WAIMAKARIRI
DISTRICT COUNCIL

DRAFT Speed Management Plan for Consultation

October 2023

Contents

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Introduction

The Waimakariri District has a widespread network of both urban and rural roads. These are utilised by people using many modes of transport, and it is important that these are catered for safely to achieve the Council's Community Outcomes.

Developing a Speed Management Plan is a new requirement, given effect to by the *Land Transport Rule: Setting of Speed Limits 2022*.

All road controlling authorities are required to have addressed speeds outside of all schools by December 2027. This is the focus of this first iteration of the Waimakariri District Speed Management Plan.

The *Land Transport Rule: Setting of Speed Limits* 2022 requires community consultation to occur on the plan, hence, this Waimakariri District Speed Management Plan for the 2023-2027 years is in draft form.

Waimakariri District Council has chosen a phased approach to Speed Management Planning which focuses on schools and a few other major roads/intersections in its first iteration.

The reason Council has chosen to do this is due to consultation taking place during an election period, as it is expected there will be a change in government following the election and the new government will likely determine a new position on speed limit setting.

For this reason, Councillors have requested that a minimum option be progressed as outlined in this Plan, which just addresses schools and a few other roads.

A further workshop will be held with Council in early 2024 to consider next steps.

We look forward to hearing and receiving community responses towards the proposed approach to speed management throughout the district.

Insert Signature (To be signed by the Mayor, CE, or GM U&R)

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Background

Road to Zero Vision

New Zealand has a vision of zero deaths and serious injuries on its roads. A vision where everyone, whether they are walking, cycling, driving, motorcycling, or taking public transport, can get to where they are going safely.

Waimakariri District Council is working together with Waka Kotahi, other local road controlling authorities (RCA), and the community to work towards this vision and to implement New Zealand's Road Safety Strategy.

A Safe System

Road to Zero aims to strengthen our road system and uses the safe system approach which recognises that people make mistakes and are vulnerable to the forces involved in a crash. The intention of creating a safe system is to reduce the consequences faced by individuals for making mistakes. The approach focuses on four key areas; safe roads, safe speeds, safe people, and safe vehicles.

Vehicle speed has a major influence on the impacts of a crash; it limits a driver's ability to perceive or react and worsens the level of trauma to all road users involved.

The intention of the Speed Management Plan (SMP) is to outline how Council will manage speed on the local road network. This is because research has shown that the speed of travel leading up to a crash directly impacts on both the likelihood and severity of a crash (Austroads, 2021). Therefore, by reducing speed on the road network, the likelihood of deaths and serious injuries can be reduced.

At lower speeds, an individual has more time to recognise a hazard and respond to it, either by slowing the vehicle to reduce crash speed or by avoiding the hazard completely (Austroads, 2021). Shown in Figure 1 are the distances it takes for an individual to react and brake at various speeds, during dry conditions.

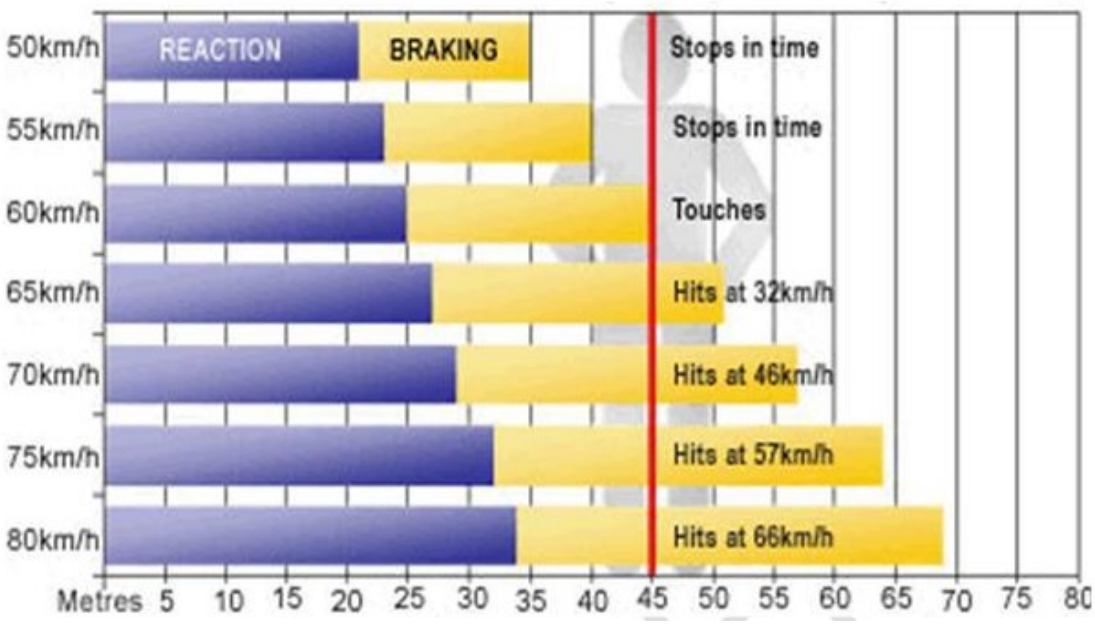

Figure 1. Reaction distance, braking distance, and impact speeds of vehicles travelling at different speeds in dry conditions (Waka Kotahi).

A reduction in crash speed results in a reduction of energy involved in a crash, resulting in a reduced severity of injuries. Figure 2 shows safe system speeds for different crash types, noting that speeds greater than what is indicated drastically increases the risk of death. This point is highlighted in Figure 3 for crashes with pedestrians, where the risk of death for the pedestrian increases by 70% if the crash occurs at 50 km/h, rather than 30 km/h.

Figure 2. Survivable speeds for different crash type (*Global Road Safety Facility, 2023*).

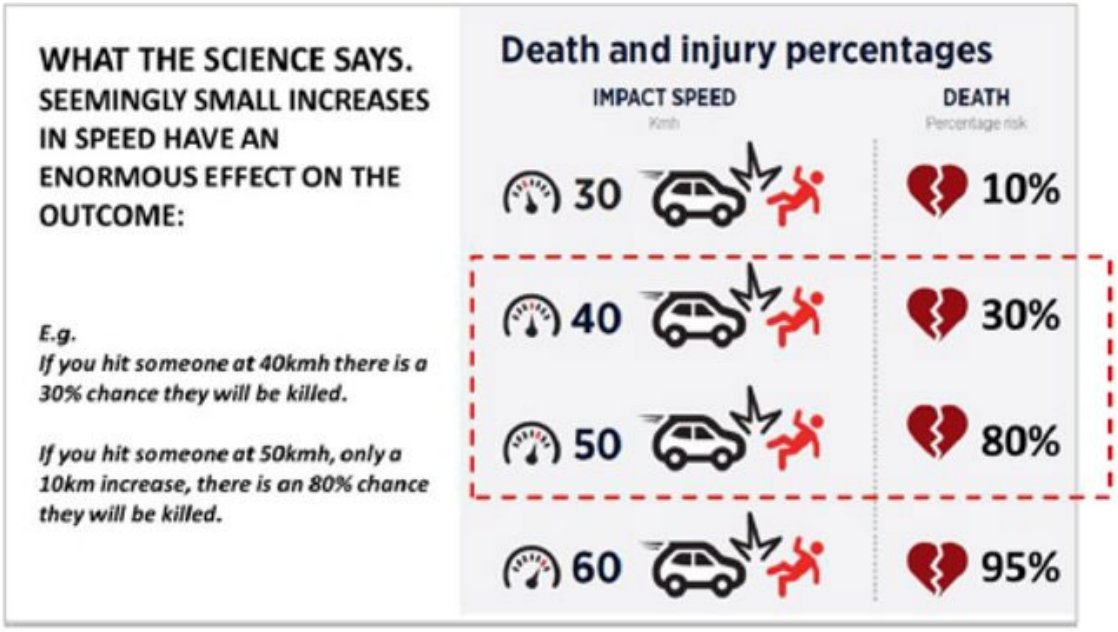

Figure 3. Likelihood of death for pedestrians hit at different vehicle speeds (*Auckland Transport, 2022).*

Historically, speed limits in New Zealand were set using default maximum values; 50 km/h for urban areas and 100 km/h for rural areas. These default speed limits originated from vehicle engine performance instead of user safety. This process did not consider the factors which might affect the roads function such as traffic volume, road surface, hazards outside of the live traffic, etc., or acknowledge that each road corridor is unique. Refer to Waka Kotahi's *Speed Management Guide: Road to Zero* (https://www.nzta.govt.nz/resources/speed-management-guide-road-to-zero-edition/) for more information on which factors are considered when determining the safe and appropriate speed.

Overall, managing the inter-relationship between speed, road infrastructure design, and vehicle safety is central to the safe system approach. However, it is acknowledged that individuals need to be able to move through the transport system as efficiently as possible. As such, speed management needs to consider the function of a road within the transport network, and how the road is designed, managed, and used. This improves the safety of main transport routes and encourages safer alternative mode use in neighbourhood areas.

Waimakariri District Road Network

The Waimakariri District's road network contains 1,625 km of sealed roads, with 586 km unsealed. These are utilised by many modes of transport, including agricultural vehicles, heavy vehicles, personal motor vehicles, pedestrians, equestrians, and cyclists.

The large extent of rural roads, across generally flat Canterbury Plains, means that there is an issue with high vehicle speeds within the district. Further to this, with a generally grid-like road network, there are a high number of intersections and adherence to intersection controls can be poor. As such, Waimakariri has a high representation of run-off road midblock and, to a lesser extent, intersection crashes.

There has also been a significant amount of development occurring on the eastern side of the district, since the Canterbury earthquakes, which has brought an increase in population growth and corresponding traffic volumes, resulting in substantially more traffic within the town centres, changing land use with urban development, and roads which were previously rural, becoming part of the urban network. The district is also seeing an increase in the number of non-motorised modes of transport being utilised (e.g., walking, cycling, scootering, etc.) and this is likely to continue as more dedicated facilities are installed.

Waimakariri District Crash Statistics

Waka Kotahi's Crash Analysis System (CAS) is used to obtain data relating to crash history throughout the district. A review of CAS for the past ten years (2012-2022) indicates that there have been 2005 crashes on Council's local road network, excluding State Highways. Shown in Figure 4 are the numbers of crashes for each severity type during this ten-year period. It should be noted that the Covid-19 pandemic has likely resulted in the downwards trend of crashes since 2020, due to a reduced number of vehicles on the road through lockdowns and more individuals working from home. 2023 crashes are trending upwards.

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Fatal	3	6	3	3	1	4	2	1	6	5	4
Serious	13	20	12	18	17	33	16	14	14	22	18
Minor	34	53	62	35	51	49	52	58	54	60	47
Non-injury	113	95	107	112	116	128	118	115	124	106	81

Figure 4. Ten-year crash data for the Waimakariri District.

Further analysis of this data indicates that fatal and serious injury crashes are overrepresented on the rural road network, as is shown in Figure 5. This is due to the higher speeds and speed limits on these roads, which signals that a reduction in speed limit is required to reduce these crashes. Furthermore, there is a misconception that poor adherence to intersection controls is a significant contributor to crashes within the district. However, Figure 5 shows a higher proportion of fatal and serious injury crashes have occurred along roads distant from an intersection (the midblock) since 2012.

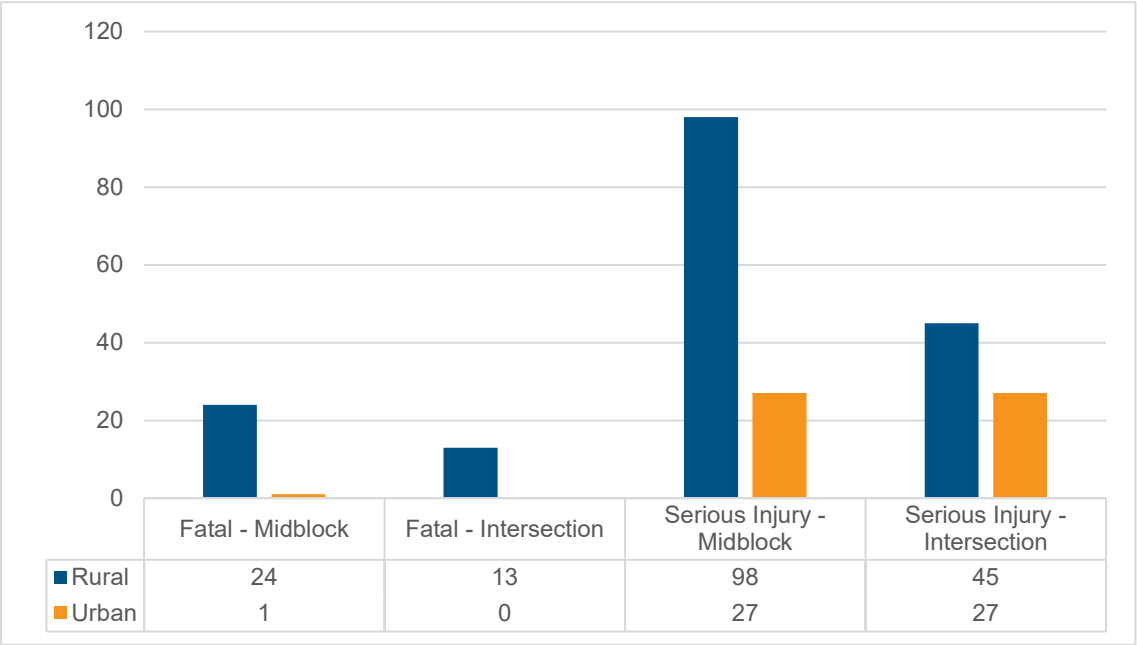

Figure 5. Deaths and serious injuries on rural and urban roads and intersections (2012-2022).

In the CAS database, only speed in excess of the posted speed limit is recorded as a causative factor. This does not consider whether travelling at or below the posted speed limit impacted the outcome of a crash. Therefore, staff have undertaken an analysis of crash data from 2017 to 2022 (5-year period) to assess where speed was a possible factor or highly likely factor in the fatal and serious crashes during that period. This is shown in Figure 6.

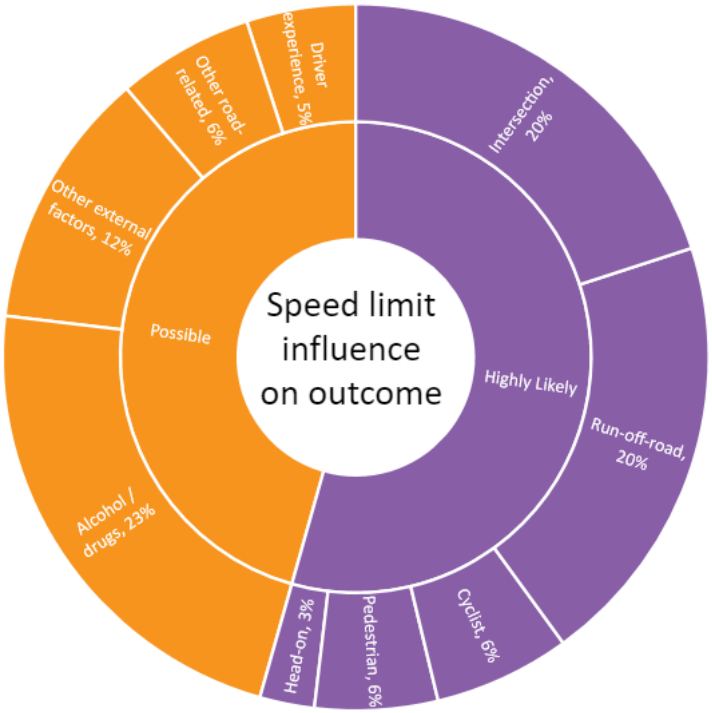

Figure 6. Staff assessment of five-year (2017-2022) crash data where the speed limit influenced the outcome.

Previous Speed Reviews and Service Request History

In recent years, Council have undertaken a number of speed limit reviews over the last five years and has implemented lower speed limits in several places. These have generally been in isolated areas throughout the district, with the most recent review in 2021 focusing on town entrances, a small portion of Tram Road and its adjacent roads, Cust, unsealed roads in Oxford, and unsealed roads in Tuahiwi.

Council receives a wide variety of transport-related service requests from residents and other road network users. Speed limit related service requests, where the community have requested lower speed limits, have significantly increased since 2019. This is shown in Figure 7.

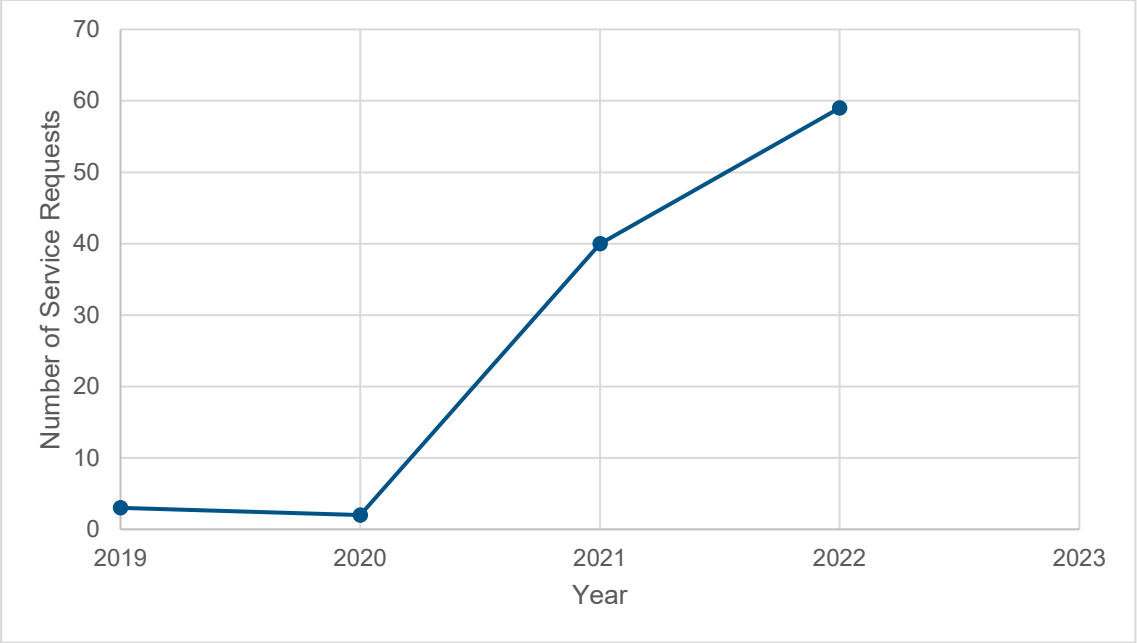

Figure 7. Speed limit related service request history (2019-2022).

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Development of the Plan

Council's Role in Setting Speed Limits

The *Land Transport Act 1998, Land Transport Management Act 2003*, and *Land Transport Rule: Setting of Speed Limits 2022* (the *Rule*) set out the obligations and requirements of all Road Controlling Authorities (RCAs), for setting speed limits. There are two methods for setting speed limits, either via a SMP or through the Director of Land Transport's approval.

The *Rule* aims to bring a more consistent approach to setting speed limits across an RCA's network and the regional network, and also brings greater focus towards setting safe speed limits outside of schools. In particular, the rule states that 40% of schools must have a safe speed limit on their surrounding roads by June 2024, with all schools completed by December 2027.

Guiding Values

National Principles

Government Policy Statement on Land Transport

The *Government Policy Statement on Land Transport 2021/22 – 2030/31* identifies five key outcomes to improve people's wellbeing and the liveability of places. These are shown in Figure 8. Considering these outcomes derives four priority areas; safety, better travel options, climate change, and improving freight connections. The identified priority areas are then used to determine the funding direction across the transport network.

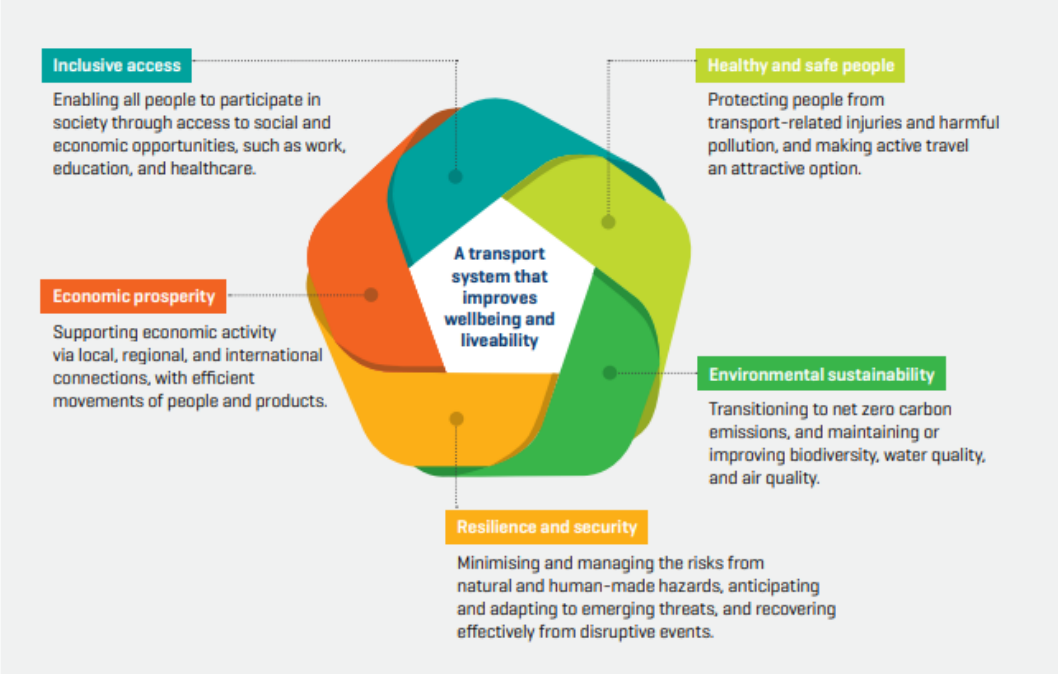

Figure 8. Transport outcomes framework (Ministry of Transport, 2021).

The strategic priority of safety, where the intention is to develop a transport network where no one is killed or seriously injured, aligns directly with the SMP process, and provides funding through the Road to Zero Programme. Whilst this focuses mainly on the 'healthy and safe people' outcome in the above figure, it also aids inclusive access, economic prosperity, and resilience and security.

The proposed indicators that the New Zealand Government is using for determining the success of the

Road to Zero programme are listed below.

- The percentage of local road networks which have been modified to align with the safe and appropriate speed.
- The percentage of the urban network with a speed limit of 40 km/h or less.

Road to Zero Strategy and Action Plan

Road to Zero is New Zealand's road safety strategy for 2020 – 2030. The overall vision is 'a New Zealand where no one is killed or seriously injured in road crashes', with this being supported by the five key focus areas of system management, infrastructure improvements and speed management, vehicle safety, work-related road safety, and road user choices.

This is based on the Vision Zero approach, which has been adopted by many countries worldwide and acknowledges that people make mistakes, but these mistakes should not result in people being killed. Speed inherently plays a role in the outcome of a crash, and as such, speed management and this Speed Management Plan (SMP) plays a part in achieving the goals set out in this Road to Zero strategy.

Ultimately, the overarching goal of this strategy is to have a reduction of 40% in deaths and serious injuries resulting from road crashes by 2030.

Principles for Speed Management

Waka Kotahi's national principles for speed management are shown in Figure 9. These are drawn from international best practice, and policies and strategies of Waka Kotahi. The principles are intended to be applied together to achieve an integrated safe system approach (Speed Management Guide, 2022). To find out more about each of these speed management principles, refer to Waka Kotahi's *Speed Management Guide: Road to Zero* (https://www.nzta.govt.nz/resources/speed-management-guide-road-to-zero-edition).

Figure 9. Waka Kotahi's speed management principles (Waka Kotahi, 2022a).

Canterbury Regional Approach

Regional Land Transport Plan

The *Canterbury Regional Land Transport Plan (RLTP) 2021-2031* highlights addressing the unforgiving network as one of its key problems to address over the next ten years. Funding has therefore been directed towards implementing safer systems (*i.e.,* through the Road to Zero Programme).

Canterbury has seen a general increasing trend of road deaths and serious injuries on the region's road network, with this being compounded by an increasing population. The RLTP acknowledges that deaths and serious injuries on the road cause devastation across the board, and that by investing in a safer network, individual mistakes will not lead to death or serious injury.

Overall, the region aims to achieve a 40% reduction in the number of deaths and serious injuries by 2031.

Regional Objectives

Staff from RCA's across the Canterbury region have coordinated technical recommendations for a regional approach to meet the intent of the national speed management principles. The guiding principles for Canterbury, which will be consulted upon as part of the Regional Speed Management Plan, are shown below in Figure 10. The relationship of the Canterbury principles to Waka Kotahi's national speed management principles are shown by the coloured circles.

The overall vision is that Canterbury has '*An innovative low emissions transport system that helps Canterbury thrive for generations'*. This vision has been taken from the Regional Land Transport Plan (RLTP) to ensure there is cohesion between the Canterbury Regional Council's key strategic documents.

- Survivable speeds, ensuring safety for all.
- Safe Speeds to support health, wellbeing, and liveable places for all.
- Safe speeds that contribute to emissions reduction, including streets where people feel safe to walk, ride, cycle, scoot, and access public transport.
- Safe speeds that support land use changes as growth occurs.
- Consistent speed limits across the Canterbury Region.
- We will build, and honour, relationships with Rūnanga to achieve safe speeds, especially around locations of significance, such as Marae, urupā, kura, and kōhanga.

Figure 10. Canterbury regional objectives for speed management.

In general, at a regional level, it has been agreed by staff that the approach shown in Table 1 for initial speed management would achieve consistency across the region's network.

Table 1. The proposed Canterbury regional approach to setting initial speed limits will be consulted on as part of the Regional Speed Management Plan.

Proposed Regional Approach to Speed Limits (km/h)	Implementation Area
30	School areas (unless designated a category two school)
40	Urban and settlement areas
60	Unsealed and peri-urban roads
80	Sealed rural roads

While this has been proposed following technical work at a regional level, Waimakariri District Council has chosen a phased approach to Speed Management Planning which focuses on schools and a few other major roads/intersections in its first iteration.

The reason Council has chosen to do this is due to consultation taking place during an election period, as it's expected there will be a change in government following the election and the new government will likely determine a new position on speed limit setting.

For this reason, Councillors requested that a minimum option be progressed as outlined in this Plan, which just addresses schools and a few other roads.

A further workshop will be held with Council in early 2024 to consider next steps.

Waimakariri District Council

Policies, Strategies, and Guidelines

The Waimakariri District Council have a number of plans, strategies, and guidelines which include statements/actions, either directly or indirectly, relating to speed and speed management. These align with the proposals in this SMP. Refer to Appendix A for these documents and relevant information.

Community Outcomes

The community outcomes set the direction for the Council's Long-Term Plan (LTP) and all activities included in the LTP that the Council undertakes. The community outcomes which the contents of this SMP relate to are listed below.

- There is a safe environment for all.
    - Harm to people from natural and man-made hazards is minimised.
    - Crime, injury, and harm from road crashes, gambling, and alcohol abuse are minimised.
- Transport is accessible, convenient, reliable, and sustainable.
    - The standard of our district's transportation system is keeping pace with increasing traffic numbers.
    - Communities in our district are well linked with each other, and Christchurch is readily accessible by a range of transport modes.
    - Opportunities to increase the occupancy of commuter vehicles is actively encouraged.

- There are wide ranging opportunities for people to contribute to the decision making that effects our District:
    - The Council makes information about its plans and activities readily available.
    - The Council takes account of the views across the community including mana whenua.
    - The Council makes known its views on significant proposals by others affecting the District's wellbeing.
    - Opportunities for collaboration and partnerships are actively pursued.

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Ten-Year Vision

Council Objectives

The speed management objectives of the Waimakariri District Council are as follows:

- Speed limits that support the council's community outcomes,
- Speed limits that achieve consistent road and speed environments,
- Speed limits that enable safe journeys for all users,
- Speed limits that prioritise vulnerable users around schools, marae, parks, and town centres.

One Network Framework

The One Network Road Classification (ONRC) system is currently in the process of being replaced by the One Network Framework (ONF). This new framework for classifying roads gives more weight to the place function (i.e., surrounding land use), as well as considering the movement function (i.e., traffic volume).

The recognition of 'place' as a function of road classification ensures there is consideration towards alternative modes of transport which may use that road corridor, retail activities such as cafes/shops which may have seating or stock within the pedestrian environment, and children who may use parts of the road corridor for street games, etc. With this latter point becoming increasingly more common as residential land sizes reduce.

Shown in Figure 11 are the matrices used to determine the ONF categorisation of a road, noting that they are split by urban and rural land use. To use the matrix, a movement value (MX) and a place value (PX) need to be assigned, and subsequently a road categorisation determined. Further information on the ONF can be found on Waka Kotahi's One Network Framework factsheet (https://www.nzta.govt.nz/assets/Roads-and-Rail/onf/docs/onf-factsheet-2022.pdf).

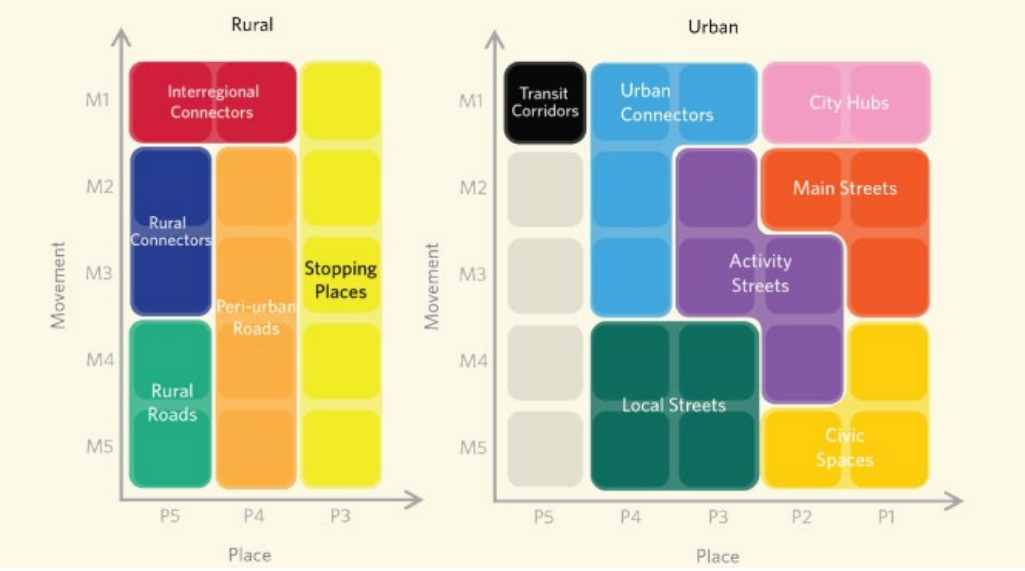

Figure 11. Matrices for assessment of urban and rural ONF road category type (Waka Kotahi 2022).

The ONF assigned to a road can be used to assist with speed management planning. Understanding the place function of a road can help determine whether a particular speed limit is appropriate along a corridor.

Strategic Alignment

The SMP is a dynamic document, which will be reviewed and updated on a three-year cycle to ensure that Council's proposals remain aligned with the Setting of Speed Limit Rule and best practice guidance.

Network Approach to Speed Management

Staff have undertaken workshops with all the Community Boards about setting speed limits during 2022-2023 and have presented information on the technical process around setting of speed limits and national guidance. Feedback provided in these workshops has been taken into consideration.

The options detailing areas for possible inclusion within the Draft Speed Management Plan was reported to all Community Boards during September 2023 and the recommendations considered by Council on 3 October 2023.

Council approved a phased approach to the Speed Management Plan which focused on schools and major intersections/roads only in its first iteration.

The reason Council has chosen to do this is due to consultation taking place during an election period, as it's expected there will be a change in government following the election and the new government will likely determine a new position on speed limit setting.

For this reason, Councillors requested that a minimum option be progressed as outlined in this Plan, which just addresses schools and a few other roads.

Coordination with other Councils (Hurunui District Council, Selwyn District Council, and Christchurch City Council) is being carried out to ensure that speed limits on roads which cross jurisdictional boundaries have the same speed limit, where practicable. Co-ordination will also be occurring with the Department of Conservation, Environment Canterbury, and Waka Kotahi's State Highway Team, to ensure that the few boundary roads that Waimakariri shares with those RCAs align with what is proposed on Waimakariri local network.

Speed Monitoring and Measures

The Council is currently able to review speed data when it undertakes routine traffic tube counting at various sites throughout the network. The tube counters are undertaken on a cycle around the network and are undertaken on either an annual, three-yearly, or six yearly bases, dependent on the hierarchy of the road, and noting that most but not all roads in the district are counted Council does not have tube counts for all of its roads, particularly lower volume cul-de-sac roads which generally service a few properties.

In the past, special one-off traffic counts have been undertaken six months after making speed limit changes, in order to fulfil the former legislative requirements under the *Land Transport Rule: Setting of Speed Limits 2017*. This is no longer legislatively required; however, Council will be identifying roads within each iteration of the SMP, which are at high risk for non-compliance, for additional monitoring. Roads which are at high-risk for non-compliance will generally either have mean operating speeds which are already in excess of the posted speed limit, carriageways factors (e.g., wide carriageway) which mean they are likely to have higher mean operating speed, or where Council staff deem additional monitoring is required.

Speed Management Infrastructure

There has been no additional funding identified or allocated for speed management beyond initial signage and markings at this stage. Roads which continue to have compliance issues (mean operating speeds at least 10% higher than the posted speed limit) may be considered for infrastructure improvements to support lower speeds in the future, in which, Council would consider seeking funding through the NLTP and the Council's Long-Term Plan cycles. Typical treatments could include, but are not limited to, the following:

1. Signs and markings,
2. Lane width reduction/centreline treatment,
3. Speed threshold treatment,
4. Traffic calming devices such as chicanes, raised tables, kerb build outs, or other physical measures.

Early indications are that Waimakariri District may receive safety cameras during this SMP period. If so, then this would be the first tranche of safety cameras throughout New Zealand.

Speed Limits in Future Development

The district has seen significant development occurring in recent times and with this, comes new roading infrastructure which is then generally vested in the Council. The proposed speed limits are shown in Table 2 and will be implemented at the time the road is vested in Council. Urban subdivisions will generally be located within the infrastructure boundary shown in Appendix B.

Table 2. Proposed speed limits for future development roads.

Posted Speed Limit (km/h)	Urban Subdivisions
30	• Bounding schools
50 (Or less where agreed)	• Urban streets

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Four-Year Implementation Programme

Speed Limits

Urban and Settlement Areas

The following tables, as listed below, indicate the proposed speed limits and implementation timeframe for the Waimakariri District urban and settlement areas. Where the proposed speed limit does not align with Waka Kotahi's "safe and appropriate" speed, refer to Appendix C for further information.

- Other urban areas in Kaiapoi (Table 3)
- Pegasus urban area (Table 4)

Maps are provided in Appendix D for a visual representation of the proposed speed limits.

Table 3. Proposed speed limits for other urban areas in Kaiapoi.

Road Name and Extents	Existing speed limit (km/h)	Proposed speed limit (km/h)	Speed limit type	Implementation timeframe	Difference between SAAS and proposal
Beach Road – from 80 m east of Tuhoe Avenue to 690 m east of Tuhoe Avenue (extension of development area)	70	50	Permanent	2023-2024	Yes

Table 4. Proposed speed limits for the Pegasus urban area.

Road Name and Extents	Existing speed limit (km/h)	Proposed speed limit (km/h)	Speed limit type	Implementation timeframe	Difference between SAAS and proposal
Pegasus Boulevard – State Highway One to 50 m east of Infinity Drive	70	60	Permanent	2024-2027	Yes

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Rural Roads

The following table, as listed below, indicates the proposed speed limits and implementation timeframe for the Waimakariri District rural areas. Where the proposed speed limit does not align with Waka Kotahi's safe and appropriate speed, refer to Appendix C for further information.

- Other rural areas (Table 5)

Maps are provided in Appendix D for a visual representation of the proposed speed limits.

Table 5. Proposed speed limits for other rural areas.

Road Name and Extents	Existing speed limit (km/h)	Proposed speed limit (km/h)	Speed limit type	Implementation timeframe	Difference between SAAS and proposal
Beach Road – 690 m east of Tuhoe Avenue to 200 m west of Dunns Avenue	100	80	Permanent	2023-2024	No
Ferry Road (north) – Beach Road to end of formed road (unsealed)	100	60	Permanent	2023-2024	No
Ferry Road (south) – Beach Road to end of formed road (unsealed)	100	60	Permanent	2023-2024	No

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Intersections Speed Zones

Table 6 indicate the proposed variable speed limits at sites where Rural Intersection Advanced Warning Signs (RIAWS), which are also known as Intersection Speed Zones (ISZ) are proposed and the implementation timeframe for these. ISZ's temporarily reduce the speed on the priority road (main road) through the intersection when a vehicle is approaching on the side road. Their intention is to make it easier for a vehicle to pull out of the side road, but also reduce the impact of a crash if one were to occur. Maps are provided in Appendix D for a visual representation of the proposed speed limits.

Table 6. Proposed Intersection Speed Zones.

Road Name and Extents	Existing speed limit (km/h)	Proposed speed limit (km/h)	Speed limit type	Implementation timeframe
Ashley Gorge Road (German Road intersection) – 150 m east of the German Road intersection to 150 m west of the German Road intersection	100	60	Variable	2024-2027
Oxford Road (Tram Road intersection) – 150 m east of the Tram Road intersection to 150 m west of the Tram Road intersection	100	60	Variable	2024-2027
Tram Road (Two Chain Road intersection) – 150 m east of the Two Chain Road intersection to 150 m west of the Two Chain Road intersection	100	60	Variable	2024-2027
Tram Road (Earlys Road intersection) – 150 m east of the Earlys Road intersection to 150 m west of the Earlys Road intersection	100	60	Variable	2023-2024

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Speed Limits Around Schools

Categorisation of Schools

In the Rule, schools are categorised to determine the maximum permitted speed limit on the road(s) outside the school. A category one school must have a speed limit of no more than 30 km/h (either permanent or variable) and a category two school must have a speed limit of no more than 60 km/h set on the road(s) outside of it. The category two schools are located in higher speed limit areas, and generally have pick-up and drop-off areas located on the school site rather than the road frontage.

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Proposed School Speed Limits

The proposed road extents for implementation of school speed limits at category one schools, which are already in a low-speed environment (i.e., 50 km/h or less) are shown in Table 7. Table 8 shows the proposed road extents for the implementation of school speed limits at category one schools, which are currently within a high-speed environment (i.e., 60 km/h or higher) that will be adjusted down. Finally, Table 9 shows the proposals for the district's category two schools which will remain within high-speed environments. The school speed limits will be implemented across the 2023-2027 period as follows:

- 2023-2024:
    - Ashley Rakahuri School,
    - Clarkville School,
    - Kaiapoi High School,
    - Rangiora Borough School,
    - Rangiora High School,
    - Rangiora New Life School,
    - Sefton School,
    - Southbrook School,
    - St Joseph's School (Rangiora),
    - St Patrick's School (Kaiapoi),

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- Swannanoa School,
- Te Matauru School.

- 2024-2027:
  - Ashgrove School,
  - Cust School,
  - Fernside School,
  - Kaiapoi Borough School,
  - Kaiapoi North School,
  - Loburn School,
  - North Loburn School,
  - Ohoka School,
  - OneSchool Global (Rangiora Campus),
  - Oxford Area School,
  - Pegasus Bay School,
  - Tuahiwi School,
  - View Hill School,
  - West Eyreton School,
  - Woodend School.

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Table 7. Proposed speed limits outside of category one schools in existing low-speed areas (50 km/h or less).

School name	Category	Proposed Speed Limit	Road Extents	Speed Limit Type
Ashgrove School	1	30 km/h	Seddon Street (West Belt to White Street)	Permanent
			Kinley Street (Seddon Street to end of formed road)	
			McKenzie Place (Seddon Street to end of formed road)	
Cust School	1	30 km/h	Cust Road (1640B Cust Road to 1699 Cust Road)	Variable
			Earlys Road (Cust Road to 452 Earlys Road)	
Kaiapoi High School	1	30 km/h	Ohoka Road (20 m east of Robert Coup Road to 123 Ohoka Road)	Variable
			Otaki Street (Ohoka Road to 20 m south of Broom Street)	
			Glenvale Drive (entire length)	Permanent
			McDougal Place (entire length)	
			Robert Coup Road (Ohoka Road to 20 m north of Isaac Wilson Road)	
Kaiapoi Borough School	1	30 km/h	Hilton Street (Blackett Street to end of formed road at the cul-de-sac head)	Permanent
			Rich Street (Raven Quay to Hilton Street)	
Kaiapoi North School	1	30 km/h	Williams Street (205 Williams Street to 265 Williams Street)	Variable
			Sims Road (Williams Street to end of formed road)	Permanent
			Coups Terrace (Williams Street to end of formed road)	
Oxford Area School	1	30 km/h	Bay Road (20 m north of Main Street to 600 m north of Main Street)	Permanent
			Showgate Drive (Bay Road to end of formed public road)	
			Dohrmans Road (Bay Road to end of formed public road)	
Pegasus Bay School	1	30 km/h	Whakatipu Street (Pegasus Boulevard to Solander Road)	Permanent
			Solander Road (Pegasus Boulevard to Whakatipu Street)	
Rangiora Borough School	1	30 km/h	Church Street (High Street to 39 Church Street)	Permanent
			King Street (High Street to 153 King Street)	

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School name	Category	Proposed Speed Limit	Road Extents	Speed Limit Type
			Queen Street (Church Street to 20 m east of King Street)	
			High Street (20 m east of King Street to 20 m west of Church Street)	
Rangiora High School	1	30 km/h	East Belt (144 East Belt to 113 East Belt)	Permanent
			Wales Street (East Belt to 20 m east of Edward Street)	
Rangiora New Life School	1	30 km/h	Denchs Road (Southbrook Road to end of road)	Permanent
			Marshall Street (Denchs Road to end of road)	
			Torlesse Street (Southbrook Road to 20 m west of Railway Road)	
			Railway Road (Gefkins Road to the South Brook)	
			Gefkins Road (Railway Road to end of formed road)	
			Dunlops Road (Railway Road to end of formed road)	
			Coronation Street (Southbrook Road to end of formed road)	
			Buckleys Road (South Belt to end of formed road)	
			Highfield Lane (Buckleys Road to end of formed road)	
			Pearson Lane (Buckleys Road to end of formed road)	
			Brookvale Place (Buckleys Road to end of formed road)	
			Southbrook Road (32 Southbrook Road to 66A Southbrook Road)	Variable
Southbrook School	1	30 km/h	Denchs Road (Southbrook Road to end of road)	Permanent
			Marshall Street (Denchs Road to end of road)	
			Torlesse Street (Southbrook Road to 20 m west of Railway Road)	
			Railway Road (Gefkins Road to the South Brook)	
			Gefkins Road (Railway Road to end of formed road)	
			Dunlops Road (Railway Road to end of formed road)	
			Coronation Street (Southbrook Road to end of formed road)	
			Buckleys Road (South Belt to end of formed road)	

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School name	Category	Proposed Speed Limit	Road Extents	Speed Limit Type
			Highfield Lane (Buckleys Road to end of formed road)	
			Pearson Lane (Buckleys Road to end of formed road)	
			Brookvale Place (Buckleys Road to end of formed road)	
			Southbrook Road (32 Southbrook Road to 66A Southbrook Road)	Variable
St Joseph's School (Rangiora)	1	30 km/h	George Street (20 m west of Percival Street to Victoria Street)	Permanent
			Percival Street (120 Percival Street to 99 Percival Street)	
			Buckham Street (Victoria Street to Ivory Street)	
			Victoria Street (47 Victoria Street to 2 Victoria Street)	
St Patrick's School (Kaiapoi)	1	30 km/h	Fuller Street (Williams Street to 20 m west of Peraki Street)	Permanent
			Peraki Street (Hilton Street to Ohoka Road)	
Te Matauru Primary	1	30 km/h	Johns Road (20 m east of Pentecost Road to Acacia Avenue)	Variable
			Townsend Road (20 m north of Johns Road to 163 Townsend Road)	
			Pentecost Road (Johns Road to 20 m north of Charles Street)	Permanent
			Calvandra Grove (Pentecost Road to end of formed road)	
			Goldie Drive (20 m east of Townsend Road to Pentecost Road)	
Tuahiwi School	1	30 km/h	Tuahiwi Road (191 Tuahiwi Road to 215 Tuahiwi Road)	Variable
Woodend School	1	30 km/h	School Road (Main North Road – SH1 to Rangiora Woodend Road)	Permanent

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Table 8. Proposed speed limits outside of category one schools in existing high-speed areas (60 km/h or higher).

School name	Category	Proposed Speed Limit	Road Extents	Speed Limit Type
Clarkville School	1	30 km/h	Heywards Road (20 m south Tram Road to 300 m south of Tram Road)	Variable
		60 km/h	Heywards Road (Tram Road to north of Mabers Road)	Permanent
Ohoka School	1	30 km/h	Jacksons Road (Mill Road to 550 m south of Mill Road)	Permanent
Sefton School	1	30 km/h	Upper Sefton Road (20 m west of Buller Street to 611 Upper Sefton Road)	Variable
			Cross Street (20 m east of Buller Street to 20 m west of Upper Sefton Road)	Permanent

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Table 9. Proposed speed limits outside of category two schools in existing high-speed areas (60 km/h or higher).

School name	Category	Proposed Speed Limit	Road Extents	Speed Limit Type
Ashley Rakahuri School	2	60 km/h	Fawcetts Road (70 m east of High Street to 160 west of Boundary Road)	Permanent
			Boundary Road (Fawcetts Road to 290 m north of Fawcetts Road)	
			High Street (Fawcetts Road to 30 m south of Fawcetts Road)	
			Marshmans Road (Fawcetts Road to 630 m north of Fawcetts Road)	
Fernside School	2	60 km/h	O'Roarkes Road (Swannanoa Road to Johns Road)	Permanent
Loburn School	2	60 km/h	Hodgsons Road (390 m west of Loburn Whiterock Road to 910 m west of Loburn Whiterock Road)	Permanent
North Loburn School	2	60 km/h	Loburn Whiterock Road (50 m south of Mount Grey Road to 370 m south of Bradys Road)	Permanent
OneSchool Global Rangiora	2	60 km/h	Lehmans Road (20 m south of Johns Road to 300 m south of Johns Road)	Permanent
Swannanoa School (existing variable to remain)	2	60 km/h	Tram Road (355 m east of Two Chain Road to 195 m west of Tupelo Place)	Variable
View Hill School	2	60 km/h	Island Road (500 m west of Rampaddock Road to 600 m east of Harmans Gorge Road)	Permanent
West Eyreton School	2	40 km/h	School Road (210 m north of North Eyre Road to 260 m south North Eyre Road)	Permanent
			North Eyre Road (140 m west of School Road to 340 m east of School Road)	

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Safety Infrastructure

The proposed infrastructure is proposed during the next four years to provide safety improvements as is shown in Table 10.

Table 10. Proposed infrastructure to be implemented during the four-year period.

Location	Proposed change	Proposed Year of commencement	Funding certainty (committed or not committed)
All Schools	Speed Signage	2023-2027	2023/24 funding Committed 2024/27 Not Committed
Rangiora Woodend Road / Boys Road intersection **(Design only 2024-27)**	Intersection upgrade (rural roundabout)	2024-2027	In Council's Long Term Plan
Tram Road / South Eyre Road / Giles Road intersection **(Design only 2024-27)**	Intersection upgrade (rural roundabout)	2024-2027	Not Committed
Ohoka Road / Robert Coup Road intersection **(Design only 2024-27)**	Intersection upgrade (rural roundabout)	2024-2027	Not Committed
Tram Road / Bradleys Road intersection	Intersection upgrade (rural roundabout)	2024-2027	In Council's Long Term Plan
Oxford Road / Lehmans Road intersection	Intersection upgrade (urban roundabout)	2024-2027	In Council's Long Term Plan

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Waka Kotahi. (2022a). *Speed Management Guide: Road to Zero*. Waka Kotahi, New Zealand Government.

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Appendix A – Policies, Strategies and Guidelines

The Waimakariri District Council policies, strategies, and guidelines, which align with the purpose of the Speed Management Plan are shown in Table 11.

Table 11. Relevant Waimakariri District Council policies, strategies, and guidelines.

Plan, Guideline, or Strategy	Statement/Action
Annual Plan 2023-2024	• Implementation of lower speed zones around schools (over the next two years).

Roading Activity Management Plan	• Council considers safety to be the most important risk associated with its roading asset. To reduce this, alongside the development of a speed management plan, several interventions are proposed:
	  ○ Preparation of a new Road Safety Action Plan, which includes enforcement and education.
	  ○ Preparation and regular review of a hazards register.
	  ○ Ongoing safety audits of individual projects.
	  ○ A number of improvements on key routes through the Road to Zero programme (includes rural intersection activated warning signs).
	• Speed management and other 'soft' measures (e.g., education) allow for better utilisation of assets.
	• Increasing traffic volumes on rural roads will have an impact on the safety of motorists using these higher speed roads.
	• Development of a speed management plan.

Community Development Strategy	• Safe communities.
	• Support initiatives that facilitate social connection between residents.
	  ○ Facilitate increased connection across neighbourhoods.
	• Support initiatives that increase accessibility to our spaces, places, and services.
	  ○ Support the work of the Waimakariri Access Group.

Kaiapoi Town Centre Plan	• Concerns relating to the accessibility of the town centre for pedestrians.
	• Making it easy to travel to and around a place in a vehicle or on foot increases viability of local services and shops, encourages walking and cycling for non-work trips, and enables better traffic flow and easier parking.
	• Ensure that the Kaiapoi Town Centre has:
	  ○ Accessibility from all directions by various modes of travel
	  ○ A pleasant pedestrian environment that encourages people to walk alongside stores and to shop, as well as to linger in cafes.

Oxford Town Centre Strategy	• The role of Main Street is one of providing access to the town's business activity, amenity, and connectivity to other centres, but is also one of providing a thoroughfare for passing vehicles travelling between the eastern part of the Waimakariri District and inland Canterbury, and beyond. • The safety and visibility of the traffic islands that were installed to define the town centre and provide safe pedestrian crossing points and a slow speed environment are a concern to the local community, particularly during low light or fog. • Access to and within. ○ Through the length of the town centre from just east of the Police Station to Bay Road are roadside planting beds, street narrowing

Plan, Guideline, or Strategy	Statement/Action
	points and central islands that were installed by way of implementing the beautification plans and to improve pedestrian connectivity and create a lower speed environment.
Rangiora Town Centre Strategy	• Access to the Rangiora Town Centre has been a matter of community concern over many years, and it is an issue that is inextricably linked with wider Rangiora Traffic flow patterns. Better traffic and parking management, including lowering speed limits, and providing more restricted and all-day carparks, is near the top of our community's wish list for improving the town centre. • Facilitate and encourage the use of alternative and future modes of transport. • High Street character area – an environment that prioritises pedestrians while allowing for other modes of transport. • Formalise the current slow vehicle speed environment in the town centre 'core' through a speed limit review
Waimakariri Accessibility Strategy	• Injuries are avoided and rates of impairment are reduced. ○ Road safety is promoted. • Identify and address, in a timely fashion, specific road safety issues that have been raised by people with impairments. • Promote road safety through monitoring, research, physical changes, and educational programmes.
Road Safety Strategy	• Reduce the occurrence of motor vehicle crashes where drivers were found to be travelling too fast for the conditions. • Determine and maintain appropriate speed limits throughout the district applicable to each speed zone. • Appropriate use of speed management techniques around schools, such as use of active warning lights and traffic calming measures. • Encourage local communities in rural areas to collectively reduce their travelling speeds.
Economic Development Strategy	• Issues and challenges in the infrastructure area are the speed and connectivity of roads into Christchurch.
Walking and Cycling Strategy	• Safe walking and cycling networks may include: ○ Quiet roads and shared streets. • Support programmes that improve safety for motorists. • Concerns have been expressed with the Rangiora/Woodend path around the speed of traffic along the road, which then impacts the perception of safety for users.
District Development Strategy	• Provide for continuing improvement in connectivity within our growing district, including enhancing opportunities for walking and cycling. • Consider and implement where appropriate the findings of the district-wide speed management programme, which includes a programme to review speed limits.

Appendix B – Urban Development Extents

The extents of the urban development area (i.e., infrastructure boundary), provided in the *Waimakariri District Development Strategy 2048,* is shown in Figure 12. This figure only shows the eastern portion of the district and therefore excludes Oxford. Urban development is possible in the Oxford Township urban area.

Figure 12. Extents of the eastern urban development area.

Appendix C – Safe and Appropriate Speed Alignment

Some of the speed limits proposed within this Speed Management Plan do not align with the "safe and appropriate" speed information provided by Waka Kotahi computer models.

Council is working towards the "safe and appropriate" speed for the road extents listed in Table 12. This initial proposal is an interim step, which may be revisited in future revisions of the Waimakariri SMP. The main reasons for this interim step are listed below, noting that not all are relevant to each road section.

- High existing mean operating speed.
- Wide carriageway and other higher speed environment features.
- Consistency throughout the urban area.
- Community and/or elected member support.

Table 12. Roads with an interim step towards the safe and appropriate speed.

Road and Extents
Pegasus Boulevard – State Highway One to 50 m east of Infinity Drive

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Appendix D – Speed Limit Extent Maps

The maps shown in Figures 13 to 20 give a visual representation of the speed limit proposals listed in the Four-Year Implementation Programme Section. Each figure label has the table reference for the speed limit proposals.

The following legend can be applied to all maps:

- PERMANENT 80 km/h (red)
- PERMANENT 60 km/h (orange)
- PERMANENT 50 km/h (green)
- PERMANENT 30 km/h (pink)
- VARIABLE 30 km/h (purple)

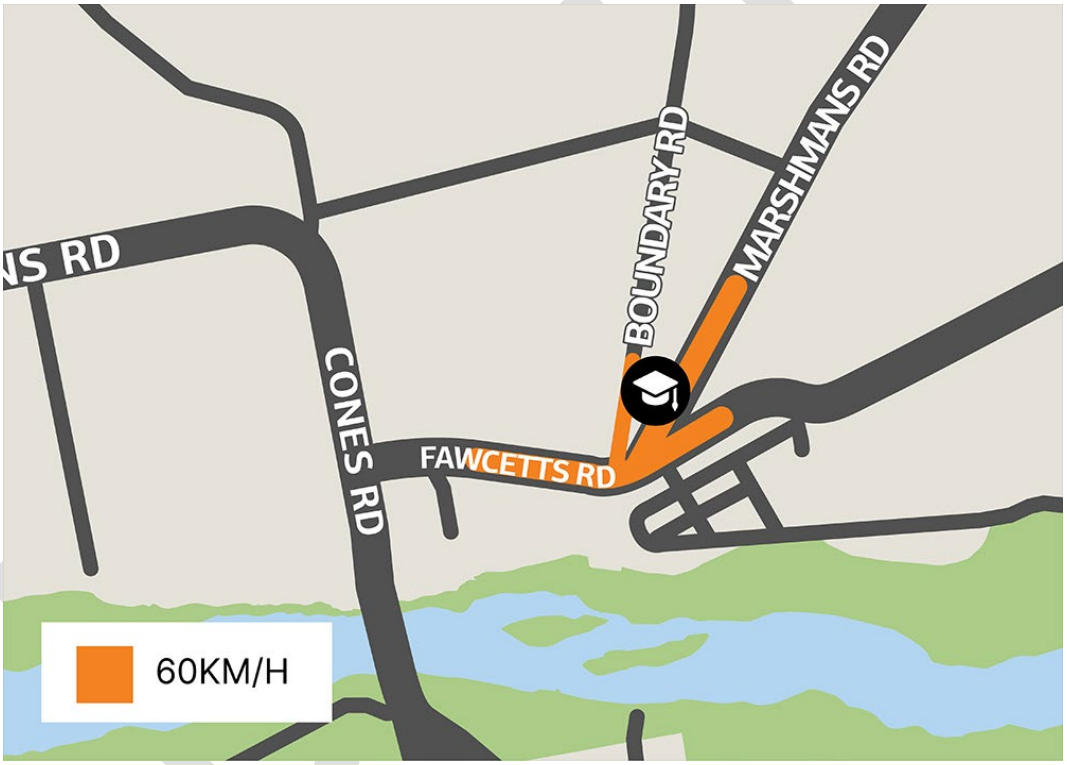

Figure 133. Ashley Rakahuri School area (refer to Table 9).

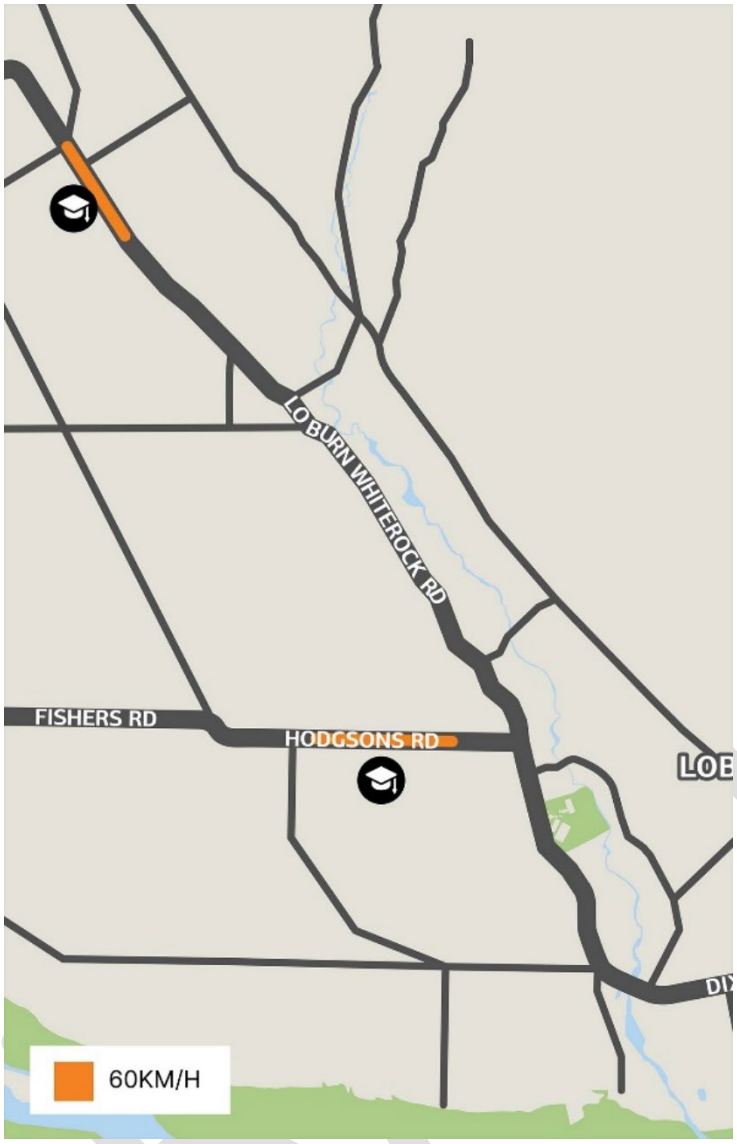

Figure 144. Loburn and North Loburn School areas (refer to Table 9).

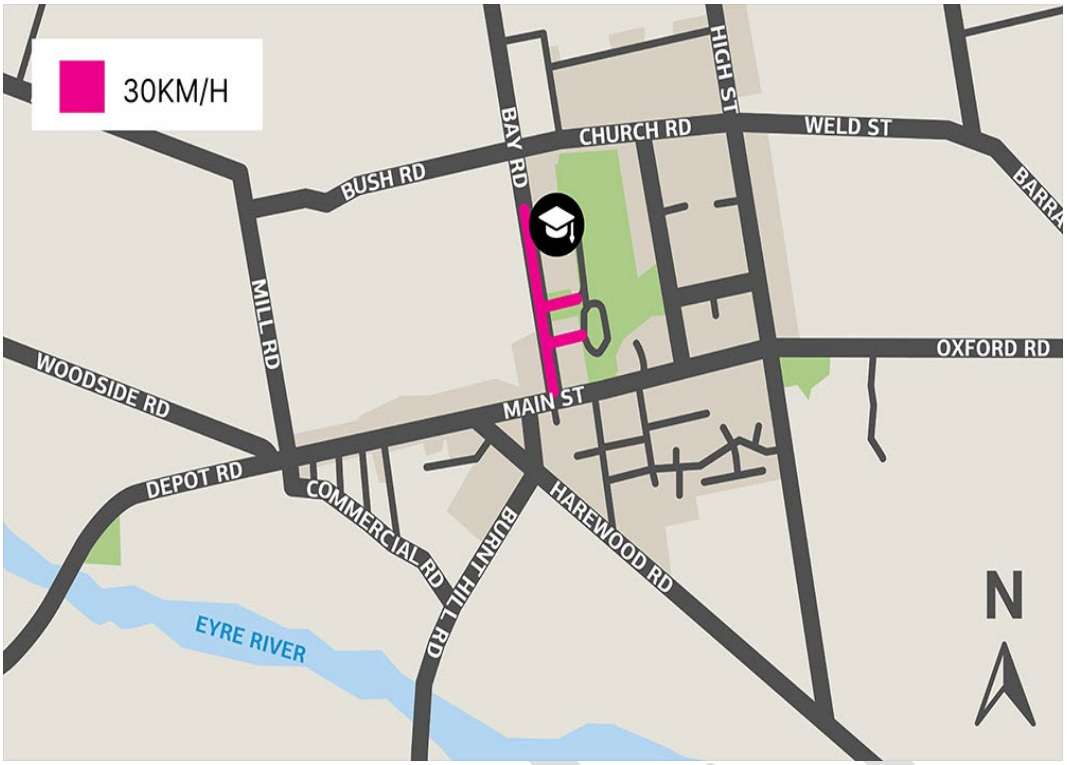

Figure 155. Oxford Area School (refer to Table 7).

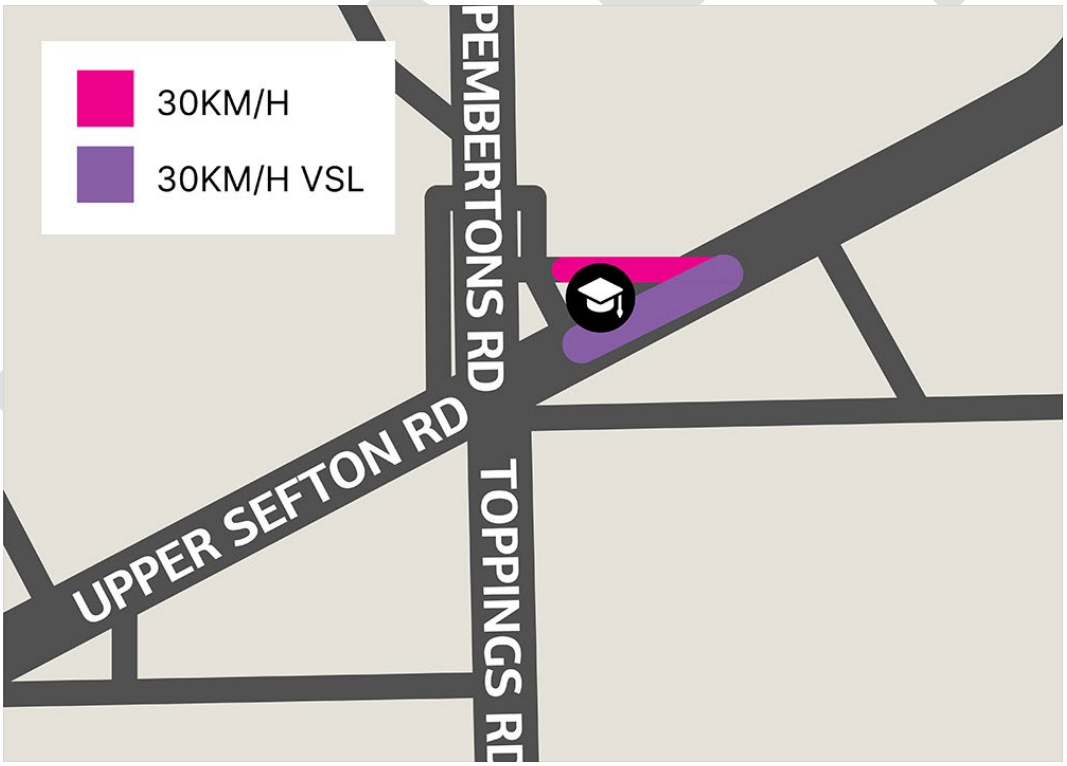

Figure 166. Sefton School area (refer to Table 8).

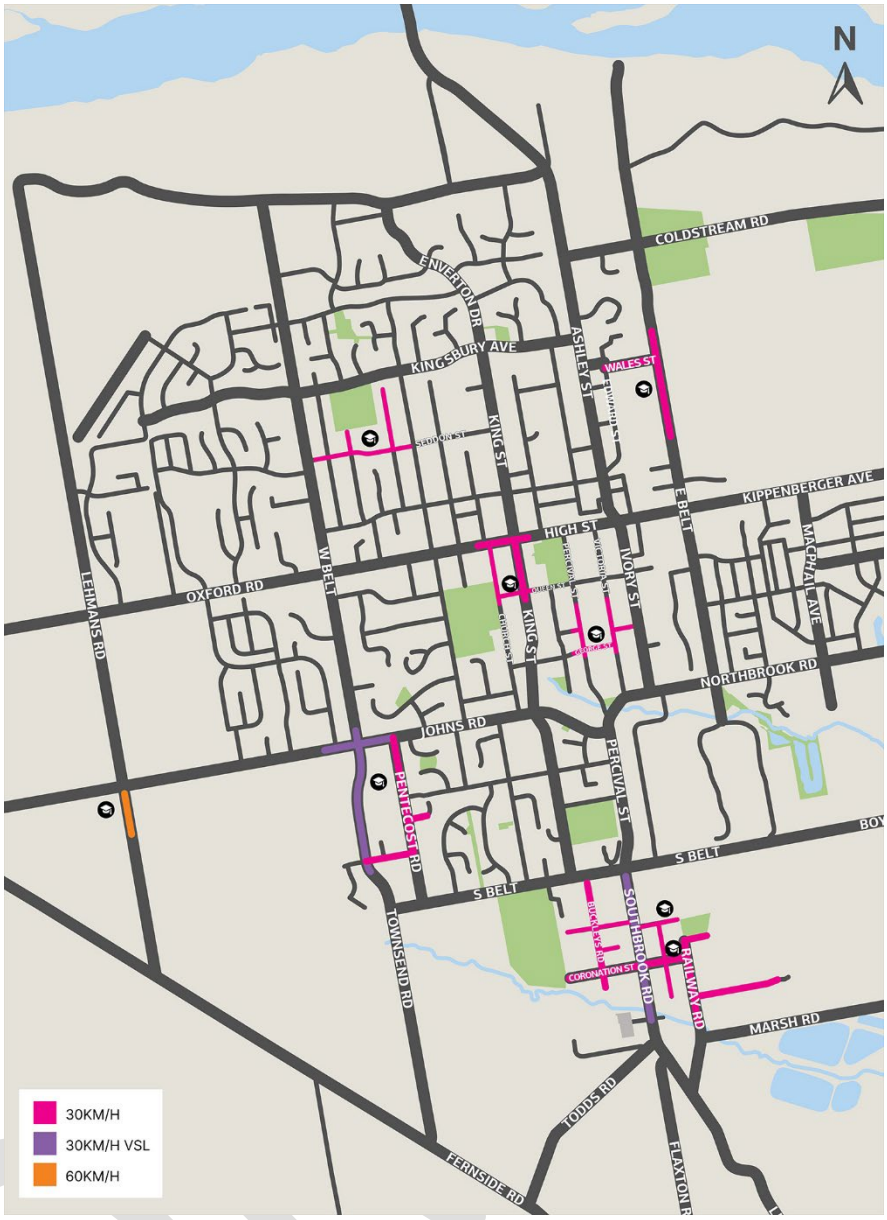

Figure 177. Rangiora school areas (refer to Table 7 and Table 9).

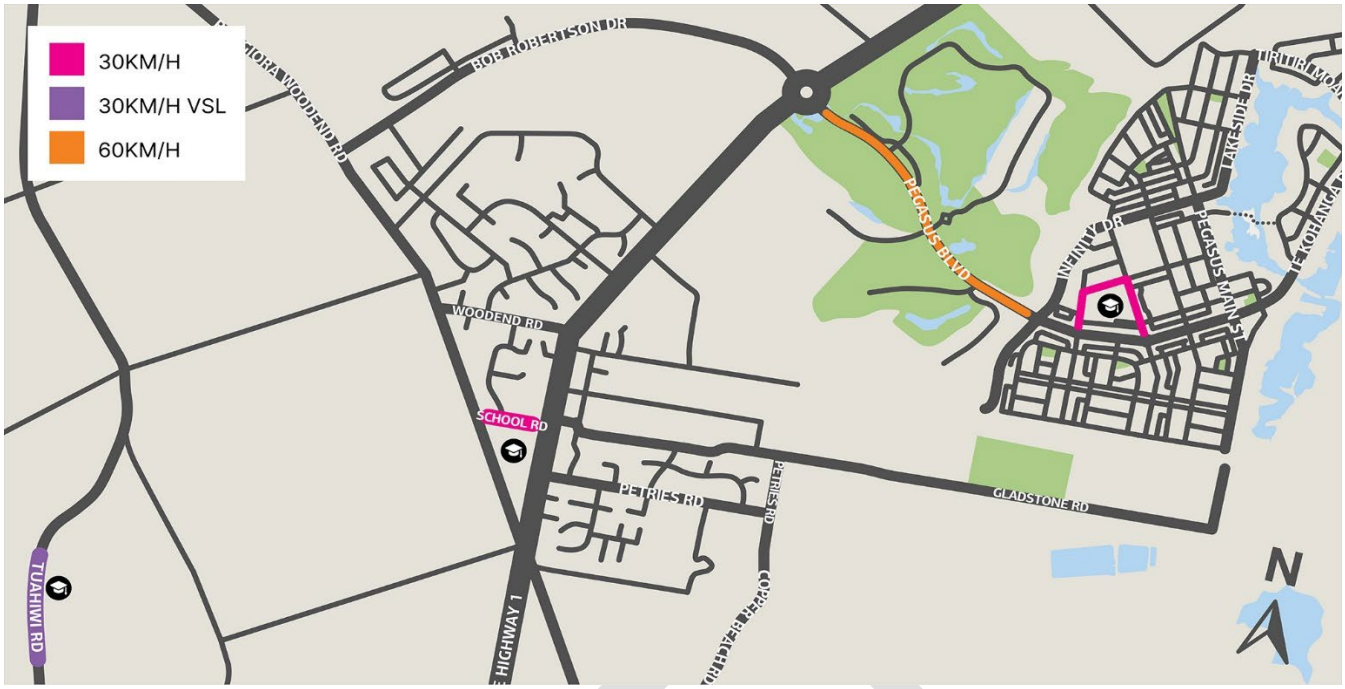

Figure 188. Pegasus Bay/Woodend School areas and Pegasus Boulevard (refer to Table 4 and Table 7).

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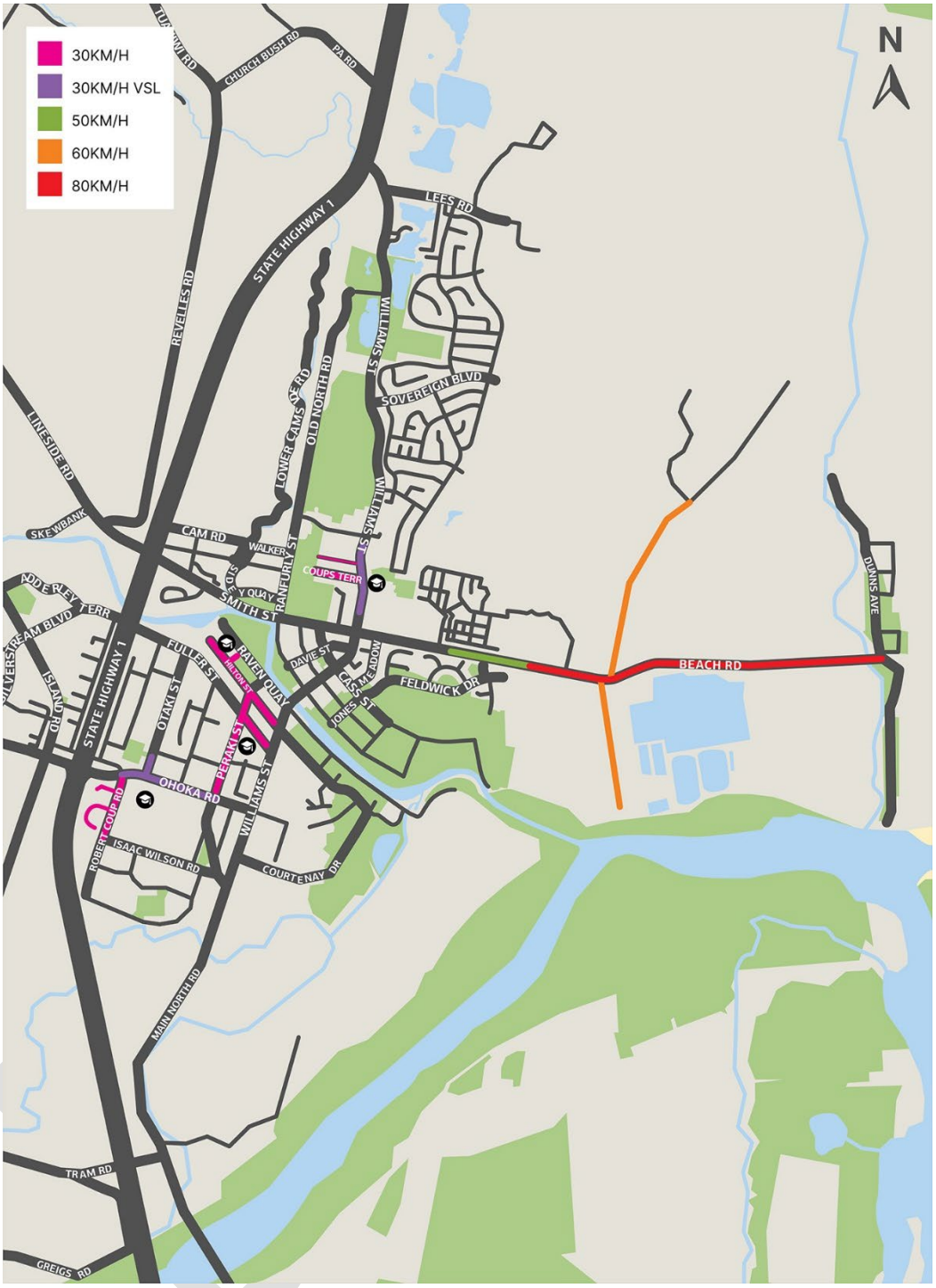

Figure 199. Kaiapoi school areas and Beach Road/Ferry Road (refer to Table 3, Table 5, and Table 7).

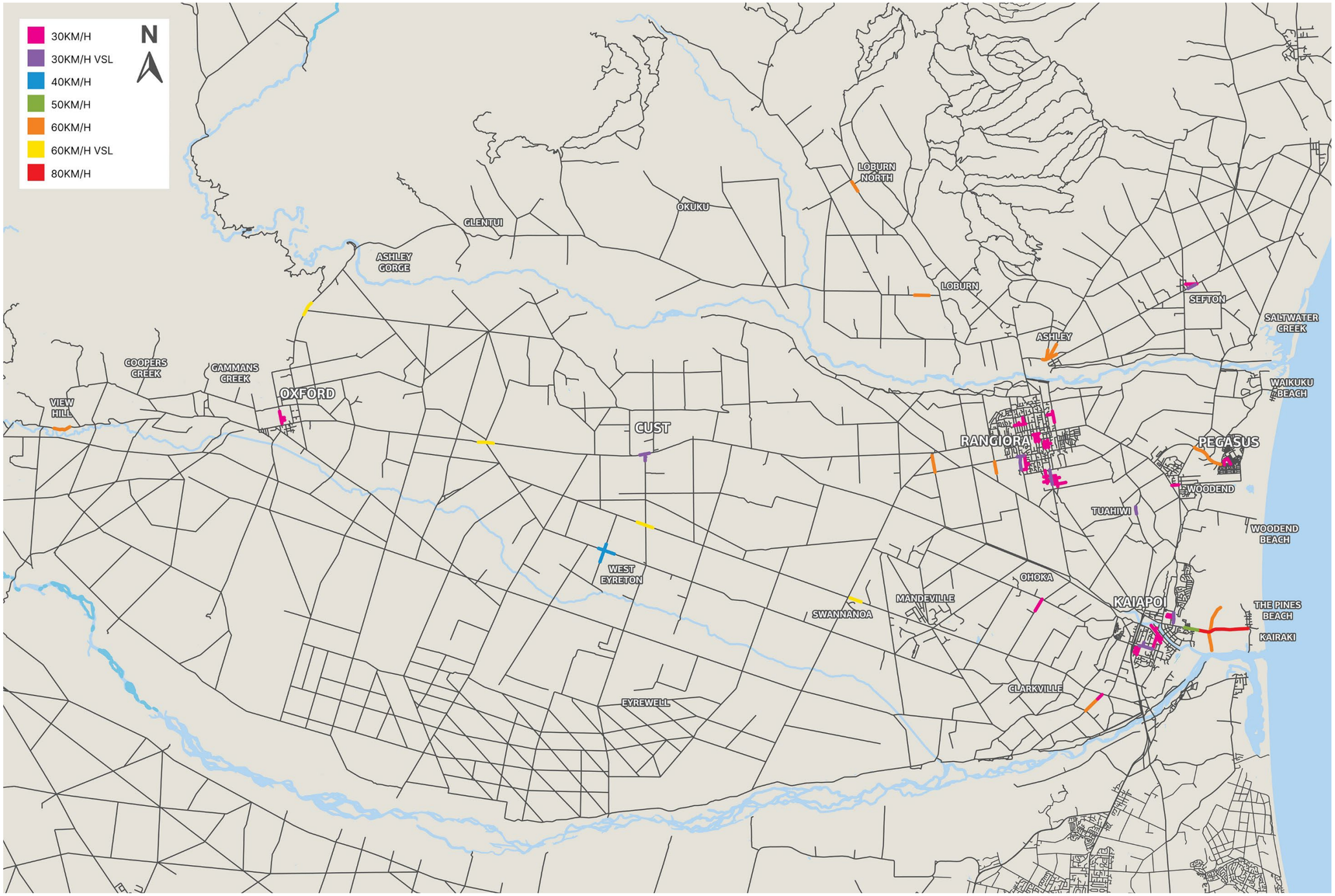

Figure 20. Other school areas and a district-wide map (refer to Tables 3 to 9).