Queenstown Airport Corporation's master planning, which has identified the desirability of a dual airport approach of a "one airport business, two complementary airports", using both Wanaka and Queenstown airports to support economic growth across Otago. The second is the realisation that the projections of visitor numbers currently used for transport modelling in Queenstown need to be revisited as they are probably underestimating the rate of growth in visitors[6].

Private vehicle use dominates transport in Queenstown, with public transport and alternative transport modes comprising a small proportion of total trips. The critical elements of the transport system are SH6A connecting the airport at Frankton with Queenstown, and the network within the Queenstown CBD itself. Growing traffic demand, coupled with narrow streets and limited vehicle capacity within the town centre, constrains the dispersal of traffic entering the town from SH6A. This will continue to cause significant traffic congestion, particularly during the afternoon/evening peak period and during the winter, until rectified with better use of public passenger transport and active transport, coupled with some improvements in transport infrastructure.

To this end, the recently-completed programme stage of the business case being developed for Queenstown integrated transport proposes managing travel demand by addressing car dominance in Queenstown and thereby optimising the existing transport infrastructure. This optimisation focuses on improving the use of the existing network through both public transport interventions and use of technology. Proposed improvements to public transport include the introduction of bus priority along the SH6A corridor, the introduction of public transport hubs and park and ride services. The application of technology aims to improve network productivity through the introduction of Mobility as a Service and workplace travel plans[7].

Private vehicle use dominates transport in Dunedin as well, with public transport comprising only a small proportion of total trips. Trips by active modes make up a significant contribution in some locations (particularly the city centre and North Dunedin) due to the comparatively short distances and flat terrain. In capacity terms, the Dunedin transport network is generally fit for purpose with sufficient capacity to cope with demand.

Southland's transport system is broadly fit for purpose as well. Although the main roads in Southland are largely sealed, some of the tourist roads, particularly in western and south-western Southland, have variable levels of service.

The rail network

The railway line south of Christchurch, the Main South Line, mirrors the route of SH1 along the eastern coast, linking coastal towns and cities, including Timaru, Oamaru, Dunedin, Gore, Invercargill and Bluff. In Otago and Southland, this line is used primarily for freight

[6] Tony Sizemore, NZTA, *pers. comm*. 12 October 2017.

[7] Queenstown Integrated Transport Strategy. Item 10 Queenstown Lakes District Council Agenda, 28 September 2017: see http://www.qldc.govt.nz/assets/Uploads/Council-Documents/Full-Council-Agendas/2017/28-September-2017/10a.-Attachments-Queenstown-Integrated-Transport-Strategy.pdf .

transport. Freight rail services are an important means of transferring bulk and containerised freight to and from Port Chalmers and South Port at Bluff. There are branch lines to Ohai (used to transport coal) and through the Taieri Gorge (used for visitor excursions).

Of the various inter-regional rail origin-destination trips nationally, Southland to Otago is the fourth largest in terms of tonnage (748,000 tonnes in the 12 months to April 2017). Trips within Otago are ninth largest at 500,000 tonnes over the same period. Of the product types carried, milk and dairy products, and shipping containers, feature large in both Southland-Otago and Otago-Otago origin-destination trips[8].

Rail moves significant volumes of bulk and containerised freight into Port Chalmers; around 60 to 65 per cent of exports arriving at this port come by rail[9]. (The funding of rail falls outside of these two RLTPs and the National Land Transport Fund, however.)

Airports

Queenstown, Dunedin, Invercargill, Te Anau, Wanaka, Alexandra, Oamaru, Balclutha, Stewart Island and Milford Sound all have regional or local airports, with the Queenstown and Dunedin airports also providing international services.

The three main airports, Queenstown, Dunedin and Invercargill, are shown on Figure 1.

Up to 45 per cent of all visitors to Queenstown are believed to be arriving by air (there is little reliable, current evidence on this). Queenstown International Airport is located on the Frankton Flats besides Lake Wakatipu. This airport has experienced the fastest growth rates for both international and domestic passengers of all NZ airports, and over the last decade has overtaken Dunedin to become the fourth busiest airport in NZ in terms of passenger numbers for domestic and international passengers combined[10]. The domestic service between Queenstown and Auckland was the fourth busiest of all domestic services nationally in 2016, carrying 967,000 passengers[2]. This airport handled 1,779,867 passengers in 2016, up 18 per cent on the previous year. Of these 508,902 (29 per cent) were international arrivals or departures[11].

Dunedin International Airport is located approximately 35 km south west of the City. In SH1 and SH86 provide the key connection between the city and airport.

In 2016, Dunedin airport received 909,624 passengers, including 49,964 international visitor arrivals[12]. Dunedin is the sixth largest airport in New Zealand for domestic passengers[2].

Invercargill airport is the 12th largest airport in New Zealand in passenger numbers terms[2.] It handled 289,836 passengers in the year ending 30 June 2016, up 4.3 per cent on the previous year[13].

Ports

Port Otago, at Port Chalmers in Dunedin, is New Zealand's fifth largest port (by value) with over $3,500 million worth of exports in 2015, mainly primary commodities originating from the

[8] See: http://www.transport.govt.nz/sea/figs/rail/ Accessed 15 September 2017.
[9] Peter Brown, Port Otago *pers. comm*. 4 December 2017.
[10] New Zealand Transport Outlook Current State 2016. Ministry of Transport. 2017.
[11] *See http://www.queenstownairport.co.nz/corporate/airport-statistics*
[12] 2016 Annual report. Dunedin Airport.
[13] Annual report 2016. Invercargill airport.

Southland and Otago regions. Port Otago is a freight port for regional and international import/export and a key South Island port, exporting containerised produce from throughout Otago and Southland.

South Port at Bluff is the southern most commercial port in New Zealand. It services Southland's export and import industries, with bulk non-containerised cargo making up the majority of tonnes handled, and is vital for the economic wellbeing of the Southland region. South Port is New Zealand's seventh largest port by gross weight handled (Port Otago is tenth).

The locations of these ports are shown on Figure 1.

2.2 Drivers of change

Summary

The key drivers of change in transport activity in southern New Zealand, discussed in this section, are:

- population growth and changing demographics
- growth in tourism and changing patterns of tourist travel
- regional economic development initiatives, especially opportunities to benefit from tourism growth
- access to the back country
- intensification and land use changes, including forestry
- port activity
- changing technology
- changing awareness and expectations of risk including climate change
- emerging demand for active travel.

Projected changes in population and demography

Both regions are sparsely populated compared to New Zealand as a whole. Otago's main population centres are along the east coast and around the central lakes. Southland's main centres of population are along the southern coast and inland near the border with the Clutha District, with smaller towns towards the eastern edge of Fiordland National Park.

Otago's population is projected to reach 225,800 in 2018 (4.6 per cent of the national population); and Southland's population to reach 99,200 (2.0 per cent of the national population): see Table 5.

Table 5: Present and projected population of the Otago and Southland regions

	Projected population under Statistics NZ medium growth scenario						
Region	**2017**	**2018**	**2023**	**2028**	**2033**	**2038**	**2043**
Otago	224,200	225,800	236,000	242,700	248,300	252,700	256,100
Southland	98,300	99,200	100,100	100,600	100,600	100,000	99,000

Source: Statistics NZ website, accessed 14 September 2017; Present population is provisional 2017 figure, accessed 2 November 2017.

Regionally, Southland's population is forecast to be relatively static out to at least 2043 while Otago's is projected to grow at 0.7 per cent per annum primarily based in the Queenstown Lakes area (noting, this could be higher if Queenstown grows faster than the medium growth scenario predicts).

There is an increasing number of people on fixed incomes (in part due to the aging population). This is likely to affect the ability of territorial and regional councils to fund the transport system through rates.

Table 6: Present and projected population for territorial authorities in Otago and Southland

	Projected population under medium growth scenario						
District/City	**2017**	**2018**	**2023**	**2028**	**2033**	**2038**	**2043**
Clutha	17,550	17,600	17,550	17,500	17,300	17,000	16,500
Central Otago	20,300	20,500	21,400	22,200	22,900	23,300	23,600
Dunedin	128,800	129,000	132,000	133,900	135,300	136,200	136,500
Gore	12,450	12,500	12,400	12,300	12,100	11,800	11,450
Invercargill	54,800	55,300	55,900	56,300	56,300	56,000	55,500
Queenstown Lakes	37,100	38,300	44,000	47,700	51,100	54,300	57,400
Waitaki	22,200	22,300	22,800	23,300	23,600	23,900	24,100

Source: Statistics NZ website, accessed 14 September 2017. Present population is provisional 2017 figure, accessed 2 November 2017.

Table 7: Projected population for urban areas in Otago and Southland

Urban area	**Actual population**	**Projected population under Statistics NZ medium growth scenario**					
	2013	**2018**	**2023**	**2028**	**2033**	**2038**	**2043**
Dunedin	115,100	120,100	122,800	124,500	125,700	126,500	126,700
Oamaru	13,400	13,900	14,100	14,200	14,300	14,400	14,400
Queenstown	12,100	14,200	15,100	15,900	16,500	17,200	17,800
Waikouaiti	1,200	12,00	1,200	1,200	1,200	1,200	1,100
Milton	2,000	2,000	1,900	1,900	1,900	1,800	1,700
Balclutha	4,000	3,900	3,800	3,700	3,600	3,500	3,300
Alexandra	4,900	5,200	5,300	5,400	5,500	5,500	5,500
Cromwell	4,300	5,100	5,300	5,600	5,700	5,800	5,900
Wanaka	6,800	9,300	10,600	11,400	12,100	12,700	13,300
Arrowtown	2,600	2,900	3,000	3,200	3300	3400	3,500
Invercargill	49,300	51,300	51,800	52,100	52,000	51,700	51,100
Winton	2,300	2,300	2,300	2,300	2,300	2,300	2,300
Gore	9,800	9,900	9,800	9,700	9,500	9,200	8,900
Bluff	1,800	1,800	1,800	1,800	1,800	1,800	1,800
Te Anau	2,000	2,100	2,200	2,200	2,200	2,200	2,200
Riverton	1,500	1,500	1,400	1,400	1,400	1,400	1,300

Source: Statistics NZ website access 14 September 2017

Although many parts of Otago's population are relatively stable or declining over the last 10 or so years, population growth in Queenstown Lakes and Central Otago has been among the highest in New Zealand. Growth is predicted to continue in these areas, and the pressure this creates is discussed below.

Tables 7 and 8 show the population growth forecast for urban areas in Otago and Southland, in absolute terms and as a percentage on the 2013 population. Table 11 shows Wanaka is projected to grow fastest, followed by Queenstown and Cromwell. This trend is already evident today.

Table 8: Projected population growth for fastest growing urban areas in Otago and Southland, in percentage terms compared to 2013

Urban area	Projected growth (%) (medium growth scenario)	
	2013-23	2013-43
Wanaka	56	96
Queenstown	25	47
Cromwell	23	37
Arrowtown	15	35
Alexandra	8	12
Te Anau	10	10
Dunedin	7	10
Oamaru	5	7
Invercargill	5	4

Source: Statistics NZ table builder, accessed 14 September 2017

Table 8 highlights the need for forward planning of Wanaka's transport system, so that this area, as it grows, does not experience the congestion issues faced by Queenstown in recent years.

Note, for Queenstown Lakes, the medium growth scenario projections in Table 6 forecast a slower growth rate than QLDC's own growth projections do[14]. The latter fit better with the rates of growth currently being seen in this area. So, the population projections for Queenstown in Tables 6, 7 and 8 should not be relied on and are included only for comparative purposes. The next sub-section discusses this matter further, and includes the growth projections for Queenstown that QLDC considers to be more realistic than Statistics NZ's medium growth projections.

As in most of New Zealand, an aging population is predicted for Otago and Southland. Therefore, the provision of access and mobility through reliable transport services will become of increasing importance.

Dunedin's population is comparatively young however, due to the annual influx of students to Otago University and Otago Polytechnic. Around 21.5 per cent of the city's population is aged between 15 and 24 years in the 2013 census, compared to the national average of 14.1 per cent.

[14] See: QLDC growth projections to 2058. Resident population, visitors, dwellings, rating units. Rationale. June 2017.

The age profile of population of Queenstown Lakes is also unusual in that the percentage of the total population in the 25-44 age bracket (36 per cent) is much higher than in other districts and cities in Otago Southland (24 per cent) or in New Zealand as a whole (26 per cent).

Growth of the Queenstown Lakes area

The Queenstown Lakes area is New Zealand's premier tourism destination. Although the resident population of Queenstown is relatively small, growing numbers of overseas and domestic visitors boost this significantly.

As the fastest growing district in New Zealand, the population of Queenstown Lakes is increasing at around seven per cent per annum. Much of the growth is concentrated on Queenstown and its surrounds, and in Wanaka. Queenstown is one of the five high-growth urban areas identified in the National Policy Statement on Urban Development Capacity.

The district is forecast to continue to receive strong growth in both residential population and tourist visits. Tables 7 and 8, above, which show the growth projected in the urban areas in southern NZ, highlight the growth expected in the Queenstown Lakes and Central Otago area. The actual growth in these tables is probably an underestimate. Historically, the growth in Queenstown has always been underestimated. The best-available estimate of projected growth in Queenstown is probably the high growth projection prepared for QLDC in 2017.

Over the next 30 years, the population of the greater Queenstown Lakes area is projected to increase from 29,730 in 2013 to a forecast 66,355 by 2048 (see Table 9 below). Visitor numbers are expected to grow at an even faster rate.

Table 9: Expected growth in Queenstown Lakes District (the high growth scenario)

Number of:	2013	2018	2018	2048	2058	Average annual growth rate, 2018-2028 (%)
Usually resident population	29,730	38,048	49,277	66,355	74,731	2.6
Total visitors (average day)	17,982	24,861	31,488	39,037	42,055	2.3
Total visitors (peak day)	63,879	79,301	99,747	126,374	138,658	2.3
Total dwellings	15,800	19,718	24,674	31,595	35,030	2.4

Source: High growth projection in QLDC growth projections to 2058. Rationale. June 2017[15]

The rate of growth being experienced in the district is challenging the ability of the transport system to maintain accessibility, connectively and, more generally, protect the liveability of the area for residents.

The Queenstown economy is driven by tourism and the increasing demand for infrastructure and services to support the growing numbers of people. The major employers in Queenstown are the construction and service sectors, particularly accommodation, food

[15] QLDC growth projections to 2058. Resident population, visitors, dwellings, rating units. Rationale. June 2017.

services and the retail trade. These two sectors are expected to continue to underpin forecast employment growth.

Mountains, lakes and rivers surround Queenstown, placing physical constraints on the growth of the town centre. Much of the projected growth in population and business can be expected to occur in and around Frankton. The Frankton business park is likely to provide the hub for the construction and commercial activities that support future Queenstown growth.

Since 2005, visitor numbers through Queenstown airport have increased by 200 per cent to nearly 1.8 million passengers in the year to June 2017. Sustained growth is forecast for Queenstown Airport Corporation. If growth at Queenstown airport was not constrained by airport capacity or the noise restrictions, total passenger movements could theoretically reach 3.2 million by 2025 and 7.1 million by 2040[16].

In community engagement in its master plan, the Queenstown Airport Corporation is looking at three options, one of which caps passenger movement at 3.2 million per annum, and two which cap it at 5.1 million per annum. Moving to the dual airport option, using both Queenstown and Wanaka airports would allow growth beyond 5.1 million passenger movements per annum.

This is also likely to lead to increased use of the Kawarau Gorge and Crown Range route by visitors. The Queenstown Airport Corporation has signalled the desirability of moving to a "one airport business, two complementary airports" approach, using both Queenstown and Wanaka airports[17]. In April 2017, Queenstown Lakes District Council decided to grant the Corporation a long-term lease for Wanaka Airport.

Along with a potential increase in day flights, night flights are expected to be introduced to Queenstown Airport (evening flights are already in place). These changes would increase both peak and off-peak movements in the traffic network[18].

The freight task is also expected to grow over time, in line with the projected population growth: particularly the movement of manufactured and retail goods, construction materials and waste. The Frankton business park is likely to provide a hub for construction and retail activities to support Queenstown's growth, and will remain the focus for heavy vehicle movements into Queenstown[19].

The significant population growth projected from the Queenstown area will lead to increased demand for residential and commercial properties, land use and increased volumes of traffic, placing the transport system under even greater pressure[20].

Projected visitor numbers

Growth in visitor numbers affects transport demand both directly (e.g. extra coaches, campervans and rental cars on the road, increased use of public transport on routes serving tourist destinations) and indirectly (e.g. an increased workforce placing extra pressure on commuter routes and travel to/from new satellite housing developments).

[16] Queenstown Airport Corporation Ltd – Queenstown Airport Masterplan (2017).

[17] Queenstown Airport Corporation Ltd – Queenstown Airport Masterplan (2017).

[18] Queenstown Integrated Transport Strategy, see http://www.qldc.govt.nz/assets/Uploads/Council-Documents/Full-Council-Agendas/2017/28-September-2017/10a.-Attachments-Queenstown-Integrated-Transport-Strategy.pdf.

[19] Queenstown to Rangitata corridor management plan 2018-2028. NZTA 2017.

[20] Queenstown Integrated Transport Strategy, see http://www.qldc.govt.nz/assets/Uploads/Council-Documents/Full-Council-Agendas/2017/28-September-2017/10a.-Attachments-Queenstown-Integrated-Transport-Strategy.pdf.

Projected visitor numbers for Otago and Southland regions are not available at either regional or pan-regional scale. MBIE no longer provides forecast at this scale.

Queenstown visitor numbers are projected to grow at around 2.9 per cent per annum on an average day, and around 2.5 per cent per annum on a peak day (under the high growth scenario shown in Table 9)[21].

Central Otago development

Growth in Queenstown Lakes District directly affects development along the corridor around Cromwell, Clyde and Alexandra. Increasing land prices and housing costs in Queenstown are encouraging lower income residents to relocate to neighbouring areas within commuting distance of Queenstown, increasing traffic volumes through the Kawarau Gorge[22]. Displacement of residential growth outside Queenstown due to high land prices and housing costs is projected to increase[23].

Cromwell acts as a service and retail gateway to central Otago and the Southern lakes area. As tourism grows, the commercial and industrial hubs are expanding to support this growth. Alexandra's industrial hub is also expanding to support Queenstown's growth. This trend will increase commercial traffic on the corridor between Alexandra and Queenstown, making it challenging to maintain consistent levels of service on this journey[24].

Regional development in Southland

The SORDS Action Plan has identified three main challenges to enable social and economic development over the next decade: to grow the population, diversify the economy and strengthen local business[25]. The action plan identifies transport as being one of the enablers of population growth, by providing for rural transport and bulk haulage to South Port, to meet increasing tourist traffic and to support town/city redesign in Invercargill and Gore.

Southland faces a projected fall in its population: see tables 5, 6 and 7 above. Parts of Southland face depopulation, not just urban areas such as Gore and Riverton (see projections in Table 7 above) but also smaller areas such as Ohai and Nightcaps.

Nevertheless, Southland region is hosting increasing numbers of visitors. Tourism traffic to the region is likely to be hubbed from Queenstown for the foreseeable future, and the connection to Queenstown will become increasingly important. Although traditional destinations such as Queenstown and Milford are experiencing significant increases in traffic, visitors are also increasingly travelling independently and exploring places that are more out-of-the-way.

Growing visitor numbers pose a challenge, raising questions around whether parts of the transport network will meet the requirements of increased tourist traffic, as well as around the compatibility of tourism and rural heavy traffic on some roads.

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[21] Rationale (2017), Queenstown Lakes District projections for resident population, dwellings and rating units to 2065.

[22] Milton to Cromwell corridor management plan 2018-2028. NZTA 2017.

[23] Queenstown Integrated Transport Strategy, see http://www.qldc.govt.nz/assets/Uploads/Council-Documents/Full-Council-Agendas/2017/28-September-2017/10a.-Attachments-Queenstown-Integrated-Transport-Strategy.pdf

[24] Milton to Cromwell corridor management plan 2018-2028. NZTA 2017.

[25] Southland Regional Economic Development Strategy (SORDS) Action Plan.

Dunedin's development

Dunedin city is well positioned to build on the strength of the existing education and health sectors to develop high value niches within the health technology, biotechnology, food processing, manufacturing, engineering and ICT sectors. There is also scope to increase the contribution that tourism makes to the economy of Dunedin and surrounding areas.

Future population growth is expected to be concentrated in the Mosgiel, Wingatui and Saddle Hill areas to the west of the city, and further intensification in the central city e.g. the Warehouse Precinct. In contrast, economic and employment growth is expected to be focused in the city centre and around the tertiary campus in North Dunedin, and Anderson Bay Road in South Dunedin.

Several initiatives are likely to shape the central city area: The University of Otago's $650m investment in infrastructure over 15 years from 2014, the Southern District Health Board rebuild of Dunedin hospital (the DHB are looking at the options of rebuilding on the same site, a nearby site or relocating the hospital elsewhere in the city) and delivery of Dunedin City Council's Central City Plan.

Back country access

Several local roads in Otago and Southland provide well-used access to the back country e.g. to the Routeburn, Dart, Rees and Hollyford Tracks, the Matukituki Valley, the Motatapu track, the Hump Ridge Track and various access points for the Te Araroa Trail. Traffic volumes on these roads are growing as track usage (including day walking / running) increases.

The roads that access the back country are largely unsealed, making them unsuitable for growing traffic volumes and for visitors who are only used to driving on sealed roads. Moreover, councils receive no rates income from the Crown Estate (national parks and other protected land) that generate much of the traffic on these access roads.

Over the past decade, a significant amount of high country has been dedicated as conservation estate (e.g. in Central Otago), increasing the pressure to maintain roads that were previously maintained by landowners for their own use[26].

Intensification and landuse changes

In southern New Zealand, the maturation of forests to be harvested is expected to drive increased freight movement and increase pressure on the road network. The greatest impact that forest production has on roads is during the harvesting period, when logs are carted to processing plants or export. There can be significant deterioration of roads when large volumes are harvested around the same time from one or more forests, or from a large number of smaller blocks in the same geographical area. Waitaki District faces this situation, with a wave of forest harvesting due in ten years' time.

Although there is a trend towards on-farm wintering undercover in Southland, off-farm wintering of dairy herds (dairy support) is likely to continue, placing pressure on the road network. In Southland, there is opportunity for further conversion of dry stock land to dairy farming. DairyNZ estimates that approximately a third of the land that could be used for dairying (Land Use Classification Class 1-3) is currently being milked on (164,000 hectares). A further 43,000 hectares of land (Land Use Classification Class 4-8) is also currently milked

[26] Central Otago District Council Activity Management Plan 2017.

on. DairyNZ does not, however, estimate expansion in the latter areas. The rate at which conversion to dairy occurs in Southland is likely to be largely dictated by international commodity prices of dairy compared to other industries, land prices relative to other regions, and environmental regulation or compliance rules [27]. Regional plan provisions are being finalised and are likely to restrict land availability.

There is little available data about projected dairy conversions in Otago. Anecdotally, there is an increasing trend to dairy support (beef and cropping farmers taking dairy herd over winter). Increasing dairy farming activity is believed to be occurring in Maniototo, Manuherikia and the Roxburgh area[28]. Additionally, the intensification of land use from investment in irrigation is seeing previously arid land now being used for dairy farming and cropping (e.g. along areas of SH82 and SH83 along the northern edge of Waitaki District).

As land use changes in such areas, the journey experience changes, impacting tourists, local communities and freight operators. To avoid adverse impacts on these customers, both the pace of this change and the areas of the transport system where infrastructure is no longer fit-for-purpose, need to be identified. Unless pro-actively managed, this type of change could potentially cause assets to deteriorate faster than previously expected[29].

Port activity

Since primary production and processing is likely to continue to be a key economic driver in Otago and Southland, high quality access to the ports and airports will continue to be important to the success of the wider Otago and Southland economies.

The volumes of freight being moved are projected to increase steadily[30]. The corridor to South Port has the capacity to cope with increases in freight projected[31]. Rail already moves significant volumes of bulk and containerised freight into Port Chalmers. Demand for road access to interface with rail services will place increasing pressure on the roading corridor[32]. Increasing heavy traffic volumes on SH88, a commuter route between Port Chalmers and Dunedin, which traverses residential areas, pose safety concerns for the local community.

Changing technology

The changing nature of technology is expected to drive change – not just emerging transport technologies such as autonomous vehicles, but information technology in general. Smart phone technology is providing better travel information for those travelling, e.g. for rapid notification of events, road conditions and delays, as well as for real time information about bus services. Use of webcams and weather stations on the network – on passes for instance and the Crown Range Road – is providing travellers with a real-time view of road conditions there, to help with their travel decision-making. This type of technology advance is likely to continue. Sensors and robotics are also changing the transport sector by enabling more automation.

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[27] Moran, E., Pearson, L., Couldrey, M., and Eyre, K. (2017). The Southland Economic Project: Agriculture and Forestry. Technical Report. Publication no. 2017-02. Environment Southland, Invercargill, New Zealand. 340pp. Report available at https://contentapi.datacomsphere.com.au/v1/h%3Aes/repository/libraries/id:1tkqd22dp17q9stkk8gh/hierarchy/Scientific%20reports/Agriculture%20and%20Forestry%20Report.pdf.

[28] Central Otago District Council Activity Management Plan 2017.

[29] Queenstown to Rangitata corridor management plan 2018-2028. NZTA. 2017.

[30] See: Forecasts for the Future - National Freight Demands Study. Ministry of Transport updated 1/12/2015 http://www.transport.govt.nz/research/nationalfreightdemandsstudy/forecastsforthefuture-nationalfreightdemandsstudy/ , updated 1/12/2015.

[31] Southern Arterial & primary Collection Cluster corridor management plan 2018-2028. NZTA. 2017.

[32] Christchurch to Dunedin corridor management plan 2018-2028. NZTA. 2017.

The use of electric cars is increasing steadily slowly albeit from a small base. Electric vehicle charging stations are being installed across parts of the network, and their prevalence is likely to increase.

Changing awareness and expectations of risk including climate change

There is growing awareness about the threat that climate change and other issues pose to network resilience and thus to community resilience, especially in areas where change is already visible e.g. the coastal erosion alongside the Katiki Straight on SH1 in North Otago.

Climate change poses a major challenge to Dunedin. Low lying terrain in South Dunedin means around 2,683 houses, 116 businesses and 35 km of road are vulnerable to sea level rise (being less than 50 cm above sea level). The magnitude of this exposure to risk from sea level rise is significantly higher in Dunedin than in other New Zealand centres[33]. The increased frequency of weather events, especially rainfall, is impacting the resilience of the transport network, as land instability causes a greater number of road closures.

Other such issues include the disruption to transport that large scale natural hazard events such as earthquakes and landslips can cause. The Christchurch and Kaikoura earthquakes have heightened community awareness of the need to pre-actively plan for this type of event in Otago Southland. Growing awareness around the impact of an earthquake on the Alpine Fault has led to a regional, multi-agency approach to understanding more about community resilience and to improved organisational preparedness.

Community awareness about road risk is also changing, as the *Any Number is Too Many* campaign is showing[34]; this change in awareness of road risk is also evident in calls for safer roads in districts such as Waitaki.

Emerging demand for active travel

There is emerging demand for safe walking and cycling infrastructure and an interconnected network of medium to long distance walkways and cycleways. Research undertaken by Ben Wooliscroft from Otago University has showed that many New Zealanders do see roads as more than just car places, and are supportive of measures to improve walking and cycling. According to this research, there's a strong groundswell of support for prioritising active transport in NZ[35]. We are seeing this groundswell in Dunedin and Queenstown, in particular[36], through the respective consultations undertaken by the city and district councils, for example.

[33] Preparing New Zealand for rising seas, report of the Parliamentary Commissioner for the Environment. 19 November 2015, available at http://www.pce.parliament.nz/publications/preparing-new-zealand-for-rising-seas-certainty-and-uncertainty .

[34] See: anynumberistoomany.org and the Waitaki District Council transport activity management plan.

[35] September 2017 eBulletin of Living Streets Aotearoa report of the New Zealand Walking Summit July 2017.

[36] See the Activity management plans for Dunedin City and Queenstown Lakes District Councils.

2.3 The key problems facing the transport system today

The key problems

The Committees used the process of intervention logic mapping, coupled with targeted consultation with representative groups of land transport users and providers, to identify the three key problems facing land transport in Otago Southland. The Transport Agency independently identified the problems and opportunities on the regions' state highways.

The three key problems identified by the RTCs are:

- inability to assess, plan, fund and respond to changing mobility user demands in a timely way, as this is resulting in some poor investment prioritisation and decisions, and inadequate future-proofing
- attitudes and behaviour, together with inconsistent quality of routes in the two regions, which are resulting in fatal and serious injury crashes
- parts of the network are vulnerable to closure from adverse events, which is resulting in economic and social disruptions, of which there is increased recognition.

Additionally, NZTA has identified problems on the regions' state highways.

The rest of this section summarises the evidence base for the first three problems, then lists the problems facing the state highways. The draft State Highway Investment Proposal 2018-21 and corridor management plans summarise the evidence base for the latter[37].

Explanation and evidence base for the key problem statements

Problem 1: Inability to assess, plan, fund and respond to changing mobility user demands in a timely way results in some poor investment prioritisation and decisions, and inadequate future-proofing.

A complex set of issues continue to threaten our ability to assess, plan, fund and respond in a timely manner to changing demand for mobility and transport. With so many factors driving change in the transport activity in southern New Zealand, it is not surprising we are experiencing this problem. The nature and rate of change are making timely investment challenging. Pressure on the public funding of the transport system, coupled with the type and rate of change occurring in Otago and Southland, all challenge the ability of our transport system to keep up with demand.

The systems used in public sector transport planning are part of this challenge. For example, the RTCs are concerned NZTA's introduction of a business case approach to planning and investment decision-making, designed to deliver better investment decisions, has resulted in an even more protracted planning process. The inflexibility of the funding model means we are often looking for workarounds rather than redesigning the system to be fit-for-purpose. Inadequate integration of data sources (e.g. tourism data, transport data, and various road trauma data sets) results in sub-optimal planning and priority setting.

Additionally, there is a broader issue concerning a paucity of suitable governance structures at the South Island, regional and inter-district levels for addressing those areas that cross-over between transport and economic development (including cycleway networks and tourist travel in general).

[37] Available at https://www.nzta.govt.nz/planning-and-investment/201821-national-land-transport-programme/state-highway-investment-proposal/ .

Examples of when the timing of investment has raised public concern in recent times include:

- improving Queenstown's public transport services *(improvements started November 2017)*
- easing severe traffic congestion in Frankton Road (SH6) (extra lane provided on the BP roundabout, autumn 2017)
- allowing traffic from Quail Rise to join SH6, Queenstown (underway)
- completing the SH88 shared path between Port Chalmers and Dunedin
- delivering on the vision in Dunedin City Council's Economic Development Strategy to make Dunedin one of the world's great small cities, through attention to such matters as connectivity (e.g. transfer of goods, services, people) and services - including transport - that make a city attractive and safe for living and working
- providing safe cycleways and lanes to fulfil the latent demand for cycling in Dunedin city (underway)
- constructing the pedestrian and cyclist underpass beneath the state highway at Clyde (completed)
- making safe the intersection of SH1 and the access road to Moeraki (action now taken)
- safety improvements to state highways in Southland region.

The result is sub-optimal investment decision-making results, which in turn causes inadequate future-proofing. This inadequate future-proofing can hinder us:

- catering to the demographic profile of our communities including the aging population
- providing for the different modes of travel sought by our communities (e.g. cycling)
- meeting visitor needs and addressing the pressures that increasing tourist numbers put on our communities and transport network
- potentially, unless we upgrade our systems, addressing the effects of sea-level rise on the transport network.

It has proved difficult to keep our planning ahead of the rate of growth of parts of Otago, given the growth in population and thus in traffic volumes described in the previous section. Traffic congestion in Queenstown is one manifestation of insufficiently rapid response to growth. Wanaka could be the next town to experience gridlock, unless we make our systems more responsive to the growth in tourist travel occurring. Current delays crossing the single-lane Albert Town bridge near Hawea could be an early warning of this.

Emerging or looming changes in mobility also pose a challenge. In Otago and Southland, our transport planning and responses are not adequately grappling with these changes and we are 'behind the eight ball' on such matters as technological advances (e.g. use of wayfinding technology using GPS and communications technology such as Bluetooth), new vehicle technologies - electric cycles and vehicles and, in time, driverless cars – or emerging demand for safe walking and cycling infrastructure and interconnected networks of medium to long distance walkways and cycleways.

The benefits of addressing this problem would be:

- improved network performance and capability and network resilience
- focus on areas of regional economic development, productivity and connectivity
- increased customer voice on connectivity, accessibility and mode shifts
- system optimised through communication technology, innovation and improved people capability
- greater value for money delivered by transport investments.

Problem 2: Attitudes and behaviour together with inconsistent quality of routes in the two regions results in fatal and serious injury crashes.

Each year, road trauma imposes a massive social cost on the Otago and Southland regions, equating to approximately 2 per cent of the GDP of each region. Statistical projection shows that unless we change how we behave on our roads, road crashes will continue to impose a collective social cost of between $224M and $332M each year in the two regions[38].

The level of fatal and serious injuries in Southland and Otago regions is shown in Table 10, and in Figure 4. Both are based on data from the Crash Analysis System (CAS) operated by NZTA (with data inputted by NZ Police). It is important to be aware that CAS is likely to be underestimating the quantum of serious injuries, and therefore the overall social cost of road trauma in Otago Southland, especially for incidents involving motorcyclists, pedestrian and cyclists.

Evidence of this type of under-reporting in Otago Southland comes from statistical analysis of CAS, hospitalisation and Accident Compensation Corporation (ACC) data for 2010-13 inclusive[39]. The reporting rate of crashes in CAS over that period was estimated to be 26 per cent for motorcyclists, 43 per cent for pedestrians and 56 per cent for cyclists in Otago Southland[40]

Table 10: Fatalities and injuries, by year, in Otago and Southland regions, 2013-2016

Region	Crash Year	Fatalities	Serious injuries	Minor injuries
Otago	2013	14	168	659
Otago	2014	19	168	650
Otago	2015	18	165	682
Otago	2016	20	195	708
Southland	2013	2	60	310
Southland	2014	12	56	290
Southland	2015	8	57	320
Southland	2016	16	83	316
Total	2013	16	228	969
Total	2014	31	224	940
Total	2015	24	222	1002
Total	2016	36	278	1024

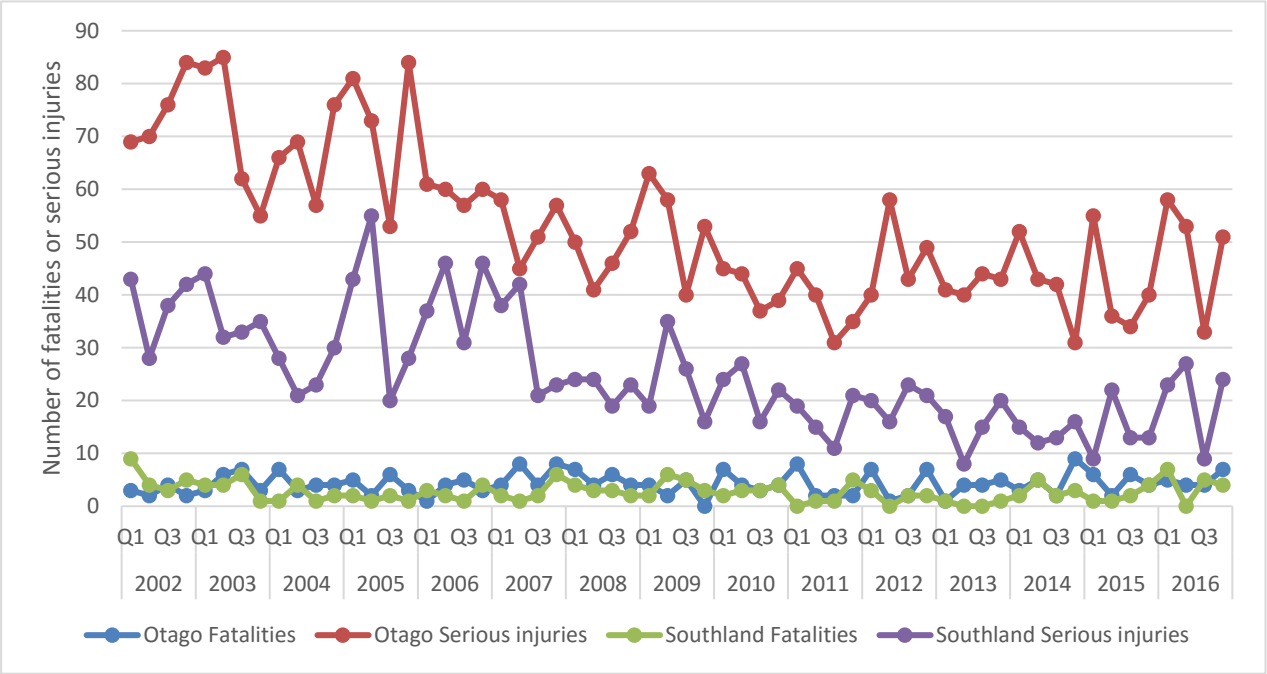
Source: CAS data supplied by the Transport Agency, October 2017

[38] Based on statistical projections of crashes in the period 2010-13 (analysis available from Otago Regional Council). Note, road crashes (and their social cost) include both motorised and non-motorised incidents on the transport network. Examples of the non-motorised incidents include someone tripping on a footpath or roadway, or falling down the steps of a bus. Sometimes people refer to these types of incident as being an accident rather than a crash.

[39] Road safety in Otago and Southland regions: the top priorities for action. Jane Turnbull and Elle Flinn. Otago Regional Council 2015. Available from http://www.orc.govt.nz/Publications-and-Reports/Transport/Road-Safety-in-Otago/ .

[40] ACC data indicates 717 claims were filed by clients who were riding a motorcycle at the time of their crash (on a public road in Otago or Southland), for crashes taking place between 1st January 2010 and 31st December 2012. Over the same period, CAS reports only 184 injury crashes involving a motorcyclist in the key-vehicle or second-vehicle position in Otago or Southland. Moreover, ACC data tells us that claims made by motorcyclists following a crash tend to result in higher payouts to the client than claims made by any other road-user group, suggesting that their injuries tend to be more severe and require more complicated medical procedures and a more extensive recovery period (ibid, page 17).

Figure 4: Road fatalities and serious injuries in Otago and Southland regions, 2002 to 2016, by quarter



Source: CAS data supplied by the Transport Agency, October 2017

This magnitude of social costs is clearly unacceptable both in economic terms and in terms of the effect on our communities. Any number is too many.

Two types of factor are likely to be largely responsible for the extent of road trauma in Otago Southland: (1) people's attitudes and behaviour, and (2) the nature of the land transport network itself.

The Safe Systems approach, which New Zealand is using to address road trauma, recognises the role that people's attitudes and behaviour have in causing this trauma. Although this has often been labelled as 'driver error', in recent years we have come to recognise that people make mistakes and some crashes are inevitable. Those managing the land transport system need to recognise that people are vulnerable because human bodies have a limited ability to withstand crash forces without being seriously injured or killed. Thus, those who design the road system and those who use the roads must all share responsibility for creating a road system where crash forces don't result in death or serious injury.

Research undertaken in 2016/17 for the Transport Agency by The Navigators, as part of research for the Southern Road Safety Influencing Group's pilot project, has revealed valuable insights into the perceptions of road risk that exist in the communities of Otago and Southland regions. Compared to the entire New Zealand population, people from Otago and Southland are more fatalistic (considering deaths to be unavoidable) and more likely to believe that enough is being done to reduce risk. The research showed that people's perceptions of road risks tend to focus on driver behaviour, yet their preferred solutions point to the road and its environment. This suggests that when residents are not satisfied that their roads are not safe to drive on, the best solution is not necessarily an engineering one. Better conversations are needed with the community about road risk and the benefits of speed limit reductions.

Speed is widely accepted as a problem, yet slowing down is a divisive solution. Compared to other regions, Otago and Southland residents are less likely to attribute serious crashes to travelling fast (60 per cent and 50 per cent) or careless driving (67 per cent and 63 per cent) but are more likely to highlight the risk associated with the road conditions, design or quality (38 per cent and 44 per cent). Those living in rural communities are more likely to rate roads (57 per cent and 67 per cent) as one of two top contributors to crashes[41].

Attitudes towards speed, and how to manage the risk that speed poses, were further illustrated by the responses to research questions about speed limits. Compared to other NZ regions, those in Southland are more likely to oppose the reduction of speed limits (44 per cent oppose and 35 per cent agree); they are more likely to prefer that money is spent on improving the roads (71 per cent). In contrast, only 27 per cent in Otago oppose, and 49 per cent agree with, reducing speed limits on some roads in their area.

Variability in the quality of roads in Otago and Southland can be seen in the varying KiwiRap ratings for state highways in Otago and Southland and in the urban KiwiRap ratings for the two regions, the latter covering roading corridor and intersections[42]. The programme business case for SH1 also recognises the variable quality along SH1 between Christchurch and Dunedin[43]. Variability in the quality of the road, along the route of major freight and tourism journeys can also be seen in the high-risk road mapping layer of NZTA's Safer Journeys assessment tool.

This Safer Journeys mapping layer shows that almost all of the (sections of) high risk roads in southern New Zealand are on the major freight and tourism routes shown in Figure 2: SH1, in particular, plus SH93 and parts of SH94, plus three roads around Invercargill. The same mapping tool shows the need to improve the safety of motorcycle touring routes.

For both Invercargill and Dunedin, urban KiwiRAP identifies a small number of corridors with a high collective safety risk level. In Dunedin's case, there are also a few intersections that pose this level of collective risk. There are several more corridors in Otago Southland with medium high and medium collective risk, mainly along the east coast, including in Dunedin, Invercargill and Balclutha, plus two in Central Otago.

The main benefit of addressing this problem would be to improve safety and reduce the social impact of fatalities and injuries.

Problem 3: Parts of the network are vulnerable to closure from adverse events resulting in economic and social disruptions, of which there is increased recognition.

Roads are vital to the everyday functioning of our communities. Yet, in Otago and Southland, we face major challenges just to maintain our current transport networks. Our demanding natural environment creates many challenges.

Growth can pose a challenge to network resilience. This challenge faces the Queenstown/ Wanaka/ Central Otago area. Growth can enable investment in resilient infrastructure, e.g. when investment projects provide additional redundancy in networks at the same time as providing for growth. When upgrading of infrastructure does not keep pace with growth however, this contributes to a reduction in infrastructure redundancy capacity and thus a

[41] National quantitative research – better conversations on road risk. Southern Region Report Draft, August 2017. The Navigators. Powerpoint supplied to Southern Road Safety Influencing Group meeting.
[42] For KiwiRap data, see: http://www.kiwirap.org.nz/ and https://roadsafetyrisk.co.nz/.
[43] NZTA SH1 Christchurch – Dunedin programme business case. February 2017.

reduction in resilience. This has been evident in Queenstown especially when major events are being held.

Road closures due to natural events or road crashes also pose a challenge to resilience. At the same time, management of the transport system is struggling to keep up with changing expectations concerning how we deal with road closures and provide detours. When natural events or crashes result in road closures, detours may not exist (e.g. for the state highway between Bluff and Awarua), or they may be lengthy. There can be an additional issue when the detour is not particularly safe or has weight restrictions on it.

The way we are now living our lives 'just-in-time' has increased our vulnerability (compared to 20 or more years ago). For example, many businesses in Otago and Southland do not keep much stock but order it in when customers request. The pressure for same-day or next-day delivery, especially of retail goods, has introduced a risk to drivers attempting to use through-routes in winter conditions, particularly on SH8 over the Lindis Pass, and SH1 over Dunedin's northern motorway.

Lack of cell-phone coverage in many parts of Otago and Southland, coupled with adverse driving conditions, has the potential to delay advice about, and response to, crashes. Although there is radio-telephone coverage, cell-phone coverage is lacking on parts of several routes, including Clarksville to Roxburgh (SH8), the Lindis Pass (SH8), SH87, and SH94 between Te Anau and Milford Sound. Large parts of the Maniototo also lacks cell-phone coverage.

Those sections of the road network along the east coast of the South Island at higher elevations (including SH1 north between Dunedin and Waitati) are susceptible to periodic closure due to snow and ice in the winter months. Winter driving conditions continue to adversely affect inter-regional state highways, creating safety risks and leading to occasional road closure. Not just SH1, immediately north of Dunedin, but also the Te Anau-Milford Sound highway (SH94), Haast Pass/Tioripatea (SH6), Lindis Pass (SH8), the Pig Route (SH85), and SH87 between Outram and Kyeburn can become inaccessible for periods in winter. Significant parts of the local road network are also at higher altitudes, especially in Central Otago. These routes are also susceptible to closure in winter months, challenging the affordability of providing accessibility to large parts of the district, and over Danseys Pass[44].

Rockfall poses an ongoing problem in the Kawarau Gorge (SH6), at the Nevis Bluff, threatening access to Queenstown. Both rockfall and avalanches pose a risk at the eastern approaches to the Homer Tunnel on SH94 to Milford Sound.

Climate change poses another risk. Coastal areas are at risk from sediment movement and coastal erosion include the Katiki Straight in North Otago and the Oamaru rail yards. Over time, climate change may exacerbate this risk and resultant damage. The vulnerability of lower lying parts of the transport network to sea level rise (over the medium to long term), including much of South Dunedin, also requires further investigation and planning.

We face not only the challenge of trying to predict where rain and earthquake induced landslips are likely to occur, but also the potential challenges of (1) the high costs of remediating any large landslips and (2) the economic effects of prolonged closure. An example of the latter occurred when a slip at Diana Falls closed the Haast Pass in September 2013, initially for 11 days, disrupting the usual flows of visitors around the South

[44] See Central Otago District Council Activity Management Plan.

Island. NZTA subsequently opened one lane but it took more than 14 months' remedial work to stabilise the site and reinstate two lanes[45].

The Christchurch earthquakes in 2011, the Kaikoura earthquake in 2017, on top of the severe rain and snow events in recent years, have raised the question in many people's minds of whether the South Island is sufficiently resilient to disruptions to our land transport system. These events have stimulated discussions about how we can increase our resilience.

Thanks to recent scientific research, we now know the Alpine Fault, which runs 400 km up the South Island, poses a large risk to many southern South Island communities. Historical patterns of earthquake activity suggest that this fault is likely to rupture sometime in the next few decades, with devastating consequences. In the scenario modelled for the Alpine Fault Study Project AF8, which has an expected return period of 300 years, tens of thousands of landslides are expected, isolating many areas by road, including Queenstown, Wanaka and surrounding settlements, and damaging most if not all lifelines. These growth areas remain geographically distant from their major sources of food and fuel, and are totally dependent on trucked fuel.

The main benefits of addressing this problem would be:
- improved network performance and capability, and network resilience
- improved safety and reduced social impact of fatalities and injuries
- focus on areas of regional economic development, productivity and connectivity
- system optimised through communication technology, innovation and improved people capability
- greater value for money delivered by transport investments.

Problems on the regions' state highways

The NZTA has prepared a draft state highway investment proposal, which identifies the key problems for the state highway corridors within, and connecting with, the Otago and Southland regions, as set out below. These problems mainly concern safety, but also accessibility, connectivity, resilience and regional development.

Wanaka to Nelson (SH6)
- This route has safety hotspots: run-off road, head-on, mix of traffic.
- This is a tourist route and many drivers on it are unfamiliar with the route.

Queenstown to Rangitata (Christchurch (SH8)
- This route has safety hotspots: run-off road, head-on, mix of traffic.
- This is a high-volume tourist route and many drivers on it are unfamiliar with the route.

Cromwell to Milton (SH8)
- This is the main tourist link between Dunedin and Central Otago/Queenstown Lakes.
- Increasing traffic volumes from tourists and recreational travellers and infrequent/substandard passing opportunities.
- There are isolated resilience issues.

[45] See: https://www.nzta.govt.nz/planning-and-investment/2015-18-national-land-transport-programme/case-studies/diana-falls/ . Accessed 15 September 2017.

Queenstown to Milford Sound (SH6, SH97, SH94)

- There is a safety risk due to challenging and unforgiving terrain and a large portion of first time route users (Otago section i.e. Devils Staircase)
- Development between Frankton and Jacks Point is likely to result in an additional 8,000-10,000 daily trips which has the potential to affect speeds/efficiency of the northern section of SH6.
- There is a safety risk due to challenging and unforgiving terrain and a large portion of first time route users
- Resilience issues relating to natural hazards (rockfall, avalanche), weather, incident and preventative maintenance events
- There is no alternate route and limited communications (e.g. cell reception).

Dunedin to Christchurch (SH1, key local routes, and the Main South Line (rail)

- Travel time is unreliable: increasing traffic, mix of traffic with speed differentials and peak event demands.
- There are safety hotspots: intersections, run-off road, head-on and unforgiving environment.

Port Chalmers to Bluff (SH88, SH1)

- This is the main economic enabler for the region, connecting Dunedin and Invercargill, industry and ports.
- SH88 from Ravensbourne to Port Chalmers is narrow, windy and lacks adequate shoulders over a significant portion of its length for a national route.
- Accessibility issues for HCVs, particularly the SH88/SH1 intersection and the Sawyers Bay overbridge.
- Accessibility issue for HCVs at SH1/SH93 intersection.
- Identified safety issues include SH93 between Clinton and Mataura, which is only two-star rated, with challenging topography and sub-standard passing opportunities.
- Industrial development pressures south of Invercargill.

Southern Cluster, Otago (SH85, SH87, SH90)

- These provide connectivity and links into Central Otago from Dunedin/Mosgiel.
- SH87 is affected by snow and both are susceptible to ice/winter driving conditions.
- Current and projected population growth in Mosgiel is having an impact on the transport network and the town centre, particularly in afternoon peak.

Southern Cluster, Southland (SH6, SH90, SH94, SH96, SH98, SH99)

- These provide important connectivity with local roads for visitors, local communities and freight movement.
- SH99 forms part of the Southern Scenic Route, an important and popular tourist route. Visitor expectations of a consistent and reliable journey experience on both state highways and local roads e.g. consistent signage and road conditions.
- The focus is on maintaining connectivity through maintenance and operations and event response planning to facilitate reliable and efficient access for freight.

3 Strategy for Otago Southland land transport

3.1 Introduction

In updating the RLTPs, the Otago and Southland RTCs have refined their strategy and clarified the long-term results they expect from the investment that approved organisations make in Otago and Southland's transport system.

This section of the plans explains the strategy. Measurement of progress is covered in the appendix.

3.2 Long-term goal and results

The long-term goal is a transport system in Otago and Southland that provides adequately for mobility, economic activity and productivity while minimising road trauma.

Intended long-term results

The RTCs have also identified the long-term results they seek from local authority and NLTF investment in the land transport systems of Otago and Southland:

- The network is reliable and resilient.
- Major externalities are reduced (including road risk and the resultant trauma, and carbon emissions).
- Exporting is supported.
- Tourism is enabled and supported.
- Growth is enabled.
- Non-traditional economic sectors are enabled.
- There is an increased choice in travel modes.
- Community resilience has been enhanced (including climate change adaptation).
- Decision-making is timely and relevant.
- There is sufficient support and choice of funding to realise the strategy outlined in these plans.

These intended long-term results are important because, collectively, they will enable our regions to achieve the goal, by ensuring the following three factors that are critical to success in achieving the goal are realised:

- Transport enables and supports economic activity and growth.
- The transport system adequately meets social needs.
- Transport helps to positively shape the future of Otago and Southland.

3.3 Benefits sought from the next three to ten years' RLTP investment

Focus on realising benefits from improving the transport system

As the first steps towards achieving these long-term results, the RTCs seeks to focus the investment that approved organisations (AOs) make in Otago Southland land transport on activities that realise the following benefits over the next three to 10 years (i.e. the remaining period of these RLTPs and the years immediately afterwards).

Main benefits

1. Improvement in the performance and capability of the transport network, and network resilience.
2. Improved safety and reduction in the social impact of fatalities and injuries.
3. Regional improvements, economic development, productivity and connectivity.

Enabling benefits

4. Increased customer voice, connectivity, accessibility and modality shifts.
5. Enhanced value for money of transport investments.
6. Optimisation of systems: communication, technology, innovation.

To help achieve this focus on realising specific benefits over the next 3-10 years, the RTCs:

- have influenced AOs as they develop activities and projects in the months leading up the development of the RLTPs
- are using potential contribution to these benefits as a key factor when assessing the priority of each proposed project (as shown document).

Moreover, to help investment in the land transport system to realise these benefits, the RTCs have set the following desired outcomes, which are expected to contribute as stepping stones towards the intended long-term results. The RTCs will be measuring progress towards these outcomes.

Outcomes associated with each main benefit

1. Improvement in the performance and capability of the transport network, and network resilience:
   - Maintain current network(s).
   - Enhance network performance and capability (where needed e.g. as shown by the ONRC analysis).

2. Improved safety and reduction in the social impact of fatalities and injuries:
   - Improve safety.

3. Regional improvements, economic development, productivity and connectivity:
   - Increase economic growth and productivity (the focus areas for this are Queenstown, Dunedin, and key routes – for the latter see Figure 2 and section 2.1).

Outcomes associated with each enabling benefit:

4. Increased customer voice, connectivity, accessibility and modality shifts:
   - Enhance community resilience and cohesion.
   - Increase health, wellbeing and environmental management.
   - Improve support of customer groups.

5. Enhanced value for money of transport investments:
   - Enhance system performance, and cost.

6. Optimisation of systems: communication, technology, innovation:
   - Increase partnership and adaptive management.
   - Increase communication and technology solutions.

Examples of the factors pertinent to each desired outcome are listed in the appendix. So too is an explanation of how customers' voices and needs have been considered in the compilation of these RLTP variations.

Delivery of this strategy

The strategy will be delivered through:

- a programme of proposed activities for the next three years, which collectively focus on achieving a safe and sustainable transport system in Otago and Southland, that supports and enables regional development (Section 4)
- four key opportunities the RTCs intend to pursue over the next few years (section 3.4)
- supporting policies (section 3.5)
- an advocacy programme to be undertaken by the RTCs (section 3.6).

How success will be measured

In future, the RTCs will measure progress towards these long-term results and the intended outcomes. The appendix explains this further. As part of this, the outcomes will be made into SMART ones, so progress can be monitored.

3.4 Opportunities the RTCs intend to pursue

In addition to influencing the projects the AOs put forward for inclusion in the RLTP, and prioritising those projects put forward (in Section 4), the RTCs have identified four opportunities they wish to pursue to move towards the intended long-term results. Each is described below.

The opportunity to take a South Island-wide approach

Freight and visitor journeys do not begin or end at our northern boundaries with Canterbury and the West Coast. There is an opportunity to take a South Island perspective on transport journeys, to better meet customers' needs.

As discussed in the foreword, the chairs of the seven Regional Transport Committees in the South Island have recognised the opportunity to help drive our economy and better serve our communities, through collaboration and integration. The Chairs' Group has three key priorities:

1. Identify and facilitate integrated freight and visitor journey improvements across the South Island.
2. Advocate for an enabling funding approach which supports both innovative multi-modal (road, rail, air, sea) solutions to transport problems, and small communities with a low ratepayer base to maintain and enhance their local transport network.
3. Identify and assess options for improving the resilience and security of the transport network across the South Island, as well as vital linkages to the North Island.

The group has committed to working collaboratively to planning work across the South Island in these key areas (including resilience, the importance of which has been highlighted in the aftermath of the recent Kaikoura earthquake).

It is likely there will be some projects in this space that will progress over the next three years (2018-2021). Both ES and ORC have made funding provision for this work, as part of their

transport planning activities. There is limited information available for inclusion in this iteration of the RLTP, however, as they are currently going through a scoping stage.

The opportunity for mode integration and mode shift

There is potential to better integrate rail and coastal shipping into the transport network. The South Island RTCs Chairs' Group has been advocating for this. The projected 68 per cent increase in freight volumes by 2042 is one of the key challenges facing the South Island[46]. Most freight in the South Island is moved by road (over 90 per cent), and only a small percentage by rail, coastal shipping or air. The freight modes that perform this task today are forecast to largely perform similar roles in the future, with a slight increase anticipated in the proportion of freight shifted by road.

This reliance on road freight raises questions given that:

- the South Island has been significantly impacted by network disruption caused by seismic events and other natural disasters, and there is a present and ongoing risk to supply chains
- the potential effects of a significant increase in road freight, including road condition and maintenance costs, travel time reliability, road safety, and visitor experience
- the increasing demand for more sustainable, low CO_2 supply chains.

The availability of effective transport alternatives is a core component of a resilient, multi-modal transport system for the South Island including wider consideration of the role that rail and coastal shipping should play, or at more local scale. Other ways of increasing resilience at a local scale include:

- good quality walkways and footpaths and cycling infrastructure that enable connectivity (particularly considering the aging population)
- reliable and efficient public transport services that reduce dependency on single occupancy vehicles.

The Otago and Southland RTCs will continue to seek much better integration among the modes of transport. This includes planning to achieve this in a way that best suits community and commercial interests. Many of the projects proposed in this RLTPs update are for walking, cycling and public transport.

Such alternatives to road transport also support emission reductions in the transport sector. New Zealand has one of the highest rates of car ownership among members of the Organisation for Economic Co-operation and Development (OECD) and a relatively old vehicle fleet, with most freight being transported by emission-intensive trucks rather than by train or coastal shipping[47].

The opportunity for regional dispersal of tourism benefits

There is scope to increase the contribution of tourism to the economies of much of Otago and Southland. On the one hand, tourism provides an opportunity for growth, not just in the growing areas of Queenstown Lakes and Central Otago, but also districts like Southland, Clutha and Waitaki. On the other hand, the road environment along tourist routes provides a poor journey experience for visitors in several parts of Otago and Southland (e.g. in Queenstown Lakes and Clutha districts). This is of concern, as more and more tourist chose to self-drive.

[46] South Island Draft Freight Plan (2015) http://www.nzta.govt.nz/assets/resources/draft-south-island-freight-plan/docs/draft-south-island-freight-plan.pdf .

[47] Ministry for the Environment (2016), New Zealand's Greenhouse Gas Inventory 1990-2014.

To fully reap the benefits of the projected tourism growth – including the benefits to smaller communities from dispersing visitors throughout Southern New Zealand – requires both a good understanding of visitors' expectations and a well-managed response.

There is an opportunity to improve the journey experience for visitors, to ensure the sustainability of growth in visitor numbers. A well-managed approach is particularly needed on those key journeys that are characterised by long travelling distances with limited amenities and unfamiliar and challenging road conditions[48]. Many of the tourism journeys in southern New Zealand fall into this category including: Christchurch to Queenstown over the Lindis Pass, Queenstown to Te Anau and Milford Sound, SH6 connecting Nelson and the West Coast with the Southern Lakes area, via Haast Pass, the Southern Scenic Route via the Catlins, SH1, and even large parts of SH1, from the Waitaki River to Bluff.

There is an opportunity to recreate the Southern Scenic Route as a tourist loop. At present, this corridor, along SH6 and SH99, is positioned as a one-way journey, typically from Queenstown to Dunedin. A loop route would utilise SH85, SH87 and parts of the adjoining corridors (Queenstown to Rangitata; Frankton to Te Anau). To make this work, the loop route would need to be upgraded to provide a consistent level of service along the entire loop, particularly in terms of journey information, safety and road conditions[49].

The state highway corridor between Frankton and Milford Sound is unique in that its predominant demand comes from tourism. Increasing tourist numbers and the increasing demand for the road to remain open are creating increased pressure on this corridor. The strong year-round tourism market is largely driving the increasing demand for the road to remain open with minimal disruption. As self-driving increases – the tourism sector has been actively promoting this experience – the increasing conflict between slower sightseeing journeys and the time-constrained through journeys to Milford Sound and back in one day needs to be managed. More safe stopping areas and slow vehicle bays are likely to be needed to accommodate this mixed purpose use, and to ensure safe, reliable journeys. The predicted growth will also place pressure on assets already at capacity, such as the Homer Tunnel, or those nearing capacity[50].

The nature of journeys between Queenstown and Milford Sound could be reshaped to better integrate Te Anau into them. And the airport at Te Anau could be upgraded to enable visitors to use it as an access point for travel to the southern South Island (e.g. with connections to Auckland and Christchurch). These both present opportunities for Te Anau to increase its share of the visitor market.

There is also potential in the future to use Alexandra airport as an access point for southern New Zealand. Use of this district council-owned airport, owned by the district council has increased to the point that the first stage of a development plan has started with construction of a hangar/accommodation precinct with space for 22 lessees, plus a private hangar[51]

Local roads could also cater better for their tourist customers, especially local roads tourists use to access either tourist attractions along the road or at the road end, or to access the back country. The Southland Regional Development Strategy (SORDS) Action Plan identifies the need to improve signage across roads in Southland and the Catlins, to cater better for

[48] Queenstown to Rangitata Corridor Management Plan. NZTA 2017.
[49] Southern Arterial & Primary Collection Cluster Corridor Management Plan 2018-2028. NZTA 2017.
[50] Frankton to Milford Sound Corridor Management Plan 2018-2028. NZTA 2017.
[51] See http://www.codc.govt.nz/your-council/project-updates/alexairport/Pages/default.aspx, accessed 6 November 2017.

international tourists. The SORDS action plan also highlights the need to seal local roads that access key tourist sites[52].

Some districts have proposed low cost / low risk projects that are intended to support the tourism industry through such matters as tourist car parks and upgrades to tourist routes such as Danseys Pass in Waitaki district.

The opportunity to create a network of cycle rides

The Otago and Southland RTCs have two objectives for cycling: to expand cycle tourism, and to see much larger numbers of people travelling by cycle in urban and peri-urban areas. They seek two key results:

- The number of people choosing to cycle is sufficient to make a positive contribution towards ensuring a sustainable and accessible transport network.
- The number of people using cycle trails boosts the economy of Otago and Southland.

The Committees see the potential to expand Otago Southland's network of off-road cycle trails and Heartland Rides (e.g. by using secondary roads for the latter). Growing the trail network has the potential to draw an increasing number of visitors, both domestic and international.

The Committees support the long-term objective of connecting the Great Rides with the rest of New Zealand through the creation of a nationwide cycling network, an objective shared with the Transport Agency and The New Zealand Cycle Trail.

Initial priorities for expanding the cycle network in Otago Southland are:

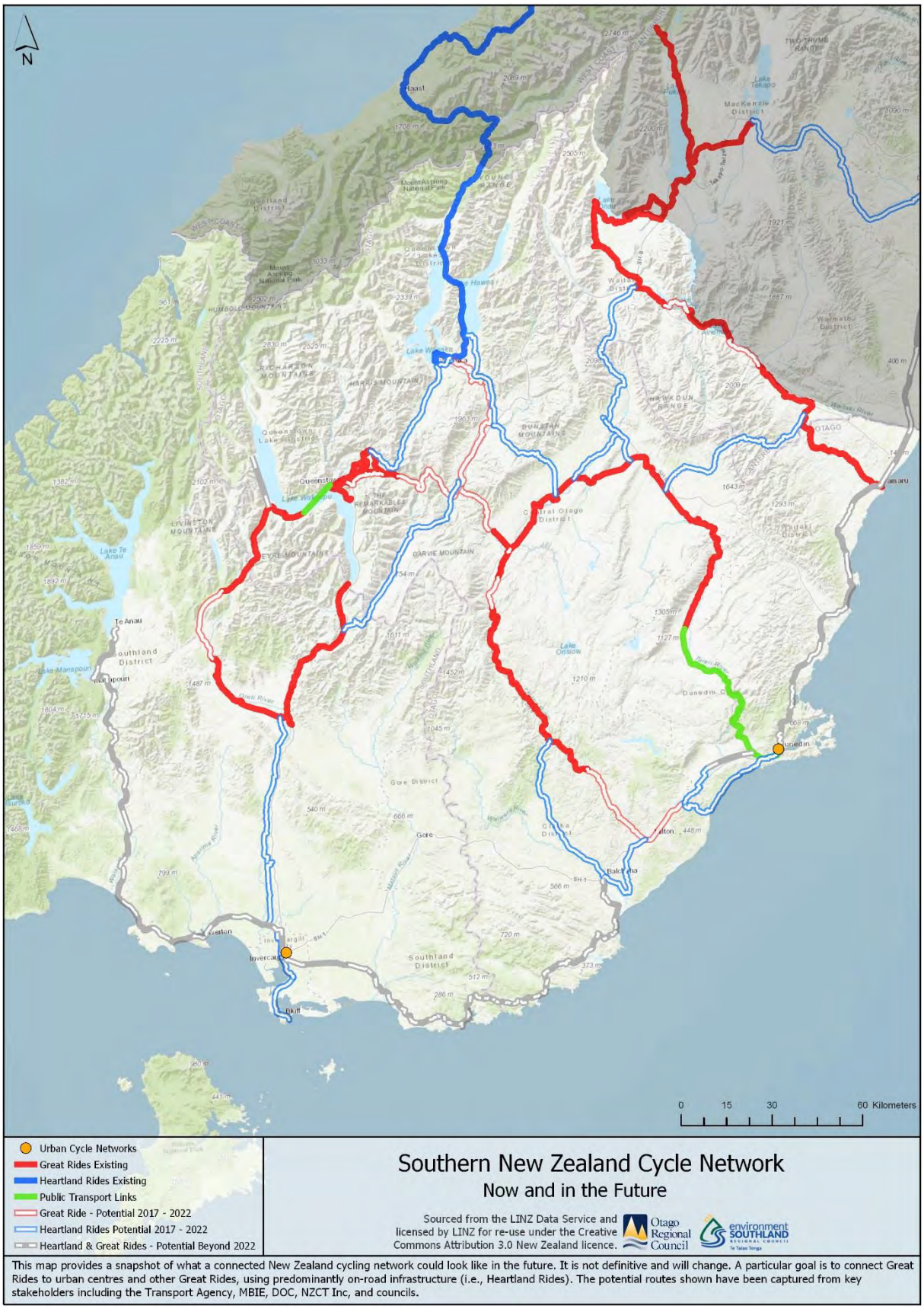
- connecting Queenstown and Dunedin with a cycle trail by completing the missing sections
- new trails connecting Queenstown, Wanaka and Cromwell with the Central Otago trails network at Clyde
- connecting the Queenstown Trails with commuter cycling routes in the Wakatipu Basin
- completing Dunedin's cycle network for use by visitors as well as locals.

The growing network of cycle rides and trails in Otago Southland is summarised in Section 2 and mapped on Figure 5 below. This figure shows existing Great Rides and Heartland Rides. Note there are further cycle trails not shown on the map e.g. the Lake2Lake Trail in Te Anau, and mountain biking trails around Dunedin.

There are opportunities to further expand the cycle network by creating several more Heartland Rides. Suggestions are shown on Figure 5, and the committees welcome feedback on these ideas. +

[52] The Southland Regional Economic Development Strategy (SORDS) Action Plan.

Figure 5: Southern New Zealand cycle network: existing and potential.



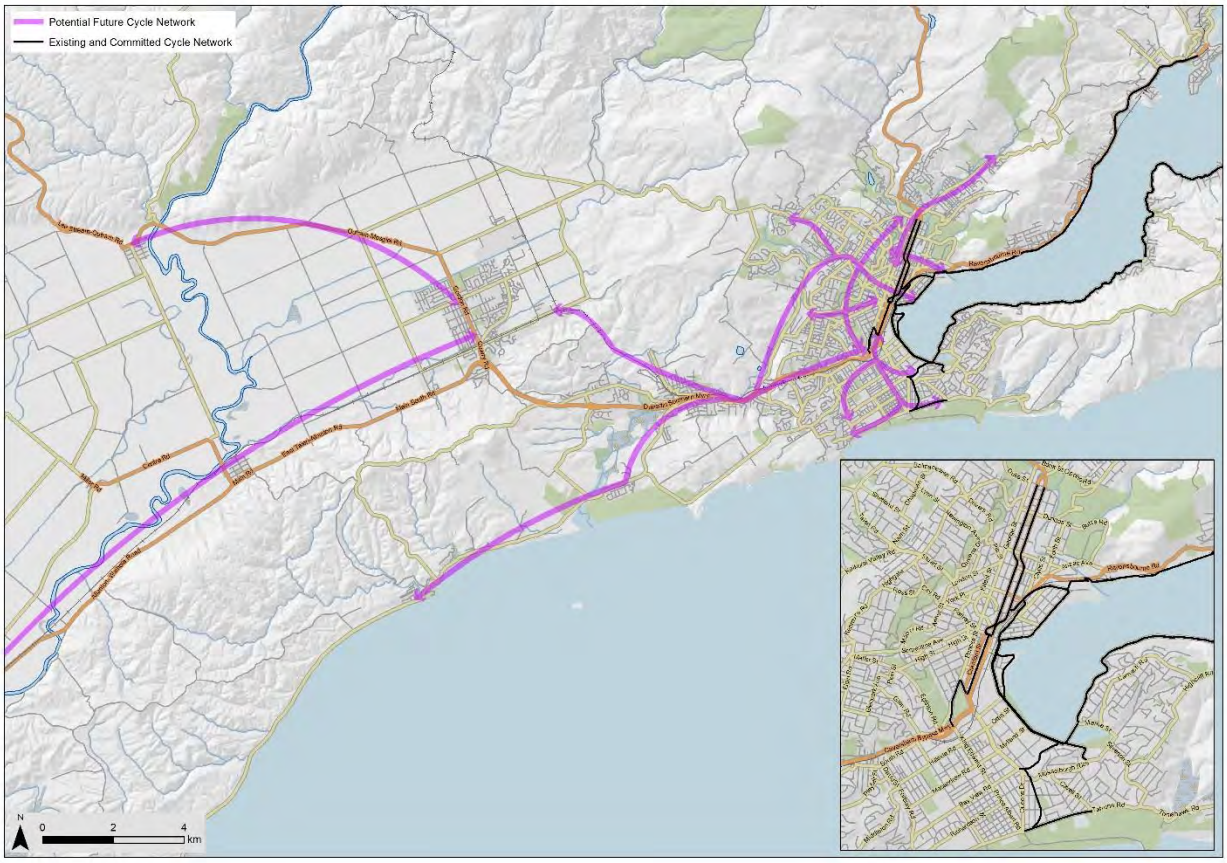
Possibilities include:

- Dunedin – Oamaru and north beyond Timaru.
- Balclutha – Invercargill via the Catlins.
- Bluff – Invercargill – Lumsden.
- Invercargill – Manapouri – Te Anau via Tuatapere.
- A loop connecting Queenstown – Cromwell, Cromwell – Clyde, Alexandra and Wanaka.
- Danseys Pass.

Some of these suggestions may require 100 per cent government funding if the existing roads are to be upgraded to a suitable standard (e.g. Danseys Pass, an alpine route).

The 2013 Dunedin City Integrated Transport Strategy identified a proposed strategic cycle network for the city. Some parts of Dunedin's transport network already have cycle facilities, e.g. a shared path along the western harbour, off-road facilities from the inner harbour to St Kilda beach, as well as some on-road cycle lanes. Additionally, before mid-2018, Dunedin City Council and the Transport Agency plan to complete cycleways on SH1 through the city (the one-way pair), to link NZTA's SH1 / one-way pair cycle lanes, to connecting existing shared paths to form a harbour circuit and linking that circuit to the central business district. The extension of the SH88 walkway / cycleway to Port Chalmers is now going to be delivered as part of the Dunedin-Port Chalmers Safety Improvements Project, which has funding committed.

Figure 6: Dunedin's current and future cycle network



Source: Dunedin City Council Transportation Planning, November 2017

These improvements are designed to improve safety and to encourage increased cycling by both commuters and recreational cyclists.

Future improvements to Dunedin's cycle network, shown on Figure 6, are likely to focus on improving access and safety from residential catchments, employment areas, and Dunedin's key attractors to cycle facilities. Dunedin City Council plans a new cycleway along the Southern Trail corridor between Caversham and Wingatui, as well as a bridge from the inner harbour to the central business district.

Figure 7 shows the proposed cycle network for Queenstown's town centre.

Figure 7: Queenstown's proposed Town Centre cycle network

Source: Queenstown Lakes District Council, November 2017

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3.5 Land transport policies for the RTCs and AOs

Approved organisations, or the RTCs, as appropriate to their functions, will be responsible for implementing the following policies. Other agencies may also be responsible, for example KiwiRail or NZ Police.

Supporting the carriage of freight and exporting
Helps achieve:
Outcome 1 Improved performance and capability of the transport network, and network resilience
Outcome 3 Regional improvements, economic development, productivity and connectivity
Outcome 6 Optimisation of systems

1. Ensure freight movements within or across Otago and Southland are efficient.
    - Generally, all state highways should be capable of providing access for overweight and over-dimensional vehicles. cost effective alternative routes should be available.
    - All state highways, national roads, regional roads, arterial roads and primary collector roads should be accessible by high productivity motor vehicles, or cost effective alternative routes should be available where this is not appropriate.
    - Most local roads should be accessible by 50 tonne vehicles.
    - There should be appropriate links between the road freight network and the rail network.

Supporting and enabling tourism and visitor travel
Helps achieve:
Outcome 2 Improved safety and reduction in the social impact of fatalities and injuries
Outcome 3 Regional improvements, economic development, productivity and connectivity

2. Operate, maintain and improve the strategic visitor network (including the cycle network) to allow safe, reliable visitor travel.

Minimising road trauma
Helps achieve Outcome 2 Improved safety and reduction in the social impact of fatalities and injuries

3. Provide for the safe operation of all legitimate transport modes.

4. Encourage everyone to accept the significant responsibilities in moving, over the longer-term, towards zero serious road trauma on our networks.

5. Manage networks to achieve this:
    - Encourage all users of the transport system to take personal responsibility for their own behaviour, and how it impacts on their own and others safety.
    - Create and foster high social pressure to drive safely.
    - Invest in effective road safety interventions, reflecting the importance of road safety to the region.
    - Follow the Safe System approach for improving road safety, and apply effective interventions.
    - Focus on vulnerable road users and allocate road space to walking and cycling where needed to ensure safe travel.

- In areas where the safety of those using active transport to commute is at significant risk from the traffic, build cycleways/walkways separated from motorised traffic.

6. Reduce crash response times for police and emergency services and improve the rate of recovery from crash injuries, especially in rural areas.

Ensuring community resilience

Helps achieve Outcome 4 Increased customer voice, connectivity, accessibility and modality shifts

7. When needed to ensure resilience, prompt a change in travel behaviour towards increased walking, cycling and public transport use in urban areas, by:
   - managing traffic to maintain certain levels of congestion
   - adapting the supply and pricing of car parking over time
   - promoting multi-modal journeys.

Providing for mode choice including walking, cycling and public transport

Helps achieve Outcome 4 Increased customer voice, connectivity, accessibility and modality shifts

8. Support and promote a growth in cycle and pedestrian trips.

9. Provide these public passenger services (with or without subsidy, as appropriate):
   - Three separate integrated urban public transport networks, one in Dunedin, one in Wakatipu Basin and one in Invercargill delivered by:
     - scheduled bus services
     - taxi and shuttle services, including taxi vans or shuttles with wheelchair hoists
   - Between centres within Otago Southland and beyond, provided by bus and small passenger service vehicles
   - School bus services (separate from public buses in the integrated networks, used by school children) provided by Ministry of Education as an excluded service, or by a bus operator and registered as an exempt service
   - Taxis, shuttles and private hire services in those areas where providers choose to operate
   - Bus and rail services for excursions and special events
   - Community-based schemes and informal arrangements, where people choose to operate them
   - Emergency and medical-related transport services.

10. Consider the needs of people with cognitive, physical or sensory impairments in the design of new infrastructure and the provision of services.

3.6 The RTCs' proposed advocacy programme

Supporting the carriage of freight and exporting

1. Advocate for funding streams to be amended so road and rail are funded from the same source, encouraging sensible strategic planning of transport, and wise use of resources.
2. Advocate for the development and use of a South Island-wide model of freight flows (value and volume).

Supporting and enabling tourism and visitor travel

3. Advocate for alternative funding mechanisms, beyond development contributions, to ensure those directly benefiting from tourism-oriented facilities, infrastructure and services associated with transport, contribute fairly to their funding.
4. Promote touring routes within Otago and Southland, including between Dunedin and Queenstown, between Queenstown and Milford, and the Southern Scenic Route.
5. Advocate for funding to support the completion of a network of cycle rides, rails and routes throughout Southern New Zealand.
6. Advocate for the development and use of a South Island-wide model of tourism flows (numbers and value).

Minimising road trauma

7. Promote better community conversations about road risk.
8. Advocate for a long-term goal of zero serious road trauma.
9. Advocate for cell phone coverage over the whole of Otago Southland to provide emergency coverage.

Providing for mode choice including walking, cycling and public transport

10. Advocate for new urban development providing a range of transportation options and good connectivity between modes – including public transport, walking and cycling, mobility scooters, as well as motorised vehicles.
11. Advocate for the minimisation of regulatory and administrative barriers for initiatives such as car clubs, car sharing, ride sharing and community transport services when these help communities to be self-reliant.

Managing the environmental effects of the transport system

12. Advocate for a national requirement that all trucks carrying stock have an effluent tank that prevents any effluent discharge onto public roads, and for adequate disposal facilities.
13. Advocate for the proper control of vehicle emissions through:
    - government rules on smoky vehicles, and emission standards for imported vehicles and fuels
    - appropriate vehicle quality standards in the requirements for urban buses, and the Regional Public Transport Plans
    - consideration of public transport emissions in NZTA funding mechanisms.

4 Proposed programmes of activities for 2017/18 to 2020/21

4.1 Projects with funding already approved, at November 2017

The next two tables list those projects that, at November 2017, are committed i.e. they have funding already approved under section 20 of the Land Transport Management Act 2003 but are not yet completed.

Please note, projects that are scheduled for completion in 2017/18 are included in Tables 15 and 16.

Table 11: Projects in Southland region, with NZTA funding already approved, at 1 November 2017

Organisation	Activity Class	Project Name	Phase	Start Year	Finish Year	Cost 2018/19	Cost 2019/20	Cost 2020/21
ICC	12	11 Year Street Lighting Renewal Programme	Construction	2009	2019	$368,100	$368,100	$0
NZTA	13	Accelerated LED Renewals for State Highway Streetlighting	Construction	2018	2018	$923,400	$923,400	$0
NZTA	13	Edendale Realignment	Property	2015	2020	$895,434	$0	$51,300
NZTA	20	Visiting Drivers Signature Project	Implementation	2016	2018	$1,195,086	$0	$0

Table 12: Projects in Otago region, with NZTA funding already approved, at 1 November 2017

Organisation	Activity Class	Project Name	Phase	Start Year	Finish Year	Cost 2018/19	Cost 2019/20	Cost 2020/21
CDC	12	LED Luminaire Retrofit	Construction	2017	2019	$500,000	$0	$0
DCC	12	Peninsula Roading - Portobello Rd	Construction	2015	2020	$17,431,200	$9,246,400	$200,000
DCC	12	Phase 4 Peninsula Roading - Harington Point Rd	Construction	2017	2020	$0	$4,467,000	$100,000
NZTA	20	Dunedin – Fairfield Safety Improvements	Implementation	2017	2018	$1,053,095	$0	$0
NZTA	3	Dunedin One Way Pair Cycle Lanes	Implementation	2016	2018	$1,826,280	$0	$0
NZTA	13	SH 88 Cycling and Pedestrian Facilities*	Property	2015	2018	$26,647	$0	$0
NZTA	20	Visiting Drivers Signature Project	Implementation	2016	2018	$1,405,979	$0	$0
NZTA	20	Dunedin – Port Chalmers Safety Improvements	Implementation	2017	2018	$1,053,095	$0	$0
ORC	13	Stock truck effluent disposal facilities	Construction	2017	2018			
ORC	4	Dunedin Public Transport Infrastructure Improvements	Implementation	2015	2024	$146,924	$139,408	$143,515
ORC	4	Public Transport Programme of Improvements	Implementation	2015	2024	$1,633,768	$3,533,994	$3,331,403
ORC	4	Wakatipu Basin Public Transport	Implementation	2017	2020	$2,639,835	$2,556,986	$2,583,549
QLDC	12	Glenorchy Road – Paradise Rd: Rees River Bridge Protection	Construction	2016	2023	$0	$200,000	$0

For SH88 cycling and pedestrian facilities project, only the property phase is included in the above table. The physical works for this project are now included in the Dunedin - Port Chalmers Safety Improvements (Safe Roads Alliance) project. NZTA has not yet approved construction or committed funding for SH88 cycling and pedestrian facilities project. Both these SH88 projects are therefore listed in Table 14.

4.2 Descriptions of prioritised activities and projects for 2018-21

The committees have prioritised projects (except low cost / low risk ones) in one of three priority bands, considering the benefits each project would help realise, whether it forms part of an integrated programme of works for a particular area, and whether it is of inter-regional significance

Priority One projects – Southland

NZTA

Project Name:	**SH 1 - Edendale Realignment**		**Item No 19 & 21**
Organisation	**NZTA**		
Project Funding	$13,896,258	**Project Years**	2015 to 2018
Project description	Issues with variations in the speed limits through the Edendale township and a right-angled bend with an adjacent intersection and level crossing all located within a short section of highway. Any expansion of Fonterra's plant will generate additional traffic, which will travel past residential properties and a school. The project will provide a bypass to the township, with appropriate connections to the Fonterra plant.		
Reason for priority	Benefits safety, also network performance and capability, and regional development. The project improves safety for vehicles and other road users within the Edendale township. The project supports economic growth by providing a transport network that enables the movement of people, stock and goods to desired destinations as efficiently as practicable.		
Is it inter-regionally significant and why?	Yes. This project supports economic growth within Otago and Southland and is on a key journey between Southland, Otago and Canterbury (SH1)		

Project Name:	**SH 1 – Elles Road Roundabout**		**Item No 22**
Organisation	**NZTA**		
Project Funding	$3,404,244	**Project Years**	2017 to 2025
Project description	Realign highway approaches to existing intersection. Replace priority control with roundabout. Extend Lake Street to become fourth leg of roundabout to provide an alternative access to the industrial area.		
Reason for priority	Benefits safety, also network performance and capability, and regional development. Improved safety for all road users at this high-risk intersection. Reduction in crashes and the severity of crashes that are unavoidable. Improved access to commercial/industrial premises.		
Is it inter-regionally significant and why?	Yes. This intersection, on a key journey between Southland, Otago and Canterbury (SH1) is on the national register of high risk intersections. Visitors travel through this intersection.		

Project Name:	**SH 94 - Milford Rockfall/Avalanche Protection**		**Item No 23**
Organisation	**NZTA**		
Project Funding	$10,773,000	**Project Years**	2018-2020
Project description	Realignment of SH94 to avoid avalanche path on eastern approach to tunnel. Relocation of visitor attraction/stopping location. High velocity catch-fencing at two other locations		
Reason for priority	Benefits safety, also network performance and capability, and regional development. Improved safety for users and resilience of a key tourism route. Fewer highway closures will lead to a reduction in losses for tourism operators. Avalanche risk management will remain an on-going issue based on climatic conditions.		
Is it inter-regionally significant and why?	Yes. The project is located on the inter-regional journey between Queenstown, Te Anau and Milford Sound.		

Explanation of the Priority One projects in Otago region

The RTCs have identified 28 of the projects proposed for Otago during 2018-21 as being of top priority (Priority One). This count excludes those projects deemed low cost and low risk. Seventeen of these are in Queenstown, seven in Dunedin and three in other localities. The Priority One projects proposed for Queenstown are part of an integrated approach to addressing problems facing this area. Additionally, all but one of the Priority One projects proposed for Dunedin form an integrated approach to improving transport in the Dunedin city centre.

Queenstown

Of these 17 Priority One projects for the Queenstown area, 16 are part of the integrated Queenstown programme business case (as is part of ORC's project of regional public transport infrastructure improvements). The exception is the ongoing work at the Nevis Bluff designed to prevent rockfall, a resilience project.

The integrated programme business case developed for Queenstown is designed to address the following problems:

- Significant growth in visitors, residents and vehicles leads to increasing trip unreliability and worsening customer experience across the network.
- Car dominance and associated congestion is affecting the liveability and attractiveness of the area.

The benefits anticipated from addressing these problems are:

- improved network performance and customer experience for all users
- improved liveability and visitor experience.

Investment objectives, identified in conjunction with stakeholders, focus on improving mode share and people throughput, as well as on travel time reliability for both general traffic and public transport.

The recommended programme, selected from four alternative programmes, seeks to address the problems through a mix of infrastructural, public transport and behavior change methods. Key activities include:

- Making public transport an attractive and viable alternative to the private car through improvements to service provision, and the introduction of bus priority, expanding the water taxi into a full ferry operation, park and ride and, beyond 2021, a mass transit corridor between Queenstown and Frankton.
- Altering costs, provision and management of parking to support reduction in the use of private cars and increase in the use of public transport (this change has already been initiated).
- Completing infrastructure projects for vehicular and active modes, including removing vehicle movements from the most congested areas of the town centre, providing better access for public transport and pedestrians, and a new town centre arterial to allow the town centre to expand.

The recommended programme also draws on the masterplanning business case being developed for Queenstown's town centre. The masterplan is enabling the multi-agency partners to bring together, in a single spatial plan, the high-level transport elements of the proposed improvements to the town centre.

Two of the projects in this integrated programme are designed to support the Housing Infrastructure Fund projects, designed to assist this high growth council to advance infrastructure projects important to increasing housing supply.

Dunedin

The six Priority One projects proposed for Dunedin are part of an integrated approach to addressing area specific problems. The programme business case developed for Dunedin city centre, along with the cycle lanes on the one-way pair (the construction of which recently started) is designed to address the following problems:

- SH1, the railway and north/south arterial routes bisect areas of high pedestrian use resulting in dislocation and poor connectivity of key areas.
- The design, use and management of central city routes results in intermodal conflict.
- Poor management of car parking impacts adversely on safety, mode choice and amenity of the city.
- The design, management and lack of integration of public transport discourages use and leads to low patronage.

The benefits anticipated from addressing these problems are:

- improved safety
- reduced severance
- appropriate mode choice
- the central city is a ‘nice place to be’
- greater resilience.

The recommended programme, selected from five alternative programmes, seeks to address the problems through the following key activities:

- Improvements to public transport, including the development of a central city bus hub.
- Infrastructure improvements to increase safety and accessibility, particularly for pedestrians and cyclists.
- Improvements to the cycle network to increase safety and increase cycling uptake (this work extends the network beyond the central city area).

Priority One projects – Otago

Clutha District Council

Project Name:	Hina Hina Bridge Replacement	Item No 53
Organisation	**CDC**	
Project funding	$2,729,000 **Project years** 2018 to 2019	
Project description	Replacement of the Hina Hina Bridge.	
Reason for priority	This bridge is on the Southern Scenic Route journey used by tourists going to Jacks Bay Blowhole and to Purakaunui Falls in the Catlins. The bridge also is a critical lifeline for emergency services having to access the community (with the bridge access being 12.5 km shorter than the alternate route) Benefits safety and network resilience, and supports regional development.	
Is it inter-regionally significant and why	Yes – the bridge is on a journey within the Southern Scenic Route area frequented by visitors.	

Dunedin City Council

Project Name:	City to Harbour Cycle/Pedestrian Connection (Dunedin)	Item No 26
Organisation	**DCC**	
Project funding	$11,301,000 **Project years** 2018 to 2020	
Project description	The aim of this project is to improve the pedestrian and cycle connection between the city centre and harbour. This will encourage redevelopment of the harbourside, and improve accessibility between the centre city and outlying areas including Peninsula and south Dunedin.	
Reason for priority	This project addresses some safety issues and responds to current and latent user demands – pedestrian and cyclist access to the harbour is currently poorly provided for. Benefits safety and network performance and capability. Enables greater customer voice and modality shifts.	
Is it inter-regionally significant and why?	No	

Project Name:	Dunedin Urban Cycleways	Item No 27
Organisation	**DCC**	
Project funding	$17,521,900 **Project years** 2018 to 2024	
Project description	Improve Dunedin's urban cycleways with a focus on road safety, and on providing an appropriate level of service to encourage the uptake of cycling for everyone.	
Reason for priority	Addressing safety issues and responds to current and latent user demands – cyclists are poorly provided for currently on the Dunedin network. Benefits safety and network performance and capability. Enables greater customer voice and modality shifts.	
Is it inter-regionally significant and why?	No	

Project Name:	Dunedin Central City Safety and Accessibility Upgrade		Item No 57
Organisation	**DCC**		
Project funding	$17,507,000	**Project years**	2018 to 2024
Project description	This project arises from the Dunedin City Centre - Access, Mobility and Safety Strategic Case and Programme Business Case and will result in better use of existing capacity, greater transport choice, positive health outcomes, reduced environmental effects, and a secure and resilient network. Benefits safety and network performance and capability. Enables greater customer voice and modality shifts.		
Reason for priority	The potential for a significant reduction in injury crashes, including crashes involving pedestrians and cyclists, and the contribution to network access by all modes. The contribution to reducing death and serious injury crashes for Otago is significant, as Dunedin city centre is the hotspot for crashes involving pedestrians and cyclists. Benefits safety and network performance and capability. Enables greater customer voice and accessibility.		
Is it inter-regionally significant and why?	No		

Project Name:	Tertiary Precinct (Dunedin)		Item No 60
Organisation	**DCC**		
Project funding	$6,712,200	**Project years**	2018 to 2022
Project description	Upgrade to streets surrounding the campuses of the University of Otago and Otago Polytechnic, to improve safety and accessibility by foot and cycle, and the streetscape.		
Reason for priority	This project is a priority due to the contribution to safety, pedestrian/cycling access and future proofing for these users. The tertiary institutions in Dunedin are regionally important, and the area has many vulnerable users during term time. Benefits safety and network performance and capability. Enables greater customer voice and accessibility.		
Is it inter-regionally significant and why?	No		

NZTA

Project Name:	Wakatipu Walking/Cycling Improvements		Item No 29
Organisation	**NZTA**		
Project funding	13,132,800	**Project years**	2018 to 2026
Project description	Walking and cycling facilities adjacent to SH6 including improvements to connections for residential areas of Shotover Country/Lake Hayes estate, Jacks Point/Henley Downs and the Wakatipu trails. Upgrading of the existing Frankton track connecting Frankton to Queenstown as a safe alternative to SH6A for road cycling.		
Reason for priority	This project is part of the Queenstown integrated transport business case. Benefits safety and network performance and capability. Enables greater customer voice and modality shifts.		
Is it inter-regionally significant and why?	Yes. These improvements will improve the appeal of the area to visitors. Queenstown is an important part of national marketing of New Zealand to tourists.		

Project Name:	SH6 Park and Ride Facilities (Queenstown)	Item No 32
Organisation	**NZTA**	
Project funding	$8,618,400 **Project years** 2018 to 2021	
Project description	The Queenstown Integrated Transport Programme Business Case has identified park and ride facilities as being complimentary to the transport improvements in the Wakatipu Basin. These will need to be located adjacent to new areas of residential development where servicing the entire area by public transport is inefficient.	
Reason for priority	This project is part of the Queenstown integrated transport business case. Benefits network performance and capability and safety and regional development. Enables greater customer voice and modality shifts.	
Is it inter-regionally significant and why?	Yes. These improvements will improve the appeal of the area to visitors. Queenstown is an important part of national marketing of New Zealand to tourists.	

Project Name:	SH 6 – Ladies Mile Corridor Improvements (Queenstown)	Item No 78
Organisation	**NZTA**	
Project funding	$8,823,600 **Project years** 2017 to 2020	
Project description	Capacity and safety issues related to Howards Drive, which is the only access to the Lake Hayes Estate residential development. Residential traffic from Stalker Road, Lower Shotover Road and Tucker Beach Road require corridor and access improvements. Further population growth is predicted for the area	
Reason for priority	This project is part of the Queenstown integrated transport business case. Benefits network performance - reduced congestion and improved efficiency of existing corridor - also safety and regional development. Enables greater customer voice and modality shifts.	
Is it inter-regionally significant and why? 2017 to 2020	Yes. This project is located on the inter-regional journey between Christchurch and Queenstown. These improvements will improve the appeal of the area to visitors. Queenstown is an important part of national marketing of New Zealand to tourists.	

Project Name:	SH 1 – Oamaru - Dunedin Safety Improvements	Item No 81 and 87
Organisation	**NZTA**	
Project funding	$15,133,500 **Project years** 2017 to 2019	
Project description	Installation of wire rope barrier and ATP in high risk areas along the highway corridor. Part of the Safer Journeys - Roads and Roadsides business case.	
Reason for priority	Benefits safety, network performance and capability, and regional development. Improved safety for all road users. Reduction in crash rates and severity of crashes.	
Is it inter-regionally significant and why?	Yes. This project is located on the inter-regional journey between Dunedin and Christchurch.	

Project Name:	Queenstown Town Centre Arterial	Item No 82
Organisation	**NZTA**	
Project funding	$42,066,000 **Project years** 2018 to 2022	
Project description	A new town centre arterial will improve access and efficiency, particularly for public transport, facilitate access to a new town centre public transport hub and provide access to area covered by plan change 50. Development of the new town centre public transport hub is an integral part of this project. This will be a joint project with QLDC; *see also QLDC project 70.*	
Reason for priority	This project is part of the Queenstown integrated transport business case. Benefits network performance and capability and safety and regional development. Also enables greater customer voice by responding to the call to create space to allow the town centre to expand.	
Is it inter-regionally significant and why?	Yes. As the major tourist hub in the South Island, addressing Queenstown transport issues is of national significance.	

Project Name:	SH 6A – Corridor Improvements (Queenstown)	Item No 83
Organisation	**NZTA**	
Project funding	$15,390,000 **Project years** 2018 to 2020	
Project description	Corridor improvements to relieve congestion and ease access from side roads	
Reason for priority	This project is part of the Queenstown integrated transport business case. Benefits network performance and capability, safety and regional development.	
Is it inter-regionally significant and why?	Yes. As the major tourist hub in the South Island, addressing Queenstown transport issues is of national significance	

Project Name:	SH 6 – Nevis Rockfall Protection	Item No 86
Organisation	**NZTA**	
Project funding	$10,567,800 **Project years** 2018 to 2020	
Project description	Ongoing work by Opus under NMM contract but capital project required. International peer review recommends staged high velocity catch fences.	
Reason for priority	Improved safety for users and resilience of a key regional and tourism route. Benefits safety, network resilience and performance, and regional development.	
Is it inter-regionally significant and why?	Yes. This project is located on inter-regional journeys between the West Coast and Queenstown and between Christchurch and Queenstown.	

Otago Regional Council

Project Name:	Public Transport Infrastructure Improvements (Dunedin)	Item 34 & 35
Organisation	**ORC**	
Project funding	$35,721,865 **Project years** 2015-2024	
Project description	This is part of the programme business case for the preferred programme of improvements. Includes development of a central city interchange (bus hub), the provision of real-time information, and the development of superstops at Green Island, Cargills Corner and the University.	
Reason for priority	Enables greater customer voice, accessibility and modality shift. Benefits network performance and capability, regional development and safety.	
Is it inter-regionally significant and why?	No	

Project Name:	Public Transport Programme of Improvements (Dunedin)	Item No 37
Organisation	**ORC**	
Project funding	$25,684,301 **Project years** 2016 to 2024	
Project description	Next programme of improvements to the integrated public transport network. Part of the programme business case for the preferred programme of improvements as set out in the Regional Public Transport Plan.	
Reason for priority	Enables greater customer voice, accessibility and modality shift. Benefits network performance and capability, regional development and safety.	
Is it inter-regionally significant and why?	No	

Project Name:	Wakatipu Basin Public Transport	Item No 38
Organisation	**ORC**	
Project funding	$9,694,188 **Project years** 2017 to 2020	
Project description	Public transport services and associated infrastructure for the Wakatipu Basin network.	
Reason for priority	This project is part of the Queenstown integrated transport business case. Benefits network performance and capability, safety and regional development. Also enables greater customer voice, accessibility and modality shift. Helps optimise the Wakatipu Basin transport system.	
Is it inter-regionally significant and why?	Yes. These improvements will improve the appeal of the area to visitors. Queenstown is an important part of national marketing of New Zealand to tourists.	

Project Name:	Wakatipu Further Small Ferry Services		Item No 39
Organisation	**ORC**		
Project funding	$13,560,000	**Project years**	2018 to 2027
Project description	Further improvements to the ferry service, as demand increases. Part of the Queenstown Integrated Transport Business Case. *See also QLDC project 43.*		
Reason for priority	This project is part of the Queenstown integrated transport business case. Benefits network performance and capability, safety and regional development. Also enables greater customer voice, accessibility and modality shift. Helps optimise the Wakatipu Basin transport system.		
Is it inter-regionally significant and why?	Yes. These improvements will improve the appeal of the area to visitors. Queenstown is an important part of national marketing of New Zealand to tourists.		

Project Name:	Wakatipu Public Transport Hub Improvements Support		Item No 40
Organisation	**ORC**		
Project funding	$1,500,000	**Project years**	2020 to 2021
Project description	Support for the new public transport hub to improve customer experience and enhance the attractiveness of public transport.		
Reason for priority	This project is part of the Queenstown integrated transport business case. Benefits network performance and capability, safety and regional development. Also enables greater customer voice, accessibility and modality shift. Helps optimise the Wakatipu Basin transport system.		
Is it inter-regionally significant and why?	Yes. These improvements will improve the appeal of the area to visitors. Queenstown is an important part of national marketing of New Zealand to tourists.		

Queenstown Lakes District Council

Project Name:	Queenstown Town Centre Pedestrianisation		Item No 30
Organisation	**QLDC**		
Project funding	$45,415,000	**Project years**	2018 to 2027
Project description	Restriction of vehicles by time or location in the town centre. Programme refined to those streets with high priority pedestrianisation connections (PT Hub and Gardens to Gondola).		
Reason for priority	This project is part of the Queenstown integrated transport business case. Benefits regional development and improved safety. Enables greater customer voice, accessibility and modality shift.		
Is it inter-regionally significant and why?	Yes. These improvements will improve the appeal of the area to visitors. Queenstown is an important part of national marketing of New Zealand to tourists.		

Project Name:	Wakatipu Active Travel Network		Item No 31
Organisation	**QLDC**		
Project funding	22,028,000	**Project years**	2018 to 2023
Project description	Identifying and implementing an on-road and off-road connected pedestrian cycle network for Queenstown. Includes additional active mode crossing of Shotover River. Improve high level bicycle link to Fernhill. Provide cycle hire scheme. Include marketing, promotion and education. Provide cycle storage facilities, lockers and showers at locations throughout the Queenstown and Frankton areas e.g. Fernhill and Gorge Road, and Jack's Point to Queenstown link.		
Reason for priority	This project is part of the Queenstown integrated transport business case. Benefits safety, network performance and capability. Enables greater customer voice, accessibility and modality shifts.		
Is it inter-regionally significant and why?	Yes. These improvements will improve the appeal of the area to visitors. Queenstown is an important part of national marketing of New Zealand to tourists.		

Project Name:	Public Transport Improvements – Hubs		Item No 41
Organisation	**QLDC**		
Project funding	$23,787,000	**Project years**	2021 to 2022
Project description	Provision of a new public and passenger transport hub in Queenstown town centre, nominally on Stanley Street.		
Reason for priority	This project is part of the Queenstown integrated transport business case. Benefits network performance, and capability, and safety and regional development. Enables greater customer voice and modality shifts.		
Is it inter-regionally significant and why?	Yes. These improvements will improve the appeal of the area to visitors. Queenstown is an important part of national marketing of New Zealand to tourists.		

Project Name:	Park and Ride Transport Services (Queenstown)		Item No 42
Organisation	**QLDC**		
Project funding	$3,000,000	**Project years**	2018 to 2021
Project description	The provision of parking facilities at appropriate locations. Connecting to major PT hubs in Queenstown and Frankton, possibly located at Arrow Junction and Jacks Point.		
Reason for priority	This project is part of the Queenstown integrated transport business case. Benefits network performance and capability, and safety and regional development. Enables greater customer voice and modality shifts.		
Is it inter-regionally significant and why?	Yes, the Arrow Junction facility will be located on a major journey between Christchurch and Queenstown.		

Project Name:	Water Taxi Service/Ferry Network (Queenstown)	Item No 43
Organisation	**QLDC**	
Project funding	$5,699,000 **Project years** 2018 to 2024	
Project description	Investigation and implementation of water based infrastructure to support water transport. *See also ORC project 39.*	
Reason for priority	This project is part of the Queenstown integrated transport business case. Benefits network performance and capability, also safety and regional development. Also enables greater customer voice, accessibility and modality shift. Helps optimise the Wakatipu Basin transport system.	
Is it inter-regionally significant and why?	Yes. These improvements will improve the appeal of the area to visitors. Queenstown is an important part of national marketing of New Zealand to tourists.	

Project Name:	Ballantyne Road Seal Extension (Wanaka)	Item No 61
Organisation	**QLDC**	
Project funding	$2,100,000 **Project years** 2018	
Project description	Provide a safe, accessible, resilient and alternative route in the town of Wanaka.	
Reason for priority	Benefits safety, network performance and capability, and safety. Enables greater customer voice, accessibility and modality shift.	
Is it inter-regionally significant and why?	No	

Project Name:	Housing Infrastructure Fund Project – Ladies Mile	Item No 64
Organisation	**QLDC**	
Project funding	$6,100,000 **Project years** 2018 to 2020	
Project description	The proposed Ladies Mile residential development is located east of Frankton along both sides of Ladies Mile (SH6), between the Shotover River and Lake Hayes. Access improvement from SH6.	
Reason for priority	This project is aligned with the Queenstown integrated transport business case. Benefits network performance and capability, and regional development and connectivity.	
Is it inter-regionally significant and why?	No	

Project Name:	Housing Infrastructure Fund Project – Quail Rise	Item No 65
Organisation	**QLDC**	
Project funding	$7,600,000 **Project years** 2018 to 2020	
Project description	The Quail Rise South project borders the existing Quail Rise residential development and SH6. The road will link Ferry Hill Drive to the roundabout at the intersection of SH6 and Hawthorne Drive.	
Reason for priority	This project is aligned with the Queenstown integrated transport business case. Benefits network performance and capability, and regional development and connectivity.	
Is it inter-regionally significant and why?	No	

Project Name:	Queenstown Town Centre Arterial	Item No 70
Organisation	**QLDC**	
Project funding	$140,174,200 **Project years** 2018 to 2023	
Project description	A new town centre arterial will improve access and efficiency particularly for public transport and to facilitate access to a new town centre public transport hub and provides access to the area covered by Plan Change 50. This is a joint project with NZTA. *See also NZTA project 82.*	
Reason for priority	This project is part of the Queenstown integrated transport business case. Benefits network performance and capability, also safety and regional development. Also enables greater customer voice by responding to the call to create the space to allow the town centre to expand.	
Is it inter-regionally significant and why?	Yes. These improvements will improve the appeal of the area to visitors. Queenstown is an important part of national marketing of New Zealand to tourists.	

Project Name:	Queenstown Traffic Management Facilities	Item No 71
Organisation	**QLDC**	
Project funding	$7,975,000 **Project years** 2018 to 2023	
Project description	Queenstown traffic management facilities including consolidation of services, information and technologies to manage and operate intelligent traffic systems.	
Reason for priority	This project is part of the Queenstown integrated transport business case. Benefits network performance and capability, also safety and regional development. Also enables systems optimisation.	
Is it inter-regionally significant and why?	Yes. These improvements will improve the appeal of the area to visitors. Queenstown is an important part of national marketing of New Zealand to tourists.	

Project Name:	Shotover River Bridge (Arthurs Point) Duplication	Item No 72
Organisation	**QLDC**	
Project funding	$500,000 **Project years** 2020	
Project description	Initial work associated with an additional crossing near the Edith Cavell bridge at Arthurs Point, near Queenstown, for all modes.	
Reason for priority	This project is part of the Queenstown integrated transport business case. Benefits network performance and capability, and safety and regional development.	
Is it inter-regionally significant and why?	Yes. These improvements will improve the appeal of the area to visitors. Queenstown is an important part of national marketing of New Zealand to tourists.	

Priority Two projects – Otago

Dunedin City Council

Project Name:	Dunedin Streetlight Renewal with LEDs		Item No 58
Organisation	**DCC**		
Project funding	$14,756,000	**Project years**	2017 to 2020
Project description	Renewal of street light luminaires with LED as existing ones reach the end of life.		
Reason for priority	Renewal of aging asset is required. There are safety implications from a failing lighting network. Installing a CMS will enable us to respond better and quicker to changing user demands through use of smart city functions. This will give enable greater value for money and energy efficiency.		
Is it inter-regionally significant and why?	No		

NZTA

Project Name:	ITS Improvement Project		Item No 77
Organisation	**NZTA**		
Project funding	$6,584,540	**Project years**	2018-2020
Project description	Introduction of intelligent transport systems across the transport network (both rural roads and urban areas) to provide customers with near real-time information.		
Reason for priority	Enables increased customer voice, and systems optimisation.		
Is it inter-regionally significant and why?	No		

Project Name:	Beaumont Bridge Replacement		Item No 70 & 85
Organisation	**NZTA**		
Project funding	$18,072,990	**Project years**	2017 to 2020
Project description	Replacement of the existing bridge with a new two-lane structure and approach realignment.		
Reason for priority	This is an aging bridge, which is close to the end of its economic life. The objective of the project is to ensure a resilient and secure transport network and reduce delays. Benefits network performance and capability, and safety and regional development.		
Is it inter-regionally significant and why?	No		

Priority Three projects – Otago

NZTA

Project Name:	SH 1 – North Oamaru Corridor Improvements		Item No 80
Organisation	**NZTA**		
Project funding	$2,329,020	**Project years**	2018 to 2020
Project description	Possible re-allocation of road space with removal of cycle lanes and provision of detours on quiet street for cyclists. Intersection improvements.		
Reason for priority	Improved safety for all users. Improved efficiency for people and goods on main highway corridor with improved access for residents from side roads. Improved amenity for residents. Benefits network performance and capability, and safety and regional development.		
Is it inter-regionally significant and why?	Yes. This project is located on the inter-regional journey between Dunedin and Christchurch.		

Queenstown Lakes DC

Project Name:	Mount Aspiring Road Widening (Wanaka)		Item No 69
Organisation	**QLDC**		
Project funding	$5,000,000	**Project years**	2018 to 2019
Project description	Widening of Mt Aspiring Road.		
Reason for priority	Provide a safe compliant road that is accessible for all road users Benefits network performance and capability, and safety and regional development.		
Is it inter-regionally significant and why?	No.		

Waitaki DC

Project Name:	Kakanui Bridge Design and Construction		Item No 73
Organisation	**WDC**		
Project funding	$7,000,000	**Project years**	2019 to 2020
Project description	Design and construct a replacement bridge. Heavy vehicles, including emergency services such as fire engine and school buses, cannot use the bridge with its current posting. If the bridge was to fail, the south and north sides of the community would be cut off from each other. To go from the south side to the north side of the river would be about 18 km to travel.		
Reason for priority	Benefits network resilience and safety.		
Is it inter-regionally significant and why?	No		

4.3 Full programme of transport activities and projects proposed for 2018-21

Southland

Table A: Transport planning projects – Southland, Activity Class 1

Item No	Organisation Name	Project Name	Project Description and Objective	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
1	ES	Regional Land Transport Planning Management 2015-18	Manage the current RLTP and develop the next one, covering 2021-26, in collaboration with ORC. Work includes: (1) Investigating key strategic issues and developing investment priorities. (2) Finalising and operationalising a Results Monitoring Schema for the RLTPs, in conjunction with ORC. (3) Responding to any requests to vary the RLTP. (4) Liaising with approved organisations about implementing the RLTP. (5) Continuing the work of the Southern Road Safety Influencing Group (6) Participating in the work of the South Island RTC Chairs' and officials' groups.	2018	2020	$768,000	$241,470	$262,606	$263,924	Submitted to RTC 2018-21	**N/a**
2	ICC	Activity Management Planning	Development of transportation planning activities consisting of an activity management plan, investigating a socio-economic network plan for Invercargill and further investigation of transport issues interconnected with heavy traffic routes and state highways.	2017	2027	$410,000	$15,000	$50,000	$50,000	Submitted to RTC 2018-21	**N/a**
3	ICC	RPTP for Southland 2018-2021	RPTP and activity management plan planning	2017	2027	$410,000	$15,000	$50,000	$50,000	Submitted to RTC 2018-21	**N/a**
Activity Class 1 Total						**$1,588,000**	**$271,470**	**$362,606**	**$363,924**		

Table B: Road safety planning projects – Southland, Activity Class 2

Item No	Organisation Name	Project Name	Project Description and Objective	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
4	ICC	Road Safety Promotion 2018-21	Southland has pioneered progressive approaches to delivering on road safety initiatives, particularly with the establishment and operation of the multi-agency regional road safety forum Road Safety Southland. Objectives for delivering road safety across Southland are to: • Lead, co-ordinate and assist with the integrated activities across all relevant agencies and community groups aimed at improving driver attitudes, driver behaviour and the safety of all road users. • Improve the safety design aspects of the physical land transport network by encouraging road controlling authorities to actively use their safety management systems and respond to reviews of achievements • Support and encourage development of systems which improve the data collection, reporting recording and investigation of crashes.	2018	2020	$1,076,450	$350,000	$358,750	$367,700	**N/a**	**Yes**
Activity Class 2 Total							**$350,000**	**$358,750**	**$367,700**		

Table C: Public Transport Services – Southland, Activity Class 4

Item No	Organisation Name	Project Name	Project Description and Objective	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
5	ICC	Low cost/Low Risk Improvements 2018-21		2018	2020	$321,134	$15,000	$290,375	$15,759	**N/a**	**N/a**
6	ICC	Public Transport Programme 2018-21	To provide value for money for our ratepayers and taxpayers in the delivery of public transport services within Invercargill, Gore and the Southland District.	2018	2020	$6,493,173	$2,209,050	$2,063,575	$2,220,548	**N/a**	**N/a**
Activity Class 4 Total							**$2,224,050**	**$2,353,950**	**$2,236,307**		

Table D: Maintenance and Operations of Local Roads – Southland, Activity Class 8

Item No	Organisation Name	Project Name	Project Description and Objective	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
7	DOC	Maintenance, Operations and Renewals Programme 2018-21	To enable DOC to function as an effective road controlling authority with other RCAs as part of the ONRC system	2018	2020	$164,170	$47,772	$47,772	$68,726	**N/a**	**N/a**
8	ES	Maintenance, Operations and Renewals Programme 2018-21	Maintenance of stock effluent disposal sites within the Southland region to remove effluent nuisance and adverse safety effects from effluent discharged onto our inter-regional state highways.	2018	2020	$247,940	$75,020	$81,210	$91,710	**N/a**	**N/a**
9	GDC	Maintenance, Operations and Renewals Programme 2018-21	The objectives of our programme are to provide and maintain a safe and fit-for-purpose Gore District road network which will: 1. Continue to support and encourage economic growth and productivity locally and nationally. 2. Implement the safe system approach to maintain and, where possible, accelerate an improving trend in the key indicators of road safety, fatalities and serious injuries. 3. Optimise value for money in all aspects of the delivery of land transport locally and nationally.	2018	2020	$12,335,797	$4,291,403	$3,963,124	$4,081,270	**N/a**	**N/a**

Item No	Organisation Name	Project Name	Project Description and Objective	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
10	ICC	Maintenance, Operations and Renewals Programme 2018-21	The strategic drivers are to address safety within the network, together with managing current infrastructure as land use changes, while continuing to deliver the agreed ONRC performance levels via operational and maintenance activities at a core level of investment. Programmes are focused on maintaining existing assets to the appropriate levels. The community does not see the level of investment in maintenance (and renewals) as a current problem but the strategic issue is for the community to have the future capability and willingness (through prudent financial and asset management and local share ability) to be able to respond as the population demographics change and age (with income decline).	2018	2020	$26,834,200	$8,594,400	$8,893,600	$9,346,200	**N/a**	**N/a**

Item No	Organisation Name	Project Name	Project Description and Objective	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
11	SDC	Maintenance, Operations and Renewals Programme 2018-21	The key objectives are aligned with the Government Policy Statement including supporting economic growth and productivity, road safety and value for money. Investment is based on the ONRC hierarchy and Economic Network Plan. This guides decisions regarding posted bridges, therefore achieving increased economic productivity by reducing transportation costs. It supports tourism by building on previous Southern Scenic Route work, through improvements such as pull off bays and seal widening projects. Safety will be addressed by the deficiency database, including guardrails, the overarching approach being safer systems.	2018	2020	$70,227,582	$23,236,278	$22,836,981	$24,154,323	**N/a**	**N/a**
12	SDC	Maintenance, Operations and Renewals Programme 2018-21	Business as Usual Approach to maintaining the Lower Hollyford Road	2018	2020	$315,000	$105,000	$105,000	$105,000	**N/a**	**N/a**
Activity Class 8 Total							**$36,349,873**	**$35,927,687**	**$37,847,229**		

Table E: Maintenance and Operations of State Highways – Southland, Activity Class 9

Item No	Organisation Name	Project Name	Project Description and Objective	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
13	NZTA	Maintenance, Operations and Renewals Programme 2015-18	Provide a business case to seek funding to enable HNO to provide networks that are fit for purpose, to deliver appropriate customer level of service. The focus will be: • on-going maintenance of assets in accordance with levels of service appropriate to the network hierarchy • on-going delivery of structures replacement at the end of their economic life • demonstrating value for money. Please refer to the State Highway Activity Management Plan (SHAMP) that covers planning, maintenance, operations and improvements activities to be delivered by HNO over the next ten years, providing a complete picture of how we plan, operate, maintain and improve the state highway network to deliver its vital role in enabling journeys safely and efficiently while achieving value for money.	2018	2020	$70,184,198	$21,318,645	$24,787,785	$24,080,768	**N/a**	**N/a**
Activity Class 9 Total							**$21,318,645**	**$24,787,785**	**$24,080,768**		

Table F: Local Roads Improvements – Southland, Activity Class 12

Item No	Organisation Name	Project Name	Project Description and Objective	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
14	DOC	Low Cost / Low Risk Improvement Projects 2018-21	To enable DOC to function as an effective road controlling authority with other RCAs as part of the ONRC system	2018	2020	$100,000	$0	$0	$100,000	**N/a**	**N/a**
15	ES	Low Cost / Low Risk Improvement Projects 2018-21	To complete and advise the industry of the network of stock truck effluent sites in southern NZ, thus minimising spillage of stock effluent onto roads, and the resultant road safety risk and environmental pollution.	2018	2019	$364,740	$177,300	$187,440	$0	**N/a**	**N/a**
16	GDC	Low Cost / Low Risk Improvement Projects 2018-21	The objectives of the minor improvements programme are to encourage or maintain economic growth, encourage or maintain productivity and improve safety.	2018	2020	$962,450	$614,193	$154,866	$159,482	**N/a**	**N/a**
17	ICC	Low Cost / Low Risk Improvement Projects 2018-21	The objective of this programme is to invest in effective road safety interventions aligning with the safer journeys direction. The solutions will deliver minor projects which improve resilience and the safety of the network. Invercargill has a number of safety issues particularly intersections where improvements are needed to reduce (including the risks of) fatal and serious injury. These have been regularly recognised by NZTA in the Community at Risk register and through statistical analysis undertaken by Elle Flinn at ORC.	2018	2020	$2,844,400	$1,599,000	$615,000	$630,400	**N/a**	**N/a**

Item No	Organisation Name	Project Name	Project Description and Objective	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
18	SDC	Low Cost / Low Risk Improvement Projects 2018-21	Move from reactive to proactive approach to safety interventions/ risk management approach likelihood, and consequence. Pro-active bridge replacement programme focused on reducing bridges, posting strategic link to economic productivity. Improvements of rehabilitations. Strategic alignment in investment that will grow economic productivity and safety improvements.	2018	2020	$5,730,000	$1,650,000	$2,050,000	$2,030,000	**N/a**	**N/a**
Activity Class 12 Total							**$4,040,493**	**$3,007,306**	**$2,919,882**		

Table G: State Highways Improvements – Southland, Activity Class 13

Item No	Organisation Name	Project Name	Project Description and Objective	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
19	NZTA	Edendale Realignment	Bypass of Edendale township. There are issues with variations in the speed limits through Edendale township and with a horizontal curve with an intersection located on the apex and an adjacent level crossing within a short section of highway. Additionally, expansion of Fonterra's plant will generate additional traffic, which will travel past residential properties and a school. The project will provide a by-pass to the township with appropriate connections to the Fonterra plant.	2015	2020	$1,584,258	$895,434	$0	$51,300	**1**	**1**
20	NZTA	Low Cost / Low Risk Improvement Projects 2018-21	Activities will be targeted to low cost safety, optimisation and resilience activities which contribute to NZTA's goals of either: (a) reducing the number of deaths and serious injuries (SOI objective 4) (b) making the best use of urban capacity (SOI Priority 2) or (c) greater resilience of the state highway network (SOI objective 7). The objective will be to either reduce the level of deaths and serious injuries, improve urban network capacity in our major centres or to reduce the resilience risk on our key routes through preventative maintenance activities.	2018	2020	$14,790,000	$4,930,000	$4,930,000	$4,930,000	**N/a**	**N/a**
Activity Class 13 Total							**$5,825,434**	**$4,930,000**	**$4,981,300**		

Table H: Regional Improvements – Southland, Activity Class 20

Item No	Organisation Name	Project Name	Project Description and Objective	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
21	NZTA	Edendale Realignment	Bypass of Edendale township. There are issues with variations in the speed limits through Edendale township and with a horizontal curve with an intersection located on the apex and an adjacent level crossing within a short section of highway. Additionally, expansion of Fonterra's plant will generate additional traffic, which will travel past residential properties and a school. The project will provide a by-pass to the township with appropriate connections to the Fonterra plant.	2017	2018	$12,312,000	$10,260,000	$0	$0	**1**	**1**
22	NZTA	Elles Road Roundabout	Realign highway approaches to existing intersection. Replace priority control with roundabout. Extend Lake Street to become fourth leg of roundabout. Objective of project is improved safety for all road users and reduction in crashes and the severity of unavoidable crashes. Improved access to commercial/industrial premises.	2017	2018	$205,200	$102,600	$0	$0	**1**	**1**
				2023	2025	$2,872,800	$2,872,800	$0	$0		

Item No	Organisation Name	Project Name	Project Description and Objective	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
23	NZTA	Milford Rockfall/Avalanche Protection	Realignment to avoid avalanche path on eastern approach to the Homer tunnel. Relocation of visitor attraction/stopping location. High velocity catch fencing at two locations. Objectives are improved safety for users and resilience of a key tourism route. Fewer highway closures will lead to a reduction in losses for tourism operators. Avalanche risk management will remain an on-going issue based on climatic conditions. Current solution is to relocate stopping areas away from avalanche path.	2018	2020	$10,260,513	$513,000	$5,130,000	$5,130,000	**1**	**1**
Activity Class 20 Total							**$13,748,400**	**$5,130,000**	**$5,130,000**		

Table I: Southland Ten Year Forecast

Organis-ation	Activity Class	Activity Class Name	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
DOC	8	Local road maintenance	$0	$0	$0	$47,772	$47,772	$68,726	$68,726	$68,726	$68,726	$68,726
DOC	12	Local road improvements	$0	$0	$0	$0	$0	$100,000	$0	$0	$0	$0
Department of Conservation Total			**$0**	**$0**	**$0**	**$47,772**	**$47,772**	**$168,726**	**$68,726**	**$68,726**	**$68,726**	**$68,726**
ES	1	Transport planning	$157,806	$174,572	$157,260	$241,470	$262,606	$263,924	$247,855	$267,668	$243,294	$244,137
ES	8	Local road maintenance	$28,070	$32,409	$32,500	$75,020	$81,210	$91,710	$91,920	$92,030	$92,250	$92,360
ES	12	Local road improvements	$0	$0	$344,200	$354,600	$374,880	$0	$0	$0	$0	$0
Environment Southland Total			**$185,876**	**$206,981**	**$533,960**	**$671,090**	**$718,696**	**$355,634**	**$339,775**	**$359,698**	**$335,544**	**$336,497**
GDC	8	Local road maintenance	$2,888,047	$3,423,460	$3,468,080	$4,291,403	$3,963,124	$4,081,270	$4,187,682	$4,308,959	$4,430,238	$4,547,950
GDC	12	Local road improvements	$79,836	$206,607	$233,583	$614,193	$154,866	$159,482	$0	$0	$0	$0
Gore District Council Total			**$2,967,883**	**$3,630,067**	**$3,701,663**	**$4,905,596**	**$4,117,990**	**$4,240,752**	**$4,187,682**	**$4,308,959**	**$4,430,238**	**$4,547,950**
ICC	1	Transport planning	$0	$0	$0	$15,000	$50,000	$50,000	$15,000	$50,000	$50,000	$15,000
ICC	2	Road safety promotion	$275,449	$293,281	$330,000	$350,000	$358,750	$367,700	$377,000	$386,500	$396,000	$405,900
ICC	4	Public transport	$1,564,418	$1,581,999	$2,515,684	$2,224,050	$2,353,950	$2,236,307	$2,283,197	$2,309,922	$2,367,671	$2,458,753
ICC	8	Local road maintenance	$8,903,705	$8,040,669	$8,556,000	$8,594,400	$8,893,600	$9,346,200	$11,023,400	$10,824,400	$11,094,700	$11,407,200
ICC	12	Local road improvements	$919,160	$354,734	$777,900	$1,599,000	$615,000	$630,400	$700,000	$700,000	$700,000	$750,000
Invercargill City Council Total			**$11,662,732**	**$10,270,683**	**$12,179,584**	**$12,782,450**	**$12,271,300**	**$12,630,607**	**$14,398,597**	**$14,270,822**	**$14,608,371**	**$15,036,853**
SDC	1	Transport planning	$12,035	$62,965	$0	$0	$0	$0	$0	$0	$0	$0
SDC	8	Local road maintenance	$19,524,495	$22,527,740	$24,697,652	$23,341,278	$22,941,981	$24,259,323	$23,112,153	$24,140,465	$26,980,269	$25,397,737
SDC	12	Local road improvements	$405,664	$2,200,260	$13,536,014	$1,650,000	$2,050,000	$2,030,000	$0	$0	$0	$0
Southland District Council Total			**$19,942,194**	**$24,790,965**	**$38,233,666**	**$24,991,278**	**$24,991,981**	**$26,289,323**	**$23,112,153**	**$24,140,465**	**$26,980,269**	**$25,397,737**
NZTA	9	State highway maintenance	$17,253,139	$15,543,225	$20,379,192	$21,318,645	$24,784,785	$24,080,768	$26,733,745	$27,656,060	$28,610,194	$30,153,364
NZTA	13	State highway improvements	$2,273,521	$1,035,588	$3,354,183	$4,930,000	$4,930,000	$4,930,000	$5,478,000	$10,531,000	$10,931,000	$8,081,000
NZTA State Highways Total			**$19,526,660**	**$16,578,813**	**$23,733,375**	**$26,248,645**	**$29,714,785**	**$29,010,768**	**$32,211,745**	**$38,187,060**	**$39,541,194**	**$38,234,364**
Southland Region Total			**$54,285,345**	**$55,477,509**	**$78,382,248**	**$69,646,831**	**$71,862,524**	**$72,695,810**	**$74,318,678**	**$81,335,730**	**$85,964,342**	**$83,622,127**

Otago Projects

Table J: Transport Planning Projects – Otago, Activity Class 1

Item No	Organisation Name	Project Name	Project Description and Objective	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
1	CODC	Activity Management Planning	Improved activity management planning including refined risk management and demand forecasting. Further development of levels of service, particularly relating to the extent of maintenance for low volume roads and bridges. Undertaking investigation into pavement asset performance and improved pavement deterioration forecasting, including implementing dTims for pavement deterioration forecasting and optimised reseal programmes. Reviewing street lighting levels of service and cost analysis of capital investment in efficient lights vs energy costs.	2012	2021	$735,403	$57,946	$75,291	$60,651	**N/a**	**N/a**
2	CDC	Activity Management Planning	Transportation planning activities consisting of Activity Management Plan, Economic Network Plan and Road Safety Action Plan improvements as well as road valuations. Objective is to ensure TAMP, ENP, RSAP and road valuations are up to date, thus ensuring best practice tools are available in making optimal asset management decisions.	2018	2027	$868,470	$65,100	$103,203	$70,317	**N/a**	**N/a**
3	DCC	Dunedin Urban Cycleways	Improve Dunedin urban cycleways with a focus on road safety, and on providing an appropriate level of service to encourage the uptake of cycling for everyone.	2018	2018	$51,600	$51,600	$0	$0	**N/a**	**N/a**
4	DCC	Mosgiel Town Centre and Arterial Routes	Improve safety and accessibility in the Mosgiel town centre, and explore options for the Mosgiel and Taieri arterial road network.	2020	2020	$106,300	$0	$0	$106,300	**N/a**	**N/a**

Item No	Organisation Name	Project Name	Project Description and Objective	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
5	DCC	Operations and Renewal Programme Business case	Programme business case for implementation of ONRC and CLOS applied to AMP.	2017	2024	$800,000	$100,000	$100,000	$100,000	**N/a**	**N/a**
6	NZTA	Dunedin Central City Optimisation Plan	Optimisation of the existing SH and local road network within the Dunedin CBD and integration of modes.	2018	2018	$80,000	$80,000	$0	$0	**N/a**	**N/a**
7	NZTA	Dunedin Urban Optimisation	Optimisation of the existing SH and local road network in Dunedin city and prioritise routes by mode and time.	2018	2018	$70,000	$70,000	$0	$0	**N/a**	**N/a**
8	ORC	Otago Regional Public Transport Plan 2018 - 21	A statutory plan required by the LTMA. A review of the 2014 RPTP as a result of the release of the 2015-18 RLTP, and preparation of a new one in 2017. We will: • comply with the requirements of the LTMA • transition bus services to PTOM • optimise bus services in the Wakatipu Basin to ensure value for money, efficiency and effectiveness of this public transport network.	2015	2024	$1,415,469	$156,924	$87,079	$171,396	**N/a**	**N/a**
9	ORC	Regional Land Transport Planning Management 2018-21	Manage the current RLTP and develop the next one, covering 2021-26, in collaboration with ES. Work includes: (1) investigating key strategic issues and developing investment priorities (2) finalising and operationalising a Results Monitoring Schema for the RLTPs, in conjunction with ES; (3) responding to any requests to vary the RLTP; (4) liaising with approved organisations about implementing the RLTP; (5) continuing the work of the Southern Road Safety Influencing Group and (6) participating in the work of the South Island RTC Chairs' and officials' groups.	2018	2028	$4,888,433	$378,741	$400,000	$429,500	**N/a**	**N/a**

Item No	Organisation Name	Project Name	Project Description and Objective	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
11	ORC	Regional Public Transport Planning	Ongoing review requirements of the Regional Public Transport Plan.	2018	2027	$1,348,828	$147,522	$119,429	$147,953	**N/a**	**N/a**
12	QLDC	Activity Management Planning	Ongoing management and development of the transport activity management plan.	2018	2020	$135,000	$45,000	$45,000	$45,000	**N/a**	**N/a**
13	QLDC	Crown Estate Programme Business Case	Crown Estate Programme Business Case.	2019	2019	$200,000	$0	$200,000	$0	**N/a**	**N/a**
14	QLDC	Queenstown Alternate Routes & Crossings Programme Business Case	Investigation into Wakatipu alternate routes and crossings. Improved network performance and levels of service for all travel options including improved liveability and visitor experience.	2018	2018	$200,000	$200,000	$0	$0	**N/a**	**N/a**
15	QLDC	Queenstown Integrated Programme Business Case	Further work on the Queenstown Integrated Transport Programme Business Case.	2018	2018	$300,000	$300,000	$0	$0	**N/a**	**N/a**
16	QLDC	Road Safety Action Plans	On-going management & development of the transport activity management road safety action plan.	2018	2020	$100,000	$50,000	$25,000	$25,000	**N/a**	**N/a**
17	QLDC	Transport Modelling	Transport monitoring in response to the dramatic growth in the district. QLDC will be ensuring the traffic model is consistently aligned with population projections, traffic growth and network changes. This includes developing multi modal options.	2018	2020	$120,000	$40,000	$40,000	$40,000	**N/a**	**N/a**

Item No	Organisation Name	Project Name	Project Description and Objective	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
18	QLDC	Wanaka Integrated Transport Programme Business Case	Reviewing network connections and movements through the town and surrounding areas to optimise transport efficiency and multi modal options. Includes reviewing origin and destinations of key tourist routes, key links with SH, town centre e.g. Haast, Crown Range and Wanaka Airport.	2020	2020	$400,000	$0	$0	$400,000	**N/a**	**N/a**
19	WDC	Kakanui Point Bridge Business Case Development	The strategic case has been developed for a full replacement or capital improvement of the existing timber bridge, whichever option is the outcome. This has been identified within the Programme Business Case in the WDC Roading Business Case. The next stage of the development is a detailed and indicative business case to identify options for the Kakanui Point bridge.	2018	2018	$150,000	$150,000	$0	$0	**N/a**	**N/a**
20	WDC	WDC Transport Planning	Activity Management Plan updates and Transport Planning for 2018-21.	2018	2024	$531,408	$71,370	$72,725	$74,180	**N/a**	**N/a**
Activity Class 1 Total							**$1,964,203**	**$1,267,727**	**$1,670,297**		

Table K: Road Safety Projects – Otago, Activity Class 2 - Road Safety

Item No	Organisation Name	Project Name	Project Description and Objective	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
21	CODC	Road Safety Promotion 2018-21	Respond to the priorities for road safety contained in the draft 2018 GPS and the Safer Journeys Action Plan 2016-2020. Put forward community road safety investment through our programme to directly address crash groupings, where the NZTA Communities at Risk Register identifies these as our district priorities. Support programmes focused on road safety concerns targeted in the Otago Regional Council Land Transport Plan.	2018	2020	$295,200	$98,400	$98,400	$98,400	**N/a**	**N/a**
22	CDC	Road Safety Promotion 2018-21	A safe and resilient roading network.	2018	2020	$328,000	$105,000	$110,000	$113,000	**N/a**	**N/a**
23	DCC	Road Safety Promotion 2018-21	The objective of the programme is to progressively reduce crashes and serious injuries in Dunedin. This programme helps to give effect to the Dunedin Road Safety Action Plan and recognises the Safer Journeys 2020 approach and key areas of concern that the Government has prioritised as needing attention.	2018	2020	$1,998,168	$650,969	$665,941	$681,258	**N/a**	**N/a**
24	QLDC	Road Safety Promotion 2018-21	To reduce the likelihood of crashes occurring, the consequences if they do and to ensure our future road users are safe.	2018	2020	$442,000	$144,000	$148,000	$150,000	**N/a**	**N/a**
25	WDC	Waitaki Road Safety Promotion 2018-21	Our goal is to reduce the incidence and severity of road crashes in the Waitaki through a safe road system that is increasingly free of death and serious injury.	2018	2020	$510,600	$170,200	$170,200	$170,200	**N/a**	**N/a**
Activity Class 2 Total							**$1,168,569**	**$1,192,541**	**$1,212,858**		

Table L: Walking and cycling – Otago, Activity Class 3

Item No	Organisation Name	Project Name	Project Description	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
26	DCC	City to harbour cycle/pedestrian connection	The aim of this project is to improve the pedestrian and cycle connection between the city centre and harbour. This will encourage redevelopment of the harbourside, and improve accessibility between the centre city and outlying areas including Otago Peninsula and South Dunedin.	2018	2018	$258,000	$258,000	$0	$0	N/a	**1**
				2018	2018	$258,000	$258,000	$0	$0		
				2019	2020	$10,785,000	$0	$5,315,000	$5,470,000		
27	DCC	Dunedin Urban Cycleways	Improve Dunedin's urban cycleways with a focus on road safety, and on providing an appropriate level of service to encourage the uptake of cycling for everyone.	2018	2018	$464,400	$464,400	$0	$0	N/a	**1**
				2019	2024	$17,057,500	0	$2,657,500	$2,735,000		
28	*There is no project 28*										

Item No	Organisation Name	Project Name	Project Description	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
29	NZTA	Wakatipu Walking/Cycling Network Improvements	Walking and cycling facilities adjacent to SH6, including improvements to connections for residential areas of Shotover Country/Lake Hayes estate, Jacks Point/Henley Downs and the Wakatipu trails. Upgrading of the existing Frankton track connecting Frankton to Queenstown as a safe alternative to SH6A on road cycling.	2018	2018	$11,286,000	$0	$0	$5,643,000	N/a	**1**
				2019	2019	$513,000	$513,000	$0	$0		
				2020	2020	$513,000	$0	$513,000	$0		
				2018	2026	$820,800	$0	$0	$820,800		
30	QLDC	Queenstown Town Centre Pedestrianisation	Queenstown Town Centre Pedestrianisation.	2018	2027	$3,951,000	$0	$1,044,000	$0	N/a	**1**
				2018	2022	$41,464,000	$3,896,000	$0	$9,191,000		
31	QLDC	Wakatipu Active Travel Network	Walking and cycling facilities including improvements to connections for residential areas of Shotover Country/Lake Hayes estate, Jacks Point/Henley Downs and the Wakatipu trails.	2019	2023	$2,140,000	$842,000	$84,000	$216,000	N/a	**1**
				2018	2018	$19,988,000	$0	$6,574,000	$58,250		
Activity Class 3 Total							**$6,231,400**	**$16,187,500**	**$24,134,050**		

Table M: Public Transport Services – Otago, Activity Class 4

Item No	Organisation Name	Project Name	Project Description	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
32	NZTA	SH6 Park and Ride Facilities	The Queenstown Integrated Transport PBC has identified park and ride facilities as being complimentary to the transport improvements in the Wakatipu basin. These will need to be located adjacent to new areas of residential development, where servicing the entire area by public transport is inefficient.	2018	2018	$513,000	$513,000	$0	$0	N/a	**1**
				2019	2019	$513,000	$0	$513,000	$0		
				2020	2021	$7,592,400	$0	$0	$3,796,200		
33	ORC	Low cost / low risk improvements 2018-21		2018	2020	$4,378,184	$1,516,592	$1,825,796	$1,035,796	N/a	**N/a**
34	ORC	Public Transport Infrastructure Improvements	Development of a central city interchange (bus hub) in Dunedin to enable coordination of bus services and the ability for people to transfer from one bus to another, and the provision of real-time information to assist people in their travel. Also includes provision for the development of superstops at Green Island, Cargills Corner and the University.	2015	2024	$3,986,745	$146,924	$139,408	$143,515	N/a	**1**
35	ORC	Public Transport Infrastructure Improvements	This is part of the programme business case for the preferred programme of improvements.	2018	2020	$31,735,120	$10,000,700	$10,607,916	$11,126,504	N/a	**1**

Item No	Organisation Name	Project Name	Project Description	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
36	ORC	Public Transport Programme 2018-21	The operation of the public transport networks defined in the regional Public Transport Plan 2014 and its addenda.	2018	2020	$0	$0	$0	$0	**N/a**	**N/a**
				2018	2020	$1,815,731	$630,051	$591,694	$593,986		
				2018	2020	$0	$0	$0	$0		
				2018	2020	$2,978,524	$991,553	$992,519	$994,452		
				2018	2020	$200,330	$66,690	$66,755	$66,885		
				2018	2020	$708,860	$235,980	$236,210	$236,670		
				2018	2020	$5,471,867	$1,771,975	$1,848,147	$1,851,745		
37	ORC	Public Transport Programme of Improvements	This is part of a Programme Business Case. RLTP Objective 4.6	2016	2024	$25,684,301	$1,633,768	$3,533,994	$3,331,403	**N/a**	**1**
38	ORC	Wakatipu Basin Public Transport	Part of a programme business case	2017	2020	$9,694,188	$2,639,835	$2,556,986	$2,386,549	**N/a**	**1**

Item No	Organisation Name	Project Name	Project Description	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
39	ORC	Wakatipu Public Transport Further - Small Ferry Service	Queenstown Integrated Programme Business Case	2018	2027	$13,560,000	$60,000	$1,200,000	$1,200,000	**N/a**	**1**
40	ORC	Wakatipu Public Transport Hub Imp Support	Improved customer experience and attractiveness of public transport.	2020	2021	$1,500,000	$0	$0	$750,000	N/a	**1**
41	QLDC	PT Improvements - Hubs	A new public and passenger transport hub in Queenstown town centre, nominally on Stanley Street.	2019	2019	$5,25,000	$0	$5,225,000	$0	N/a	**1**
				2021	2021	$1,387,000	$0	$0	$0		
				2022	2022	$17,175,000	$0	$0	$0		
42	QLDC	Park and Ride Transport Services	The provision of parking facilities at appropriate locations. Connecting to major public transport hubs for Queenstown and Frankton, possibly located at Arrow Junction and Jacks Point.	2018	2018	$300,000	$300,000	$0	$0	N/a	**1**
				2019	2021	$2,700,000	$0	$1,000,000	$1,000,000		
43	QLDC	Water taxi service/ferry network	Investigation and implementation of water based infrastructure to support water transport.	2018	2024	$4,635,000	$100,000	$0	$0	N/a	**1**
				2020	2023	$1,064,000	$0	$0	$305,000		
Activity Class 4 Total							**$20,607,068**	**$30,337,425**	**$28,818,705**		

Table N: Maintenance and Operations of Local Roads – Otago, Activity Class 8

Item No	Organisation Name	Project Name	Project Description	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
44	CODC	Maintenance, Operations and Renewals Programme 2018-21	We will deliver safe and reliable infrastructure services which support our local economy and communities, in a manner which is affordable, sustainable, and equitable for current and future generations.	2018	2020	$21,953,907	$7,109,461	$7,444,614	$7,399,832	**N/a**	**N/a**
45	CDC	Maintenance, Operations and Renewals Programme 2018-21	A safe and resilient roading network.	2018	2020	$35,867,516	$11,601,500	$11,926,103	$12,339,913	**N/a**	**N/a**
				2018	2020	$719,661	$194,200	$131,483	$393,978		
46	DOC	Maintenance, Operations and Renewals Programme 2018-21	To enable DOC to function as an effective road controlling authority with other RCAs and RTCs as part of one network.	2018	2020	$236,709	$60,878	$60,878	$114,953	**N/a**	**N/a**
47	DCC	Maintenance, Operations and Renewals Programme 2018-21	The programme will provide a safe, resilient network with appropriate level of service that will support economic activity and provide a choice of transport modes across a well-coordinated system.	2018	2020	$84,109,693	$27,454,338	$28,192,375	$28,462,980	**N/a**	**N/a**
48	ORC	Maintenance, Operations and Renewals Programme 2018-21	Maintenance of stock effluent disposal sites within the Otago region for which ORC is responsible, to remove effluent nuisance and adverse safety effects from effluent discharged onto our inter-regional state highways.	2018	2020	$414,000	$135,000	$138,000	$141,000	**N/a**	**N/a**

Item No	Organisation Name	Project Name	Project Description	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
49	QLDC	Maintenance, Operations and Renewals Programme 2018-21	The Local Roads Maintenance Programme looks to support delivery of transport services to QLDC customers while providing for unprecedented growth and demand. QLDC must build data and systems to better understand the challenges of the district and look to optimise network management through the application of best practice, considering growth predictions in all activities, and providing a value for money service.	2018	2020	$33,358,350	$10,667,500	$11,003,600	$11,687,250	**N/a**	**N/a**
				2018	2020	$4,560,810	$1,370,420	$1,706,920	$1,483,470		
				2018	2020	$3,929,300	$1,854,000	$1,062,750	$1,012,550		
50	WDC	Maintenance, Operations and Renewals Programme 2018-21	To provide a safe, effective, efficient and affordable service (road network) to customers that is fit for purpose.	2018	2020	$29,124,289	$9,423,625	$9,669,962	$10,000,681	**N/a**	**N/a**
Activity Class 8 Total							**$69,870,922**	**71,336,705**	**$73,036,607**		

Table O: Maintenance and Operations of State Highways – Otago, Activity Class 9

Item No	Organisation Name	Project Name	Project Description	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
51	NZTA	Maintenance Operations and Renewals Programme 2018-21	This maintenance programme aims to sustain current levels of service and incrementally improve these where there is gap against the ONRC targets with improving long-term efficiency without undue service or investment risk. Note that service level improvements are provided by the capital improvements programme under the relevant activity class. The focus is on: • maintaining and incrementally improving customer service levels against the ONRC targets despite ongoing growth in demand, and in the performance, size and complexity of the network • responding to events and incidents to minimise their adverse impact and duration on service levels • improving efficiency of long-term service delivery • continual improvement • managing service risk and investment risk sustainably. The focus of the maintenance programme is on fully achieving an optimised sustainable customer experience in our transport system through best value for money invested. Please refer to State Highway Investment Proposal (SHIP) that covers planning, maintenance, operations and improvements activities to be delivered over the next ten years, making it a complete picture of how we plan, operate, maintain and improve the state highway network to deliver its vital role in enabling safe and efficient journeys while achieving value for money.	2018	2020	$117,338,864	$36,433,451	$41,641,704	$39,263,709	**N/a**	**N/a**
Activity Class 9 Total							**$36,433,451**	**$41,641,704**	**$39,263,709**		

Table P: Local Roads Improvements – Otago, Activity Class 12

Item No	Organisation Name	Project Name	Project Description	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
52	CODC	Low cost / low risk improvements 2018-21		2018	2020	$3,912,000	$1,110,000	$827,000	$1,975,000	**N/a**	**N/a**
53	CDC	Replacement of the Hina Hina Bridge	Replacement of the Hina Hina Bridge.	2018	2018	$105,000	$105,000	$0	$0	**N/a**	**1**
				2019	2019	$2,624,000	$0	$2,624,000	$0		
54	CDC	Low cost / low risk improvements 2018-21		2018	2020	$5,071,000	$1,593,000	$1,723,000	$1,755,000	**N/a**	**N/a**
55	CDC	Low cost / low risk improvements 2018-21	Special Purpose Roads	2018	2020	$260,000	$130,000	$90,000	$40,000	**N/a**	**N/a**
56	DOC	Low cost / low risk improvements 2018-21		2018	2020	$100,000	$0	$0	$100,000	**N/a**	**N/a**
57	DCC	Central City Safety and Accessibility Upgrade	Safety and accessibility upgrade of the central city area in Dunedin.	2018	2018	$258,000	$258,000	$0	$0	**1**	**1**
				2019	2024	$17,249,000	$0	$1,063,000	$2,188,000		
58	DCC	Street Light Renewal With LED	Renewal of street light luminaires at the end of life with LED with acceleration for the complete street light network to complete the network change with safety.	2017	2020	$14,756,000	$4,128,000	$4,252,000	$4,376,000	**2**	**2**

Item No	Organisation Name	Project Name	Project Description	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
59	DCC	Low cost / low risk improvements 2018-21		2018	2020	$9,567,000	$3,096,000	$3,189,000	$3,282,000	**N/a**	**N/a**
60	DCC	Tertiary Precinct Improvement Project		2018	2022	$6,712,200	$309,600	$1,700,800	$1,750,400	**N/a**	**1**
61	QLDC	Ballantyne Road Seal extensions	Ballantyne Road seal extensions.	2018	2018	$2,100,000	$2,100,000	$0	$0	**N/a**	**1**
62	QLDC	Crown Estate access Glenorchy Roads	Crown Estate access to Glenorchy roads.	2020	2020	$300,000	$0	$0	$300,000	**N/a**	**N/a**
63	QLDC	Crown Estate access Mt Aspiring	Crown Estate access to Mt Aspiring.	2020	2020	$100,000	$0	$0	$100,000	**N/a**	**N/a**
64	QLDC	Housing Infrastructure Fund project, Ladies Mile	Housing Infrastructure Fund. The proposed Ladies Mile residential development is located east of Frankton, along both sides of Ladies Mile (SH6), between the Shotover River and Lake Hayes. Access improvement from the state highway.	2018	2018	$500,000	$500,000	$0	$0	**N/a**	**1**
				2019	2020	$5,600,000	$0	$1,400,000	$4,200,000		
65	QLDC	Housing Infrastructure Fund project, Quail Rise to Hawthorne Drive	Housing Infrastructure Fund. The Quail Rise South project borders the existing Quail Rise residential development and SH6. The road will link Ferry Hill Drive to the roundabout at the intersection of SH6 and Hawthorne Drive.	2018	2018	$600,000	$600,000	$0	$0	**N/a**	**1**
				2018	2018	$400,000	$400,000	$0	$0		
				2019	2020	$6,600,000	$0	$1,600,000	$5,000,000		
67	QLDC	Low cost / low risk improvements 2018-21	Local road network	2018	2020	$9,103,000	$2,434,000	$3,226,000	$3,443,000	**N/a**	**N/a**

Item No	Organisation Name	Project Name	Project Description	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
68	QLDC	Low cost / low risk improvements 2018-21	Special purpose roads	2018	2020	$1,815,000	$792,900	$626,700	$395,400	**N/a**	**N/a**
69	QLDC	Mt Aspiring Road Widening	Mt Aspiring Road widening.	2018	2019	$5,000,000	$2,500,000	$2,500,000	$0	**N/a**	**1**
70	QLDC	Queenstown Town Centre Arterial	A new town centre arterial will improve access and efficiency, particularly for public transport, will facilitate access to a new town centre public transport hub and provide access to the area of plan change 50. Development of the new town centre public transport hub is an integral part of this project. This will be a joint activity with NZTA.	2018	2018	$690,200	$690,200	$0	$0	**N/a**	**1**
				2018	2021	$7,246,000	$250,000	$2,352,000	$637,000		
				2021	2024	$97,604,000	$0	$0	$15,510,000		
				2019	2019	$34,634,000	$0	$16,337,000	$18,297,000		
71	QLDC	Queenstown Traffic Management Facilities	Queenstown traffic management facilities. Consolidation of services, information and technologies to manage and operate intelligent traffic systems. Part of master-planning.	2018	2019	$30,000	$20,000	$10,000	$0	**N/a**	**1**
				2019	2023	$7,945,000	$1,910,500	$1,764,500	$675,500		
72	QLDC	Shotover River Bridge (Arthurs Point) Duplication	Additional crossing near the Edith Cavell bridge for all modes.	2020	2020	$500,000	$0	$0	$500,000	**N/a**	**1**
73	WDC	Kakanui Point Bridge Design & Construction 2019-21	Design and construction of a replacement bridge over the Kakanui River.	2019	2019	$500,000	$0	$500,000	$0	**N/a**	**3**
				2020	2020	$6,500,000	$0	$0	$6,500,000		

Item No	Organisation Name	Project Name	Project Description	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
74	WDC	Low cost / low risk improvements 2018-21	Minor Improvements are aligned with the objective of the Activity and Asset Management Plans in achieving value for money and a fit-for-purpose network, while making sure the program is aligned and complies with the Safe System approach.	2018	2020	$6,414,000	$1,970,000	$2,083,000	$2,361,000	**N/a**	**N/a**
Activity Class 12 Total							**$24,897,200**	**$47,868,000**	**$73,385,300**		

Table Q: New and Improved Infrastructure State Highways – Otago, Activity Class 13

Item No	Organisation Name	Project Name	Project Description	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
75	NZTA	Accelerated LED Renewals for SH Street Lighting	Replace existing lighting with LED.	2018	2018	$951,102	$951,102	$0	$0	N/a	**N/a**
76	NZTA	Beaumont bridge replacement	Replacement bridge and approach realignment. Existing bridge is 133-years-old with an estimated remaining structure life of 5-10 years.	2018	2020	$16,405,740	$6,340,680	$10,065,060	$0	**3**	**2**
77	NZTA	ITS Improvement Programme	Introduction of intelligent transport systems across the transport network (both rural roads and urban areas), to provide customers with near real-time information.	2018	2020	$6,584,540	$857,601	$2,213,178	$3,513,761	**3**	**2**
78	NZTA	Ladies Mile Corridor Improvements	Capacity and safety issues related to Howards Drive, which is the only access to the Lake Hayes Estate residential development. Development down Stalker, Lower Shotover and Tucker Beach Roads, require corridor and access improvements. Further population growth predicted for the area.	2017	2018	$2,154,600	$307,800	$0	$0	**3**	**1**
				2020	2020	$5,130,000	$0	$0	$5,130,000		
				2018	2018	$256,500	$256,500	$0	$0		
				2019	2019	$256,500	$0	$256,500	$0		
				2020	2020	$1,026,000	$0	$0	$1,026,000		
79	NZTA	Low cost / low risk improvements 2018-21		2018	2020	$62,400,000	$20,800,000	$20,800,000	$20,800,000	**N/a**	**N/a**

Item No	Organisation Name	Project Name	Project Description	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
80	NZTA	North Oamaru Corridor Improvements	Possible re-allocation of road space with removal of cycle lanes and provision of quiet streets detours for cyclists. Intersection improvements.	2018	2018	$123,120	$123,120	$0	$0	**3**	**3**
				2019	2019	$153,900	$0	$153,900	$0		
				2020	2020	$2,052,000	$0	$0	$2,052,000		
81	NZTA	Oamaru - Dunedin Safety Improvements	This is to achieve a safer roads and roadside environment for the SH1 corridor between Waitaki River (north of Oamaru) to Dunedin, a distance of – 132 km. The indicative scope (from the point of entry) includes treatments such as road widening, wide centreline (use of median barriers is unlikely outside of multi-lane situations), and high-performance edge-line and roadside barriers.	2018	2019	$14,364,000	$7,182,000	$7,182,000	$0	**3**	**1**
82	NZTA	Queenstown Town Centre Arterial	A new town centre arterial will improve access and efficiency, particularly for public transport, and will facilitate access to a new town centre public transport hub and provides access to the area covered by plan change 50. The development of the new town centre public transport hub is an integral part of this project. This will be a joint activity with QLDC.	2018	2018	$1,539,000	$1,539,000	$0	$0	**N/a**	**1**
				2019	2019	$1,539,000	$0	$1,539,000	$0		
				2020	2022	$32,832,000	$0	$0	$9,234,000		
				2020	2020	$6,156,000	$0	$0	$6,156,000		

Item No	Organisation Name	Project Name	Project Description	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
83	NZTA	SH6A Corridor Improvements	Corridor improvements to relieve congestion and ease access from side roads.	2018	2018	$513,000	$513,000	$0	$0	**N/a**	**1**
				2019	2019	$718,200	$0	$718,200	$0		
				2020	2021	$11,080,800	$0	$0	$5,540,400		
				2020	2020	$3,078,000		$0	$3,078,000		
84	NZTA	Weigh Right - Otago	Weigh in motion station.	2018	2018	$500,000	$500,000	$0	$0	**4**	**3**
Activity Class 13 Total							**$39,370,803**	**$42,927,838**	**$56,530,161**		

Table R: Regional Improvements – Otago, Activity Class 20

Item No	Organisation Name	Project Name	Project Description	Start Year	End Year	Total Cost All Years	Cost 2018/19	Cost 2019/20	Cost 2020/21	Regional Priority 2015/18 RLTP	Regional Priority 2018/21 RLTP
85	NZTA	Beaumont bridge replacement	Replacement bridge and approach realignment. Existing bridge is 133-years-old with an estimated remaining structure life of 5-10 years.	2017	2018	$1,667,250	$1,102,950	$0	$0	**3**	**2**
86	NZTA	Nevis Bluff Rockfall Protection	Ongoing work by Opus under NMM contract but capital project required. International peer review recommends staged physical catch fences.	2018	2018	$102,600	$102,600	$0	$0	**1**	**1**
	NZTA	Nevis Bluff Rockfall Protection		2018	2018	$205,200	$205,200	$0	$0	**1**	
	NZTA	Nevis Bluff Rockfall Protection		2019	2020	$10,260,000	$0	$5,130,000	$5,130,000	**1**	
87	NZTA	Oamaru - Dunedin Safety Improvements	This is to achieve a safer roads and roadside environment for the SH1 corridor between Waitaki River (north of Oamaru) to Dunedin, a distance of 132 km. The indicative scope (from the point of entry) includes treatments such as road widening, wide centreline (use of median barriers is unlikely outside of multi-lane situations), and high-performance edge-line and roadside barriers.	2017	2018	$769,500	$153,900	$0	$0	**3**	**1**
Activity Class 20 Total							**$1,564,650**	**$5,130,000**	**$5,130,000**		

Table S: Otago Ten Year Forecast

Organisation name	Activ -ity Class	Activity Class Name	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
CODC	1	Transport planning	$54,158	$70,356	$100,000	$0	$0	$0	$0	$0	$0	$0
CODC	2	Road safety promotion	$93,237	$83,555	$105,137	$98,400	$98,400	$98,400	$101,455	$104,779	$108,523	$112,772
CODC	8	Local road maintenance	$6,613,141	$6,853,250	$6,898,000	$7,109,461	$7,444,614	$7,399,832	$8,163,481	$8,291,957	$8,747,407	$9,155,241
CODC	12	Local road improvements	$263,564	$261,524	$820,554	$1,110,000	$827,000	$1,975,000	$350,000	$465,000	$420,000	$320,000
Central Otago District Council Total			**$7,024,100**	**$7,268,685**	**$7,923,691**	**$8,317,861**	**$8,370,014**	**$9,473,232**	**$8,614,936**	**$8,861,736**	**$9,275,930**	**$9,588,013**
CDC	1	Transport planning	$0	$179,100	$0	$65,100	$103,203	$70,317	$72,427	$110,542	$77,657	$79,754
CDC	2	Road safety promotion	$64,660	$66,300	$67,840	$105,000	$110,000	$113,000	$116,000	$119,000	$122,000	$125,000
CDC	8	Local road maintenance	$11,822,728	$11,118,565	$13,554,107	$11,795,700	$12,057,586	$12,733,891	$13,280,103	$13,724,249	$14,067,265	$14,449,846
CDC	12	Local road improvements	$441,494	$3,113,401	$2,966,069	$1,828,000	$4,437,000	$1,795,000	$1,767,000	$1,926,000	$2,063,000	$2,093,000
Clutha District Council Total			**$12,328,882**	**$14,477,366**	**$16,588,016**	**$13,793,800**	**$16,707,789**	**$14,712,208**	**$15,235,530**	**$15,879,791**	**$16,329,922**	**$16,747,600**
DOC	8	Local road maintenance	$0	$0	$0	$60,878	$60,878	$114,953	$114,953	$114,953	$114,953	$114,953
DOC	12	Local road improvements	$0	$0	$0	$0	$0	$100,000	$0	$0	$0	$0
Department of Conservation Total			**$0**	**$0**	**$0**	**$60,878**	**$60,878**	**$214,953**	**$114,953**	**$114,953**	**$114,953**	**$114,953**
DCC	1	Transport planning	$0	$0	$0	$151,600	$100,000	$206,300	$100,000	$100,000	$100,000	$100,000
DCC	2	Road safety promotion	$558,833	$466,782	$665,254	$650,969	$665,941	$681,258	$696,926	$712,956	$729,354	$746,129
DCC	3	Walking and cycling improvements	$418,589	$851,348	$7,420,384	$980,400	$7,972,500	$8,205,000	$2,810,000	$2,882,500	$2,952,500	$3,020,000
DCC	8	Local road maintenance	$18,388,721	$22,704,717	$25,383,979	$27,454,338	$28,192,375	$28,462,980	$28,808,520	$29,103,918	$29,431,126	$29,764,878
DCC	12	Local road improvements	$2,756,355	$2,853,488	$12,742,630	$22,239,600	$25,086,800	$19,254,400	$8,542,400	$8,071,000	$7,086,000	$7,248,000
Dunedin City Council Total			**$22,122,498**	**$26,876,335**	**$46,212,247**	**$51,476,907**	**$62,017,616**	**$56,809,938**	**$40,957,846**	**$40,870,374**	**$40,298,980**	**$40,879,007**
NZTA	1	Transport planning	$275,450	$596,804	$0	$0	$0	$0	$0	$0	$0	$0
NZTA	3	Walking and cycling improvements	$443,145	$863,237	$5,593,470	$0	$0	$0	$0	$0	$0	$0
NZTA	9	State highway maintenance	$27,596,562	$27,793,331	$33,658,167	$36,433,451	$41,641,704	$39,263,709	$43,804,692	$45,315,954	$46,879,354	$47,960,468

Organisation name	Activ -ity Class	Activity Class Name	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
NZTA	13	State highway improvements	$11,981,646	$1,912,327	$15,016,206	$30,695,000	$36,266,000	$49,263,000	$14,824,000	$7,050,000	$15,491,000	$8,220,000
NZTA State Highways Total			**$40,296,803**	**$31,165,699**	**$54,267,843**	**$67,128,451**	**$77,907,704**	**$88,526,709**	**$58,628,692**	**$52,365,954**	**$62,370,354**	**$56,180,468**
ORC	1	Transport planning	$274,333	$481,391	$347,000	$526,533	$509,533	$565,760	$533,639	$574,518	$563,138	$601,197
ORC	3	Walking and cycling improvements	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
ORC	4	Public transport	$6,994,865	$11,197,916	$11,804,000	$19,487,144	$22,260,017	$21,623,990	$21,195,029	$22,746,210	$21,261,388	$21,789,423
ORC	8	Local road maintenance	$0	$0	$0	$135,000	$138,000	$141,000	$0	$0	$0	$0
ORC	12	Local road improvements	$0	$10,000	$850,000	$0	$0	$0	$0	$0	$0	$0
Otago Regional Council Total			**$7,269,198**	**$11,689,307**	**$13,001,000**	**$20,148,677**	**$22,907,550**	**$22,330,750**	**$21,728,668**	**$23,320,728**	**$21,824,526**	**$22,390,620**
QLDC	1	Transport Planning	$54,149	$22,010	$190,980	$635,000	$310,000	$510,000	$310,000	$310,000	$310,000	$310,000
QLDC	2	Road safety promotion	$18,021	$9,047	$20,000	$144,000	$148,000	$150,000	$150,000	$150,000	$150,000	$150,000
QLDC	3	Walking and cycling improvements	$0	$0	$0	$4,738,000	$7,702,000	$9,465,250	$3,373,250	$14,785,750	$9,946,750	$14,644,000
QLDC	4	Public transport	$0	$0	$0	$400,000	$6,225,000	$1,305,000	$4,074,000	$18,409,000	$1,204,000	$869,000
QLDC	8	Local road maintenance	$10,952,125	$10,663,569	$10,388,553	$13,891,920	$13,773,270	$14,183,270	$14,183,270	$14,183,270	$14,183,270	$14,183,270
QLDC	12	Local road improvements	$1,426,940	$10,900,153	$8,844,883	$12,197,600	$29,816,200	$49,057,900	$30,049,150	$34,728,800	$31,093,950	$1,752,100
Queenstown Lakes District Council Total			**$12,451,235**	**$21,594,779**	**$19,444,416**	**$32,006,520**	**$57,974,470**	**$74,671,420**	**$52,139,670**	**$82,566,820**	**$56,887,970**	**$31,908,370**
WDC	1	Transport planning	$65,811	$56,687	$103,367	$221,370	$72,725	$74,180	$75,740	$77,400	$79,183	$81,100
WDC	2	Road safety promotion	$150,000	$150,000	$150,000	$170,200	$170,200	$170,200	$190,000	$190,000	$190,000	$190,000
WDC	3	Walking and cycling improvements	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
WDC	4	Public transport	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
WDC	8	Local road maintenance	$8,688,293	$8,484,736	$9,461,960	$9,423,625	$9,699,982	$10,000,681	$10,283,635	$10,529,144	$10,899,316	$11,204,497
WDC	12	Local road improvements	$978,737	$1,408,929	$1,611,469	$2,020,000	$2,450,000	$8,861,000	$2,000,000	$2,062,000	$2,123,860	$2,185,452
Waitaki District Council Total			**$9,882,841**	**$10,100,352**	**$11,362,796**	**$11,785,195**	**$12,442,907**	**$19,207,621**	**$12,601,035**	**$12,973,327**	**$13,344,276**	**$13,713,059**
Otago Region Total			**$111,375,557**	**$123,172,523**	**$168,764,109**	**$204,718,289**	**$258,388,928**	**$285,946,831**	**$210,021,330**	**$236,953,683**	**$220,446,911**	**$191,522,090**

4.4 Projects that the RTCs would like to see developed in future RLTPs

- Improvement to SH1: flood mitigation at Hilderthorpe.
- Improvement of the intersection of State Highways 1 and 83.
- Improvement to SH1: further erosion protection of Katiki Straight, as required over time.
- Replacement of the Albert Burn Bridge near Hawea.
- Improvement of the Mt Iron intersection, Wanaka.
- Improvement to the state highway through Kawarau Gorge and of the Crown Range Road.
- Improvement of the intersection of Pine Hill Road and Great King Street, Dunedin.

Appendices

Appendix 1. Summary of changes to projects in the present 2015 – 2021 RLTPs

This list also includes projects that are proposed to be abandoned, suspended or varied, in this update of the RLTPs.

Table 13: Southland changes to projects in the present 2015 – 2021 RLTP

Organis-ation Name	Project Name	Project Description and Objective	Regional Priority 2015-18	Status at October 2017	Included in 2018/21 Programme?	Comment
Activity Class 12 - New and Improved Infrastructure Local Roads						
ES	Minor improvements 2015-18	To complete and advise the industry of the network of stock truck effluent sites in southern NZ, thus minimising the spillage of stock effluent onto roads, and the resultant road safety risk and environmental pollution.	1	Funding approved	Not applicable	
GDC	Bridge Replacement	Replace Pyramid Bridge to maintain a safe and economic crossing of the Mataura River on this existing route.	1	Detail Business Case Approved. Construction not approved	No	Construction should be approved in 2017/18, so this project would be committed.
SDC	Alternative Scenic Route Seal Extension	Seal extension along the scenic route Haldane-Curio Bay Road to achieve the following benefits: Enhance the ability to upgrade the area's status to Gateway (55%). Reduce number and seriousness of crashes (5%). A greater ability to maximise maintenance investment across the region (40%).	1	Construction Approved	Not applicable	Scheduled to be completed in 2017/18
SDC	Mararoa River Bridge	Replacement of a nine-span single lane wooden bridge to ensure continued access to two major stations and a conservation area used by hunters, trampers and anglers.	3	Not included in 2015/18 NLTP	No	Abandoned

Organis-ation Name	Project Name	Project Description and Objective	Regional Priority 2015-18	Status at October 2017	Included in 2018/21 Programme?	Comment
Activity Class 13 - New and Improved Infrastructure State Highways						
NZTA	Edendale Realignment	Bypass of Edendale Township. There are issues with variations in the speed limits through the Edendale township and a horizontal curve with an intersection located on the apex and an adjacent level crossing within a short section of highway. Additionally, an expansion of Fonterra's plant will generate additional traffic, which will travel past residential properties and a school. The project will provide a by-pass to the township with appropriate connections to the Fonterra plant. Fonterra will provide financial contribution to this project in kind. The project will improve safety for vehicles from head on and turning crashes and reduce travel time.	**1**	Included in 2015/18 NLTP. Construction Not Approved	Yes	
NZTA	Elles Road Roundabout	Realign highway approaches to existing intersection. Replace priority control with roundabout. Extend Lake Street to become fourth leg of roundabout. Objective of project is improved safety for all road users. Reduction in crashes and the severity of crashes that are unavoidable. Improved access to commercial/industrial premises.	1	Detail Business Case Approved	Yes	
NZTA	Falls Creek Bridge Widening	This is a single-lane bridge on which tourist buses stop to enable viewing of Falls Creek and Christie Falls, with no real edge protection, just sight rails. The project will replace the existing one-lane bridge with a new two-lane bridge, widen the approaches and provide a separate pedestrian walkway. Objective(s) are to improve (i) safety for vehicles from head on crashes (ii) safety for tourists on bridge and (iii) reduce delays.	**1**	Not included in 2015/18 NLTP	No	Varied - This project is now being delivered under the Visiting Driver Signature Project which has funding committed for 2017/18.

Organis-ation Name	Project Name	Project Description and Objective	Regional Priority 2015-18	Status at October 2017	Included in 2018/21 Programme?	Comment
NZTA	Invercargill - Moto Rimu Rd Safety Improvements	Safer Journeys - Roads and Roadsides. Various activities to address crash types which may include wide centreline, safety barrier, ATP and intersection improvements and closures. Objectives are improved safety for all road users, and reduction in crash rates and severity of crashes.	**2**	Not being delivered in 2015/18. No longer fits funding requirements	No	Varied - This is no longer a State Highway improvement activity and will be delivered as a Low Cost/Low Risk activity.
NZTA	Longbush - Invercargill Safety Improvements	Safer Journeys - Roads and Roadsides. Various activities to address crash types which may include wide centreline, safety barrier, ATP and intersection closures. Objectives are improved safety for all road users, and reduction in crash rates and severity of crashes that are unavoidable.	**2**	Not being delivered in 2015/18. No longer fits funding requirements	No	Varied - This is no longer a State Highway improvement activity and will be delivered as a Low Cost/Low Risk activity.
NZTA	Mataura Intersection Improvement	Rail line parallel with SH1 at the intersection of SH1 & SH93. Trucks from SH93 are unable to pull up to the limit line to confirm it is safe to turn left into SH1 without straddling rail line. Install merge bay on SH1 for left turning traffic. Objectives are improved safety for road and rail users. Improved amenity for residents.	**2**	Not on 2015/18 approved programme	No	Varied - This is no longer a State Highway improvement activity and will be delivered as a Low Cost/Low Risk activity.

Organis-ation Name	Project Name	Project Description and Objective	Regional Priority 2015-18	Status at October 2017	Included in 2018/21 Programme?	Comment
NZTA	Milford Rockfall/Aval-anche Protection	Realignment to avoid avalanche path on eastern approach to Homer tunnel. Relocation of visitor attraction/stopping location. High velocity catch fencing at two locations. Objectives are improved safety for users and resilience of a key tourism route. Fewer highway closures will lead to a reduction in losses for tourism operators. Avalanche risk management will remain an on-going issue based on climatic conditions. Current solution is to relocate stopping areas away from avalanche path.	1	Not on 2015/18 approved programme	Yes	
NZTA	Visiting Driver Signature Project - Southland	Safety improvements for tourist drivers on the Southland section of the Queenstown - Milford Sound route including ATP, pull-off areas and barriers. This aims for a reduction in tourist driver related crashes and, where these cannot be avoided, a reduction in their severity. Consistency in the application of safety measures on major routes through Southland which provide key links to the adjacent region of Otago.	1	Funding approved	Yes	
NZTA	Wilsons Crossing Passing Lanes	Construction of staggered passing lanes Lochiel (southbound), Wilsons Crossing (northbound). Year 1 - earthworks, drainage, subbase. Year 2 - basecourse, surfacing. This passing lane project is situated within an undulating section of SH6 with poor passing opportunities; traffic volumes > 6400 vpd; increasing commuter and heavy traffic for the port. Objective(s): the project will provide (i) a safe passing environment while at the same time (ii) reducing travel time and (iii) vehicle operating costs.	3	Not included in 2015/18 NLTP	No	Suspended - This project has been reprioritised in the 10-year State Highway Programme beyond the 2018-21 period.

Table 14: Otago, changes to projects in the present 2015 – 2021 RLTPs

Organisation Name	Project Name	Project Description and Objective	Regional Priority 2015-18	Status at October 2017	Included in 2018/21 Programme?	Comment
Activity Class 3 – Walking and Cycling						
DCC	Central City Transport Hub	The ORC is planning a Central City Bus Hub. This project is to enhance the bus hub to provide centralised facilities for other transport modes such as walking, cycling, taxis and intercity buses / coaches. It is part of the Central City PBC.	4	Probable	No	Varied - any work required to accommodate other modes will be undertaken by ORC through their Bus Hub project, or through the DCC Low Cost/Low Risk programme, as appropriate.
DCC	Central City and NEV Cycle Network	Provision of a cycle network for the central city and North East Valley. This is part of a programme business case.	1	Indicative Business Case Approved	No	Varied - part of this activity will be completed in 2017/18, part is included in the Dunedin Urban Cycleways project included in the 2018-21 programme.
DCC	Strategic Cycle Network - Mosgiel	Provide local cycle network in Mosgiel. This will be part of a programme business case to be developed in 2017/18.	4		No	Varied - this activity will be included as appropriate in the Dunedin Urban Cycleways and the Mosgiel Town Centre and Arterial Routes projects.
DCC	Tertiary Precinct	Upgrade to streets surrounding University of Otago and Otago Polytechnic Campuses, to improve safety and accessibility by foot and cycle.	3		Yes	Varied - name changed to Tertiary Precinct Improvement Project and included in the 2018/21 programme.
NZTA	Dunedin One Way Pair Cycle Lanes	In Dunedin, to establish separated cycle lanes on t one-way SH1 routes through the central city. To improve road safety for cyclists; provide a safe route choice for cyclists, facilitate adoption of cycling as a safe and practical choice for inner city transport, and integrate with the wider city cycling network. While this could be implemented as a standalone project, it integrally contributes to a wider inner & city network. Also, the Dunedin City Council is proposing to set up a project covering the central city area (i.e. that would be the programme for which this is an initiative).	1	Funding approved	Not applicable	

Organis-ation Name	Project Name	Project Description and Objective	Regional Priority 2015-18	Status at October 2017	Included in 2018/21 Programme?	Comment
NZTA	SH88 Cycling and Pedestrian Facilities	SH 88 cycling and pedestrian facilities.	1	Funding approved for property only (at this point in time)	No: see comment	Varied - now to be delivered under the Dunedin - Port Chalmers Safety Improvements project (which is listed under Activity Class 13).
WDC	Walking and Cycling Oamaru to Pukeuri 2015/16	This is a separated cycleway on SH1 from the north end of Oamaru to the Pukeuri Alliance meat works located on the west side of the road carriageway. The objective of this project is to provide a separated cycling track off SH1 from Oamaru's north end boundary to the Pukeuri Alliance meat works, which will allow cyclists to commute to and from work in safety without death or serious injury.	4	Not included in 2015-18 NLTP	No	Varied - included in Low Cost/Low Risk projects for 2020/21.
Activity Class 4 – Public Transport Services						
ORC	Wakatipu Public Transport Improvements	Objective is to increase patronage in this network through route, service and fare changes.	1	Funding approved; improvements underway	Not applicable	Also, NZTA has approved ($150,000) funding for detailed business case preparation in 2017/18.
Activity Class 12 - New and Improved Infrastructure Local Roads						
CDC	Streetlight LED upgrade	Conversion of streetlights in the district's townships to LEDs.	3	Funding approved 2017/18	No	
CDC	Seal Extension of The Nuggets Road	The objective is to provide a safe and quality experience for visiting drivers using the route to the Nuggets by sealing the Nuggets Road.	1	Complete	Not applicable	
DCC	Central City Safety and Accessibility Upgrade	Safety and accessibility upgrade of Dunedin's central city and North Dunedin area.	1	Indicative Business Case Approved	Yes	Varied - name changed to Central City Upgrade and included in the 2018-21 programme.

Organis-ation Name	Project Name	Project Description and Objective	Regional Priority 2015-18	Status at October 2017	Included in 2018/21 Programme?	Comment
DCC	Eastern Bypass	Improvements to the efficiency and design of the freight bypass between SH1 in Andersons Bay and SH88 to Port Otago. This is part of the programme business case.	1	Indicative Business Case Approved	No	Suspended - investigation and data collection will be carried out, prior to confirming the scope of this project.
DCC	Mosgiel Safety and Accessibility Upgrade	Improve safety and accessibility in Mosgiel town centre. It will covered by a programme business case.	2		No	Varied - name changed to Mosgiel Town Centre and Arterial Routes projects and included in the 2018-21 programme.
DCC	Peninsula Roading - Portobello Road	Roading improvement works on Otago Peninsula as detailed in the city's Integrated Transport Strategy Project to secure sea wall protection, enable sustainability for sea level rise effects and security of tourist route, maintain connectivity of communities, reduce accident rate, improve travel time and enable safe separation of vulnerable road users with increasing demand volumes.	1	Construction Underway	Not applicable	
DCC	Phase 4 Peninsula Roading - Harrington Point Rd	Roading improvement works on Otago Peninsula as detailed in the city Integrated Transport Strategy Project to secure sea wall protection, enable sustainability for sea level rise effects and security of tourist route, maintain connectivity of communities, reduce accident rate, improve travel time and enable safe separation of vulnerable road users.	1	Funding approved	Not applicable	
DCC	Strategic Corridors: Warehouse Precinct Accessibility (SH1)	The project is part of the Strategic Corridors package which assessed existing and future requirements for the movement of goods, services and people, including the corridor demands of major traffic generators. Revitalisation of the harbourside area and permeability across the rail corridor to the Central Activity Area (CAA) were also considered. Dunedin is an origin or destination for most vehicle movements travelling within the city. The One-Way Pair (SH1) is required to serve the access function equally as well as mobility or through movement.	2	Project not started. Programmed for 2021-23	No	Suspended - investigation and data collection will be carried out, prior to confirming the scope of this project.

Organis-ation Name	Project Name	Project Description and Objective	Regional Priority 2015-18	Status at October 2017	Included in 2018/21 Programme?	Comment
DCC	Street Light Renewal With LED	Renewal of street light luminaires with LED as existing ones reach the end of life.	2	Not approved to date	Yes	Varied - name changed to LED Streetlight Renewal and included in the 2018/21 programme. Funding approval being sought in 2017/18.
ORC	Stock truck effluent disposal facilities	Installation of two facilities in Central Otago		Funding approved	Not applicable	Construction to commence in early 2018.
QLDC	Eastern Access Road	Eastern Access Road (now known as Hawthorne Drive).	1	Funding approved	Completed	
QLDC	Frankton Flats Programme Business Case Implementation	This project is a placeholder for new works anticipated to arise from the completion of the Frankton Flats programme business case. This project is part of the Frankton Flats Programme Business Case. This work is being undertaken this financial year (2014/15).	1	Funding approved	Not applicable	
QLDC	QLDC streetlight LED conversion project	Replacement of street light luminaires with LED in the district's townships.	3	NZTA has approved up to $2M funding in 2017/18	No	QLDC may seek a cost scope adjustment in 2018/19 (for another $1M funding), if the enhanced FAR rate for this work is extended to 2018/19.
QLDC	Queenstown Town Centre Programme Business Case Implementation	Implementation of transport interventions recommended by the Queenstown Town Centre Programme Business Case, to be completed by February 2014.	3		No	Varied - Project has been split into a number of combined transport initiatives for the Queenstown network.
QLDC	Wanaka Programme Business Case Implementation	Implementation of the transport interventions emanating from the Wanaka Programme Business Case, which is presently being developed.	3	Proposed	No	Varied - Project now included as wider Wanaka Transport Business Case.

Organis-ation Name	Project Name	Project Description and Objective	Regional Priority 2015-18	Status at October 2017	Included in 2018/21 Programme?	Comment
WDC	Harbourside Projects 2015/18	An extract from the Oamaru Harbour Development Strategy: "Roads within the harbour will service commercial requirements and support business, tourism and connectivity. Shared space between pedestrians and vehicles will be enabled. Speed limits will be restricted to support pedestrian, penguin and port user safety."	**3**	Not included in 2015-18 NLTP	No	Variation - included in Low Cost Low Risk projects for 2019/20.
WDC	Street Light Upgrade 2016-2018	Renewal of street light luminaires with LED as existing ones reach the end of life	**3**	Funding approved	Not applicable	Construction - installation to be fully complete by 31 December 2018.
WDC	River Training 2015/18	River training is required at these two locations to ensure the river flows freely under existing bridges. The objective is to complete river training works at these two locations so the rivers are free flowing and do not cause extensive damage to the bridge or road infrastructure.	**3**		No	Variation - included in Low Cost/Low Risk projects for 2020/21.
Activity Class 13 - New and Improved Infrastructure State Highways						
NZTA	Albert Burn Bridge Replacement	Replacement of a vulnerable existing narrow bridge on poor vertical alignment with an HPMV capable structure. Load limitations currently force trucks to cross at the Luggate Bridge, which is increasing the maintenance costs of this structure. Objectives are: improved freight efficiency, improved resilience, improved vertical alignment by raising the bridge to lessen the severity of the dip and reduce driver surprise, reduced traffic and therefore loading on the Luggate Bridge, resulting in lower maintenance costs.	**5**	Not applicable	No	Suspended - This project has been reprioritised in the 10 year State Highway Programme beyond the 2018-21 period.

Organis-ation Name	Project Name	Project Description and Objective	Regional Priority 2015-18	Status at October 2017	Included in 2018/21 Programme?	Comment
NZTA	Andersons Bay Rd/Caversham Motorway	Improvements to the intersection of Andersons Bay Rd and Caversham Motorway to improve efficiency for freight using the local arterial by-pass to access Port Otago. Current alignment requires deviation in the opposite direction of travel. Traffic signal control of approach and circulating flow. There is a by-product of improved safety and congestion relief on the Dunedin one-way network.	1	Not included in 2015-18 NLTP	No	Varied - This project has been programmed to align with the reprioritisation of the DCC's Eastern Bypass project which is now beyond the 2018-21 period.
NZTA	Beaumont bridge replacement	Replacement bridge and approach realignment. An aging bridge, which has reached the (next 1 to 5 years) end of its economic life. The project proposes to replace the existing structure with a new two-lane bridge. The project will ensure a resilient and secure transport network and reduce delays.	3	Funding approved for development of the detailed business	Yes	
NZTA	Big Kuri Creek Flood Mitigation	Regular flooding at Big Kuri Creek bridge due to aggradation of river bed. Raise approaches and bridge deck to clear peak flood levels. Objectives are improved highway corridor resilience with fewer or no road closures during storm events reliable freight movement with little or no delays, reduced maintenance costs through construction of a pavement less susceptible to inundation by floodwater.	3	Proposed	No	Varied - The flood mitigation works are now consented as an ongoing maintenance activity and therefore this improvement project is no longer required.
NZTA	Cromwell Intersection Improvement	SH6 and SH8B fatal crash site. Separated left turn lane has improved safety but may require further improvement. Objectives are improved safety for all road users, and a reduction in crashes and the severity of unavoidable crashes.	5	Start year outside of 2015-18 RLTP	No	Suspended - This project has been reprioritised in the 10 year State Highway Programme beyond the 2018-21 period.
NZTA	Deborah Realignment	Realign the road to a 100 km/h design speed over the railway line by lowering the railway line 5.1m and installing a new 76m culvert railway underpass on the new alignment. Reverse curves cause driver surprise and pose a crash hazard, particularly with respect to HCVs, which is exacerbated in wet conditions. The project proposes to undertake a realignment of the railway line and highway to eliminate driver surprise and improve network resilience. Objective of the project is to improve safety for motorists.	2	Not included in 2015-18 NLTP	No	Suspended - This project has been reprioritised in the 10 year State Highway Programme beyond the 2018-21 period.

Organis-ation Name	Project Name	Project Description and Objective	Regional Priority 2015-18	Status at October 2017	Included in 2018/21 Programme?	Comment
NZTA	Dunedin - Fairfield Safety Improvements	Infill of wire rope side barriers and other improvements to create safer and more forgiving roadsides. Objectives are improved safety for all road users and a reduction in crash rates and severity of unavoidable crashes. A by-product will be fewer highway closures as a result of crashes.	2	Funding approved	No	Due for completion 2017/18
NZTA	Grant Rd to Kawarau Falls Bridge Improvements	Capacity issues, widening, urbanisation and intersection improvements. Work necessary to compliment development projects in the area including improvements for pedestrians, lighting, widening and utility integration. Includes surrounding projects for Glenda Drive, Frankton BP R/A Improvements and BP R/A to Kawarau Falls Bridge Corridor Improvements. Objectives are reduced congestion, improved use of existing corridor, and improved customer experience.	1	Funding approved	Not applicable	
NZTA	Hilderthorpe Straight Flood Mitigation	Flooding at various locations from surface water run-off during heavy rainfall resulting in road closures. Flood-prone areas include McEneaney passing lanes, 45th Parallel, Hilderthorpe Floodway, Hilderthorpe Rd and Wai-iti Park. Significant drainage work required. Objectives are improved highway corridor resilience with fewer or no road closures during storm events, reliable freight movement with little or no delays, safer highway for motorists with less potential for surface flooding along the corridor, and reduced maintenance costs through construction of a pavement less susceptible to inundation by floodwater.	1	Start year outside of 2015-18 RLTP	No	Varied - This project has been reprioritised in the 10 year State Highway Programme beyond the 2018-21 period.
NZTA	Katiki Erosion Protection	Coastal erosion along Katiki straight. Currently being monitored but requires a long-term solution. Objectives are improved highway corridor resilience to storm events, reliable freight movement with little or no delay, and reduced pavement maintenance costs through improved coastal protection and shoulder support.	3	Funding approved	Not applicable	Due for completion 2017/18

Organis-ation Name	Project Name	Project Description and Objective	Regional Priority 2015-18	Status at October 2017	Included in 2018/21 Programme?	Comment
NZTA	Enhanced Network Resilience Otago	Improve resilience of SH network addressing bridge deficiencies, rock fall/slips risk areas, flood prone areas and coastal erosion	3	Not included in 2015-18 NLTP	No	Abandoned - This was a "placeholder" activity which has been replaced by site specific resilience activities.
NZTA	Ladies Mile Corridor Improvements	Capacity and safety issues related to Howards Drive, which is the only access to the Lake Hayes Estate residential development. Development down Stalker, Lower Shotover and Tucker Beach Rds requires corridor and access improvements. Further population growth predicted for the area. Objectives are reduced congestion, improved use of existing corridor, improved customer experience, and journey time reliability.	3	Funding approved for development of the detailed business for Tuckers Beach Road intersection improvement	Yes	
NZTA	Maheno Flood Mitigation	Prone to flooding from the Kakanui River resulting in road closures with no logical commercial vehicle detour. Approximately 300m of highway needs to be raised by up to 500mm with large diameter culverts installed to provide resilience to flood events. Objectives are improved highway corridor resilience with fewer or no road closures during storm events, reliable freight movement with little or no delays, safer highway for motorists with less potential for surface flooding along the corridor, and reduced maintenance costs through construction of a pavement less susceptible to flood inundation.	1	No Approvals to date	No	Varied - This is no longer a State Highway improvement activity and will be delivered as a Low Cost/Low Risk activity.
NZTA	Mosgiel - Balclutha Safety Improvements	ATP infill to encourage lane discipline on a highway with challenging geometry. Additional treatment as required. Part of the Safer Journeys - Roads and Roadsides business case. Objectives are improved safety for all road users, reduced crash rates and severity of unavoidable crashes, improved network efficiency and resilience with fewer highway closures as a result of crashes.	2	Funding approved	Not applicable	
NZTA	Nevis Bluff Rockfall Protection	Additional to the ongoing work, a capital project is needed. International peer review recommends staged physical catch fences. Objective is improved safety for users and resilience of this key route.	1	No Approvals to date	Yes	

Organis-ation Name	Project Name	Project Description and Objective	Regional Priority 2015-18	Status at October 2017	Included in 2018/21 Programme?	Comment
NZTA	North Oamaru Corridor Improvements	Possible re-allocation of road space with removal of cycle lanes and provision of quiet street detours for cyclists. Intersection improvements. Objectives are improved safety for all users, improved efficiency for people and goods on main highway corridor with improved access for residents from side roads, and improved amenity for residents.	**3**		Yes	
NZTA	Oamaru - Dunedin Safety Improvements	Installation of wire rope barrier and ATP in high risk areas along the highway corridor. Part of the Safer Journeys - Roads & Roadsides business case. Objectives are improved safety for all road users and a reduction in crash rates and severity of unavoidable crashes. A by-product of safety improvements is improved network efficiency and resilience with fewer highway closures because of crashes.	**3**	Funding approved for development of the detailed business	Yes	
NZTA	Pine Hill Rd/Great King St Intersection Improvements	Identified as one of the 100 high risk intersections in NZ. Restricted visibility from priority controlled intersection located at base of a steep incline. Consideration of an improved at grade solution required. Improved safety for all intersection users by potentially signalising with pre-warning amber signals located prior to the George St over bridge and installation of a downhill crawl lane for heavies. Priority phasing may be given to heavy vehicles using the crawl lane to ensure the intersection is clear. This should mitigate the risk of conflict at the intersection. Part of the Safer Journeys - Roads & Roadsides business case.	**1**	Proposed	Yes	Delayed - Now included in 2018-21 implementation programme.
NZTA	Roaring Meg Bridge Widening	Narrow bridge on poor alignment. Widening of one side needs to be progressed. Objectives are improved safety for all motorists and improved corridor resilience on an arterial route linking Queenstown with Central Otago region.	**5**	Not included in 2015-18 NLTP	No	Varied - This project has been reprioritised in the 10 year State Highway Programme beyond the 2018-21 period.

Organis-ation Name	Project Name	Project Description and Objective	Regional Priority 2015-18	Status at October 2017	Included in 2018/21 Programme?	Comment
NZTA	SH88 Safety Improvements	A Safe Roads Alliance project. Safer roadsides through combination of improved delineation (e.g. ATP markings); wire rope barrier, guardrail barrier. Nominally focus in areas of 80 km/h speed limit between Ravensbourne and Port Chalmers, and to protect from loss of control impact from entry into harbour, onto rail lines, into/over steep embankments.	1	Construction has not yet been approved / committed	No	Awaiting NZTA's funding decision.
NZTA	SH6A Corridor Improvements	Corridor improvements to relieve congestion, improve use of existing corridor, and improve customer experience with greater accessibility from side roads.	3	No approvals to date	Yes	
NZTA	St Andrews St Anzac Ave	Revise layout of existing signal controlled intersection to improve operational efficiency, especially for port-bound freight. Intersection complicated by adjacent rail line. By-product of improved safety and congestion relief on the Dunedin one-way network.	1	Not included in 2015-18 NLTP	No	Varied - This project has been programmed to align with the reprioritisation of the DCC's Eastern Bypass project which is now beyond the 2018-21 period.
NZTA	Stanley St Corridor Improvements	Main arterial link into Queenstown which doesn't cope with peak hour demand. Delays also occur due to the current roundabout configuration at the major intersections and a pedestrian crossing. Objectives are reduced congestion and associated driver frustration, improved and more reliable travel times, enhanced safety for pedestrians along the corridor, and improved visitor experience.	2	Not included in 2015-18 NLTP	No	Abandoned - This project has been replaced by the Queenstown Town Centre Arterial activity in the 2018-21 RLTP.
NZTA	Visiting Driver Signature Project Otago	Safety improvements to the Otago network for tourist drivers on key links: Queenstown - Milford (Otago section), Queenstown - West Coast, Queenstown - Christchurch (Otago section), ATP, pull-off areas and barriers. Objectives are a reduction in tourist driver related crashes and, where these cannot be avoided, a reduction in their severity. Also, consistency in the application of safety measures on major routes through Otago which provide key links to the adjacent regions of Canterbury and the West Coast.	1	Funding approved	Not applicable	

Organis-ation Name	Project Name	Project Description and Objective	Regional Priority 2015-18	Status at October 2017	Included in 2018/21 Programme?	Comment
NZTA	Waikouaiti Flood Mitigation	Highway prone to flooding from the Waikouaiti River between the Waikouaiti River bridge and Karitane turn-off. Possible solution to overlay and raise highway by up to 700mm requiring installation of large diameter culverts. Objectives are improved highway corridor resilience with fewer or no road closures during storm events, reliable freight movement with little or no delays, safer highway for motorists with less potential for surface flooding along the corridor, and reduced maintenance costs through construction of a pavement less susceptible to inundation by floodwater and erosion from the adjacent river.	1	Proposed	No	Varied - This is no longer a State Highway improvement activity and will be delivered as a Low Cost/Low Risk activity.
NZTA	Waitati Curve Realignment	Realign curve to 550m radius, relocate Blueskin store and SH1: Harvey Street Intersection. Curve very much out of context with adjacent commercial land use. The project will: (i) improve safety for vehicles (ii) reduce potential for roadside impact crashes (iii) reduce travel time and (iv) vehicle operating costs.	5	Not included in 2015-18 NLTP	No	Suspended - This project has been reprioritised in the 10-year State Highway Programme beyond the 2018-21 period.
NZTA	Weigh Right, Otago	Weigh in motion station. Designed to support weight compliance in the heavy truck fleet. Involves enhancing existing weigh bridges with Weigh in Motion and Automatic Number Plate Recognition. Provides for the selection of vehicles which will directly increase the effectiveness of enforcement when matched with linked roadside, data analysis and investigative activity. Improved strategic siting of additional weigh bridges significantly increases the likelihood of an errant operator being prosecuted and should result in a higher level of compliance.	4	No Approvals to date.	Yes	

Appendix 2. Clarifying the appropriate role for each transport mode

This section explains the role the RTCs expect each mode of transport will play over the next three to ten years. This explanation is intended to guide the participating organisations as they implement those projects that NZTA decides to fund.

It is worth noting the transport needs for rural communities are different to those of urban ones and solutions need to be targeted to these different needs. This may require, in some instances, prioritising the value of the local roading network for light vehicle and heavy traffic over the more urban focus on public transport.

Freight – road, rail

Industrial, agricultural and commercial activity gives rise to freight on road and rail networks, both within the regions and inter-regionally. The volume of freight carried within and through Otago and Southland is expected to increase significantly during the outlook of this plan. In the short-term (at least), a large proportion of the regions' freight will continue to be moved on the road network. Good rural roading and state highway networks are therefore essential for the regions' economic development. Rural roads provide access to areas of primary production. Our local authorities face increasing challenges in maintaining rural roads appropriate for heavy vehicles transporting primary products, given the councils' small rating bases and the significant length of road network involved, much of it unsealed.

The state highway network has potential to handle additional volumes of freight. These plans recognise the importance of optimising the operational efficiency of this network for freight traffic. They also recognise that efficiencies are being gained from trucks being able to carry larger and heavier loads, and the need to ensure the roading network, including bridges, can accommodate this. Hubs to allow freight movement onto higher capacity vehicles will support this. This will be particularly important when oil supply shortages make it imperative to reduce fuel usage.

Rail freight is appropriate not only for the movement of high volumes of goods over long distances between key production and distribution nodes, but also for domestic freight over shorter distances. Rail freight will play a key role in the event of oil supply shortages. The strategic part of these plans envisage rail as an energy-efficient way of transporting bulk and containerised commodities along the east coast, including to and from the South Island's deepwater ports. Over the long-term, greater access to rail for commercial and industrial activities, as well as for primary production, will support further improvements to the rail network. Intermodal hubs allow freight carriers to switch modes to save costs and reduce carbon footprints, and will continue to play a role in the regions' transport networks.

Private motor vehicles and shared transport

For the past few decades, individuals in both urban and rural parts of Otago and Southland have relied on private vehicles for most trips due to the flexibility and convenience a car provides. Those living in small towns and rural areas are particularly reliant on private vehicles for access to key goods and services. These plans acknowledge that, because people in Otago and Southland are likely to continue to value high levels of mobility and freedom of individual mobility, many will continue to use the private vehicle as their primary mode of transport. Nevertheless, there is a need to gradually reduce reliance on private vehicles, particularly in urban areas, to contain roading costs and to build resilience. Changes in vehicle design are already taking place, such as electric vehicles and self-drive vehicles.

Presently, there are only a few public charging stations for electric vehicles in Otago and Southland. In the longer-term, alternative fuel powered vehicles may require supporting facilities and changes in the way the transport network is used.

These plans consider private vehicle use to be the most appropriate mode of transport over distances that cannot be easily cycled or walked, or in areas without any public transport services. (traditionally, that has been around 2 km for walking and 10 km for cycling, although recent indications are that journeys taken by these modes in NZ are lengthening). For urban areas, these plans seek to develop patterns of settlement and complementary transport systems that will enable, encourage and support people to reduce reliance on private vehicular travel, particularly for short trips. Some people living in rural areas and small towns will continue to rely on the private vehicle for necessary travel, and these plans therefore expect rural communities to have a high degree of self-reliance and self-organisation concerning transport.

The plans envisage that, if the price of oil-based fuels rise and/or transport fuels become scarce at times, people would make much greater use of shared transport using private or community-owned vehicles – whether formal arrangements such as RideShare or informal ones (e.g. neighbourhood ride sharing). In those areas where public transport is unavailable or low frequency, shared transport will fill an important role. There is also a shift happening in urban areas where younger generations are less reliant on the private motor vehicle.

The plans also aim to increase road safety for vulnerable road users, with several projects focusing on the safety of cyclists in particular.

Public passenger transport (scheduled/unscheduled services, taxis, shuttles, private hire)

The plans envisage public passenger transport continuing to play a vital role in supporting community well-being. As the regions' population ages, and with younger generations being less reliant on the private motor vehicle than many other population sectors, the role of public passenger transport and shared transport will grow. New technologies e.g. Mobility as a Service, and new forms of transport e.g. Uber. are changing the nature of public passenger transport.

In busy areas such as Queenstown, scheduled bus services play an important role in easing the current and projected congestion, aided by use of the Mobility as a Service app. Gradually reducing reliance on private motor vehicles is requiring significant investment over time in public transport services and infrastructure, from both the public and the private sectors.

As well as these Wakatipu Basin services, public transport bus networks also operate in Dunedin and Invercargill. Recent improvements to the Dunedin and Wakatipu Basin public transport networks are intended to build patronage while maintaining the viability of these networks. The plans anticipate shuttle services, taxis, the Ministry of Education-funded school bus network and special education travel assistance continuing to fill the roles they currently play. The public transport network in Invercargill will be operated to meet the basic needs of the community.

Outside these three areas, existing bus services are largely orientated to the visitor market (both domestic and international), and priced accordingly. The services on arterial routes across/through Otago and Southland are either shuttle services or scheduled, inter-regional bus services. Shuttle bus services also support the operation of the off-road cycle networks

such as the Great Rides in the two regions. The plans envisage these visitor-oriented services continuing to be an important travel mode in coming decades.

Passenger rail for commuting is unlikely to be viable within the term of this plan, but rail could be used increasingly for transport to special events and for visitor excursions.

For any public transport service, whether existing or new, to be viable, the community must be prepared to support it (e.g. through rates, if necessary), and users must be willing to pay a sufficient share of the operating costs.

If public transport is to be viable outside of regions' urban areas, even at the basic level of service currently available between many towns, then it must be supported by land use planning that concentrates housing within walking and cycling distance of the key roading corridors used by buses.

For public transport use to increase, services need to be accessible for those with disabilities and for older people. This requires attention to roading design and layout, bus infrastructure, including bus stops, plus a greater proportion of the regions' buses and shuttles being accessible.

Collectively, the different forms of public passenger transport provide a means for those without cars, and those who choose not to travel by car, to travel longer distances. Public passenger transport will remain important for those for whom active transport poses a physical challenge.

Walking

The plans seek greater provision of facilities and levels of service for active modes of travel and greater use of these modes – principally walking and cycling – for local trips. An essential component of a sustainable, accessible land transport system, walking is currently considered a suitable mode of transport for short trips (under 2 km) and for connecting different modes (e.g. walking to a bus stop or from a car park to work). Walking also has an important recreational role and contributes to improvements in community wellbeing, public health, the minimisation of environmental effects and the transition to a low emissions economy.

The plans envisage people walking longer distances and more often. The strategic part of these plans seeks to encourage and support higher levels of pedestrian activity through land-use planning that enables people to live within walking distance of local services, including transport services, and through improved pedestrian facilities.

Cycling

The RTCs are seeking to increase the number of people choosing to cycle in urban and peri-urban areas and on cycle trails (as discussed in Section 0 above).

Making better provision for cycling is not just about providing space on the roads; it also means providing connections between trails and cycling tracks on the one hand, and those parts of the road network used by cycling commuters on the other hand.

Urban and rural connections for walking are also important and often done as part of an Approved Organisation's programme of low cost / low risk projects.

Cycling contributes positively towards a sustainable and accessible transport network, because it is energy efficient, has minimal environmental impacts, is affordable and has associated health and fitness benefits. Increasing the use of cycling will contribute to improvements in community wellbeing, public health and the transition to a low emissions economy.

The plans seek to encourage and enable higher levels of cycling. Reallocating existing roading space to cycling, and providing for cycling in new roading projects, will help increase recognition of the rights of cyclists to safe road space. Provision of good quality cycle facilities within the roading corridor, including separate facilities, will play an important role in increasing the levels of cycling within the two regions. Improved land-use planning practices will also assist in greater levels of cycling activity because local services, as well as transport services, will be more accessible by bicycle.

Continued expansion of cycle tourism, through the provision of quality experiences on trails and the construction of further trails, will help build this sector of the tourist market, aimed at both overseas and domestic visitors. Providing better connections between trails (although this is not a major focus of this plan) will encourage visitors to remain longer in the south.

Other modes of personal transport

The RTCs recognise the need to provide for the safe use of other modes of personal transport such as mobility scooters, electric bikes, skateboards, and horses. In some areas, infrastructure may need to be redesigned or operator skills increased, to provide for their safe use, together with other modes such as walking and cycling.

Addressing current and future demand for access to economic and social opportunities

These plans seek to manage demand for travel and freight to make best use of the existing transport network, to promote resilience in the face of potential volatility in the price and supply of oil-based fuels, and to address any localised current and future congestion on particular routes. Demand for vehicle travel is forecast to rise in areas experiencing economic and population growth (GPS 2015). Market forces, land-use planning, and the provision of information on travel choices are commonly used to help to manage demand. The provision of quality public transport, walking and cycling infrastructure in urban areas, the installation of bike racks on buses, the management of parking supply and price, and encouraging people to live near bus routes, will help manage travel demand. Improvements in, and wider use of, communications technology may also reduce the need to travel.

An aging population, and the younger generations being less reliant on the private motor vehicle, as well as possible changes in oil price or supply constraints, and the increasingly availability of alternative fuels (including “drop-in” fuels) are expected to influence people’s choices about where to live, what type of vehicle to own, how much travel they undertake, and how essential social and government services are located or provided. Walking and cycling facilities and public transport provide an alternative to car travel and help ensure community resilience when needed.

Encouraging future development and subdivision in areas that can be efficiently serviced by public transport will help reduce demand for private vehicle use and therefore the load on the network. Public transport linking rural communities, towns, Dunedin and Invercargill can also help reduce reliance on private vehicle travel. This is particularly so when land-use planning concentrates housing near key nodes and within walking or cycling distance of key roading corridors where public transport services run on a regular basis, connecting these nodes to a

centre with essential services. For this to be a viable way of managing the demand for travel, communities must be prepared to support public transport through rates and users must be prepared to pay a fair and sufficient share of the operating costs through bus fares. In urban areas, restrictions on car parking and appropriate pricing of parking will be required to support efforts to increase public transport use.

To build resilience and help manage capacity on the transport network, these plans propose steadily building the capacity and use of urban public transport networks in Dunedin and the Wakatipu Basin, ensuring capacity does not get too far ahead of demand and threaten the network's viability. To support improvements to urban bus services and increased patronage, local authorities need to ensure urban subdivision and developments have street layouts suited to public transport as well as adequate bus stops, shelters and footpaths so people can access buses safely and conveniently. Growing the use of public transport will also mean keeping bus fares competitive with the costs of private vehicular travel.

To help manage network capacity and ensure reliable journey times, particularly for freight, there is likely to be a need to provide for an alternative utilisation of road space in busy urban areas and on key corridors – this is an issue for Queenstown. Alternatively, new modes could make use of alternative space to provide for active and shared travel modes (e.g. the gondola option being considered for Queenstown). This reduced reliance on private vehicle should ease congestion in busy areas such as SH6A.

Appendix 3. Putting customers' voices and needs to the fore

Increasingly, the voice of customers is becoming more important: the diversity of their requirements, modality shift and integration with technology to add value for money. Tourists want increased accessibility to information and facilities, e.g. communities need increased support for resiliency and cohesion and freight flows are increasing to meet customer and export growth.

The notion of what constitutes value for money needs to take diverse customer needs into account.

The shift in emphasis away from asset management to activity management, guided by adoption of the business case approach and the ONRC system, has led to a focus on providing transport systems that meet customer needs. Road controlling authorities' activity management plans and NZTA's state highway corridor management plans consider the different needs of the following groups of customers (note some customer groups overlap):

- daily commuters
- freight operators
- business and commercial traffic
- farming traffic
- rural dwellers
- the transport-disadvantaged
  - those least able to travel to basic community activities and services
- vulnerable road users
  - those who face the greatest safety risk when using the road network
- recreational users
  - those accessing recreational opportunities on road or elsewhere
- tourism operators
- international visitors
  - seeking safe, reliable routes between their arrival point and tourist attractions
  - may not be familiar with local road conditions
  - may be distracted by scenery while driving
- domestic visitors
  - almost certainly familiar with road rules and safety protocols
  - may not be familiar with local road conditions
  - may be distracted by scenery while driving.

For details of how these plans consider the needs of these customer groups, please refer to the individual plans (references below)[53].

[53] *Web links to the completed AMPs will be added in the final RLTPs (these are not yet available).* The draft State Highway Investment proposal 2018-21 and corridor management plans are available at https://www.nzta.govt.nz/planning-and-investment/201821-national-land-transport-programme/state-highway-investment-proposal/ .

Appendix 4. Measuring the success of the programme against the strategy

The proposed strategic results framework

Moving from the immediate focus to long-term results requires thinking about the best way to work out where we are now and how to make sure we are moving towards intended results of NLTF investment in projects and activities in Otago and Southland.

The first step taken by the RTCs has been to draft a strategic results framework, setting out what, why and how:

- **What** types of activities / projects that approved organisations and the RTCs themselves should be carrying out.
- **How** we should do this (e.g. by concentrating on addressing certain problems and realising certain benefits, in the way that the business case approach requires).
- And **why**: identifying the results this work is intended to achieve.

The figure on the next page, summarises the Strategic Results Framework proposed for the Otago and Southland RLTPs. This framework sets out both the short-term focus (the problems and benefits to be addressed in the next three or so years) and the longer-term results sought.

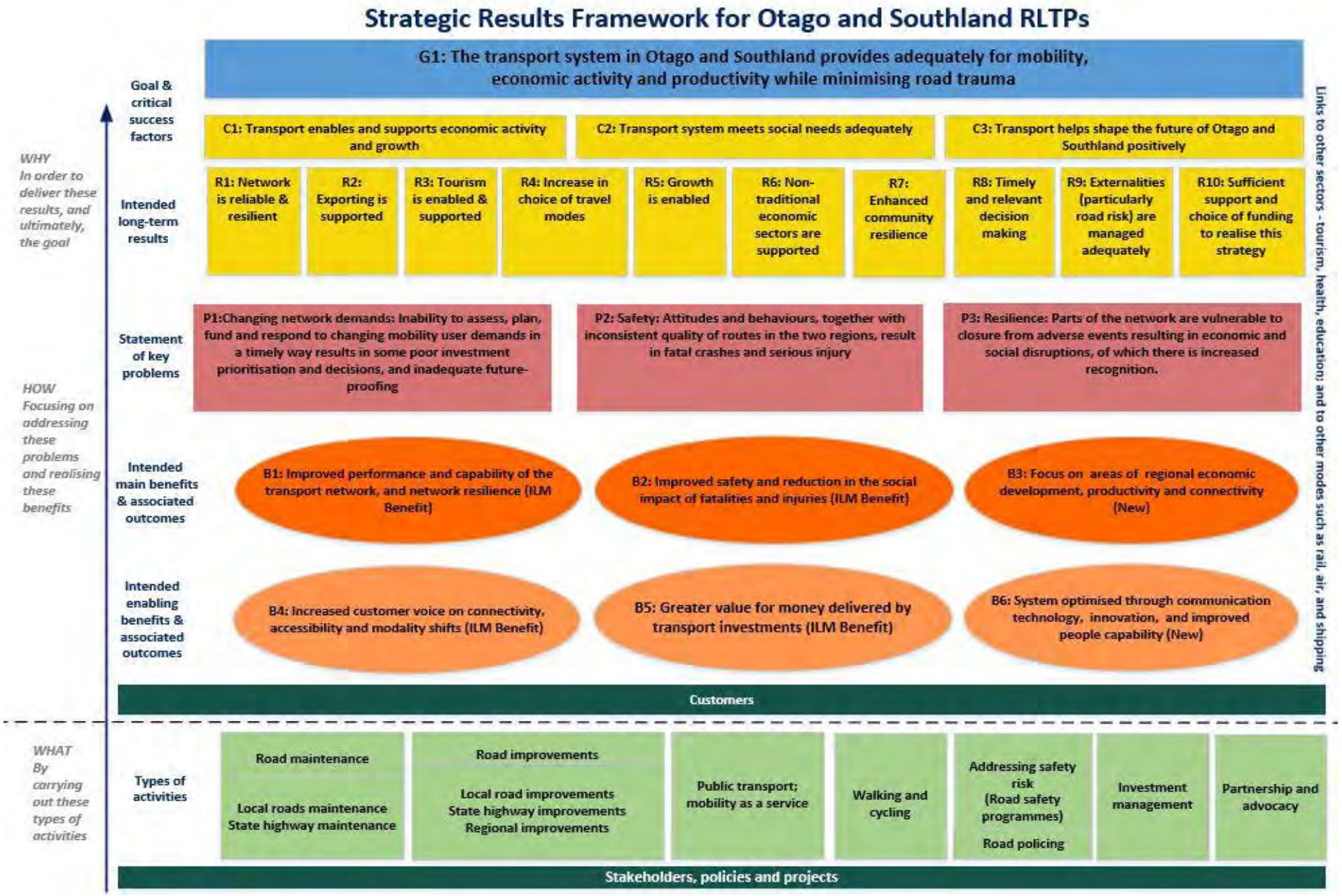
At the base of the strategic results framework are the types of activities that will feed into the main outputs and outcomes. It is intended that undertaking these activities will lead to the key outcomes and objectives being achieved and the problems addressed:

- road maintenance
- road improvements
- public transport and Mobility as a Service
- walking and cycling
- road policing
- addressing safety risk
- investment management
- partnership and advocacy.

This list of activities is consistent with the categorisation of activity classes in the (draft) GPS 2018[54]; partnership and advocacy has been added to recognise the work done by the RTCs.

Note: several activity classes have sub-activity classes which, for the sake of brevity, are not shown in the figure on the next page. Examples include local roads maintenance and local road improvements.

[54] The draft GPS as at November 2017, acknowledging this may change as a result of the change of government and the intention of the new Minister of Transport to issue a new draft GPS.


Strategic Results Framework for Otago and Southland RLTPs
G1: The transport system in Otago and Southland provides adequately for mobility, economic activity and productivity while minimising road trauma
Goal & critical success factors
C1: Transport enables and supports economic activity and growth
C2: Transport system meets social needs adequately
C3: Transport helps shape the future of Otago and Southland positively
WHY
In order to deliver these results, and ultimately, the goal
Intended long-term results
R1: Network is reliable & resilient
R2: Exporting is supported
R3: Tourism is enabled & supported
R4: Increase in choice of travel modes
R5: Growth is enabled
R6: Non-traditional economic sectors are supported
R7: Enhanced community resilience
R8: Timely and relevant decision making
R9: Externalities (particularly road risk) are managed adequately
R10: Sufficient support and choice of funding to realise this strategy
Statement of key problems
P1:Changing network demands: Inability to assess, plan, fund and respond to changing mobility user demands in a timely way results in some poor investment prioritisation and decisions, and inadequate future-proofing
P2: Safety: Attitudes and behaviours, together with inconsistent quality of routes in the two regions, result in fatal crashes and serious injury
P3: Resilience: Parts of the network are vulnerable to closure from adverse events resulting in economic and social disruptions, of which there is increased recognition.
HOW
Focusing on addressing these problems and realising these benefits
Intended main benefits & associated outcomes
B1: Improved performance and capability of the transport network, and network resilience (ILM Benefit)
B2: Improved safety and reduction in the social impact of fatalities and injuries (ILM Benefit)
B3: Focus on areas of regional economic development, productivity and connectivity (New)
Intended enabling benefits & associated outcomes
B4: Increased customer voice on connectivity, accessibility and modality shifts (ILM Benefit)
B5: Greater value for money delivered by transport investments (ILM Benefit)
B6: System optimised through communication technology, innovation, and improved people capability (New)
Customers
WHAT
By carrying out these types of activities
Types of activities
Road maintenance
Local roads maintenance
State highway maintenance
Road improvements
Local road improvements
State highway improvements
Regional improvements
Public transport; mobility as a service
Walking and cycling
Addressing safety risk (Road safety programmes)
Road policing
Investment management
Partnership and advocacy
Stakeholders, policies and projects
Links to other sectors - tourism, health, education; and to other modes such as rail, air, and shipping

In the strategic results framework, the next level up from activities is the benefits/outcomes intended as a result of the activities. There are three key benefits and three enabling benefits shown in the figure on the preceding page.

As explained in section 3.3, by focusing on realising the six benefits in the framework (and addressing the key problems), then the associated outcomes will be achieved, allowing approved organisations to make an impact on longer-term results and goals. The way that specific outcomes are expected to contribute to the realisation of each benefits is shown below (note, for the sake of brevity, these desired outcomes are not included in the figure on the proceeding page).

Main benefits and associated outcomes

1. Improvement in the performance and capability of the transport network, and network resilience.
   - Maintain current network(s).
   - Enhance network performance and capability.

2. Improved safety and reduction in the social impact of fatalities and injuries.
   - Improve safety.

3. Regional improvements, economic development, productivity and connectivity.
   - Increase economic growth and productivity (the focus areas for this are Queenstown, Dunedin, SH1, and South/North Otago rural).

Enabling benefits and associated outcomes

4. Increased customer voice, connectivity, accessibility and modality shifts.
   - Enhance community resilience and cohesion.
   - Increase health, wellbeing and environmental management.
   - Improve support of customer groups.

5. Enhanced value for money of transport investments.
   - Enhance system performance and cost.

6. Optimisation of systems: communication, technology, innovation.
   - Increase partnership and adaptive management.
   - Increase communication and technology solutions.

As management of the transport system in the Otago and Southland regions becomes more customer focused, the enabling benefits and outcomes are important building blocks to achieving the main benefits. Technology is increasingly being used to communicate with customers and to promote safety, and to collect data for timely decision-making i.e. traffic flows, pedestrian counts and real-time information for passengers and drivers.

The three enabling benefits embed not only value for money and customer voice into the three main benefit areas but also technology, innovation and system optimisation. Aligning projects to strategic results requires modality shift, customer satisfaction and system optimisation be included in activities, to contribute to the expanded longer-term results sought.

Examples of factors to be considered under each RLTP desired outcome

1. Maintain current network(s)

- activity management planning
- implement ONRC requirements
- undertake ONRC monitoring
- operate public transport networks.

2. Enhance network performance and capability

- throughput
- travel time and reliability
- availability and access
- network resilient to risk
- customer experience and/or comfort
- public transport.

3. Increase economic growth and productivity

- accessibility and connectivity
- productivity
- mobility
- customer outcomes, technical outputs, cost efficiency
- public transport
- walking and cycling tourism trails and rides.

4. Improve safety

- attitudes and behaviours (reduce road risk)
- safety (reduce social and economic costs of crashes)
- safety (reduce deaths and serious injuries)
- infrastructure safety
- public transport safety.

5. Increase communication and technology solutions

- mobility as a service
- digital integration of transport services
- increased and timely use of data in decision-making
- public transport.

6. Improve support of certain customer groups

- road safety for and of visiting drivers
- main tourist routes in Otago and Southland
- understand the internal freight task
- support efficient freight movement despite resilience issues.

7. Increase partnership and adaptive management

- making submissions and representations
- collaborative effort.

8. Increase wellbeing, health and environmental management

- support for use of active travel modes
- biodiversity
- pollution and greenhouse gases
- noise
- liveability – urban/rural - and amenity value
- resource consumption.

9. Enhance community resilience and cohesion

- community resilience
- community cohesion.

10. Enhance system performance and cost

- reduce cost of mobility and connectivity
- decrease/maintain financial cost of using transport
- timely investments.

Reporting on results

The ability to, and framework for, reporting on results is a core component of the (draft) GPS 2018. NZTA is required to report at least annually on progress being made in achieving the GPS 2018 short, medium and long-term results. Additionally, each RLTP is required to set out measures that will be used to monitor the performance of activities and a description of how monitoring will be undertaken to assess implementation of the RLTP.

In 2018/19, indicators will be added to this framework to allow the RTCs to monitor and assess progress towards achieving the long-term results and desired outcomes, sought through the investment recommendations in these RLTPs. A table of indicators will be added to the RLTPs (containing key measures and questions) and then accessible baseline information collected and targets for 2018/19 and beyond identified.