Attachment A

Findings Report of the Speed Management and Speed Limits Bylaw 2009 Review

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1 SUMMARY OF KEY FINDINGS

As a review of both the mechanism for setting permanent, variable and temporary speed limits in the district (the bylaw) and the actual limits set (the speed management review), the findings are presented in two distinct subsets.

- The bylaw

A bylaw is required to establish legally enforceable permanent, temporary and variable speed limits. As a moving vehicle offence, breaches of speed limits are enforced by the New Zealand Police.

Since the previous bylaw review and amendments to the current bylaw, there have been several changes to legislation (including the legislation the bylaw is made under) and council has developed several transport strategies in the face of unprecedented population growth and corresponding increases in vehicles on the roads.

The current bylaw was made under the Local Government Act 2002 (LGA) and speed limit regulation is now under the Land Transport Act 1998 (LTA). Although still applicable, it is appropriate to amend the form and content of the bylaw to reflect the legislative changes.

Benchmarking with other territorial authority's approaches also revealed opportunities to improve the form and language of the bylaw, to make it easier to understand and apply.

The current bylaw includes schedules of current speed limits, which is unnecessary under the LTA if the information is still easily accessible to the public.

Removal of the schedules from the bylaw would enable Council to make changes by resolution, meaning a faster response time to issues identified in the district, address growth and enable changes necessary for the transport network operation.

Any changes to speed limits in the district made by Council resolution must still be subject to appropriate consultation; but will not automatically require the use of the Special Consultative Procedure as they do when part of the bylaw itself (as at present).

- The speed limits

This is the first formal speed management review of the district's road network (and the first full network review completed) since changes to national regulation and guidance documents altered the practices required by Council to ensure its road network development and controls are supporting safe and appropriate operating speeds.

The new process considers several factors including crash statistics (from the 55 fatalities over the past 17 years on the district's roads through to minor accidents), road age (the average age is 26 years) and condition, and surrounding environments/hazards.

Feedback from interviews with key internal and external stakeholders highlighted overwhelming support for consistent speeds across the network and the need to achieve safe and appropriate operating speeds, particularly in areas frequented by vulnerable road users e.g. around schools and in town centres.

The speed management review has identified 40 sealed rural roads and 15 urban areas in the district where a reduction in speed limit is recommended. A further 92 unsealed rural roads (347km) with a current speed limit of 100km/h have been identified for a reduction to 60km/h or 40km.

This is an extensive and comprehensive proposal for change for the network and a staged approach to implementing altered speed limits is recommended after considering several factors.

In summary, it recommended that initial speed limit changes are focused on:

- improving safety for vulnerable road users (urban traffic areas)
- improving safety on roads with high death or serious injury risk (five identified high benefit opportunity roads)
- permanent changes to areas with recently posted reduced speed limits (four roads).

2 INTRODUCTION

2.1 PURPOSE OF THE REPORT

This report presents the findings of the Queenstown Lakes District Council (the Council) Speed Management and Speed Limits Bylaw 2009 (the bylaw) Review.

The report sets out the review process undertaken and the reasoning underpinning the recommendations to:

- revoke the current bylaw and replace it with the Speed Limits Bylaw 2019
- adopt recommended new speed limits for roads and urban traffic areas identified as required across the district to achieve safe and appropriate operating speeds
- implement on-road changes for roads identified across the district as required to achieve safe and appropriate operating speeds.

2.2 WHY REVIEW NOW

Under section 22AB of the LTA, Council can establish bylaws for the setting of speed limits in accordance with the Land Transport Rule 54001: Setting of Speed Limits 2017 (the Rule).

The bylaw was last reviewed in 2009 under the LGA and came in to force on 1 June 2009. Since then, there have been three amendments in 2010, 2012, 2015 to implement speed limit changes in accordance with the previous Land Transport Rule 54001: Setting of Speed Limits 2003.

In 2015, the Land Transport (Speed Limits Validation & Other Matters) Act 2015 was passed to create a clear power for councils to make Speed Limit Bylaws under the LTA and to mandate existing bylaws to be considered as being made under the LTA.

There are 50 outstanding customer requests for speed reductions across the district at present. For Council to implement new permanent speeds a full special consultative process is required. It has been four years since the last bylaw review, and it is considered good practice to review speed limits annually.

2.2.1 Changes in Legislation

On 21 July 2015 the Land Transport (Speed Limits Validation and Other Matters) Act 2015 (Validation Act) was passed under urgency by Parliament and came into force on 22 July 2015.

The Validation Act responded to concerns that some speed limit bylaws made up to that date may have:

a. referenced incorrect or revoked empowering provisions
b. been made or amended using a non-compliant process
c. been revoked due to non-compliance with review requirements in the LGA.

The Validation Act also amended the LTA to place a specific power in Section 22AB for road controlling authorities (RCAs), such as the Council, to make speed limit bylaws.

2.2.2 Changes to Speed Management Guidance

In 2016, the New Zealand Transport Agency (NZTA) introduced the New Zealand Speed Management Guide (the Guide) to assist councils in determining road risk and in working with their communities to address risks identified. The Guide fulfilled part of the 2012-2015 Safer Journeys Action Plan and

the overall direction for speed management continues through the 2016-2020 Safer Journeys Action Plan.

To formalise the Guide's new approach to speed management, the Rule was also updated in 2017 and in particular:

a. requires NZTA to provide guidance on and information about speed management to councils
b. requires councils to set speed limits that are, in the council's view, safe and appropriate
c. encourages a consistent approach to speed management throughout New Zealand
d. replaces the methodology of the 2003 Rule with assessment criteria and outcome statements based on the approach in the Guide.

While the 2003 Rule has been replaced, a speed limit set, or an urban traffic area designated, prior to the commencement of the 2017 Rule continues to apply.

An urban traffic area is defined area that sets a default speed limit in urban areas. For example, the Wanaka township in the current bylaw is designated as an urban traffic area.

2.3 SAFER JOURNEYS STRATEGY

Every year, on New Zealand's roads:

- Hundreds are killed
- Over 2,200 people are seriously injured
- Over 9,000 people suffer minor injuries

At a social cost of $4.4b per annum.

In 2010, NZTA launched Safer Journeys, a strategy designed to guide New Zealand's efforts to improve road safety from 2010-2020.

The aim of safer journeys is a safe road system increasingly free of death and serious injury. A safe road system comprises:

- Safe roads and road sides
- Safe road use
- Safe vehicles
- Safe speeds.

The safe system approach recognises that:

- people make mistakes
- people are vulnerable
- we have a shared responsibility [in keeping ourselves and others safe]
- we must strengthen all parts of the system.

The safe system's objectives are:

- Make the road system more forgiving of human error
- Reduce forces that injure in a crash to a level the body can tolerate without serious injury
- Minimise the level of unsafe road use behaviour.

2.4 SCOPE

Consistent with the principles of the Guide, the scope of the Speed Management and bylaw reviews was defined by the following questions:

a. Is the network area appropriately defined?
b. Have the safe and appropriate speeds been determined?
c. Are there high benefit opportunities to improve both safety and economic productivity?
d. Does Council have the capacity to deliver on priority areas for speed management?
e. How will Council monitor and evaluate the outcomes of its speed management activities?

This review has assessed the whole road network under Council's jurisdiction. In contrast, previous bylaw reviews or speed limit amendments have focused on specific roads or areas that have been identified via the community or council officer's assessments.

2.5 Out of scope

Although the state highway network across the district provides key connections to and has significant influence on the use of Council's road network, these roads are out of scope for the review.

NZTA has participated in Council's review and had endeavoured to align its own network review, however national priorities have been Auckland, Waikato and Christchurch. Staff will continue to communicate with NZTA regarding the timing and implementation of changes to its speed limits following this review.

2.6 Methodology

Various research and engagement methods were used to gain insight on the key questions.

Local data: Information was gathered and reviewed on local roads' performance and status, vehicle and operational speed counts, crash data and crash environments and speed infringements. On site sense checking of the safe and appropriate operating speeds recommended on NZTA's speed map for the district was also completed.

Research: Desktop research was conducted on the existing plans and legislation for speed limit management, including the Land Transport Act 1998, Land Transport Rule 54001: Setting of Speed Limits 2017, Local Government Act 1974 and Local Government 2002. Benchmarking of other RCAs speed management approaches was also undertaken.

Community request: Information from customer requests since the last bylaw amendment was reviewed.

Internal stakeholder engagement: Feedback was received from Regulatory, Community Services, Parks and Recreation and Property and Infrastructure.

External stakeholder engagement: All community and village associations, local education providers, large tour operators, small passenger service vehicle operators, social service agencies, local and central government agencies and representatives from business association were invited to provide initial feedback on speed in the district.

Analysis of past speed limit bylaw reviews and amendments: Several reviews of the bylaw and previous versions have been completed and the results of those reviews were considered.

3 WHAT CURRENTLY GOVERNS SPEED LIMITS

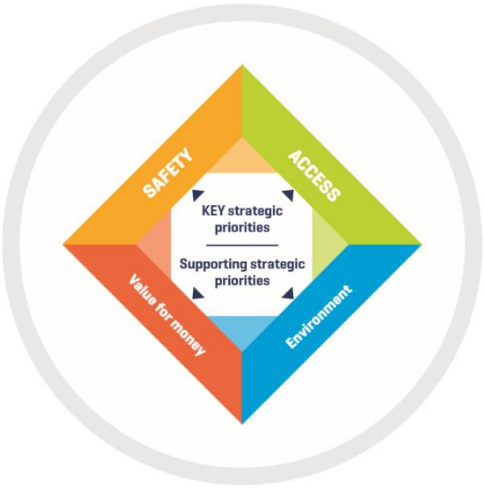
3.1 THE GOVERNMENT POLICY STATEMENT ON LAND TRANSPORT 2018

The Government Policy Statement on Land Transport (GPS) 2018/19- 2027/28 sets out the government's priorities for expenditure from the National Land Transport Fund over the next 10 years.

The GPS sets out how funding is allocated between activities such as road safety policing, state highway improvements, local and regional roads and public transport.

The new GPS presents several changes in direction, prioritising a safer transport system free of death and injury, accessible and affordable transport, reduced emissions and value for money.

The new strategic direction, summarised below highlights 'safety' as one of two key strategic priorities:



Data Source: Government Policy Statement on Land Transport 2018/19-2027/28

Safety as a key strategic priority:

- reflects a significant increase in the level of ambition for delivering a land transport system free of death and serious injury
- signals a greater focus on investing in safety improvements on high risk state highways and local roads across the network, including speed management and primary safe system treatments
- outlines a commitment to deliver a new road safety strategy for New Zealand
- drives improvements in safety outcomes for all road users, including increased investments in footpaths and cycleways to support access to, and uptake pf, active travel modes.

The GPS acknowledges New Zealand roads, speeds, vehicles and user behaviours are a long way from what is required to achieve the government's aim of a land transport system with minimal death and injury.

Increased investment in infrastructure improvements on roads and speed management via safer speeds, supported by education to assist in changing people's behaviour has been proven in numerous countries (e.g Sweden, Norway) to reduce significant injury and death.

3.2 NATIONAL LEGISLATION REGULATING SPEED LIMITS

The overarching legislation for setting speed limits is the LTA. This is supported by regulations, known as Rules, the most relevant being the Setting of Speed Limits 2017 as outlined above.

The LTA provides a specific bylaw making power to RCAs for the setting of speed limits on the roads under its jurisdiction.

The intention of a bylaw is to provide the RCA the ability to regulate speed and enforce behaviours that are not available through existing mechanisms (such as the LTA or Rules), noting that moving vehicle offences are enforced by the New Zealand Police.

3.3 CHANGES TO THE LAND TRANSPORT RULE 54001: SETTING OF SPEED LIMITS 2017

The Land Transport Rule 54001: Setting of Speed Limits 2017 establishes the methodology for setting permanent, variable and temporary speed limits.

The Rule formalises key elements of the Speed Management Guide, in that it:

- requires NZTA to provide guidance to council's on how to set safe and appropriate speeds on roads within their respective jurisdictions and that council's must have regard to this guidance when reviewing speeds
- encourages a consistent approach to speed management throughout New Zealand
- replaces the previous methodology of setting speed limits.

The Rule also introduced the requirement for NZTA approval for new 70 km/h and 90km/h speed limits. This reflects the goal of the Safer Journeys road safety strategy to, over time, reduce the number of different speed limits applying at higher speeds to 60 km/h, 80 km/h, 100 km/h, and 110 km/h. The intention is to make speed limits safer and more consistent, that is to improve the decision-making by drivers across the country relative to the posted speed limit.

While RCAs can set new permanent and temporary speed limits (outside of the 70km/h and 90km/h discussed above), NZTA approval is required for the setting of new variable speed limits (e.g. such as outside schools).

RCAs must maintain an up to date register of road speeds under the new Rule which shows set speed limits of all roads, urban traffic areas, and designated traffic areas. The registers must always be available to NZTA and the public.

3.4 DISTRICT PLAN

The Operative District Plan (ODP) and Proposed District Plan (PDP) outline the requirements for road classification which aligns with the One Network Road Classification (ONRC). The ONRC is a classification system, which divides New Zealand's roads into six categories (that translate to four classes with 1 being the highest) based on how busy they are, whether they connect to important (key economic) destinations or are the only route available (resilience).

The six categories are:

- National (e.g. SH1 Dunedin to Christchurch)
- Arterial (e.g. SH 6 Cromwell – Wanaka)
- Regional (e.g. SH 6 Queenstown to Cromwell)
- Primary collector (e.g. Queenstown to Glenorchy Road)

- Secondary collector (e.g. Speargrass Flat Road)
- Access (e.g. Skippers Road)

The PDP Chapter 24 Wakatipu Basin objectives include encouraging mode change (away from cars) and improving both the safety and experience of residents and ratepayers on the district's roads.

The PDP Chapter 29 Transport provides parameters around manoeuvring on to roads with certain speeds limits from public and private facilities to ensure all road users safety. Ensuring safe and appropriate speeds are in place around new subdivision and commercial development contributes to the safety of road users.

At the date of writing, the PDP Chapters 24 and 29 have been through hearings, with recommendations to be presented to Council on 7 March 2019.

3.5 CURRENT BYLAW

The Speed Limits Bylaw 2009 and the 2010, 2012 and 2015 amendments were made under the LGA 1974, the LGA 2002 and the Land Transport Rule 54001: Setting of Speed Limits 2003. The bylaw was mandated by the Validation Act in 2015.

The bylaw has several schedules attached, meaning any speed limit changes require an amendment to the bylaw and as a result, a special consultative procedure.

The bylaw sets out roads and designated areas in schedules to declare speed limits across the district.

A designated area is outlined in the Rule as having a permanent speed, variable speed or a holiday speed limit.

In practice this allows Council (as it does at present) to designate a township or area at a certain speed that Council considers to be safe and appropriate.

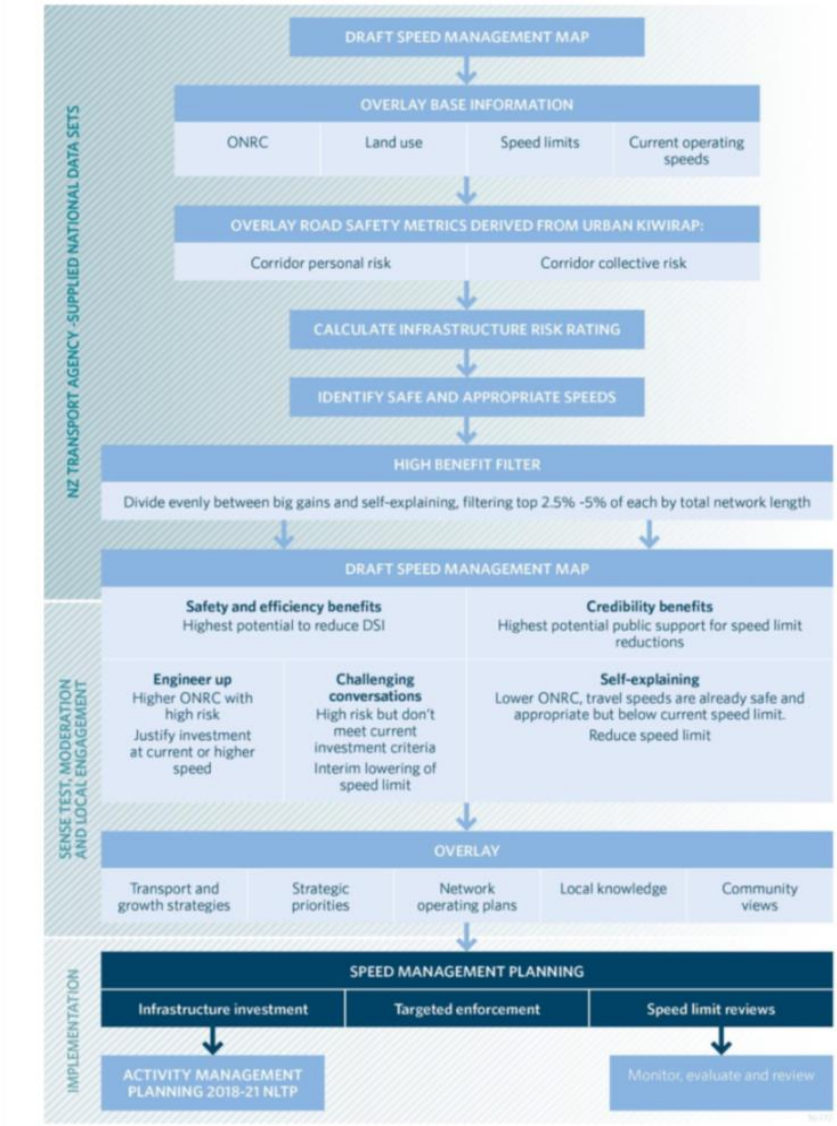
4 SPEED MANAGEMENT

4.1 NEW ZEALAND SPEED MANAGEMENT GUIDE

4.1.1 Speed Management Framework

The Guide provides a framework (Figure 2.1 below) for the development of safe and appropriate speeds across the country, with the purpose of a 'one network' approach to ensure consistency both regionally and nationally.

Figure 2.1 The Speed Management Framework



Date Source: Speed Management Guide 2016

4.1.2 Speed Management Map

As part of the new process introduced under the Guide, early in 2018 NZTA provided Council with a draft speed management map of the network that:

- Shows where the existing speed limits differ from the frameworks safe and appropriate operating speeds
- Identifies areas for speed limit changes
- Identifies areas Council can make infrastructure improvements to improve roads to increase safety.

Safe and appropriate operating speeds are those deemed appropriate for the road function, design, safety and use (i.e. both safety and efficiency are considered).

4.1.3 Inputs to Determining Safe and Appropriate Operating Speeds

4.1.3.1 Infrastructure Risk Rating

NZTA has developed the Infrastructure Risk Rating (IRR), which is a predictive tool that assesses road safety risk and rates specific roads and corridors (lengths of roads), as an input to the process of generating speed management maps.

The IRR considers the following eight key features that impact on road safety:

1. **Road Stereotype:** records whether a road is divided or undivided, two lane, multi-lane, sealed or unsealed
2. **Alignment:** horizontal alignment measured in turns per km and divided into four categories, straight, curved, winding, tortuous
3. **Carriageway width:** uses a matrix which has lane and shoulder width as inputs
4. **Roadside Hazards**: uses offset and severity of hazards. Left and right side assessed separately and averaged
5. **Land use**: An assessment of surrounding lane use, how it is accessed, and the resultant level of activity on the road
6. **Intersection density:** use and volume of intersection- considers vehicles, pedestrians, active transport
7. **Access density:** use and volume of roads- considers vehicles, pedestrians, active transport
8. **Traffic volume:** number of vehicles

The eight influencing features combine to classify a road as **low, low-medium, medium, medium-high, high.** Examples against each classification are provided below.

Low: Earl Street, Queenstown; Ardmore Street, Wanaka

Low-Medium: Lake Hayes Road, Queenstown; Golf Course Road, Wanaka

Medium: Glenorchy - Queenstown Road, Queenstown; Mt Aspiring Road, Wanaka

Medium-High: Crown Range Road, Queenstown; Mount Baker Road, Wanaka

High: Hogans Gully Road, Queenstown; Morris Road, Wanaka

4.1.3.2 Risk Rating

Collective and Personal risk is another input to speed management maps, as outlined in the framework (Figure 2.1). The crash risk measure for roads is a combination Collective Risk (being likelihood for a given location) or Personal Risk (being driver likelihood given distance travelled).

Collective Risk highlights road links that have a high number of fatal and serious crashes and helps in prioritising investment and/or speed reduction to realise the greatest road safety gains.

Unlike Collective Risk, Personal Risk considers the traffic volumes on each section of road. Personal Risk shows the likelihood of a driver or rider, on average, being involved in a fatal or serious road crash on a stretch of road.

Personal Risk is typically higher in more difficult terrain where traffic volumes and road standards are often lower. In many cases infrastructure improvements on these roads are unlikely to be cost effective and lower speed limits are recommended.

4.1.3.3 Road Classification

The Guide provides a classification method which combines the IRR and Collective and Personal Risk metrics to determine a speed appropriate for the road function, design, safety and use for both urban and rural areas as shown below.

Urban and Rural areas are defined in the Guide using Statistics New Zealand classifications. Urban areas are defined areas with no administrative or legal basis to identify concentrated urban settlements.

There is no internationally recognised definition of a 'rural' area. These are traditionally residual areas not included in the urban definition. It is recognised that the differentiation between urban and rural areas is not always clear cut, particularly in high growth areas undergoing changes in function and land use.

Locally, Queenstown and Wanaka are considered urban areas whereas smaller townships such as Arrowtown and Hawea are rural areas. Both urban and rural areas can be defined and mapped as designated speed areas.

4.1.3.3.1 Proposed Safe and Appropriate Speeds - Urban Road Classification

Function / Feature	Road safety metric	Infrastructure Risk Rating	Safe and Appropriate Speed (km/h)
• **ONRC** is Class 1 or 2 • Identified as a Freight Priority Route in a Network Operating Framework • Limited Access Road controls • Median Divided	• Personal Risk ≤ Low-Medium;	• **'Low' or 'Low Medium'**	• **80**
• **ONRC** is Class 1 or 2 • Non-commercial[2] adjacent land use	• Personal Risk ≤ Medium;	• **'Low' or 'Low-Medium'**	• **60**
• **ONRC** is Class 1 or 2 • Non-commercial[2] adjacent land use	No road safety metric used in the assessment	• **Any IRR**	• **50**
• **ONRC** is Primary Collector • Residential adjacent land use	• Personal Risk ≤ Medium-High	• **Low to Medium**	• **50**
• **Any ONRC** • Non-commercial and non-residential adjacent land use	• Personal Risk ≤ Medium-High	• **'Low' to 'Medium'**	• **50**
• **Any ONRC** • CBD/town centre • Residential neighbourhoods	No road safety metric used in the assessment	• **'low' to 'Medium-High'**	• **40**
• **Any ONRC** • CBDs or town centres with high place function and concentration of active road users	No road safety metric used in the assessment	• **'High'**	• **30**
• **Parks**	No road safety metric used in the assessment	• **Any rating**	• **20**
• **Shared spaces** with high place function and concentration of active road users • **Car parks**	No road safety metric used in the assessment	• **Any rating**	• **10**

4.1.3.3.2 Proposed Safe and Appropriate Speeds - Rural Road Classification

Function / Feature	Road Safety Metric	Infrastructure Risk Rating	Safe and Appropriate Speed (km/h)
• **ONRC** is Class 1 • Median Divided and at least 2 lanes in each direction • No direct property access • Grade separated intersections	• Personal Risk ≤ Low-Medium; • Collective Risk ≤ Medium-High;	• **'Low'**	• **110**[7]
• **ONRC** is Class 1 – 3 • Sealed road	• Personal Risk ≤ Medium; • Collective Risk ≤ Medium-High;	• **'Low' or 'Low-Medium'**	• **100**
• **Any ONRC**	• Personal Risk ≤ Medium-High;	• **'Low' to 'Medium'**	• **80**
• **Any ONRC** • **Not in a rural town**[2] • **Sealed road**	No road safety metric used in the assessment	• **'Low' to 'High'**	• **<80**
• **Any ONRC** • **Not in a rural town**[2] • **Unsealed road**	No road safety metric used in the assessment	• **'Low' to 'High'**	• **<80**
• **ONRC** is Class 1 – 2 • **Rural town**[2]	• Personal Risk ≤ Low-Medium • Collective Risk ≤ Medium-High	• **'Low' or 'Low-Medium'**	• **80**
• **ONRC** is Class 1 – 3 • **Rural town**[2]	• Personal Risk ≤ Medium	• **'Low' to 'Medium'**	• **60**
• **Any ONRC rural town**[2]	• Personal Risk ≤ Medium-High,	• **'Low' to 'Medium'**	• **50**
• **Rural town**[2] • High place function and concentration of active road users	No road safety metric used in the assessment	• **'Low' to 'Medium-High'** • **Or 'High'**	• **<50**

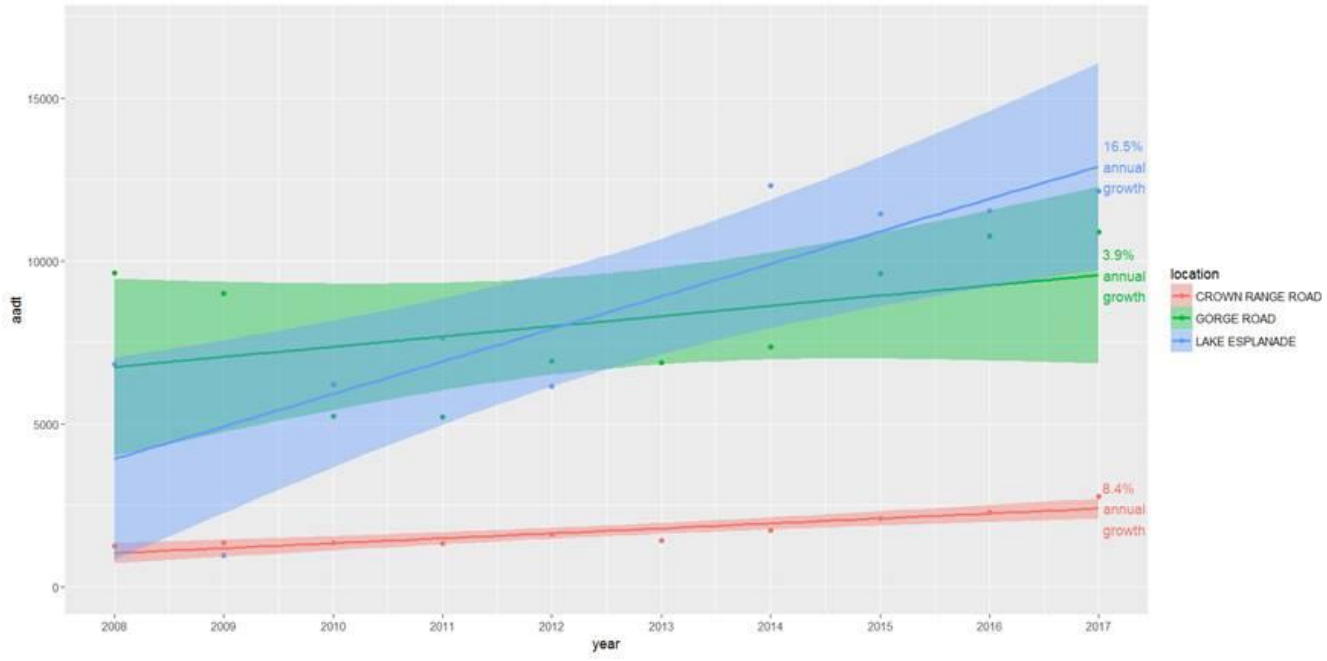
Data Source: Speed Management Guide 2016

5 DISTRICT CONTEXT

5.1 VEHICLE USE GROWTH

The Queenstown Lakes District has had significant growth in recent years. The Queenstown Integrated Transport Business Case completed in 2017 by NZTA reported 55% of visitors to the district are now arriving by vehicle, with independent travellers favouring self-driving options rather than the more traditional tour coaches.

The table below demonstrates the growth across the permanent traffic count sites ranged from 3.9% to 16.5% annually. Council regularly monitors the volume of traffic across the district to determine growth, travel trends, operating speeds and peak times.



5.2 LOCAL AND NATIONAL ROAD CRASH DATA (INCLUDES STATE HIGHWAYS)

In 2015, crashes in the New Zealand that involved driving 'too fast for the conditions' resulted in 101 deaths (a third of fatalities that year) and 496 serious injuries.

International research indicates reducing speeds has a direct impact on reducing deaths and injuries when crashes occur. Key findings include:

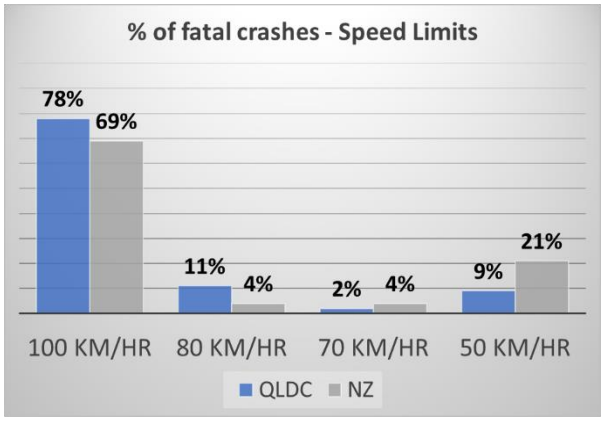
- The likelihood of casualty crash involvement doubles for every 5 km/h above a 60 km/h posted limit, and for every 10 km/h above a 100 km/h posted limit.
- A 5% decrease in average speed leads to around 10% fewer injury crashes and 20% fewer fatal crashes.
- A review of evidence from speed studies in various countries showed that a decrease of 1km/h in mean traffic speed typically results in a 3% decrease in the incidence of injury crashes, or a decrease of 4-5% for fatal crashes.

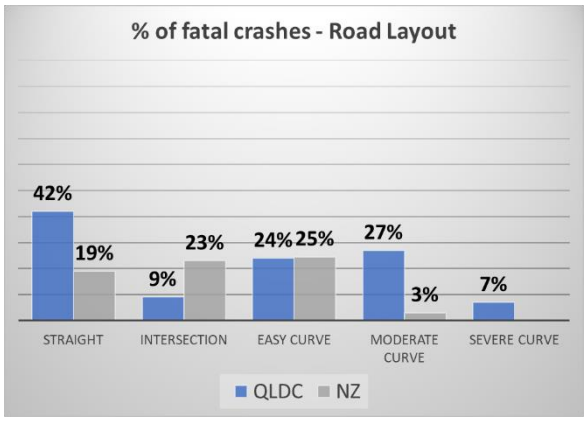
The table below compares local, regional and national data 2000-2017 of crashes, and identifies types of road (dry/wet), conditions such as road stereotype, time of day and speeds.

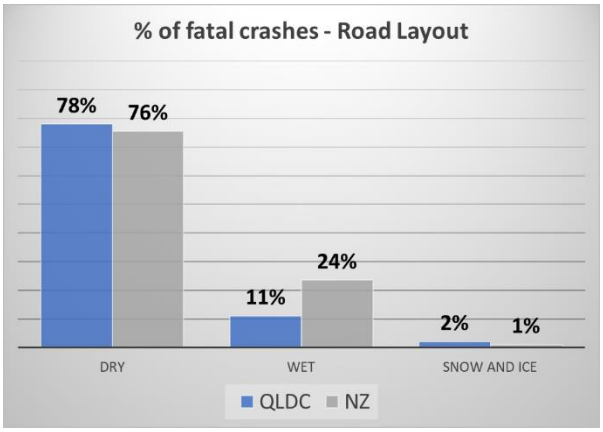
QLDC			Otago	NZ
Population 2017: 37100			**224,200**	**4,793,700**
45 fatal crashes killed 55 people in the Queenstown Lakes District from 2000 to 2017.			275 fatal crashes killing 314 people	5,929 fatal crashes causing 6,710 fatalities
	% Fatal Crashes	**% Fatalities**	**% Fatal Crashes**	**% Fatal Crashes**
Single Vehicle	47%	49%	42%	41%
Multivehicle	38%	38%	41%	52.50%
Vehicle-Pedestrian	15%	13%	12%	11%
Flat Road	58%	56%	65%	75%
Hills	42%	44%	35%	25%
Midblock	91%	89%	80%	81%
Straight	42%	42%	51%	49%
Intersection	9%	11%	20%	19%
Easy Curve	24%	22%	22%	23%
Moderate Curve	27%	22%	23%	25%
Severe Curve	7%	11%	3.60%	3%
Open Road	89%	91%	78%	73%
Urban	11%	11%	22%	27%
Dry	78%	85%	82%	76%
Wet	11%	13%	18%	24%
Snow and Ice	2%	2%	0%	1%
100 km/hr	78%	82%	71%	69%
80 km/hr	11%	9%	7%	4%
70 km/hr	2%	2%	2%	4%
50 km/hr	9%	7%	18%	21%
Daylight	69%	71%	62%	57%
Dark	31%	29%	38%	42%
71% of fatal vehicle-pedestrian crashes occur in the dark				
Car/Station Wagon		60%	65%	70%
Motorcycle		15.50%	14%	12%
SUV		11%	12%	11%
Taxi		4%	0.70%	0%
Truck		13%	20%	19%
Van/Utility		18%	20%	18%
Bus		4%	1%	2%
Bicycle		0%	4%	3%
Tree		22%	12%	12%
Fence		9%	34%	13%
Ditch		4%	9%	8%
Cliff bank		4%	8%	7%
Bridge		2%	2.50%	2%

Data source: NZ Transport Agency, 2018, Crash Analysis System

The graphs below provide data on speed, road layout and conditions at the time of fatal crashes in the district compares with New Zealand.

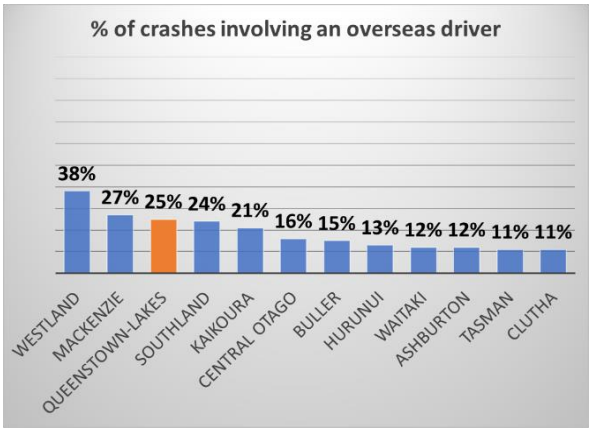






Crash statistics for the district indicate that most crashes are occurring on open roads with high speed limits, 75% involving local drivers.

The diagram below shows the percentage of overseas drivers involved in all crashes across the district for the years 2000-2017 inclusive.

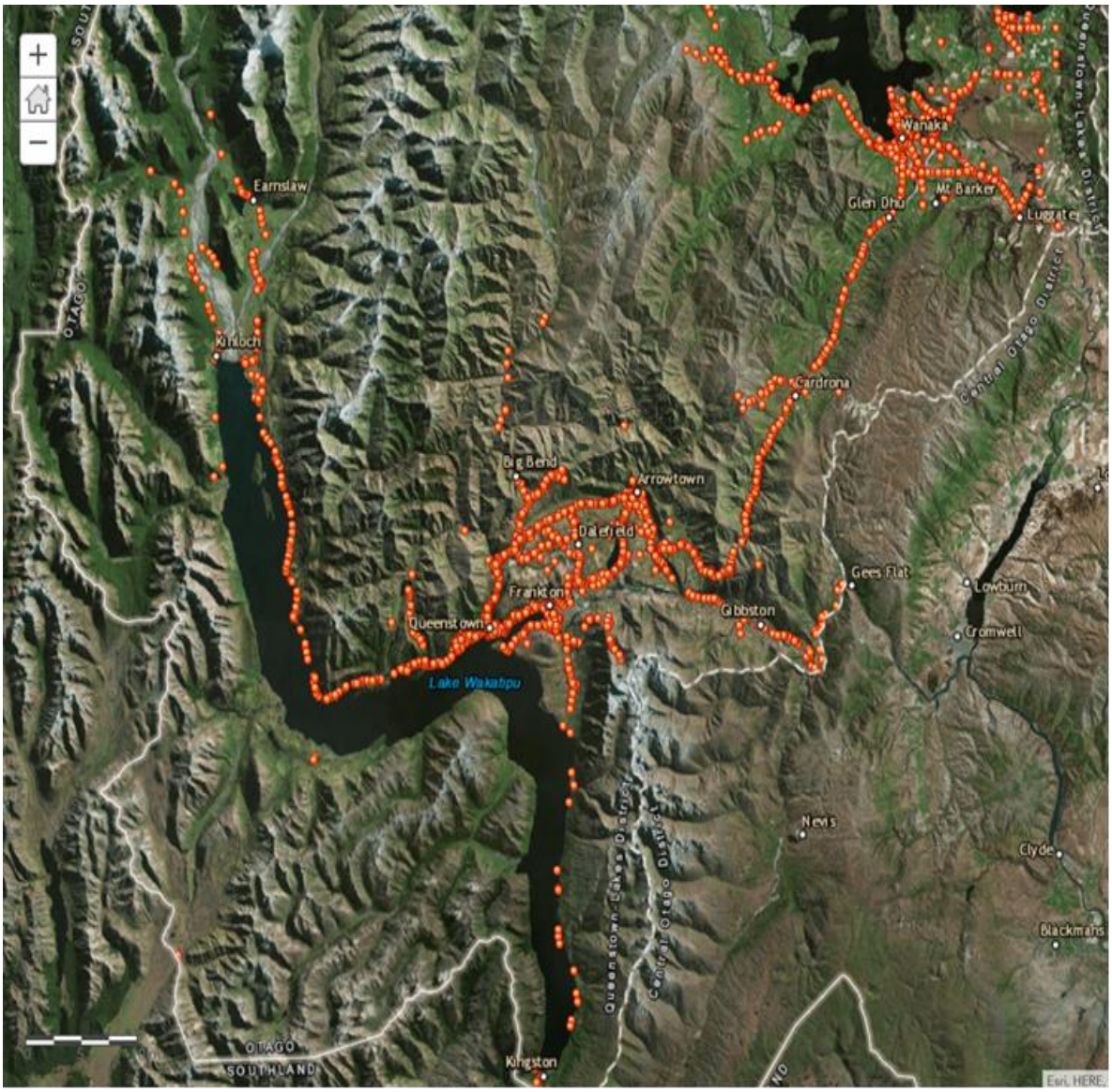


Data source: NZ Transport Agency, 2018, Crash Analysis System

5.2.1 District Crash Statistics Summary 2000-2017

- 6,066 total crashes (4,022 on local roads, 2,044 on state highways)
- 55 people were killed on the district's roads from January 2000 to December 2017.
- The total number of reported crashes has increased significantly to 46%. This compares to a 17% increase across Otago and the country over the same period.
- The greatest increase has been in non-injury crashes at 44%, from 184 crashes in 2000 to 330 in 2017.
- 75% involved local drivers
- 78% on dry roads
- 78% on roads with 100km/h speed limits
- 42% on straight roads.

5.2.2 District Crash Locations 2000-2017

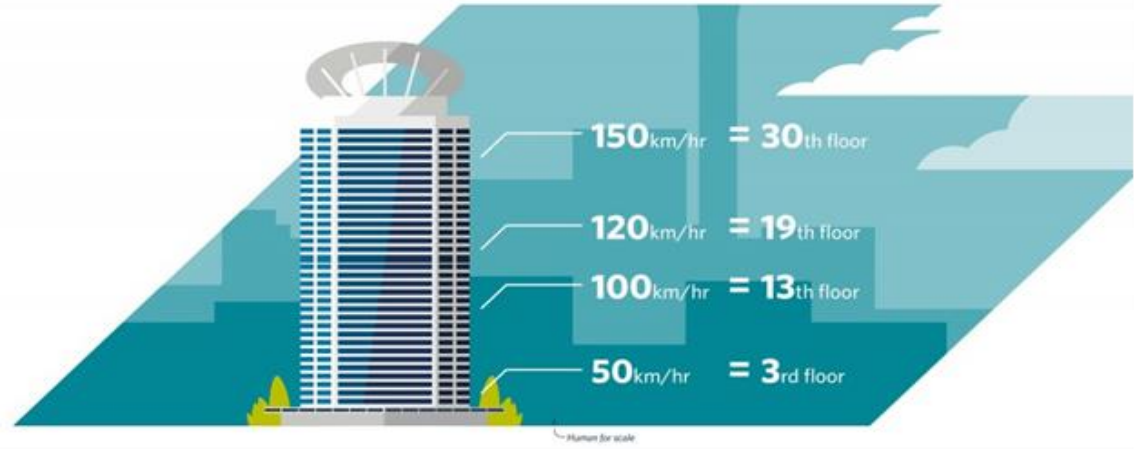


Data source: QLDC RAMM

5.3 THE ROLE OF SPEED IN CRASHES

In 2017, speed was a contributing factor in 95 fatal crashes, 526 serious injury crashes and 1,362 minor injury crashes throughout New Zealand.

The below infographic shows the impact of a crash at speeds translated into a fall from the floor of a building:



When a vehicle crashes, a rapid change of speed occurs, but the occupants keep moving at the vehicle's previous speed until they stop. The faster vehicles are travelling the more energy is absorbed by the occupants at the time of impact; resulting in more severe injury.

Speed has a large impact on what happens during a crash to occupants or another vehicle/pedestrian.

For example, if a pedestrian steps out in front of a vehicle it takes one second to react:

- At 50km/h, drivers need at least 27m to stop
- At 60km/h, drivers need at least 36m to stop

The probability that the pedestrian will die increases rapidly with relatively small increases in speed.

For example, a pedestrian struck by a vehicle:

- at 40km/h has a 75% chance of survival
- at 50km/h has a 45% chance of survival
- At 60km/h has a 15% chance of survival.

Reducing speeds has a direct impact on reducing deaths and injuries when crashes occur.

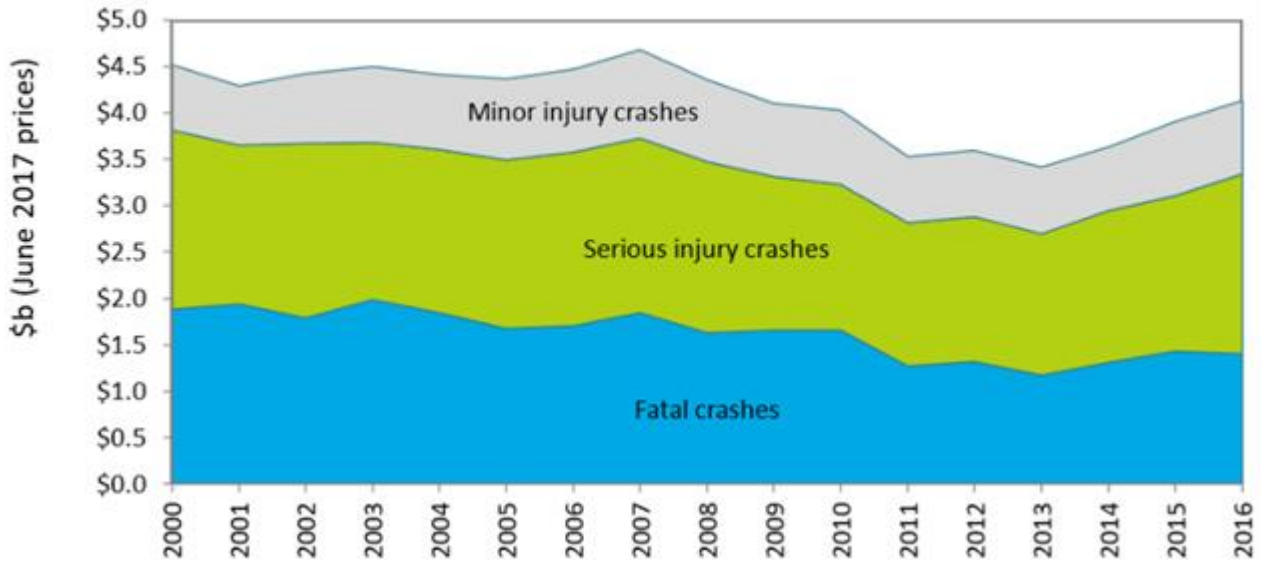
- The likelihood of casualty crash involvement doubles for every 5 km/h above a 60 km/h posted limit, and for every 10 km/h above a 100 km/h posted limit.
- A 5% decrease in average speed leads to around 10% fewer injury crashes and 20% fewer fatal crashes.
- A decrease of 1km/h in mean traffic speed typically results in a 3% decrease in the incidence of injury crashes, or a decrease of 4-5% for fatal crashes.

5.4 Social Cost

Road crashes impose intangible, financial and economic costs on society. The average social cost per road death in New Zealand is $4.18 million.

For non-fatal injuries, the average social cost is estimated at $439,100 per serious injury and $23,400 per minor injury.

Figure 2: Estimated annual total social cost of injury crashes, by crash severity ($ billion, at June 2017 prices)



5.5 COUNCIL'S ROAD NETWORK

Council's road network consists of 856.9km of maintained road, comprising 509.9km sealed and 347km unsealed roads. Many unsealed roads are in rural areas and have a default speed limit of 100km.

The average age of the road network is approximately 26 years.

Council's maintenance budget is approximately $14 million per annum, which includes approximately $8 million contribution from NZTA. The capital programme for minor improvements for the period covered by the Ten Year Plan is approximately $20 million.

5.5.1 Variable speeds

In addition to the permanent speed limits, the district has five areas of variable speeds contained in the current bylaw:

- Schools in Wanaka, Arrowtown, Frankton and Queenstown where during pick up and drop off times the speed reduces from 50km/h to 40km/h.
- Kinloch - Paradise where the speed reduces from 100km/h to 30km/h between 20 December and 10 February
- Glendhu Bay where the speed reduces from 100km/h to 50km/h between 20 December and 10 February.

5.5.2 Temporary speed limits

An RCA can introduce temporary speed limits (for no more than 12 months) if it considers there is a risk of danger to a worker or the public, or a risk of damage to a road, without changing the bylaw or undergoing consultation, only in the following situations:

- physical work occurring on or adjacent to a road that impacts the function of the road (including an ongoing work site outside of the hours of work)
- the presence of an unsafe road surface or structure
- a special event.

The district has recently had four areas where reduced speed limits have been sign posted in response to community requests:

- Arthurs Point speed reduction from 70km/h to 50km/h
- Arrowtown urban area speed reduction from 50km/h to 40km/h
- Aubrey Road speed reduction from 70km/h to 50km/h
- Cardrona Valley Road reduction from 100km/h to 70km/h around the Cardrona ski field and distillery.

5.6 POLICE ENFORCEMENT OF DISTRICT SPEED LIMITS

Speed infringements are issued by the NZ Police. In the district there are the following Police resources:

Queenstown
Seven road policing positions plus a supervisor
Twenty frontline plus five supervisors
Wanaka
Two road policing positions

Six frontline plus one supervisor

There are some staff vacancies in the district and during holiday periods staff numbers can fluctuate with additional officers being allocated to the district depending on expected numbers to the district.

The number of speed infringements issued between 2009 and 2017 inclusive in the Central Otago Lakes Area (noting the area is defined by policing district not territorial authority) is shown below.

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017
Infringement numbers	6,433	6,081	6,286	6,044	6,933	6,899	7,136	6,788	6,548

The Road Policing Action Plan, developed in consultation with NZTA, identifies five priority road safety risks:

1) High risk behaviour
2) Vulnerable road users
3) Impaired drivers
4) Distraction/restrains
5) Speed

Responding to *555 calls also directs officers to specific roads and driver behaviour. Anecdotally, local Police report spending the majority of on road time following up on these calls.

The Southern District (south from Oamaru) identifies four journey risk hotspots based on previous crash data. Two of these areas are in the Queenstown Lakes District:

- SH6 from Frankton - Wanaka (NZTA state highway)
- Frankton to Wanaka via the Crown Range (Council road)

6 ROAD CHARACTERISTICS WITH LOCAL EXAMPLES AND REVIEW RECOMMENDATIONS

6.1 SEALED ROADS

<table>
<tr><th colspan="2">Rural Roads - 100km/h</th></tr>
<tr><td>Description</td><td>100 km/h speed limits are typically used on class 1, 2, or 3 roads and have good alignment, central and roadside protection and should have a 4 star KiwiRAP rating. Engineering treatments are required to reduce crash risk depending on the traffic volumes and crash types
 
Class 1:National (high volume)
• Median divided
• Wide shoulders
• No parking
• No cycling
• Some roadside protection
• Dual lane
Rural expressway: (Source www.nzta.govt.nz)
 
Class 2: Regional
• Narrow shoulders and central median with wire rope barrier
• Passing opportunities at regular intervals
Rural Expressway; (Source; www.nzta.govt.nz)</td></tr>
<tr><td>ONRC Application</td><td>1,2,3</td></tr>
<tr><td>Point of Difference</td><td>Engineering measures are used to make the speed environment self-explaining and typically include:
• Passing arrangements (2 + 1, 2 +2) on higher volume roads
• Restricted access
• Side barriers or large clear zone,
• Centreline treatments;
– barriers or large traversable median,
– Wide centreline (on lower volume roads with good alignment and roadside protection),
• Edgeline Treatments:
– Striped shoulders (where shoulder width is greater than 2.5m)
– ATP/RRPMS
• Wide shoulders (2 m+)
• Grade separated interchanges or roundabouts at busy intersections. Left in/left out at other intersections
• Off road cycling facilities for high use sites</td></tr>
<tr><td>Not Recommended</td><td>The following engineering measures are inappropriate for 100 km/h zones:
• Isolated median islands (Toolbox TC11)
• Traffic signalised intersections
• At grade, priority control intersections with class 1 or 2 roads</td></tr>
</table>

Below are some local examples throughout the district of current 100km roads and relevant classifications and characteristics used to assist in determining safe and appropriate speeds.

Glenorchy Road	
ONRC	Primary Collector Class 3
Road stereotype	Two lane undivided
Alignment	Winding
Lane width	3.0 to 3.5 – Medium
Shoulder Width	0m to <0.5m – Very Narrow
IRR	Medium- High
2010-2017 injury crashes	22
Current speed	100km
Safe and Appropriate Speed	60km, 80km

Malaghans Road	
ONRC	Primary Collector Class 3
Road stereotype	Two lane undivided
Alignment	Straight
Lane width	3.0 to 3.5 – Medium
Shoulder Width	0m to <0.5m – Very Narrow
IRR	Medium- High
2010-2017 injury crashes	11
Current speed	100km
Safe and Appropriate Speed	60km, 80km

Kane Road	
ONRC	Secondary Collector Class 3
Road stereotype	Two lane undivided
Alignment	Straight
Lane width	3.0 to 3.5 – Medium
Shoulder Width	0m to <0.5m – Very Narrow
IRR	Medium
2010-2017 injury crashes	5
Current speed	100km
Safe and Appropriate Speed	60km, 80km

Wanaka – Mt Aspiring Road	
ONRC	Secondary Collector Class 3
Road stereotype	Two lane undivided
Alignment	Straight
Lane width	3.0 to 3.5 – Medium
Shoulder Width	0m to <0.5m – Very Narrow
IRR	Medium- High
2010-2017 injury crashes	7
Current speed	100km
Safe and Appropriate Speed	60km, 80km

Crown Range Road	
ONRC	Secondary Collector Class 3
Road stereotype	Two lane undivided
Alignment	Tortuous
Lane width	3.0 to 3.5 – Medium
Shoulder Width	0m to <0.5m – Very Narrow
IRR	High
2010-2017 injury crashes	33
Current speed	100km
Safe and Appropriate Speed	60km, 80km

Gladstone Road	
ONRC	Access Class 4
Road stereotype	Two lane undivided
Alignment	Straight
Lane width	<3.0m - Narrow
Shoulder Width	0m to <0.5m – Very Narrow
IRR	Medium
2010-2017 injury crashes	0
Current speed	100km
Safe and Appropriate Speed	60km, 80km

Rural Roads - 80km/h	
Description	80 km/h speed limits in rural areas can be used on all class of roads where the alignment, roadside protection or level of active road use is not of a suitable standard for a 100 km/h speed limit. Parking is not common and specific facilities for active users are only needed where active road use is high. Engineering treatments are typically required to reduce crash risk, particularly for loss of control crashes where traffic volumes are low, and for head on crashes where traffic volumes are high.  *Rural Road: (Source www.nzta.govt.nz)* Class 2: Arterial • Wide centreline • Wide, marked shoulders for higher cyclist use • Hazards set back  *Rural Road: (Source ww.nzta.govt.nz)* Class 3: Primary/Secondary Collector • Good standard of delineation • Low cycle use • Hazard warning signs • Signs for higher 'other' road user e.g. cycling, horses
ONRC Application	1,2,3 and 4
Point of Difference	Engineering measures are used to make the speed environment self-explaining and typically include: • Informal passing opportunities. • Centreline Treatments (Toolbox RS3); – Standard road markings – Wide centreline – Narrow flush median • Edgeline Treatments – Striped shoulders (where shoulder width is greater than 2.5m) – ATP/RRPMS (where high volume and/or risk) • Sealed shoulders, (1 m+, 2 m+ with high numbers of cyclists or pedestrians), • Good standard of signs for hazards, direction, curve advice • Edge Marker Posts • Protection of severe roadside hazards (water, drops, large infrangible objects), • Few direct accesses, at grade intersections with low volumes, priority controlled • For Class 4 roads, road markings and signs are likely to be limited and edge marker posts used for delineation.
Not Recommended	The following engineering measures are inappropriate for 80 km/h zones: • Isolated Median islands (Toolbox TC11) • Traffic Signals • Variable speed limits for school 1.

6.2 UNSEALED ROADS

Unsealed Rural Roads - 80km/h	
Description	Unsealed roads with 80km/h are typically wider and straighter unsealed lower volume and Class 4 roads; They are largely access type roads to rural communities, links across rural networks or to sites of interest such as logging areas or Department of Conservation facilities.  Low volume • Wider roads • No or limited delineation • Limited roadside hazards • straight *Rural unsealed Road (Source:www.bestcarrental.co.nz)*  Low volume • Wider roads • No or limited delineation • Limited roadside hazards • Mostly straight with some large radius curves *Rural unsealed road. (Source: C. Mason)*
ONRC Application	4
Point of Difference	• Speeds are naturally restricted by unsealed road, and presence of roadside hazards • Roads can accommodate two vehicles in opposing directions and are straighter with more traffic and less roadside risk than the 60km/h roads. • No or little edge delineation or signs. Only necessary where you might have special circumstances where needed such as out of context curves, where there is a crash problem, where particular hazards need identifying, where continuity of the route is required where there are areas of steam, fog or mist, high proportion of traffic flows at night or there are high proportions of tourist traffic.
Not Recommended	Delineation is not recommended for roads with less than 200 vehicle per day.

Below are some local examples throughout the district of current 100km unsealed roads and relevant classifications and characteristics used to assist in determining safe and appropriate speeds.

Mt Aspiring Road (unsealed section)	
ONRC	Secondary Collector Class 4
Road stereotype	Two lane undivided
Alignment	Winding
Lane width	<3.0m – Narrow
Shoulder Width	0m to <0.5m – Very Narrow
IRR	High
Length of road	30km
Current speed	100km
Safe and Appropriate Speed	60km

Glenorchy - Paradise Road	
ONRC	Access Class 4
Road stereotype	Two lane undivided
Alignment	Winding
Lane width	<3.0m- Narrow
Shoulder Width	0m to <0.5m – Very Narrow
IRR	High
Length of road	14km
Current speed	100km
Safe and Appropriate Speed	60km

Domain Road (Hawea)	
ONRC	Access Class 4
Road stereotype	Two lane undivided
Alignment	Straight
Lane width	<3.0m- Narrow
Shoulder Width	0m to <0.5m – Very Narrow
IRR	Medium- High
Length of road	3km
Current speed	100km
Safe and Appropriate Speed	60km

Hogans Gully Road	
ONRC	Access Class 4
Road stereotype	Two lane undivided
Alignment	Curved
Lane width	<3.0m - Narrow
Shoulder Width	0m to <0.5m – Very Narrow
IRR	Medium- High
Length of road	2.7km
Current speed	80km
Safe and Appropriate Speed	60km

Unsealed Rural Roads - 60km/h	
Description	Unsealed roads with 60km/h are typically narrower and windy lower volume Class 4 roads than 80km/h unsealed roads; They are largely access type roads to rural communities, links across rural networks or to sites of interest such as logging areas or Department of Conservation facilities.  Low volume • Narrow roads • No or limited delineation • Overgrown vegetation • Specific hazards identified with warning signs or delineation *Rural unsealed Road: (Source; G. Clark)*  Low volume • Narrow roads • No or limited delineation • Overgrown vegetation • Specific hazards identified by warning signs or delineation *Rural unsealed road. (Source G Clark)*
ONRC Application	4
Point of Difference	• Speeds are naturally restricted by unsealed road, curves, overgrown vegetation and presence of roadside hazards • Narrower roads where vehicles may have to slow and pull over to let those travelling in the opposing direction pass • No or little edge delineation or signs. Only necessary where you might have special circumstances where needed such as out of context curves, where there is a crash problem, where particular hazards need identifying, where continuity of the route is required, where there are areas of steam, fog or mist, high proportion of traffic flows at night or high proportions of tourist traffic.
Not Recommended	Delineation is not recommended for roads with less than 200 vehicle per day.

6.3 URBAN AREAS

<table>
<tr><th colspan="2">Urban Roads - 50km/h</th></tr>
<tr><td>Description</td><td>50 km/h speed limits can be applied to all urban road classes depending on risk. Where you apply Engineering treatments and reduce risk then the speed could be increased depending on the traffic volume and function of the road. These roads cater for a range of road users. Specific cycling facilities are desirable on all Class 2 (national and strategic) roads with 50km/h speed limits and should be formalised and/or separated. On lower volume Class 3 and 4 roads wider shoulders are appropriate.
 
Class 2: Regional Road
• Median divided
• Marked cycling facilities
• No or intermittent parking
Regional Commercial Road. (Source C Mason)
 
Class 3:Primary Collector Road
• Centreline markings
• parking
• no specific cycle facilities but wider shoulder
Residential Road. (Source: C Mason)</td></tr>
<tr><td>ONRC</td><td>1,2.3,4</td></tr>
<tr><td>Point of Difference</td><td>For Class 1 Roads
• Limited access
• Median divided
• Separated cycling facilities (Toolbox AR1)
• Pedestrian crossings formalised or grade separated.
• Roundabout or signal controlled intersections
For Class 2 Roads
• Edge and centreline treatments
– No stopping lines
– median divided/flush median
• Separated or formalised cycling facilities (Toolbox AR1)
• Pedestrian crossings formalised or areas with protected crossing points such as cut downs through central median (Toolbox AR2 and TC11)
• Limited parking
• Intersections give way or stop controlled and roundabouts or signal controlled at key intersections
For Class 3 and 4 Roads
• Standard Centreline markings
• Limited traffic calming measures where traffic volumes are low (i.e. isolated pedestrian refuge islands) (Toolbox TC11)
• Cyclists use wide shoulder
• Parking</td></tr>
<tr><td>Not Recommended</td><td>The types of treatments that are inappropriate will depend on the road function.</td></tr>
</table>

Below are Queenstown examples of urban roads and classifications and characteristics used to assist in determining safe and appropriate speeds.

Lake Esplanade	
ONRC	Arterial Class 4
Road stereotype	Two lane undivided
Alignment	Straight
Lane width	3.0 to 3.5 – Medium
Shoulder Width	>2.0m – Very Wide
IRR	Low-Medium
2010-2017 injury crashes	3
Current speed	50km
Safe and Appropriate Speed	40km

Camp Street	
ONRC	Primary Collector Class 3
Road stereotype	Two lane undivided
Alignment	Straight
Lane width	3.0 to 3.5 – Medium
Shoulder Width	>2.0m – Very Wide
IRR	Medium- High
2010-2017 injury crashes	50km
Current speed	100km
Safe and Appropriate Speed	30km, 40km

Robins Road	
ONRC	Primary Collector Class 3
Road stereotype	Two lane undivided
Alignment	Straight
Lane width	3.0 to 3.5 – Medium
Shoulder Width	1.0m to <2.0m – Wide
IRR	Medium
2010-2017 injury crashes	4
Current speed	50km
Safe and Appropriate Speed	40km

Below are Wanaka examples of urban roads and classifications and characteristics used to assist in determining safe and appropriate speeds.

Helwick Street	
ONRC	Secondary Collector Class 3
Road stereotype	Two lane undivided
Alignment	Straight
Lane width	3.0 to 3.5 – Medium
Shoulder Width	>2.0m- Very Wide
IRR	Medium- High
2010-2017 injury crashes	1
Current speed	50km
Safe and Appropriate Speed	30km, 40km

Ardmore Street	
ONRC	Access Class 4
Road stereotype	Two lane undivided
Alignment	Curved
Lane width	3.0 to 3.5 – Medium
Shoulder Width	0.5m<1.0m- Narrow
IRR	Medium- High
2010-2017 injury crashes	0
Current speed	50km
Safe and Appropriate Speed	40km

Brownston Street	
ONRC	Primary Collector – Class 3
Road stereotype	Two lane undivided
Alignment	Straight
Lane width	3.0 to 3.5 – Medium
Shoulder Width	0.5m<1.0m- Narrow
IRR	Medium
2010-2017 injury crashes	6
Current speed	50km
Safe and Appropriate Speed	40km

Below are Arrowtown examples of urban roads and classifications and characteristics used to assist in determining safe and appropriate speeds.

Centennial Avenue	
ONRC	Primary Collector – Class 3
Road stereotype	Two lane undivided
Alignment	Straight
Lane width	3.0 to 3.5 – Medium
Shoulder Width	0m to <0.5m – Very Narrow
IRR	Medium
2010-2017 injury crashes	2
Current speed	50km
Safe and Appropriate Speed	40km

Buckingham Street	
ONRC	Access Class 4
Road stereotype	Divided- non-transferable or One Way
Alignment	Straight
Lane width	3.0 to 3.5 – Medium
Shoulder Width	1.0m to <2.0m- Wide
IRR	Low-Medium
2010-2017 injury crashes	0
Current speed	50km
Safe and Appropriate Speed	30km, 40km

Below is a Kingston example of a main urban road into township with classifications and characteristics used to assist in determining safe and appropriate speeds.

Kent Street	
ONRC	Access Class 4
Road stereotype	Two lane undivided
Alignment	Straight
Lane width	3.0 to 3.5 – Medium
Shoulder Width	0.5m-<1.0m- Narrow
IRR	Medium
2010-2017 injury crashes	2
Current speed	50km
Safe and Appropriate Speed	40km

Below is a Hawea example of a main urban road into township with classifications and characteristics used to assist in determining safe and appropriate speeds.

Capell Ave	
ONRC	Access Class 4
Road stereotype	Two lane undivided
Alignment	Straight
Lane width	3.0 to 3.5 – Medium
Shoulder Width	0m to <0.5m – Very Narrow
IRR	Medium
2010-2017 injury crashes	0
Current speed	50km
Safe and Appropriate Speed	40km

Below is a Glenorchy example of a main urban road into township with classifications and characteristics used to assist in determining safe and appropriate speeds.

Argyle Street	
ONRC	Access Class 4
Road stereotype	Two lane undivided
Alignment	Straight
Lane width	<3.0m- Narrow
Shoulder Width	0m to <0.5m – Very Narrow
IRR	Low- Medium
2010-2017 injury crashes	0
Current speed	50km
Safe and Appropriate Speed	40km

Below is a Cardrona example of a main urban road into township with classifications and characteristics used to assist in determining safe and appropriate speeds.

Cardrona Valley Road	
ONRC	Primary Collector – Class 3
Road stereotype	Two lane undivided
Alignment	Straight
Lane width	3.0 to 3.5 – Medium
Shoulder Width	0.5m to <1.0m- Narrow
IRR	Low- Medium
2010-2017 injury crashes	1
Current speed	50km
Safe and Appropriate Speed	40km, 50km

Urban Roads - 40km/h	
Description	40 km/h speed limits are typically used when ONRC is class 3 or 4 in residential neighbourhoods or high 'place' value. Engineering treatments are typically required to reduce operating speeds. Pedestrians frequently cross the road but through traffic typically has priority. Cyclists are more likely to share the road with traffic.  Local Road (City) • No road marking or signs • Narrow roads • Planting • Informal parking *Residential (Source: C Mason)*  Local Road (City) • No marking unless needed • Threshold entry treatments • Horizontal deflection devices • Narrow roads • Planting *Residential (Source; C Mason).*
ONRC	Class 3 and 4
Point of Difference	Engineering measures are used to make the speed environment self-explaining (Toolbox SE1) and typically include: • Narrow lanes (2.7-3.2 m) with no or little road markings and except where required for regulatory requirements such as no parking • Short length one way system • Little or no signs and markings (Toolbox RS1) AR2, SE1, RS2, • Vertical deviation (speed humps, speed tables, speed cushions, crossing platforms), Toolbox TC1-11 [except TC 2], AR2) • Horizontal deviation (low speed roundabouts, chicanes, kerb build outs, pedestrian islands), Toolbox TC1-11 [except TC 2], AR2) • Kerbside parking (angle or parallel parking without continuous edge line) • Intersections modifications such as change in priority, restriction of movements (Toolbox IN1 and IN2) with or without splitter islands • Threshold entrances (Toolbox ES1, TC5) • Splitter islands at intersections • Planting • Cobbled or paving type surfaces (Toolbox TC5) • Restricted movements for certain modes (i.e. cyclists can access road but vehicles cannot) • Sharrows.
Not Recommended	• Active signs (Toolbox RS1, RS3, AS4, AS5, AS7) unless there is a high risk site within a corridor that needs highlighting • Curve advisory signs

Urban Roads - 30km/h	
Description	30 km/h speed limits are typically used in "CBDs or town centres with high place function and concentration of active users". Engineering treatments are typically required to reduce operating speeds and cater for a number of various modes however the areas are developed to allow for but discourage car use. Pedestrians frequently cross the road and cyclist share the lane with general traffic.  Local Road (City) • vertical deflection devices, • paving • planting *Wynyard Quarter, Auckland (Source - www.mapio.net.nz)*  Local Road (small town) • Entranceway • Paving • Little or no signs and markings (Toolbox RS1) • Vertical deflection devices • planting *Blenheim Town Centre (Source M. Petersen)*
ONRC	Class 3 or 4
Point of Difference	• Engineering measures are used to make the speed environment self-explaining (Toolbox SE1) and reduce speeds may typically include: • Narrow lanes (2.7-3.2 m), • Little or no signs and markings (Toolbox RS1) • Roads spaced reallocation (Toolbox RS2 • One way direction of traffic on narrow lanes (Toolbox TC10) • Intersections modifications such as change in priority, restriction of movements (Toolbox IN1 and IN2) • Vertical deviation (speed humps, speed tables, speed cushions, crossing platforms),(Toolbox TC1-11 [except TC 2], AR2) • Horizontal deviation (low speed roundabouts, chicanes, kerb build outs, pedestrian islands), (Toolbox TC1-11 [except TC 2], AR2) • Kerbside parking (angle or parallel parking without continuous edge line) • Planting • Sharrows (Refer to NZTA TCD Manual Part 4 At Intersections) • Cobbled or paving type surfaces
Not Recommended	• Road markings • Curve advisory signs • Speed indicator devices • Flush medians • Wide shoulder/parking lane without buildouts.

7 DOES THE BYLAW NEED TO BE CHANGED

7.1 PURPOSE OF THE CURRENT BYLAW

The purpose of the bylaw is to set speed limits on roads under Council's jurisdiction and to designate urban traffic areas within the district. Setting safe and appropriate speed limits is a requirement of Council, which supports the safe system approach. The bylaw enables signage, enforcement and education of all road users.

7.2 DOES THE BYLAW PROVIDE EXTRA REGULATION THAN THE DISTRICT PLAN AND LEGISLATION

A bylaw is required by Council to set legally enforceable speed limits.

Under the LTA and in accordance with the Setting of Speed Limits Rule 2017, the Council, for roads under its jurisdiction:

- must review speed limits in accordance with the Rule
- must set speed limits in accordance with the Rule
- may set speed limits for designated locations in accordance with the Rule.

In carrying out its functions under the Rule, Council must consider whether a speed limit for a road is safe and appropriate.

7.3 KEY FINDINGS FROM DISTRICT PLAN

The District Plan establishes the rules of land use, which is a consideration under the Speed Management Framework, however the District Plan does not establish speeds which are safe or appropriate.

Parameters are set for where private accessways (or driveways) join with a Council road in regards to turning and joining the road.

Therefore, the District Plan is a necessary consideration in the management for setting speed limits in the district but is not enough to address issues identified.

8 IS THE BYLAW AND THE SPEED LIMITS IT CONTAINS STILL THE MOST APPROPRIATE MEANS FOR MANAGING SPEED IN THE DISTRICT

8.1 BYLAW FORM

The current bylaw contains details of the speed limits that apply to each road under Council's jurisdiction and therefore changing or adding to these requires a special consultative procedure to amend the bylaw.

It is not necessary under the LTA to include this information in the bylaw, instead it can be held in publicly accessible schedules. Holding the information in this way enables Council to make changes by resolution, meaning a faster response time to issues identified in the district, such as growth, and enable changes necessary for the operation of the transport network.

All decisions would still be subject to appropriate community consultation before permanent speed limits were changed or introduced.

The bylaw currently references old legislation and outdated rules. Any new bylaw will need to be updated to reflect the current legislation and rules.

8.2 SPEED IN THE DISTRICT - KEY FINDINGS FROM STAKEHOLDER ENGAGEMENT

Feedback from interviews with key internal and external stakeholders highlighted substantial support for consistent (including fewer limit changes across journeys) and generally lower speeds across the network. Other issues or suggestions were identified as follows.

8.2.1 100km Roads

The state highways across the district in sections have a posted speed limit of 100km. The Council has five main arterial roads with current speed limits of 100km/h;

- Malaghans Road (Arrowtown – Queenstown)
- Queenstown - Glenorchy Road
- Crown Range Road
- Cardrona Valley Road
- Wanaka – Mount- Aspiring Road.

These roads were identified through the speed management review and supported by several stakeholders as roads which should be considered for a reduction to achieve a safe and appropriate speed.

8.2.2 Rural Unsealed Roads

The International Transport Forum is an intergovernmental organisation with 59 members, of which New Zealand is one. The forum acts as a think tank for transport policy and strategy and has an annual summit with all countries Transport Ministers.

At the 2018 summit a recommendation that rural unsealed roads should be reduced to 70km/h worldwide was discussed in detail. This approach is formally supported by Federated Farmers in New Zealand as reported nationally in April 2018.

In contrast, this initiative is not supported by the Automobile Association (AA) based on reduced productivity (this is discussed in more detail at 8.2.5).

8.2.3 Designated Urban Areas

A reduction in speed from the current 50km to 40km was supported by businesses associations, tour operators, tertiary providers, the NZ Police, and NZTA.

Arrowtown operated with a 40km posted speed limit for a number of months, which had mixed feedback from the local community.

8.2.4 Variable speed limits

The variable limits outside schools were recognised as valuable and should be retained.

8.2.5 Loss of productivity

The AA provided feedback that a reduction in speed limits has the potential to reduce productivity and efficiencies for some operators in the district, especially trade services.

With changes to the Rule meaning Council can no longer set speed limits at 70km/h without NZTA approval, this means where 80km/h is not considered safe and appropriate, 60km/h is the recommended limit. Even if NZTA approval was to be given, it would be based on a confirmed timeline for achieving a speed limit not requiring approval i.e. either through physical changes to the road[1] or a speed limit reduction.

The AA specifically highlighted this risk in relation to larger speed limit changes such as moving from 80km/h to 60km/h or 100km/h to 80km/h.

8.2.6 Other issues raised by stakeholders (that cannot be addressed through a bylaw)

Several schools identified unsafe road environments, which require safety improvements. In the current bylaw several of the district's schools have variable speed limits, with a reduction from 50km – 40km during pick up and drop off periods.

It was identified given the location of some schools (on main arterial roads) further traffic calming and layout improvements, including footpaths, would improve the safety of pupils, parents and staff.

[1] Funding for physical road changes will be subject to NZTA assessment processes if proposals are to attract subsidy. In the instance, proposed changes do not meet NZTA investment criteria, RCAs would need to either fully fund the investment required to achieve a desired design speed or received a subsidy for changes to achieve a design speed supported by NZTA.

9 REVIEW FINDINGS AND CONCLUSION

9.1 BYLAW FORM

Updating the bylaw to reflect current legislation and rules, combined with moving speed limits to schedules outside of the bylaw is recommended to improve the efficiency and effectiveness of council's decision making.

9.2 SPEED LIMIT CHANGES RECOMMENDED

The full speed management review has identified 40 sealed rural roads and 15 urban areas in the district where a reduction in speed limit is recommended. A further 92 unsealed rural roads (347km) with a current speed limit of 100km/h have been identified for a reduction to 60km/h or 40km.

This is an extensive and comprehensive proposal for change for the network and a staged approach to implementing altered speed limits is recommended after considering several factors.

First, prioritising safety of vulnerable road users focuses concentration on areas with multiple types and high volumes. These are most prevalent in the urban traffic areas and it is recommended these are prioritised for implementation and included for public consultation with the new bylaw.

Second, prioritising reducing the numbers of death and serious injuries (DSI) focuses concentration on high risk roads that display several identified characteristics and contribute disproportionately to the district's DSI statistics. Five roads are highlighted as high benefit opportunities to reduce DSIs, and it is recommended these are prioritised for implementation and included for public consultation with the new bylaw.

Third, some reduced speed limits have been sign posted at different times across the district in response to specific community requests. Permanent changes to the speed limit applying in these areas are supported by stakeholders and it is recommended these are prioritised for implementations and included for public consultation with the new bylaw.

Fourth, the district's network is heavily reliant on the connections provided by, and integration with, the state highways. NZTA is pursuing its own review and while efforts have been made to align the programme, the national priorities are currently Auckland, Waikato and Christchurch. Confirmation on timing for the Otago state highway review is expected in the first half of calendar 2019. This affects most of the rural sealed network and to ensure consistency in road user experience and expectation of speed limits applying across the district, it is recommended that these are considered by Council at a later stage in conjunction with the NZTA review.

Finally, the district's network comprises a substantial number of rural unsealed roads. With one notable exception (which is included in the high benefit opportunity recommendations), these roads have low volumes and relatively low user speeds. It is recommended that these are in considered by Council on a case by case basis in response to issues at a later stage.

In summary, it recommended that speed limit changes for public consultation at this stage are focused on:

- improving safety for vulnerable road users (urban traffic areas)

- improving safety on roads with high death or serious injury risk (five identified high benefit opportunity roads)
- permanent changes to areas with recently posted reduced speed limits (four roads).

Full details of recommended speeds for consultation are included as network maps attached at section 10.5.

The recommended speed limit changes for public consultation are as follows.

9.2.1 Recommended permanent speed limit changes to Urban Traffic Areas

Urban traffic area	Current permanent speed limit (km/h)	Recommended permanent speed limit (km/h)
Arrowtown	50	40
Queenstown	50	40
Fernhill, Sunshine Bay	50	40
Quail Rise	50	40
Shotover Country	50	40
Lake Hayes Estate	50	40
Arthurs Point (residential)	50	40
Kelvin Heights (residential)	50	40
Wanaka	50	40
Albert Town	50	40
Hawea	50	40
Kingston	50	40
Glenorchy	50	40
Luggate	50	40
Cardrona	50	40

9.2.2 Recommended permanent speed limit changes to roads identified as high benefit opportunities to reduce death and serious injury risk

Road	Current permanent speed limit (km/h)	Recommended permanent speed limit (km/h)
Queenstown - Glenorchy Road Sunshine Bay to Glenorchy township	100	80
Queenstown - Glenorchy Road From One Mile roundabout to Sunshine Bay	100	60
Crown Range Road As per map, small section of 80km after first zigzag from Arrowtown side then Cardrona side of summit	100	80
Crown Range Road From SH6 Junction to Cardrona side of summit (small 80km section as above)	100	60
Malaghans Road From Lake Hayes Road junction through to speed change East of Coronet peak turn off	100	80
Arthurs Point Road From Coronet Peak Junction to Watties Track junction	80	60

Gorge Road From Arthurs Point Road through to Queenstown township	80	60
Cardrona Valley Road From distillery and ski field turn off to Wanaka township	100	80
Wanaka-Mount Aspiring Road (sealed and unsealed)	100	80

9.2.3 Areas with previously sign posted reduced speed limits

Area	**Current permanent speed limit (km/h)**	**Current temporary speed limit (km/h)**	**Recommended permanent speed limit (km/h)**
Arrowtown Urban boundaries	50	40	40
Aubrey Road From Anderson Road intersection to Albert Town roundabout	70	50	60
Arthurs Point Road From Coronet Peak Junction to Watties Track junction	70	50	60
Cardrona Valley Road From township to distillery	100	70	80

9.3 Full Network Future Recommendations

The full details of all recommended speed reductions resulting from the review are shown in network maps attached at section 10.6 and listed below.

9.3.1 Recommended permanent speed limit changes to town centres

Town centre	Current permanent speed limit (km/h)	Recommended permanent speed limit (km/h)
Arrowtown (The area bounded by and including Buckingham St, Ramshaw Lane, Arrow Lane)	50	30
Queenstown (The area bounded by and including Stanley St/ Ballarat St roundabout, through to Man St, Brecon St junction and Shotover St and Beach St junction and the Camp St, Earl St block)	50	30
Wanaka (The area bounded by and including Ardmore St, Brownston St roundabout, Brownston St and McDougall St junction and McDougall St and Ardmore St junction)	50	30

9.3.2 Recommended permanent speed limit changes to sealed roads

Road	Current permanent speed limit (km/h)	Recommended permanent speed limit (km/h)
Queenstown/Arrowtown		
Hogans Gully Road	80	60
Dalefield Road	80	60
Coronet Peak Road	70	60
Corsican Drive	100	60
Cove Lane	100	60
Drift Bay Road	100	80
Gibbston Back Road	100	80
Glencoe Road	100	60
Jane Williams Place	80	40
Marshall Ave	100	60
Threepwood Road	80	40
Jeffery Road	100	60
Littles Road	80	60
Moke Lake Road	100	60
Vista Terrace	100	80
Von Road	100	80
Wharf Street	100	60
Glenorchy		
Glenorchy-Paradise Road From Priory Road intersection to end	100	80
Glenorchy-Paradise Road Small section from Glenorchy township to Priory road intersection	80	60

Road	Current permanent speed limit (km/h)	Recommended permanent speed limit (km/h)
Glenorchy		
Glenorchy- Routeburn Road From Priory Road junction through to Dart River	100	80
Glenorchy- Routeburn Road Small section after Dart river through to unsealed section of road	100	60
Priory Road	100	80
Wanaka		
Stevenson Road	100	80
Church Road	100	80
Atkins Road	100	80
Hawea		
Camp Hill Road	100	80
Kane Road	100	80
Gladstone Road	100	80
Cemetery Road	100	80
Clan Mac Road	80	60
Maungawera Valley Road	100	80
Rata Road	80	60
Te Awa Road	100	80
Wyuna Road	100	60

9.3.3 Recommended permanent speed limit changes to unsealed roads

Road	Current permanent speed limit (km/h)	Recommended permanent speed limit (km/h)
Queenstown/Arrowtown		
Alan Reids Road	100	60
Alec Robins Road	80	60
Arrow Junction Road	80	60
Boyd Road Triangle Road	100	60
Butel Road	70	60
Chard Road	100	60
Closeburn Road	100	60
Coal Pit Road	100	60
Coronet Peak Station Road	100	60
Coronet View Road	100	60
Dennison Way	100	60
Denniston Road	100	60
Eastburn Road	100	60
Fitzpatrick Road	80	60
Gibbston Back Road	100	60
Glencoe Road	100	60
Hogans Gully Road	80	60
Hansen Road	80	60
Macetown Road	100	40

Road	Current permanent speed limit (km/h)	Recommended permanent speed limit (km/h)
Queenstown/Arrowtown		
Moke Lake Road	100	60
Mooney Road	80	60
Morven Ferry Road	80	60
Mountain View Road	80	60
Resta Road	100	60
Rutherford Road	80	60
Skippers Road	100	40
Slopehill Road (East)	80	60
The Branches Road	100	60
Tobins Track (Arrowtown End)	50	40
Victoria Flats Road	100	60
Waitiri Road	100	60
Waterfall Park Road	80	60
Glenorchy		
Glenorchy-Paradise Road	100	60
Greenstone Station Road	100	60
Greenstone Track Access Road	100	60
Humes Road	100	60
Kinloch Road	100	60
Lovers Leap Road	100	60
Mount Judah Road	100	60
Mount Nicholas Road	100	60
Rees Valley Road	100	60
Swamp Road	100	60
Kingston		
Glen Nevis Station Road	100	60
Von Loop Road	100	60
Von Road	100	60
Wanaka		
Boundary Road	80	60
Buchanan Rise	100	60
Dingle Burn Station Road	100	60
Dublin Bay Access Road	100	60
Dublin Bay Road	100	60
Glenfoyle Road	100	60
Halliday Road	100	60
Kennels Lane	100	60
Lake Road	100	60
Maxwell Road	80	60
Morris Road	80	60
Motatapu Road	100	60
Mount Barker Road	80	60

Road	Current permanent speed limit (km/h)	Recommended permanent speed limit (km/h)
Wanaka		
Ruby Island Road	100	60
Short Road	100	60
Smith Road	80	60
Stevenson Road	100	60
Timaru Creek Road	100	60
Tuohys Gully Road	100	60
Wanaka-Mount Aspiring Road	100	60
Hawea		
Hawea Back Road	100	60
Hawea Motor Camp Road	100	60
Butterfield Road	100	60
Cameron Flat Road	100	60
Denniston Road	100	60
Domain Road (Lake Hawea)	100	60
Gladstone Road	100	60
Gray Road	100	60
Hospital Creek Road	100	60
Kaka Street	100	60
Kea Street	100	60
Kiwi Street	100	60
Lagoon Valley Road	100	60
Loess Lane	100	60
Maungawera Valley Road	100	60
Mccarthy Road	100	60
Mckay Road	100	60
Meads Road	100	60
Newcastle Road	100	60
Nook Road	100	60
School Road	100	60
Small Road	100	60
Watkins Road	100	60
Weka Street	100	60
West Wanaka Road	100	60
Wilkin Road	100	60

10 APPENDICES

10.1 EXTERNAL STAKEHOLDER VIEWS

Stakeholder	Feedback
Community Associations	• Consistencies in speed limits • Shared spaces in main areas with high pedestrian movements (AT) • Different means of enforcement and education needs to be investigated
Large Tourism Operators	• Consistencies in speed limits • Opportunity for variable speeds dependent on seasons or events
Education Providers	• Speeds around schools needs to be reduced, with supporting education and safer environments • Variable speeds supported • Greater enforcement required
Social Service Agencies	• Speeds need to be appropriate for environments and surrounding infrastructure e.g. no footpaths for safe active transport required lower road speeds • Increased awareness and cyclist safety on carriage ways, speed reductions required until infrastructure improves
Central Government	• Consistencies in speed limits • Education on our road environment needs to support and changes
Police	• Consistencies in speed limits • Supportive of reductions to ensure safe and appropriate speeds on roads • Need for education to support change sin driver habits
Small Passenger Service Vehicles	• Consistencies in speed limits • Reduction of speeds in CBD areas which reflects actual operating speeds
Business Associations	• Consistencies in speeds (SH included) and consideration of carriage ways with numerous arterial roads • Safety and education required • Speed not an issue at times of congestion but having more appropriate speeds may assist in congestion frustrations
Other	• Vehicles using arterial roads as speed short cuts to avoid congestion; roads that are not appropriate for high speeds.

10.2 SUMMARY OF LEGISLATION, REGULATION AND RULES APPLYING TO SETTING OF SPEED LIMITS

10.2.1 Legislation

Land Transport Act 1998 promotes safe road user behaviour and vehicle safety; provides for a system of rules governing road user behaviour, the licensing of drivers and technical aspects of land transport; recognises reciprocal obligations of persons involved; consolidates and amends various enactments relating to road safety and land transport; and enables New Zealand to implement international agreements relating to road safety and land transport. It now includes the registration and licensing of motor vehicles and the regulation of commercial transport services and the limits on driving hours.

Local Government Act 2002 establishes for a system of rules to be introduced by councils to protect the public from nuisance, protect, promote and maintain public health and safety and minimise the potential for offensive behaviour in public places; provides for setting of fees relating to bylaws and for enforcement.

10.2.2 Regulation

Land Transport (Road User) Rule 2004 establishes the rules under which traffic operates on roads. The rule applies to all road users, whether they are drivers, riders, passengers, pedestrians, or leading or droving animals.

Land Transport (Setting of Speed Limits) Rule 2017 sets out the roles and responsibilities for reviewing and setting speed limits.

Land Transport (Traffic Control Devices) Rule 2004 covers requirements for the design, construction, installation, operation and maintenance of traffic control devices, and functions and responsibilities of road controlling authorities.

10.3 LAND TRANSPORT ACT 2008 - BYLAW MAKING PROVISIONS

Heading: inserted, on 1 December 2009, by section 8 of the Land Transport (Enforcement Powers) Amendment Act 2009 (2009 No 36).

22AB Road controlling authorities may make certain bylaws

(1) A road controlling authority may make any bylaw that it thinks fit for 1 or more of the following purposes:

(a) controlling, restricting, or prohibiting cruising, including (but not limited to)—

(i) specifying the section of road or roads on which cruising is controlled, restricted, or prohibited:

(ii) prescribing the period of time that must elapse between each time a driver drives on a specified section of road for the driver to avoid being regarded as cruising:

(b) prescribing fines, not exceeding $1,000, for the breach of any bylaw made under this section.

Vehicle and road use

(c) prohibiting or restricting, absolutely or conditionally, any specified class of traffic (whether heavy traffic or not), or any specified motor vehicles or class of motor vehicle that, by reason of its size or nature or the nature of the goods carried, is unsuitable for use on any road or roads:

(d) for the safety of the public or for the better preservation of any road,—

(i) fixing the maximum speed of vehicles or of specified classes of vehicles on any road:

(ii) designating any area, where that designation will have the effect of determining the speed limit in that area:

10.4 SUMMARY OF SETTING OF SPEED LIMITS RULE

Land Transport Rule 54001: Setting of Speed Limits 2017 (the Rule) sets out the roles and responsibilities of the NZ Transport Agency (the Agency) and road controlling authorities (RCAs) for reviewing and setting speed limits. Under the Land Transport Act 1998 (the Act), the power to manage speed and set speed limits is given to RCAs. Generally, local authorities are the RCA for local roads. The Agency is the RCAs for state highways. The Rule establishes procedures and requirements whereby RCAs may set enforceable speed limits on roads within their jurisdictions. It revokes Land Transport Rule: Setting of Speed Limits 2003 (the 2003 Rule).

In 2016, the Agency published the Speed Management Guide (the Guide). The Guide introduces a modern approach to speed management on New Zealand roads. The Guide provides tools and guidance for RCAs to use in reviewing and setting speed limits, including an emphasis on engagement with communities in speed management decision-making.

The Rule formalises the approach to speed management in the Guide. In particular, the Rule—

- requires the Agency to provide guidance on and information about speed management to RCAs; and
- requires RCAs to set speed limits that are, in the RCA's view, safe and appropriate; and
- encourages a consistent approach to speed management throughout New Zealand; and
- replaces the methodology of the 2003 Rule with assessment criteria and outcome statements based on the approach in the Guide.

While the Rule replaces the 2003 Rule, a speed limit set, or an urban traffic area designated, prior to the commencement of this Rule continues to apply.
Section 1 sets out the purpose of the Rule, which is to—

- give effect to a nationally-consistent and evidence-based approach to speed management; and
- provide a mechanism for road controlling authorities to set speed limits for roads in their jurisdictions;
- require road controlling authorities, when reviewing speed limits, to decide which speed limit is safe and appropriate for a road; and
- encourage road controlling authorities to prioritise the review of roads where achieving travel speeds that are safe and appropriate is likely to deliver the highest benefits.

Section 2 sets out the general procedure for setting speed limits, which is largely carried over from the 2003 Rule. In particular, the section—

- sets out the general powers, duties, and functions of the Agency and RCAs respectively:
- sets out consultation requirements:
- sets out decision-making procedures and notification requirements for changes to speed limits and urban traffic areas:
- requires the Agency to develop and maintain information about speed management in relation to individual public roads in New Zealand. A public road is defined in the Rule as a thoroughfare dedicated for the general use of the public and surfaced for vehicles:
- specifies matters that are relevant to speed management on roads that the Agency must have regard to in developing information about speed management:
- requires the Agency to supply the information relating to public roads within each RCA's jurisdiction to that RCA and in doing so to prioritise information about roads where achieving a travel speed that is safe and appropriate is likely to deliver the highest benefits in terms of safety and efficiency:
- provides that speed limits are set, and urban traffic areas are designated, by bylaw:
- requires RCAs to maintain a register of speed limits that is available to members of the public or to provide information about speed limits to the Agency, which must then make that information available to the public:
- requires RCAs to keep records related to the setting of speed limits and have quality control processes:
- provides the Agency with powers to investigate RCAs for compliance with the Rule, issue directions to RCAs, and exercise the appropriate responsibilities of an RCA if the RCA fails to comply with directions:
- requires an RCA to ensure that all traffic control devices installed on a road are safe, effective, and appropriate for the speed limit before that speed limit comes into force:
- establishes when speed limits are set, approved, or changed, and when they come into force:
- clarifies that speed limits and urban traffic areas set prior to the commencement of this Rule remain unaffected until an RCA chooses to amend a speed limit or urban traffic area.

Section 3 of the Rule—

- sets out the categories of speed limits that may be set in accordance with the Rule:
- sets out the range of possible speed limits (all of which are a multiple of 10 km/h):
- provides that a road (or part of a road) for which a speed limit is set must be of a reasonable and safe length:
- provides that the point at which a speed limit changes must be at, or close to, a point of significant change in the roadside development or the road environment:
- provides that the speed limit in an urban traffic area is 50 km/h and in a rural area or on a motorway is 100 km/h unless otherwise set in accordance with the Rule:
- allows an RCA to designate an area as an urban traffic area and, in doing so, propose a speed limit other than 50 km/h for a road within that area.

Section 4 provides for the setting of permanent, holiday, and variable speed limits. Rather than incorporate a methodology for calculating speed limits as in the 2003 Rule, clause 4.2 instead requires an RCA to have regard to a number of mandatory criteria, including the information about speed management developed by the Agency under clauses 2.3 and 2.4, when reviewing a permanent, holiday, or variable speed limit. This consideration enables the RCA to sense-test the information developed by the Agency in the context of local knowledge. Clause 4.3 requires an RCA to consult on a proposed permanent, holiday, or variable speed limit in accordance with clauses 2.5 and 2.6. Clause 4.4 gives RCAs the power to set speed limits. In doing so, an RCA must—

- take account of submissions received during consultation:
- have regard to any other factor the RCA considers relevant to achieving travel speeds that are safe and appropriate on a road:
- aim to achieve a mean operating speed less than 10% above the speed limit.

As set out in clauses 4.5 and 4.6, permanent and holiday speed limits that are 70 km/h, 90 km/h, or 110 km/h require the additional step of Agency approval before they can be set by an RCA.

The requirement for Agency approval for new 70 km/h speed limits is introduced. It reflects the goal of the Safer Journeys road safety strategy to, over time, reduce the number of different speed limits applying at higher speeds to 60 km/h, 80 km/h, 100 km/h, and 110 km/h, in order to make the speed limit more self-explanatory to road users.

Section 5 specifies the circumstances in which a variable speed limit may be set. When one or more of those circumstances apply, the Agency may approve a variable speed limit either for a road or for roads generally in one of three specified classes of road. In approving a variable speed limit the Agency may specify any conditions that it considers appropriate (such as signage requirements). An RCA may only set a variable speed limit if the Agency has approved that speed limit and must set a variable speed limit in accordance with any conditions specified by the Agency.

Section 6 sets out the requirements relating to temporary speed limits, which are largely carried over from the 2003 Rule. There are three grounds for setting a temporary speed limit (after an RCA has satisfied itself that a temporary speed limit is needed), being—

- physical work occurring on or adjacent to a road in a way that impacts the function of the road:
- the presence of an unsafe road surface or structure:
- a special event.

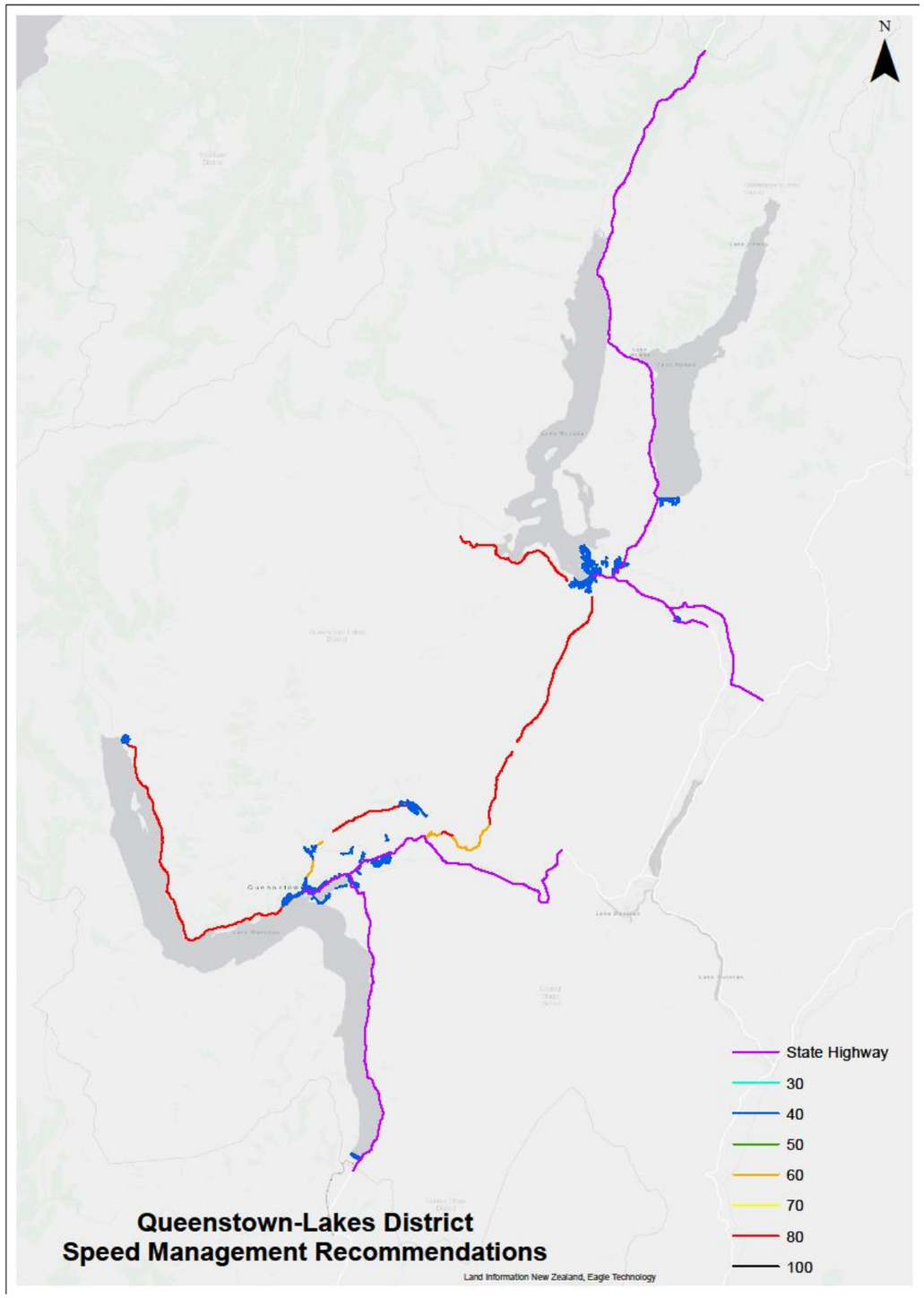
A temporary speed limit is set by installing signs in accordance with a traffic management plan approved in writing by an RCA. A temporary speed limit may be in force for no more than 12 months and must be lower than the prevailing permanent or holiday speed limit. The signs must be removed as soon as there is no longer any need for the temporary speed limit.

Section 7 provides for an emergency speed limit to be set. New in this Rule is the provision for RCAs to set emergency speed limits, which must be lower than any prevailing speed limits, when an emergency that affects the use of any road creates a risk of danger to the public or a risk of damage to a road. An RCA can set an emergency speed limit by installing speed limit signs in accordance with section 9 of the Rule, but must, within 10 working days of doing so, place a notice in the New Zealand Gazette explaining where the emergency speed limit applies and the RCA's reasons for considering that the emergency speed limit is necessary.

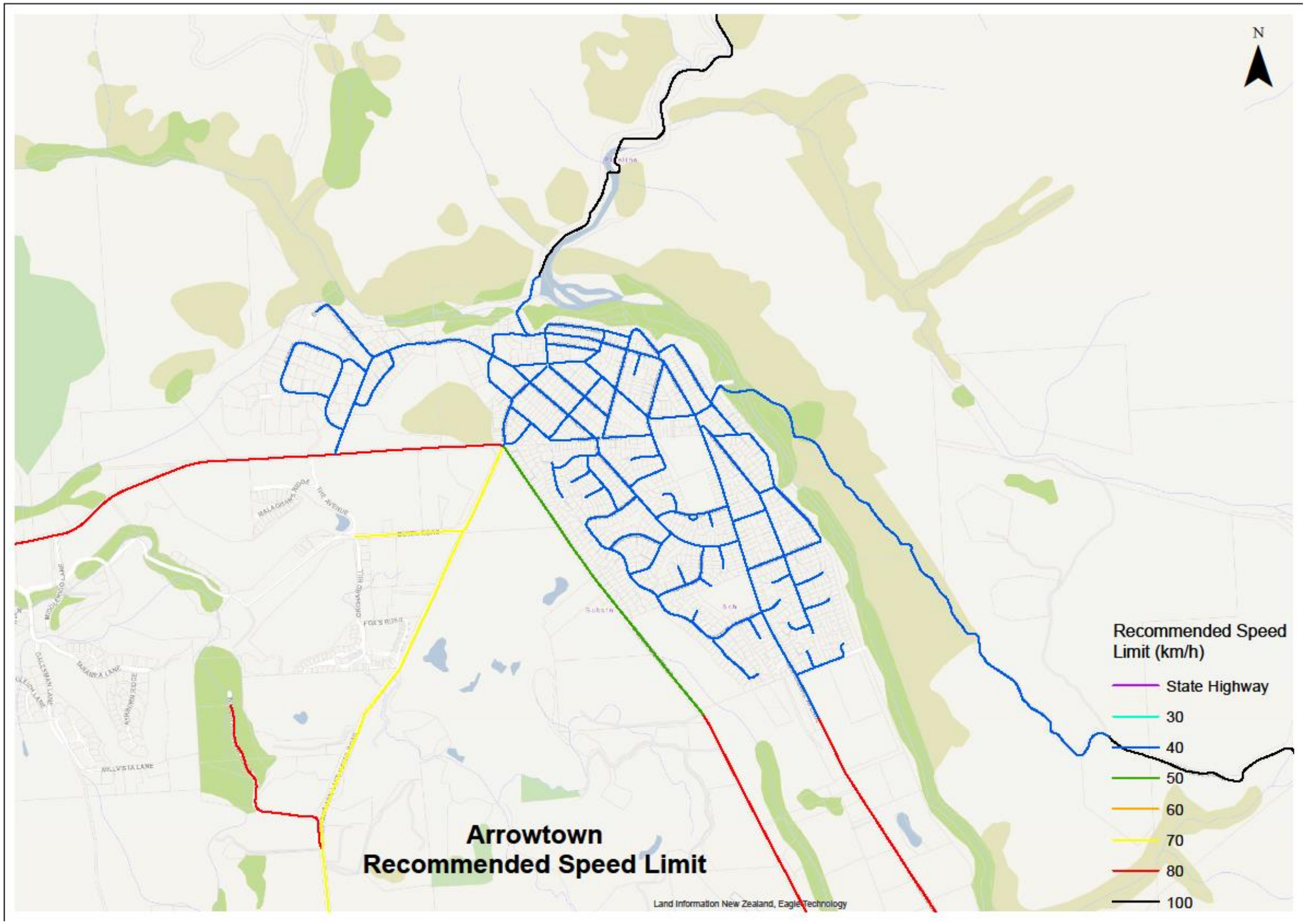
Section 8 provides for setting speed limits on roads in designated locations. The relevant RCA may follow a simplified review and consultation process under the Rule before setting a speed limit on a road in a designated location. Designated locations include, for example, commercial and industrial facilities, airports, cemeteries, car parks, and camping grounds. Roads in designated locations must have speed limits that comply with the Rule; these speed limits tend to be very low.

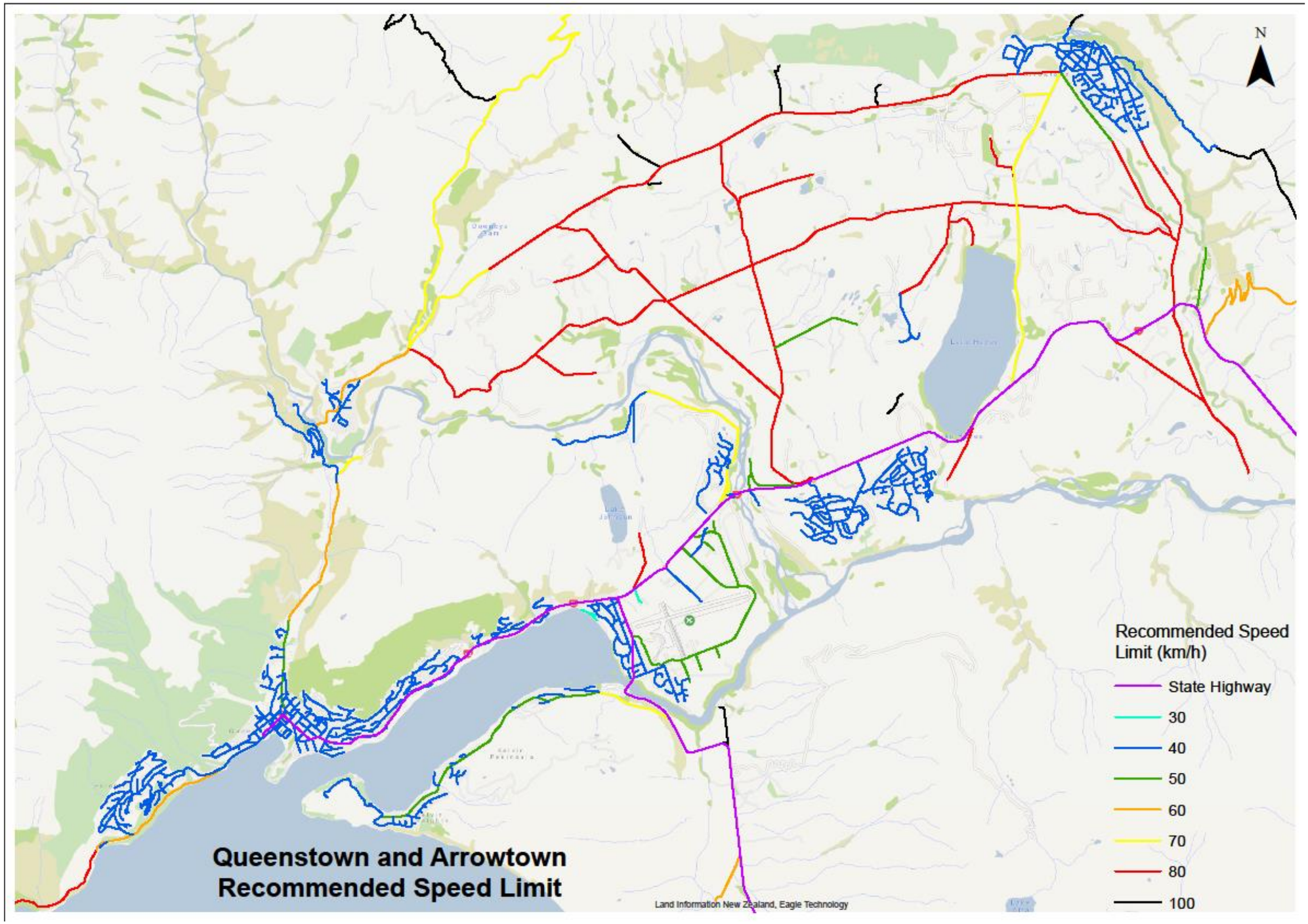
Section 9 provides for signs and road markings relating to speed limits. These requirements are largely carried over from the 2003 Rule and prescribe where speed limit signs must be installed. This includes repeater signs, which are signs installed at regular intervals that indicate the speed limit when it is above 50 km/h but below 100 km/h. New in this Rule is clause 9.2(2), which provides that an RCA is not obliged to comply with the requirements for repeater signs if the nature of a particular length of road makes the speed limit clear to road users and the measured mean operating speed is less than 10% above the speed limit for that length of road.

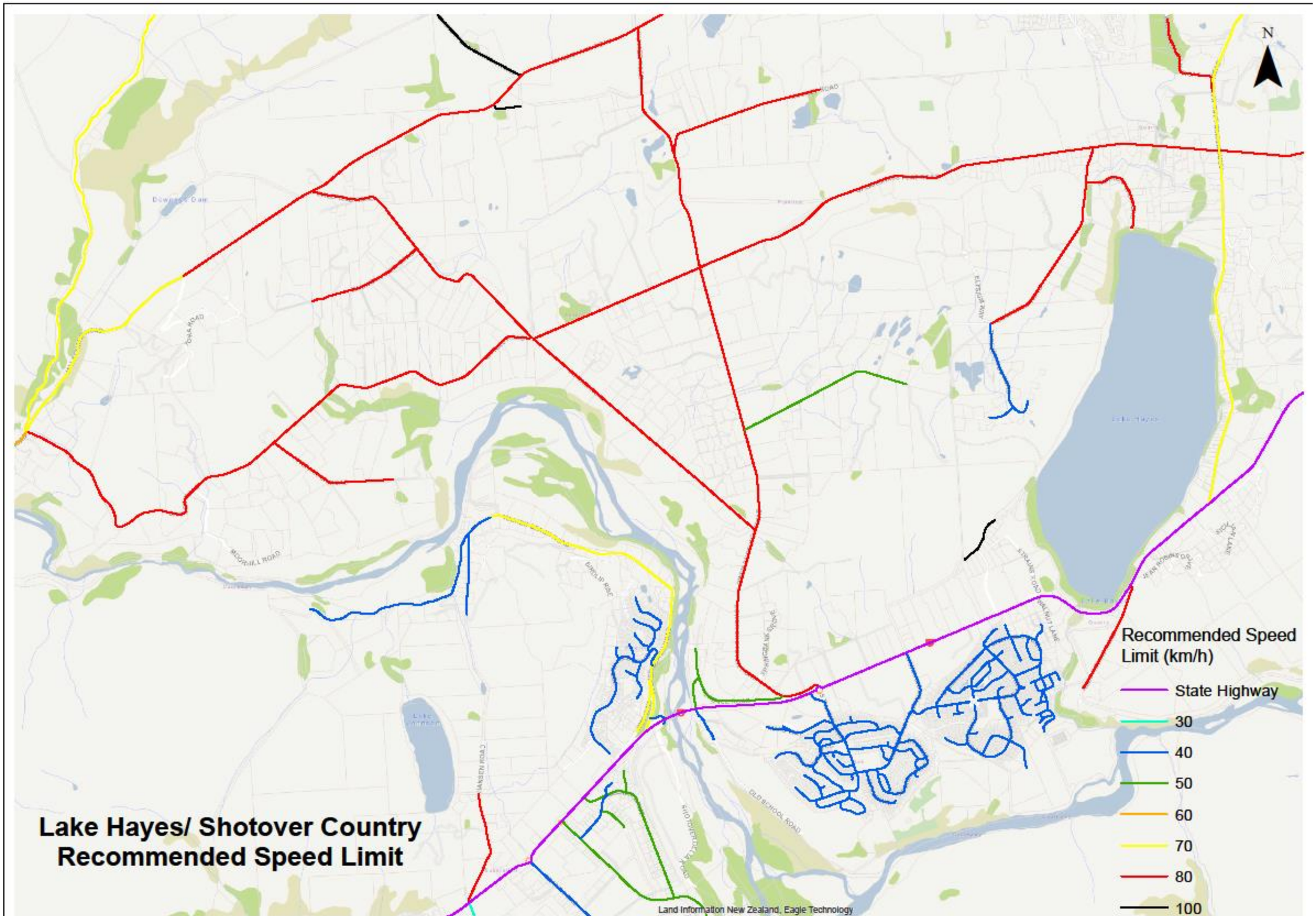
10.5 Consultation Network Maps

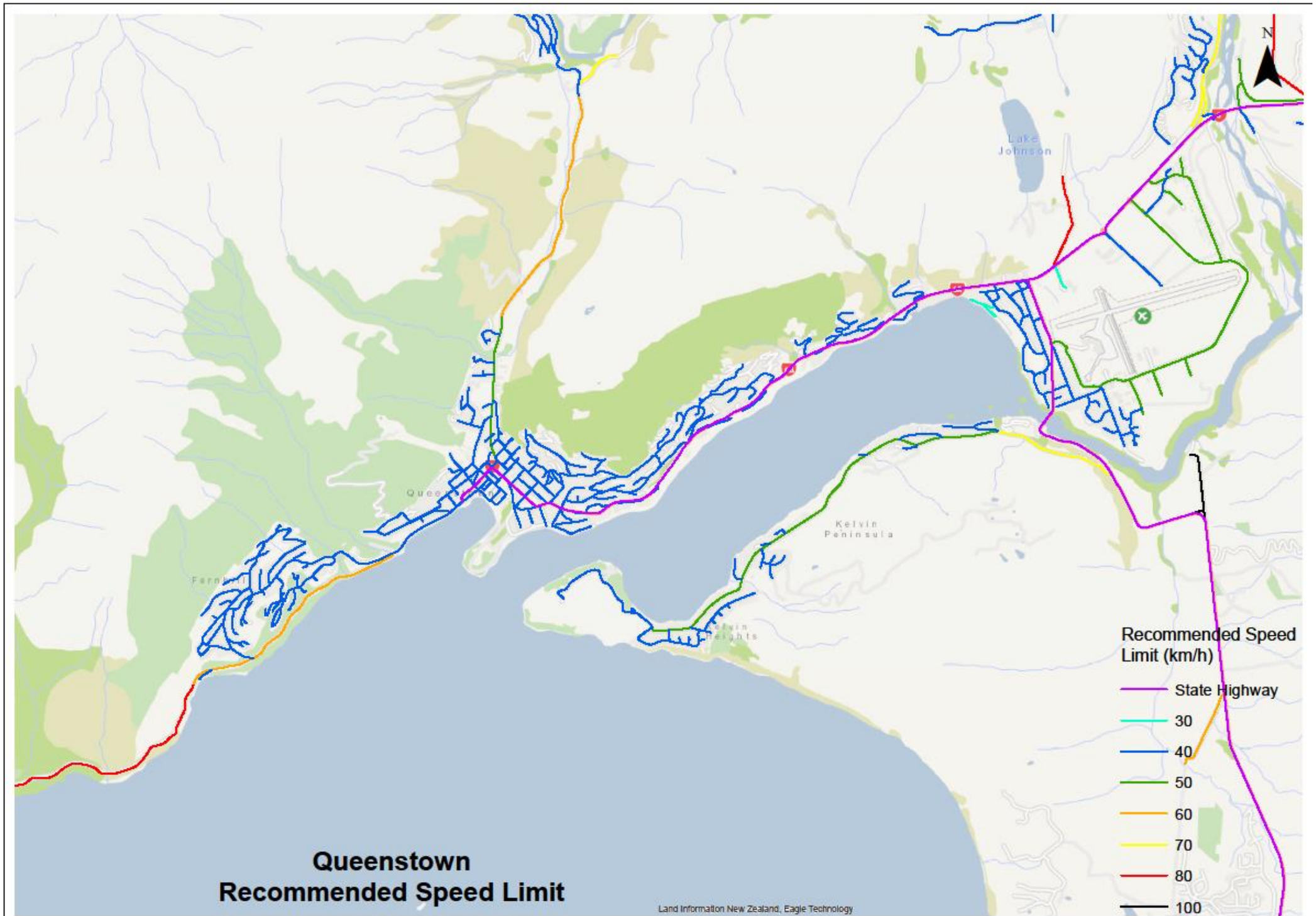


10.5.1 Urban traffic areas



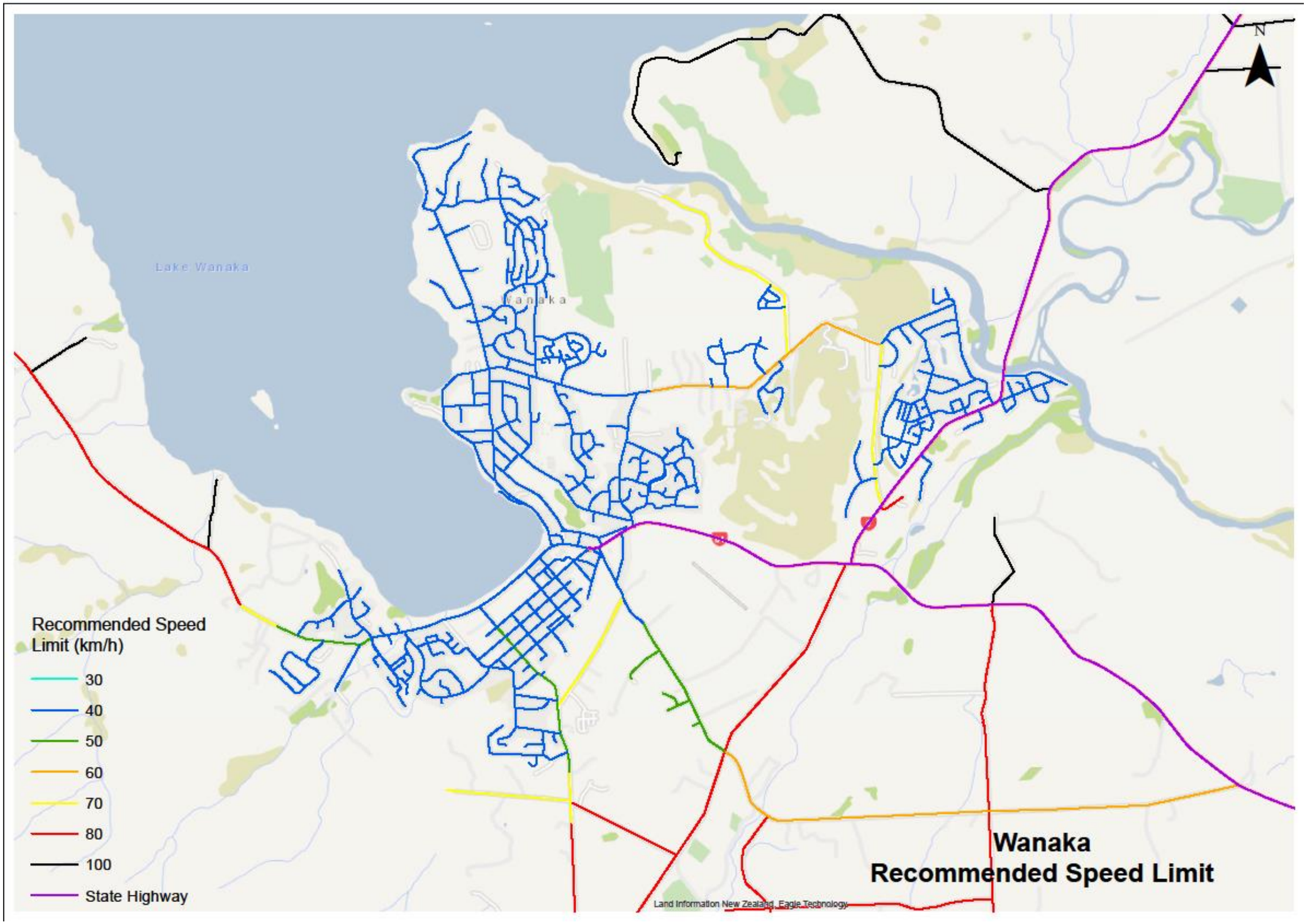

N
Recommended Speed Limit (km/h)
State Highway
30
40
50
60
70
80
100
Queenstown and Arrowtown
Recommended Speed Limit
Land Information New Zealand, Eagle Technology

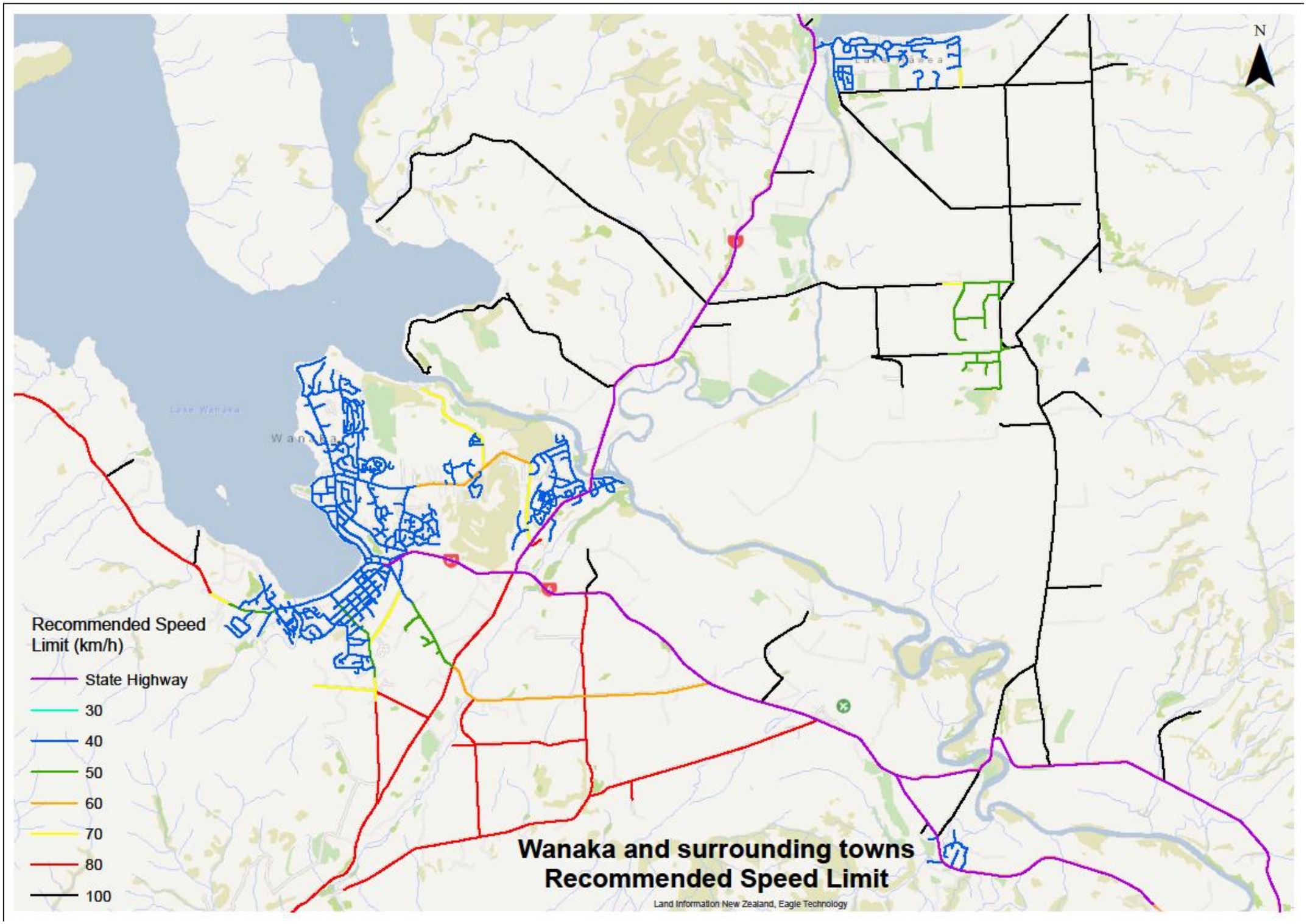

N
Lake Hayes/ Shotover Country
Recommended Speed Limit
Recommended Speed Limit (km/h)
State Highway
30
40
50
60
70
80
100
Land Information New Zealand, Eagle Technology


N
Lake Johnson
Kelvin Peninsula
Recommended Speed Limit (km/h)
State Highway
30
40
50
60
70
80
100
Queenstown
Recommended Speed Limit
Land Information New Zealand, Eagle Technology

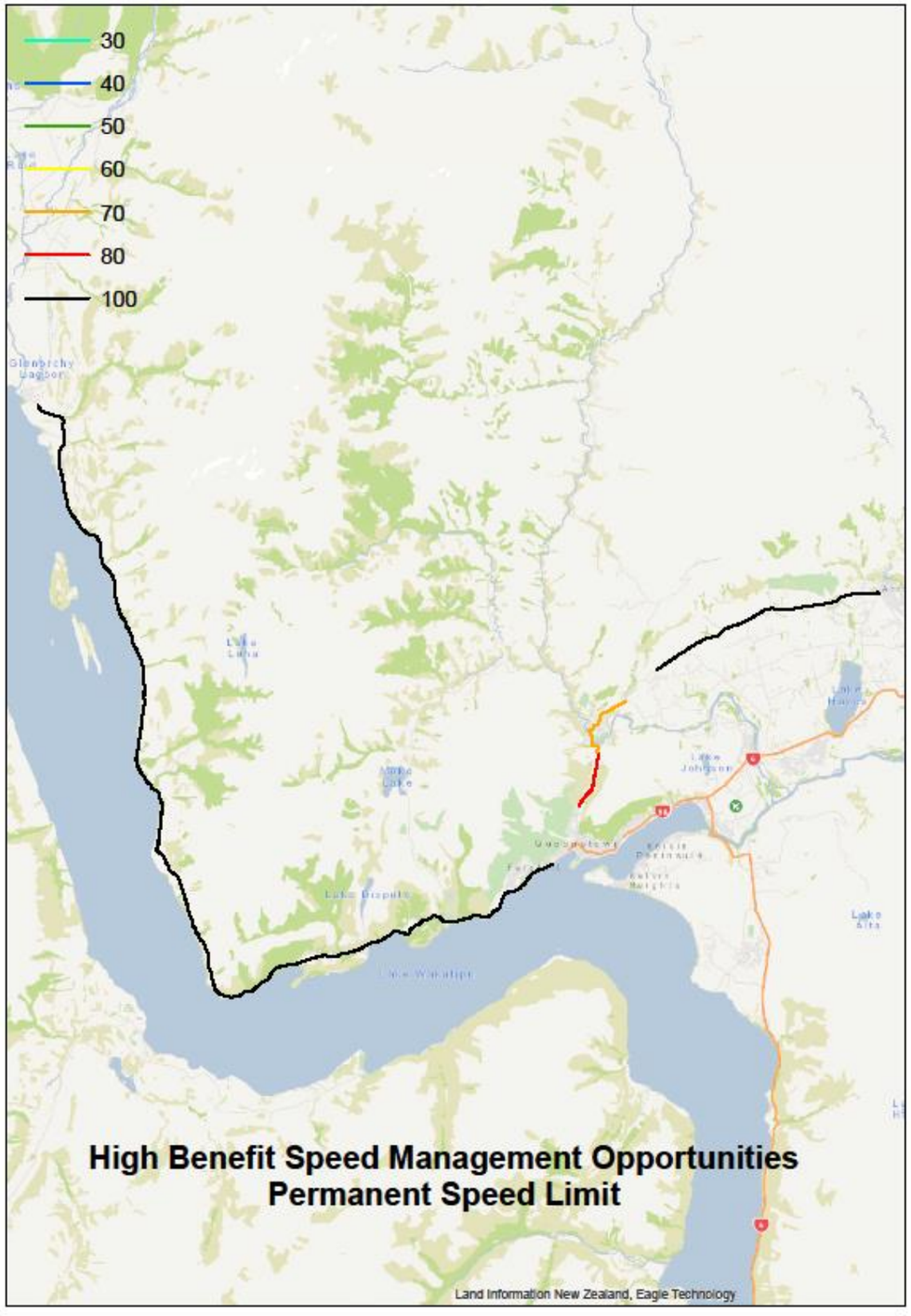

N
Recommended Speed
Limit (km/h)
30
40
50
60
70
80
100
State Highway
Kingston
Recommended Speed Limit
Land Information New Zealand, Eagle Technology

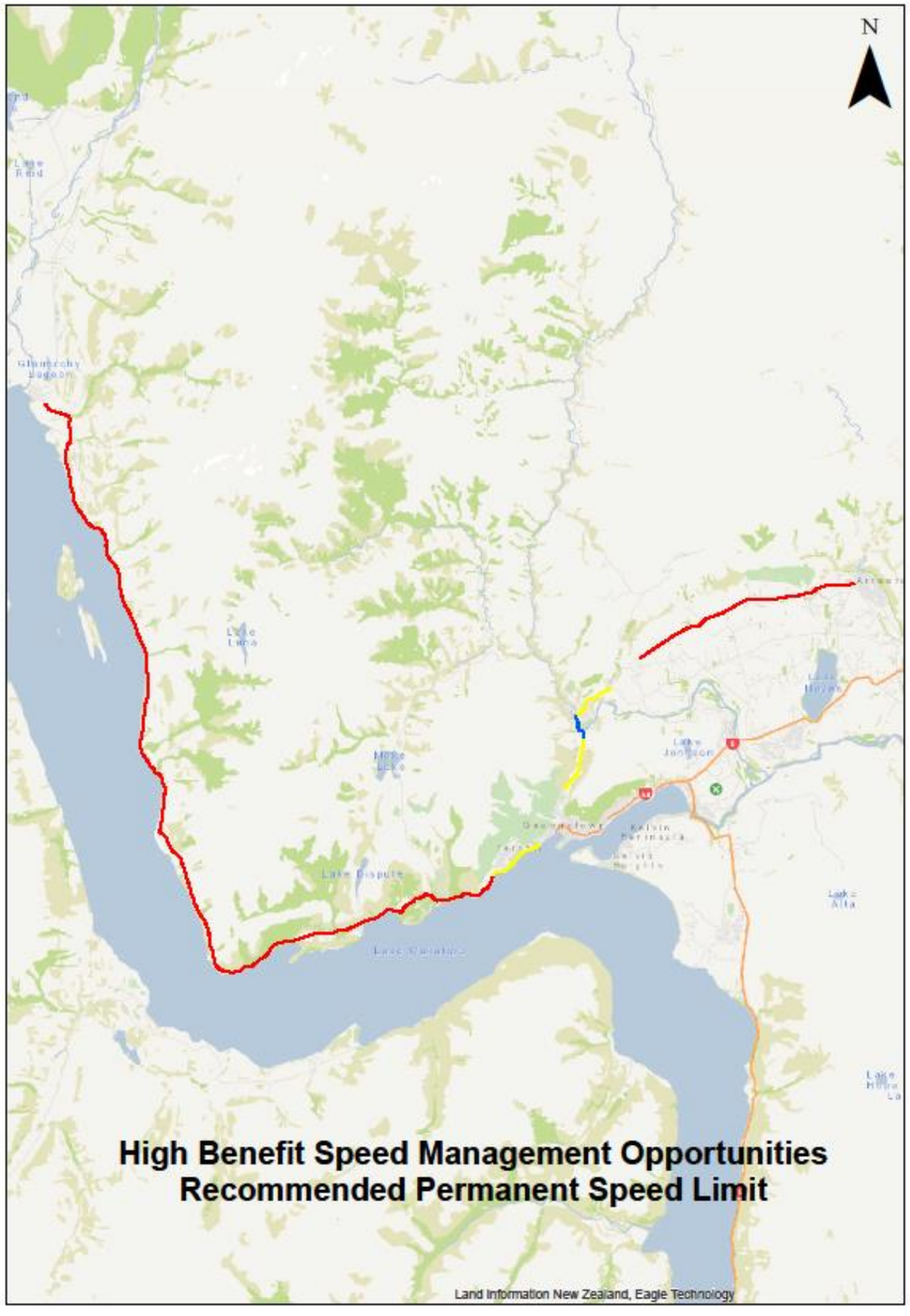

N
Recommended Speed Limit (km/h)
30
40
50
60
70
80
100
State Highway
Glenorchy
Recommended Speed Limit
Land Information New Zealand, Eagle Technology

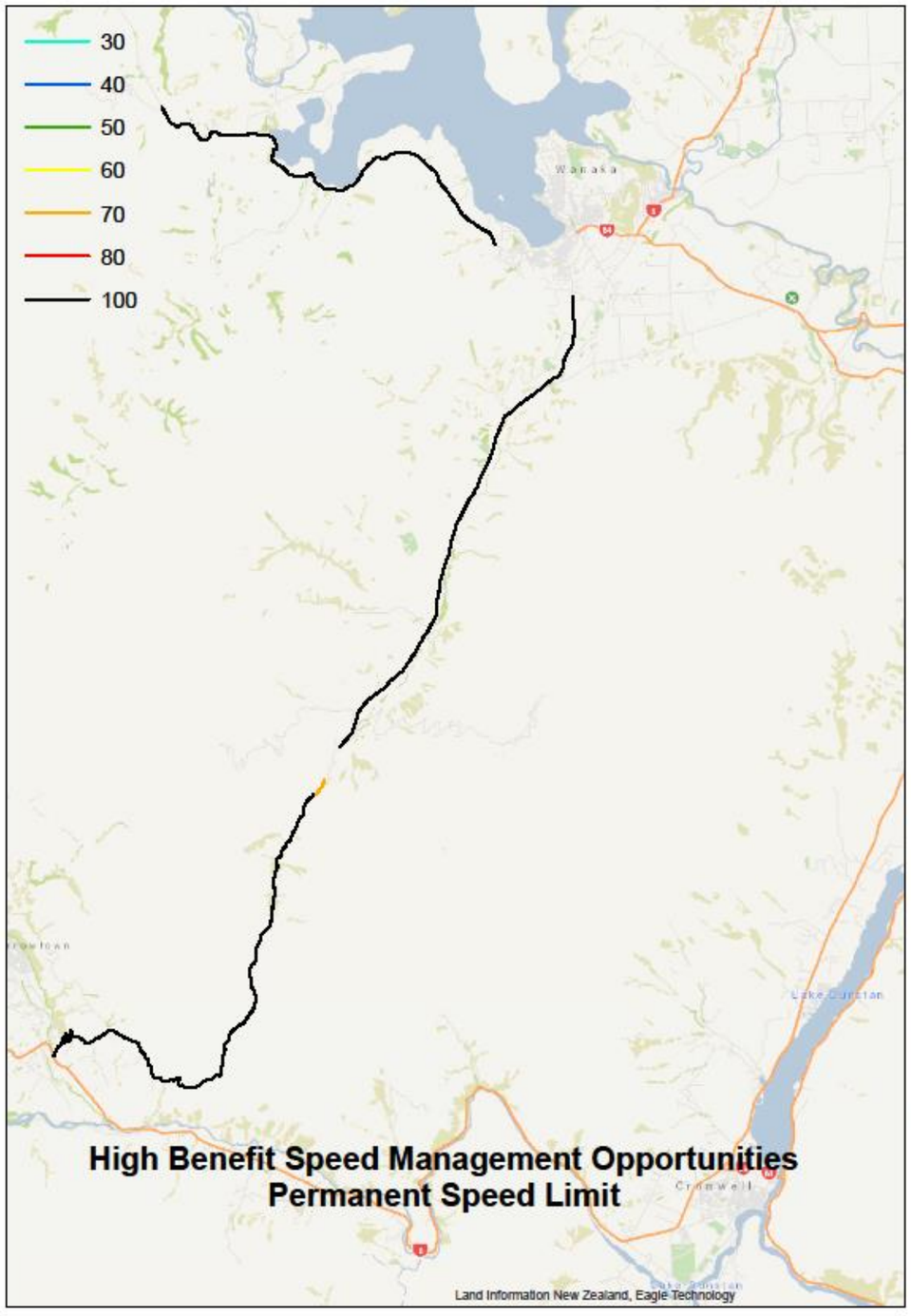

N
Lake Wanaka
Wanaka
Recommended Speed Limit (km/h)
30
40
50
60
70
80
100
State Highway
Wanaka
Recommended Speed Limit
Land Information New Zealand, Eagle Technology

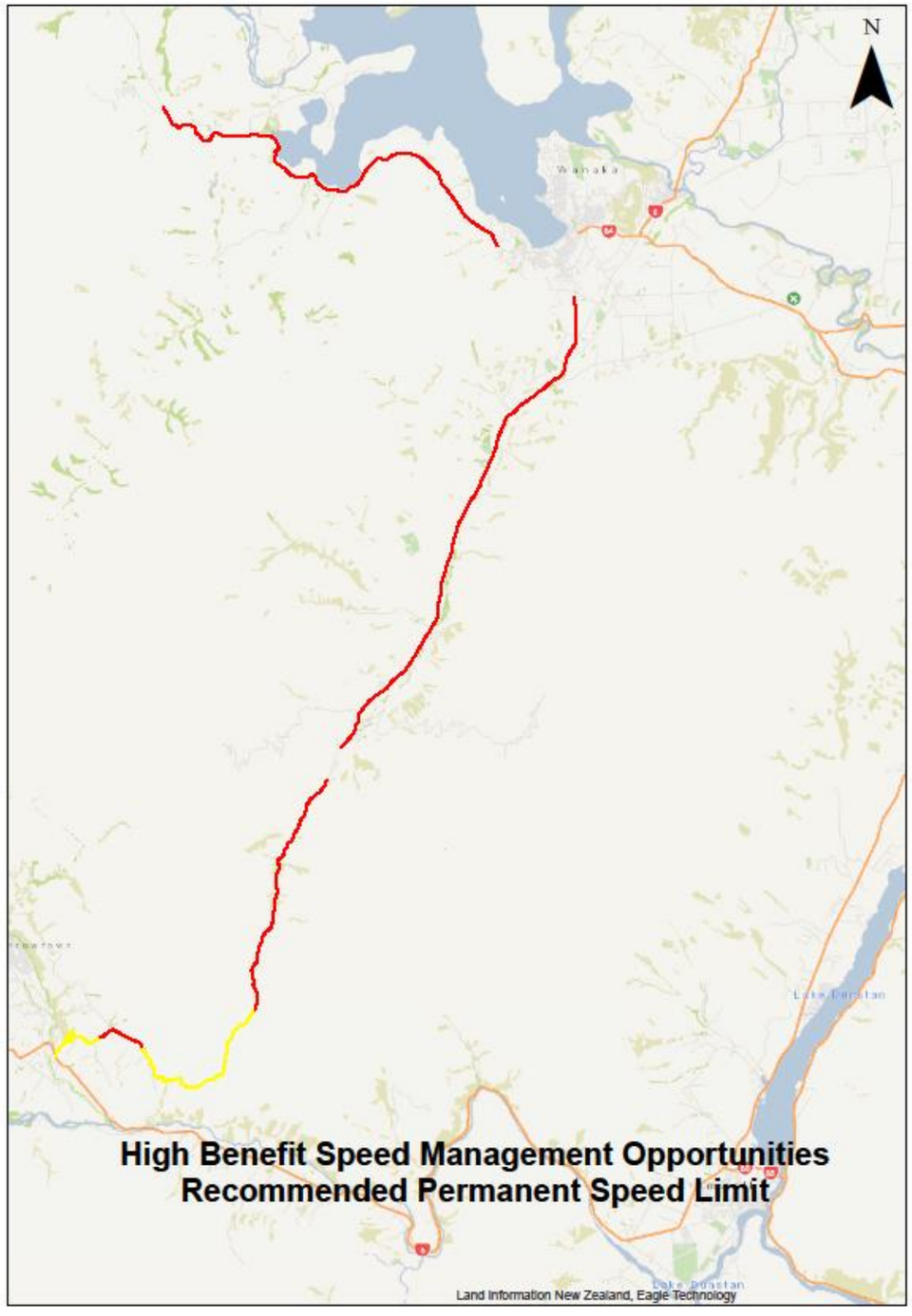

N
Lake Wanaka
Wanaka
Recommended Speed Limit (km/h)
State Highway
30
40
50
60
70
80
100
Wanaka and surrounding towns
Recommended Speed Limit
Land Information New Zealand, Eagle Technology

10.5.2 High benefit opportunities to reduce death and serious injuries

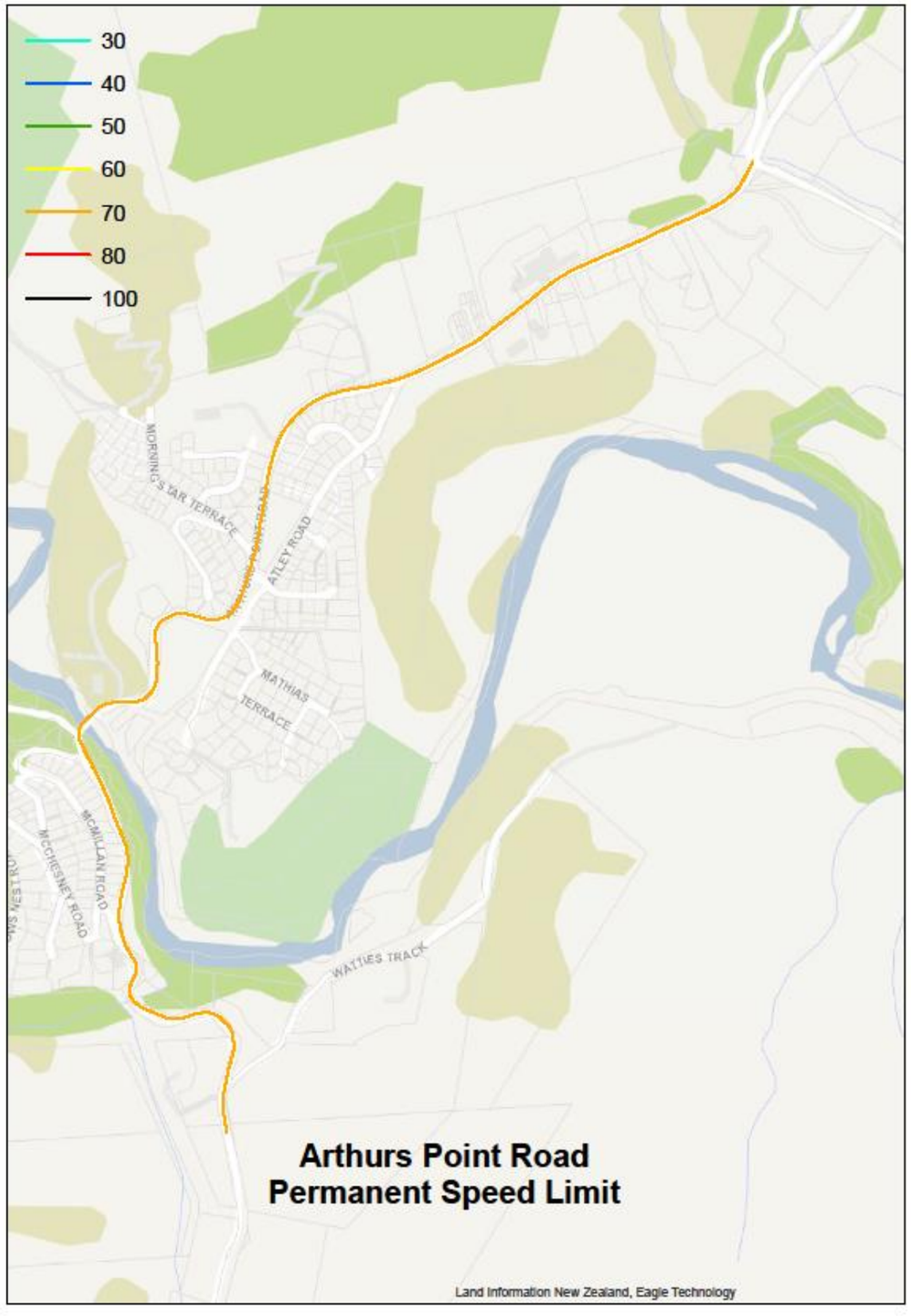


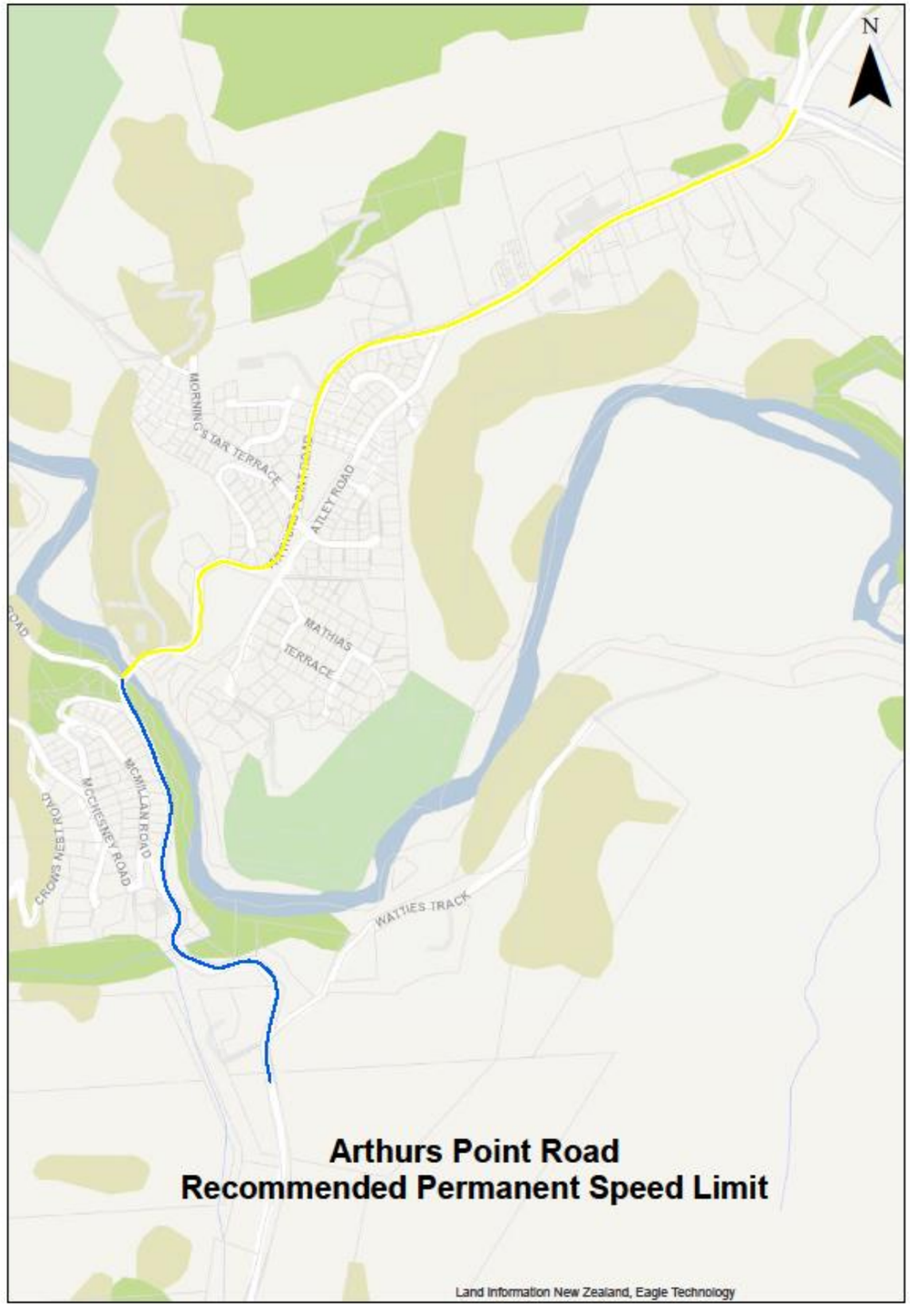


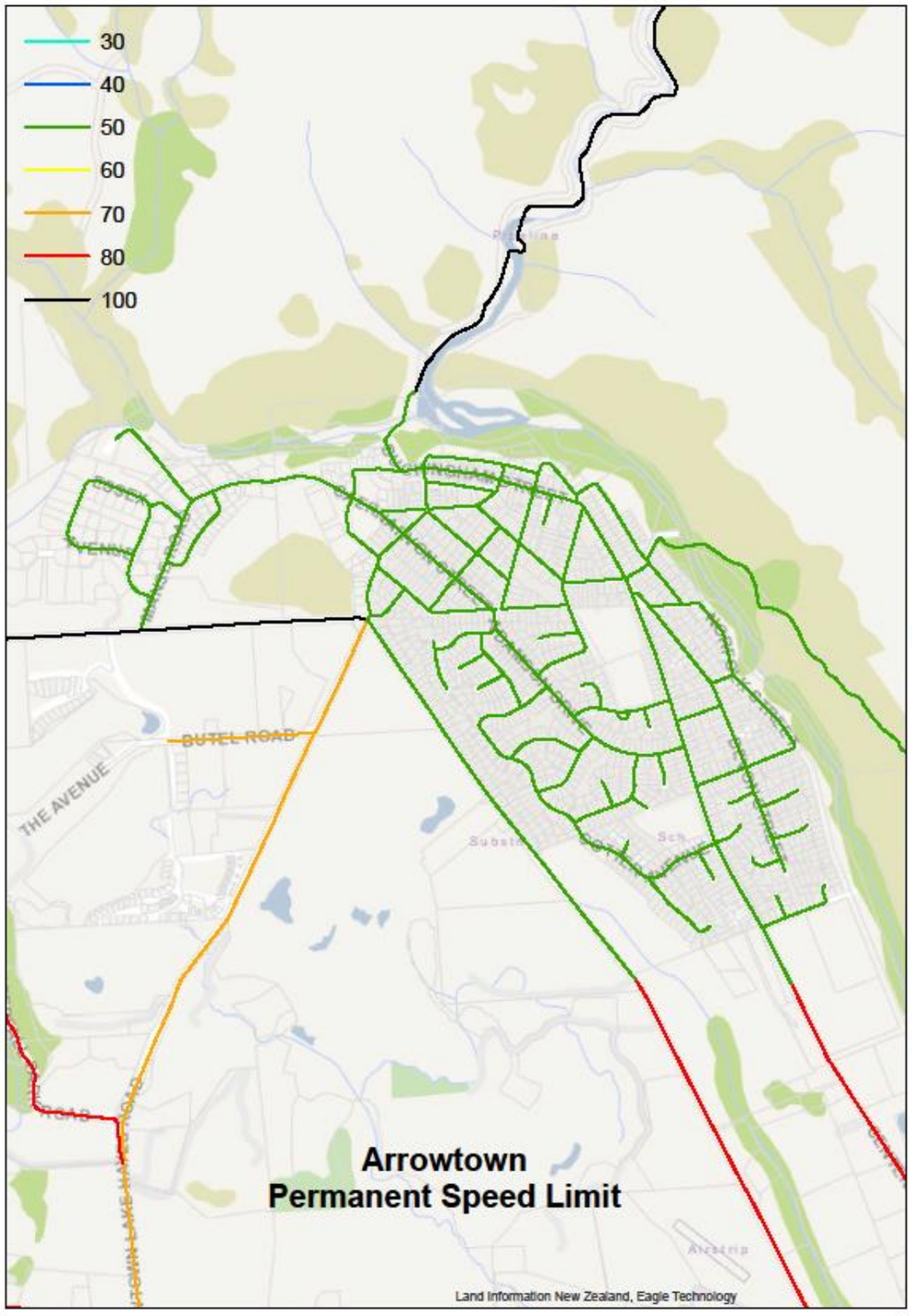

30
40
50
60
70
80
100
Wanaka
Cromwell
Lake Dunstan
Lake Roxburgh
Crowtown
High Benefit Speed Management Opportunities
Permanent Speed Limit
Land Information New Zealand, Eagle Technology

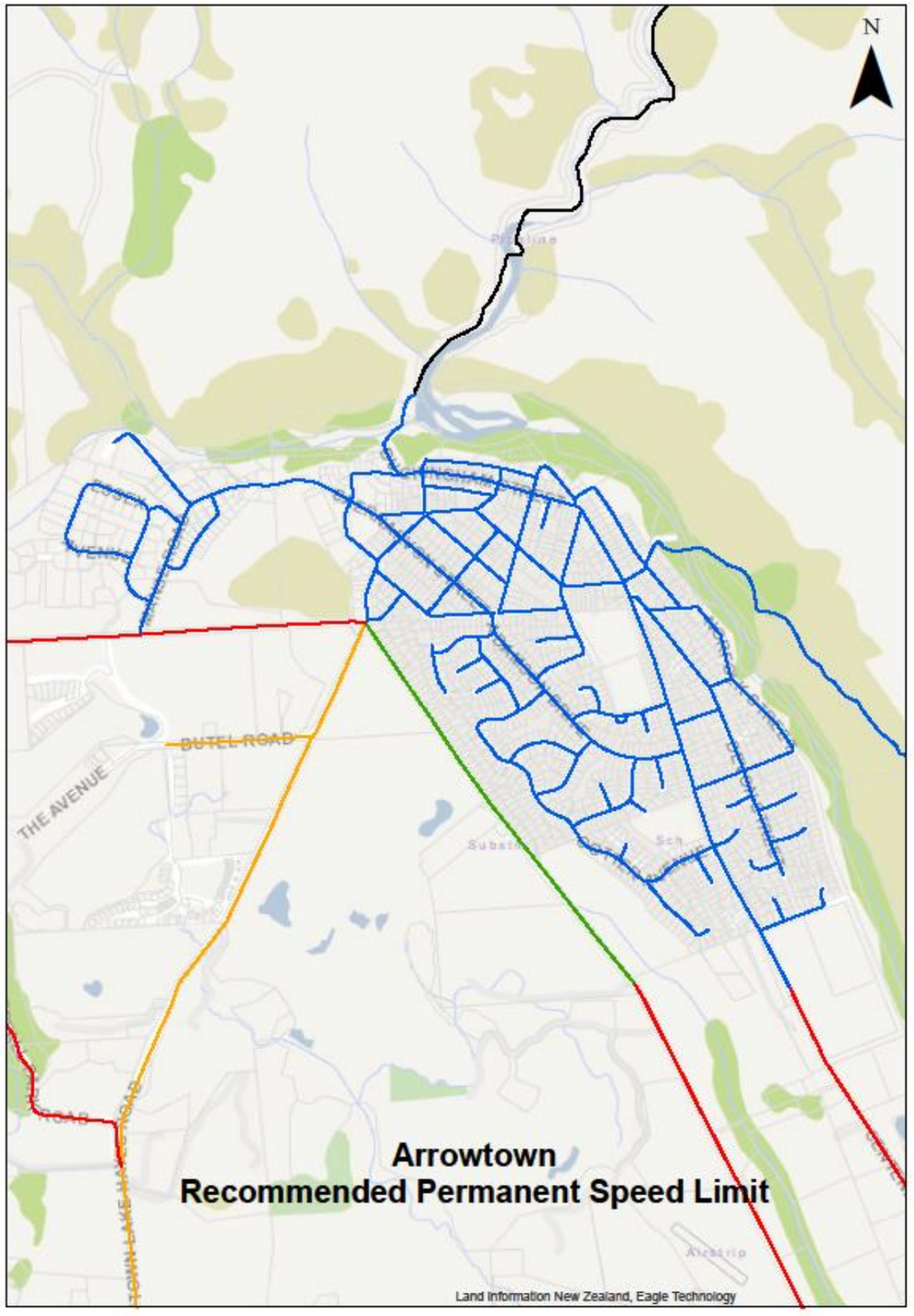

N
Wanaka
Lake Dunstan
Crowtown
High Benefit Speed Management Opportunities
Recommended Permanent Speed Limit
Land Information New Zealand, Eagle Technology

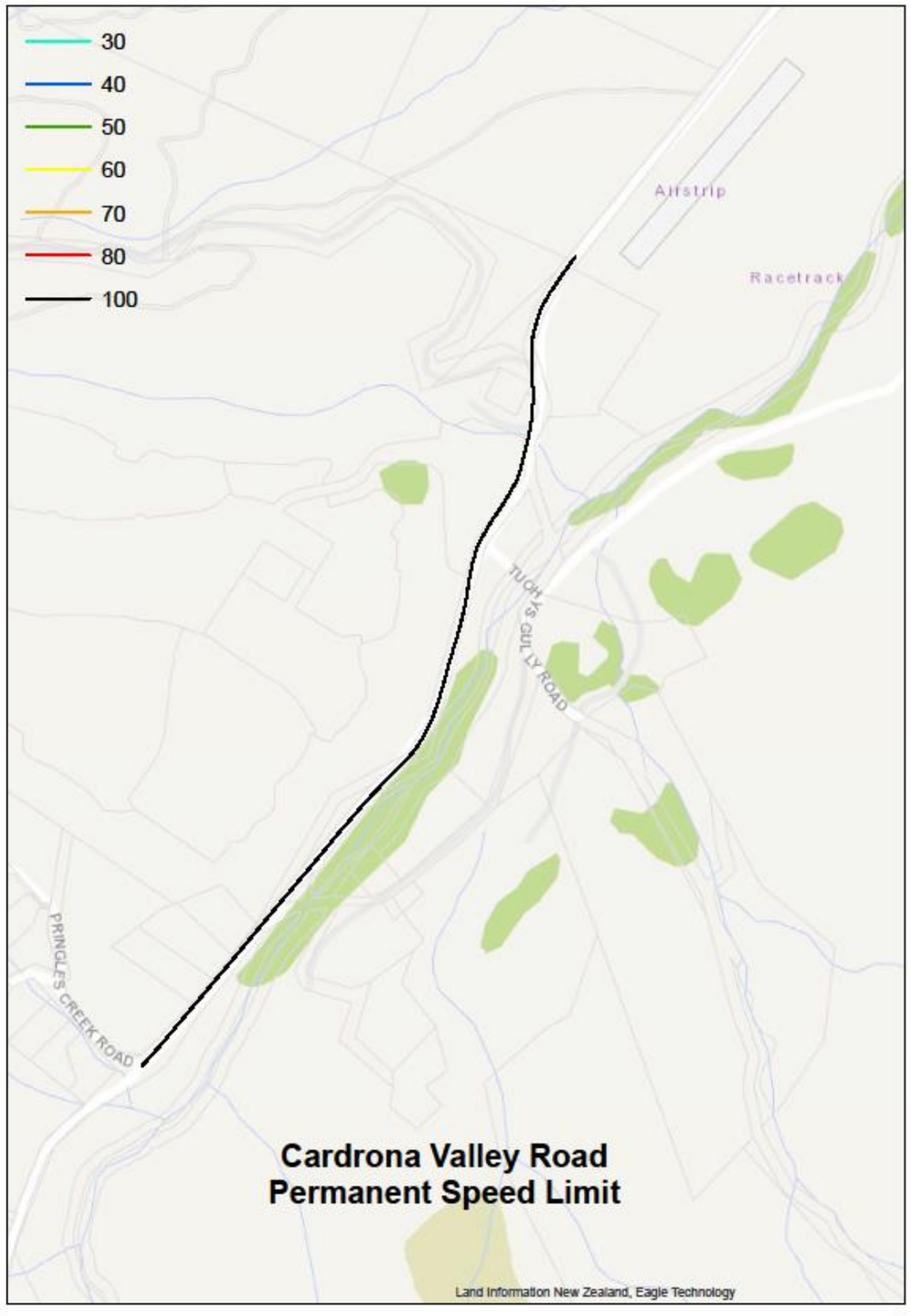
10.5.3 Reduced speed sign posted areas

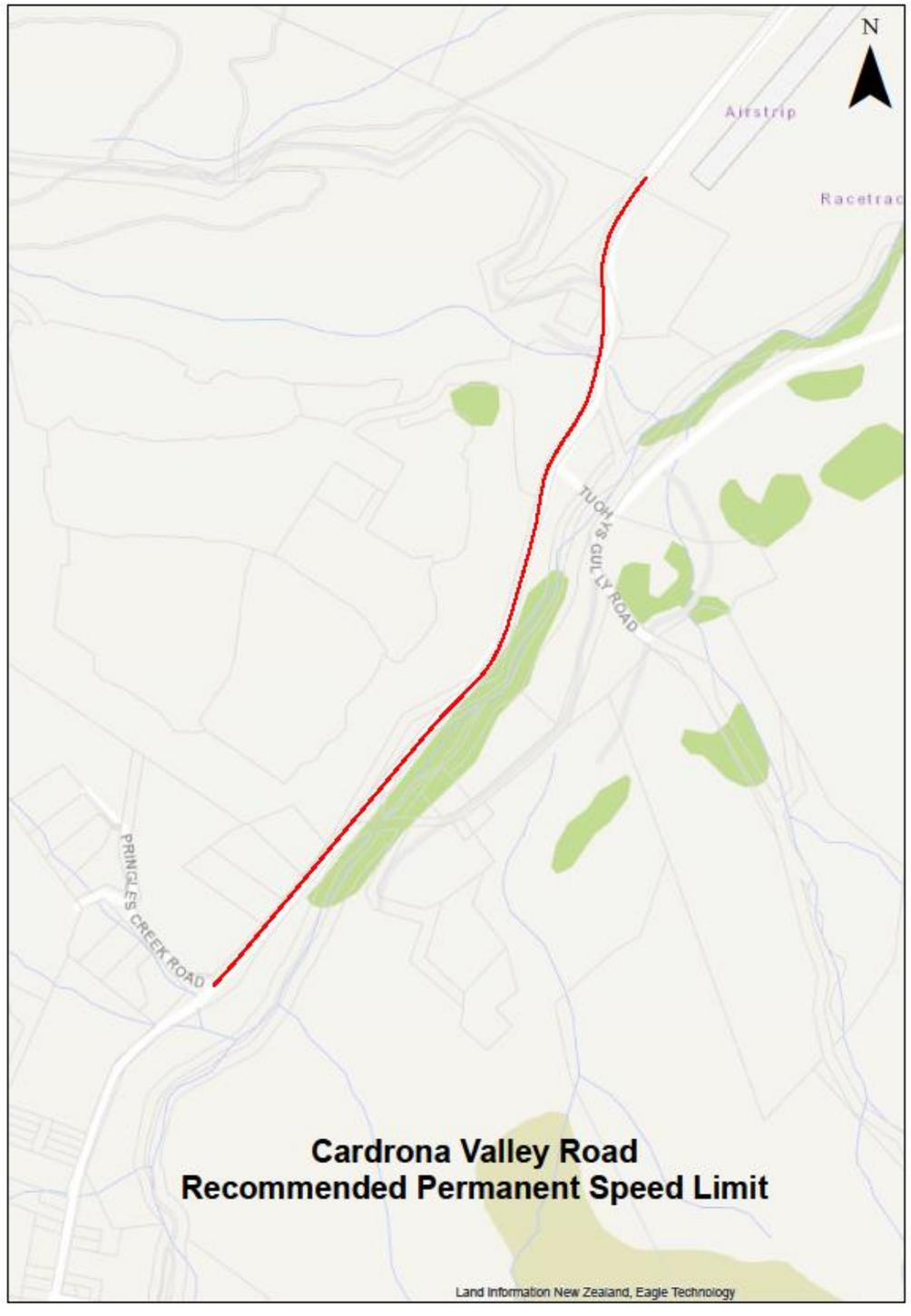


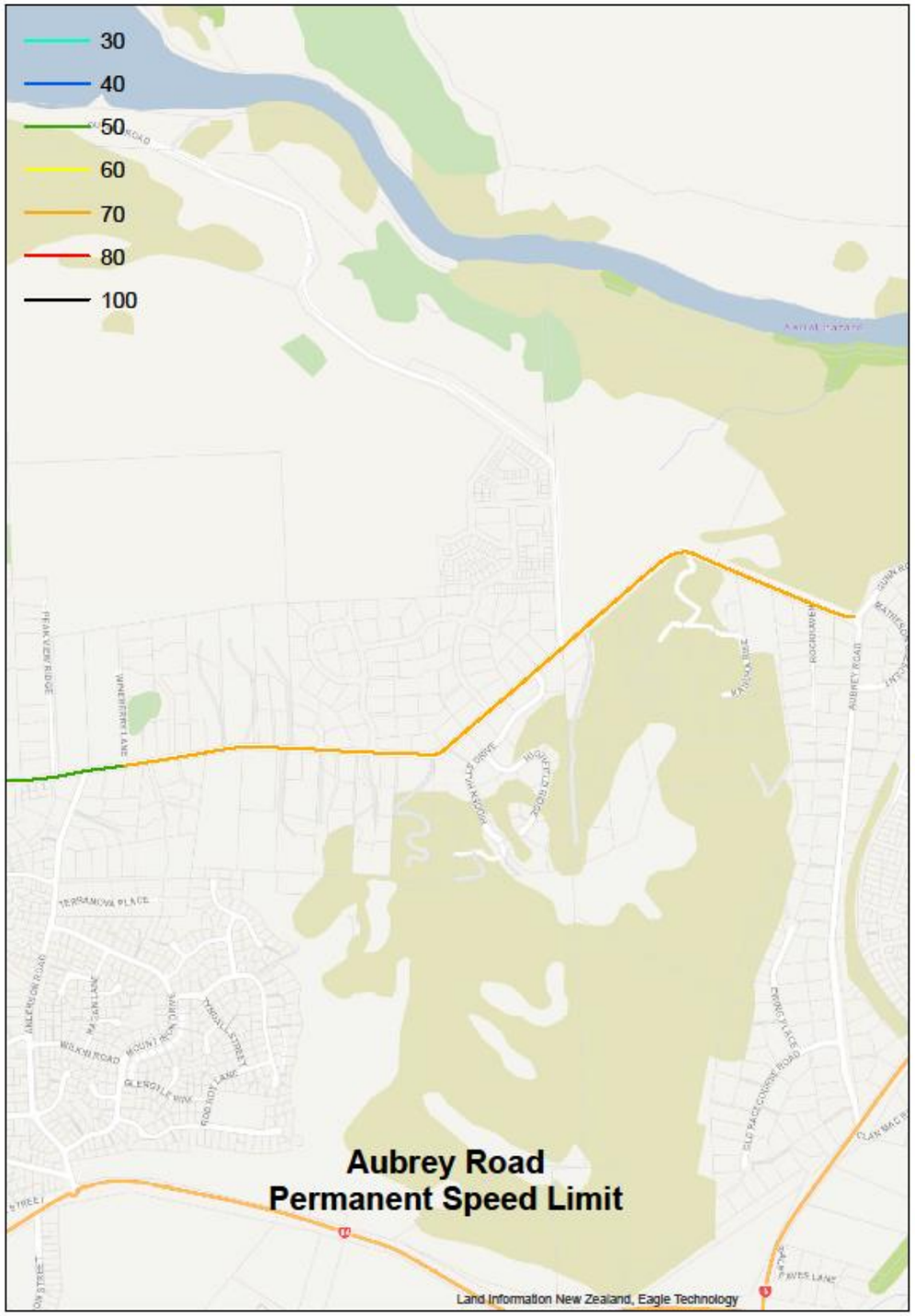


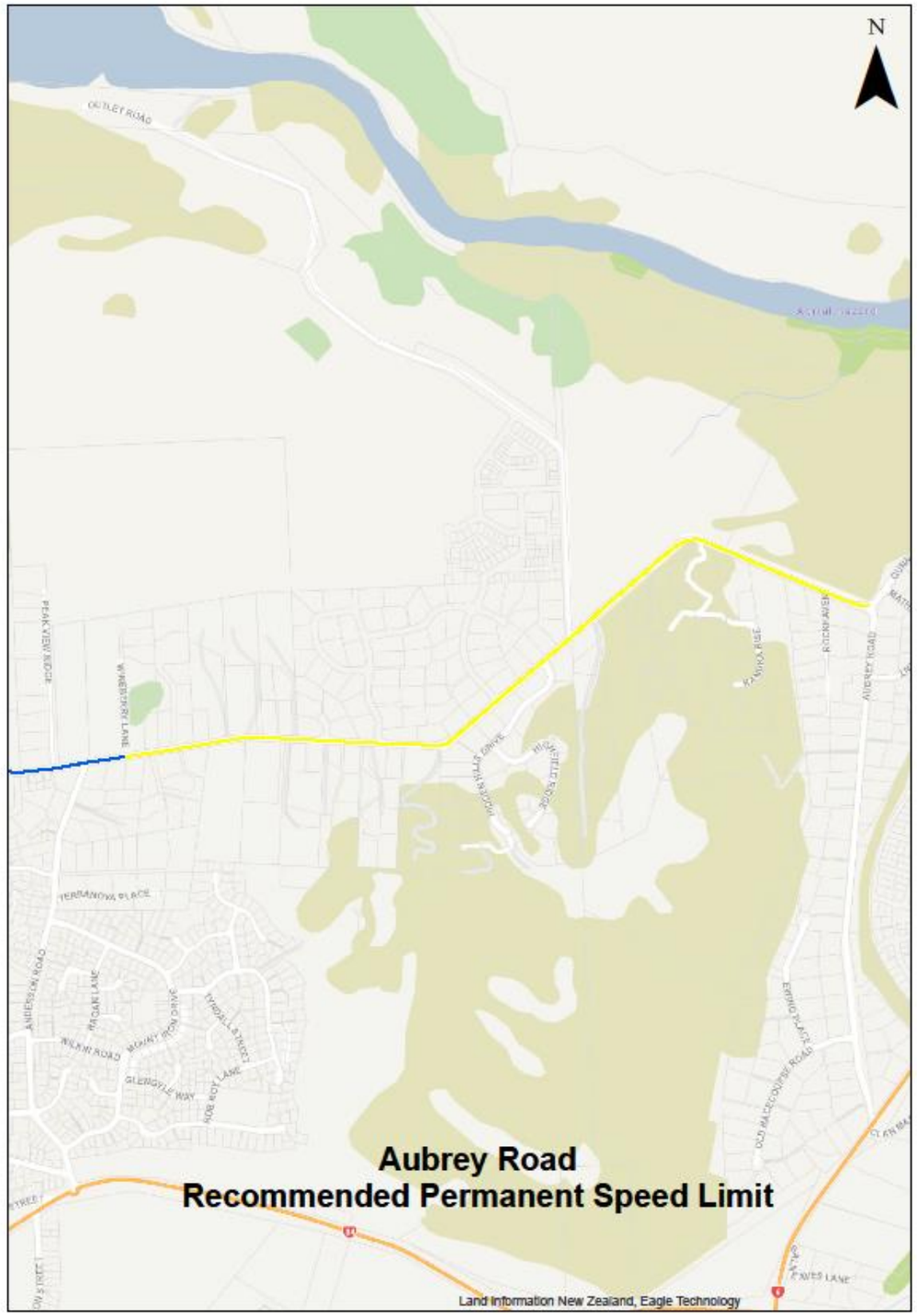

30
40
50
60
70
80
100
BUTEL ROAD
THE AVENUE
TOWN LAKE HAYES ROAD
Arrowtown
Permanent Speed Limit
Land Information New Zealand, Eagle Technology


N
BUTEL ROAD
THE AVENUE
TOWN LAKE HAYES ROAD
Arrowtown
Recommended Permanent Speed Limit
Land Information New Zealand, Eagle Technology

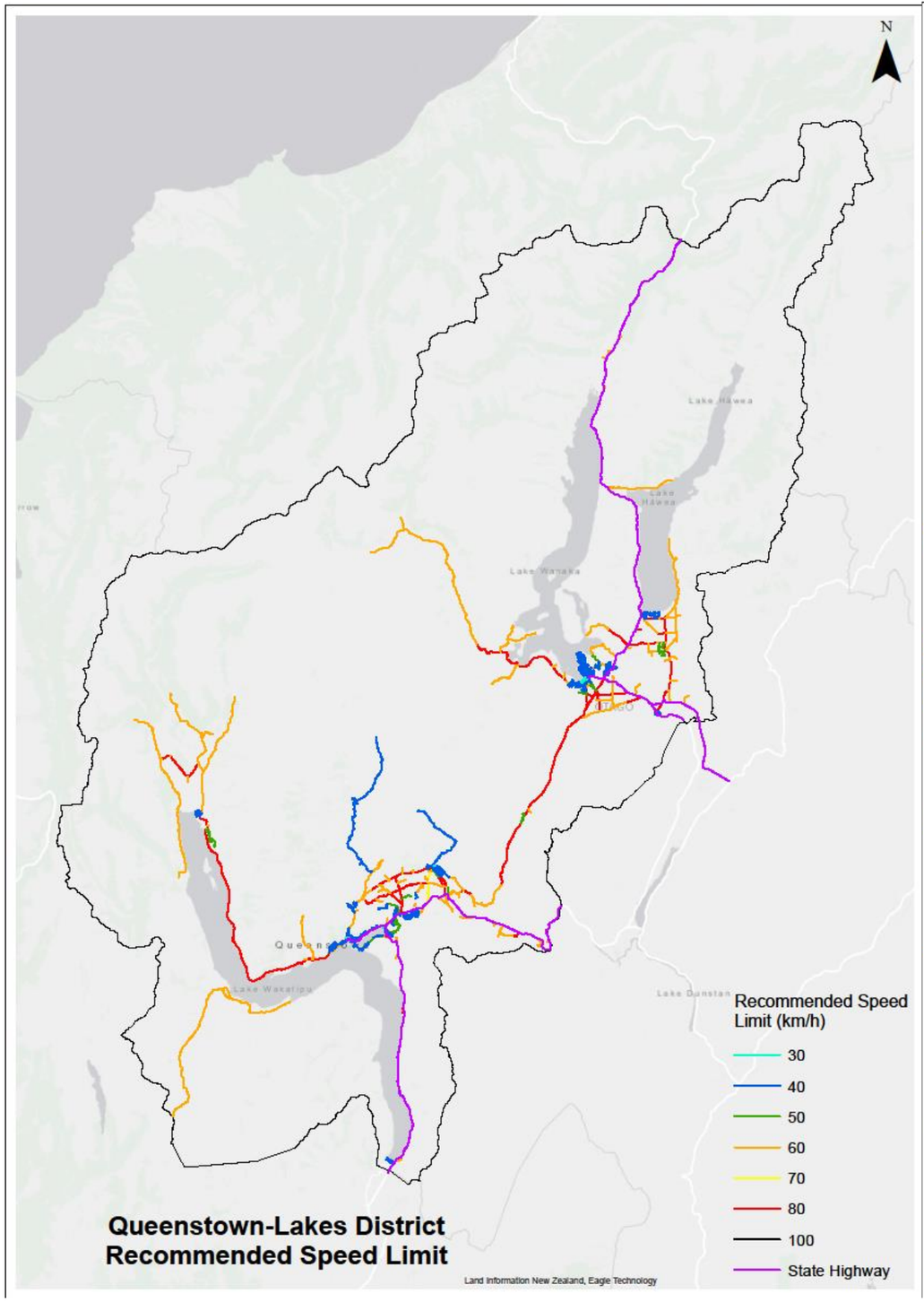

30
40
50
60
70
80
100
Airstrip
Racetrack
TUCH ES GULLY ROAD
PRINGLES CREEK ROAD
Cardrona Valley Road
Permanent Speed Limit
Land Information New Zealand, Eagle Technology

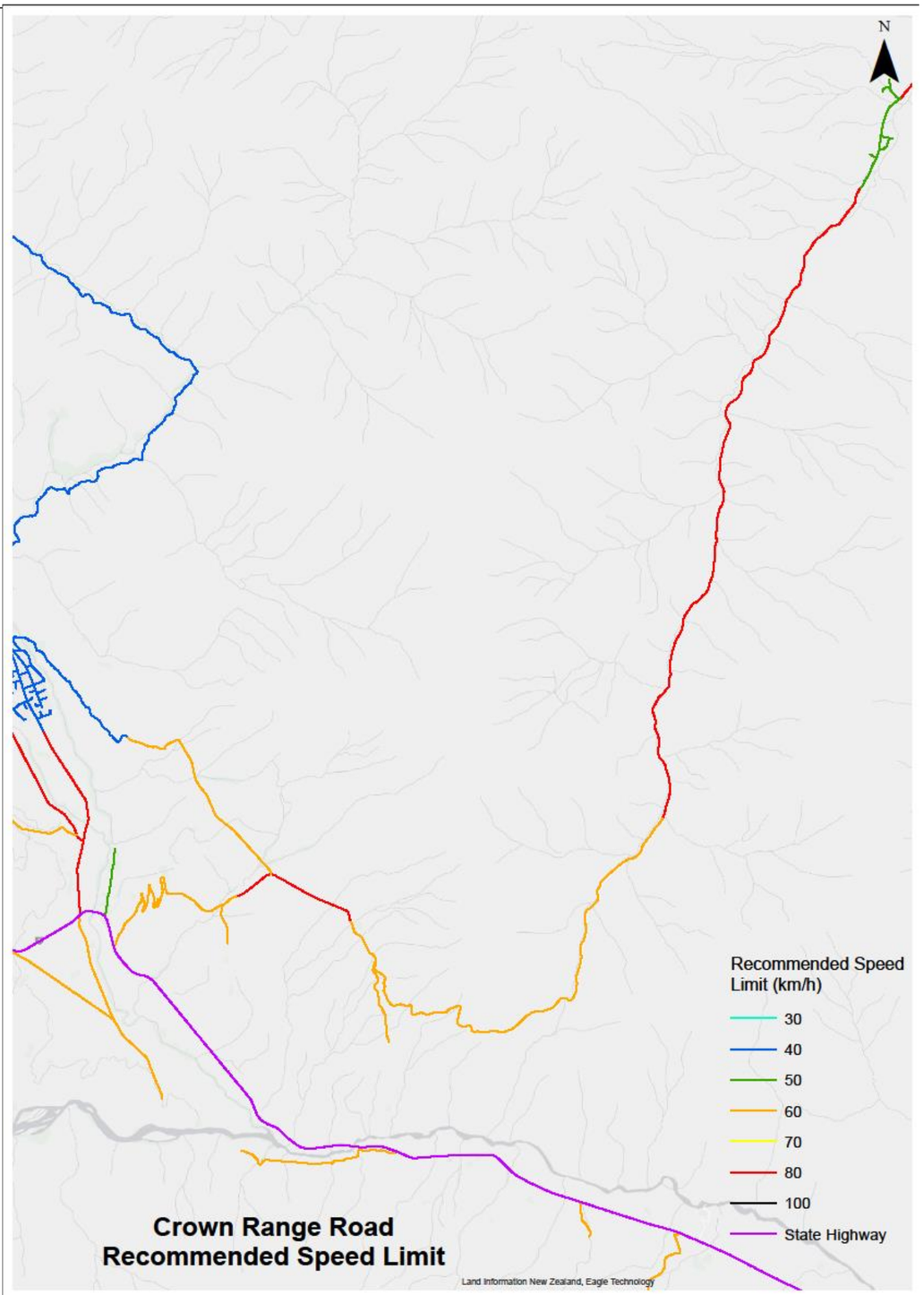

N
Airstrip
Racetrac
TUCH ES GULLY ROAD
PRINGLES CREEK ROAD
Cardrona Valley Road
Recommended Permanent Speed Limit
Land Information New Zealand, Eagle Technology

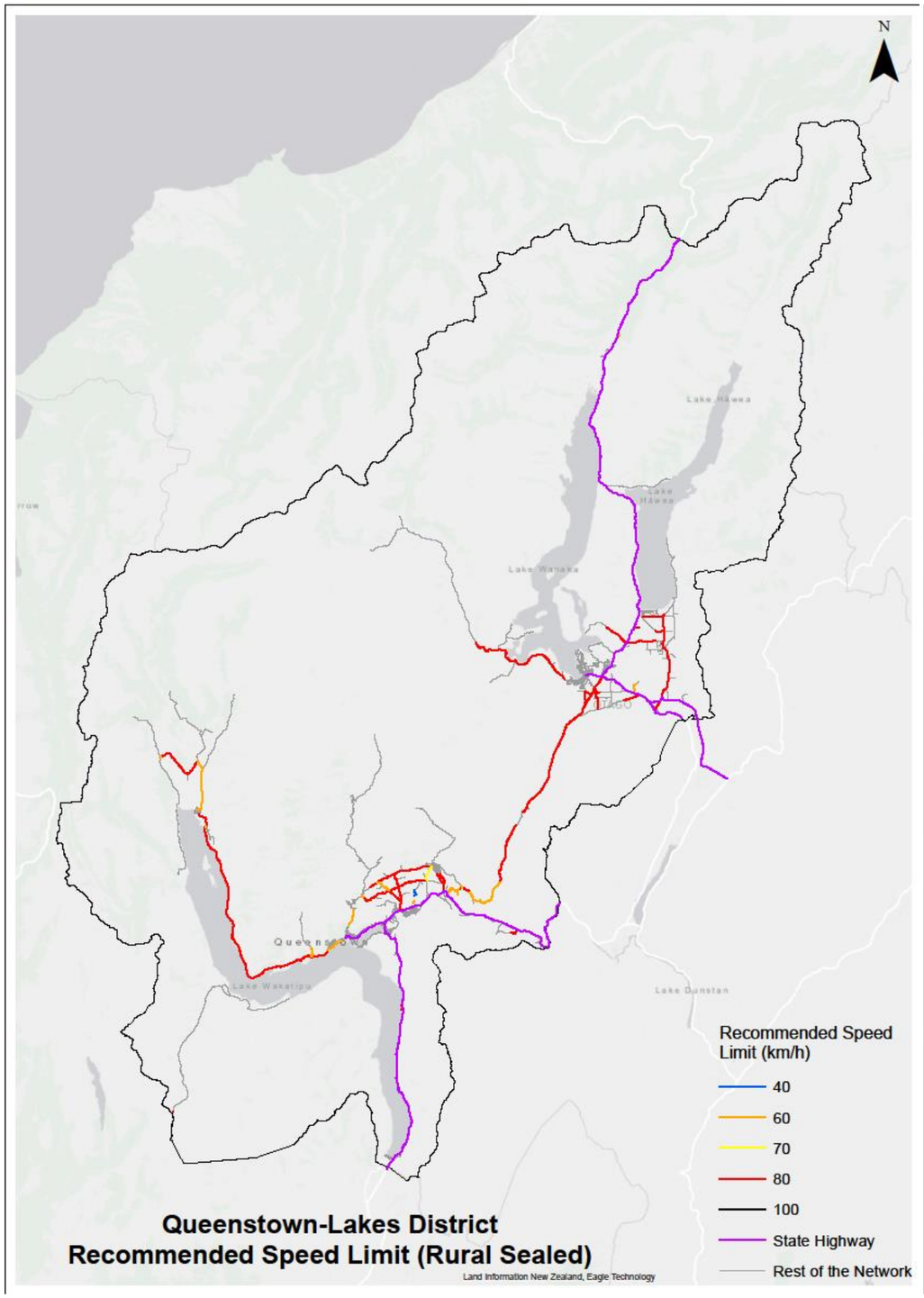

30
40
50
60
70
80
100
Aubrey Road
Permanent Speed Limit
Land Information New Zealand, Eagle Technology

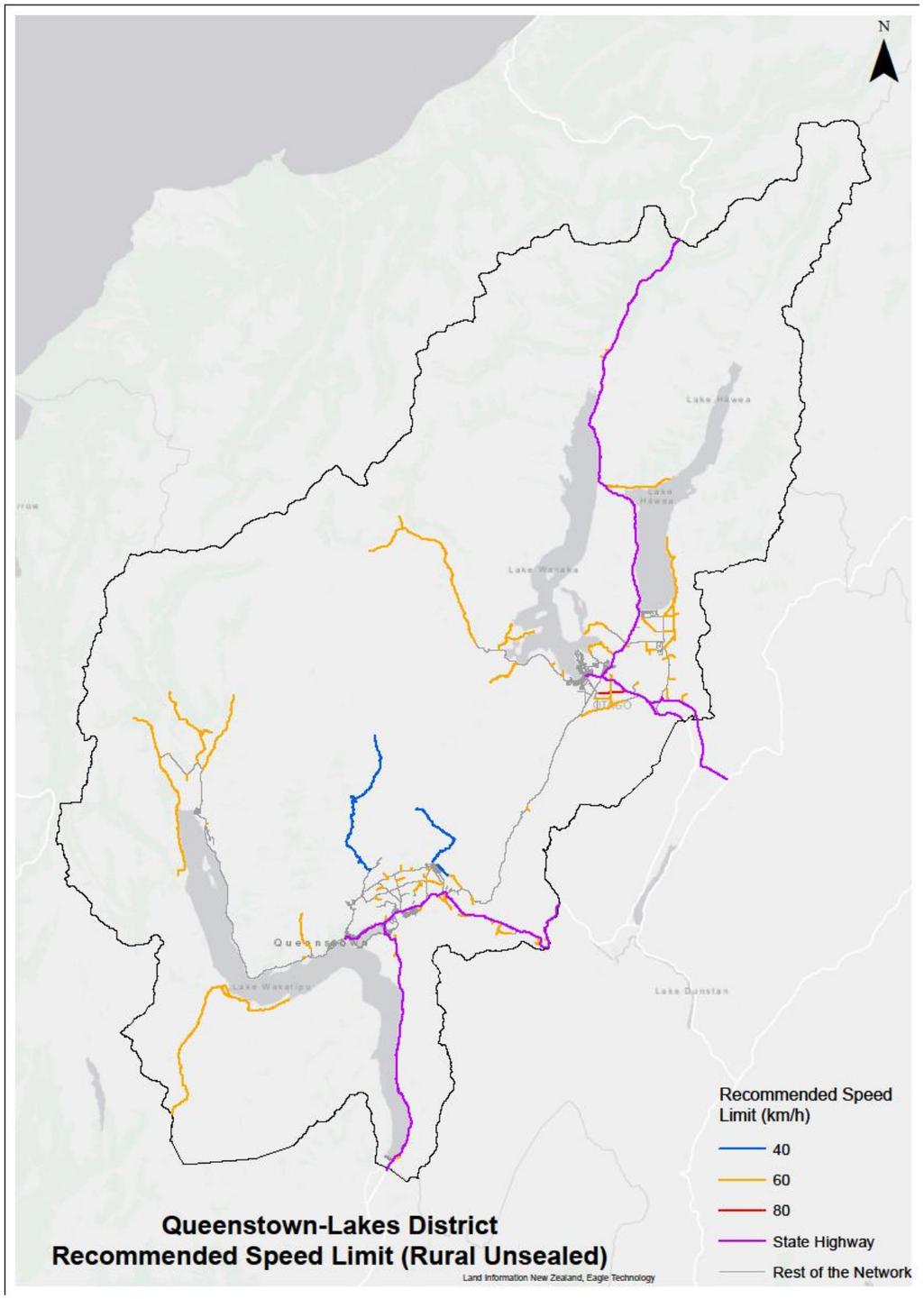

N
Aubrey Road
Recommended Permanent Speed Limit
Land Information New Zealand, Eagle Technology

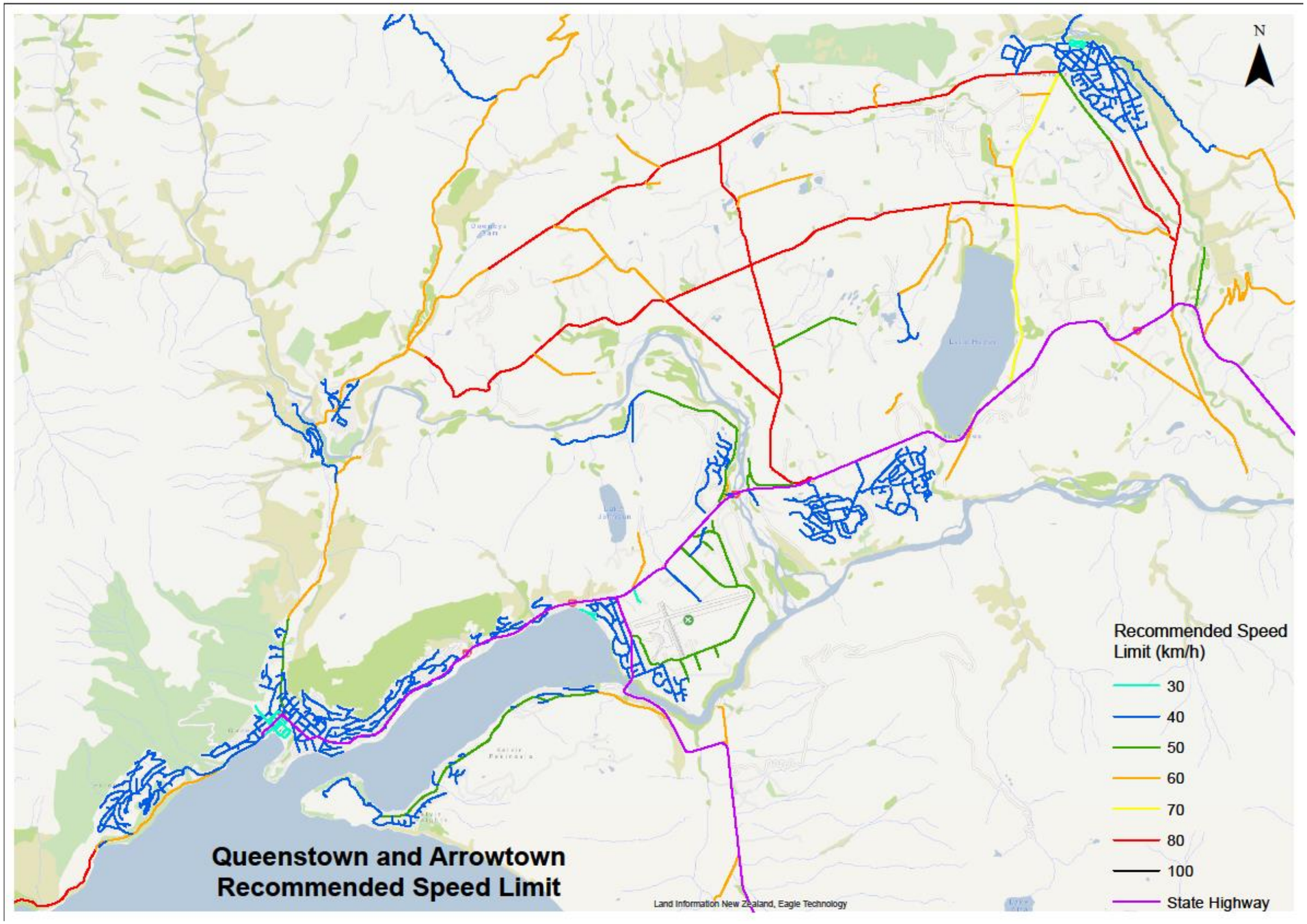
10.6 Full Speed Management Review network Maps

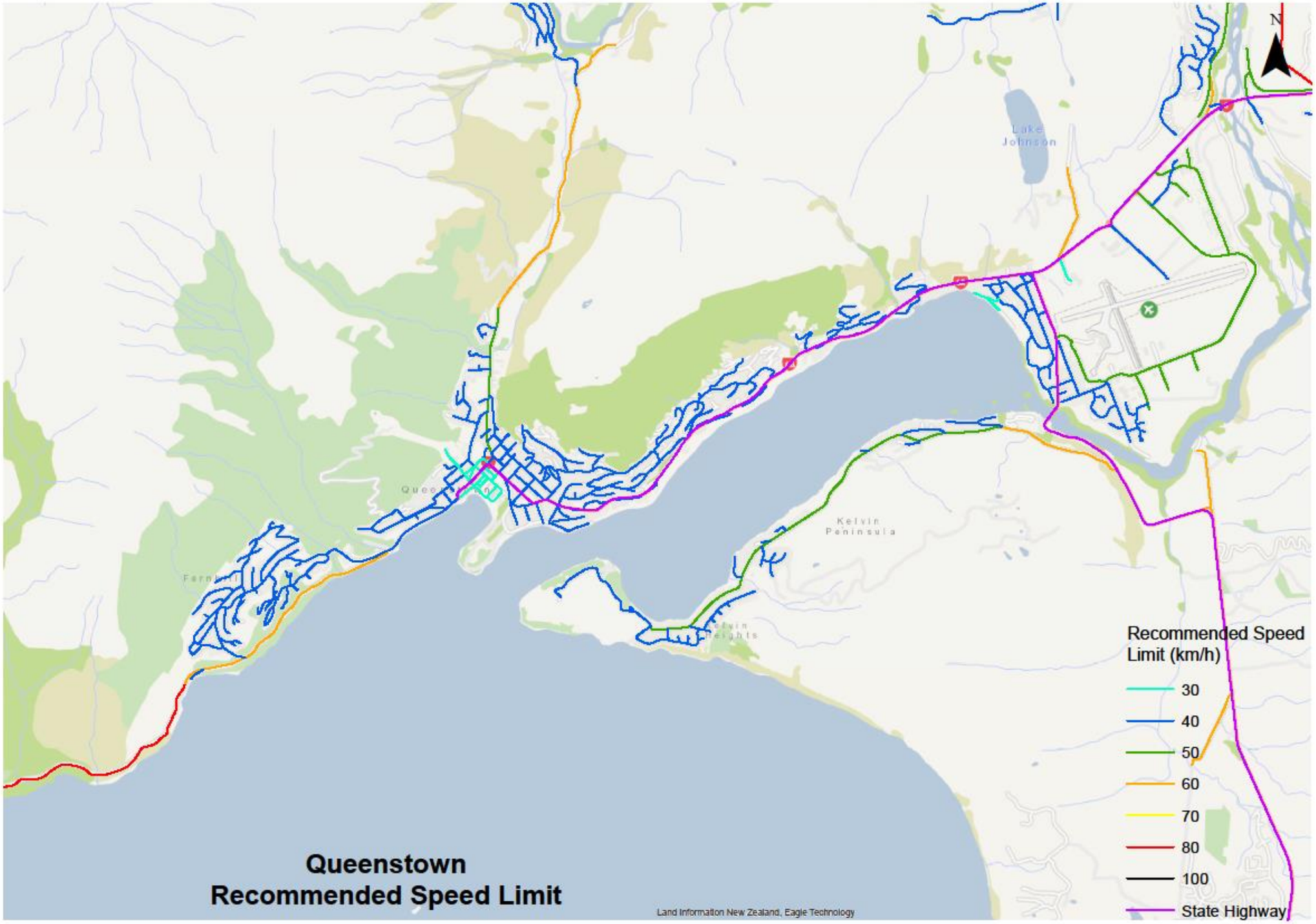


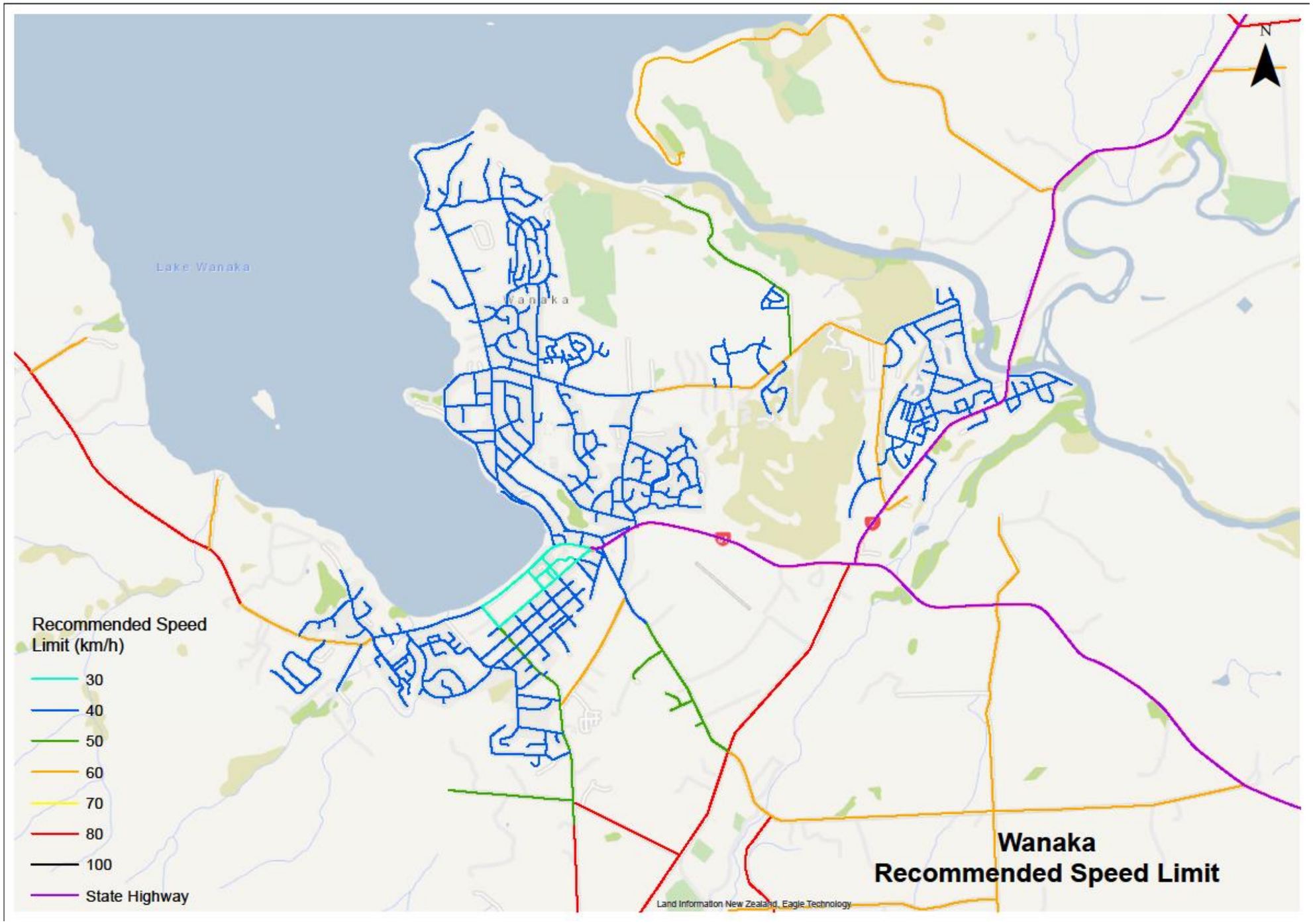


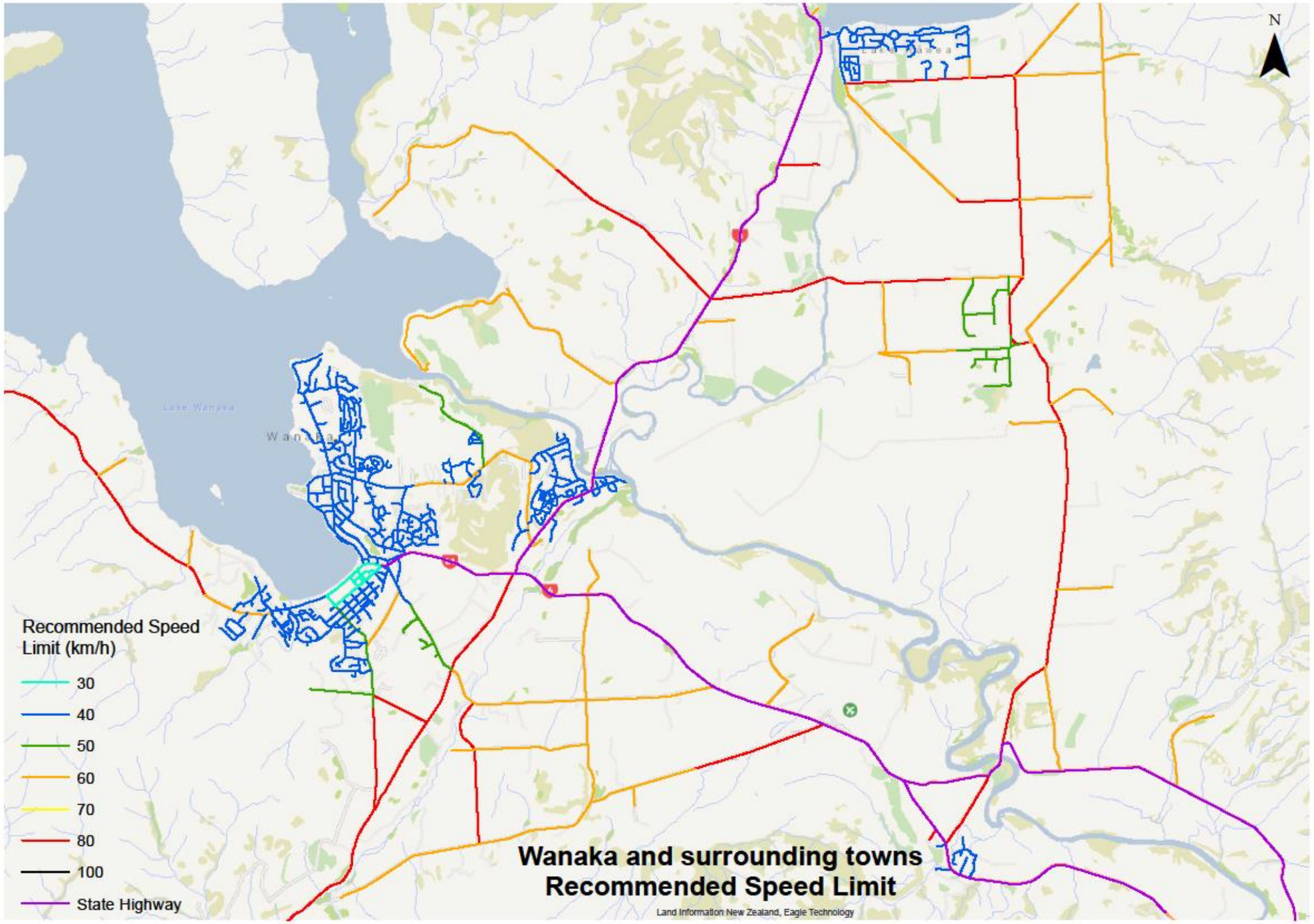

N
Lake Hawea
Lake Wanaka
Queenstown
Lake Wakatipu
Lake Dunstan
Recommended Speed Limit (km/h)
40
60
70
80
100
State Highway
Rest of the Network
Queenstown-Lakes District
Recommended Speed Limit (Rural Sealed)
Land Information New Zealand, Eagle Technology

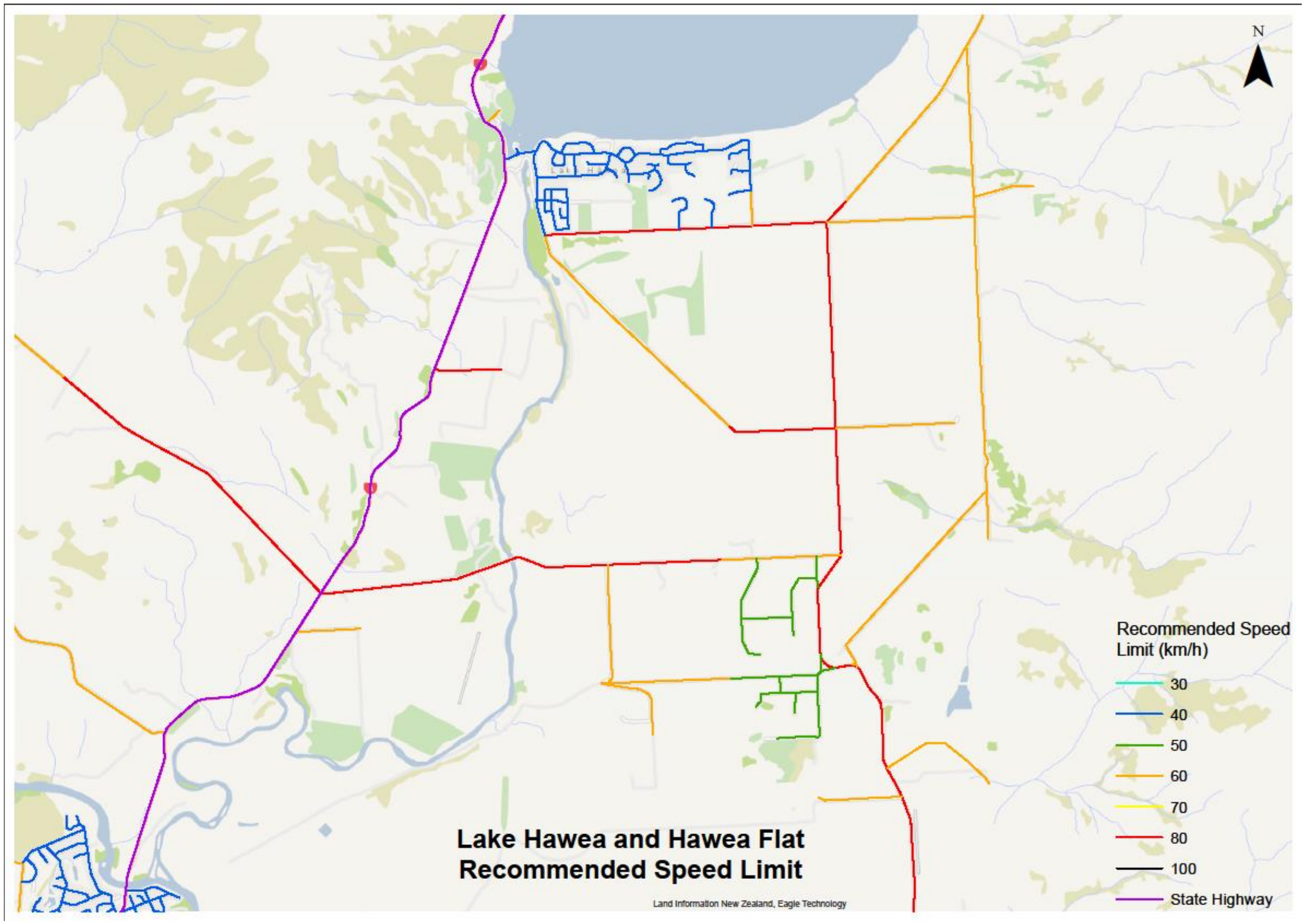

N
Lake Hawea
Lake Wanaka
Queenstown
Lake Wakatipu
Lake Dunstan
Recommended Speed Limit (km/h)
40
60
80
State Highway
Rest of the Network
Queenstown-Lakes District
Recommended Speed Limit (Rural Unsealed)
Land Information New Zealand, Eagle Technology

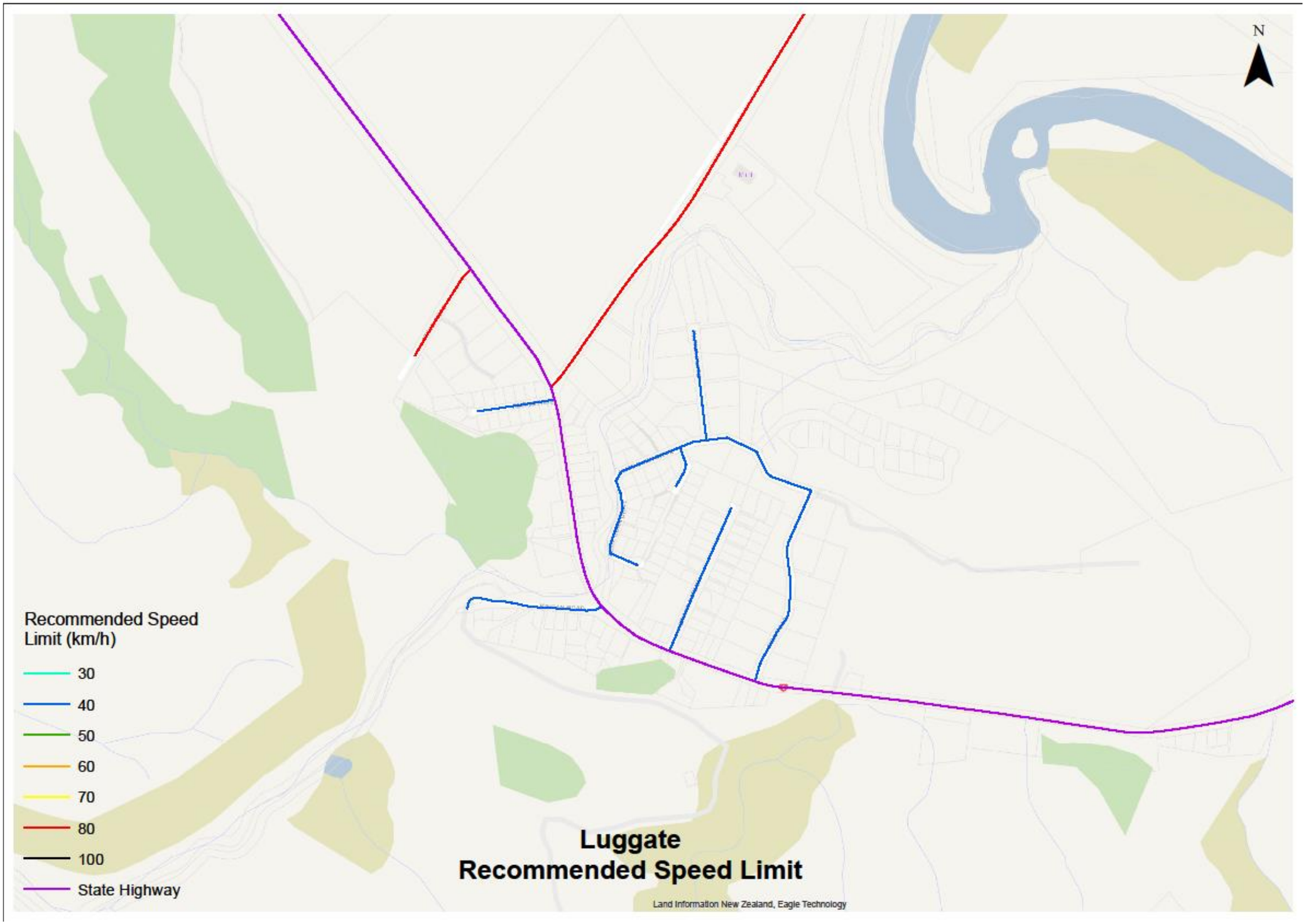

N
Recommended Speed Limit (km/h)
30
40
50
60
70
80
100
State Highway
Queenstown and Arrowtown
Recommended Speed Limit
Land Information New Zealand, Eagle Technology


N
Lake Johnson
Kelvin Peninsula
Recommended Speed Limit (km/h)
30
40
50
60
70
80
100
State Highway
Queenstown
Recommended Speed Limit
Land Information New Zealand, Eagle Technology

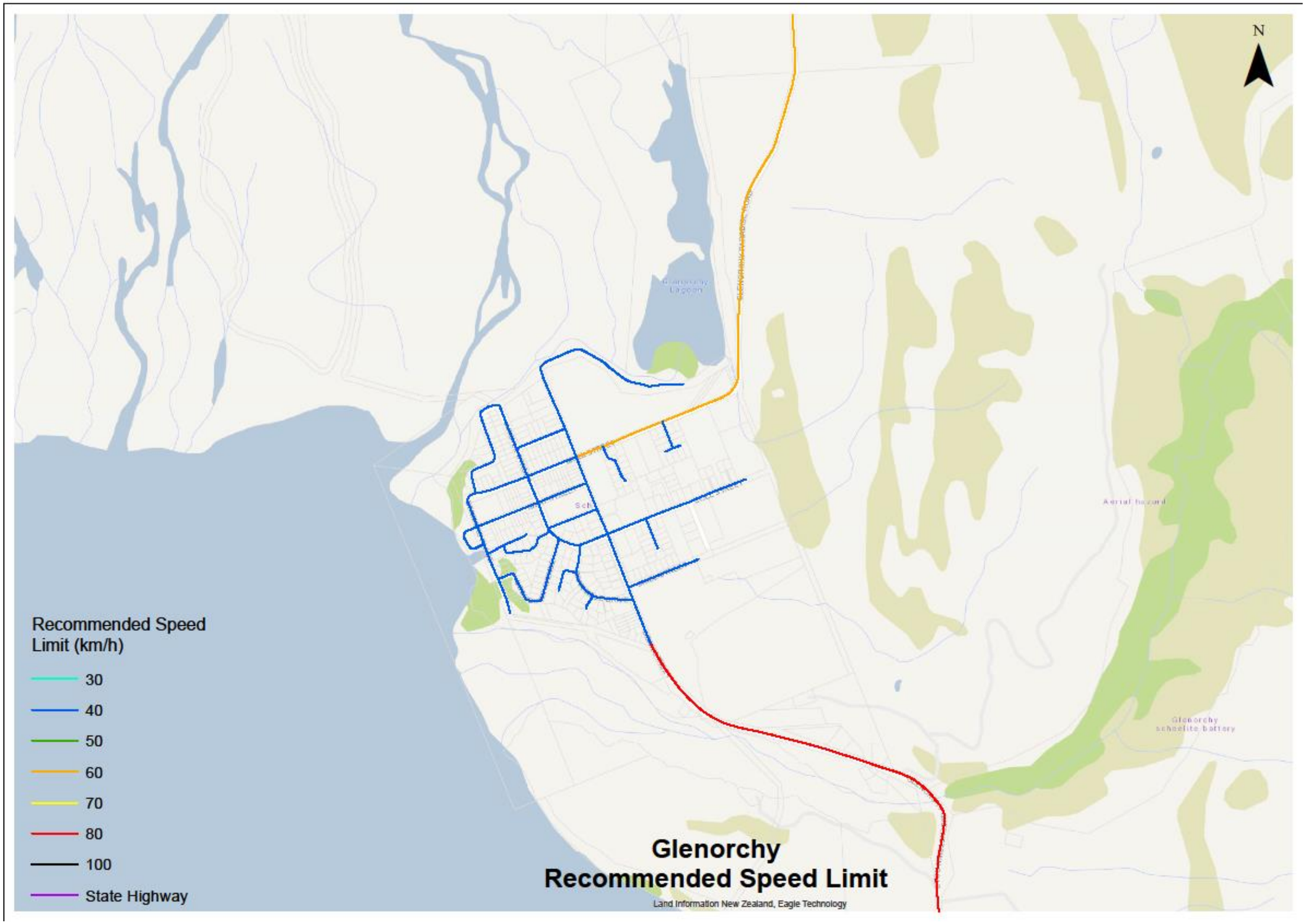

N
Lake Wanaka
Wanaka
Recommended Speed Limit (km/h)
30
40
50
60
70
80
100
State Highway
Land Information New Zealand, Eagle Technology
Wanaka
Recommended Speed Limit


N
Lake Wanaka
Wanaka
Recommended Speed Limit (km/h)
30
40
50
60
70
80
100
State Highway
Wanaka and surrounding towns
Recommended Speed Limit
Land Information New Zealand, Eagle Technology


N
Recommended Speed Limit (km/h)
30
40
50
60
70
80
100
State Highway
Lake Hawea and Hawea Flat
Recommended Speed Limit
Land Information New Zealand, Eagle Technology


N
Recommended Speed Limit (km/h)
30
40
50
60
70
80
100
State Highway
Luggate
Recommended Speed Limit
Land Information New Zealand, Eagle Technology


N
Recommended Speed
Limit (km/h)
30
40
50
60
70
80
100
State Highway
Kingston
Recommended Speed Limit
Land Information New Zealand, Eagle Technology


N
Recommended Speed Limit (km/h)
30
40
50
60
70
80
100
State Highway
Glenorchy
Recommended Speed Limit
Land Information New Zealand, Eagle Technology