



If calling, please ask for Democratic Services

Finance, Risk and Assurance Committee

Tuesday 13 August 2024, 9.30am

Taumata Kōrero - Council Chamber, Greater Wellington Regional Council,
100 Cuba Street, Te Aro, Wellington

Quorum: *Three Members*

Members

Independent Chair

Martin Matthews (Chair)

Councillors

David Bassett (Deputy Chair)

Chris Kirk Burnnand

Yadana Saw

Ros Connelly

Hikitia Ropata

Simon Woolf

Recommendations in reports are not to be construed as Council policy until adopted by Council

Finance, Risk and Assurance Committee

1 Purpose

Oversee, review, and report on Greater Wellington's discharge of its responsibilities in the areas of financial management; risk management; statutory reporting; internal and external audit and assurance; and monitoring of compliance with laws and regulations (including health and safety).

2 Specific responsibilities

- 2.1 Apply Council's Te Tiriti o Waitangi principles when conducting the Committee's business and making decisions.
- 2.2 Review and monitor performance under Council's Financial Strategy (adopted under section 101A of the Local Government Act 2002).
- 2.3 Review the effectiveness of Greater Wellington's financial management and performance, including proposed changes, with a particular focus on the effectiveness of Greater Wellington's:
 - a Financial management policies and frameworks for, and the robustness of, the organisation's financial performance
 - b Accounting policies and principles.
- 2.4 Review the effectiveness of Greater Wellington's risk management process, including overseeing changes to the risk management policy and approach, with a particular focus on:
 - a Providing guidance to Council on the appetite for risk
 - b Whether Greater Wellington is taking effective action to mitigate significant risks, including cyber security and climate change.
- 2.5 Review Greater Wellington's systems to manage legislative compliance (including health and safety), significant projects, and work programmes.
- 2.6 Review and monitor Greater Wellington's compliance with regulatory requirements.
- 2.7 Review Greater Wellington's health, safety and wellbeing management system to obtain assurance that the organisation is identifying and managing risks in accordance with the Health and Safety at Work Act 2015.
- 2.8 Approve the internal assurance programme, review the results of internal assurance work, and review the effectiveness of actions to address audit recommendations from Greater Wellington's internal auditors.
- 2.9 Receive, at the start of each external audit, the terms of engagement with the external auditor, including the nature and scope of the audit, timetable and fees.
- 2.10 Review any external audit reports and Greater Wellington's actions on significant issues and audit recommendations raised in these reports.
- 2.11 Review annually the appropriateness of Council's insurance.

2.12 Recommend to Council changes to improve the effectiveness of Greater Wellington's policies and frameworks for financial management, assurance, and risk management.

2.13 Review:

- a The draft Annual Report to ensure it complies with statutory requirements and provides a sound basis for the public accountability of Council's and Greater Wellington's performance and position for each financial year
- b Any proposed formal announcements relating to Council's financial performance.

2.14 Recommend the Annual Report for adoption by Council.

3 Delegations

The Committee has the authority to approve:

- a The internal assurance programme; in particular, whether Greater Wellington's approach to maintaining an effective internal control framework is sound and effective
- b Submissions to external organisations on matters pertaining directly to the Committee's purpose.

4 Members and Chair

4.1 Six Councillors.

4.2 One external member, appointed by Council, who has the necessary independence, expertise, and knowledge of local government relevant to the Committee's purpose and responsibilities.

4.3 Where Council appoints the external member under section 4.2, Council shall also appoint that member as the Chair.

5 Quorum

Three Committee members.

Finance, Risk and Assurance Committee

Tuesday 13 August 2024, 9.30am

Taumata Kōrero - Council Chamber, Greater Wellington Regional Council,
100 Cuba Street, Te Aro, Wellington

No.	Item	Report	Page
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3.	Public participation		
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20.	Confirmation of the Restricted Public Excluded minutes of the Finance, Risk and Assurance Committee meeting on 14 May 2024	RPE24.230	377



Please note these minutes remain unconfirmed until the Finance, Risk and Assurance Committee meeting on 13 August 2024.

Report 24.231

Public minutes of the Finance, Risk and Assurance Committee meeting on 14 May 2024

Taumata Kōrero – Council Chamber, Greater Wellington Regional Council | Te Pane Matua Taiao
100 Cuba Street, Te Aro, Wellington at 9.30am

Members Present

Martin Matthews (Chair)
Councillor Bassett (Deputy Chair)
Councillor Kirk-Burnnand
Councillor Ropata
Councillor Saw

Karakia timatanga

The Committee Chair invited Alison Trustrum-Rainey, Group Manager, Finance and Risk, to open the meeting with a karakia timatanga.

Public Business

1 Apologies

Moved: Martin Matthews / Cr Kirk-Burnnand

That the Committee accepts apologies for absence from Councillors Connelly and Woolf

The motion was **carried**.

2 Declarations of conflicts of interest

There were no declarations of conflicts of interest.

3 Public participation

There was no public participation.

4 Confirmation of the Public minutes of the Finance, Risk and Assurance Committee meeting on 13 February 2024 - Report 24.61

Moved: Cr Kirk-Burnnand / Cr Bassett

That the Committee confirms the Public minutes of the Finance, Risk and Assurance Committee meeting on 13 February 2024 – Report 24.61.

The motion was **carried**.

5 Confirmation of the Public Excluded minutes of the Finance, Risk and Assurance Committee meeting on 13 February 2024 – Report 24.62

Moved: Cr Bassett / Cr Ropata

That the Committee confirms the Public Excluded minutes of the Finance, Risk and Assurance Committee meeting on 13 February 2024 – Report 24.62.

The motion was **carried**.

6 Harbour Management – Risk and Compliance Update May 2024 – Report 24.173
[For Information]

Jack Mace, Director Delivery, spoke to the report.

7 Audit New Zealand’s Report on Council’s 2024-34 Long Term Plan Consultation Document – Report 24.205 [For Information]

Tyler Dunkel, Manager Corporate Planning and Reporting, and Darryl Joyce, Manager Accounting Services, spoke to the report.

Noted: The Committee acknowledged the work of Greater Wellington staff in preparing the 2024-34 Long Term Plan.

8 Forward Work Programme – Report 24.179

Alison Trustrum-Rainey, Group Manager, Finance and Risk, spoke to the report.

Moved: Cr Bassett / Cr Ropata

That the Committee:

- 1 Endorses the Forward Work Programme (Attachment 1).

The motion was **carried**.

9 Update on the Progress of Action Items from Previous Finance, Risk and Assurance Committee Meetings – Report 24.197 [For Information]

Alison Trustrum-Rainey, Group Manager, Finance and Risk, spoke to the report.

10 Revenue and Financing Policy Update – Report 24.195 [For Information]

Kyn Drake, Principal Advisor, spoke to the report.

11 Quarterly Finance Update – Quarter Three – Report 24.200

Darryl Joyce, Manager Accounting Services, spoke to the report.

Moved: Cr Bassett / Cr Saw

That the Committee:

- 1 Accepts the financial report for the third quarter ended 31 March 2024, including Attachment 1.

The motion was **carried**.

12 Health, Safety and Wellbeing Update – Report 24.206 [For Information]

Julie Barber, Head of Health, Safety and Wellbeing, spoke to the report.

13 Data and Analytics – Report 24.199 [For Information]

Jacob Boyes, Head of Corporate Risk and Assurance, spoke to the report.

Noted: The Committee requested that staff review the councillor and committee appointee declaration of interest framework.

14 Paycode Review – Report 24.177 [For Information]

Ashwin Pai, Head of Finance, Phil Fisher, Tax Partner, PWC, and Kelly David, Manager, PWC, spoke to the report.

15 Fair Value Assessment of Property Plant and Equipment – Report 24.175 [For Information]

Ashwin Pai, Head of Finance, spoke to the report.

Moved: Cr Kirk-Burnnand / Cr Bassett

That the Committee:

- 1 Endorses the process for setting materiality for the fair value assessment of property, plant and equipment outlined in this report, including a materiality threshold of ten percent (10%).

The motion was **carried**.

16 Risk and Assurance Update May 2024 – Report 24.198

Jacob Boyes, Head of Corporate Risk and Assurance, spoke to the report.

Moved: Cr Kirk-Burnnand/ Cr Bassett

That the Committee:

- 1 Endorses the priorities and hot topics (points 25 and 26) for consideration during the 2024-27 assurance plan.

The motion was **carried**.

Resolution to exclude the public

17 Resolution to exclude the public – Report 24.202

Moved: Cr Saw / Cr Ropata

That the Committee excludes the public from the following parts of the proceedings of this meeting, namely:—

CentrePort Debt Guarantee – Report RPE24.176

Legal Update – Report RPE24.203

The general subject of each matter to be considered while the public is excluded, the reasons for passing this resolution in relation to each matter, and the specific ground/s under section 48(1) of the Local Government Official Information and Meetings Act 1987 (the Act) for the passing of this resolution are as follows:

CentrePort Debt Guarantee – Report RPE24.176	
<i>Reason/s for passing this resolution in relation to each matter</i>	<i>Ground/s under section 48(1) for the passing of this resolution</i>
The information in this report relates to Greater Wellington’s financial support of CentrePort Limited. Release of the information contained in this report would be likely to prejudice Greater Wellington and CPL’s commercial position as the report identifies interest rate margins (section 7(2)(b)(ii) of the Act). Greater Wellington has not been able to identify a public interest favouring disclosure of this particular information in public proceedings of the meeting that would override this prejudice.	The public conduct of this part of the meeting is excluded as per section 7(2)(b)(ii) of the Act in order to protect information where the making available of the information would be likely unreasonably to prejudice the commercial position of the person who supplied or who is the subject of the information.
Legal Update – Report RPE24.203	
<i>Reason/s for passing this resolution in relation to each matter</i>	<i>Ground/s under section 48(1) for the passing of this resolution</i>
The report and attachments contain information: a On the commercial status and alleged loss of a plaintiff that was received by Greater Wellington under an obligation	The public conduct of this part of the meeting is excluded under the following sections: a Section 7(2)(c)(i) of the Act in order to protect information which is subject to an obligation

<p>of confidence in that it was provided in relation to confidential settlement negotiations (section 7(2)(c)(i) of LGOIMA). In addition, that information is very commercially sensitive, and its release would unreasonably prejudice the commercial position of the person that supplied or who is the subject of that information (section 7(2)(b)(ii) of LGOIMA).</p> <p>b On potential internal investigations as to alleged wrongdoing and the release of such information would likely prevent the maintenance of law and in particular the investigation of such matters and or would be likely to prejudice the supply of information into those investigations (section 6(c) of LGOIMA)</p> <p>c That is being gathered in relation to enable in-house counsel to appropriately advise Greater Wellington and/or where litigation is in reasonable contemplation and as such, the release of the same would prejudice the maintenance of legal professional privilege (section 7(2)(g) of LGOIMA).</p> <p>d That Greater Wellington is holding to enable it to carry on without prejudice settlement negotiations (section 7(2)(i) of LGOIMA).</p> <p>Officers have considered whether the public interest outweighs the restriction on release of the information to the public. Officers</p>	<p>of confidence or which any person has been or could be compelled to provide under the authority of any enactment, where making available of the information would be likely to prejudice the supply of similar information, or information from the same source, and it is in the public interest that such information should continue to be supplied; and section 7(2)(b)(ii) of the Act in order to protect information where the making available of the information would be likely unreasonably to prejudice the commercial position of the person who supplied or who is the subject of the information</p> <p>b Section 6(c) of the Act where making available the information would be likely to prejudice the maintenance of the law, including the prevention, investigation, and detection of offence, and the right to a fair trial</p> <p>c Section 7(2)(g) in order to maintain legal professional privilege</p> <p>d Section 7(2)(i) in order to enable any local authority holding the information to carry on, without prejudice or disadvantage, negotiations.</p>
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consider that the public interest does not so outweigh the restrictions.	
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This resolution is made in reliance on section 48(1)(a) of the Act and the particular interest or interests protected by section 6 or section 7 of that Act or section 6 or section 7 or section 9 of the Official Information Act 1982, as the case may require, which would be prejudiced by the holding of the whole or the relevant part of the proceedings of the meeting in public.

The public part of the meeting closed at 11.09am.

M Matthews

Committee Chair

Date:

Finance Risk and Assurance Committee
13 August 2024
Report 24.313



For Decision

FORWARD WORK PROGRAMME

Te take mō te pūrongo

Purpose

1. To advise the Finance, Risk and Assurance Committee (the Committee) of the Forward Work Programme ([Attachment 1](#)).

He tūtohu

Recommendations

That the Committee:

- 1 **Endorses** the Forward Work Programme (Attachment 1).

Te horopaki

Context

2. Staff have compiled regular reports for the year and other upcoming items into a Forward Work Programme for the Committee to consider.
3. At each meeting, the work programme will be reviewed and adjusted based on progress, added information, and changing priorities.

Te tātaritanga

Analysis

4. The Forward Work Programme contains the regular and planned upcoming reports for the Committee meetings for the forward 12 months.
5. The Forward Work Programme is scheduled to be presented for each Committee meeting.
6. The Forward Work Programme and associated planning ensures the Committee meets its terms of reference. This includes the review and monitoring of performance under Council's Financial Strategy and to oversee, review, and report on Greater Wellington's discharge of its responsibilities in the areas of financial management; risk management; statutory reporting including the Annual Plan and Long Term Plan; internal and external audit and assurance; and monitoring of compliance with laws and regulations (including health and safety).

Ngā hua ahumoni
Financial implications

7. There are no direct financial implications.

Ngā Take e hāngai ana te iwi Māori
Implications for Māori

8. There are no known implications for Māori.

Ngā tikanga whakatau
Decision-making process

9. Officers considered the significance (as defined by Part 6 of the Local Government Act 2002) of the matters for decision, taking into consideration Council's Significance and Engagement Policy and Greater Wellington's Decision-making Guidelines. Officers consider that the matter is of low significance due to its administrative nature.

Te hiranga
Significance

10. Officers considered the significance (as defined by Part 6 of the Local Government Act 2002) of the matters for decision, taking into consideration Council's *Significance and Engagement Policy* and Greater Wellington's *Decision-making Guidelines*. Officers consider that the matter is of low significance due to its administrative nature.

Te whakatūtakitaki
Engagement

11. Due to the low significance of the matters for decision, no engagement was considered necessary.

Ngā tūāoma e whai ake nei
Next steps

12. Once the Committee endorses the programme, officers will implement the reporting.

Ngā āpitihanga
Attachment

Number	Title
1	FRAC Forward Work programme as of August 2024

**Ngā kaiwaitohu
Signatory**

Writer	Ali Trustrum-Rainey – Group Manager, Finance and Risk
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He whakarāpopoto i ngā huritaonga Summary of considerations
<i>Fit with Council's roles or with Committee's terms of reference</i> The Forward Work Programme is designed to cover the key items in the Committee's Terms of Reference.
<i>Contribution to Annual Plan / Long Term Plan / Other key strategies and policies</i> The Committee's Terms of Reference includes the review and monitor performance under Council's Financial Strategy and to oversee, review and report on Greater Wellington's discharge of its responsibilities in the areas of financial management; risk management; statutory reporting including the Annual Plan and Long Term Plan; internal and external audit and assurance; and monitoring of compliance with laws and regulations (including health and safety).
<i>Internal consultation</i> Regular report writers to the Committee were consulted.
<i>Risks and impacts - legal / health and safety etc.</i> There are no known risks arising from this report.

Finance, Risk and Assurance Committee Forward Work Programme – August 2024
FRAC Work Programme 2024/25

Focus areas	August 2024	November 2024	February 2025	May 2025
Overall meeting focus if applicable				
Work programme	Draft work programme	Draft work programme	Draft work programme	Draft work programme
Financial Management	Q4 draft report	Q1 report	Q2 report	Q3 report
			Rating software update review?	
Risk Management		Taxation Management Policy for FRAC endorsement		
	Health Safety and Wellbeing	Health Safety and Wellbeing	Health Safety and Wellbeing	Health Safety and Wellbeing
	Harbours Management – Risk and Compliance	Harbours Management – Risk and Compliance	Harbours Management – Risk and Compliance	Harbours Management – Risk and Compliance
	Risk review and update	Risk review and update including legal compliance	Risk review and update	Risk review and update
	Cyber Security Update	Climate Change Risk (annual)	Legal Risk update	
	Insurance Review	Insurance modelling and self-insurance exposure		
		Financial Policies review		

Attachment 1 to Report 24.313

Finance, Risk and Assurance Committee Forward Work Programme – August 2024

Focus areas	August 2024	November 2024	February 2025	May 2025
		Risk Appetite review & endorsement		
Business Assurance	1. Assurance update 2. Endorsed assurance plan for 2024-27	1. Assurance update 2. Report per endorsed assurance plan for 2024-27 3. Report in indirect taxes	1. Assurance update	1. Assurance update 2. 2024-27 assurance plan review
	Introduce internal audit partner for 2024-27			
Reporting and Accounting	Audit Report to Council on the LTP	Interest Risk Management and Position	Audit report to Council on the Annual Report	Annual Plan update?
	Rates remissions on Māori land			
	Depreciation Rate Accounting Policy overview			Fair Value Assessment of Property Plant and Equipment (for decision)
	Audit Plans			
	Riverlink accounting opinion			
Workshops TBD	Risk Deep Dive - Integrity of the network with a focus on: <ul style="list-style-type: none"> Rail network investment backlog Critical rail assets and the impact of these assets on passenger rail services 	1. Risk Deep Dive - Accountability of technology - No single point of accountability for all technology – in particular Metlink operate a different informal model that is exclusive of ICT	1. Risk Deep Dive – Te Tiriti o Waitangi which includes our Te Tiri audit process	1. Deep Dive - Third parties are aware of and comply with GW requirements

Finance, Risk and Assurance Committee Forward Work Programme – August 2024

Focus areas	August 2024	November 2024	February 2025	May 2025
	<ul style="list-style-type: none"> Potential service reductions that would be caused by failure of these assets 	visibility and control at certain level		
	Risk appetite walkthrough	Risk appetite walkthrough		
Out of cycle items: - Annual Report				

Finance, Risk and Assurance Committee
13 August 2024
Report 24.374



For Information

UPDATE ON THE PROGRESS OF ACTION ITEMS FROM PREVIOUS FINANCE, RISK AND ASSURANCE COMMITTEE MEETINGS

Te take mō te pūrongo

Purpose

1. To update the Finance, Risk and Assurance Committee (the Committee) on the progress of action items arising from previous Committee meetings.

Te horopaki

Context

2. Items raised at Committee meetings, that require actions from staff, are listed in the table of action items from previous Committee meetings ([Attachment 1](#) – Action items from previous Finance, Risk and Assurance Committee meetings – August 2024). All action items include an outline of the current status and a brief comment.

Ngā hua ahumoni

Financial implications

3. There are no financial implications from this report, but there may be implications arising from the actions listed.

Ngā tūāoma e whai ake nei

Next steps

4. Completed items will be removed from the action items table for the next report. Items not completed will continue to be progressed and reported. Any new items will be added to the table following this Committee meeting and circulated to the relevant business group/s for action.

**Ngā āpitihanga
Attachment**

Number	Title
1	Action items from previous Finance, Risk and Assurance Committee meetings – August 2024.

**Ngā kaiwaitohu
Signatories**

Approver	Jacob Boyes – Kaiwhakahaere Matua, Pūtea me ngā Tūraru Group Manager Finance and Risk (acting)
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He whakarāpopoto i ngā huritaonga Summary of considerations
<i>Fit with Council's roles or with Committee's terms of reference</i> The action items are of an administrative nature and support the functioning of the Committee.
<i>Contribution to Annual Plan / Long Term Plan / Other key strategies and policies</i> Action items contribute to Council's and Greater Wellington's related strategies, policies and plans to the extent identified in Attachment 1 .
<i>Internal consultation</i> There was no internal consultation.
<i>Risks and impacts - legal / health and safety etc.</i> There are no known risks.

Attachment 1 to Report 24.374

Action items from previous Finance, Risk and Assurance Committee meetings

Date	Action item	Status and comment
2 May 2023	<p>Finance, Risk and Assurance Committee Update – Report 23.137</p> <p>Noted: The Committee requested that staff report back to a future Committee meeting on the separation of swimmers from craft at Oriental Bay.</p>	<p>Status: To carry over</p> <p>Comment: The reported incident highlights the potential consequences of this issue. We currently do not have capacity to consider possible changes to the rules in this area.</p>
13 February 2024	<p>Update on progress of action items from previous Finance, Risk and Assurance Committee meetings – February 2024 – Report 24.28 [For Information]</p> <p>Noted: The Committee:</p>	
	<p>Requested that the Te Tiriti o Waitangi Komiti consider input from the Finance, Risk and Assurance Committee on the scope of the next Te Tiriti o Waitangi audit.</p>	<p>Status: In progress</p> <p>Comment: Letter was sent from the Chair of FRAC to the Chair of Te Tiriti o Waitangi Komiti. We are awaiting a response.</p>
	<p>Invited the Chair of the Finance, Risk and Assurance Committee to send a letter to the Chair of the Te Tiriti o Waitangi Komiti conveying the request.</p>	<p>Status: Completed.</p> <p>Comment:</p>

Attachment 1 to Report 24.374

Action items from previous Finance, Risk and Assurance Committee meetings

		Letter was sent from the Chair of FRAC to the Chair of Te Tiriti o Waitangi Komiti.
13 February 2024	Forward work programme – Report 24.10 Noted: The Committee requested:	
	Deep dives into pest management, contamination of landfill sites across the region and housing policies and planning in relation to climate change.	Status: Completed Comment: We have included those topics on our list for potential risk deep dives. We currently have deep dives scheduled up until Feb 2025 so we will consider these topics for FRAC meetings May 2025 onwards.
	That consideration of the Council’s depreciation rates and policy be included in the Forward work programme	Status: Completed Comment: Paper included for the August 2024 meeting.
13 February 2024	Quarterly Finance update – Quarter two – Report 24.38 Noted: The Committee requested a report to a future meeting about rates remissions on Māori land.	Status: Completed Comment: Paper included for the August 2024 meeting.
13 February 2024	Audit New Zealand Management Report – Report 24.15 [For Information]	Status: Completed

Attachment 1 to Report 24.374

Action items from previous Finance, Risk and Assurance Committee meetings

	<p>Noted: The Committee requested a report to a future meeting on the work being done to seek assurance on the data being provided to Greater Wellington for the 2024-34 Long Term Plan assumptions.</p>	<p>Comment:</p> <p>Metlink worked with AuditNZ to identify and provide relevant data to support LTP assumptions. For example, the patronage growth assumptions are based on GW’s high-level patronage forecast that provides a 10 year patronage trajectory by mode and for the entire network. The trajectory is based on the continuation of current trends driven by forecast population, demand response to GW’s annual fare increases at real terms (inflation adjusted) and expectations of growth from major investment projects (based on Business Cases and / or informed judgments by SMEs or programme leads).</p> <p>LTP assumptions were reviewed by AuditNZ as part of the LTP audit. As part of their management report they noted “Overall, we found that the Regional Council’s process for developing the LTP and preparing the underlying information was well-managed” they also outlined that they were satisfied with the application of assumptions.</p> <p>As the AuditNZ report and LTP has been submitted to FRAC we recommend that a further report to FRAC is not required.</p>
<p>14 May 2024</p>	<p>Data and Analytics – Report 24.199 [For Information]</p>	<p>Status: Completed</p> <p>Comment:</p>

Attachment 1 to Report 24.374

Action items from previous Finance, Risk and Assurance Committee meetings

	<p>Noted: The Committee requested that staff review the councillor and committee appointee declaration of interest framework.</p>	<p>Officers have reviewed the Councillor and appointee declaration of interest framework and confirmed that it aligns with the good practice recommendations of the Controller and Auditor-General and legislative requirements. The conflicts of interest framework applying to local government is a mix of:</p> <ul style="list-style-type: none"> • common law conflicts, • pecuniary interests as defined in the Local Authorities (Members’ interests) Act 1968, and • elected members’ pecuniary interests under Subpart 3 of the Local Government Act 2002. <p>It is important to note that the local government framework has its own particular arrangements, which differ from those applicable for Crown entities under the Crown Entities Act 2004, for companies under the Companies Act 1993, and for bodies operating under the Education Act 1989 and other legislation.</p> <p>Greater Wellington requests Councillors and appointed members to undertake an annual review of their pecuniary and non-pecuniary interests (para 5.8 to 5.11 and members guide) and Councillors must complete an annual pecuniary interest declaration under Subpart 3 of the Local Government Act 2002. Councillor disclosures and declarations are published on the Greater Wellington website for transparency.</p> <p>As disclosures and declarations reflect a “point in time” each member is expected to be mindful of their</p>
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Attachment 1 to Report 24.374

Action items from previous Finance, Risk and Assurance Committee meetings

		<p>personal interests that may intersect with their Greater wellington responsibilities, and update their disclosures and declarations, as appropriate.</p> <p>In addition, at every Council and committee meeting there is an agenda item entitled “Declarations of conflict of interest” in which a member having a conflict with regard to an item on the agenda must declare their conflict (but is not required to declare the nature of their conflict): if a conflict is declared the member may not take part in the deliberations and voting on the matter for which they have a conflict.</p>
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Finance Risk and Assurance Committee
13 August 2024
Report 24.396



For Decision

QUARTERLY FINANCE UPDATE – QUARTER FOUR

Te take mō te pūrongo

Purpose

1. To advise the Finance, Risk and Assurance Committee (the Committee) of Greater Wellington Regional Council's (Greater Wellington) financial reports for the financial year ended 30 June 2024.

He tūtohu

Recommendation

That the Committee:

- 1 **Accepts** the financial report for the final quarter ended 30 June 2024, including [Attachment 1](#).

Te tāhū kōrero

Background

2. The Committee is responsible to oversee, review and report on Greater Wellington's financial management, including tracking how the financial result is performing against the 2023/24 Annual Plan.
3. Regular review of financial results is needed for effective management enabling informed decision making, performance evaluation and for compliance and accountability while highlighting potential risks to assets and services.
4. The financial report is unaudited and subject to change. Any material changes will be advised at the time of presenting the draft annual report at the next Committee meeting. The final Annual Report is expected to be signed off by Council on 31 October 2024.

Te tātaritanga

Analysis

5. The result to June 2024 is a \$50 million operating deficit. Greater Wellington had budgeted for an operating deficit of \$18 million.
6. The \$50 million full year deficit is an accounting deficit and not a cash or funding deficit as the report contains non-cash items such as depreciation (\$39 million)

and fair value movements (\$2 million) in the financial instruments that council holds.

Total Revenue is \$16 million lower than budgeted, materially driven by:

7. Farebox revenue is \$46 million lower than budgeted due to changes in travel choices post-Covid and providing half-price fares through July and August 2023. This resulted in higher grants and subsidies revenue of \$23 million due to reduced payments to NZ Transport Agency - Waka Kotahi.
8. This is further offset by additional rates received from the territorial authorities (\$2 million) and higher rates penalties (\$1 million).
9. Patronage levels have been revised in the 2024-34 Long Term Plan (2024-34 LTP) to reflect the current travel choice forecast. A total of \$25 million loan was approved by Council to address the farebox revenue losses (\$23 million) and a funding deficit (\$2 million).

Total Expenditure is \$20 million higher than budgeted, materially driven by:

10. Grants and subsidies expenditure is \$9 million unfavourable due to indexation on the Bus and Rail contracts. This is addressed in the 2024-34 LTP.
11. Finance costs are \$10 million above budget, primarily because of additional prefunding and increased financing costs. This is partially offset by increased interest revenue.
12. Changes in accounting treatment for Floodplain Management (\$6 million) and Snapper on Rail change (\$5 million)
13. Asset impairment loss of around \$3 million, where some of the assets were either non-functional obsolete, following our year-end physical verification process.
14. These are offset by an underspend in Let's Get Wellington Moving (LGWM) programme closure (\$19 million). \$15 million of the LGWM underspend has been carried forward.

Capital Delivery

15. We have achieved 80% of capital delivery due to approved accelerated spend in Te Marua Treatment Plant projects. This is offset by delays in Alliance programme and slower progress on the Mill Street improvements in Riverlink, as well as a change in accounting treatment for National Ticketing Solution (NTS) and Snapper on Rail.

Ngā hua ahumoni

Financial implications

16. This report presents the financial health and performance of Greater Wellington for the Committee's consideration. There are no immediate financial implications to the report.

Ngā Take e hāngai ana te iwi Māori
Implications for Māori

17. There are no known implications for Māori

Ngā tikanga whakatau
Decision-making process

18. The matters requiring decision in this report were considered by officers against the decision-making requirements of Part 6 of the Local Government Act 2002.

Te hiranga
Significance

19. Officers considered the significance (as defined by Part 6 of the Local Government Act 2002) of the matters for decision, taking into account Council’s *Significance and Engagement Policy* and Greater Wellington’s *Decision-making Guidelines*. Officers consider that the matters outlined in the report are of low significance because of their administrative nature.

Te whakatūtakitaki
Engagement

20. Because of the low significance no external engagement is necessary.

Ngā tūāoma e whai ake nei
Next steps

21. The financial report will be presented to the Council on 27 August 2024.

22. The final Annual Report is expected to be signed off on 31 October 2024.

Ngā āpitihanga
Attachment

Number	Title
1	Financial Report – Q4

Ngā kaiwaitohu
Signatories

Writer	Darryl Joyce – Kaiwhakahaere Matua Manager Accounting Services
Approvers	Ashwin Pai – Kaiwhakahaere Matua Head of Finance Alison Trustrum-Rainey – Kaiwhakahaere Matua, Pūtea me ngā Tūraru Group Manager Finance and Risk

He whakarāpopoto i ngā huritaonga Summary of considerations
<i>Fit with Council's roles or with Committee's terms of reference</i> The Committee's specific responsibilities include to review the effectiveness of Greater Wellington's financial management and performance.
<i>Contribution to Annual Plan / Long Term Plan / Other key strategies and policies</i> The report reviews performance against the budget set in the 2023/24 Annual Plan.
<i>Internal consultation</i> This report has been drafted following contributions from Finance Business Partners of Metlink, Environment, and Corporate Services.
<i>Risks and impacts - legal / health and safety etc.</i> There are no risks arising from this report.

FRAC Report (Q4)

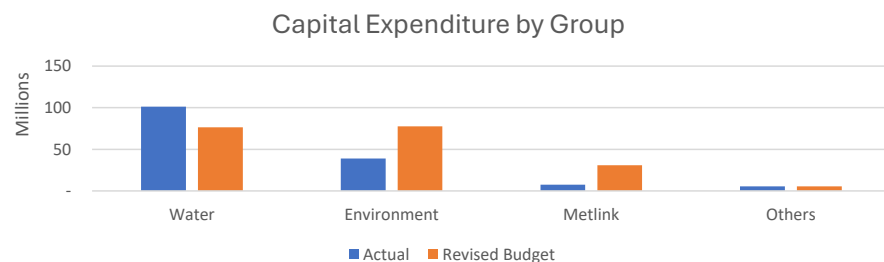
This report provides year to date financials for the year ending 30 June 2024 with comparisons to the budget set in the 2023-24 Annual Plan, including re-budgets approved by Council

Summarised Profit and Loss as at June 2024

Summarised Profit and Loss as at June 2024

	Full Year			Variance
	Actual \$000s	Revised Budget \$000s	\$000s	
Operating Revenue				
Rates and Levies	266,652	263,622	3,030	1%
Grants and Subsidies	181,157	157,953	23,204	15%
Other Revenue	119,679	162,189	(42,510)	-26%
Total Operating Revenue	567,488	583,764	(16,276)	-3%
Operating Expenditure				
Personnel	87,034	83,878	3,156	4%
Grants and Subsidies	261,164	252,152	9,012	4%
Consultants, Contractors and Suppliers	176,040	183,769	(7,728)	-4%
Finance Costs	52,038	42,252	9,787	23%
Depreciation	39,401	33,181	6,220	19%
Total Operating Expenditure	615,679	595,232	20,447	3%
Operating Surplus/(Deficit) before other items	(48,191)	(11,468)	(36,723)	320%
Fair Value Movements	(1,897)	(7,030)	5,133	-73%
Operating Surplus/(Deficit)	(50,088)	(18,498)	(31,590)	171%
Capital Expenditure	152,871	190,002	(37,131)	-20%

** Revised budget is budget set in the 2023-24 Annual Plan plus re-budgets approved by Council



Quarter 4 FRAC Report for 2023/24 Financial Year

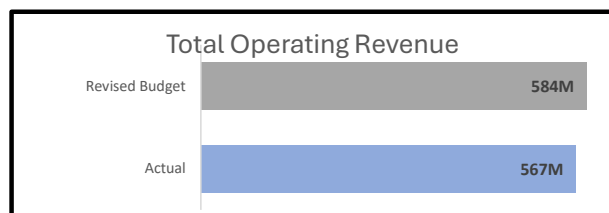
The result to June 2024 is a \$50m operating deficit. GWRC had budgeted for an operating deficit of \$18.0m, resulting in \$32m unfavourable variance mainly derived by:

- Farebox revenue is \$46m lower than budgeted due to changes in travel choices post-Covid and providing half-price fares through July and August. This resulted in higher grants and subsidies revenue of \$23m due to reduced payments to Waka Kotahi. Patronage levels have been revised in the 2024-34 LTP to reflect the current travel choice forecast. A total of \$25m loan was approved by Council to address the farebox revenue losses (\$23m) and a funding deficit (\$2m).
- Rates are \$3m favourable, driven by additional rates received from the Territorial Authorities (\$2m) and higher rates penalties (\$1m).
- Consultants, contractors, and suppliers are under budget by \$8m, driven by an underspend in Let's Get Wellington Moving (LGWM) programme closure (\$19m). This is partially offset by a change in accounting treatment with Floodplain Management costs (\$6m) and asset impairment loss of \$3m across Environment and Water group. \$15m of the LGWM underspend has been carried forward.
- Grants & subsidies expenditure is \$9m unfavourable due to indexation on the Bus and Rail contracts, this is addressed in the 24-34 LTP budget.
- Finance costs are \$10m above budget, because of additional prefunding and increased financing costs. This is partially offset by increased interest revenue.
- Depreciation is higher by \$6m due to accelerated depreciation on Riverlink Properties and Floodplain Management costs from a required change in accounting treatment.
- We have achieved 80% of capital delivery due to approved accelerated spend in Te Marua Treatment Plant projects. This is offset by delays in Alliance programme and slower progress on the Mills Street improvements in Riverlink, as well as a change in accounting treatment for NTS and Snapper on Rail.

Other Items of Interest:

- Council is fully compliant with the Treasury Risk Management Policy as of 30 June 2024.
- Council currently holds investments (excluding subsidiaries) of \$315m up from a starting balance of \$247m on 1 July 2023. This includes water contingency investments of \$50m, and pre-funding of \$116m.
- \$4m of PT reserves have been applied to cover the half-priced fares in July and August.
- The final Annual Report is expected to be signed off on 31 October 2024.

Key Variance Commentary



Metlink PT –

Farebox revenues are below budget (49% Rail, 51% Bus) due to providing half price fares for public transport in Jul & Aug, **\$7m** and a change in travel choice since the patronage level assumptions were set in the 2021-31 LTP, **\$36m**. This is offset by higher grants and subsidies revenue from Waka Kotahi, **\$23m**.

Environment –

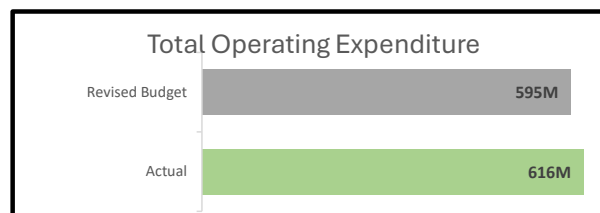
Fees and charges are below budget due to a budgeted revenue of **\$10m** from RiverLink interim property compensation from Waka Kotahi required to be retained on the balance sheet until final settlement.

Investment management –

Favourable investments, significantly from subvention and dividends, along with prefunding and increased interest returns, **\$13m**.

Corporate Services –

Rates are favourable, driven by additional rates received from the TA's, **\$2m** and higher rates penalties, **\$1m**. These additional revenues help partially offset lower farebox revenue and higher financing costs.



Metlink PT –

Grants & subsidies expenditure is **\$13m** unfavourable due to indexation on the Bus and Rail contracts, offset by lower operator spend relating to KPI performance and RS1 delays due to Kiwirail **\$4m**.

Environment –

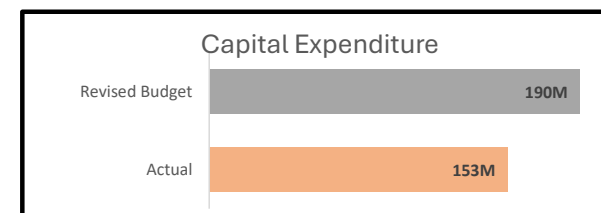
Contractor & Consultants is above budget due to expensing **\$6m** Floodplain Management cost from capex work in progress due to a change in accounting treatment (no funding impact). **\$5m** of this is related to previous years. RiverLink is \$4.7m above budget due to Public Works Act property compensation (loan funded).

Investment –

External interest cost is **\$11m** above budget, because of increased financing costs and taking on additional prefunding which is partially offset by increased interest revenue from investing the prefunding.

Strategy –

Contractor & Consultants is underspent driven by Let's Get Wellington Moving, **\$19m**



Metlink PT –

Change in accounting treatment for NTS now moved to prepaid assets, **\$8m** and Snapper on Rail moved from Work in Progress to OPEX, **\$5m**. Southern Depot Capex and RTI2.0 delays **\$7m**. Remaining **\$10m** variance due to delays in delivery across the board for the capital programme.

Environment –

RiverLink implementation is **\$28m** behind budget due to Alliance programme delays and slower progress on the Mills Street improvements. A further **\$6m** variance is contributed by Flood Plain Management Plan reclassification to OPEX.

Water Supply –

Te Marua Treatment Plant and Kaitoke Flume Bridge are tracking ahead of schedule therefore, the full year spend has increased significantly following additional budget approved to be brought forward, **\$25m**.

Environment June 2024

Favourable ● Caution ● Unfavourable ●

Environment Group

June 2024

	Full Year			
	Actual \$000	Budget \$000	\$ Variance \$000	% Variance
Operational Revenue				
Rates	85,937	85,938	(01)	0%
Grants & Subs	4,652	3,160	1,492	47%
Fees Charges & Other	23,588	34,861	(11,273)	-32%
Total Operating Revenue	114,177	123,959	(9,782)	-8%
Operational Expenditure				
Personnel	36,205	36,048	157	0%
Materials, Supplies & Services	8,488	12,393	(3,906)	-32%
Contractor & Consultants	39,021	28,295	10,726	38%
Grants & Subsidies Expenditure	308	114	194	170%
Other	5,843	4,919	924	19%
Interest	9,738	11,123	(1,385)	-12%
Total Operating Expenditure	99,603	92,892	6,710	7%
Overheads	23,498	23,491	07	0%
Operational Surplus/(Deficit)	(8,924)	7,576	(16,499)	-218%
Net Capital Expenditure	38,799	77,507	(38,708)	-50%

Top Projects by Direct Expenditure for Environment Group

June 2024

Project Name	Full Year			
	Actual	Budget	Variance	Variance %
RiverLink Implementation	32,113,094	59,765,483	27,652,389	-46.27%
RiverLink Property Purchase	6,264,906	6,831,253	566,347	-8.29%
Te Kauru Catchment	1,816,645	2,058,000	241,355	-11.73%
Knowledge Monitoring Capex	389,723	1,422,842	1,033,119	-72.61%
Flood Risk Management Capex	(3,034,898)	1,732,305	4,767,203	-275.19%

Operating Revenue is **\$9.8m unfavourable** due to:

- Fees and charges is \$11.3m below budget due to \$10m of RiverLink interim property compensation received from Waka Kotahi but required to be retained on the balance sheet until final settlement. The remaining variance was related to reduced consent application, sustainable land use and hill country erosion programme revenue.
- Grants and subsidies is \$1.5m above budget due to additional revenue for Wairarapa river crack willow removal, One Billions Trees and Parks Recloaking projects.



Operating Expenditure is **unfavourable \$6.7m** due to:

- Materials is \$3.9m below budget – Parks recloaking expenditure (LCAF), is mainly being coded to contract labour as noted below. Predator Free Wellington is \$0.5m behind budget and offset by reduced revenue.
- Contractor & Consultants is \$10.7m above budget due to expensing \$6.3m Floodplain Management cost from capex work in progress due to a change in accounting treatment (no funding impact). \$5m of this is related to previous years. Parks Restoration is \$3.0m above budget (offset by materials). RiverLink is \$4.7m above budget due to Public Works Act property compensation (loan funded). Underspends in Pinehaven (\$1.9m), Hill country erosion (\$0.6m), Environment Restoration expenditure (\$0.6m) and numerous operational programmes.



Capital Expenditure is **underspent by \$38.7m** due to:

- RiverLink implementation is \$27.7m behind budget due to Alliance programme delays and slower progress on the Mills Street improvements.
- Knowledge and Insights is \$8.1m below budget due to the FloodPlain Management Plan reclassification to OPEX (\$6.3m) and reduced FMP (\$0.7m) and Hydrology Network (\$0.8m) expenditure in 23/24 because of planning delays.
- Kapiti FMP implementation is \$1.3m behind budget - Otaki FMP review and modelling delays, property purchase delays.



Metlink June 2024

Favourable ● Caution ● Unfavourable ●

Metlink

June 2024

	Full Year			
	Actual \$000	Budget \$000	\$ Variance \$000	% Variance
Operational Revenue				
Rates	113,009	113,009	-	0%
Grants & Subs	170,486	151,615	18,871	12%
Fees Charges & Other	69,316	115,160	(45,844)	-40%
Total Operating Revenue	352,812	379,784	(26,973)	-7%
Operational Expenditure				
Personnel	12,676	11,499	1,176	10%
Materials, Supplies & Services	12,125	13,359	(1,234)	-9%
Contractor & Consultants	35,856	35,089	767	2%
Grants & Subsidies Expenditure	253,686	245,038	8,648	4%
Other	-	26	(26)	-100%
Interest	13,813	13,466	347	3%
Total Operating Expenditure	328,155	318,478	9,678	3%
Overheads	17,065	17,065	-	0%
Operational Surplus/(Deficit)	7,591	44,241	(36,651)	-83%
Net Capital Expenditure	7,566	30,715	(23,150)	-75%
Investment in Greater Wellington Ra	19,072	26,027	(6,956)	-27%

Top Capex Projects by Direct Expenditure for Metlink & Rail

June 2024

Project Name	Full Year			Project Type
	Actual	Budget	Variance %	
AI - Fixed Asset Maintenance CAPEX	9,163	14,798	-38.08%	Capital - New
AI - Fixed Asset Maintenance Rail CAPEX	8,363	12,323	-32.14%	Capital - New
AI - Rolling Stock Capex	3,574	8,477	-57.83%	Capital - New
GWRC - Ticketing/Transition	7,270	9,000	-19.23%	Opex & Capex

Operating Revenue unfavourable \$27.0m due to:

- Grants and Subsidies – Made up of allowable expenditure and revenue claimable from Waka Kotahi. This is above budget, due to lower fare revenue off-set by lower operational and capital expenditure.
- Fees and Charges are below budget (49% Rail, 51% Bus) due to providing half price fares for public transport in Jul & Aug (\$7.1m) and (\$36.3m) is due to a change in travel choice post Covid against the assumptions set pre Covid in 2020. 51% of this is claimable from Waka Kotahi.
- Of the 49% not claimable from Waka Kotahi \$18.5m of loss fare revenue is to be loan funded and \$4m utilising reserves. In line with Council endorsement on 30 May 2024.



Operating Expenditure is unfavourable \$9.7m due to:

- Personnel expenditure is unfavourable due to additional FTEs that were approved by utilising the underspend in Materials and Suppliers budget. A significant portion of this comprised of transport officers that is to be financed in the interim by the NTS project (8 new officers)
- Contractors & Consultants Delays in Operator the Bus Electric Vehicle procurement offset by a change in accounting treatment from Snapper on Rail capital work in progress (WIP) to operating expenses (\$4.7m).
- Grants & subsidies expenditure is unfavourable due to indexation on the Bus and Rail contracts overbudget (\$13m) offset by favourable Rail Contract underspend (\$2m) and RS1 delays due to Kiwirail (\$2m).
- \$4.7m of the \$9.7m overspend to budget relates to Snapper on Rail change in accounting treatment. 51% of overspend funded by Waka Kotahi. Remaining \$2m deficit is loan funded in line with the council endorsement 30 May 2024.



Capital Expenditure Bus and Investment in Rail is underspent \$30.1m due to:

- \$8m under due to NTS now moving to Prepaid Assets. \$4.7m change in accounting treatment for moving Snapper on Rail from WIP to OPEX ; \$4m underspend in the Southern Depot Capex and \$3m RTI2.0 due to delays.
- Remaining variance due to Fixed Asset Maintenance Capex and Rolling Stock Capex (Bus and Rail) is underbudget due to delays in delivery across the board for the capital programme.



Water Supply June 2024

Favourable  Caution  Unfavourable 

Water Supply

June 2024

	Full Year			
	Actual \$000	Budget \$000	\$ Variance \$000	% Variance
Operational Revenue				
Rates	53,140	53,140	00	0%
Fees Charges & Other	3,395	3,171	224	7%
Total Operating Revenue	56,535	56,311	224	0%
Operational Expenditure				
Materials, Supplies & Services	9,843	9,370	473	5%
Contractor & Consultants	25,831	25,997	(166)	-1%
Other	-	02	(02)	-100%
Interest	12,432	11,761	671	6%
Total Operating Expenditure	48,105	47,129	976	2%
Overheads	2,207	2,207	(00)	0%
Operational Surplus/(Deficit)	6,223	6,975	(752)	-11%
Net Capital Expenditure	101,102	76,388	24,714	32%

Top Projects by Direct Expenditure for Water Supply
June 2024

Project Name	Full Year			
	Actual	Budget	Variance %	Project Type
TM WTP Capacity Optimisation	46,716	28,759	62.44%	Capital - New
Relocate Kaitoke Main on SS Bridge	27,914	29,850	-6.49%	Capital - New
Kaitoke Flume Bridge	15,789	10,500	50.37%	Capital - New
Other Capex Projects (various)	10,683	7,279	46.76%	Capital - New

Operating Revenue is **favourable by \$0.2m** due to:

- Fees Charges & Other - higher contingency investment interest.



Operating Expenditure is **unfavourable by \$1.0m** due to:

- Materials, Supplies & Services - overspend due to increased insurance cost and power.
- Interest - due to higher opening balance on internal loans and overspend on 23/24 capital programme.



Capital Expenditure is **overspent by \$24.7m** due to:

- Te Marua Treatment Plant capacity upgrade - pre-approved overspend due to increased scope and fast tracking of various works.
- Silverstream Pipe Bridge - slightly behind schedule due to some work streams being rescheduled.
- Kaitoke Flume Bridge - tracking ahead of schedule due to construction works being brought forward.



Investment June 2024

Favourable  Caution  Unfavourable 

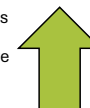
Investment Management

June 2024

	Full Year			
	Actual \$000	Budget \$000	\$ Variance \$000	% Variance
Operational Revenue				
Rates	(13,701)	(13,701)	-	0%
Fees Charges & Other	23,653	10,501	13,152	125%
Total Operating Revenue	9,952	(3,200)	13,152	-411%
Operational Expenditure				
Personnel	14	2	12	605%
Materials, Supplies & Services	(98)	(51)	(48)	94%
Contractor & Consultants	114	198	(84)	-42%
Grants & Subsidies Expenditure	2,330	2,330	-	0%
Other	2,262	2,262	-	0%
Interest	13,126	2,330	10,797	463%
Total Operating Expenditure	17,749	7,071	10,677	151%
Overheads	29	29	-	0%
Operational Surplus/(Deficit)	(7,826)	(10,300)	2,474	-24%
Net Capital Expenditure	-	-	-	0%

Operating Revenue is **favourable \$13.2m** due to:

- Fees Charges & Other. This is a favorable variance due to \$9.7m additional financing and interest revenue that are:
 - investing funds raised in advance of the contractual repayment date of LGFA maturities
 - the prefunding of Commercial paper and future CAPEX payments,
 - investing excess liquidity.
- A further \$3.5m is primarily from higher interest rates on investments, higher subvention revenue from Centreport and dividends received from Wellington Regional Council Holdings (WRCH).



Operating Expenditure is **unfavourable by \$10.7m** due to:

- External interest cost is \$10.8m above budget, primarily because of prefunding which is offset by increased revenue.
- Overall prefunding produces a net positive impact.



People & Customer June 2024

Favourable  Caution  Unfavourable 

People & Customer

June 2024

	Year Year			
	Actual \$000	Budget \$000	\$ Variance \$000	% Variance
Operational Revenue				
Fees Charges & Other	180	284	(104)	-37%
Operational Expenditure				
Personnel	10,831	10,861	(29)	0%
Materials, Supplies & Services	1,937	2,054	(118)	-6%
Contractor & Consultants	631	592	39	7%
Other	1,338	1,012	326	32%
Interest	15	73	(58)	-79%
Total Operating Expenditure	14,752	14,592	160	1%
Overheads	(13,981)	(13,981)	00	0%
Operational Surplus/(Deficit)	(591)	(327)	(264)	81%
Net Capital Expenditure	3,671	2,341	1,330	57%
Gains from asset disposal	1,378	339	1,039	307%

Top Capex Projects by Direct Expenditure for People & Customer

June 2024

Project Name	Full Year		
	Actual	Budget	Variance %
Website Development	42	75	-44.53%
Vehicle Purchases	3,629	2,266	60.17%

Operating Revenue is **unfavourable by \$0.1m**



Operating Expenditure is **favourable by \$0.2m** due to:

- **Personnel costs** are slightly favourable driven by vacancies
- **Materials, Supplies & Services** are favourable by \$0.1m driven by savings in Customer Engagement advertising campaigns
- **Other** is unfavourable by \$0.3m with higher vehicle running costs than budgeted.



Capital Expenditure is **overspent by \$1.3m** due to:

- Vehicle purchases are higher than budgeted year to date. This variance is more than offset by higher proceeds from vehicle sales than budgeted.



Strategy June 2024

Favourable  Caution  Unfavourable 

Strategy

June 2024

	Full Year			
	Actual \$000	Budget \$000	\$ Variance \$000	% Variance
Operational Revenue				
Rates	13,770	13,770	-	0%
Grants & Subs	4,136	2,819	1,318	47%
Fees Charges & Other	4,261	3,546	716	20%
Total Operating Revenue	22,168	20,134	2,034	10%
Operational Expenditure				
Personnel	7,277	7,035	241	3%
Materials, Supplies & Services	1,891	2,099	(208)	-10%
Contractor & Consultants	10,500	30,041	(19,541)	-65%
Grants & Subsidies Expenditure	4,841	4,671	170	4%
Other	1,922	1,616	306	19%
Interest	1,339	1,684	(346)	-21%
Total Operating Expenditure	27,769	47,146	(19,377)	-41%
Overheads	1,181	1,181	-	0%
Operational Surplus/(Deficit)	(6,782)	(28,193)	21,410	-76%
Net Capital Expenditure	137	215	(78)	-36%

Top Capex Projects by Direct Expenditure for Strategy

June 2024

Project Name	Full Year		
	Actual	Budget	Variance %
Transport Model	137	215	-36.14%

Operating Revenue is **favourable \$2m** due to:

- Grants and Subsidies is \$1.3m favourable due to additional revenue for travel behaviour change related to LGWMM.
- Fees Charges & Other is \$0.7m favourable due to reimbursements for GW's share of LGWM programme costs.



Operating Expenditure is **favourable \$19.3m** due to:

- Contractor & Consultants underspent by \$19.5m as a result of Let's Get Wellington Moving. The full year budget was \$27.3m for LGWM, but actuals have come in at \$8.0m. This is debt-funded and does not produce significant funding surplus and rebudgeted to the next financial year (\$15m).



Capital Expenditure is **\$0.1m under budget**

- The Transport Model is Strategy's only capital project.



Corporate Services June 2024

Favourable  Caution  Unfavourable 

Corporate Services

June 2024

	Full Year			
	Actual \$000	Budget \$000	\$ Variance \$000	% Variance
Operational Revenue				
Rates	3,964	986	2,978	302%
Grants & Subs	2,084	360	1,724	479%
Fees Charges & Other	891	971	(79)	-8%
Total Operating Revenue	6,940	2,317	4,622	199%
Operational Expenditure				
Personnel	12,861	11,526	1,335	12%
Materials, Supplies & Services	11,156	10,095	1,061	11%
Contractor & Consultants	8,277	8,789	(512)	-6%
Other	191	196	(06)	-3%
Interest	1,411	1,526	(115)	-8%
Total Operating Expenditure	33,896	32,133	1,763	5%
Overheads	(30,348)	(30,348)	-	0%
Warm Wellington	(917)	(917)	-	0%
Operational Surplus/(Deficit)	4,308	1,449	2,860	197%
Net Capital Expenditure	1,596	2,911	(1,316)	-45%

Capex Projects by Direct Expenditure for Corporate Services

June 2024

Project Name	Full Year		
	Actual	Budget	Variance %
EUS Hardware	918	1,911	-51.99%
Office Upgrades (CAPEX)	678	1,000	-32.17%

Operating Revenue is \$4.6m favourable due to:

- Rates \$3m favourable, driven by additional rates received from the TA's (\$2.2m) and higher rates penalties (\$0.9m).
- Grants & Subs \$1.7m favourable driven by DIA revenue for BoF and 3 waters transition projects. This is offset by additional costs below.



Operating Expenditure is \$0.7m unfavourable due to:

- Personnel \$1.3m unfavourable, \$1.1m due to change in accounting treatment for IT delivery project from CAPEX to OPEX. The remaining is contributed by additional FTEs in Finance and Business Performance being funded by savings in Contractors and Consultants.
- Materials, Supplies & Services \$1.1m unfavourable, driven by a wash-up of rental insurance payment relating to the last financial year.
- Contractors & Consultants is \$0.5m favourable with underspend in ICT initiatives and partly offset by expenses on better-off and 3 waters transition projects as well as additional FTEs.



Capital Expenditure is \$1.3m underspent due to:

- Property upgrades currently \$0.3m below budget. These include Security Upgrades in Ngaumatua Road and Akura nursery. We have received council approval for these amounts to be rebudgeted to the next Financial Year.
- Further variance driven by reclassification of IT delivery projects from CAPEX to OPEX.



Te Hunga Whiriwhiri June 2024

Favourable  Caution  Unfavourable 

Te Hunga Whiriwhiri

June 2024

	Full Year			
	Actual \$000	Budget \$000	\$ Variance \$000	% Variance
Operational Revenue				
Rates	5,119	5,082	37	1%
Fees Charges & Other	402	-	402	0%
Total Operating Revenue	5,522	5,082	440	9%
Operational Expenditure				
Personnel	2,409	2,325	85	4%
Materials, Supplies & Services	165	14	151	1062%
Contractor & Consultants	2,374	2,081	293	14%
Other	28	11	17	146%
Total Operating Expenditure	4,977	4,432	545	12%
Overheads	955	955	-	0%
Operational Surplus/(Deficit)	(411)	(305)	(106)	35%
Net Capital Expenditure	-	-	-	0%

Operating Revenue is **favourable by \$0.4m** due to:

- Fees Charges & Other, with internal revenue from the Environment Group for Mauri Tūhono. This is being offset in the OPEX line.

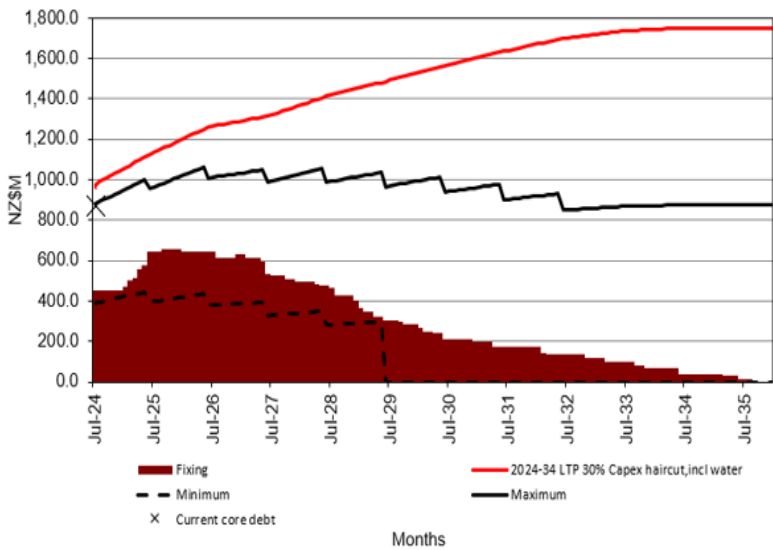


Operating Expenditure is **on budget** with:

- Personnel costs is on budget with a slight overspend in recruitment following THW reset.
- Materials, Supplies & Services are \$0.2m unfavourable due to training related costs sitting in this line but with the budget sitting in the Contractor and Consultants line.
- Contractor & Consultants are \$0.3m unfavourable with costs driven by Kaipapa and Mauri Tuhono funding, internally funded as above.

Compliance with Treasury Risk Management Policy June 2024

**Greater Wellington Regional Council
Fixed Rate Debt Profile
30 June 2024**



Total Council Limit Compliance Analysis			Compliant		
			Yes	No	actual %
Debt Interest Rate Policy Parameters - based on 2024-34 LTP less 30% haircut					
Current	40% - 90%		✓		47%
year 1	40% - 90%		✓		57%
year 2	35% - 85%		✓		51%
year 3	30% - 80%		✓		41%
year 4	25% - 75%		✓		34%
year 5	20% - 70%		✓		21%
year 6	0% - 65%		✓		13%
year 7	0% - 60%		✓		11%
year 8	0% - 55%		✓		8%
year 9	0% - 50%		✓		6%
year 10	0% - 50%		✓		2%
year 11	0% - 50%		✓		1%
year 12	0% - 50%		✓		0%
year 13	0% - 50%		✓		0%
year 14	0% - 50%		✓		0%
year 15	0% - 50%		✓		0%
The maturity of total external debt to fall within the following timebands					
0 - 3 years	15% - 60%		✓		25%
3 - 7 years	25% - 85%		✓		57%
> 7 years	10% - 60%		✓		18%
Counterparty credit exposure with New Zealand registered banks which have a credit rating of at least A-, long term, and A2 short term					
			✓		
Other counterparty exposure within policy limits					
			✓		
Maximum counterparty exposure with a NZ registered bank is within \$157 million limit					
			✓		
The repricing of liquid financial investments are to occur within the following timebands					
0 - 1 year	70% - 100%		✓		100%
1 - 5 years	0% - 30%		✓		0%
Core Council External Borrowing Limits - Ratios					
Net Debt / Total Revenue < 290%			✓		134.7%
Net interest / Total Revenue < 20%			✓		5.5%
Net interest / Annual rates and levies < 30%			✓		11.8%
Liquidity > 110%			✓		113.2%

Finance Risk and Assurance Committee
13 August 2024
Report 24.403



For Information

REPORT ON THE AUDIT OF LONG TERM PLAN 2024-34

Te take mō te pūrongo

Purpose

1. To provide the Finance, Risk and Assurance Committee (the Committee) the report on the audit of the 2024-34 Long Term Plan from Audit New Zealand (Audit NZ), the Council's external auditors.

Te tāhū kōrero

Background

2. Section 93 of the Local Government Act 2002 (LGA) requires Council to develop a Long Term Plan (LTP). This is a ten year plan, updated every three years.
3. Section 94 of the LGA requires the audit of the LTP in respect of:
 - a whether the plan gives effect to the purpose of the LTP, and
 - b the quality of the information and assumptions underlying the prospective information provided in the plan.
4. The Long Term Plan is audited by Audit NZ.

Te tātaritanga

Analysis

5. The report from Audit NZ ([Attachment 1](#)) sets out Audit NZ's audit of the LTP.
6. Audit NZ issued an unmodified audit opinion with one Emphasis of Matter (EoM) paragraph for the attention of readers of the LTP in their audits of the LTP document.
7. The EoM noted in the report is related to uncertainty over the Greater Wellington Regional Council's (Greater Wellington) assumed government funding contribution towards the Lower North Island Rail Integrated Mobility Project.
8. On the 17 July 2024 after the Audit Report was issued the Government gave Greater Wellington a signed funding agreement for this project. Had this been signed before the issue of the Audit Report then it would be unlikely the EoM would have been included.
9. Audit NZ noted that the financial statements are free from material misstatements, including omissions.

10. Audit has also included other areas of focus related to additional overhead charges of \$9.2 million for Wellington Water Limited (WWL) capital expenditure. They are satisfied that the adjustment has been appropriately applied in the preparation of the financial statements and other information in the LTP.

Ngā āpitihanga

Attachment

Number	Title
1	Audit New Zealand report on the audit of the 2024-34 Long Term Plan

Ngā kaiwaitohu

Signatories

Writer	Darryl Joyce – Kaiwhakahaere Matua Manager Accounting Services
Approvers	Ashwin Pai - Kaiwhakahaere Matua Head of Finance Alison Trustrum-Rainey – Kaiwhakahaere Matua, Pūtea me ngā Tūraru Group Manager Finance and Risk

He whakarāpopoto i ngā huritaonga Summary of considerations
<i>Fit with Council's roles or with Committee's terms of reference</i> The Committee provides assurance to the Council of the noting and review of the Audit report.
<i>Contribution to Annual Plan / Long Term Plan / Other key strategies and policies</i> The report to Council on the audit of the LTP is the final step in the audit and LTP process. The 2024-34 Long Term Plan, was provided to Council for adoption within the statutory timeframes.
<i>Internal consultation</i> The Finance and Strategic and Corporate Planning departments were consulted in preparing this report.
<i>Risks and impacts - legal / health and safety etc.</i> There are no specific risks arising from the matters for decision.

Report to the Council on the audit of

Greater Wellington Regional Council's

Long Term Plan

for the period 1 July 2024 to 30 June 2034

Contents

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1 Our audit report.....	4
2 Control Environment.....	5
3 Key risks and issues.....	6
4 Other areas of focus.....	8
5 Publication of the LTP on the Regional Council’s website.....	9
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Key messages

We have completed the audit of the Great Wellington Regional Council's (the Regional Council's) long-term plan (LTP) for the period 1 July 2024 to 30 June 2034. This report sets out our findings from the audit, and where appropriate makes recommendations for improvement.

Audit report

We issued an unmodified report on the Regional Council's LTP on 27 June 2024. This means that in our opinion, the LTP document provides a reasonable basis for long-term, integrated decision-making and co-ordination of the Regional Council's resources and accountability of the Regional Council to the community.

Without modifying our opinion, we included an emphasis of matter paragraph in the audit report drawing the readers' attention to the

- Uncertainty over rail programme funding contributions.

Matters identified during the audit

In our audit of the final plan, we:

- Reviewed the results of the Regional Council's consultative process and no new matters were identified.

Thank you

We would like to thank the Regional Council, management and staff for their assistance received during the audit.



Clint Ramoo
Appointed Auditor
26 July 2024

1 Our audit report

1.1 We issued an unmodified audit opinion



We issued an unmodified audit opinion on the Regional Council's LTP on 27 June 2024. This means that the plan provides a reasonable basis for:

- long-term, integrated decision-making and co-ordination of the Regional Council's resources; and accountability of the Council to the community;
- the information and assumptions underlying the forecast information in the plan are reasonable; and
- a complete list of the disclosures required by Part 2 of the Local Government (Financial Reporting and Prudence) Regulations 2014 (the Regulations) and accurately reflect the information drawn from the plan.

Without modifying our opinion, we drew attention to disclosures, which outlines uncertainty over the Regional Council's assumed government funding contribution towards the Lower North Island Rail Integrated Mobility Project. The amount of funding has not yet been agreed and if the Regional Council does not receive the assumed funding, the rail programme will need to be significantly revised.

1.2 Uncorrected misstatements

The forecast financial statements are free from material misstatements, including omissions. During the audit, we did not identify any uncorrected misstatements.

1.3 Quality and timeliness of information provided for audit

Management provided us with the requested information within the expected timeframes, as well as the supporting documentation.

2 Control Environment

2.1 Scope of our audit

The scope of our audit engagement and our respective responsibilities are contained in our audit engagement letter dated 27 February 2024.

2.2 Control environment

Our approach to the audit was to identify, confirm and assess the Regional Council's key processes and controls over the underlying information, and ultimate production of the LTP. The purpose of this assessment was to enable us to plan the most effective and efficient approach to the audit work needed to provide our two audit opinions. Our review of the control environment focused on two key areas: planning and budgeting processes, and asset management practices.

The matters that we identified as the main risks and issues are detailed in section 3 of this report.

2.3 Process to develop the underlying information

Overall, we found that the Regional Council's process for developing the LTP and preparing the underlying information was well-managed.

2.4 Planning and budgeting process

We obtained an understanding of the Regional Council's budgeting process in discussions with the relevant staff members and by reviewing various pieces of supporting documentation. We found that the Regional Council's planning and budgeting process supported its preparation of the underlying information and ultimately the production of the LTP.

3 Key risks and issues

3.1 Financial strategy

There have been no significant changes to the Regional Council's financial strategy since the Consultation Document phase. We are satisfied that the financial information presented in the financial strategy is financially prudent and is consistent with the assumptions applied and the forecast financial information we reviewed. We are also satisfied that the Regional Council is presenting a balanced budget.

3.2 Infrastructure Strategy

Overall, there has been no significant change to the strategy since the consultation stage and we are satisfied that the Infrastructure Strategy is fit for purpose and the supporting underlying information is considered reasonable. The infrastructure strategy fulfils the legislative purpose and meets our expectations of such a document and is consistent with our knowledge of asset management planning for the Regional Council.

3.3 Quality of asset-related forecasting information

At the conclusion of the Consultation Document phase we concluded that the Regional Council's asset information provides a reasonable basis for the information and strategies to be included in the CD and LTP. We were also satisfied that reasonable assumptions and assessments regarding the Regional Council's assets for key activities have been appropriately applied in the forecast financial information.

No significant changes were made to asset information as a result of the consultation process.

3.4 Capital expenditure "do-ability"

The final LTP includes \$1,74 billion (\$7.8 million less than the CD stage) of capital expenditure over the 10 years. The decrease was due to the deferring of public transport related projects beyond the 10 years for an amount of \$18.7m with no impact on the levels of service. This was offset by an increase in water related projects of \$9.2m due to the inclusion of overhead charges on projects that were omitted from the amounts included at the CD stage underlying information.

The risk of under-delivery on the current capital programme is high and we understand that efforts are being made to improve the delivery of the programme. However, there are limitations such as market factors, resourcing and personnel which are out of the control of the Regional Council.

3.5 Assumptions

3.5.1 Climate change

The Regional Council has assessed the significant impacts of climate change and has assessed that the level of uncertainty has remain unchanged. The impacts of climate change and natural hazard events along with the current condition, performance and criticalness of assets are considered in the risk assessment of assets across key activities mainly flood protection, bulk water, and public transport.

We are satisfied that the Regional Council's assumptions around climate change and significant impacts are reasonable based on our review of the supporting information. We are also satisfied that they have been appropriately applied in the preparation of the financial statements and other information in the LTP.

3.5.2 Population and demographic changes

We are satisfied that the population and demographic assumptions are reasonable as they are based on independent reports prepared by .id and BERL. We are also satisfied that these assumptions have been consistently applied in the forecast financial information through walkthroughs, analytical reviews, and analysis performed on the financial model and forecast financial statements.

3.5.3 Economic Assumptions

We are satisfied that the economic assumptions are reasonable as they are based on an independent report prepared by BERL. We are also satisfied that the economic assumptions have been consistently applied in the forecast financial information through walkthroughs, analytical reviews, and analysis performed on the financial model and forecast financial statements.

3.5.4 Other assumptions

We are satisfied that the assumptions applied by the Regional Council are appropriate, complete and have been consistently applied in the financial forecasts for LTP purposes.

3.5.5 Performance Framework

We are satisfied the forecast performance framework is appropriate, complies with relevant legislation and generally accepted accounting practice.

4 Other areas of focus

Wellington Water Limited (WWL) - omission to allocate corporate charge to capital programme

WWL identified an omission in allocating overhead charges on capital projects included in the LTP. The Council resolved to include this in the LTP which has resulted in an adjustment of \$9,2million. The Regional Council has adjusted their financials to cover the additional charges and will fund this through borrowings which has not impacted the Regional Council's debt benchmarks.

We have assessed the response by the Regional Council, and we satisfied that the adjustment has been appropriately applied in the preparation of the financial statements and other information in the LTP.

5 Publication of the LTP on the Regional Council's website

As the Regional Council intended to publish the LTP electronically, we asked for time to examine the final electronic file version of the plan incorporating the audit report before uploading onto your website.

We completed our examination of the final electronic file version of the LTP and ensured it is consistent with the paper-based documents that we have audited and issued our audit report on.

Appendix 1: Disclosures

Area	Key messages
Our responsibilities in conducting the audit	<p>We carried out this audit on behalf of the Controller and Auditor-General. We are responsible for expressing an independent opinion on the Consultation Document and reporting that opinion to you. This responsibility arises from section 93C(4) of the Local Government Act 2002.</p> <p>The audit of the Consultation Document does not relieve management or the Council of their responsibilities.</p> <p>Our audit engagement letter dated 27 February 2024 contains a detailed explanation of the respective responsibilities of the auditor and the Council.</p>
Auditing standards	<p>Our audit has been carried out in accordance with the International Standard on Assurance Engagements (New Zealand) 3000 (revised): <i>Assurance Engagements Other Than Audits or Reviews of Historical Financial Information</i>, the International Standard on Assurance Engagements 3400: <i>The Examination of Prospective Financial Information</i>, and the Auditor-General's Auditing Standards.</p>
Auditor independence	<p>We are independent of the Regional Council in accordance with the independence requirements of the Auditor-General's Auditing Standards, which incorporate the independence requirements of Professional and Ethical Standard 1: Code of Ethics for Assurance Practitioners, issued by New Zealand Auditing and Assurance Standards Board.</p> <p>In addition to our work of the Regional Council's LTP and in carrying out all legally required external audits, we will perform the Regional Council's debenture trust deed assurance engagement.</p> <p>Other than these engagements, we have no relationship with or interests in the Regional Council or any of its subsidiaries and controlled entities.</p>
Fees	<p>The audit fee for the LTP audit is \$150,900, as detailed in our Audit Engagement Letter.</p>
Other relationships	<p>We are not aware of any situations where a spouse or close relative of a staff member involved in the audit occupies a position with the Regional Council that is significant to the audit.</p> <p>We are not aware of any situations where a staff member of Audit New Zealand has accepted a position of employment with the Regional Council during or since the audit.</p>

AUDIT NEW ZEALAND
Mana Arotake Aotearoa

PO Box 99
Wellington 6140
Phone: 04 496 3099

www.auditnz.parliament.nz



Finance, Risk and Assurance Committee
13 August 2024
Report 24.399



For Information

AUDIT PLANS FOR THE FINANCIAL YEAR ENDED 30 JUNE 2024

Te take mō te pūrongo

Purpose

1. For the Finance, Risk and Audit Committee (the Committee) to receive the audit plans issued to Greater Wellington Regional Council (Greater Wellington), WRC Holdings Limited (WRCHL) and Greater Wellington Rail Limited (GWRL) by external auditors Audit New Zealand (Audit NZ).

Te tāhū kōrero

Background

2. The Auditor-General has appointed Audit NZ to carry out the audit of Greater Wellington, WRCHL and GWRL for the financial year ended 30 June 2024.
3. As required by the Auditor-General, Audit NZ have provided Greater Wellington, WRCHL and GWRL with an audit plan.
4. The audit plan sets out the areas of audit focus, risks & issues, audit timelines and audit process for 2023/24 financial year (Refer [Attachments 1, 2 and 3](#)).

Te tātaritanga

Analysis

5. The audit timetable is outlined below:

Entity	Audit visit	Dates
GWRC	Interim audit (2 weeks)	3 June to 14 June 2024
GWRC	Final audit (4 weeks)	26 August to 27 September 2024
GWRL	Interim audit (2 weeks)	20 May to 1 June 2024
GWRL	Final audit (4 weeks)	19 August to 30 August 2024
WRCHL	Final audit (4 weeks)	9 September to 20 September 2024

6. Audit NZ will cover the below key audit risks during their group audit visit:
 - a. The risk of management override of internal controls (including WRCHL & GWRL)
 - b. Valuation of flood protection assets

- c. Fair value assessment of property, plant and equipment (including WRCHL & GWRL)
 - d. Measurement of greenhouse gas emissions
 - e. Completeness and accuracy of fare revenue
 - f. Impact of Three Water Reforms Repeal Act
 - g. Adjustments to ensure CentrePort results are correctly incorporated into WRCHL group results.
7. The WRCHL and GWRL annual report is expected to be adopted by the Board of the respective entities by 30 September 2024.
 8. The draft Greater Wellington Annual Report 2023/24 is intended to be presented to the Committee on 10 October 2024 and the final Greater Wellington Annual Report 2023/24 is expected to be adopted by the Council on 31 October 2024.

Ngā hua ahumoni
Financial implications

9. There are no financial implications arising from this report.

Ngā Take e hāngai ana te iwi Māori
Implications for Māori

10. There are no known impacts for Maori.

Ngā tūāoma e whai ake nei
Next steps

11. Officers will report to the Committee on progress of the audit in future Committee meetings.

Ngā āpitihanga
Attachments

Number	Title
1	GWRC Audit Plan 2024
2	WRCHL Audit Plan 2024
3	GWRL Audit Plan 2024

Ngā kaiwaitohu
Signatories

Writer	Ashwin Pai – Head of Finance
Approver	Alison Trustrum-Rainey – Group Manager Finance & Risk

He whakarāpopoto i ngā huritaonga Summary of considerations
<i>Fit with Council's roles or Committee's terms of reference</i> The Committee's specific responsibilities include to 'review the Council's audit plan from the external auditors.
<i>Contribution to Annual Plan / Long term Plan / Other key strategies and policies</i> External audit provides assurance that the policies, controls, processes and systems in place at the Council will enable efficient delivery of the Long Term Plan, Annual Plan and Annual Report.
<i>Internal consultation</i> Finance, Strategy and other relevant people involved with the audit plan were consulted.
<i>Risks and impacts: legal / health and safety etc.</i> The Council's management of relevant risks is addressed in the report.

R

Audit plan

Greater Wellington Regional Council

For the year ending 30 June 2024

Audit plan

I am pleased to present our audit plan for the audit of Greater Wellington Regional Council (the Council) for the year ending 30 June 2024. The purpose of this audit plan is to discuss:

Audit risks and issues.....	2
Group audit.....	8
Our audit process	9
Reporting protocols	14
Audit logistics.....	15
Expectations.....	18

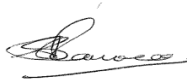
The contents of this plan should provide a good basis for discussion when we meet with you.

We will be happy to elaborate further on the matters raised in this plan.

Our work improves the performance of, and the public's trust in, the public sector. Our role as your auditor is to give an independent opinion on the financial statements and performance information. We also recommend improvements to the internal controls relevant to the audit.

If there are additional matters that you think we should include, or any matters requiring clarification, please discuss these with me.

Nāku noa, nā



Clint Ramoo
Appointed Auditor
21 June 2024

Audit risks and issues

Focus areas



Based on the planning work and discussions that we have completed to date, we set out in the table below the main audit risks and issues. These will be the main focus areas during the audit.

Audit risk/issue	Our audit response
The risk of management override of internal controls	
<p>There is an inherent risk in every organisation of fraud resulting from management override of internal controls.</p> <p>Management are in a unique position to perpetrate fraud because of their ability to manipulate accounting records and prepare fraudulent financial statements by overriding controls that otherwise appear to be operating effectively.</p> <p>Auditing standards require us to treat this as a risk on every audit.</p>	<p>Our audit response to this risk includes:</p> <ul style="list-style-type: none"> • testing the appropriateness of selected journal entries; • reviewing accounting estimates for indications of bias; and • evaluating any unusual or one-off transactions, including those with related parties.
Valuation of flood protection assets.	
<p>The Council revalues its infrastructure assets held at fair value whenever there is expected to be a material movement in the fair value of these assets. The last revaluation was performed in 2020. Because of the recent inflationary environment most councils have been revaluing more frequently.</p> <p>The accuracy of the valuation depends on the valuation method applied, the completeness and accuracy of the source data and the appropriateness of underlying assumptions. Because of the large value of the assets held by the Council, a small movement in the key assumptions can have a significant impact on the valuation and consequential depreciation expense recognised in the financial statements.</p>	<p>We will:</p> <ul style="list-style-type: none"> • review the valuation report to assess the competence and experience of the person completing the valuation and whether the requirements of PBE IPAS 17 <i>Property, Plant and Equipment</i> (including the appropriateness of the valuation basis) have been met; • audit the method of valuing the assets and assess if the valuation method used is in line with the financial reporting framework; • review the reasonableness of the data and key assumptions used; and • assess the presentation and disclosure of information related to the valuation in the financial statements.

Audit risk/issue	Our audit response
Fair value assessment of property, plant and equipment (non-revaluation year)	
<p>For those assets that the Council is not planning to revalue, the Council should perform a fair value movement assessment (assessment) to determine whether there is a significant difference between the fair value and the carrying value. Where the estimated difference is significant a revaluation may be necessary.</p> <p>An assessment should:</p> <ul style="list-style-type: none"> • factor in local cost information; • utilise relevant and reliable price movement indicators; and • involve consulting with valuers, if necessary. <p>Alternatively Council could engage valuers to assist in preparing a fair value assessment.</p>	<p>We will review the reasonableness of Council’s assessment including the appropriateness of the assumptions used in the assessment.</p> <p>If the movement of the assets individually or in combination with other asset classes is significant the Council may need to complete a revaluation. In certain circumstances it <i>may</i> be acceptable to make an adjustment based on the desktop revaluation.</p>

Audit risk/issue	Our audit response
Measurement of greenhouse gas emissions	
<p>The Council has included two measures of greenhouse gas emissions (GHG) in its performance information. We consider these to be material performance measures because the Council has declared a climate emergency and because of the public interest in climate change related information.</p> <p>Reduction in tonnes of CO2 equivalent (tCO2e) emissions</p> <p>The Council’s performance information includes a performance measure on the quantity of GHG emissions from the Council and Group. This includes emissions generated directly by the Group itself, emissions from the services that the Council is responsible for (such as public transport) and emissions from the use of the Council’s assets (such as grazing in regional parks). The Council is still developing the systems and controls needed to produce reliable evidence to support the data inputs and estimations used in the measurement of GHG emissions. This includes the measurement of material emissions from public transport and grazing activities which rely on data from third parties.</p> <p>Tonnes of CO2 emitted per year on Metlink Public Transport Services</p> <p>The Council’s performance information also includes a performance measure specifically on the quantity of emissions generated from Metlink Public Transport services.</p> <p>In the 2022/23 financial year we modified our opinion, because we did not obtain sufficient appropriate evidence to conclude whether the reported performance for both measures was materially correct as we were unable to verify the reliability of inputs into the model used to calculate emissions or the robustness of the model itself.</p>	<p>Our audit response to this risk includes:</p> <ul style="list-style-type: none"> • following up on progress Council has made in terms of providing audit evidence to support the assumptions used in the model; • evaluate the robustness of the model and any independent testing undertaken by Council; • obtaining sufficient appropriate evidence to conclude whether the reported performance is materially correct. • If we are unable to obtain sufficient audit evidence, we will consider alternative audit procedures, failing which we will consider the impact on our audit report.

Audit risk/issue	Our audit response
Completeness and accuracy of fare revenue	
<p>During the 2022/23 financial year, the Council migrated its Public Transport fare collection systems to Snapper for both trains and buses.</p> <p>Obtaining assurance over the completeness and accuracy of fare revenue is complex due to:</p> <ul style="list-style-type: none"> • Different fares applied throughout the period; • Different fares applicable to different users at different times of the day; • Changes in patrons behaviours post Covid; and • The reliability of services due to driver shortages etc. <p>In the past we have been able to perform a high level analytical review of fare revenue month by month using patronage data and compared this to previous year's data and evaluate any material variances.</p> <p>Given the migration to Snapper this approach is not longer possible.</p>	<p>In order to obtain assurance over the completeness and accuracy of fare revenue, we will:</p> <ul style="list-style-type: none"> • Engage with Council's internal audit team to undertake an Information Technology General Controls review of the Snapper IT environment; • Update our understanding of the systems and controls in place at Council for recording fare revenue from Snapper; • Using our data analytics team, perform a reconciliation between fares collected by Snapper and amounts recorded in Council's general ledger; • Test a sample of fares to ensure they have been charged in accordance with published fares and distances travelled.
Impact of Three Water Reforms Repeal Act	

Audit risk/issue	Our audit response
<p>The Government announced a new direction for water services on 14 December 2023. Local Water Done Well is the Government’s plan to address New Zealand’s long-standing water infrastructure challenges. On 12 February 2024, the Government provided an update on progress and outlined the plan for the next 12-18 months to implement Local Water Done Well.</p> <p>The Government will pass a bill that will repeal the previous Government’s Water Services Act. Currently, there is no final version of the bill. On 23 February 2024, the bill underwent the third reading. Specifically, the Bill will repeal the Water Services Entities Act 2022, Water Services Legislation Act 2023, and Water Services Economic Efficiency and Consumer Protection Act 2023. Other water legislation (the Water Services Act 2021 and Taumata Arowai—the Water Services Regulator Act 2020) are to remain in place for the time-being.</p> <p>Further legislation to implement Local Water Done Well will progress in a two-stage approach. The first bill, which will establish the framework and transitional arrangements for the new water services system, will be passed by the middle of 2024. A second bill to provide for the long-term replacement regime will be introduced in December 2024.</p> <p>The Council should ensure that there is sufficient disclosure about the impacts of the water services legislation (to the extent the impact is known) within the financial statements.</p>	<p>We will continue to monitor any significant developments and assess the implications on the financial statements.</p> <p>We will review the appropriateness of the Council’s disclosure about the Government’s legislative programme and other progress to implement the reforms (to the extent that the impact is known) after year end, in its financial statements.</p> <p>Where there are uncertainties over the process of the Three Waters Reform Repeal Act and introduction of Local Water Done Well at 30 June 2024, we are likely to include emphasis of matter paragraph in our audit report to draw a reader’s attention to the Council’s disclosure about water services</p>

As noted above, In the current year ,we are embarking on comprehensive audit of public transport revenue as well as performance measures focusing on punctuality for bus and rail. To achieve accurate and reliable results, we have decided to leverage the expertise of our data analytics team. By utilising data analytics , we aim to identify any patterns, anomalies and correlations within data.

To ensure the accuracy and reliability of the data, our data analytics team will collaborate closely with your service providers who manage the data.

Please tell us about any additional matters we should consider, or any specific risks that we have not covered. Additional risks may also emerge during the audit. These risks will be factored into our audit response and our reporting to you.

Fraud risk

Misstatements in the financial statements and performance information can arise from either fraud or error. The distinguishing factor between fraud and error is whether the underlying action is intentional or unintentional. In considering fraud risk, two types of intentional misstatements are relevant - misstatements resulting from fraudulent reporting, and misstatements resulting from misappropriation of assets.

The primary responsibility for the prevention and detection of fraud and error rests with the Council (as the governing body), with assistance from management. In this regard, we will discuss the following questions with you:

- What role does Council play in relation to fraud? How do you monitor management's exercise of its responsibilities?
- Has a robust fraud risk assessment been completed? If so, is the Council satisfied that it had appropriate input into this process?
- How does management provide assurance that appropriate internal controls to address fraud risks are in place and operating?
- What protocols/procedures have been established between the Council and management to keep you informed of instances of fraud, either actual, suspected, or alleged?
- Are you aware of any actual, suspected, or alleged fraud? If so, have the results of management's investigation been reported to ? Has appropriate action been taken on any lessons learned?

Our responsibility

Our responsibility is to obtain reasonable, but not absolute, assurance that the financial statements and performance information are free from material misstatement resulting from fraud. Our approach to obtaining this assurance is to:

- identify fraud risk factors and evaluate areas of potential risk of material misstatement;
- evaluate the effectiveness of internal controls in mitigating the risks;
- perform substantive audit procedures; and
- remain alert for indications of potential fraud in evaluating audit evidence.

The Auditor-General has published useful information on fraud that can be found at oag.parliament.nz/reports/fraud-reports.

Group audit



The group comprises:

- Greater Wellington Regional Council;
- Wellington Regional Council Holdings Limited and its subsidiaries:
 - Greater Wellington Rail Limited; and
 - CentrePort Limited

Our auditor’s report covers the group as a whole. Our audit approach is developed to ensure we have sufficient information to give an opinion on the group. In designing our group audit approach, we considered the structure of the group and identified the entities which are included in the group financial statements. Each entity is referred to as a component. We have assessed the risks of material misstatement and have identified our approach for each component. The table below shows the work planned for each significant component.

Significant component	Work to be performed
CentrePort Limited	<p>This component will be audited by Hamish Anton from Deloitte.</p> <p>Group instructions will be issued to the component auditor that will specify information we require.</p> <p>The group audit risks relevant to this component are:</p> <ul style="list-style-type: none"> • CentrePort’s fair value assessment of property, plant and equipment (non-revaluation year); and • Risk of management override of controls. <p>The audit work on this component will be a full financial statements and performance report audit.</p>
Wellington Regional Council Holdings Limited	<p>These components will be audited by me.</p> <p>The audit work on these components will be a full financial statements and performance report audit.</p>
Greater Wellington Rail Limited	

We will report any significant internal control deficiencies to the and management of the group. This will include any deficiencies identified by the group engagement team or brought to our attention by the component auditor. We will communicate deficiencies related to group-wide internal controls; or internal controls at each component.

We will also communicate any fraud identified by the group engagement team or brought to our attention by the component auditor.

Our audit process

Initial planning

Initial planning activities include verifying compliance with independence requirements and building the audit team.

Understand your business and environment

We use our extensive sector and business knowledge to make sure we have a broad and deep understanding of the Council, your business, and the environment you operate in.

Assess audit risk

We use our knowledge of the business, the sector and the environment to identify and assess the risks that could lead to a material misstatement in the financial statements and performance information.

Evaluate internal controls

We update our understanding of internal controls relevant to the audit. This includes reviewing the control environment, risk assessment process, and relevant aspects of information systems controls. Most of this work is done during the initial audit visits. We evaluate internal controls relevant to the audit for the whole financial year, so we consider internal controls relevant to the audit at all visits.

Finalise the audit approach

We use the results of the internal control evaluation to determine how much we can rely on the information produced from your systems during our final audit.

Gather audit evidence

During the final audit we audit the balances, disclosures, and other information included in the Council's financial statements and performance information.

Conclude and report

We will issue our audit report on the financial statements and performance information. We will also report to the Council covering any relevant matters that come to our attention.

Materiality

In performing our audit, we apply materiality. In the public sector, materiality refers to information that if omitted, misstated, or obscured could reasonably be expected to:

- influence readers’ overall understanding of the financial statements and service performance information; and
- influence readers in making decisions about the stewardship and allocation of resources, or assessing your performance.

This definition of materiality is broader than the one used in the private sector.

It is a matter of judgement whether information is material. We consider the nature (qualitative) and amount (quantitative) of each item judged in the surrounding circumstances and its impact. In the public sector qualitative considerations are of equal significance as quantitative considerations. Qualitative considerations are of primary importance in our assessment of materiality in the context of disclosures for transparency and accountability reasons, and in evaluating any non-compliance with laws and regulations.

The Council and management need to consider materiality in preparing the financial statements and service performance information and make their own assessment of materiality from a preparer’s perspective. IFRS Practice Statement 2, *Making Materiality Judgements*, provides guidance on how to make materiality judgements from a financial statements preparer’s perspective. Although this guidance is primarily aimed at for-profit entities, the same principles can be applied by public benefit entities. Management and the Council should not rely on our materiality assessment as a basis for owning and making judgements about the integrity of the financial statements and service performance information.

Financial statements materiality

For planning purposes we have set **overall group materiality** for the financial statements at \$184,700,000 based on the forecasts for the 2024 financial year. This is subject to change once the actual results for the current year are available. For this audit we are only applying this overall group materiality to the fair value of property, plant and equipment.

For this audit we have set a lower, **specific group materiality** of \$19,100,000 for all items not related to the fair value of property, plant and equipment.

Overall group materiality	\$184,700,000
Specific group materiality	\$19,100,000
Group clearly trivial threshold	\$955,000
Overall parent materiality	\$130,000,000
Specific parent materiality	\$16,100,000
Parent clearly trivial threshold	\$805,000

We have set **overall parent materiality** for the financial statements at \$130,000,000 based on forecasts for the 2024 financial year. This is subject to change once the actual results for the current year are available. For this audit we are only applying this overall parent materiality to the fair value of property, plant and equipment. We have set a lower, **specific materiality** of \$16,100,000 for all items not related to the fair value of property, plant and equipment.

We also set a lower, **specific materiality** for some items due to their sensitivity. For example, we apply a lower specific materiality to related party and key management personnel disclosures.

We design our audit procedures to detect misstatements at a lower level than overall materiality. This takes account of the risk of cumulative misstatements and provides a safety net against the risk of undetected misstatements.

We will report all uncorrected misstatements to the Council other than those that are **clearly trivial**. We consider misstatements of less than \$955,000 to be clearly trivial for the **group** financial statements and misstatements of less \$805,000 to be clearly trivial for the **parent** financial statements unless there are qualitative considerations that heighten its significance. We will ask for each misstatement to be corrected, other than those that are clearly trivial. Where management does not wish to correct a misstatement, we will seek written representations from management and the Council on the reasons why the corrections will not be made.

Misstatements

Misstatements are differences in, or omissions of, amounts and disclosures that may affect a reader’s overall understanding of your financial statements and service performance information. The effects of any detected and uncorrected misstatements, individually and in aggregate, are assessed against overall materiality and qualitative considerations.

Overall financial statement materiality does not apply to any matters of effectiveness and efficiency, waste, or a lack of probity or financial prudence.

Materiality for service performance information

At an overall level, we assess whether the service performance information is suitable, given your purpose and the nature of your activities, and whether the reporting allows for an informed assessment of the Council’s performance. In doing this we consider whether the information is relevant, complete, reliable, neutral, and understandable.

We set materiality for service performance information at an individual measure level based on what we expect would influence readers’ overall understanding, decision making, or assessment of the Regional Council’s performance. We consider a variety of factors including the level of public interest and potential public risk. Because of the variety of measurement bases applied, we normally express this materiality as a percentage of the reported result.

We have identified the following measures as material and assessed materiality for planning purposes. We will reassess this during the audit.

Material measure	Materiality
Percentage of scheduled bus trips that depart their timetabled starting location on time (punctuality) – to 5 minutes	5% of result
Percentage of scheduled rail services on-time (punctuality) – to 5 minutes	5% of result
Tonnes of CO2 emitted per year on Metlink Public Transport Services	8% of result
Reduction in tonnes of CO2 equivalent emissions	8% of result

Material measure	Materiality
Monitor compliance with resource consents: rates of compliance for high-risk activities where historical compliance rates are below 80%	5% of result
Major flood protection and control works are maintained, repaired, and renewed to the key standards defined in the relevant planning documents.	0% (Target is Yes or No)
Percent of identified vulnerable floodplains with a FMP in place	8% of result
Number of events in the bulk water supply preventing the continuous supply of drinking water to consumers	5% of result
Compliance with part 4 of the drinking water standards (bacteria compliance criteria)	0% of result
Compliance with part 5 of the drinking water standards (protozoal compliance criteria)	0% of result
Where the local authority attends a call-out in response to a fault or unplanned interruption to its networked reticulation system, the following median response times measured:	
1 attendance of urgent call-outs: time from local authority receiving notification to service personnel reach the site	8% of result
2 resolution of urgent call-outs: time from local authority receiving notification to service personnel confirming resolution	8% of result

Professional judgement and professional scepticism

Many of the issues that arise in an audit, particularly those involving valuations or assumptions about the future, involve estimates. Estimates are inevitably based on imperfect knowledge or dependent on future events. Many financial statement items involve subjective decisions or a degree of uncertainty. There is an inherent level of uncertainty which cannot be eliminated. These are areas where we must use our experience and skill to reach an opinion on the financial statements and performance information.

The term “opinion” reflects the fact that professional judgement is involved. Our audit report is not a guarantee but rather reflects our professional judgement based on work performed in accordance with established standards.

Auditing standards require us to maintain professional scepticism throughout the audit. Professional scepticism is an attitude that includes a questioning mind and a critical assessment of audit evidence. Professional scepticism is fundamentally a mind-set. A sceptical mind-set drives us to adopt a questioning approach when considering information and in forming conclusions.

Exercising professional scepticism means that we will not accept everything we are told at face value. We will ask you and management to provide evidence to support what you tell us. We will also challenge your judgements and assumptions and weigh them against alternative possibilities.

How we consider compliance with laws and regulations

As part of the Auditor-General's mandate, we consider compliance with laws and regulations that directly affect your financial statements or general accountability. Our audit does not cover all of your requirements to comply with laws and regulations.

Our approach involves first assessing the systems and procedures that you have in place to monitor and manage compliance with laws and regulations relevant to the audit. We may also complete our own checklists. In addition, we will ask you about any non-compliance with laws and regulations that you are aware of. We will evaluate the effect of any such non-compliance on our audit.

Wider public sector considerations

A public sector audit also examines whether:

- the Regional Council carries out its activities effectively and efficiently;
- waste is occurring or likely to occur as a result of any act or failure to act by the Regional Council;
- there is any sign or appearance of a lack of probity as a result of any act or omission by the Regional Council or by one or more of its members, office holders, or employees; and
- there is any sign or appearance of a lack of financial prudence as a result of any act or omission by the Regional Council or by one or more of its members, office holders, or employees.

Reporting protocols

Communication with management and the Regional Council



We will meet with management and the Regional Council throughout the audit. We will maintain ongoing, proactive discussion of issues as and when they arise to ensure there are “no surprises”.

Reports to the Regional Council



We will provide a draft of all reports to management for discussion/clearance purposes. Once management comments are received the report will be finalised and provided to the Council.

We will also follow up on your progress in responding to our previous recommendations.

Audit logistics

Our team



Our engagement team is selected to ensure that we have the right subject matter expertise and sector knowledge. Each member of the audit team has received tailored training to develop their expertise.

Our senior audit team members are:

Clint Ramoo	Appointed Auditor
Debbie Perera	Engagement Quality Review Director
Nosiviwe Tsotso	Audit Manager

The Engagement Quality Review (EQR) Director forms an important part of our internal quality assurance process to maintain and enhance the quality of your audit. The EQR Director is an experienced Audit Director who has sufficient and appropriate experience to objectively evaluate the judgements made by the audit team. They are independent from the day to day audit field work, and so can provide an independent challenge to the audit team on their judgements. The EQR will work with your Appointed Auditor and the audit team, but will not have direct contact with you.

Timetable



We set out below the proposed dates for our interim and final audit as well as the planned adoption date of the Annual Report based on discussions with management. The timetable is subject to change due to the impact of the nationwide auditor shortage and any Covid-19 related implications

Description	Dates
Planning audit begins (for 1 week)	27 May 2024
Interim and Pre-final audit begin (for 2 weeks)	03 June 2024
Draft interim report	30 June 2024
Draft financial statements (Council only) and council services statements available for audit (including notes to the financial statements) with actual year-end figures	4 September 2024
Final audit begins (4 weeks)	26 August- 27 September 2024
Consolidated Annual Report available, including Chair and Chief Executive's overview or reports	16 September 2024

Attachment 1 to Report 24.339

Provide audit feedback and audit adjustment	18 September 2024
Final financial statements available, incorporating all the amendments agreed to between us and the Annual Report available, including any Chair and Chief Executive’s overview or reports	08 October 2024
Summary of Annual Report	11 October 2024
Verbal audit clearance given	15 October 2024
Draft report to the Council issued	25 October 2024
Audit opinion issued	28 October 2024

AuditDashboard

For the year ending 30 June 2024, we will again make use of our online portal, AuditDashboard, to transfer files between your employees and Audit New Zealand. Overall, the use of AuditDashboard has made it easy to fulfill requests. Real time status updates provided greater visibility to everyone and helped to keep everyone organised and on the same page.

The benefits of AuditDashboard

Your team will be invited to collaborate on one central request list in a shared space. The ability to drag and drop files makes it easy to fulfill requests. Real-time status updates provide greater visibility to everyone and helps to keep everyone organised and on the same page. It will be easy to:

- see what has been asked for;
- assign specific tasks to your own people and see who each request is assigned to;
- see when each request is due and track the progress of requests;
- exchange information securely; and
- see what has been uploaded.

There will be no change to the information that the audit team asks for. Rather than emailing an Excel spreadsheet, we will request information using AuditDashboard, which your team will then use to upload files.

Expectations



For the audit process to go smoothly for both you and us, there are expectations that each of us need to meet.

Our respective responsibilities are set out in our audit engagement letter.

We expect that:

- you will provide us with access to all relevant records and provide information in a timely manner;
- staff will provide an appropriate level of assistance;
- the draft financial statements, including all relevant disclosures, will be available in accordance with the agreed timetable;
- management will make available a detailed workpaper file supporting the information in the financial statements; and
- the annual report, financial statements and performance information will be subjected to appropriate levels of quality review before being provided to us.

To help you prepare for the audit, we will liaise with management and provide them with a detailed list of the information we will need for the audit.

Health and safety



The Auditor-General and Audit New Zealand take seriously their responsibility to provide a safe working environment for audit staff.

Under the Health and Safety at Work Act 2015, we need to make arrangements with management to keep our audit staff safe while they are working at your premises.

We expect you to provide a work environment for our audit staff that minimises or, where possible, eliminates risks to their health and safety. This includes providing adequate lighting and ventilation, suitable desks and chairs, and safety equipment where required. We also expect management to provide them with all information or training necessary to protect them from any risks they may be exposed to at your premises. This includes advising them of emergency evacuation procedures and how to report any health and safety issues.

AUDIT NEW ZEALAND
Mana Arotake Aotearoa

www.auditnz.parliament.nz

PO Box 99
Wellington 6140
Phone: 04 496 3099



Attachment 2 to Report 24.399

AUDIT NEW ZEALAND

Mana Arotake Aotearoa

Audit plan

WRC Holding Limited Group

For the year ended 30 June 2024

Audit plan

I am pleased to present our audit plan for the year ended 30 June 2024 for the audit of WRC Holdings Limited (the Company or WRCH)

The purpose of this audit plan is to discuss:

Audit risks and issues.....	2
Group audit.....	4
Our audit process	5
Reporting protocols.....	10
Audit logistics.....	11
Expectations.....	13

The contents of this plan should provide a good basis for discussion when we meet with you.

We will be happy to elaborate further on the matters raised in this plan.

Our role as your auditor is to give an independent opinion on the financial statements and performance information. We also recommend improvements to the internal controls relevant to the audit.

If there are additional matters that you think we should include, or any matters requiring clarification, please discuss these with me.

Nāku noa, nā



Clint Ramoo
Appointed Auditor
9 July 2024

Audit risks and issues

Focus areas



Based on the planning work and discussions that we have completed to date, we set out in the table below the main audit risks and issues. These will be the main focus areas during the audit.

Audit risk/issue	Our audit response
The risk of management override of internal controls	
<p>There is an inherent risk in every organisation of fraud resulting from management override of internal controls. Management are in a unique position to perpetrate fraud because of their ability to manipulate accounting records and prepare fraudulent financial statements by overriding controls that otherwise appear to be operating effectively. Auditing standards require us to treat this as a risk on every audit.</p>	<p>Our audit response to this risk includes:</p> <ul style="list-style-type: none"> • testing the appropriateness of selected journal entries particularly related to the Consolidation. • reviewing accounting estimates for indications of bias; and • evaluating any unusual or one-off transactions, including those with related parties.
Adjustments to ensure CentrePort results are correctly incorporated into the WRC Holdings’ group results	
<p>CentrePort is a for-profit entity as its primary objective is to provide a financial return to equity holders.</p> <p>On the other hand, WRC Holdings is a public benefit entity as its primary objective is to provide goods or services for community or social benefit rather than to provide a financial return to equity holders.</p> <p>Different accounting standards apply to public benefit entities and for-profit entities resulting in differences in the treatment of certain transactions and events.</p> <p>Therefore, when preparing the group financial statements, consideration needs to be given to any accounting adjustments that need to be made to adjust CentrePort results so that they are appropriate for inclusion in the group results.</p>	<p>We will review management’s assessment of any public benefit/for-profit adjustments that need to be incorporated into the information provided by CentrePort.</p> <p>For example, CentrePort as a for-profit-entity must apply a different accounting treatment for leases than Public Benefit Entities, and CentrePort must capitalise borrowing costs in respect of “qualifying assets” whereas WRC Holdings expenses all borrowing costs. These accounting treatments are appropriate for both entities but does mean that adjustments need to be made in the WRC Holdings group financial statements.</p>

Please tell us about any additional matters we should consider, or any specific risks that we have not covered. Additional risks may also emerge during the audit. These risks will be factored into our audit response and our reporting to you.

Fraud risk

Misstatements in the financial statements and performance information can arise from either fraud or error. The distinguishing factor between fraud and error is whether the underlying action is intentional or unintentional. In considering fraud risk, two types of intentional misstatements are relevant – misstatements resulting from fraudulent reporting, and misstatements resulting from misappropriation of assets.

The primary responsibility for the prevention and detection of fraud and error rests with the Board, with assistance from management. In this regard, we will discuss the following questions with you:

- What role does the Board play in relation to fraud? How do you monitor management's exercise of its responsibilities?
- Has a robust fraud risk assessment been completed? If so, is the Board satisfied that it had appropriate input into this process?
- How does management provide assurance that appropriate internal controls to address fraud risks are in place and operating?
- What protocols/procedures have been established between the Board and management to keep you informed of instances of fraud, either actual, suspected, or alleged?
- Are you aware of any actual, suspected, or alleged fraud? If so, have the results of management's investigation been reported to ? Has appropriate action been taken on any lessons learned?

Our responsibility

Our responsibility is to obtain reasonable, but not absolute, assurance that the financial statements and performance information are free from material misstatement resulting from fraud. Our approach to obtaining this assurance is to:

- identify fraud risk factors and evaluate areas of potential risk of material misstatement;
- evaluate the effectiveness of internal controls in mitigating the risks;
- perform substantive audit procedures; and
- remain alert for indications of potential fraud in evaluating audit evidence.

The Auditor-General has published useful information on fraud that can be found at oag.parliament.nz/reports/fraud-reports.

Group audit



The group comprises:

- WRC Holdings Limited (the Company);
- Greater Wellington Rail Limited (GWRL); and
- CentrePort Limited (CentrePort).

Our auditor's report covers the group as a whole. Our audit approach is developed to ensure we have sufficient information to give an opinion on the group. In designing our group audit approach, we considered the structure of the group and identified the entities which are included in the group financial statements. Each entity is referred to as a component. We have assessed the risks of material misstatement and have identified our approach for each component. The table below shows the work planned for each significant component.

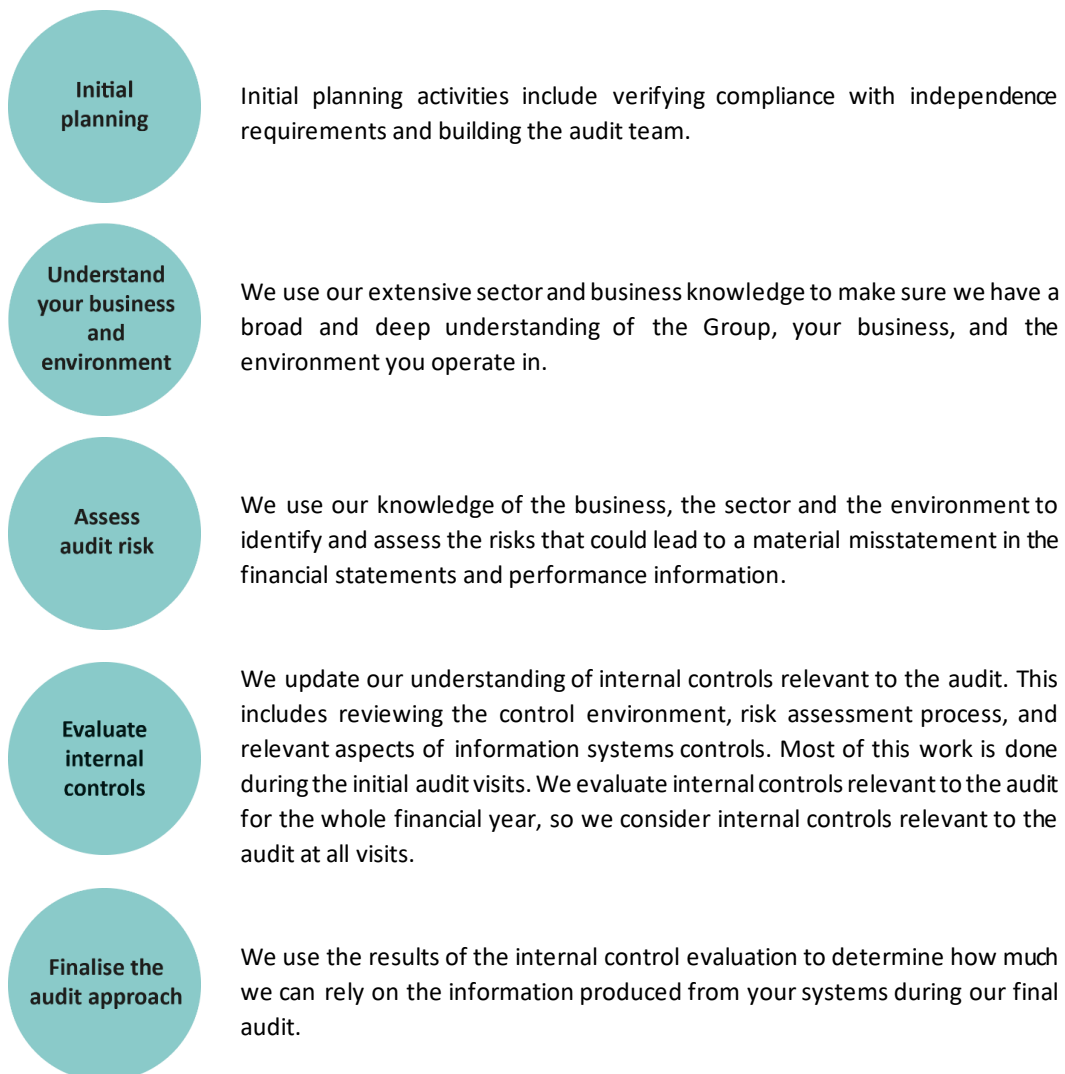
Significant component	Work to be performed
CentrePort Limited	<p>This component will be audited by Deloitte. The Appointed Auditor for CentrePort is Hamish Anton.</p> <p>Group instructions have been issued to the component auditor that specify information we require.</p> <p>The group audit risks relevant to this component are:</p> <ul style="list-style-type: none"> • fair value assessment of property, plant and equipment (non-revaluation year) • risk of management override of controls. <p>The audit work on this component will be a full financial statements audit.</p> <p>As the Group Auditors, we will meet with Deloitte throughout the audit to ensure that we are satisfied as to the adequacy of their work for the purposes of inclusion of CentrePort's financial statements in the Group financial statements.</p>
Greater Wellington Rail Limited (GWRL)	<p>GWRL will be audited by me as the auditor for the Greater Wellington Regional Council and the Company.</p> <p>The group audit risks relevant to this component are:</p> <ul style="list-style-type: none"> • fair value assessment of property, plant and equipment (non-revaluation year) • risk of management override of controls. <p>The audit work on GWRL will be a full financial statement audit.</p>
WRC Holdings Limited (the Company)	<p>WRCHL is a non significant component and we will perform analytical procedures at the group level to identify unexpected movements.</p>

We will report any significant internal control deficiencies to the Board and management of the group. This will include any deficiencies identified by the group engagement team or brought to our attention by the component auditor. We will communicate deficiencies related to:

- group-wide internal controls; or
- internal controls at each component.

We will also communicate any fraud identified by the group engagement team or brought to our attention by the component auditor.

Our audit process





During the final audit we audit the balances, disclosures, and other information included in the group's financial statements and performance information.



We will issue our audit report on the financial statements and performance information. We will also report to the Board covering any relevant matters that come to our attention.

Materiality

In performing our audit, we apply materiality. In the public sector, materiality refers to information that if omitted, misstated, or obscured could reasonably be expected to:

- influence readers' overall understanding of the financial statements and service performance information; and
- influence readers in making decisions about the stewardship and allocation of resources, or assessing your performance.

This definition of materiality is broader than the one used in the private sector.

It is a matter of judgement whether information is material. We consider the nature (qualitative) and amount (quantitative) of each item judged in the surrounding circumstances and its impact. In the public sector qualitative considerations are of equal significance as quantitative considerations. Qualitative considerations are of primary importance in our assessment of materiality in the context of disclosures for transparency and accountability reasons, and in evaluating any non-compliance with laws and regulations.

The WRC Holdings group and management need to consider materiality in preparing the financial statements and service performance information and make their own assessment of materiality from a preparer's perspective. IFRS Practice Statement 2, *Making Materiality Judgements*, provides guidance on how to make materiality judgements from a financial statements preparer's perspective. Although this guidance is primarily aimed at for-profit entities, the same principles can be applied by public benefit entities. Management and the Board should not rely on our materiality assessment as a basis for owning and making judgements about the integrity of the financial statements and service performance information.

Financial statements materiality

Entity	Overall materiality	Specific materiality	Clearly trivial threshold
WRCH group	59,000,000	5,800,000	290,000
GWRL (stand-alone)	41,000,000	3,300,000	165,000
CentrePort Limited (component)	24,000,000	4,720,000	236,000

For planning purposes we have set **overall group materiality** for the financial statements based on budgeted total property, plant and equipment. This is subject to change once the actual results for the current year are available. For this audit we are only applying this overall group materiality to the fair value of property, plant and equipment.

For this audit we have set a lower, **specific group materiality** for all items not related to the fair value of property, plant and equipment.

We design our audit procedures to detect misstatements at a lower level than overall materiality. This takes account of the risk of cumulative misstatements and provides a safety net against the risk of undetected misstatements.

We will report all uncorrected misstatements to the Board other than those that are **clearly trivial**, unless there are qualitative considerations that heighten its significance. We will ask for each misstatement to be corrected, other than those that are clearly trivial. Where management does not wish to correct a misstatement we will seek written representations from management and the Board on the reasons why the corrections will not be made.

Misstatements

Misstatements are differences in, or omissions of, amounts and disclosures that may affect a reader's overall understanding of your financial statements and service performance information. The effects of any detected and uncorrected misstatements, individually and in aggregate, are assessed against overall materiality and qualitative considerations.

Overall financial statement materiality does not apply to any matters of effectiveness and efficiency, waste, or a lack of probity or financial prudence.

Materiality for service performance information

At an overall level, we assess whether the service performance information is suitable, given your purpose and the nature of your activities, and whether the reporting allows for an informed assessment of the WRC Holding group's performance. In doing this we consider whether the information is relevant, complete, reliable, neutral, and understandable.

We set materiality for service performance information at an individual measure level based on what we expect would influence readers' overall understanding, decision making, or assessment of WRC Holding Limited Group's performance. We consider a variety of factors including the level of public

interest and potential public risk. Because of the variety of measurement bases applied, we normally express this materiality as a percentage of the reported result.

We have identified the following measures as material and assessed materiality for planning purposes. We will reassess this during the audit.

Material measure	Materiality
WRC Holdings Board monitor Holdings Group companies' progress against their SOI targets quarterly	5% of result
WRC Holdings receives a quarterly report from CentrePort on its financial and non-financial performance	5% of result
Financial Performance Targets	5% of result

Professional judgement and professional scepticism

Many of the issues that arise in an audit, particularly those involving valuations or assumptions about the future, involve estimates. Estimates are inevitably based on imperfect knowledge or dependent on future events. Many financial statement items involve subjective decisions or a degree of uncertainty. There is an inherent level of uncertainty which cannot be eliminated. These are areas where we must use our experience and skill to reach an opinion on the financial statements and performance information.

The term "opinion" reflects the fact that professional judgement is involved. Our audit report is not a guarantee but rather reflects our professional judgement based on work performed in accordance with established standards.

Auditing standards require us to maintain professional scepticism throughout the audit. Professional scepticism is an attitude that includes a questioning mind and a critical assessment of audit evidence. Professional scepticism is fundamentally a mind-set. A sceptical mind-set drives us to adopt a questioning approach when considering information and in forming conclusions.

Exercising professional scepticism means that we will not accept everything we are told at face value. We will ask you and management to provide evidence to support what you tell us. We will also challenge your judgements and assumptions and weigh them against alternative possibilities.

How we consider compliance with laws and regulations

As part of the Auditor-General's mandate, we consider compliance with laws and regulations that directly affect your financial statements or general accountability. Our audit does not cover all of your requirements to comply with laws and regulations.

Our approach involves first assessing the systems and procedures that you have in place to monitor and manage compliance with laws and regulations relevant to the audit. We may also complete our own checklists. In addition, we will ask you about any non-compliance with laws and regulations that you are aware of. We will evaluate the effect of any such non-compliance on our audit.

Wider public sector considerations

A public sector audit also examines whether:

- WRC Holding Limited Group carries out its activities effectively and efficiently;
- waste is occurring or likely to occur as a result of any act or failure to act by WRC Holding Limited Group;
- there is any sign or appearance of a lack of probity as a result of any act or omission by WRC Holding Limited Group or by one or more of its members, office holders, or employees; and
- there is any sign or appearance of a lack of financial prudence as a result of any act or omission by WRC Holding Limited Group or by one or more of its members, office holders, or employees.

Reporting protocols

Communication with management and the Board



We will meet with management and the Board throughout the audit. We will maintain ongoing, proactive discussion of issues as and when they arise to ensure there are “no surprises”.

Audit logistics

Our team



Our engagement team is selected to ensure that we have the right subject matter expertise and sector knowledge. Each member of the audit team has received tailored training to develop their expertise.

Our senior audit team members are:

Clint Ramoo	Appointed Auditor
Nosiviwe Tsotso	Audit Manager

Timetable- WRC Holding



Our proposed timetable is:

Planning	30 April – 3 May 2024
Draft financial statements available for audit (including notes to the financial statements) with actual year-end figures	5 September 2024
Final audit	9 -20 September 2024
Final financial statements available, incorporating all the amendments agreed to between us	15 September 2024
Annual report available, including any Chair and Chief Executive’s overview or reports	17 September 2024
Draft report to Board and draft audit report	19 September 2024
Audit opinion issued	24 September 2024

AuditDashboard

2022 onwards, we are using AuditDashboard, our online portal, to transfer files between your employees and Audit New Zealand. Overall, the use of AuditDashboard was well received and ensured the audit ran smoothly with information being available in a timely manner.

We will again use AuditDashboard for transferring files as part of the audit.

The benefits of AuditDashboard

Your team will be invited to collaborate on one central request list in a shared space. The ability to drag and drop files makes it easy to fulfil requests. Real-time status updates provide greater visibility to everyone and helps to keep everyone organised and on the same page. It will be easy to:

- see what has been asked for;
- assign specific tasks to your own people and see who each request is assigned to;
- see when each request is due and track the progress of requests;
- exchange information securely; and
- see what has been uploaded.

There will be no change to the information that the audit team asks for. Rather than emailing an Excel spreadsheet, we will request information using AuditDashboard, which your team will then use to upload files.

Expectations



For the audit process to go smoothly for both you and us, there are expectations that each of us need to meet.

Our respective responsibilities are set out in our audit engagement letter.

We expect that:

- you will provide us with access to all relevant records and provide information in a timely manner;
- staff will provide an appropriate level of assistance;
- the draft financial statements, including all relevant disclosures, will be available in accordance with the agreed timetable;
- management will make available a detailed workpaper file supporting the information in the financial statements; and
- the annual report, financial statements and performance information will be subjected to appropriate levels of quality review before being provided to us.

To help you prepare for the audit, we will liaise with management and provide them with a detailed list of the information we will need for the audit.

Health and safety



The Auditor-General and Audit New Zealand take seriously their responsibility to provide a safe working environment for audit staff.

Under the Health and Safety at Work Act 2015, we need to make arrangements with management to keep our audit staff safe while they are working at your premises.

We expect you to provide a work environment for our audit staff that minimises or, where possible, eliminates risks to their health and safety. This includes providing adequate lighting and ventilation, suitable desks and chairs, and safety equipment where required. We also expect management to provide them with all information or training necessary to protect them from any risks they may be exposed to at your premises. This includes advising them of emergency evacuation procedures and how to report any health and safety issues.

AUDIT NEW ZEALAND
Mana Arotake Aotearoa

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Audit plan

Greater Wellington Rail Limited (GWRL)

For the year ended 30 June 2024

Audit plan

I am pleased to present our audit plan for the audit of GWRL for the year ended 30 June 2024.

The purpose of this audit plan is to discuss:

Audit risks and issues	2
Our audit process	4
Reporting protocols	8
Audit logistics	9
Expectations	11

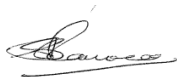
The contents of this plan should provide a good basis for discussion when we meet with you.

We will be happy to elaborate further on the matters raised in this plan.

Our role as your auditor is to give an independent opinion on the financial statements and performance information. We also recommend improvements to the internal controls relevant to the audit.

If there are additional matters that you think we should include, or any matters requiring clarification, please discuss these with me.

Nāku noa, nā



Clint Ramoo
Appointed Auditor
5 July 2024

Audit risks and issues

Focus areas



Based on the planning work and discussions that we have completed to date, we set out in the table below the main audit risks and issues. These will be the main focus areas during the audit.

Audit risk/issue	Our audit response
The risk of management override of internal controls	
<p>There is an inherent risk in every organisation of fraud resulting from management override of internal controls. Management are in a unique position to perpetrate fraud because of their ability to manipulate accounting records and prepare fraudulent financial statements by overriding controls that otherwise appear to be operating effectively. Auditing standards require us to treat this as a risk on every audit.</p>	<p>Our audit response to this risk includes:</p> <ul style="list-style-type: none"> • testing the appropriateness of selected journal entries; • reviewing accounting estimates for indications of bias; and • evaluating any unusual or one-off transactions, including those with related parties.
Fair value of property, plant and equipment (Rolling Stock and Transport Infrastructure)	
<p>The last full revaluation was performed at 30 June 2023. GWRL is not planning to revalue in the current year, but will instead perform a fair value movement assessment (assessment) to determine whether there is a significant difference between the fair value and the carrying value. Where the estimated difference is significant a revaluation may be necessary.</p> <p>An assessment should:</p> <ul style="list-style-type: none"> • factor in local cost information; • utilise relevant and reliable price movement indicators; and • involve consulting with valuers, if necessary. <p>Alternatively, GWRL could engage valuers to assist in preparing a fair value assessment.</p>	<p>We will review the reasonableness of the assessment including the appropriateness of the assumptions used in the assessment.</p> <p>If the movement of the assets individually or in combination with other asset classes is significant GWRL may need to complete a revaluation. In certain circumstances it may be acceptable to make an adjustment based on the desktop revaluation.</p>

Please tell us about any additional matters we should consider, or any specific risks that we have not covered. Additional risks may also emerge during the audit. These risks will be factored into our audit response and our reporting to you.

Fraud risk

Misstatements in the financial statements and performance information can arise from either fraud or error. The distinguishing factor between fraud and error is whether the underlying action is intentional or unintentional. In considering fraud risk, two types of intentional misstatements are relevant – misstatements resulting from fraudulent reporting, and misstatements resulting from misappropriation of assets.

The primary responsibility for the prevention and detection of fraud and error rests with the Board, with assistance from management. In this regard, we will discuss the following questions with you:

- What role does the Board play in relation to fraud? How do you monitor management's exercise of its responsibilities?
- Has a robust fraud risk assessment been completed? If so, is the Board satisfied that it had appropriate input into this process?
- How does management provide assurance that appropriate internal controls to address fraud risks are in place and operating?
- What protocols/procedures have been established between the Board and management to keep you informed of instances of fraud, either actual, suspected, or alleged?
- Are you aware of any actual, suspected, or alleged fraud? If so, have the results of management's investigation been reported to the Board? Has appropriate action been taken on any lessons learned?

Our responsibility

Our responsibility is to obtain reasonable, but not absolute, assurance that the financial statements and performance information are free from material misstatement resulting from fraud. Our approach to obtaining this assurance is to:

- identify fraud risk factors and evaluate areas of potential risk of material misstatement;
- evaluate the effectiveness of internal controls in mitigating the risks;
- perform substantive audit procedures; and
- remain alert for indications of potential fraud in evaluating audit evidence.

The Auditor-General has published useful information on fraud that can be found at oag.parliament.nz/reports/fraud-reports.

Our audit process

Initial planning

Initial planning activities include verifying compliance with independence requirements and building the audit team.

Understand your business and environment

We use our extensive sector and business knowledge to make sure we have a broad and deep understanding of GWRL, your business, and the environment you operate in.

Assess audit risk

We use our knowledge of the business, the sector and the environment to identify and assess the risks that could lead to a material misstatement in the financial statements and performance information.

Evaluate internal controls

We update our understanding of internal controls relevant to the audit. This includes reviewing the control environment, risk assessment process, and relevant aspects of information systems controls. Most of this work is done during the initial audit visits. We evaluate internal controls relevant to the audit for the whole financial year, so we consider internal controls relevant to the audit at all visits.

Finalise the audit approach

We use the results of the internal control evaluation to determine how much we can rely on the information produced from your systems during our final audit.

Gather audit evidence

During the final audit we audit the balances, disclosures, and other information included in GWRL's financial statements and performance information.

Conclude and report

We will issue our audit report on the financial statements and performance information. We will also report to the Board covering any relevant matters that come to our attention.

Materiality

In performing our audit, we apply materiality. In the public sector, materiality refers to information that if omitted, misstated, or obscured could reasonably be expected to:

- influence readers' overall understanding of the financial statements and service performance information; and
- influence readers in making decisions about the stewardship and allocation of resources, or assessing your performance.

This definition of materiality is broader than the one used in the private sector.

It is a matter of judgement whether information is material. We consider the nature (qualitative) and amount (quantitative) of each item judged in the surrounding circumstances and its impact. In the public sector qualitative considerations are of equal significance as quantitative considerations. Qualitative considerations are of primary importance in our assessment of materiality in the context of disclosures for transparency and accountability reasons, and in evaluating any non-compliance with laws and regulations.

The Board and management need to consider materiality in preparing the financial statements and service performance information and make their own assessment of materiality from a preparer's perspective. IFRS Practice Statement 2, *Making Materiality Judgements*, provides guidance on how to make materiality judgements from a financial statements preparer's perspective. Although this guidance is primarily aimed at for-profit entities, the same principles can be applied by public benefit entities. Management and the Board should not rely on our materiality assessment as a basis for owning and making judgements about the integrity of the financial statements and service performance information.

Financial statements materiality

For planning purposes we have set **overall materiality** for the financial statements at \$36,500,000 based on the actual 31 March 2024 total assets. This is subject to change once the final results for the current year are available. For this audit we are only applying this overall materiality to the fair value of property, plant and equipment.

Overall materiality	\$36,500,000
Specific materiality	\$3,300,000
Clearly trivial threshold	\$170,000

For this audit we have set a lower, **specific materiality** of \$3,300,000 for all items not related to the fair value of property, plant and equipment.

A lower specific materiality is also determined separately for some items due to their sensitive nature. For example, a lower specific materiality is determined and applied for related party and key management personnel disclosures.

We design our audit procedures to detect misstatements at a lower level than overall materiality. This takes account of the risk of cumulative misstatements and provides a safety net against the risk of undetected misstatements.

We will report all uncorrected misstatements to the Board other than those that are **clearly trivial**. We consider misstatements of less than \$170,000 to be clearly trivial unless there are qualitative considerations that heighten its significance.

We will ask for each misstatement to be corrected, other than those that are clearly trivial. Where management does not wish to correct a misstatement we will seek written representations from management and the Board on the reasons why the corrections will not be made.

Misstatements

Misstatements are differences in, or omissions of, amounts and disclosures that may affect a reader’s overall understanding of your financial statements and service performance information. The effects of any detected and uncorrected misstatements, individually and in aggregate, are assessed against overall materiality and qualitative considerations.

Overall financial statement materiality does not apply to any matters of effectiveness and efficiency, waste, or a lack of probity or financial prudence.

Materiality for service performance information

At an overall level, we assess whether the service performance information is suitable, given your purpose and the nature of your activities, and whether the reporting allows for an informed assessment of GWRL’s performance. In doing this we consider whether the information is relevant, complete, reliable, neutral, and understandable.

We set materiality for service performance information at an individual measure level based on what we expect would influence readers’ overall understanding, decision making, or assessment of GWRL’s performance. We consider a variety of factors including the level of public interest and potential public risk. Because of the variety of measurement bases applied, we normally express this materiality as a percentage of the reported result.

We have identified the following measures as material and assessed materiality for planning purposes. We will reassess this during the audit.

Material measure	Materiality
Asset Management – Mean distance between failures	5% of result
Customer satisfaction with the overall rail station	5% of result
Customer satisfaction with condition of fleet	5% of result
Rail Fixed Assets – Pedestrian bridges and subways which meet at least 75% of NBS earthquake rating	5% of result

Professional judgement and professional scepticism

Many of the issues that arise in an audit, particularly those involving valuations or assumptions about the future, involve estimates. Estimates are inevitably based on imperfect knowledge or dependent on future events. Many financial statement items involve subjective decisions or a degree of uncertainty. There is an inherent level of uncertainty which cannot be eliminated. These are areas where we must use our experience and skill to reach an opinion on the financial statements and performance information.

The term “opinion” reflects the fact that professional judgement is involved. Our audit report is not a guarantee but rather reflects our professional judgement based on work performed in accordance with established standards.

Auditing standards require us to maintain professional scepticism throughout the audit. Professional scepticism is an attitude that includes a questioning mind and a critical assessment of audit evidence. Professional scepticism is fundamentally a mind-set. A sceptical mind-set drives us to adopt a questioning approach when considering information and in forming conclusions.

Exercising professional scepticism means that we will not accept everything we are told at face value. We will ask you and management to provide evidence to support what you tell us. We will also challenge your judgements and assumptions and weigh them against alternative possibilities.

How we consider compliance with laws and regulations

As part of the Auditor-General’s mandate, we consider compliance with laws and regulations that directly affect your financial statements or general accountability. Our audit does not cover all of your requirements to comply with laws and regulations.

Our approach involves first assessing the systems and procedures that you have in place to monitor and manage compliance with laws and regulations relevant to the audit. We may also complete our own checklists. In addition, we will ask you about any non-compliance with laws and regulations that you are aware of. We will evaluate the effect of any such non-compliance on our audit.

Wider public sector considerations

A public sector audit also examines whether:

- GWRL carries out its activities effectively and efficiently;
- waste is occurring or likely to occur as a result of any act or failure to act by GWRL;
- there is any sign or appearance of a lack of probity as a result of any act or omission by GWRL or by one or more of its members, office holders, or employees; and
- there is any sign or appearance of a lack of financial prudence as a result of any act or omission by GWRL or by one or more of its members, office holders, or employees.

Reporting protocols

Communication with management and the Board



We will meet with management and the Board throughout the audit. We will maintain ongoing, proactive discussion of issues as and when they arise to ensure there are “no surprises”.

Reports to the Board



We will provide a draft of all reports to management and the Board for discussion/clearance purposes. In the interests of timely reporting, we ask management to provide their comments on the draft within 7 working days. Once management comments are received the report will be finalised and provided to the Board.

We will also follow up on your progress in responding to our previous recommendations.

Audit logistics

Our team



Our engagement team is selected to ensure that we have the right subject matter expertise and sector knowledge. Each member of the audit team has received tailored training to develop their expertise.

Our senior audit team members are:

Clint Ramoo	Appointed Auditor
Nosiviwe Tsotso	Audit Manager

Timetable



Our proposed timetable is:

Interim audit begins	20 May to 01 June
Draft financial statements available for audit (including notes to the financial statements) with actual year-end figures	16 August
Final audit begins	19 August to 30 August
Final financial statements available, incorporating all the amendments agreed to between us	28 August
Annual report available, including any Chair and Chief Executive's overview or reports	28 August
Draft report to the Board issued	17 September
Verbal audit clearance given	17 September
Audit opinion issued	24 September

AuditDashboard

For the year ending 30 June 2024, we will again make use of our online portal, AuditDashboard, to transfer files between your employees and Audit New Zealand. Overall, the use of AuditDashboard has made it easy to fulfill requests. Real time status updates provided greater visibility to everyone and helped to keep everyone organised and on the same page.

Expectations



For the audit process to go smoothly for both you and us, there are expectations that each of us need to meet.

Our respective responsibilities are set out in our audit engagement letter.

We expect that:

- you will provide us with access to all relevant records and provide information in a timely manner;
- staff will provide an appropriate level of assistance;
- the draft financial statements, including all relevant disclosures, will be available in accordance with the agreed timetable;
- management will make available a detailed workpaper file supporting the information in the financial statements; and
- the annual report, financial statements and performance information will be subjected to appropriate levels of quality review before being provided to us.

To help you prepare for the audit, we will liaise with management and provide them with a detailed list of the information we will need for the audit.

Health and safety



The Auditor-General and Audit New Zealand take seriously their responsibility to provide a safe working environment for audit staff.

Under the Health and Safety at Work Act 2015, we need to make arrangements with management to keep our audit staff safe while they are working at your premises.

We expect you to provide a work environment for our audit staff that minimises or, where possible, eliminates risks to their health and safety. This includes providing adequate lighting and ventilation, suitable desks and chairs, and safety equipment where required. We also expect management to provide them with all information or training necessary to protect them from any risks they may be exposed to at your premises. This includes advising them of emergency evacuation procedures and how to report any health and safety issues.

AUDIT NEW ZEALAND
Mana Arotake Aotearoa

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PO Box 99
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6140
Phone: 04 496 3099



Finance, Risk and Assurance Committee
13 August 2024
Report 24.398



For Information

RIVERLINK ACCOUNTING OPINION

Te take mō te pūrongo

Purpose

1. To provide the Finance, Risk and Assurance Committee (the Committee) an update on the recommendation made by Audit New Zealand regarding the Memorandum of Agreement (MoA) between Greater Wellington Regional Council (Greater Wellington) and the New Zealand Transport Agency (NZTA) for the Crown required land for the Riverlink Project.

Te tāhū kōrero

Background

2. On 29 June 2023 Greater Wellington entered into a MoA with NZTA with the intent of NZTA acquiring the Crown required land as part of the Riverlink Project.
3. For the 30 June 2023 financial statements, Greater Wellington accounted for this MoA by disclosing an Assets held for disposal of \$1.8 million being the Crown required land that NZTA required, an impairment loss of \$16.7 million related to the Crown required land and a receivable and liability of \$21.5 million being the advance payment NZTA will provide to Greater Wellington.
4. Audit New Zealand was satisfied with the above accounting and issued an unmodified opinion on the financial statements.
5. However, in the management report to the Council on the audit of Greater Wellington for the year ended 30 June 2023, Audit New Zealand recommended that a detailed external analysis of the MoA is undertaken against the relevant accounting standards.

Te tātaritanga

Analysis

6. Greater Wellington procured the services of Deloitte's Technical Accounting team to provide an opinion on the accounting of the MoA.
7. The draft Deloitte opinion is that the MoA transaction should be accounted for as a finance lease. This means that Greater Wellington have not fully transferred ownership of the Crown Required Land but has transferred significant risks and rewards of the land, along with the right to use the land to NZTA.

8. Based on the opinion Greater Wellington will need to disclose a prior period error that impacts the 2022/23 balances in the 2023/24 financial statements with the related disclosure required by the accounting standards. As the error is material, Audit New Zealand may include a paragraph in the audit opinion for 30 June 2024.
9. The net impact of accounting for this transaction as a finance lease on the 30 June 2023 financial statements will be as follows:
 - Statement of Financial Position
 - A decrease in total assets of \$1.8 million
 - A decrease in total liabilities of \$21.5 million
 - An increase in total equity of \$19.7 million
 - Statement of Comprehensive Revenue and Expense
 - An increase of \$19.7 million to total comprehensive income
10. The table below highlights the balances before and after the adjustments above:

	Before \$,000	After \$,000
Statement of Financial Position (Council Parent)		
Total Assets	2,162,059	2,160,232
Total Liabilities	923,682	902,152
Total Equity	1,238,377	1,258,080
Statement of Comprehensive Revenue and Expense (Council Parent)		
Total comprehensive income	(67,505)	(47,802)

11. The draft opinion has been shared with Audit New Zealand and we are still waiting for a response if the method of accounting in the opinion will be accepted.

**Ngā hua ahumoni
Financial implications**

12. There are no financial implications arising from this report except for a change in the presentation of notes to accounts in the annual report, noted above.

**Ngā Take e hāngai ana te iwi Māori
Implications for Māori**

13. There are no known impacts for Māori.

Ngā kaiwaitohu

Signatories

Writer	Daniel Ma – Financial Accounting Team Leader Rajesh J Ratanjee – Financial Controller
Approvers	Ashwin Pai – Head of Finance Alison Trustrum-Rainey - Group Manager Finance & Risk

He whakarāpopoto i ngā huritaonga Summary of considerations
<i>Fit with Council's roles or Committee's terms of reference</i> The Committee's specific responsibilities include to review the effectiveness of Greater Wellington's financial management and performance, with a particular focus on accounting policies and principles.
<i>Contribution to Annual Plan / Long term Plan / Other key strategies and policies</i> The accounting policies enable the efficient delivery of the annual report.
<i>Internal consultation</i> Relevant Finance staff involved were consulted.
<i>Risks and impacts: legal / health and safety etc.</i> The Council's management of relevant risks is addressed in the report

Finance, Risk and Assurance Committee
13 August 2024
Report 24.397



For Information

DEPRECIATION OF PROPERTY, PLANT AND EQUIPMENT

Te take mō te pūrongo

Purpose

1. To provide the Finance, Risk and Assurance Committee (the Committee) an overview of Greater Wellington Regional Council's (Greater Wellington) depreciation policy and how it complies with the International Public Sector Accounting Standards (IPSAS).

Te tāhū kōrero

Background

2. Accounting policies are rules and guidelines that are selected by an entity for use in preparing and presenting its financial statements. Accounting policies are important, as they set a framework, which all entities follow, and provide comparable and consistent standard financial statements across years and relative to other entities.
3. The financial statements of Greater Wellington must be prepared in accordance with the requirements of the Local Government Act 2002, which include the requirement to comply with generally accepted accounting practise in New Zealand (NZ GAAP). As required the financial statements are prepared in accordance with Tier 1 Public Benefit Entity (PBE) Accounting Standards and comply with PBE Accounting Standards.
4. The various accounting policies adopted by Greater Wellington are published in the Annual Report and specific accounting policies are included on individual notes to the financial statements.
5. Greater Wellington Asset Accounting Policy has been developed and complies with the required standards (IPSAS and NZ GAAP), specifically looking at depreciation.
6. Our external auditors, Audit New Zealand also reviews all our accounting policies including the depreciation policy to ensure compliance with IPSAS and NZ GAAP.

Te tātaritanga

Analysis

7. Greater Wellington provides services and has infrastructure assets across diverse areas such as public transport, environment and flood protection, and the region's water supply.

8. In accordance with NZ GAAP and PBE IPSAS 17 Property, Plant and Equipment, depreciation of an asset begins when it is available for use. That is, when the asset is in the location and condition necessary for it to be capable of operating in the manner intended.
9. Further, PBE IPSAS 17 paragraph 76 indicates that the selection of a depreciation method should accurately represent the pattern of consumption and future economic benefits of the asset. That method is applied consistently from period to period unless there is a change in the expected pattern of consumption of those future economic benefits or service potential.
10. There are three depreciation methods allowable under PBE IPSAS 17:
 - Straight line - depreciation or amortisation is charged evenly to each accounting period over an asset's useful life. Straight-line depreciation results in a constant charge over the useful life of the asset.
 - Diminishing value – the amount of depreciation or amortisation recognised for an asset in each accounting period progressively reduces over its useful life. The diminishing balance method results in a decreasing charge over the useful life of the asset.
 - Units of production – the amount of depreciation or amortisation recognised each accounting period can differ and is dependent on an asset's actual or deemed usage. The units of production method result in a charge based on the expected use or output.
11. The straight-line depreciation method is deemed the most appropriate for Greater Wellington assets. Below are the considerations supporting this method:
 - Straight-line depreciation assumes a uniform consumption pattern of the asset's economic benefits or service potential over its useful life. Depreciation expense allocates the 'using up' of the capacity of an asset to provide services over its useful life. The cost or value of an asset is allocated evenly and periodically over the term in which it is used to provide services.

For instance, consider a bridge within regional parks. With the straight-line depreciation method, it's assumed the bridge will be in use evenly across its useful life. In contrast, using the diminishing balance method, would result in significant depreciation in the initial years and reduced depreciation in the later years. The diminishing balance method does not accurately reflect the asset's true consumption pattern due to the nature of the asset.
 - Depreciation rates and useful life is determined based on the past experience of Greater Wellington with similar assets, as outlined in PBE IPSAS 17 paragraph 73. Greater Wellington does not follow the Inland Revenue tax depreciation rates, which concentrate on the tax reporting purposes.

As a local authority operating on a perpetual basis and not subject for Income Tax purposes, Greater Wellington revenue and depreciation are non-taxable items under the Income Tax Act 2007. Thus, the adoption of straight-line depreciation is appropriate, as it is not influenced by tax considerations.

- Depreciation expense is not a cash expense, it is an accounting treatment to represent the value of an asset consumed during the period reported on. Depreciation is not about funding the replacement of the asset when the asset's capacity to provide services is used up. The charging of depreciation expense is not related to decisions about:
 - whether and/or when an asset will be replaced, or
 - whether a cash reserve is established.

Depreciation expense is an essential component in understanding the full cost of the services Greater Wellington provides. However, it does not determine what the council charge users for a particular service as the depreciation charge is not funded.

- Greater Wellington adheres to the recommended practice of annual reporting outlined in the Model Financial Statements by Audit New Zealand, using a straight-line basis for all assets. This standard is adopted by councils nationwide, providing a benchmark for annual reports and ensuring consistency for readers and users.
12. Please refer to [Attachment 1](#) for the useful lives of major classes of assets that has been disclosed in the 2022/23 annual report.
 13. From an Income Tax perspective Greater Wellington parent entity is exempt from Income Tax. Therefore, Greater Wellington does not have keep an additional record of the tax depreciation values of assets that a normal commercial entity would. Where used by taxable entities, tax depreciation values are calculated by using the rates prescribed by Inland Revenue.
 14. In conclusion, the straight-line depreciation model is considered appropriate for Greater Wellington's assets, with useful life and depreciation rates determined based on the council's experience. This method is supported by various factors, including accounting standards, tax considerations, and cash funding perspectives.

Ngā hua ahumoni Financial implications

15. There are no financial implications arising from this report.

Ngā Take e hāngai ana te iwi Māori Implications for Māori

16. There are no known impacts for Maori.

Ngā tikanga whakatau Decision-making process

17. The matters requiring decision in this report have been considered by officers against the requirements of Part 6 of the Local Government Act 2002 (the Act).

**Te hiranga
Significance**

18. Officers have considered the significance of the matters, considering the Council’s significance and engagement policy and decision-making guidelines. Officers consider that the matters to be considered have low significance, due to their administrative nature.

**Te whakatūtakitaki
Engagement**

19. Due to the low significance of the matters for decision, no engagement was considered necessary.

**Ngā āpitihanga
Attachment**

Number	Title
1	Attachment 1 – Depreciation Rate Accounting Policy

**Ngā kaiwaitohu
Signatories**

Writer	Daniel Ma – Financial Accounting Team Leader Rajesh J Ratanjee – Financial Controller
Approvers	Alison Trustrum-Rainey - Group Manager Finance & Risk Ashwin Pai – Head of Finance

He whakarāpopoto i ngā huritaonga Summary of considerations
<p><i>Fit with Council's roles or Committee's terms of reference</i></p> <p>The Committee's specific responsibilities include to review the effectiveness of Greater Wellington's financial management and performance, with a particular focus on accounting policies and principles.</p>
<p><i>Contribution to Annual Plan / Long term Plan / Other key strategies and policies</i></p> <p>The accounting policies enable the efficient delivery of the annual report.</p>
<p><i>Internal consultation</i></p> <p>Finance and relevant staff involved with asset management across the Greater Wellington were consulted.</p>
<p><i>Risks and impacts: legal / health and safety etc.</i></p> <p>The Council's management of relevant risks is addressed in the report</p>

Depreciation

Depreciation is provided on a straight line basis on all tangible property, plant and equipment, other than land and capital works in progress, at rates which will write off assets, less their estimated residual value over their remaining useful lives. The useful lives of major classes of assets have been estimated as follows:

Port, wharves and paving	2 to 100 years
Operational port freehold land	Indefinite
Operational land	Indefinite
Operational buildings	5 to 75 years
Operational plant and equipment	2 to 40 years
Operational vehicles	2 to 34 years
Flood protection infrastructural assets	10 years to indefinite
Transport infrastructural assets	4 to 150 years
Rail rolling stock	20 to 30 years
Navigational aids infrastructural assets	10 to 50 years
Parks and forests infrastructural assets	5 to 155 years
Regional water supply infrastructural assets	3 to 214 years
Right to use	20 years

Finance, Risk and Assurance Committee
13 August 2024
Report 24.383



For Information

RATES REMISSION UPDATE

Te take mō te pūrongo

Purpose

1. To inform the Finance, Risk and Assurance Committee (the Committee) about the application of Rates Remissions across the Wellington Region.

Te tāhū kōrero

Background

2. Sections 85-90 of the Local Government (Rating) Act 2002 (the Act) guide councils' abilities to provide remission or postponement to rates. These are reflected in our 'Rates Remission and Postponement Policies'.
3. Greater Wellington Regional Council (Greater Wellington) also recognizes that certain Māori owned land may have particular conditions, features, ownership structures, or other circumstances that make it appropriate to provide relief from rates.
4. Part 4, Rating of Māori Freehold Land, of the Act provides guidance for remission, postponement, and exemption of rates for Māori Freehold Land. Greater Wellington has also elected to consider applications for remission of rates on certain land in Māori ownership which is not Māori freehold land.
5. Greater Wellington has determined that this policy does not offer postponement of rates for Māori freehold land.
6. The policies meet the requirements of the Act and support the principles in the preamble to Te Ture Whenua Māori Act 1993.

Te tātaritanga

Analysis

Applications Process

7. Ratepayers seeking a remission are required to contact their local authority in the first instance.
8. If the local authority determines the ratepayer has merit for a rate remission, then they can provide the relevant information for Greater Wellington officers to make an informed decision regarding the remission of Greater Wellington rates.

Approving Remissions or Postponements

9. Greater Wellington will consider each application on its merit. Remission of penalties may be granted, or postponement of penalties will be granted where it is considered that the application meets criteria.
10. Rates are “written off”:
 - a when remitted in accordance with Council’s rates remission policy;
 - b in accordance with the write off criteria of sections 90A (where rates cannot be reasonably recovered) and
 - c 90B (in relation to Māori freehold land) of the Act.
11. Decisions on the remission or postponement of penalties is delegated to Group Manager Finance and Risk.
12. Remission of rates in special circumstances may be applied in full or part of the rates assessed in relation to a particular rating unit in special or unforeseen circumstances where it considers it just and equitable to do so. In this case, decisions will be made by Council where the amount requested is over \$500 (incl. GST).

Value of remissions

13. Over the past three years, the total remissions applied by Greater Wellington, including Māori Land, across the region were:

2021/22	2022/23	2023/24
\$194,080	\$308,433	\$236,837

* Values exclude GST

14. For comparison, the table below shows a sample of the territorial authorities’ total amount of remissions and the number of approved applications:

Territorial Authority	2021/22	2022/23	2023/24
Wellington City	\$1,204,364	\$2,304,219	\$1,755,146
	324	1,891	1,809
Porirua City	\$713,481	\$683,897	\$522,094
	4	4	5
Kāpiti Coast District	\$774,014	\$907,249	\$698,259
	3,072	3,165	2,417

Note: Territorial authorities have a wider range of remission eligibilities and circumstances to apply rates remission.

Remissions relating to Māori Land

15. In the Wellington Region, not all territorial authorities have identified or have Māori (Freehold) Land and therefore don't apply remissions each year, such as Upper Hutt City Council or Wellington City Council.
16. Porirua City Council has the largest rates remissions on Māori (Freehold) Land, as per the table below:

2021/22	2022/23	2023/24
\$30,076	\$34,396	\$34,196

* Excluding GST

17. All territorial authorities set their own Policy for Māori (freehold) Land, which set out their definitions of land use and the criteria for remissions.
18. The following are examples of guidance from territorial authorities:
- Land whose ownership has been determined by a freehold order issued by the Māori Land Court
 - Land that has been converted from Māori customary interests to freehold title by the Māori Land Court or its predecessors through a freehold order.

Implementing the Act

19. As part of implementing the Local Government (Rating of Whenua Māori) Amendment Act 2021, territorial authorities require, with Quotable Values (QV) assistance, identifying all Māori (Freehold) Land within their district and record it in their rating database so the parcels are easily identifiable.
20. This can be cross checked to Pātaka Whenua (Māori Land Court) information and they can then add a layer within their GIS system to identify Māori (Freehold) Land. It can then also be marked as non-rateable so it is not included in future rating assessments.

Ngā hua ahumoni**Financial implications**

21. Greater Wellington collects surplus or additional revenue each year due to the increasing number of rateable units throughout the year. The additional amount of revenue collected is sufficient enough to cover any deficit caused by the rates not collected through rates remissions. Therefore, Greater Wellington's annual budget is not negatively impacted by the remissions.

Ngā Take e hāngai ana te iwi Māori**Implications for Māori**

22. There are no implications for Māori as a result of this report. Greater Wellington relies on the territorial authority to appropriately apply their respective policies on Māori Freehold land and keep us informed.

Te whakatūtakitaki

Engagement

23. Greater Wellington staff have regular communications with the territorial authorities' finance teams, and regular group meetings. We used this group to provide us information that has been used in this update.
24. Officers from both the territorial authorities and Greater Wellington, effectively communicate and process rates remissions as and when required.

Ngā kaiwaitohu

Signatory

Writer	Kyn Drake – Principal Finance Policy Advisor
Approver	Alison Trustrum-Rainey – Group Manager, Finance and Risk

He whakarāpopoto i ngā huritaonga Summary of considerations
<i>Fit with Council’s roles or with Committee’s terms of reference</i> The Committee has the specific responsibility to “Review the effectiveness of Greater Wellington’s financial management and performance, including proposed changes, with a particular focus on the effectiveness of Greater Wellington’s financial management policies and frameworks for, and the robustness of, the organisation’s financial performance.”
<i>Contribution to Annual Plan / Long Term Plan / Other key strategies and policies</i> The Rates Remission Policy is a supporting policy to the Long-Term Plan.
<i>Internal consultation</i> Finance team
<i>Risks and impacts - legal / health and safety etc.</i> There are no known risks associated to this report.

Finance, Risk and Assurance Committee
13 August 2024
Report 24.395



For Information

HARBOUR MANAGEMENT – RISK AND COMPLIANCE UPDATE AUGUST 2024

Te take mō te pūrongo

Purpose

1. To update the Finance, Risk and Assurance Committee (the Committee) on any significant compliance issues or emerging or changing risks affecting Greater Wellington Regional Council's (Greater Wellington) Harbours function.

Te tātaritanga

Analysis

Removal of Shelly Bay wharves

2. By the time of this meeting, this work should have been completed. Credit should go to Port Nicholson Block Settlement Trust for seeing through this work despite a number of obstacles.

Channel Risk Assessment

3. In 2020, CentrePort and Greater Wellington commissioned South Maritime Solutions to review navigation safety in the Wellington Harbour entrance channel and approaches. The review considered the infrastructure, current practice, best practices, and possible future changes. The final report was received in October 2020.
4. Chart changes including introducing numbered anchorages for ships (which aids passage planning) and adjustments to the location of Pilot Boarding Grounds (to reduce congestion) have been provided to Land Information NZ (LINZ). Background work around changes to the channel are progressing, including our navigation light upgrades are on-going.

Sunken/Derelict Vessels

5. We are working with Wellington City Council (WCC) in relation to a steel yacht in Clyde Quay marina under a Harbourmaster's direction from last year. This has been frustratingly slow however a lift out date has been confirmed for 6 September 2024.
6. We are also supporting WCC with a vessel under an Admiralty writ being prepared for sale at Queens wharf.

Navigation Aids

7. We had a run of three light failures, all have been replaced by backups while replacements are on order. The sale and closure of a local manufacturer combined with northern hemisphere holidays has slowed delivery time. This will be factored into future replacement programmes.
8. We are waiting for a proposal for upgrades and replacements for the main channel navigation lights. In some cases, this should move towards lower power consumption and easier data gathering from the lights.
9. The Te Ara Tupua project has installed lit marker buoys to the south of the new reef near Horokiwi, we are expecting the hydrographic survey data shortly to enable the chart to be updated.
10. Working with Knowledge and Insights, we are obtaining hydrographic data for Porirua harbour to enable the chart to be updated. This was done at the same time as other work for Greater Wellington which allowed some cost sharing for mobilisation costs. The hydrographic information is being funded by LINZ.

Navigation Issues

Emergency Ocean Response Capability

11. This was previously called “out of port support”. Emergency Ocean Response Capability (EORC) initial advice has been provided to a former Transport Minister who indicated that Maritime NZ should continue working on options.
12. The government announced \$600,000 in the budget for a business case, we are unsure of what direction they are looking in as regards this work.

Cruise Ship Visits

13. The cruise ship season has finished for the year, with 108 ship visits. Some visits did not happen due to weather.
14. To date around 78 cruise ship visits are booked for next summer, this is reflecting a nationwide decrease in expected visits.
15. Visible water vapour and exhaust gasses from exhaust scrubbing systems continue to attract attention and comment. Internationally there are on-going discussions about the impacts and emissions from exhaust scrubbing systems.

Bunker Barge - Kokako

16. This vessel has been delivering fuel to ferries and the occasional log ship when the weather has permitted.
17. We are continuing to work with Maritime NZ and the terminal operator around their spill contingency planning.
18. The vessel operating company received approval for their Pilotage Exemption plan from Maritime NZ and the vessel Masters are now working towards being able to move the vessel without a CentrePort Pilot. The vessel will likely still require the use of a CentrePort tug, as can happen with other Pilot Exempt operators.

19. We understand that the operator has now applied to Maritime NZ to be able to use their Pilot Exemption plan. To date there is no further update here.

Port and Harbour Marine Safety Code

20. The annual self-assessment was completed and submitted to the Port and Harbour Marine Safety Code (the Code) lead and Working Group. While some documentation is still in need of updating, the review concluded that we are operating in accordance with the Code principles and the strong operational links between ourselves and CentrePort are central to that.
21. The Deputy Harbourmaster and CentrePort Compliance advisor have made significant process in updating the risk controls in our Hazard Management systems. This improves our shared process for the port and harbour risk reviews.
22. In July 2024 the Wellington and Marlborough Harbourmasters met with Maritime NZ staff to discuss Pilot Exemption requirements and other issues to be considered for possible new Cook Strait ferries. This was not based on specific new ships but what factors needed to be considered from a regulatory perspective if new ships were to be introduced to Cook Strait. Another meeting is planned for August 2024.

Safety Incidents

23. On 24 May 2024 a passenger went overboard from the East By West ferry on their first run of the day going from Queens Wharf to Days Bay. Despite around a dozen vessels quickly responding, the person was not found at the time. Their body was recovered by Police divers late on the afternoon of 27 May 2024. Maritime interviewed those involved and inspected the vessel and found no faults or compliance issues. The case of death has been referred to the coroner.
24. On 21 June 2024 the ferry Aratere ran aground soon after leaving Picton. Investigations into the cause are on-going. While this was not of direct relevance to Wellington it did add to concerns over the ferries. Conditions were imposed for the first voyage back to Wellington following the grounding and Interislander is working through a return to full-service process under the oversight of Maritime NZ.

Ngā hua ahumoni

Financial Implications

25. The disposal of derelict or uninsured vessels will present unplanned expenditure from the operating budget.
26. Where we are assisting another organisation, like a marina or a city/district council, to dispose of vessels, the costs are generally met by that body. Our contribution is usually our time plus regulatory power. In some cases, we may engage an independent expert (e.g. a boatbuilder or surveyor) to provide advice.
27. Recommendations arising from the channel risk assessment may have a variety of financial implications for both CentrePort and Greater Wellington. Options for mitigating any financial impacts will be investigated.

**Ngā kaiwaitohu
Signatories**

Writer	Grant Nalder – Manager, Harbours, Harbourmaster
Approvers	Jack Mace – Delivery Director Lian Butcher – Group Manager, Environment Group Alison Trustrum-Rainey – Group Manager, Finance and Risk

<p>He whakarāpopoto i ngā huritaonga Summary of considerations</p>
<p><i>Fit with Council’s roles or with Committee’s terms of reference</i></p> <p>This report allows the Committee to “review... Greater Wellington’s identification and management of risks faced by Council and the organisation... [including]... whether Greater Wellington is taking effective action to mitigate significant risks.”</p>
<p><i>Contribution to Annual Plan / Long Term Plan / Other key strategies and policies</i></p> <p>This report does not contribute directly to Council’s or Greater Wellington’s key strategies, plans, or policies.</p>
<p><i>Internal consultation</i></p> <p>There was no internal consultation</p>
<p><i>Risks and impacts - legal / health and safety etc.</i></p> <p>Specific risks and related mitigations are discussed in the Analysis section of this report.</p>

Finance Audit and Risk Committee
13 August 2024
Report 24.415



For Information

HEALTH, SAFETY AND WELLBEING UPDATE AUGUST 2024

Te take mō te pūrongo

Purpose

1. To advise the Finance, Risk and Audit Committee (the Committee) of Greater Wellington's Health, Safety and Wellbeing (HSW) performance and activity.

Te horopaki

Context

2. The HSW performance scorecard is outlined in [Attachment 1](#).

Te tātaritanga

Analysis

HSW improvement project update

3. The HSW improvement project commenced in September 2023. Progress is on track, including:
 - a All fatal and severe risk (FSR) workshops are complete. This provides a solid baseline understanding of the main high-risk activities across Greater Wellington and the controls in place and available to manage them.
 - b No major gaps were identified; however, how controls are applied was found to be inconsistent across groups.
 - c The focus now is to implement critical control and verification plans for each FSR, linked to the updated HSW risk register, verification of competencies and standard operating procedures (SOP's) for each FSR's.
 - d We are working with ICT to identify a workable solution to access, populate and submit HSW documents in the field.
4. Blood lead testing has been added to the annual health monitoring for Pest Animals staff as a precautionary measure. This follows a pest animals worker reporting blood lead levels .01 above workplace exposure standards following a routine GP visit. This is likely due to absorption from handling lead ammunition.
5. Baseline testing of the remainder of pest animals' staff did not detect elevated blood lead levels. It is important to note several pest animals' staff also use lead ammunition recreationally.

6. The use of non-lead-based ammunition is being investigated as an alternative and good practice guidelines for handling lead ammunition is being reinforced in the meantime.
7. Overspeed events in EROAD dropped from 1147 in May to 750 in June, particularly in the upper speed limits. This is a direct result of the Fleet team working with people leaders to proactively address the issue with workers.
8. Programmes of work are underway to scope solutions for Temporary Traffic Management and update location certificates for hazardous substances, both flagged as key areas of risk within the Environment Group. 30 out of 48 key staff have completed HSNO Classes (2, 3, 4, 5, 6, 8 and 9) training to date.
9. A position statement on Greater Wellington's use of Robinson helicopters is being drafted in conjunction with key internal and external stakeholder, including industry experts.
10. This is in response to Robinsons being listed on the Transport Accident Investigation Committee (TAIC) watch list with number of organisations e.g. Department of Conservation and Ministry of Primary Industries having already banned their use. Greater Wellington uses Robinsons currently for specific operations, including targeted pest plant operations this type of helicopter is particularly suited to.
11. No serious work injuries or significant lost time were recorded in this reporting period, and we continue to track well against this.
12. For noting: From July 1, 2024, Maritime NZ has taken over from WorkSafe as the health and safety regulator for the 13 major NZ Ports. [1](#)
13. For noting: The Institute of Directors has issued the updated Health and Safety Good Governance guide Health and Safety: A good practice guide, [2](#) which shifts the focus from a compliance-based culture to one where good health and safety is part of good governance generally.

Wellbeing Update

14. The 2024 round of health monitoring for operational staff is complete, with no issues identified.
15. 93 Greater Wellington employees participated in onsite Heart Health Checks at Cuba St, Upper Hutt and Masterton in June 2024. Delivered by the Heart Foundation, this included blood pressure and pulse check, assessment of heart attack / stroke risk and heart health education.
16. Eight new Mental Wellbeing First Responders were trained in June 2024, increasing the number to 33 across Greater Wellington locations.

¹ <https://www.maritimenz.govt.nz/public/news/2024/july/maritime-nz-extends-health-and-safety-role-at-13-major-ports/>

² <https://www.iod.org.nz/resources-and-insights/guides-and-resources/health-and-safety-a-good-practice-guide#>

17. The Employee Assistance Programme (EAP) use has returned to normal levels for work and non-work use following a spike in the previous reporting period.
18. The procurement process is underway to identify providers who can better meet the diverse and changing needs of Greater Wellington employees for EAP services going forward.

Ngā āpitihanga

Attachments

Number	Title
1	HSW performance scorecard April - June 2024

Ngā kaiwaitohu

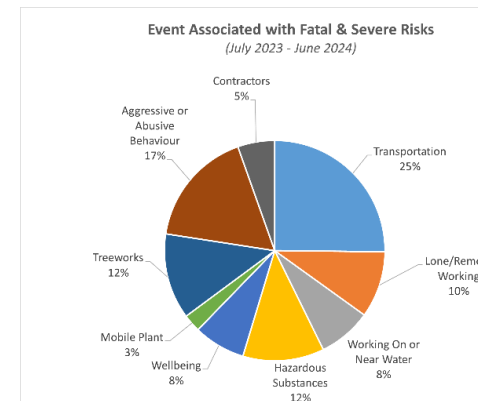
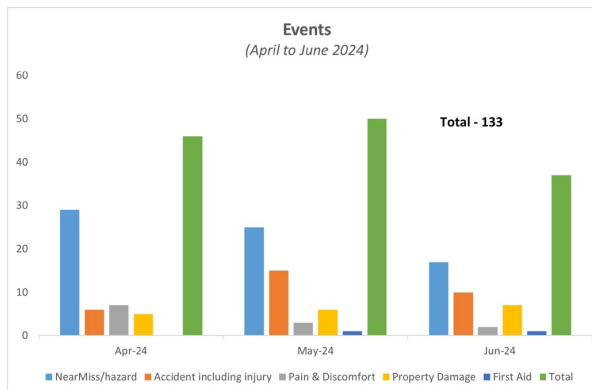
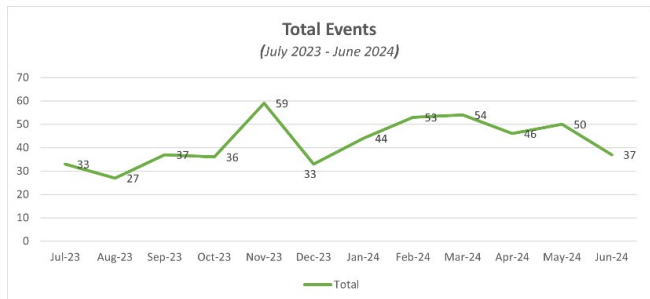
Signatories

Writer	Julie Barber – Head of Health Safety and Wellbeing
Approver	Donna Hickey – Group Manager People and Customer

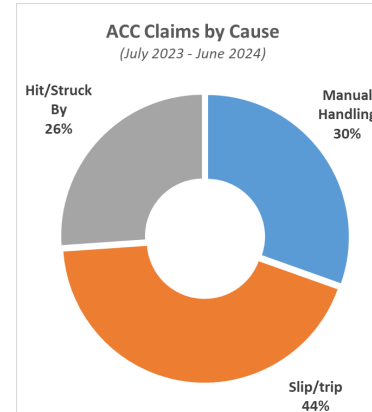
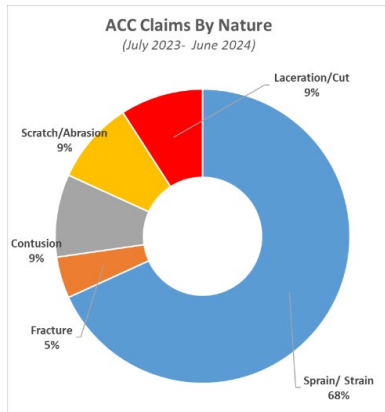
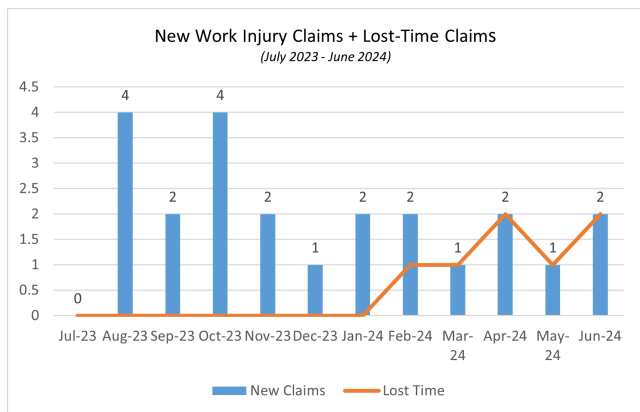
He whakarāpopoto i ngā huritaonga Summary of considerations
<i>Fit with Council's roles or with Committee's terms of reference</i> This report assures the Committee that Greater Wellington's legal obligations under the Health and Safety at Work Act 2015 are maintained and met.
<i>Contribution to Annual Plan / Long Term Plan / Other key strategies and policies</i> The HSW Policy and Wellbeing Strategy are included in Greater Wellington's Annual Plan 2024/25.
<i>Internal consultation</i> The HSW Team were consulted in writing this report
<i>Risks and impacts - legal / health and safety etc.</i> The HSW risks and treatment are outlined in paragraphs 3-11 and 14-18 inclusive.

Health, Safety and Wellbeing Performance Scorecard April - June 2024

Event Reporting

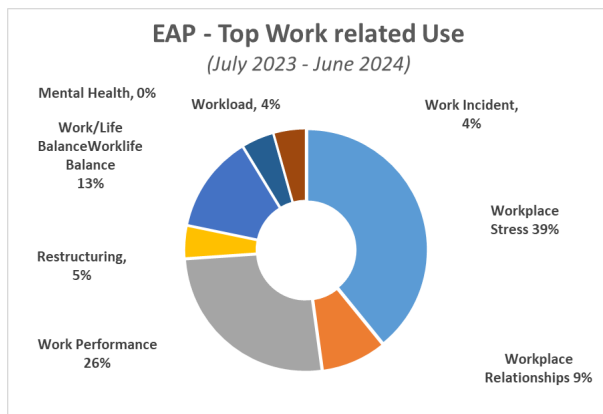


ACC work injury claims







Health, Safety and Wellbeing Performance Scorecard April - June 2024

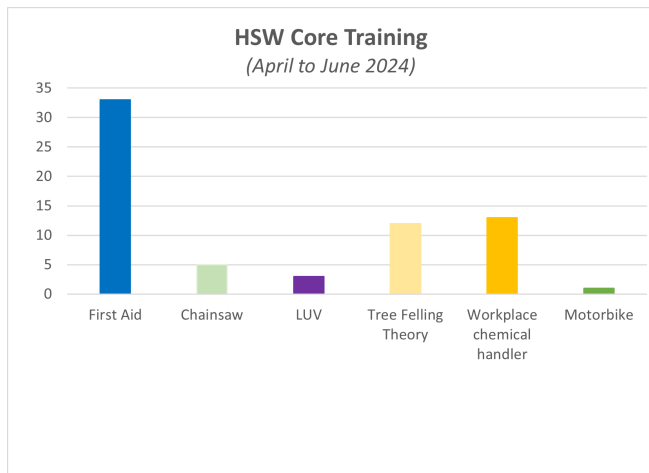
Wellbeing



Wellbeing insights April - June 2024

-  93 Mental health first responder conversations.
-  35 Oku Raukura Atawhai (EAP, Manawa Ora) new cases
-  2 Pax formal clinical support
-  44 Pax rehabilitation support (work / non work injury & medical)

HSW training activity



New/ Emerging trends April – June 2024	
↑	Uptake in Get Home Safe use
↑	PIKO event reporting (lead indicator)
↑	Proactive mental health first responder conversations (lead indicator)
↑	EAP use for non-work issues in March
↓	Seasonal wasp stings

Finance, Risk and Assurance Committee
13 August 2024
Report 24.371



For Decision

RISK AND ASSURANCE UPDATE AUGUST 2024

Te take mō te pūrongo

Purpose

1. To provide the Finance, Risk and Assurance Committee (the Committee) with an update on:
 - a developments with respect to risk management.
 - b the three-year assurance plan.

He tūtohu

Recommendation

That the Committee:

- 1 **Approves** 2024-27 assurance plan.

Te horopaki

Context

Risk Management

2. Please refer to [Attachment 1](#) for the updated ELT Risk Dashboard with management comments.

Business Assurance action points

3. Updates against the current assurance plan have been included in [Attachment 2](#).

Te tātaritanga

Analysis

Updated risk appetite statement

4. The Committee reviewed the health and safety risk appetite statement in February 2024 and the continuity of service risk appetite statement in May 2024 and provided positive feedback on their form and content.
5. We are presenting the financial risk appetite statement at a Committee workshop in August 2024. Representatives from the Finance and Risk group will be attending this workshop, where we will walkthrough examples of how the risk appetite statement can be applied.

6. In workshops across November 2024 and February 2025, we will look to obtain further feedback on the remaining risk appetite statements, before seeking formal endorsement of the completed risk appetite statements from the Committee.
7. Please refer to [Attachment 3](#) for the financial risk appetite statement.

Business Assurance arrangements

8. The indirect taxes internal audit has commenced which is scheduled for presentation to the Committee at its November 2024 meeting. We note that the report was originally scheduled for presentation at the Committee's August 2024 meeting but needed be shifted as it conflicted with year-end reporting requirements.
9. We have appointed PWC as our internal audit partner to support in delivering the 2024-27 assurance plan (refer to Internal Audit Partner – Report 24.372 at this meeting).
10. We have also closed 10 recommendations since the last Committee meeting. Further details on open recommendations can be found in [Attachment 2](#).

2024-27 assurance plan

11. Please refer to [Attachment 4](#) for our 2024-27 Assurance plan.
12. Outlined within [Attachment 4](#) the attached plan are two proposals for your consideration the Prioritised view of assurance activities and the Executive Leadership Team (ELT) endorsed assurance activities. The key differences between these plans are outlined below:
 - Deprioritising Long Term Plan 2024-34 process and technology reviews.
 - Reprioritising bulk water supply and rate management reviews.
 - Bringing forward the data & information review to year 2 in line with PWC recommendations.
13. We recommend that the Committee approves the ELT endorsed assurance activities which would form the assurance plan for 2024-27.
14. If the plan is approved, we will move forward with planning year 1 assurance activities. We note that we will review the plan annually and there will be an opportunity to review and change activities in year 2 & 3 based on the changing risk profile of Greater Wellington Regional Council (Greater Wellington).

Flood protection social licence to operate

15. At a workshop with the Committee in February 2024 we undertook a deep dive into uncertainty surrounding the management of flood protection assets. At the meeting, significant discussion was held around our continued licence to operate particularly in relation to the use of river management tools.
16. As an action from this meeting, Environment Group's Delivery function commissioned research into public views and understanding of our flood protection work throughout the region. This research would help inform our

communications strategy to help us maintain our 'social licence' for our flood protection mahi.

17. Findings from our research suggests a broader platform of support than we originally understood, and while residents surveyed felt they lacked an understanding of flood risk management activities, they did have an understanding that Councils were involved in these activities.
18. This research will help inform how we further target communications within the region to help maximise their benefit to our audience.
19. Please refer to [Attachment 5](#) detailed research findings.

School bus journeys

20. At its meeting on 30 November 2023, the Transport Committee requested that advice be sought from NZ Transport Agency Waka Kotahi (NZTA) on the issue of people standing on buses and invited the Committee to consider the risk implications of this advice for Greater Wellington.
21. By way of background:
 - Metlink follows national guidance on bus safety in New Zealand from the Ministry of Transport and NZTA.
 - The allowable standing number of passengers on urban passenger vehicles in New Zealand is stated on a bus's Certificate of Loading (CoL). The CoL, amongst other things, states the maximum number of seated and standing passengers.
 - There is currently no national requirement prohibiting passengers standing on buses while on state highways or other roads.
22. NZTA has issued a report on the safety of school bus journeys, which includes an assessment of risks involved with children standing on school buses. The full NZTA report is attached as [Attachment 6](#) to this report.
23. Metlink advised the Transport Committee that this report would be highlighted to this Committee.
24. The report covers a detailed review of traffic accidents involving school buses and injury events reported to the Ministry of Education between 2010 and 2021. The report highlighted:
 - Approximately 10% of New Zealand children travel to school by bus.
 - Accidents were most likely to occur on rural roads.
 - Auckland and Wellington school bus networks are approximately 88% urban by length.
 - Bus drivers and passengers were most likely to be injured while travelling on the bus, with 38% of these being non-collision events such as harsh braking, but these injuries were mostly minor.

- The highest rate of fatal and serious injury occurred outside the bus around pick-up and drop-off points, particularly at pedestrian crossings and the road to or from the bus.
25. Metlink notes that:
- Travel by bus is the safest land transport mode.
 - The majority of school students rely on public Metlink services (22% of child boardings are made on Metlink school buses vs. 42% on peak time public services).
 - Metlink school buses generally operate on lower risk roads
 - NZTA safety of school bus journeys research report has classified Metlink school routes by risk:
 - No Metlink school buses operate on roads with a higher risk rating
 - 20 services (9%) operate on roads classed as ‘Rural undivided’ or ‘Rural other’ roads.
26. There is work underway by Metlink to address standing on school bus services which operate on ‘Rural undivided’ roads.
27. In addition, the Wellington Regional Public Transport Plan (RPTP) 2021 states under the School Bus Policy that “Metlink will review safety guidelines for high-speed travel”. We will recommend formalising the approach of minimising standing on higher risk roads as part of the upcoming RPTP review.
28. Metlink notes that NZTA report sets out that further work needs to be undertaken regarding school bus services. As a school bus service provider, Metlink is open to being involved in any further work undertaken on this issue.

Office of the Auditor General treaty settlements audit

29. Office of the Auditor General (OAG) is currently undertaking a performance audit on the delivery of treaty settlement commitments which will run from April to November 2024 with their report being published in February 2025.
30. The audit is looking to provide transparency and assurance around the oversight, monitoring, reporting, and accountability arrangements for the delivery of these commitments to Māori.
31. We were notified by OAG in April 2024 that our treaty settlement arrangements with Ngāti Toa Rangatira would form part of the review. Our selection was not targeted, but was part of OAG planning to ensure iwi and Council selected covered different factors like:
- Types of commitments and organisations involved.
 - Relative size of these iwi.
 - Value of commercial redress.
 - Age of settlements.

- Geographic locations of the rohe.
32. We have already meet with and provided the OAG the required documentation to inform their audit. We will look to provide the Committee with an update in November 2024 on the draft report when it is released to Greater Wellington.

Carterton rates issue

33. Carterton District Council (CDC) has experienced delays in setting their rates due to extended hearings & deliberations, QV valuation delays and late feedback from Audit NZ. As such, their LTP will be considered by their Council around September 2024.
34. CDC plan to move the first payment of rates, they collect on our behalf, to the 7 October 2024 to enable them time to resume invoicing their ratepayers.
35. Greater Wellington will need to amend its current resolutions under section 119 of the Local Government (Rating) Act 2002 to reflect this change. Because Council has already adopted our rates collection dates, we will need to undertake a 14-day public consultation before Council approval. Therefore, we are looking to complete consultation in August and take this amendment to Council at their meeting on the 27 August 2024.
36. We do not expect any further impact on Greater Wellington or the collection of rates from this issue.

Ngā hua ahumoni

Financial implications

37. There are no financial implications arising from this report.

Ngā Take e hāngai ana te iwi Māori

Implications for Māori

38. The report provides an updated on OAG's treaty settlements audit which includes Greater Wellington's treaty settlement arrangements with Ngāti Toa Rangatira. When the report is issued in February 2025, we will consider how its findings impact our management of settlement commitment with Ngāti Toa Rangatira.

Ngā tikanga whakatau

Decision-making process

39. The matters requiring decision in this report were considered by officers against the decision-making requirements of Part 6 of the Local Government Act 2002.

Te hiranga

Significance

40. Officers considered the significance (as defined by Part 6 of the Local Government Act 2002) of this matter, taking into account, Council's *Significance and*

Engagement Policy and Greater Wellington’s *Decision-making Guidelines*. Officers recommend that this matter is of low significance due to its administrative nature.

**Te whakatūtakitaki
Engagement**

41. Due to the low significance of the decision, community engagement was not considered necessary.

**Ngā āpitihanga
Attachments**

Number	Title
1	Risk update August
2	Assurance update August
3	Risk Appetite Statements
4	2024-27 Assurance plan
5	Flood protection awareness and perceptions survey report
6	Safety of school bus journeys

**Ngā kaiwaitohu
Signatories**

Writer	Jacob Boyes – Head of Corporate Risk & Assurance
Approver	Ali Trustrum-Rainey – Kaiwhakahaere Matua, Pūtea me ngā Tūraru Group Manager, Finance and Risk

<p>He whakarāpopoto i ngā huritaonga Summary of considerations</p>
<p><i>Fit with Council’s roles or with Committee’s terms of reference</i></p> <p>The Committee has specific responsibilities to:</p> <ul style="list-style-type: none"> • review the effectiveness of Greater Wellington’s identification and management of risks faced by Council and the organisation; and to • approve an internal audit plan.
<p><i>Contribution to Annual Plan / Long Term Plan / Other key strategies and policies</i></p> <p>Greater Wellington makes decisions every day in order to deliver what it has committed to through the Long Term Plan.</p> <p>Risk management is enabling good decisions to be made that reflect a good understanding of uncertainty within the environment and tradeoffs between competing choices.</p> <p>Internal audit / assurance reviews the effectiveness of Greater Wellington’s internal controls framework and processes such that Council can deliver effectively on its objectives, including safeguarding assets as set out in its Long-Term Plan and Annual Plans.</p> <p>Internal audit also supports the risk management framework.</p>
<p><i>Internal consultation</i></p> <p>Consultation and input were provided by</p> <ul style="list-style-type: none"> - The Executive Leadership Team - Environment Group - Metlink
<p><i>Risks and impacts - legal / health and safety etc.</i></p> <p>Several areas of risk have emerged from this work. These are described in the body of this paper.</p> <p>Internal audit acts to reduce risk by ensuring controls are operating as Greater Wellington has developed through its policies and procedures.</p>

Attachment 1

Risk Update

Finance, Risk and Assurance Committee
13 August 2024

ELT Dashboard

Last updated: 19 July 2024

Our areas of focus

LB/IM	Impact on the environment	LT/AF	Demographic change & clarity of community needs
MO/D/DD	Reputation and public profile	MF/BC	Being effective partners in giving effect to Te Tiriti o Waitangi
MO/D/JG	Quality of stakeholder relationships & partnerships	LT/MB	Impact of climate change

Active mana whenua partnerships and participation for improved outcomes for Māori

Holistic approaches to deliver improved outcomes for te taiao

Leading action for climate resilience and emissions reduction

Improving access to services and equity of outcomes through participation with communities

Public trust and confidence in Greater Wellington and license to operate

Connected communities

Thriving environment

Resilient future

Through delivering on our commitments and achieving the vision of an extraordinary region, thriving environment, connected communities, resilient future

Delivering core services

ATR/LB	Ability to deliver the capital programme	SG/MC	Reliance on actions of third parties
LT/KE	Continuity of service	JK/BK	Fitness for purpose of assets
DH/VR	Ability to implement change	NC/DH	Appropriateness of services & delivery design
LT/GR	Impact of reform		

Providing a clean and safe water supply

Leveraging regional partnerships to enable spatial planning and economic development

Protecting and restoring our environment and flood protection

Delivering an efficient, accessible and low carbon public transport network

KEY

RD/RL Uncertainty What success looks like

SL Confidence rating

ELT Confidence rating

Risk Lead Confidence rating

Sentiment Alignment

Change in the uncertainty confidence / concern rating

Foundation to Success

Strong and positive culture	Successful people				
Integrated and effective ways of working	Purposeful and trusted relationship and engagement				
LT/ZM	Effectiveness of planning	JK/RL	Effectiveness of technology	ATR/AP	Integrity of people, fraud, bribery or corruption
ATR/MZ	Ability to fund delivery	DH/IB	Health, safety and wellbeing of people	JK/CD	Adequacy, integrity and privacy of information
JK/DKH	Capability and capacity of external suppliers and partners	DH/VR	Capability and capacity of people	JK/DKH	Compliance with legislative & regulatory requirements

Management Comment

We note that the ELT risk dashboard as been updated to reflect the new LTP. This includes:

- Updating the header "Understanding & meeting community needs" to "Our areas of focus" to better align to LTP terminology.
- Updating the success statements under "Our areas of focus" and "Foundations to success" to align with updated statements from the LTP.
- Realignment of the uncertainties under the headings "our areas of focus" and "delivering core services" to better reflect the updated success statements.

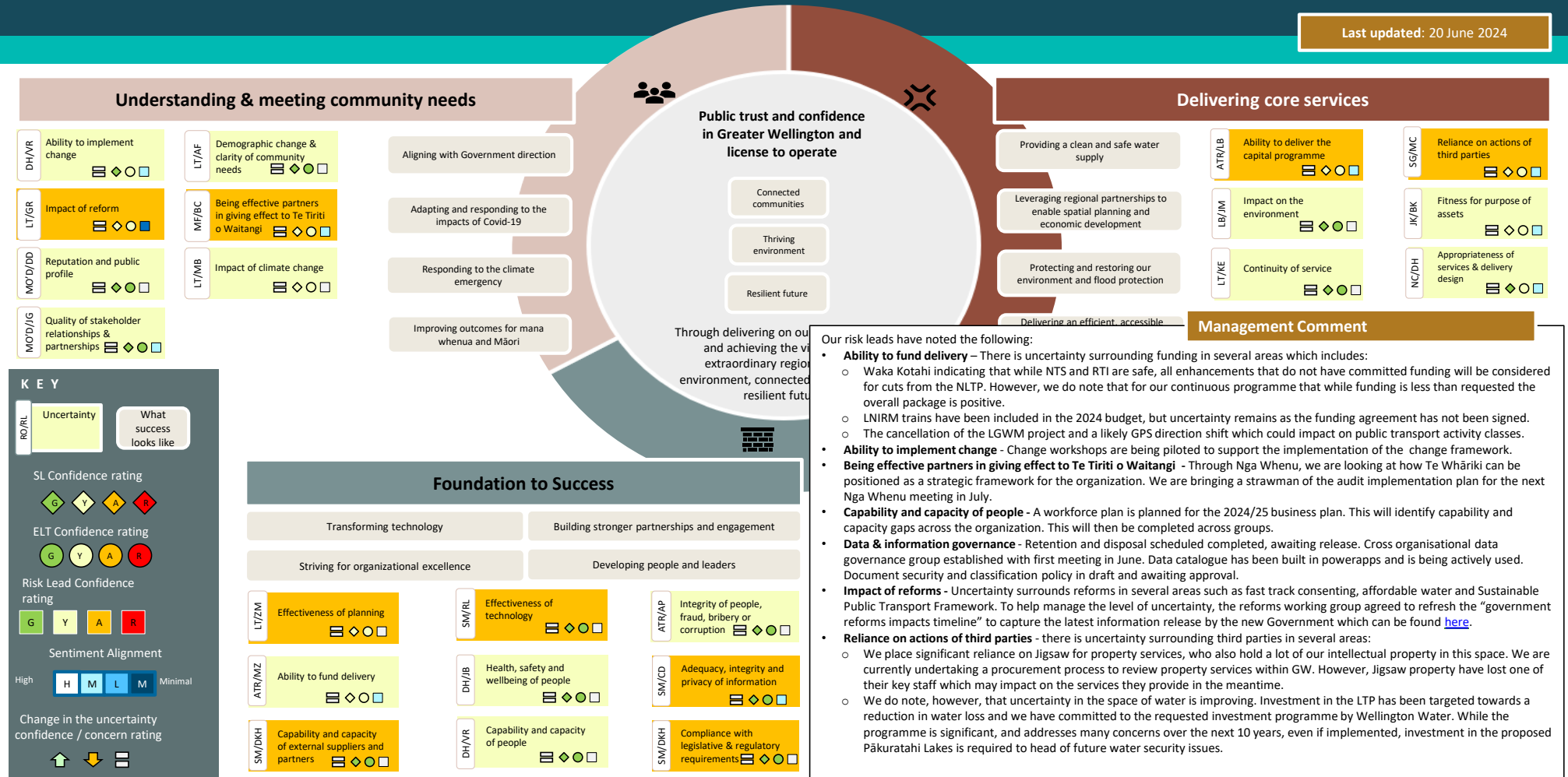
We will also update group risk dashboards and one page uncertainty statements were appropriate.

Our risk leads have noted the following:

- Ability to fund delivery** – Uncertainty is improving in two areas:
 - External environment - positive trends in wholesale interest markets indicate that we may soon see a lower OCR, which would flow through to lower floating debt costs (potential for interest rates to be lower than in the LTP).
 - Central government funding - uncertainty continues to improve, due to the signing of LNRM and confirmed funding for our PT programme, the uncertainty remains Amber until the adoption of the NLTP and confirmation of funding for PT improvements.
- Reliance on third parties** - Certainty is improving around integrity of the network with \$68 million being made available to Kiwirail to catch up on its maintenance backlog. As this funding needs to be used within the 2024/25 financial year, we are in the process of accessing how this impacts on our services (i.e. more bus replacements, higher cost/lower revenue).
- Continuity of service** – ECC engagement is trending upwards with work continuing on further improving engagement by implementing monthly huddles and running bi-annual ECC exercises.
- Effectiveness of technology** – Uncertainty around accountability of technology improved from red to amber through increased engagement with Metlink on NTS and other technology programmes. Off the back of this work looking to put in place more permanent roles & responsibilities.

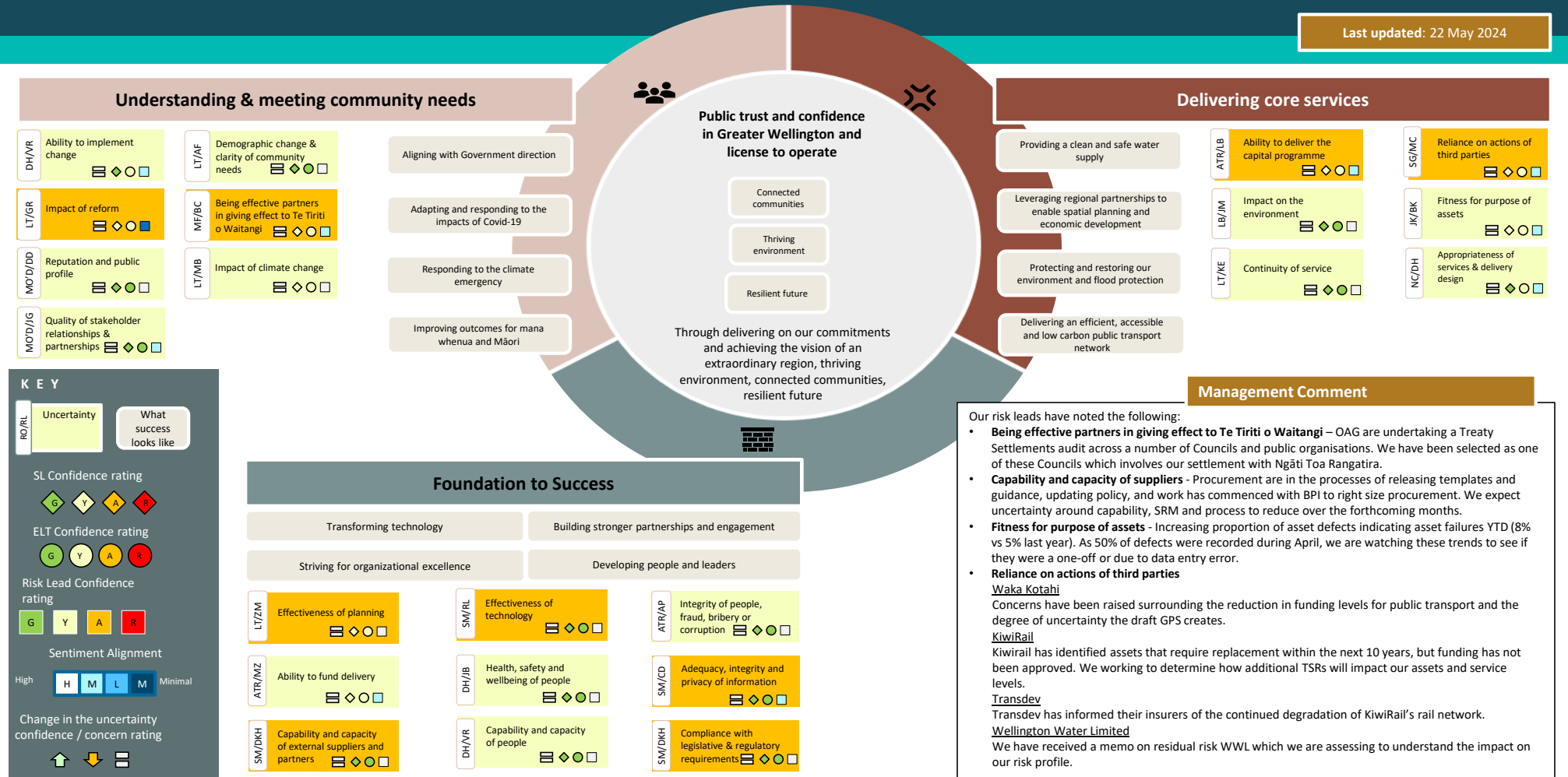
ELT Dashboard

Last updated: 20 June 2024



ELT Dashboard

Last updated: 22 May 2024



Attachment 2

Assurance Update

Finance, Risk and Assurance Committee
13 August 2024

Progress on the 2021-24 Assurance Plan

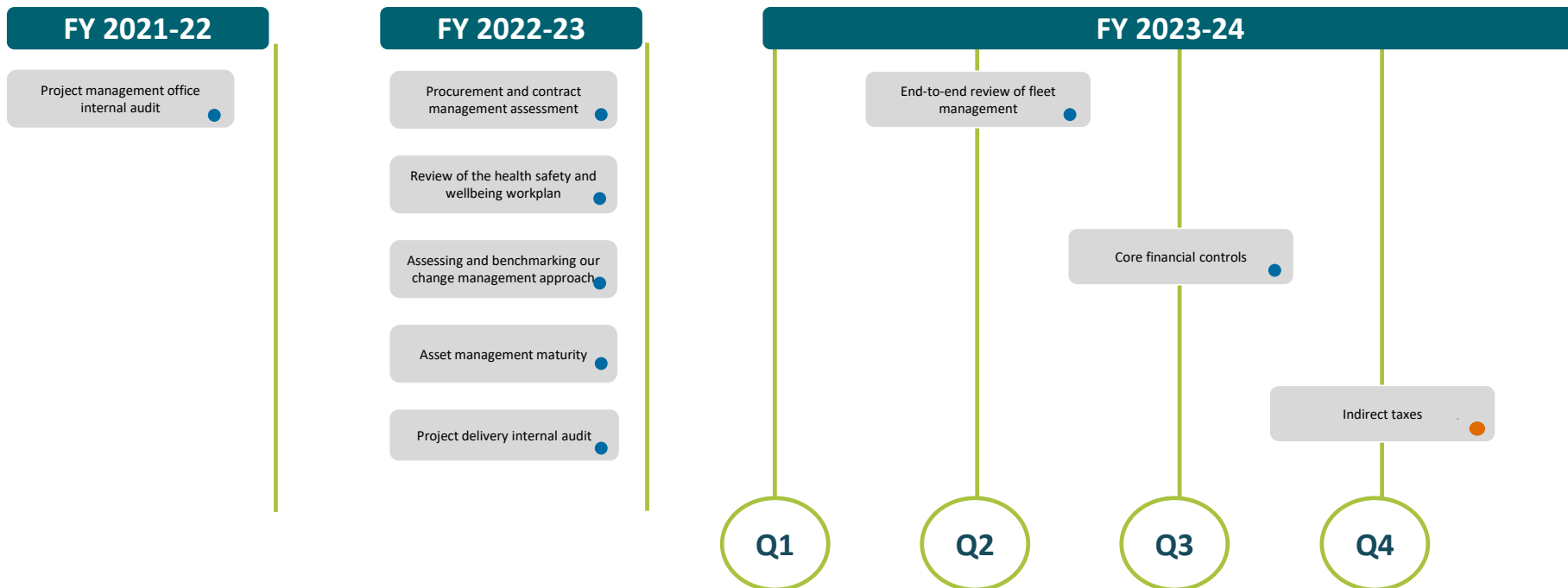
Progress on the 2021- 2024 Assurance Plan

In summary:

We have commenced the indirect taxes internal audit in which we expect to have the finalised audit report available at November’s Committee meeting. This delay resulted from significant work already undertaken by Payroll and Finance teams in delivering core financial controls and data and analytics reviews, and the need to focus on year-end deliverables. From November FRAC onwards we will be reporting against the 2024-27 assurance plan.

PwC status:

- Completed
- In progress/ on track
- Delays or changes expected
- Not yet started



Status of in progress reviews

The table below provides an update on in progress assurance reviews.

Review	Objective	Scoping	Terms of Reference	Fieldwork	Draft	Management Comments	Final Deliverable	Comments
Indirect taxes Sponsor: Alison Trustrum-Rainey	Assess the approach and Enterprise Resource Planning (ERP) functionality used to enable GW to fulfil its indirect tax obligations.				Actual end date: October 2024			TOR signed and fieldwork underway.

Update on outstanding recommendations

Follow up of Open Actions

The below table provides an update on current open and completed Business Assurance actions

Business Assurance review	Closed Actions #	Open Actions #	Management commentary
Health, Safety & Wellbeing	9	10 (8 in progress)	Remaining HSW recommendations have been reviewed and incorporated into the H&S improvement project. These recommendations will be implemented over the next 12-18 months.
Procurement and Contract Management	4	3 (3 in progress)	Procurement pipeline still to be developed. Training soon to be launched.
Asset management maturity	2	1 (1 in progress)	Corporate services are working through who is best placed to define asset management outsourcing policy.
Capital works programme internal audit	3	12 (11 in progress)	BPI process has been extended until July 2025 which has extended the deadline for PMO recommendations.
Revenue collection controls assessment internal audit report	18	1 (1 in progress)	10 recommendations closed. Recommendations relating to Transdev process and controls around the handling of cash and inventory have been closed. The implementation of these recommendations was confirmed during PWC's review of their processes. Snapper have made improvements to their reconciliation process. PWC will review changes to Snapper's process during their year-end review.
Fleet management	2	18 (1 in progress)	Targeting November FRAC for the closure of 3 recommendations in relation to the culture surrounding safe driving, checking of adherence to fleet policy, and reviewing existing fleet records to rectify gaps and inconsistencies.
Core financial controls	0	5 (3 in progress)	Recommendations have been addressed through Finance & Risk business planning for 2024/25.

Attachment 3 to Report 24.371

<p>Risk category Financial</p>	
<p>Risk category description Projects, activities, or decisions which may have an impact on our assets and liabilities and could result in a financial gain or loss for Greater Wellington which includes our council-controlled organisations and trusts.</p>	
<p>Risk appetite statement We are financially prudent by our adherence to sensitive expensive principles and financial strategy to ensure we are transparent to our rate payers. This is also demonstrated through Greater Wellington operating in-line with our annual plans and long-term plans and that we will not undertake unbudgeted expenditure without appropriate approvals and public consultation. We will maintain a high level of fraud maturity by ensuring we have an effective control environment in place to manage the risk of fraud or material misstatement in our accounts. Everyone is accountable for ensuring they are aware of and operate within our financial control environment and associated policies. Significant financial decisions should take a long-term view on any impacts our decisions have on our commitments within the four wellbeings (Social, Cultural, Environment and Economic). CCO’s will need to be self-sufficient (profitable, e.g. Centreport) or operate in-line with our long-term plan (Service providers e.g. Wellington Water Limited).</p>	
<p>Risk stance We will ensure that significant expenditure outside of annual plans and long-term plans are escalated to the appropriate level for approval (ELT / Council), and we will manage financial risk through ensuring appropriate policies and controls are in place and are followed.</p>	
<p>Risk tolerance <i>High level category that captures the acceptable level of uncertainty</i></p>	<p>Low tolerance</p>
<p>Council will tolerate:</p> <ul style="list-style-type: none"> • Risk based investments aligned to our Treasury policy • Variations to the annual plan that are unforeseen and are appropriately approved • Capital works cost escalation or cost scope adjustments that are unforeseen, unavoidable and appropriately approved. • Minor costs, or capital outlays, attributable to new processes or innovation to improve services to meet our commitments to the four wellbeings community. 	<p>Council will not tolerate:</p> <ul style="list-style-type: none"> • Failure to maintain or implement effective systems, processes and controls • Financial activities and/or investment practices that contravene controls or policy • Available funds being below Treasury targets for an extended period of time. • Management not ensuring their staff are aware of and operate within financial policy and controls. • Non reporting of suspected or actual fraud.
<p>Associated Uncertainties (ELT Dashboard)</p>	
<ul style="list-style-type: none"> • Impact of climate change • Ability to deliver the capital programme • Fitness for purpose of assets • Appropriateness of services & delivery design • Ability to fund delivery 	<ul style="list-style-type: none"> • Reputation and public profile • Reliance on actions of third parties • Continuity of service • Effectiveness of planning • Integrity of people, fraud, bribery or corruption • Impact of reforms

Attachment 3 to Report 24.371

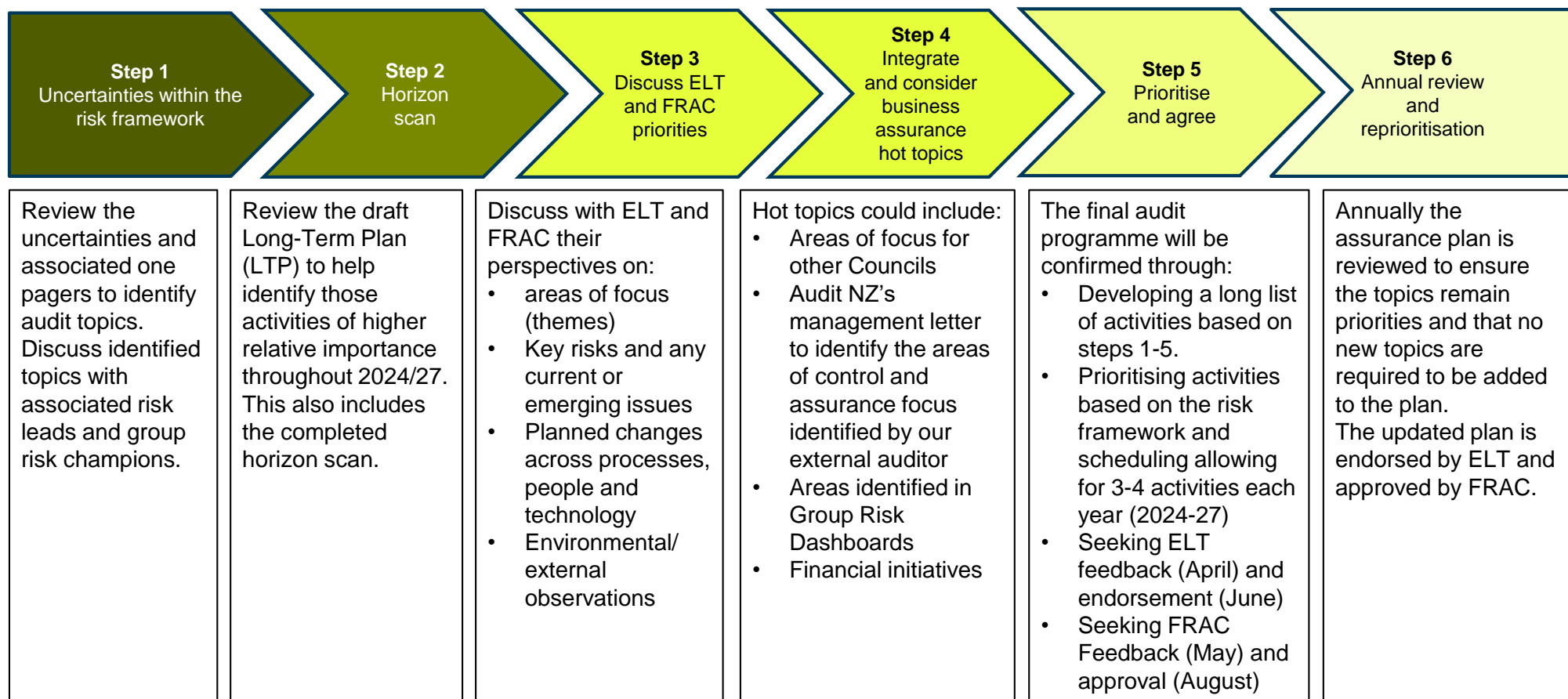
<ul style="list-style-type: none">• Capability and capacity of external suppliers and partners	
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2024-27 three year rolling assurance plan

Contents

- Slides 3-4 – Our approach to building the plan
- Slides 5-16 – Risk based audit activities
- Slides 17-18 – Horizon scan
- Slides 19-21 – Management & FRAC priorities
- Slides 22-27 – Hot topics
- Slides 28-35 – 2024-27 assurance plan

Approach to developing the 2024-27 assurance plan



2024-27 Assurance Plan

FY 2024-25

Bulk water supply

Ability to meet our bulk water supply responsibilities

Treasury management

Review of Treasury processes and risk management of increased debt

Resource consent process

Issuing, managing and monitoring of consents which includes compliance

Revenue collection and controls

Annual review of Snapper and cash to inform external audit

FY 2025-26

Legislative audit

Management of the legal action and awareness of legal responsibilities

Rates Management

To support the implementation of the new rates management system

Data & information management

Maturity assessment and review of progress against roadmap

Data & analytics (Fraud risk)

Analysis to identify unusual transactions and process imp.

Revenue collection and controls

Annual review of Snapper and cash to inform external audit

FY 2026-27

CCO review

Management and monitoring CCOs and other subsidiaries and trusts

Capability delivery

Review of how we deliver capability improvements such as training

Core financial controls

Review of payroll and sensitive expenditure core financial controls

Revenue collection and controls

Annual review of Snapper and cash to inform external audit

Te Tiriti o Waitangi

Maturity in delivering on Te Tiriti obligations and partnering with iwi

Key

One-off assurance activities

Regular assurance activities

Triennial assurance activities

Step 1 - Uncertainties within the risk framework

Uncertainties within the risk framework

Uncertainty	Subuncertainty (amber & above)	Audit activity
<p>Ability to deliver the capital programme (Amber)</p>	<ul style="list-style-type: none"> • Financial management of projects • Impacts of central government policy • Capability and capacity of the industry, supply chain and workforce • Ability to fund the capital programme • Internal capacity to deliver 	<p>Completed Audits</p> <ul style="list-style-type: none"> • Capital works programme (end to end) <p>Proposed Audits</p> <ul style="list-style-type: none"> • None <p>Risk areas not covered by assurance activities</p> <ul style="list-style-type: none"> • None
<p>Ability to fund delivery (Yellow)</p>	<ul style="list-style-type: none"> • Central government funding • Impacts of central government policy • External environment 	<p>Completed Audits</p> <ul style="list-style-type: none"> • Annual revenue completeness audit (snapper & Transdev) <p>Proposed audits</p> <ul style="list-style-type: none"> • Review of treasury management • Rating model • Rates management • AuditNZ annual external audits and triennial LTP audits <p>Risk areas not covered by assurance activities</p> <ul style="list-style-type: none"> • Government funding • Impact government policy has on our funding <p>Refer to impact of reforms uncertainty.</p> <p>Note: we influence through appropriate channels however we are beholden to government decisions. Therefore, focus more on the readiness for reforms.</p>

Uncertainties within the risk framework

Uncertainty	Subuncertainty (amber & above)	Audit activity
Ability to Implement Change (Yellow)	<ul style="list-style-type: none"> • Change culture and purpose • Roles and responsibilities • Embedding into process • Capability • Change planning, delivery and review 	<p>Completed Audits</p> <ul style="list-style-type: none"> • Change management <p>Proposed Audits</p> <ul style="list-style-type: none"> • None <p>Risk areas not covered by assurance activities</p> <ul style="list-style-type: none"> • None
Appropriateness of services & delivery design (Yellow)	<ul style="list-style-type: none"> • Long term plan (promised services & delivery models) • Te ao Māori (build the Māori world view into our design) • Regional Insights (Community outcomes) 	<p>Completed Audits</p> <ul style="list-style-type: none"> • None <p>Proposed Audits</p> <ul style="list-style-type: none"> • Triennial te tiriti audit <p>Risk areas not covered by assurance activities</p> <ul style="list-style-type: none"> • Long term plan • Regional Insights <p>Refer to effectiveness of planning uncertainty.</p>
Being effective partners in giving effect to Te Tiriti o Waitangi (Amber)	<ul style="list-style-type: none"> • Mana whenua perception of GW • Effective communication with Māori • Active protection • Policies, processes and frameworks • Governance and decision making • Compliance • Matauranga Māori • Staff capability and knowledge 	<p>Completed Audits</p> <ul style="list-style-type: none"> • None <p>Proposed Audits</p> <ul style="list-style-type: none"> • Triennial te tiriti audit <p>Risk areas not covered by assurance activities</p> <ul style="list-style-type: none"> • None

Uncertainties within the risk framework

Uncertainty	Subuncertainty (amber & above)	Audit activity
<p>Capability & capacity of people (Yellow)</p>	<ul style="list-style-type: none"> • Systems (systems, tools & policy) • Planning (workforce plan) • Volume (right number of staff) • Structure <p>There are several linked uncertainties:</p> <ul style="list-style-type: none"> • Change management capability • Capital projects delivery • ICT and Data and information management • Being effective partners in giving effect to Te Tiriti o Waitangi • Contract and relational knowledge of third parties • Procurement and contract management • Understanding and knowledge of legislative, regulatory and policy obligations • Health & safety 	<p>Completed Audits</p> <ul style="list-style-type: none"> • None <p>Proposed audits</p> <ul style="list-style-type: none"> • Capability delivery <p>Risk areas not covered by assurance activities</p> <ul style="list-style-type: none"> • Systems • Structure • Volume • Workforce planning <p>Highest risk is in the capability and systems space. In terms of systems, P&C are looking to implement an LMS.</p>
<p>Capability and capacity of suppliers (Amber)</p>	<ul style="list-style-type: none"> • Market understanding • Capacity (Depth of market to provide services as and when needed) • Capability • Supplier relationship management • Embedding into process 	<p>Completed Audits</p> <ul style="list-style-type: none"> • Procurement & contract management <p>Proposed audits</p> <ul style="list-style-type: none"> • None <p>Risk areas not covered by assurance activities</p> <ul style="list-style-type: none"> • None

Uncertainties within the risk framework

Uncertainty	Subuncertainty (amber & above)	Audit activity
Compliance with legislative and regulatory requirements (Amber)	<ul style="list-style-type: none"> • Knowledge (understanding of obligations) • Culture (tone at the top, clear accountability) • Capacity 	<p>Completed Audits</p> <ul style="list-style-type: none"> • Change management <p>Proposed Audits</p> <ul style="list-style-type: none"> • Resource consent process <p>Risk areas not covered by assurance activities</p> <ul style="list-style-type: none"> • Capacity – plan already in place • Culture – Complywith implemented, change started but still more required. 2027-30 when process is more • Knowledge <p>Refer to Capability & capacity of people uncertainty.</p>
Continuity of service (Yellow)	<ul style="list-style-type: none"> • Adequacy of planning (planning anticipates and ensures continuity of services) 	<p>Completed Audits</p> <ul style="list-style-type: none"> • None <p>Proposed Audits</p> <ul style="list-style-type: none"> • None <p>Risk areas not covered by assurance activities</p> <ul style="list-style-type: none"> • Adequacy of planning <p>Note: refer to “effectiveness of planning”</p>

Uncertainties within the risk framework

Uncertainty	Subuncertainty (amber & above)	Audit activity
<p>Data and information governance (Amber)</p>	<ul style="list-style-type: none"> • Data sovereignty/Stewardship (ownership and management) • Quality (accurate, adequate, complete and consistent) • Third parties (awareness and compliance with GW requirements) • Awareness and transparency (awareness of the information we manage and why) • Retention and disposal (systems and policy) • Staff capability and accountability 	<p>Completed Audits</p> <ul style="list-style-type: none"> • Privacy assessment <p>Proposed audits</p> <ul style="list-style-type: none"> • Data & information management review which includes maturity assessment and review of progress against roadmap <p>Risk areas not covered by assurance activities</p> <ul style="list-style-type: none"> • None
<p>Effectiveness of planning (Amber)</p>	<ul style="list-style-type: none"> • Mana Whenua (involvement and consultation) • Central government funding (reliance on funding for new policy, key services and capital commitments) • Change of Government and legislation (impact on our planning timeframe and requirements) • Resource planning and allocation • Adaptability (flexibility to adapt plans to internal external changes) • Partnership (ability of our partners to impact on delivery) 	<p>Completed Audits</p> <ul style="list-style-type: none"> • None <p>Proposed Audits</p> <ul style="list-style-type: none"> • LTP process • Annual planning process <p>Risk areas not covered by assurance activities</p> <ul style="list-style-type: none"> • None

Uncertainties within the risk framework

Uncertainty	Subuncertainty (amber & above)	Audit activity
Effectiveness of technology (Amber)	<ul style="list-style-type: none"> • Threat prevention (data protection) • Service availability (meeting agreed service levels) • Service alignment (technology aligns to business needs) • Accountability of technology (No single point of accountability for all technology) 	<p>Completed Audits</p> <ul style="list-style-type: none"> • Maturity assessment for security compliance – against our framework (ICT) – SAM for Compliance <p>Proposed audits</p> <ul style="list-style-type: none"> • Maturity assessment for security compliance (Metlink) • Cybersecurity – vulnerabilities • Technology review (capability, policy and R&Rs) • We have already undertaken a maturity review which we are reporting against. We do not want a competing review. <p>Risk areas not covered by assurance activities</p> <ul style="list-style-type: none"> • None
Fitness for purpose of assets (Yellow)	<ul style="list-style-type: none"> • Ability to fund improvements and maintenance • Internal capacity to effectively manage and maintain our asset base 	<p>Completed Audits</p> <ul style="list-style-type: none"> • Asset management maturity <p>Proposed Audits</p> <ul style="list-style-type: none"> • None <p>Risk areas not covered by assurance activities</p> <ul style="list-style-type: none"> • None
Health, Safety & Wellbeing (Amber)	<ul style="list-style-type: none"> • Physical works 	<p>Completed Audits</p> <ul style="list-style-type: none"> • Health & Safety review • Fleet management review <p>Proposed audits</p> <ul style="list-style-type: none"> • None <p>Risk areas not covered by assurance activities</p> <ul style="list-style-type: none"> • None

Uncertainties within the risk framework

Uncertainty	Subuncertainty (amber & above)	Audit activity
Impact of Climate Change (Yellow)	<ul style="list-style-type: none"> • Acute (impact of unplanned events) • Chronic risks (changes and extreme variability in areas like whether) • Policy and legal (impact of climate-based policy and legal reforms changes how GW does business) 	<p>Completed Audits</p> <ul style="list-style-type: none"> • None <p>Proposed audits</p> <ul style="list-style-type: none"> • Climate change audit – i.e. response to climate emergency <p>Risk areas not covered by assurance activities</p> <ul style="list-style-type: none"> • None
Impact of reform (Amber)	<ul style="list-style-type: none"> • Clarity of our Role • Government appetite for change • Internal capacity to implement change • Stakeholder preparedness 	<p>Completed Audits</p> <ul style="list-style-type: none"> • None <p>Proposed Audits</p> <ul style="list-style-type: none"> • Readiness for reform <p>Risk areas not covered by assurance activities</p> <ul style="list-style-type: none"> • None
Impact on the environment (Amber)	<ul style="list-style-type: none"> • Novel solutions (solutions are trialed that can provide environmental benefits) 	<p>Completed Audits</p> <ul style="list-style-type: none"> • None <p>Proposed audits</p> <ul style="list-style-type: none"> • Social licence to operate <p>Risk areas not covered by assurance activities</p> <ul style="list-style-type: none"> • None

Uncertainties within the risk framework

Uncertainty	Subuncertainty (amber & above)	Audit activity
Integrity of people, fraud, bribery or corruption (Yellow)	<ul style="list-style-type: none"> Process and Policies (to limit the risk of fraud) 	<p>Completed Audits</p> <ul style="list-style-type: none"> Core financial controls (AP, AR & month-end processing) Fleet management review <p>Proposed audits</p> <ul style="list-style-type: none"> Annual data & analytics review (other assurance activities) Core financial controls (payroll, pcard) Annual external audit (other assurance activities) <p>Risk areas not covered by assurance activities</p> <ul style="list-style-type: none"> None
Population, demographic change & clarity of community need (Yellow)	<ul style="list-style-type: none"> Societal expectations (understand & meet) Improving outcomes for mana whenua and Māori Population demographics (reliability of census data) 	<p>Completed Audits</p> <ul style="list-style-type: none"> None <p>Proposed Audits</p> <ul style="list-style-type: none"> Te ao Māori – GW undertake triennial te tiriti audits <p>Risk areas not covered by assurance activities</p> <ul style="list-style-type: none"> None
Quality of relationships with our stakeholders and partners (Yellow)	<ul style="list-style-type: none"> Impact of our supplier's decisions (supplier's impact on our delivery to the public) Understanding our partners and stakeholders External decisions and events (decisions and events have on our relationships that are out of our control) 	<p>Completed Audits</p> <ul style="list-style-type: none"> None <p>Proposed audits</p> <ul style="list-style-type: none"> Stakeholder relationship management <p>Risk areas not covered by assurance activities</p> <ul style="list-style-type: none"> None

Uncertainties within the risk framework

Uncertainty	Subuncertainty (amber & above)	Audit activity
Reputation and public profile (Yellow)	<ul style="list-style-type: none"> • Performance of service delivery (incl. assets & projects) • Stakeholder management 	<p>Completed Audits</p> <ul style="list-style-type: none"> • Capital works programme (end to end) <p>Proposed audits</p> <ul style="list-style-type: none"> • Stakeholder relationship management • Social license to operate (flood protection, etc.) <p>Risk areas not covered by assurance activities</p> <ul style="list-style-type: none"> • None

Uncertainties within the risk framework

Uncertainty	Subuncertainty (amber & above)	Audit activity
<p>Reliance on actions of third parties (Amber)</p>	<ul style="list-style-type: none"> • Legislative compliance (third parties understand, manage and monitor legal requirements) • Clarity of roles of responsibilities (unforeseen events leads to GW filling the gap – i.e. COVID) • Continuity of service (third parties are prepared to provide critical services during an emergency response) • Internal Capacity & Knowledge (capacity and knowledge to manage contracts) • Our Reputation (decision of third parties impact GW’s reputation) • Integrity of the network (reliance on external parties in the absence of a contractual relationship to do their role effectively - i.e. Waka Kotahi maintenance of state highways and our public transport network) 	<p>Completed Audits</p> <ul style="list-style-type: none"> • EM80 review • Hyundai rotam maintenance audit • Annual revenue completeness audit (snapper & Transdev) <p>Proposed audits</p> <ul style="list-style-type: none"> • Forestry 360/China Forestry group audit (right agreement) • 3rd party legislative compliance process • Third party BCP processes • Critical suppliers and controls in place to manage reputational risk from their actions (Do our contracts protect us from reputational impacts, how do we protect our brand as GW) <p>Risk areas not covered by assurance activities</p> <ul style="list-style-type: none"> • COVID response • Integrity of the network – significant work is already underway between KiwiRail, Waka Kotahi and GW • Internal Capacity & Knowledge <p>Refer to Capability & capacity of people uncertainty.</p>

Risk-based audit activities

Non-financial topics

- Capability delivery
- Resource consent process
- Cybersecurity (aligned to security framework)
- Technology review (policy and R&Rs)
- Data & information management
- Social licence to operate
- Stakeholder relationship management
- 3rd party legislative compliance process
- Third party BCP processes
- Readiness for reform
- Climate change
- Legislative audit (R&R, process, understanding)

Financial topics

- Review of treasury management
- Rating model
- Rates management
- LTP process
- Annual planning process
- Core financial controls (payroll, pcard)

Step 2 - Horizon scan

Horizon scan

Areas of change	Links to our uncertainties	Assurance activities
Population and demographic change	<ul style="list-style-type: none"> Population, demographic change & clarity of community need 	No proposed assurance activities
Economic uncertainty, affordability challenges, and resource shortages	<ul style="list-style-type: none"> Ability to fund delivery 	<ul style="list-style-type: none"> Review of treasury management Rating model Rates management Core financial controls
Increasing risk from environmental change, climate change, and natural hazards	<ul style="list-style-type: none"> Impact on the environment Impacts of climate change 	<ul style="list-style-type: none"> Climate change Social licence to operate Ability to meet our bulk water supply responsibilities
Partnership with mana whenua and Māori	<ul style="list-style-type: none"> Being effective partners in giving effect to Te Tiriti o Waitangi 	<ul style="list-style-type: none"> Triennial te tiriti audit will form part of the assurance plan
Changes to Government and legislation	<ul style="list-style-type: none"> Impact of reform 	<ul style="list-style-type: none"> Readiness for reform
Technological advancements and the future of work.	<ul style="list-style-type: none"> Effectiveness of technology 	<ul style="list-style-type: none"> Cybersecurity – vulnerabilities Technology review (capability, policy and R&Rs) Data & information management

Step 3 - Management and FRAC priorities

ELT Priorities

ELT have highlighted the following priorities for the assurance plan:

1. Our responsiveness to change
2. Maintaining our reputation and public profile
3. Our ability to be an effective regulator
4. Reliance on actions of third parties
5. Our critical stakeholder relationships and partnerships
6. Health, safety & wellbeing

FRAC priorities

FRAC have highlighted the following priorities for the assurance plan:

1. Do we have the right capabilities to deliver on public needs and expectations.
2. Our ability to be an effective regulator.
3. Are our assets fit for purpose in the wake of climate change and do we have appropriate insurance.
4. Our responsiveness to change and reforms.

Step 4 – Hot topics

Finance initiatives

The Finance & Risk group have highlighted the following hot topics:

- Fixed asset register – focus on WIP and capitalization
- Risk management – new process, still establishing, review year 3
- Review of treasury management (years 2)
- LTP process (year 1)
- Core financial controls (payroll, pcard)

Audit New Zealand

Audit New Zealand indicated the following areas of interest:

- Improvements to our environmental regulatory enforcement
- Performance Reporting Framework
- Subsidiary/related agency risks

ELT

ELT have highlighted the following hot topics:

- Social license to operate
- Readiness for reform
- Insurance strategy
- CCO review (asset management, etc.)
- Policy framework – management and review process not great, also when do we create policy

FRAC

FRAC have highlighted the following hot topics:

- How we manage the legal action we take.
- Regulatory management processes.

Other council programmes

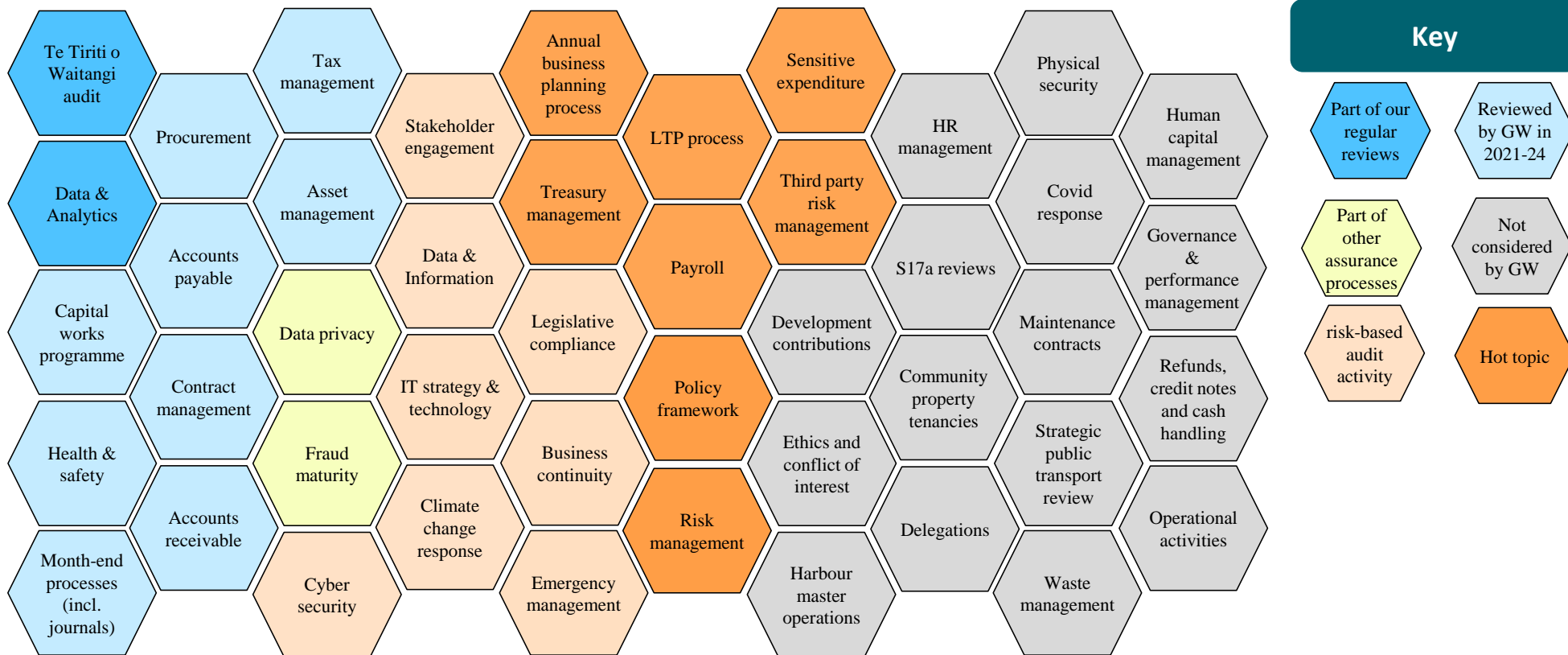
Input through LGNZ risk forum:

- Nelson City Council
- Waikato Regional Council
- Whangarei District Council
- Queenstown Lakes District Council
- Dunedin City Council

Direct discussion with:

- Auckland City Council
- Auckland Transport
- Environment Canterbury
- Porirua City Council
- PriceWaterhouseCoopers

Refer to Report 24.371



Step 5 – Assurance plan for 2024-27

Prioritised activities

We have prioritised activities using a 3-tiered prioritisation scale:

- Risk (double weighted)
 - Low – associated uncertainty and/or sub-uncertainty has a rating of Green or Yellow
 - Medium – associated uncertainty is rated amber, or rated Green or Yellow but has a sub-uncertainty rating of amber or red.
 - High – has an uncertainty rating of red, or amber with a sub-uncertainty rating of amber or red.
- Strategic
 - Low – not linked to an LTP or ELT/FRAC priority.
 - Medium – Link to an LTP or ELT/FRAC priority.
 - High - Link to both LTP and ELT/FRAC priority.
- Hot topic
 - Low – not a hot topic.
 - Medium – suggested by Finance, FRAC or ELT.
 - High - suggested by Finance, FRAC or ELT and is a topic within other Council programmes.

Prioritised activities

The detailed list of prioritised activities can be found [here](#).

Audit activity	Risk	Strategic	Hot topic	Priority R&A	Confirmed Priority	Year	Priority alignment
Legislative audit	high	medium	high	11	11	Year 2	Regulator/Legislative
3rd party legislative compliance and risk management processes	high	medium	high	11	11	Excluded	3rd parties
LTP process	high	low	high	10	10	Year 1	Not a priority
Annual planning process	high	low	high	10	10	Excluded	Not a priority
Resource consent process	high	medium	medium	10	10	Year 1	Regulator/Legislative
Data & information management	high	medium	low	9	9	Year 3	Not a priority
Capability delivery	high	medium	low	9	9	Year 2	Capabilities/Responsiveness
Cybersecurity review	high	medium	low	9	9	Excluded	Not a priority
Technology review	high	medium	low	9	9	Year 2	Not a priority
Third party BCP processes	high	medium	low	9	9	Excluded	3rd parties
Review of treasury management	medium	medium	high	9	9	Year 3	Not a priority
Core financial controls (payroll, pcard)	medium	medium	high	9	9	Year 3	Not a priority
CCO review	high	low	medium	9	9	Year 1	Not a priority
Ability to meet our bulk water supply responsibilities	high	high		9	9	Excluded	Assets/Climate change
Fixed assets	medium	medium	medium	8	8	Excluded	Assets/Climate change
Risk management	medium	low	high	8	8	Excluded	Not a priority
Social licence to operate	medium	high	medium	7	7	Excluded	Reputation
Stakeholder relationship management	medium	high	low	7	7	Excluded	Stakeholders
Readiness for reform	medium	high	medium	7	7	Excluded	Capabilities/Responsiveness
Response to climate emergency	medium	high	low	7	7	Excluded	Assets/Climate change
Performance Reporting Framework	medium	low	medium	7	7	Excluded	Not a priority
Health and safety improvement project	medium	medium	low	7	6	Excluded	Health and safety
Insurance strategy	low	medium	medium	6	6	Excluded	Assets/Climate change
Policy framework	medium	low	low	6	5	Excluded	Not a priority
Rating model	low	medium	low	5	5	Excluded	Not a priority
Rates management	low	medium	low	5	5	Excluded	Not a priority
Integration of functions across GW	low	low	low	4	3	Excluded	Not a priority

Delivery against priorities

Priority alignment	Audit activity	Year	How is this being addressed
3rd parties <i>Note: In general, significant working is being undertaken across this priority to manage the risk</i>	3rd party legislative compliance process	Excluded	Focus on internal legislative compliance before undertaking review of 3rd party processes in 2027-30.
	Third party BCP processes	Excluded	Work is underway to undertake BCP testing with suppliers.
Assets/Climate change	Ability to meet our bulk water supply responsibilities	Excluded	High priority but would be best to wait to see the outcomes of water reforms before included within the plan. Could include if ownership structure remains the same.
	Fixed assets	Excluded	Working through improvements to fixed asset communications with WWL with hopes this would help improve management of the WIP balance. Should be kept on the radar for 2027-30 or during annual plan reviews.
	Insurance strategy	Excluded	We have included insurance modelling within the F&R business plan. We will use this modelling, alongside the latest revaluation data, to assess our insurance gap.
	Response to climate emergency	Excluded	Still currently on track for meeting our commitments under the declared climate emergency. Strategic/planning work to manage/mitigate the risks of climate change is progressing.
Capabilities/Responsiveness	Capability delivery	Year 2	Capability delivery activity included in plan.
	Readiness for reform	Excluded	Reform working group in place. Reform timeline is kept up to date with regular reporting through to ELT, FRAC and the Council.
Health and safety	Health and safety improvement project	Excluded	H&S was included in the 2021-24 plan with a significant improvement programme underway. Worth reviewing once the improvement programme has advanced.
Regulator/Legislative	Legislative audit	Year 2	Legislative audit activity included in plan.
	Resource consent process	Year 1	Resource consent process activity included in plan.
Reputation	Social licence to operate	Excluded	Relationship framework agreed by ELT with He Hapori moved from procurement to discovery and Net Promoter Score paper going to ELT.
Stakeholders	Stakeholder relationship management	Excluded	

Prioritised view of assurance activities

FY 2024-25

LTP process

Review of the LTP development and consultation process

Resource consent process

Issuing, managing and monitoring of consents which includes compliance

Technology review

Adherence to policy and technology roles & responsibilities

Revenue collection and controls

Annual review of Snapper and cash to inform external audit

FY 2025-26

Legislative audit

Management of the legal action and awareness of legal responsibilities

Treasury management

Review of Treasury processes and risk management of increased debt

CCO review

Management and monitoring CCOs and other subsidiaries and trusts

Data & analytics (Fraud risk)

Analysis to identify unusual transactions and process imp.

Revenue collection and controls

Annual review of Snapper and cash to inform external audit

FY 2026-27

Data & information management

Maturity assessment and review of progress against roadmap

Capability delivery

Review of how we deliver capability improvements such as training

Core financial controls

Review of payroll and sensitive expenditure core financial controls

Revenue collection and controls

Annual review of Snapper and cash to inform external audit

Te Tiriti o Waitangi

Maturity in delivering on Te Tiriti obligations and partnering with iwi

Key

One-off assurance activities

Regular assurance activities

Triennial assurance activities

Proposed changes

Current Activities

LTP process

Review of the LTP development and consultation process

Consideration

We note that while AuditNZ does review the LTP process, it is from the perspective of materiality and accuracy and completeness of the LTP document, rather from a process improvement perspective.

Technology review

Adherence to policy and technology roles & responsibilities

Consideration

The new NTS project has resulted in positive change in R&Rs between Metlink and ICT. We will continue to monitor throughout 2024-27 to ensure R&Rs continue to improve.

Replacement Activities

Activity	Need
Ability to meet our bulk water supply responsibilities	We would look to confirm that we are doing everything we can to manage our risk around water availability. This includes both in the upcoming summer and until a new water entity is in place. We would also look to confirm that we are prepared to respond if there is a water shortage, this includes being clear on R&Rs between WWL vs GW vs TA and how they will play out (integrated system).
Climate change	Peer review of the organisational climate change adaptation plan which will be completed by the end of 2025-26. This would include a peer review alongside its development to support the implementation of the plan.
Rates management*	The timing and focus is to support the implementation of the new rates management software solution. We also note that while the activity did not prioritise well it has created issues over the last few years.
Fixed assets*	Known area of improvement and was flagged in both our fleet management and core financial controls audit. We would focus ERP and wider fixed asset management (not just WIP).
Annual planning process*	Key process that supports the delivery of the LTP on an annual basis. Also rated highly by other Councils.

*One of the assumption is that we would review at least one area of core financial controls annually. Therefore, the LTP process review should be replaced by an area of financial control.

Recommended Replacements

Bulk water supply

Ability to meet our bulk water supply responsibilities

Rationale

Area of significant risk and rated highly within the prioritisation. It was only originally excluded due to the move to the new water entity, however, ELT highlighted that this would not be for a few years and we are carrying significant risk in the meantime. The review would look to address whether we are doing everything in our power, as an asset owner, to meet our obligations under the water services act. Particularly considering potential water shortages again, this summer.

Rates management

To support the implementation of the new rates management system

Rationale

New rates management system will be in place by 2025/26. Review would be focused on its implementation, data accuracy and supporting processes. Area of focus as it has created issues over the last few years.

ELT endorsed assurance activities

FY 2024-25

Bulk water supply

Ability to meet our bulk water supply responsibilities

Treasury management

Review of Treasury processes and risk management of increased debt

Resource consent process

Issuing, managing and monitoring of consents which includes compliance

Revenue collection and controls

Annual review of Snapper and cash to inform external audit

FY 2025-26

Legislative audit

Management of the legal action and awareness of legal responsibilities

Rates Management

To support the implementation of the new rates management system

Data & information management

Maturity assessment and review of progress against roadmap

Data & analytics (Fraud risk)

Analysis to identify unusual transactions and process imp.

Revenue collection and controls

Annual review of Snapper and cash to inform external audit

FY 2026-27

CCO review

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Capability delivery

Review of how we deliver capability improvements such as training

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Te Tiriti o Waitangi

Maturity in delivering on Te Tiriti obligations and partnering with iwi

Key

One-off assurance activities

Regular assurance activities

Triennial assurance activities

Assumptions when developing the plan

- Internal audit needs to have oversight of the internal control environment to mitigate the risk of fraud. To enable this, we have included at least one topic in the area of finance annually.
- Activities were prioritised based on the agreed prioritisation progress. Priorities were included within this methodology.
- Priorities were balanced against risk and other hot topics and therefore not all priorities have been addressed by activities within the. On slide 31 we have addressed these gaps.

Assurance activities for 2021-24

FY 2021-22	FY 2022-23	FY 2023-24	Considered but not included	Key
<p>Project management office internal audit</p> <p>Revenue collection and controls assessment</p>	<p>Procurement and contract management assessment</p> <p>Review of the health safety and wellbeing workplan</p> <p>Assessing and benchmarking our change management approach</p> <p>Asset management maturity</p> <p>Project delivery internal audit</p> <p>Revenue collection and controls assessment</p>	<p>End-to-end review of fleet management</p> <p>Core financial controls</p> <p>Indirect taxes</p> <p>Revenue collection and controls assessment</p> <p>Data & analytics</p> <p>Te Tiriti o Waitangi</p>	<p>End to end consenting process</p> <p>Rating model</p> <p>Regional Land Transport Plan (RLTP) funding</p> <p>Readiness for reform</p> <p>Insurance strategy</p>	<p>One-off assurance activities</p> <p>Annual assurance activities</p> <p>Triennial assurance activities</p>



Greater Wellington Flood protection awareness and perceptions survey 2024

Introducing Verian

Verian is the new name for Kantar Public (formerly Colmar Brunton).

Following our divestment from our former parent company, we are now an independent research and evaluation agency, providing evidence and advisory services to government and the public realm, across Aotearoa New Zealand and around the world.

Get in touch if you would like to know more.



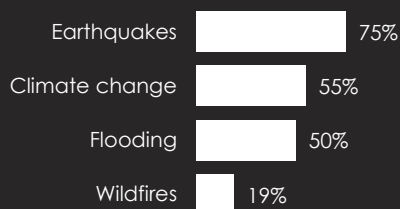
Powering decisions
that shape the world.

Survey methodology



Summary

Half of residents feel there is a relatively high risk posed by flooding in the region in the next 10 years.



96% of residents feel flood risk management is at least quite important.

Just 16% of residents feel they have a good understanding of flood risk management activities. However, when asked about specific activities, 29% were able to name river specific works they were aware of.

"Significant flood protection work along Te Awa Kairangi in Lower Hutt."

When asked who was responsible for managing flood risk. A third of residents specifically named Greater Wellington or said "Regional Council" (32%). A third attributed responsibility to their City, Local or District Council (32%). A quarter simply said "Council" (25%).

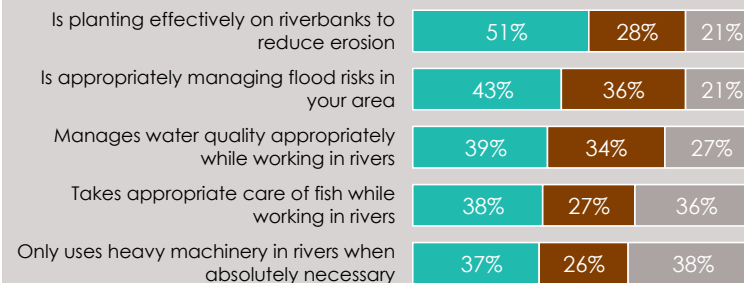
One in three residents feel flood risk management is being managed well in the region.



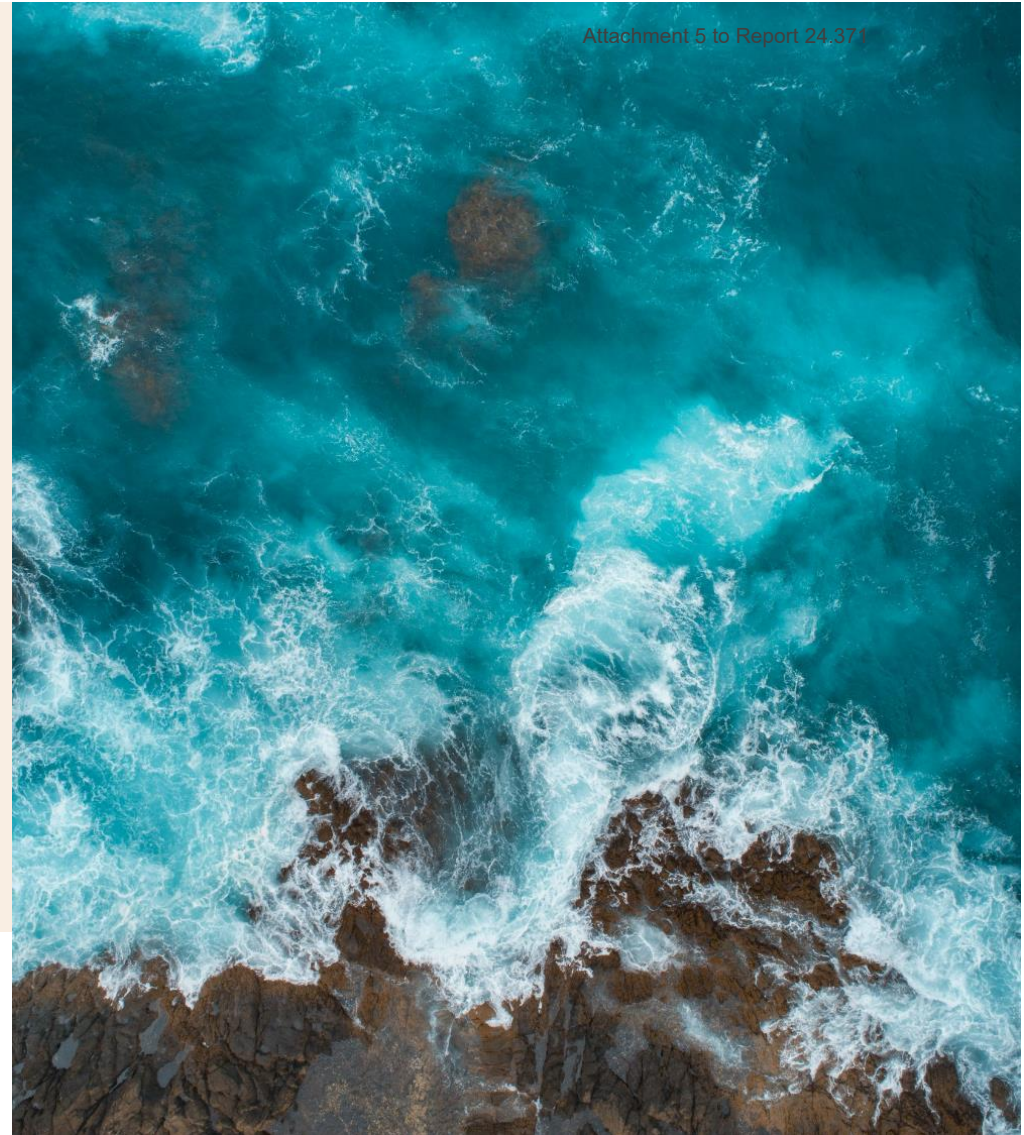
Opportunities exist to increase awareness and understanding of Greater Wellington's flood protection activities and management.



Greater Wellington...



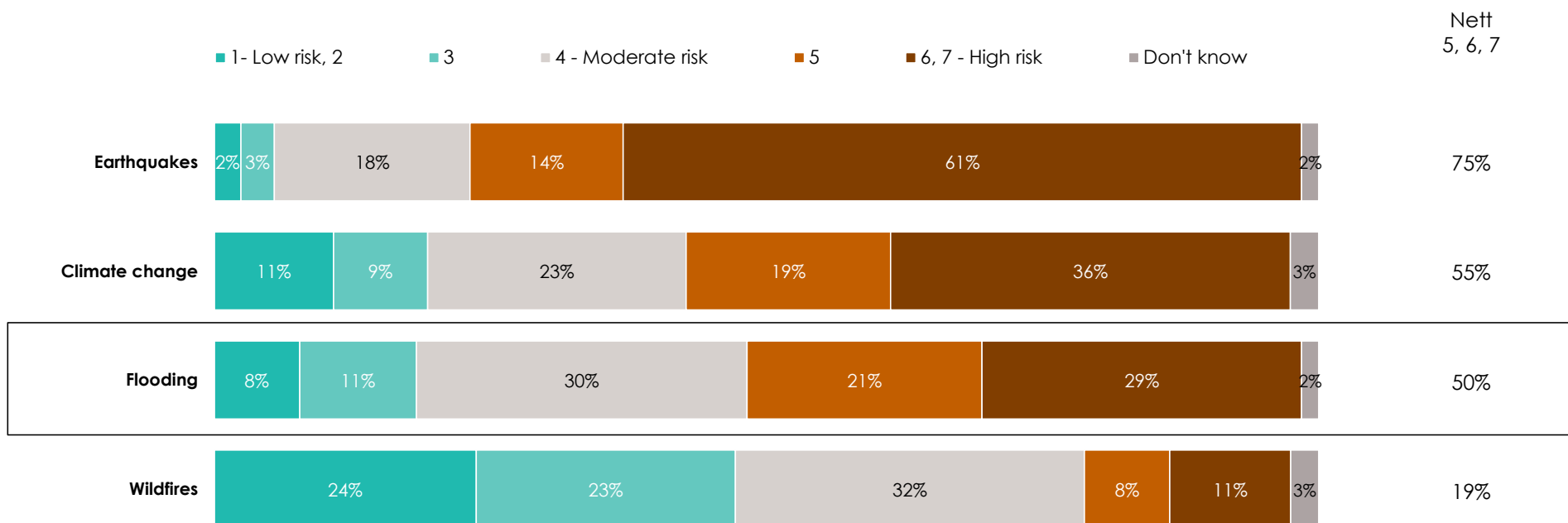
Awareness and perceptions



Attachment 5 to Report 24.37.1

Half of Wellington Region residents feel there is a relatively high risk posed by flooding in the region in the next 10 years. Comparatively, three in four feel there is a relatively high risk posed by earthquakes.

Relative risk

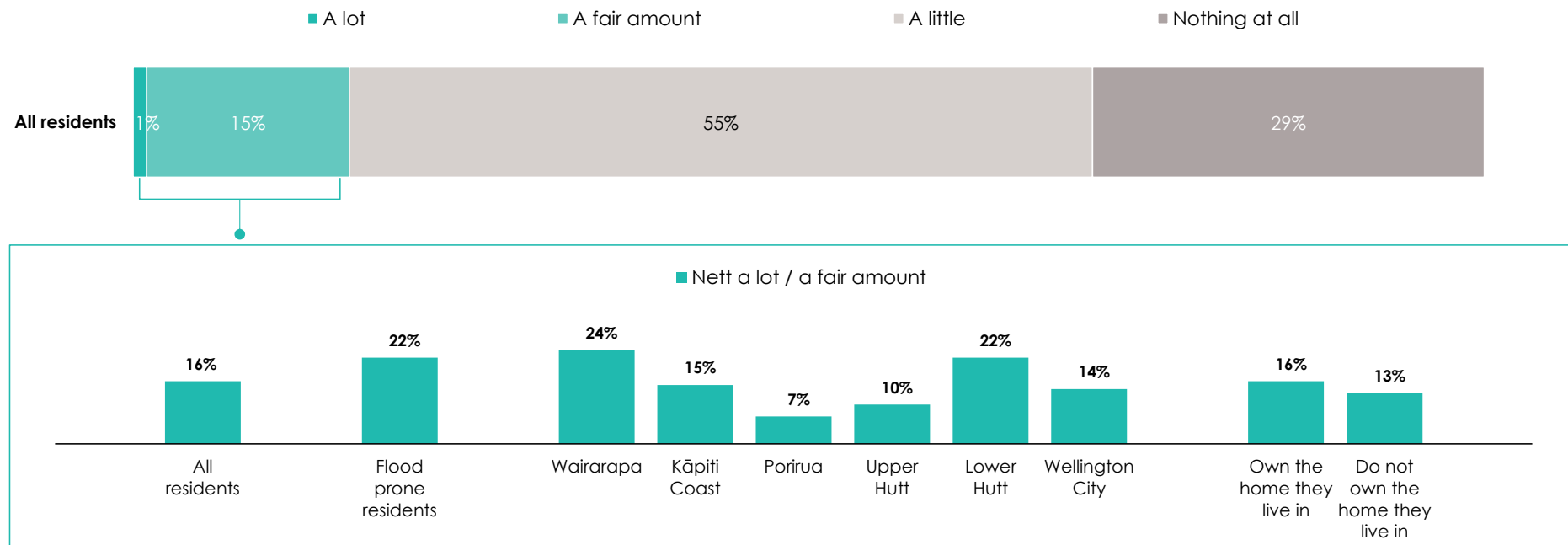


Source: Q1 – How much of a risk, to people and property, do you feel each of the following pose to the Wellington Region in the next 10 years?

Base: All residents (n=597).

Very few Wellington Region residents feel they have a good understanding of flood risk management activities. Those who live in flood prone areas, the Wairarapa, and Lower Hutt tend to have higher than average knowledge.

Knowledge of flood risk management activities

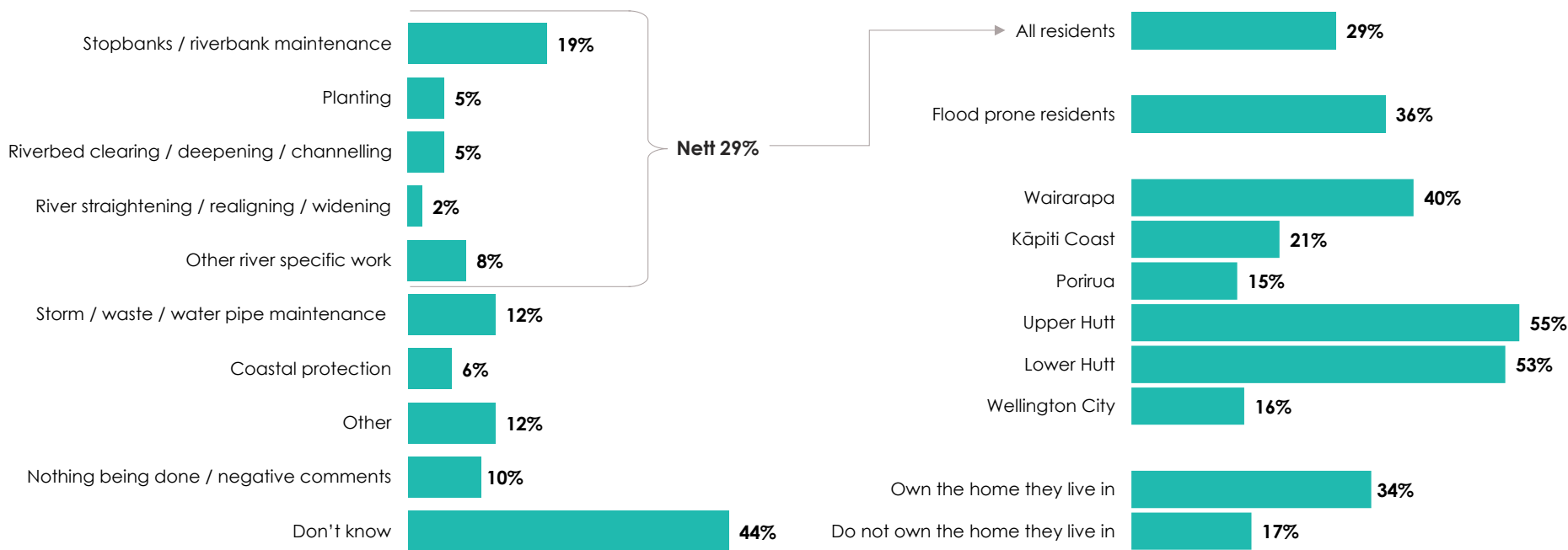


Source: Q2 – How much, if anything, do you know about flood risk management activities (also known as flood protection)?

Base: All residents (n=597), Flood prone (n=254), Wairarapa (n=56), Kāpiti Coast (n=123), Porirua (n=72), Upper Hutt (n=64), Lower Hutt (n=130), Wellington City (n=152), Homeowners (n=475), Non-homeowners (n=116). Verian | 7

When we asked residents what flood protection activities they were aware of, just over a quarter (29%) mentioned river specific work (e.g. stopbanks), 12% mentioned drainage or pipe work, and 6% mentioned coastal protection. Those living in flood prone areas, the Wairarapa, and the Hutt Valley were most likely to mention river specific work.

Knowledge of works



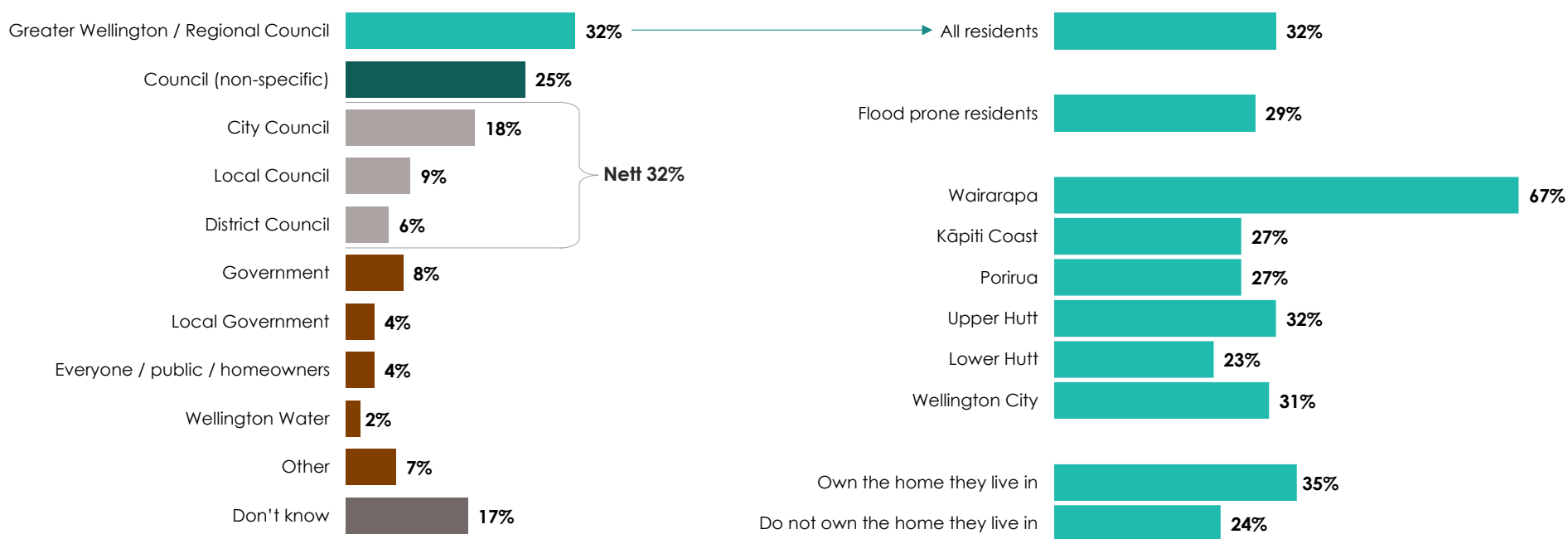
Source: Q3 – Thinking about your region, what do you think is being done to manage flood risk and prevent flooding?

Base: All residents (n=597), Flood prone (n=254), Wairarapa (n=56), Kāpiti Coast (n=123), Porirua (n=72), Upper Hutt (n=64), Lower Hutt (n=130), Wellington City (n=152), Homeowners (n=475), Non-homeowners (n=116).

Note: This question was free text and responses were able to be coded to multiple responses.

We also asked residents who was responsible for managing flood risk in their area. A third specifically named Greater Wellington or said “Regional Council”. A third attributed responsibility to their City, Local or District Council. A quarter simply said “Council”. Wairarapa residents are by far the most likely to attribute responsibility to Greater Wellington / Regional Council.

Responsibility



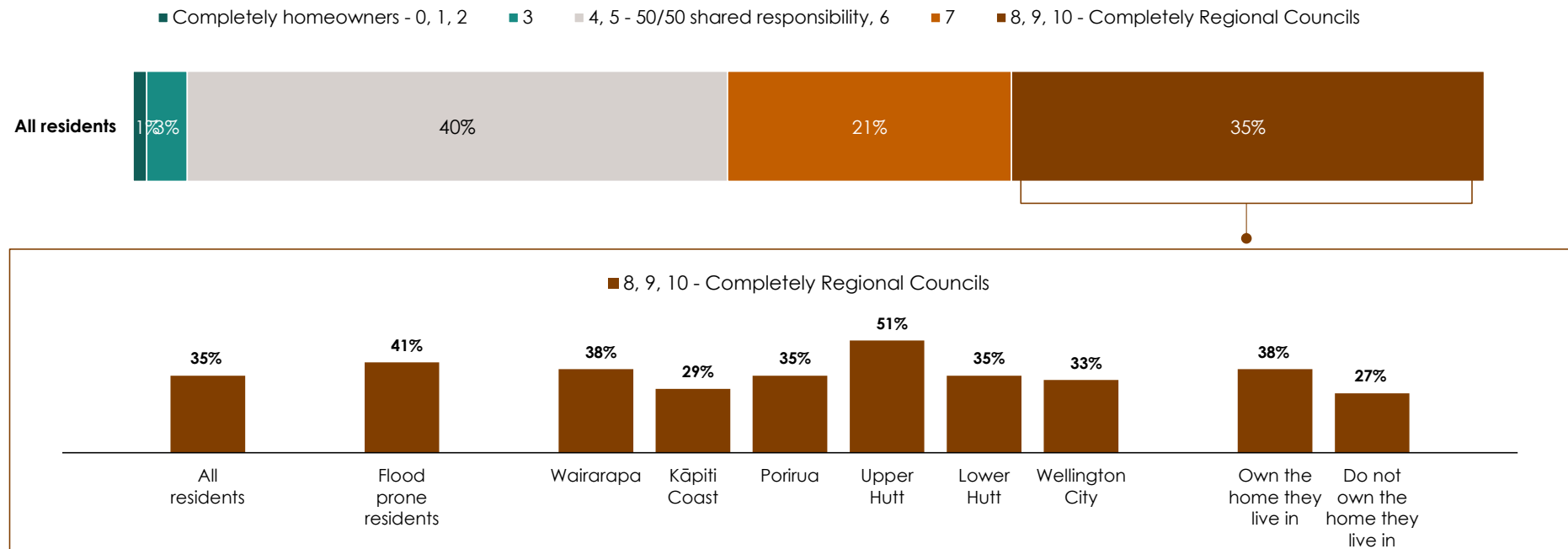
Source: Q4 – Who do you think is responsible for managing flood risk in your area?

Base: All residents (n=597), Flood prone (n=254), Wairarapa (n=56), Kāpiti Coast (n=123), Porirua (n=72), Upper Hutt (n=64), Lower Hutt (n=130), Wellington City (n=152), Homeowners (n=475), Non-homeowners (n=116).

Note: This question was free text and responses were able to be coded to multiple responses.

When it comes to protecting homes against flooding, most residents feel the responsibility should largely sit with the Regional Council. However, 40% of residents do feel it should be shared 50/50 between homeowners and the Regional Council.

Responsibility: Regional Council vs homeowners

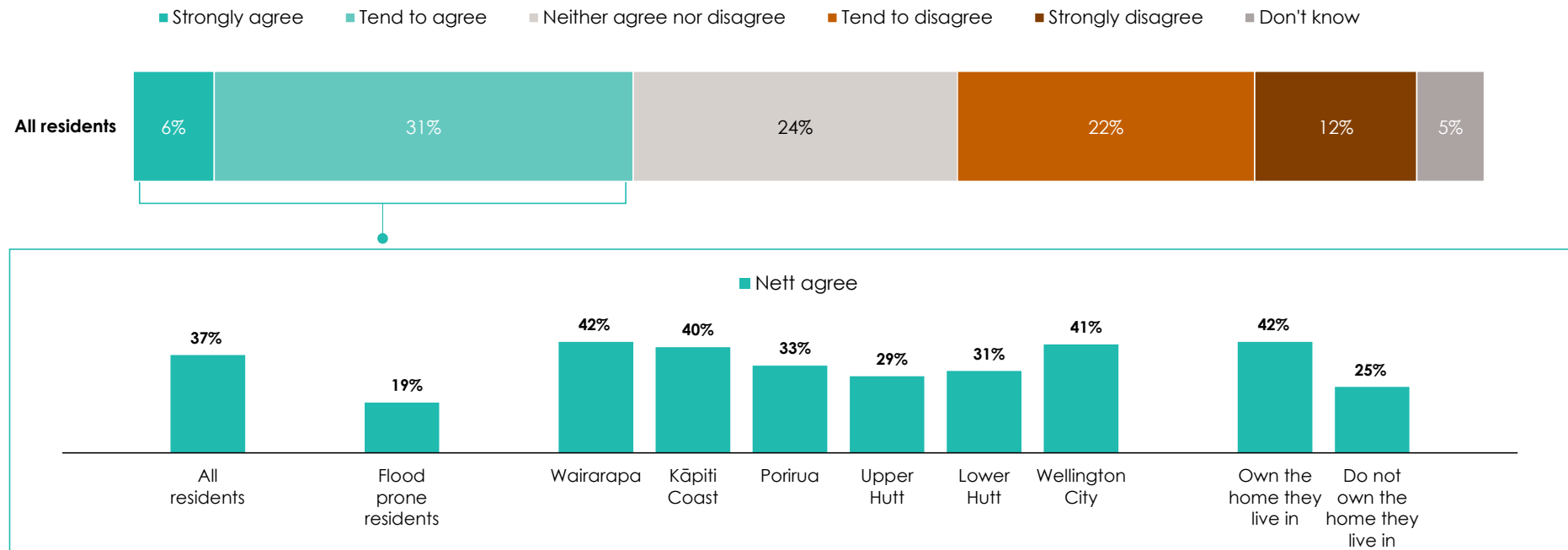


Source: Q5 - When it comes to protecting homes against flooding, how much responsibility do you feel homeowners should have and how much responsibility do you feel Regional Councils should have?

Base: All residents (n=597), Flood prone (n=254), Wairarapa (n=56), Kāpiti Coast (n=123), Porirua (n=72), Upper Hutt (n=64), Lower Hutt (n=130), Wellington City (n=152), Homeowners (n=475), Non-homeowners (n=116). Verian | 10

More than a third of residents feel those who own homes or businesses in flood zone areas should pay higher rates to help with flood protection. However, a similar proportion disagree.

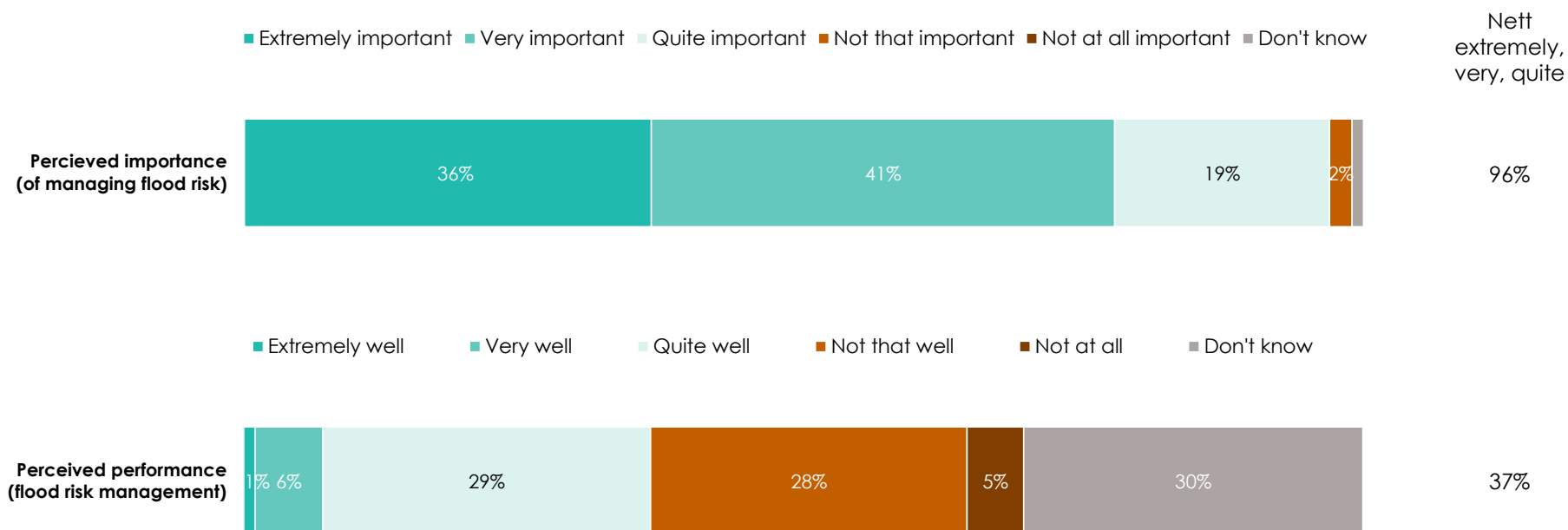
Responsibility: Those who own homes or businesses in flood zone areas should pay higher rates to help with flood protection



Source: Q11 – How much do you agree or disagree with each of the following statements? Those who own homes or businesses in flood zone areas should pay higher rates to help with flood protection.

Base: All residents (n=597), Flood prone (n=254), Wairarapa (n=56), Kāpiti Coast (n=123), Porirua (n=72), Upper Hutt (n=64), Lower Hutt (n=130), Wellington City (n=152), Homeowners (n=475), Non-homeowners (n=116). Verian | 11

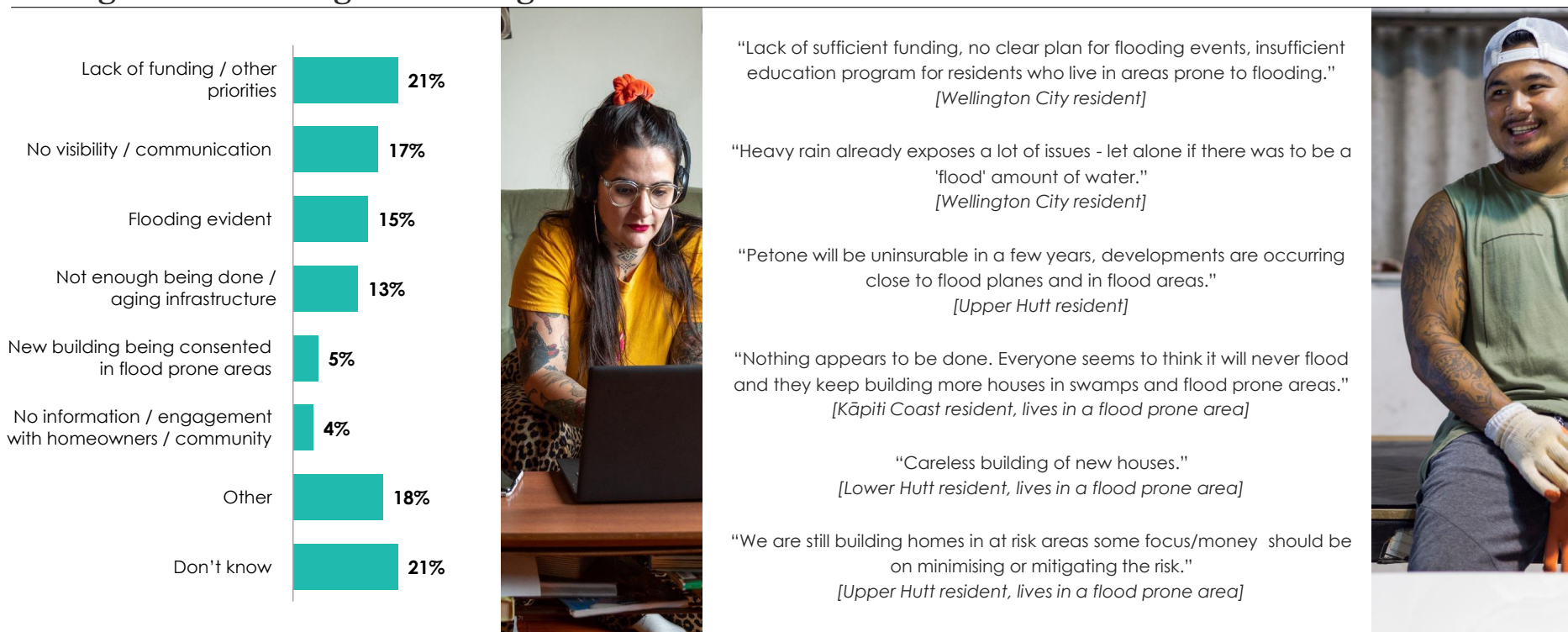
Nearly all residents feel that managing flood risk in the region is important. Just a third feel that flood risk is currently being well managed, a similar proportion (33%) feel it is not well managed and 30% don't know.



Source: Q7 - Regional councils manage flood risk to protect people, houses and land from damaging flood waters and erosion. How important do you think it is for flood risk management to be carried out in the Wellington Region? Q8 - How well do you feel flood risk is being managed in the Wellington Region?

Base: All residents (n=597), Flood prone (n=254), Wairarapa (n=56), Kāpiti Coast (n=123), Porirua (n=72), Upper Hutt (n=64), Lower Hutt (n=130), Wellington City (n=152), Homeowners (n=475), Non-homeowners (n=116). Verian | 12

When we asked residents why they felt flood risk wasn't being managed well, four themes emerged. A lack of funding and or funds being used on other priorities (21%), a lack of visibility of works and or communications about works (17%), the continued reoccurrence of flooding (15%), and a general feeling that not enough was being done.



Source: Q9 – Why do you feel flood risk management isn't being managed well in the Wellington Region?

Base: Those who feel flood risk management isn't being managed well in the Wellington Region (n=185).

We also asked survey respondents if they had any more general comments to make, here is a selection of their responses...

"There is plenty of talk, but the talk is not producing the required results. Of concern is that we know where the risk areas are, but we are continuing to build on them."

"GW should give regular media updates as to its activities, so the general public are aware of these activities. At the moment we hear next to nothing."

"There's some urgency with this so it's good to see that WRC are making it a priority."

"Over the last 20 years I have seen established trees removed from the Hutt River bank, I have never understood the logic for this. New trees are then often planted. recently the gravel under the Ewan bridge has been worked on by diggers removing all vegetation, I question whether this was necessary."

"It is good to see GW actively remediating risks to the Hutt Valley. Also heartening to see them working with others over RiverLink."

"Not that easy to obtain succinct and non-promotional information about work being carried out."

"Communicate with us better."

"GWRC needs to go back to the old measures for containing and controlling the course of the river, removing gravel etc."

"Unless I researched it, I realize I am ignorant and take these things for granted. Also working out a plan would be good for our household and after this I see we need a plan. Thank you."

"It would be very difficult as an outsider to judge the efficacy of the Greater Wellington flood protection activities (except perhaps in your immediate vicinity), from my view point it seems good but in the event of a major happening it may not have been good enough."

"The Regional Council's role and actual activities is very much unheralded and not at all well publicised. I didn't realise until this survey that they even had a role in any of the things you've asked about. I just assumed it was the local council as you never hear anything about what the regional council is doing."

"I think they are doing well for Wellington, but I firmly believe they have not done the same for The Wairarapa Region."

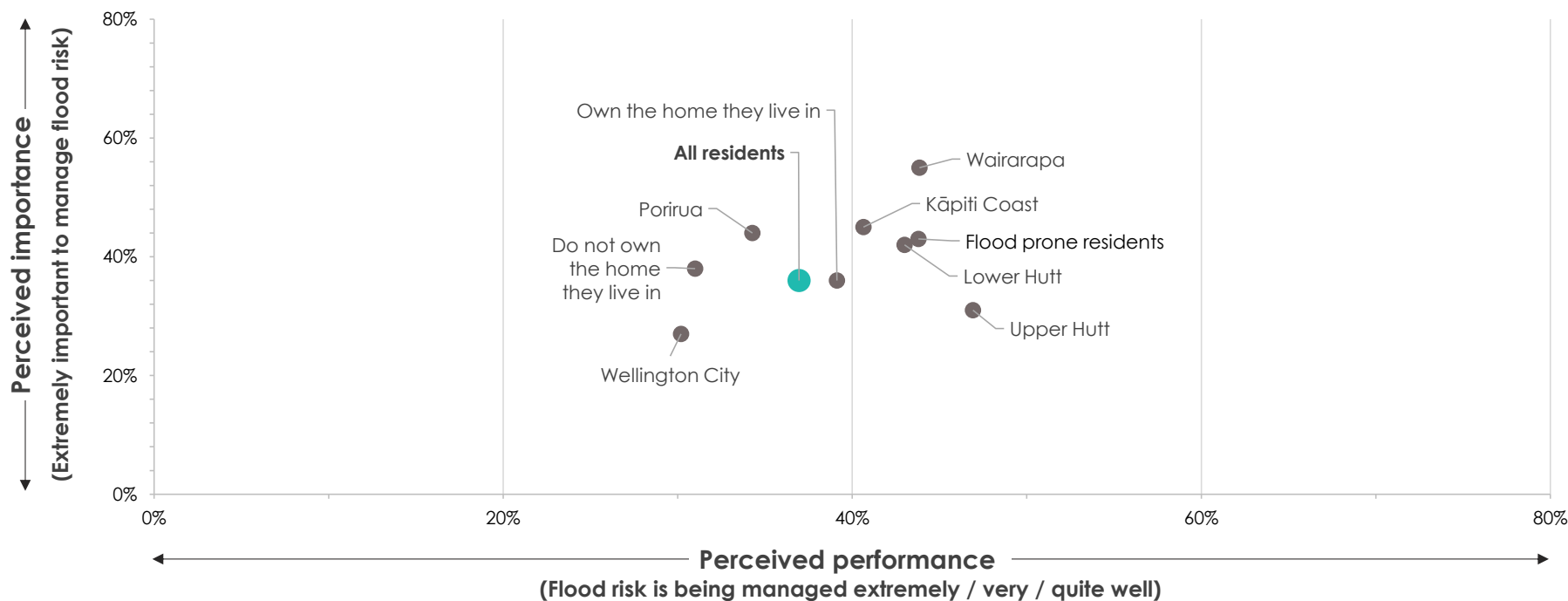
"More Information about what we can do within our homes to help with flood protection."

"Planting willows just creates a weed problem in future years when those trees need to be controlled because they are tangled, have spread and are restricting flow."

"No comments to make but now that I see I am in a flood prone area I should educate myself further."



When we plot importance by performance we can see that flood prone residents, those who live in the Wairarapa, Kāpiti Coast, and Lower Hutt all tend to rank both importance of flood risk management and performance (flood risk being managed well) higher than average.

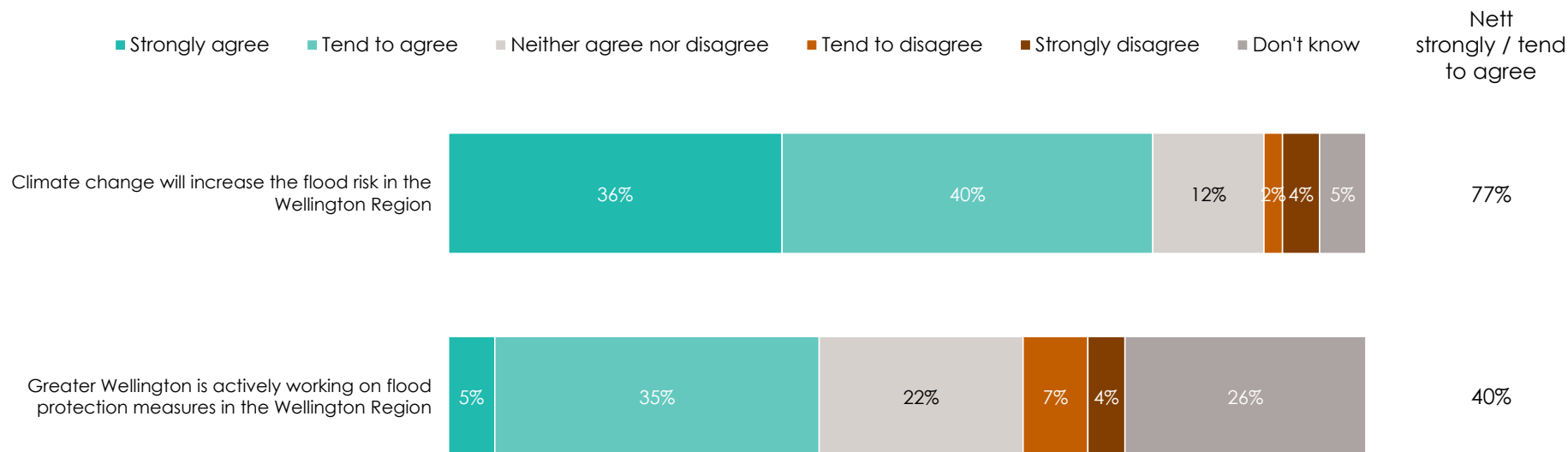


Source: Q7 - Regional councils manage flood risk to protect people, houses and land from damaging flood waters and erosion. How important do you think it is for flood risk management to be carried out in the Wellington Region? Q8 - How well do you feel flood risk is being managed in the Wellington Region?

Base: All residents (n=597), Flood prone (n=254), Wairarapa (n=56), Kāpiti Coast (n=123), Porirua (n=72), Upper Hutt (n=64), Lower Hutt (n=130), Wellington City (n=152), Homeowners (n=475), Non-homeowners (n=116). Verian | 15

Similar to the findings for importance and performance, 77% of residents believe climate change will increase flood risk in the Wellington Region and 40% believe Greater Wellington is actively working on flood protection measures.

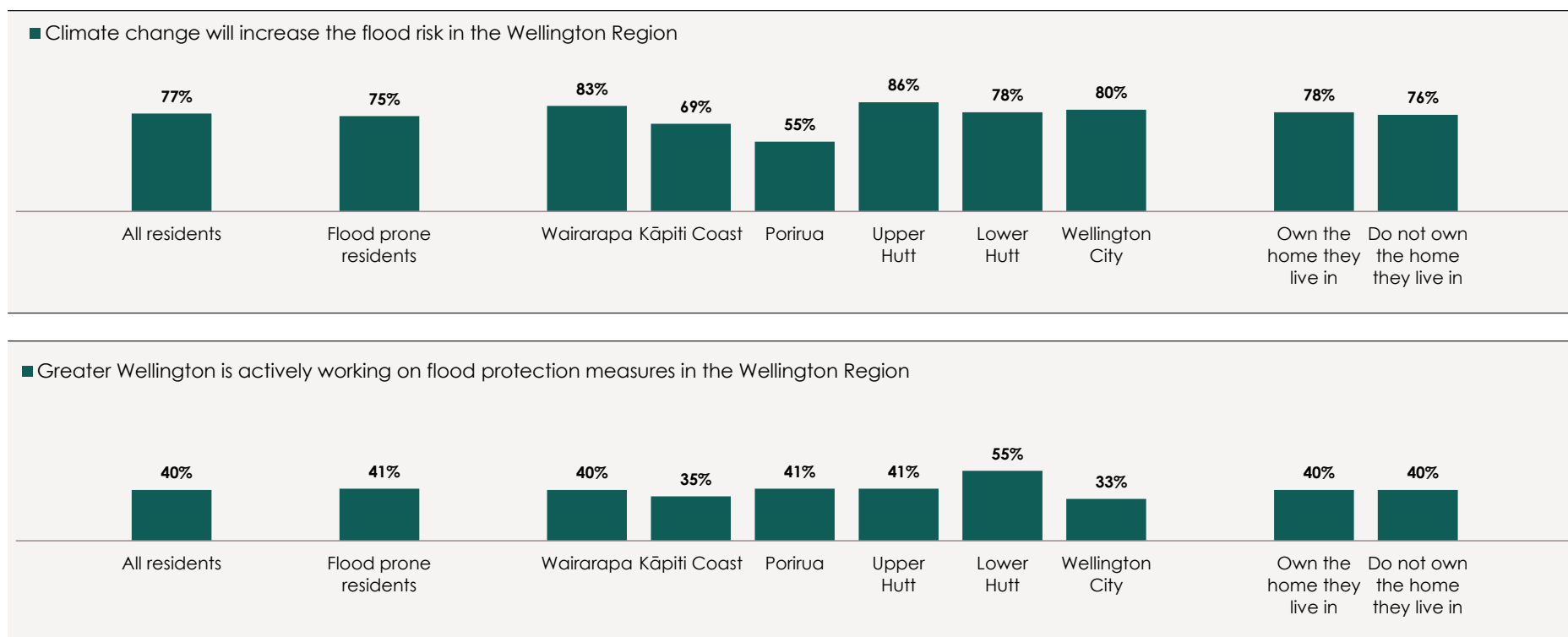
Perceptions



Source: Q11 – How much do you agree or disagree with each of the following statements?

Base: All residents (n=597).

These findings are broadly consistent across the different subgroups, the exceptions being: Upper Hutt residents are most likely to agree climate change will increase flood risk, and Lower Hutt residents are most likely to agree Greater Wellington is actively working on flood protection.

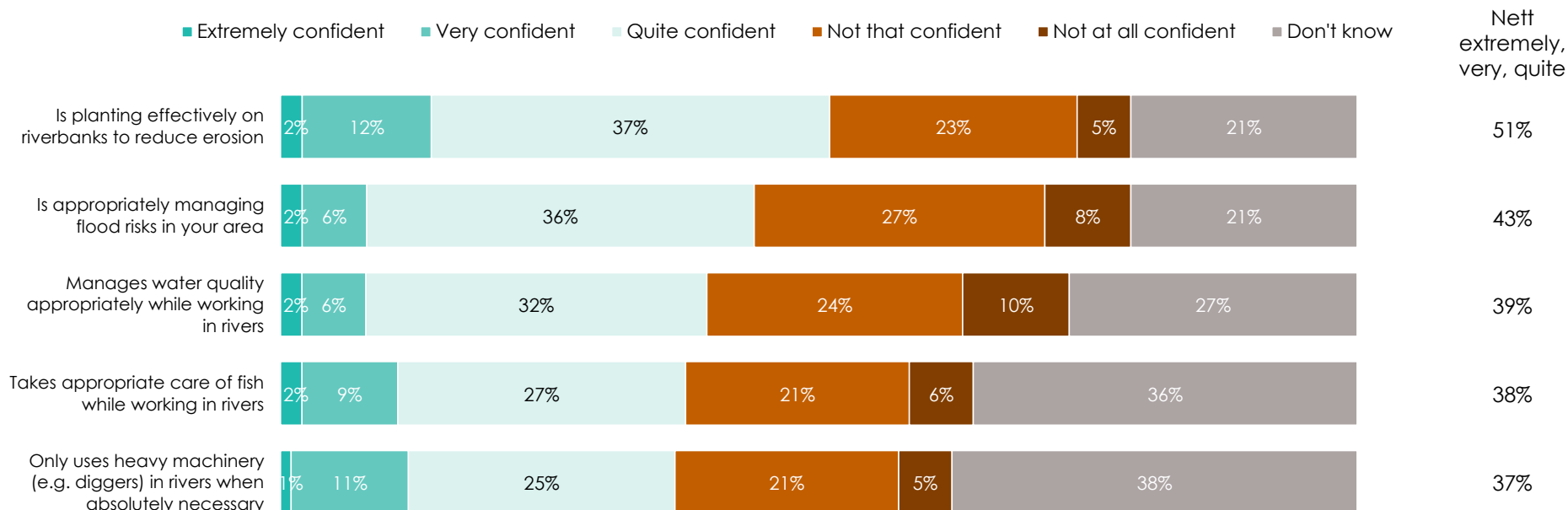


Source: Q11 – How much do you agree or disagree with each of the following statements?

Base: All residents (n=597), Flood prone (n=254), Wairarapa (n=56), Kāpiti Coast (n=123), Porirua (n=72), Upper Hutt (n=64), Lower Hutt (n=130), Wellington City (n=152), Homeowners (n=475), Non-homeowners (n=116). Verian | 17

Community confidence in Greater Wellington’s specific flood protection activities and management isn’t currently strong. Many residents either have no knowledge or little to no confidence in each area.

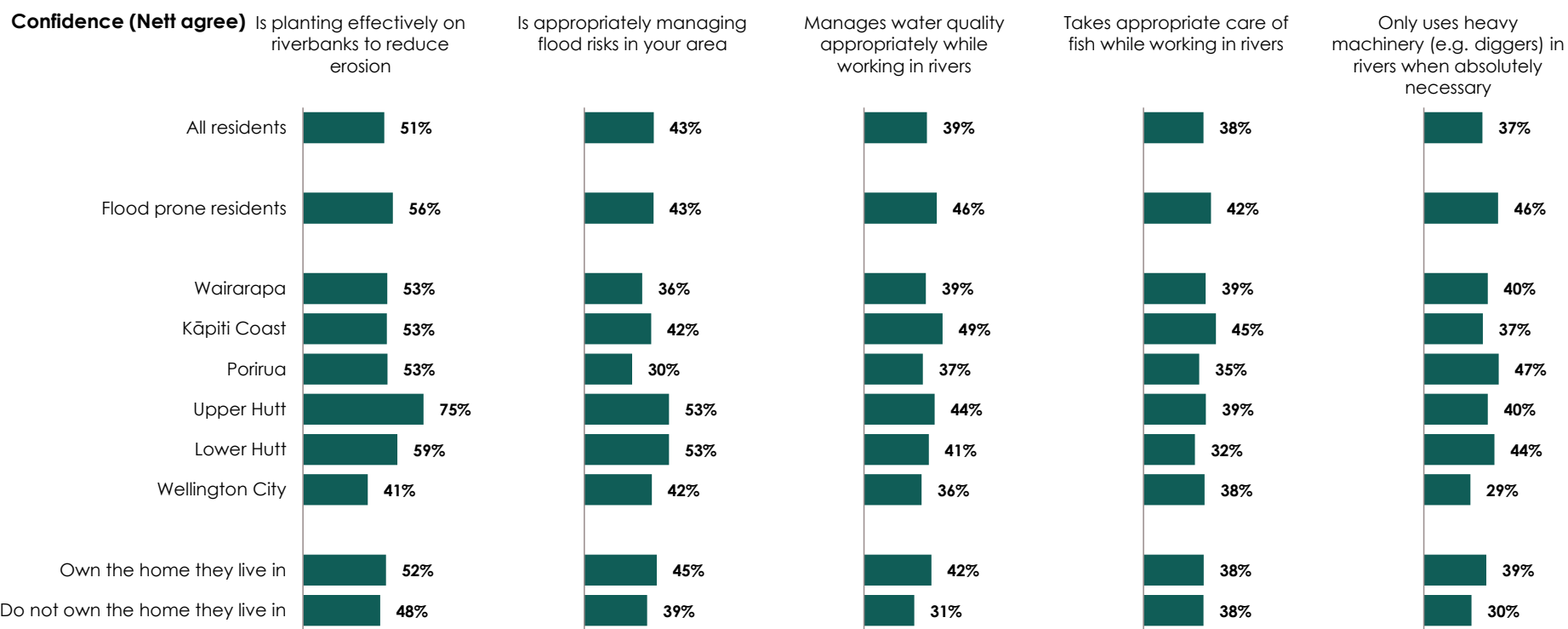
Confidence that Greater Wellington...



Source: Q10 – Greater Wellington Regional Council (Greater Wellington) is responsible for flood protection in the Wellington Region. How confident are you that Greater Wellington...

Base: All residents (n=597).

Those who live in flood prone areas and those who live in the Hutt Valley tend to be more positive about Greater Wellington’s riverbank planting and management of flood risks in their area.

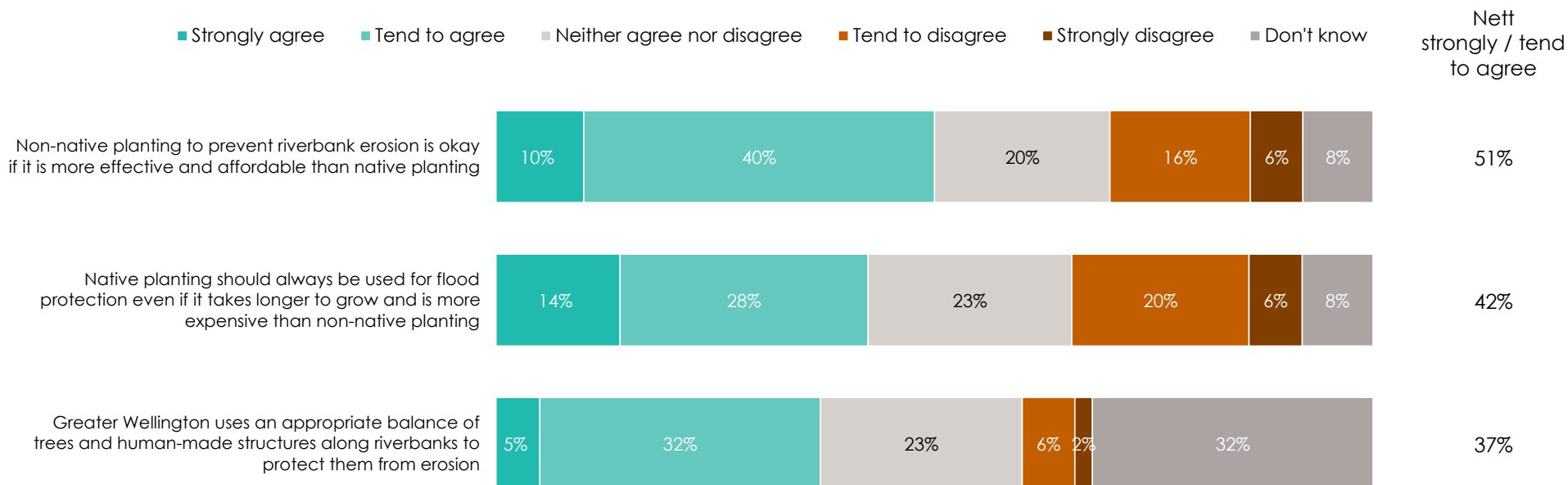


Source: Q11 – How much do you agree or disagree with each of the following statements?

Base: All residents (n=597), Flood prone (n=254), Wairarapa (n=56), Kāpiti Coast (n=123), Porirua (n=72), Upper Hutt (n=64), Lower Hutt (n=130), Wellington City (n=152), Homeowners (n=475), Non-homeowners (n=116). Verian | 19

Half of residents agree that non-native planting is okay if it is more effective and affordable than native planting. Conversely, 42% believe that native planting should always be used. A third of residents agree Greater Wellington currently uses an appropriate balance of trees and human-made structures.

Perceptions

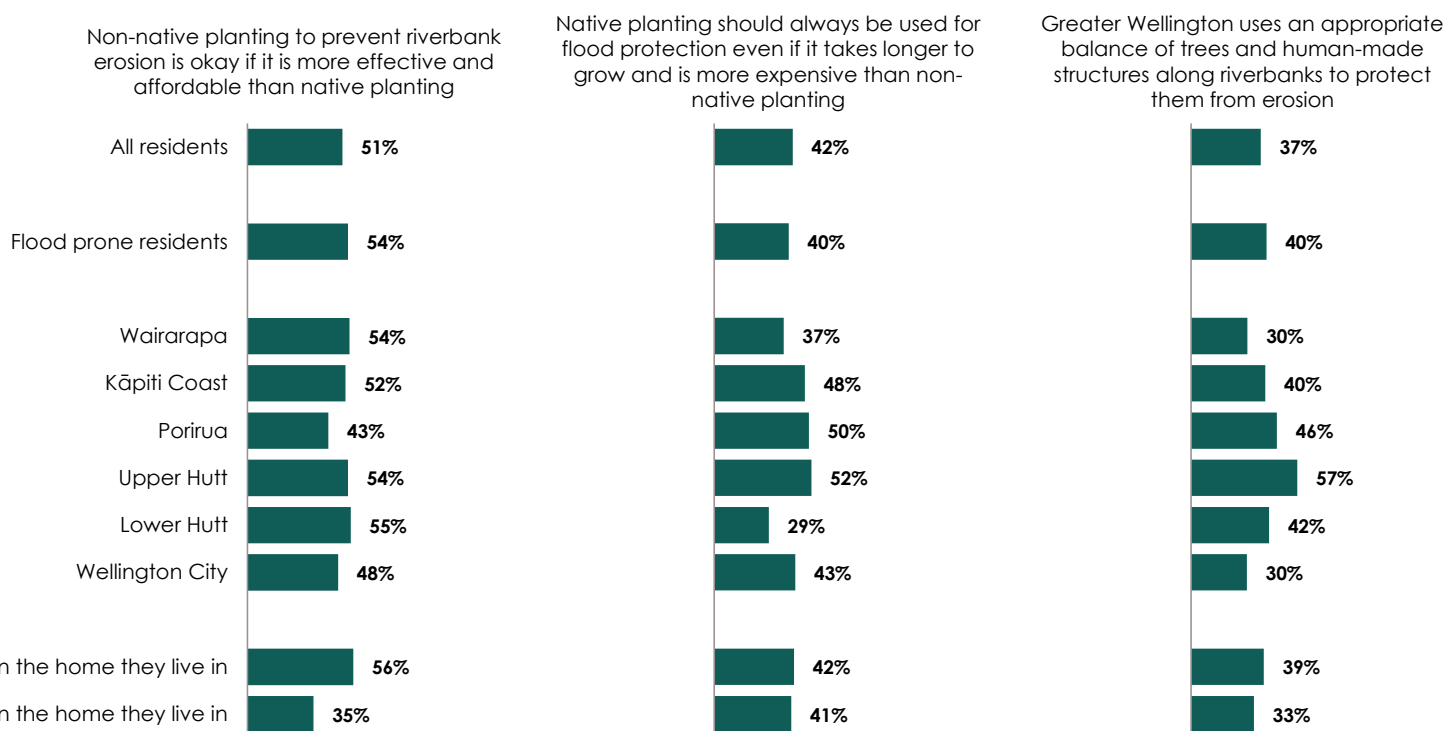


Source: Q11 – How much do you agree or disagree with each of the following statements?

Base: All residents (n=597).

Lower Hutt residents and Wairarapa residents are least likely to believe native planting should always be used for flood protection purposes. Those who live in Upper Hutt are most likely to feel Greater Wellington is currently using an appropriate balance of trees and human-made structures.

Net agree

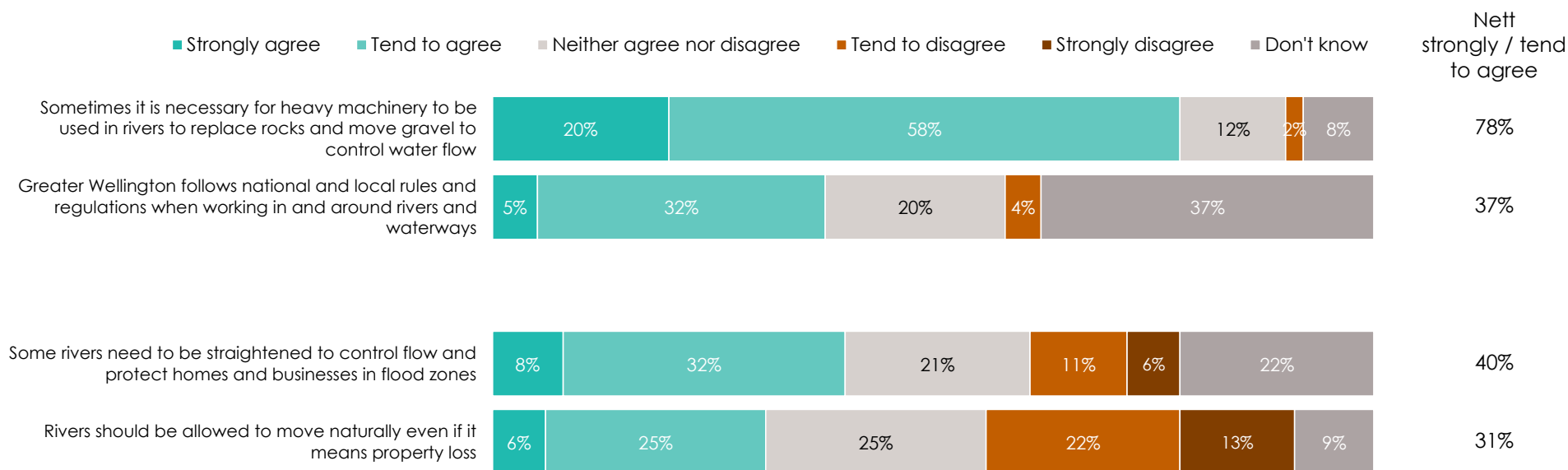


Source: Q11 – How much do you agree or disagree with each of the following statements?

Base: All residents (n=597), Flood prone (n=254), Wairarapa (n=56), Kāpiti Coast (n=123), Porirua (n=72), Upper Hutt (n=64), Lower Hutt (n=130), Wellington City (n=152), Homeowners (n=475), Non-homeowners (n=116). Verian | 21

Most residents are aware that sometimes it’s necessary to use heavy machinery in rivers. Knowledge that Greater Wellington follows national and local rules and regulations in these situations is relatively low (37% said don’t know and a further 20% could neither agree nor disagree). 40% of residents believe it is sometimes necessary to straighten rivers to protect homes and businesses. A third believe rivers should be allowed to move naturally.

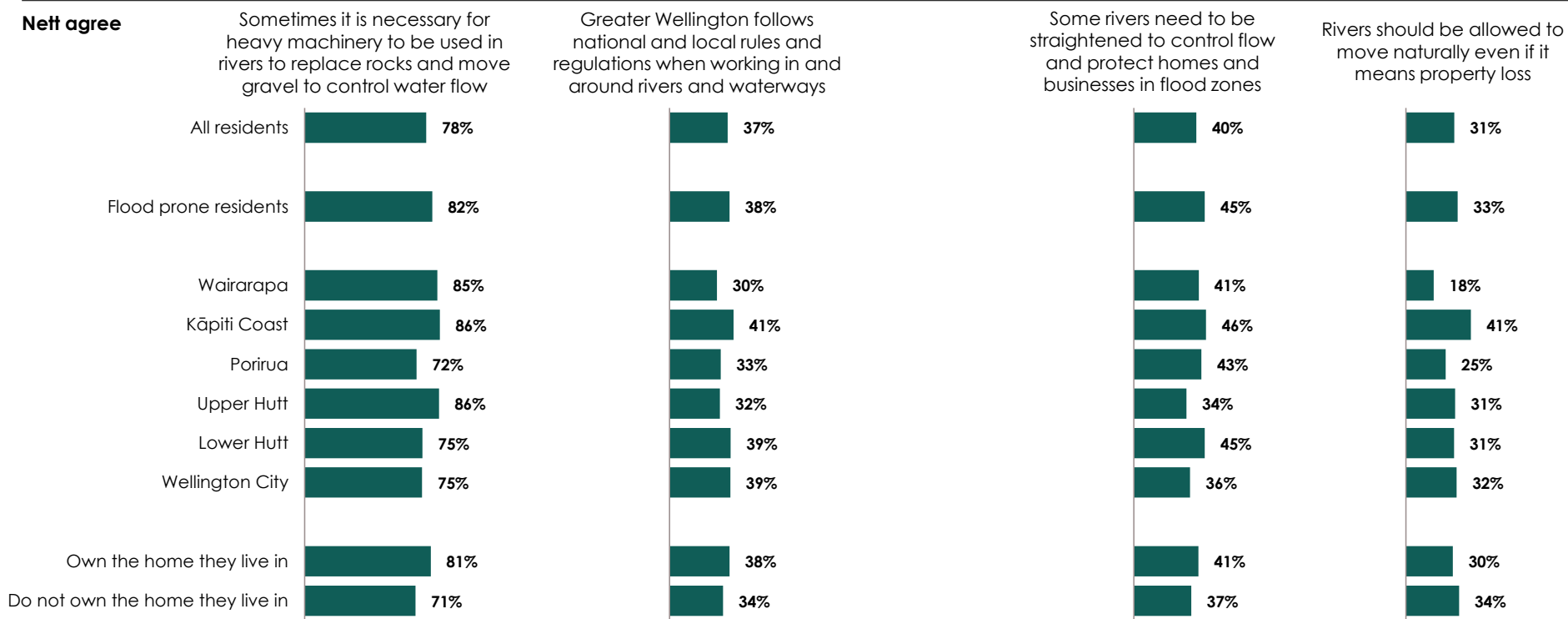
Perceptions



Source: Q11 – How much do you agree or disagree with each of the following statements?

Base: All residents (n=597).

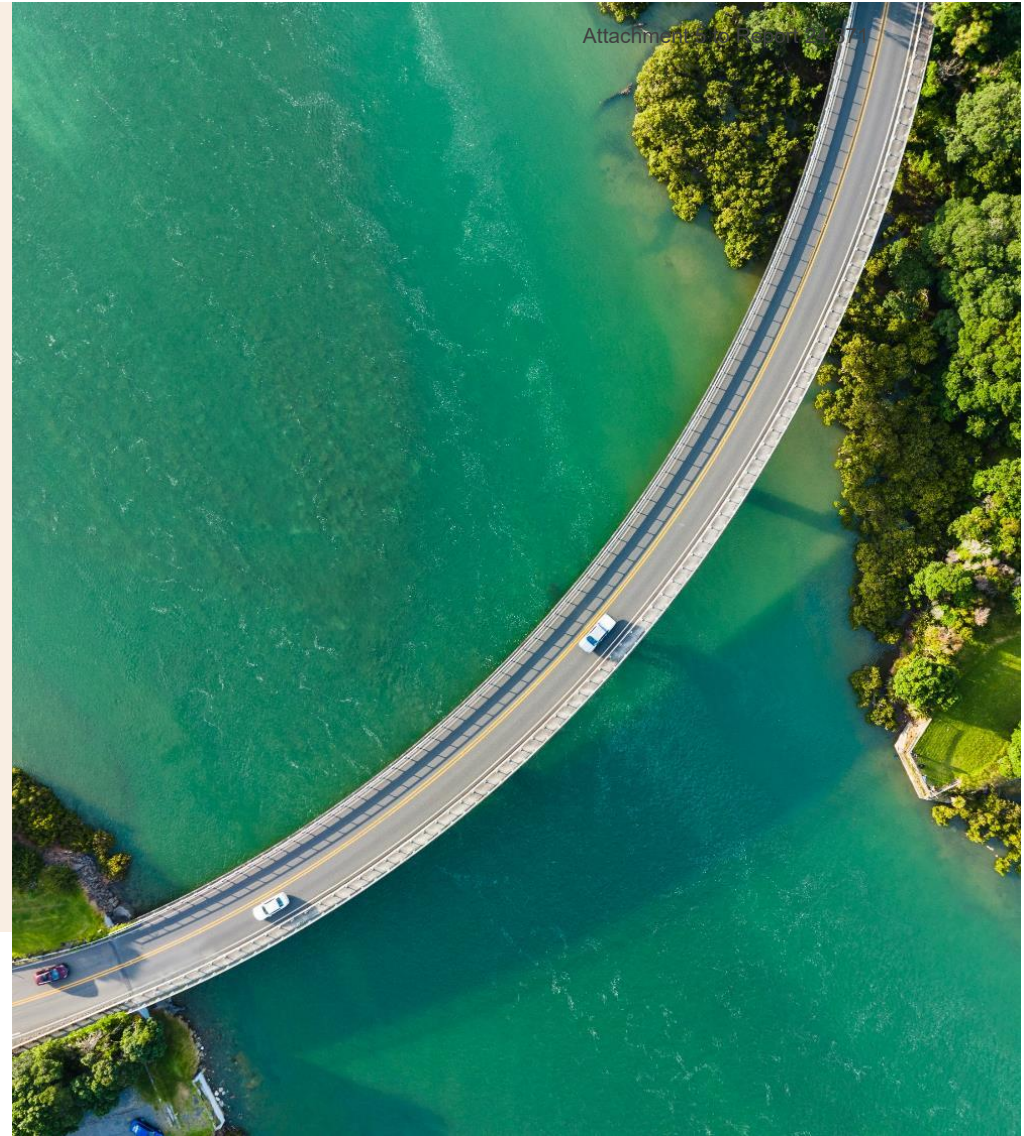
Findings are broadly consistent across the different subgroups, noticeably though, those who live in Kāpiti are most likely to feel rivers should be allowed to move naturally.



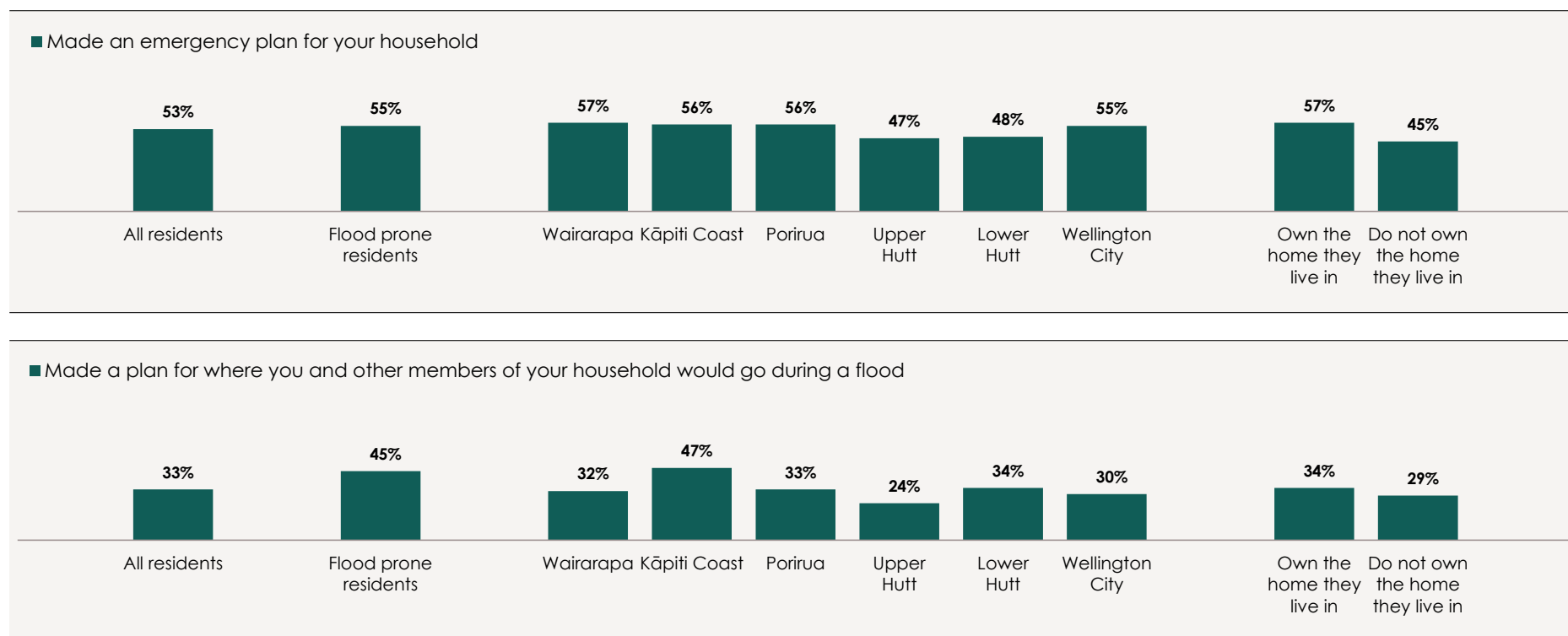
Source: Q11 – How much do you agree or disagree with each of the following statements?

Base: All residents (n=597), Flood prone (n=254), Wairarapa (n=56), Kāpiti Coast (n=123), Porirua (n=72), Upper Hutt (n=64), Lower Hutt (n=130), Wellington City (n=152), Homeowners (n=475), Non-homeowners (n=116). Verian | 23

Personal responsibility



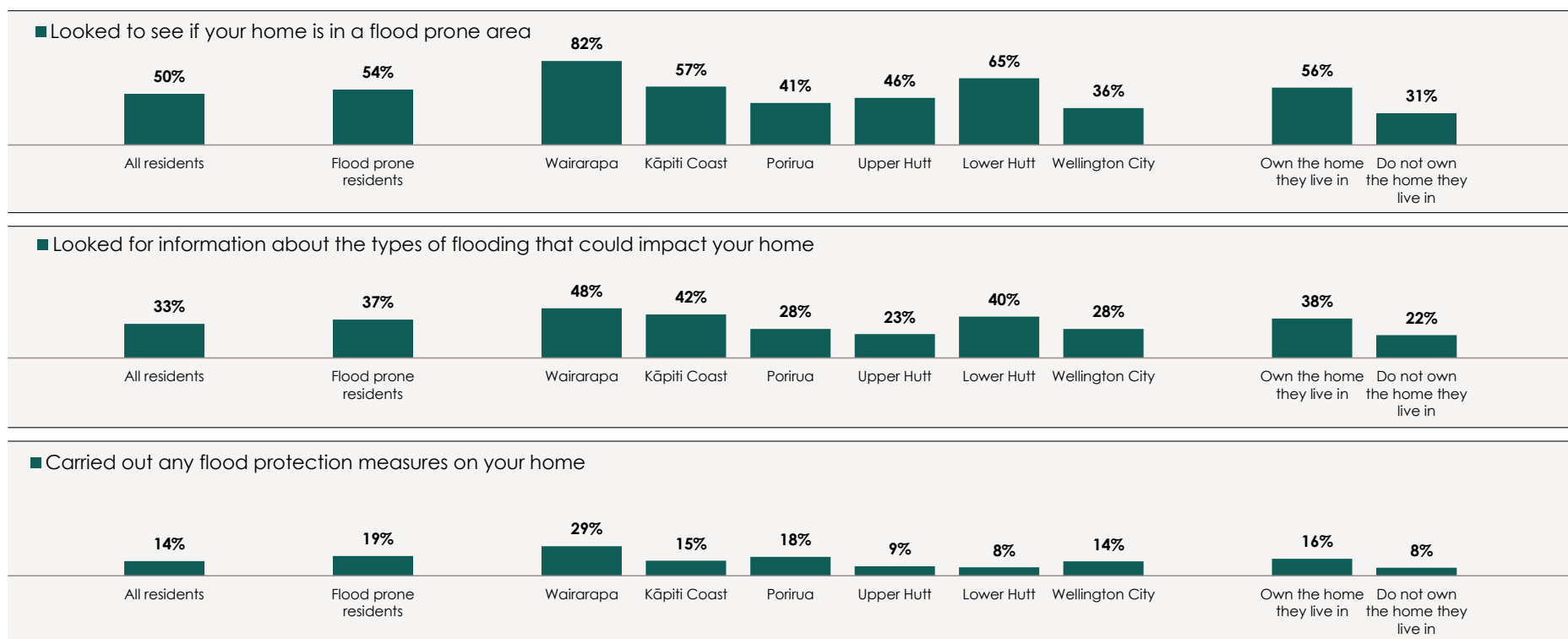
Half of residents say they have an emergency plan in place. A third say they have a plan specifically outlining where they would go during a flood. Those who live in flood prone areas do tend to be more likely than average to have a plan outlining where they would go during a flood.



Source: Q6 - Thinking about the home you currently live in, before today, have you or anyone in your household, done any of the following?

Base: All residents (n=597), Flood prone (n=254), Wairarapa (n=56), Kāpiti Coast (n=123), Porirua (n=72), Upper Hutt (n=64), Lower Hutt (n=130), Wellington City (n=152), Homeowners (n=475), Non-homeowners (n=116). Verian | 25

Half of residents have looked to see if the house they live in is in a flood prone areas, a third have looked for information about the types of flooding that could impact their home, and 14% have carried out flood protection measures at home.



Source: Q6 - Thinking about the home you currently live in, before today, have you or anyone in your household, done any of the following?

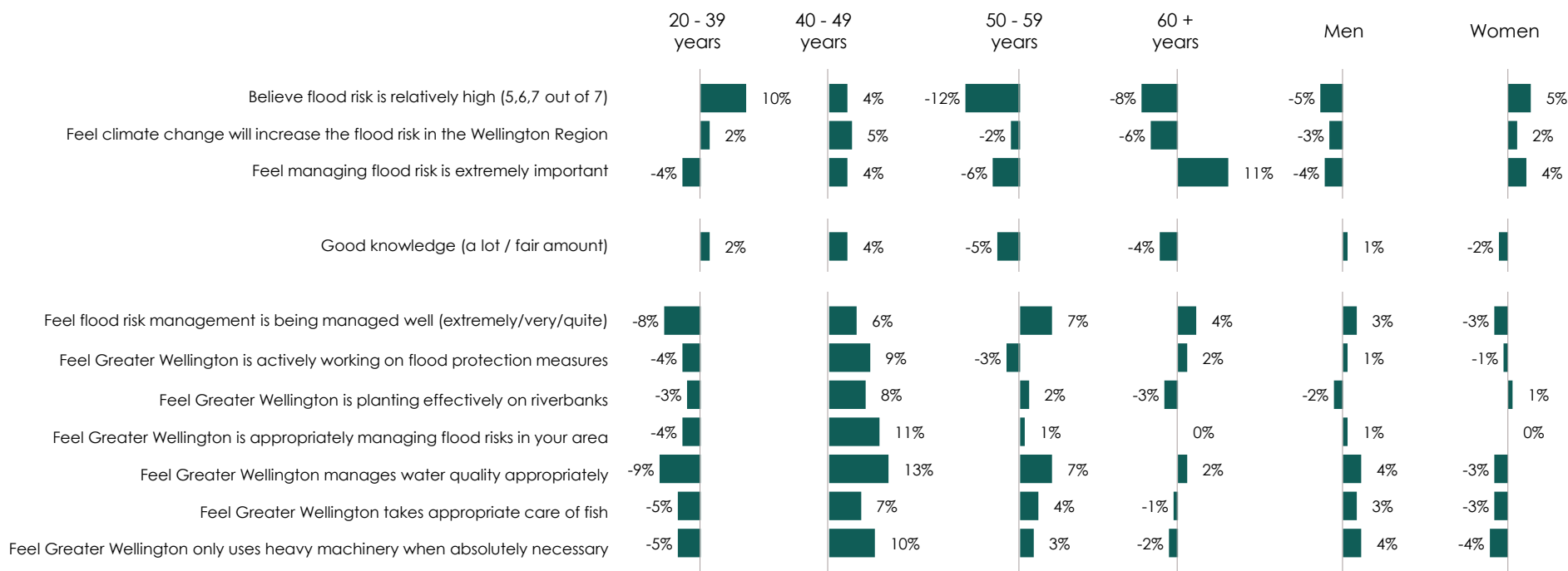
Base: All residents (n=597), Flood prone (n=254), Wairarapa (n=56), Kāpiti Coast (n=123), Porirua (n=72), Upper Hutt (n=64), Lower Hutt (n=130), Wellington City (n=152), Homeowners (n=475), Non-homeowners (n=116). Verian | 26

Demographic differences



Attachment 5 to Report 24.371

Perception differences across age and gender groups are outlined below. Percentage points shown are the difference from the average (e.g. those aged 20 to 39 are ten percentage points more likely than average to believe flood risk is relatively high). While the differences are not statistically significant, it appears that those aged 40 to 50, and men are more positive than average about Greater Wellington’s flood risk management.



Source: Q1, Q2, Q7, Q8, Q10, Q11.

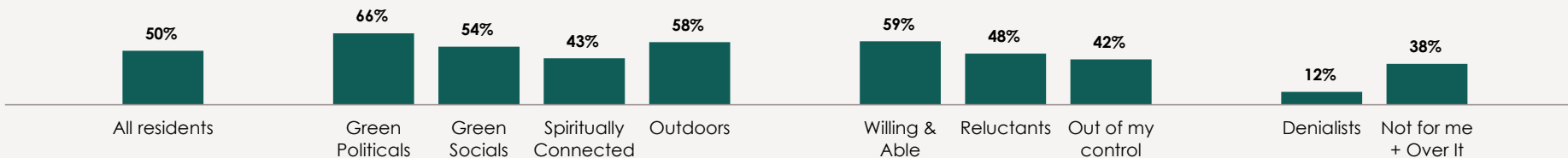
Base: 20-39 years (n=113), 40-49 years (n=100), 50-59 years (n=129), 60+ years (n=255), Men (n=288), Women (n=309).

Community segments

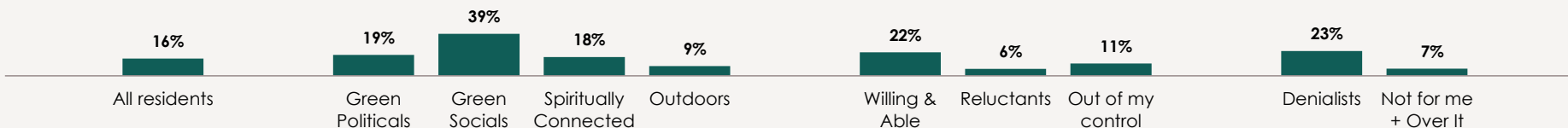


Green Politicals are most likely to be concerned about the risk posed by flooding in the region. Green Social are most likely to be knowledgeable about flood risk management activities.

Perceived risk of flooding (high 5/6/7 out of 7)



Knowledge (at least a fair amount)



Source: Q1 – How much of a risk, to people and property, do you feel each of the following pose to the Wellington Region in the next 10 years? Flooding. Q2 – How much, if anything, do you know about flood risk management activities (also known as flood protection)?

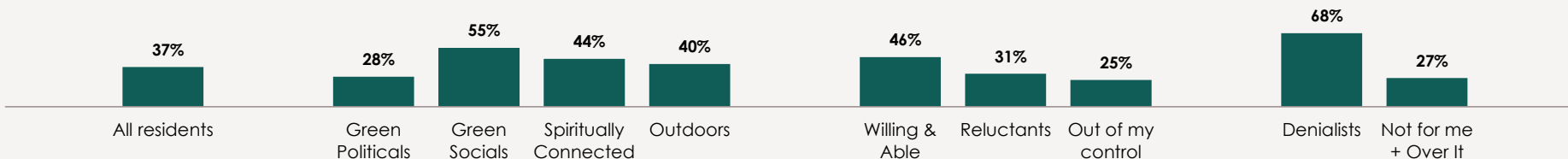
Base: All residents (n=597), Green Politicals (n=46), Green Socials (n=65), Spiritually Connected (n=22), Outdoors (n=73), Willing & Able (n=96), Reluctants (119), Out of my control (n=113), Denialists (n=31), Not for me + Over it (n=32).

Those who are spiritually connected are most likely to feel flood protection is extremely important while green socials and denialists are most likely to feel that it is currently well managed.

Importance (extremely)



Well managed (extremely / very / quite)



Source: Q7 – Regional councils manage flood risk to protect people, houses and land from damaging flood waters and erosion. How important do you think it is for flood risk management to be carried out in the Wellington Region? Q8 – How well do you feel flood risk is being managed in the Wellington Region?

Base: All residents (n=597), Green Politicals (n=46), Green Socials (n=65), Spiritually Connected (n=22), Outdoors (n=73), Willing & Able (n=96), Reluctants (119), Out of my control (n=113), Denialists (n=31), Not for me + Over it (n=32).

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Powering decisions
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Safety of school bus journeys

April 2024

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Abley Limited was contracted by NZ Transport Agency Waka Kotahi in 2022 to carry out this research.



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Keywords: bus, children, driver safety, education, passengers, public transport, risk assessment, road safety, school, school bus, seatbelts, speed management, vehicle safety, vehicle standards

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Abbreviations and acronyms

ACC	Accident Compensation Commission
ADDW	advanced driver distraction warning
ADR	Australian Design Rule
AEB	autonomous (or automated) emergency braking
AIS	alcohol interlock systems
CAS	Crash Analysis System
CCTV	closed-circuit television
CMVSS	Canadian Motor Vehicle Safety Standard
CO	carbon monoxide
CSA	Canadian Standards Association
DDAW	driver drowsiness and attention warning
DSI	death and serious injury
ESC	Electronic Stability Control
FMVSS	Federal Motor Vehicle Safety Standard
GVM	gross vehicle mass
ISA	intelligent speed assist/adaptation
LED	light emitting diode
LDW	lane departure warning
LKA	lane keep assist
NO ₂	nitrogen dioxide
NZQA	New Zealand Qualification Authority
NZTA	NZ Transport Agency Waka Kotahi
PCBU	person conducting a business or undertaking
PM	particulate matter
PSV	passenger service vehicle
PSV Rule	Land Transport Rule: Passenger Service Vehicles 1999
PUDO	pick-up (and/or) drop-off
RCW	rear collision warning
RUB	<i>Requirements for Urban Buses in New Zealand</i>
UNECE	United Nations Economic Commission for Europe
VKT	vehicle kilometres travelled
VRU	Vulnerable Road User

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Executive summary

School buses are the safest form of transport for children to get to and from school. However, travelling on school buses is not entirely without risk.

The safety of school buses in New Zealand was last examined in 2010 in NZ Transport Agency research report 408: *School bus safety*. Since 2010, there has been renewed interest in school bus safety, including a call for seatbelts on school buses and changes to the requirements for standing and seating on school buses. As such, there is a desire to undertake a fresh review of school bus safety in New Zealand, considering current evidence and broader safety interventions being implemented under Road to Zero: New Zealand's Road Safety Strategy 2020–2030.

NZ Transport Agency Waka Kotahi (NZTA) contracted Abley Limited to review the current state of school bus safety in New Zealand and to identify a suite of interventions that will enhance the safety of students and bus drivers in and around school buses. The research objectives were to:

- understand current best practice both nationally and internationally, including interventions that have been tried
- undertake an assessment of the operating conditions for school buses and the vehicle fleet used for delivering school bus services (where data are available)
- review current legislation, guidance, policy and practices that impact on the safety of school bus travel
- make recommendations on measures to improve the safety of those travelling on school buses.

The scope of this research includes school bus services contracted or funded by the Ministry of Education Te Tāhuhu o te Mātauranga as well as dedicated school bus services contracted by councils as part of public transport contracts. It does not include school bus services provided as part of the Ministry of Education's Specialised School Transport Assistance.

The research was undertaken during 2022 and involved:

- undertaking a literature review to examine school bus safety guidance, research and practices in New Zealand and internationally
- engaging with relevant stakeholders to better understand current practices, challenges and safety concerns regarding school bus travel in New Zealand
- undertaking technical analysis to quantify and qualify the safety of school buses, and to identify the types of road environment that present a greater risk of a serious or fatal school bus crash.

Approximately 10% of students travel to school on a school bus. Daily school bus travel is delivered and funded under one of the following models:

- **Daily Bus** services, which are contracted and funded by the Ministry of Education directly
- **Direct Resourcing or Māori Medium Schools**, where bulk funding is provided to schools or kura to contract school bus services directly or provide the services themselves
- dedicated school bus services delivered by councils as part of their urban transport network.

Students are eligible for travel assistance funded by the Ministry of Education if they live more than a set distance from their nearest school and there is no other suitable public transport available. The eligibility distance varies depending on the year level of the student, ranging from 3.2 to 4.8 km from the school. The Ministry also funds and contracts 'Technology Bus' services for Year 7 and 8 students who need to travel to other schools for technology classes.

Approximately 83% of daily school bus services are funded or contracted by the Ministry of Education. However, this represents approximately 92% of the passenger kilometres travelled overall, as, on average, these services travel much longer distances compared to services provided by councils. It was also found that approximately 84% of Daily Bus services (by length) operate on rural roads, compared to regional council networks in Auckland and Wellington, which are approximately 88% urban by length.

The crash risk (for all road users) of different types of school bus operating environments was assessed. It was found that run-off and head-on road crash rates are higher on rural roads compared to urban roads. The crash rate is highest on undivided roads with extreme operating conditions: roads with a 'high' infrastructure risk rating, tortuous alignment or in higher elevations where adverse weather and road conditions are more likely to be encountered.

A detailed review of crashes involving school buses and injury events reported to the Ministry of Education between 2010 and 2021 was undertaken. Over this period, it was found that bus drivers and passengers were most likely to be injured while travelling on the bus (24.7 injuries per year), with approximately 38% of these injuries resulting from non-collision events such as harsh braking. However, the highest rate of death and serious injury (DSI) to road users occurred around pick-up and drop-off (PUDO), with a rate of 3.0 DSIs per year. Most (75%) of these DSIs were pedestrians crossing the road to or from the bus.

Several limitations in how school bus related injuries are reported are also discussed, including a cautionary note on using historical crash data to predict the likelihood of future fatal or serious injury crashes.

An extensive review of guidance, policy, legislation and practice was undertaken covering:

- Road to Zero and how initiatives under this strategy could affect the safety of school bus users
- school bus route design
- PUDO site selection, assessment and auditing
- school bus signage, visibility, and speed limits around buses
- fleet profile, vehicle selection and vehicle technologies
- occupant protection, including compartmentalisation, seatbelts and standing on buses
- driver management
- education and behaviour management
- crash and incident reporting
- Ministry of Education auditing processes.

Finally, the findings across all stages of the research were collated and critically reviewed. Potential interventions were then identified to address apparent issues and gaps under the following focus areas:

1. School bus route design
2. Speed and infrastructure (on roads where school buses operate)
3. Selection, design, visibility and operation of PUDO sites
4. Conspicuity of school buses, visibility of school bus routes and speeds around stationary buses
5. School bus vehicle safety technologies
6. Bus occupant protection
7. Bus driver management
8. Education and behaviour management
9. Eligibility for school bus transport from a safety perspective
10. Data collection, reporting and sharing.

The interventions identified under these focus areas represent high-level actions to improve school bus safety. It was not possible, within the scope of this project, to undertake detailed assessment for each intervention. For this reason, it is recommended that a multi-agency school bus safety working group be formed to progress the investigation and implementation of these interventions.

Abstract

Every school day approximately 10% of school-aged children in New Zealand travel to school on a school bus. Buses are the safest form of transport for children to get to and from school; however, travelling on a school bus is not entirely without risk. There has been renewed interest in school bus safety recently, and a desire to take a fresh look at school bus safety in New Zealand.

The purpose of this research was to review the current state of school bus safety in New Zealand and to identify interventions that will enhance the safety of students and bus drivers in and around school buses. The scope included school bus services contracted or funded by the Ministry of Education Te Tāhuhu o te Mātauranga, and dedicated school bus services contracted by councils as part of urban public transport contracts.

The research was undertaken during 2022 and involved reviewing New Zealand and international literature, engaging with stakeholders from relevant New Zealand organisations, and undertaking technical analyses to better understand the risks associated with school bus travel.

An extensive review of guidance, policy, legislation and practice was undertaken considering all facets of school bus safety, including road infrastructure, speed management, vehicle safety, driver management, student education and bus occupant protection. Considering the findings across all stages of the research project, the report then identifies several interventions (actions) to address identified issues and gaps.

1 Introduction

School buses are widely regarded as the safest form of transport to school; however, travelling on school buses is not entirely without risk.

The safety of school buses in New Zealand was last examined in 2010 in NZ Transport Agency research report 408 – *School bus safety* (Baas et al., 2010). Since 2010, there has been a renewed interest in school bus safety, including a call for seatbelts to be required on school buses, as well as interest in changes to requirements for standing and seating on school buses. As such, there is a desire to revisit the 2010 research report, to review these prior findings against current evidence and considering broader safety interventions being implemented under Road to Zero: New Zealand’s Road Safety Strategy 2020–2030 (Te Manatū Waka Ministry of Transport, 2019).

In 2022, NZTA contracted Abley Limited to review the current state of school bus safety in New Zealand and to identify a suite of interventions that will enhance the safety of students and bus drivers in and around school buses. The research objectives were to:

- understand current best practice both nationally and internationally, including interventions that have been tried
- undertake an assessment of the operating conditions for school buses and the vehicle fleet used for delivering school bus services (where data are available)
- review current legislation, guidance, policy and practices that impact on the safety of school bus travel
- make recommendations on measures to improve the safety of those travelling on school buses.

1.1 Scope

This research project covers school bus services contracted or funded by the Ministry of Education Te Tāhuhu o te Mātauranga (excluding services provided through Specialised School Transport Assistance), and dedicated school bus services contracted through councils as part of public transport contracts.

1.2 Methodology

This research project was undertaken during 2022 and involved three stages:

1. literature review
2. stakeholder engagement
3. technical analysis.

Together, the three research stages addressed the project objectives by ensuring relevant information from both reported sources and current practices is captured.

1.2.1 Literature review

The literature review examined school bus safety guidance, research and practices in New Zealand and internationally. The review included a combination of published literature and reports, and focused on:

- regulations and guidance around school bus safety
- safety outcomes of wearing seatbelts on school buses, including secondary outcomes
- latest developments in bus vehicle technology and corresponding safety assessments

- interventions and trials to improve safety on and around school buses, including entering, exiting and when crossing the road near school buses.

1.2.2 Stakeholder engagement

Engagement with relevant stakeholders was undertaken to better understand current practices, challenges and safety concerns regarding school bus travel in New Zealand. This occurred in two stages.

The first stage involved wide engagement with a range of government ministries, advocacy groups and bus operators, including representatives from the following government agencies and industry groups:

- Ministry of Education Te Tāhuhu o te Mātauranga
- Ministry of Transport Te Manatū Waka
- NZ Transport Agency Waka Kotahi
- New Zealand Police Ngā Pirihimana o Aotearoa
- Environment Canterbury
- Bus and Coach Association
- Rural Women New Zealand
- Safe and Sustainable Transport Association.

Thirteen meetings were undertaken with stakeholder groups or individuals between 31 May 2022 and 30 June 2022. The purpose of this stage was to:

- fill gaps in the literature review in terms of understanding the current regulations, policies and contractual requirements of school bus operations
- identify relevant and available data sources
- anecdotally understand the challenges and safety concerns of bus users
- understand participants' impressions of current school bus operations.

The purpose of the second stage of engagement was to undertake a more targeted review of systems and processes, focusing on:

- fleet safety and maintenance
- fleet selection
- driver management and training
- pick-up and drop-off (PUDO) site selection
- route planning
- incident reporting
- student/parent education and behaviour management.

This involved undertaking eight interviews between 20 July 2022 and 3 August 2022 with the following organisations and individuals:

- selected bus operator fleet managers and health and safety managers
- Ministry of Education Regional Transport Advisors and Transport Contract Managers
- directly resourced school network managers.

1.2.3 Technical analysis

The purpose of the technical analysis was to quantify and qualify the safety of school buses, and to identify the types of road environment that present a greater risk of a serious or fatal school bus crash.¹ The extent of the technical analysis was confirmed with the project steering group, with the scope limited by data currently available. The technical analysis included:

1. quantifying the type and split of school bus services across New Zealand, including the number of trips and equivalent kilometres travelled on council services and each type of Ministry of Education funded service (the findings from this analysis are presented in section [2.3](#))
2. examining crash reports from the New Zealand Crash Analysis System (CAS) and incident reports collated by the Ministry of Education to quantify and explore patterns in the number and severity of injuries involving school buses in the 12-year period from 2010 to 2021 (the findings from this assessment are presented in chapter [4](#)). A retrospective analysis of data from the years 2008 and 2009, not initially included (see section 4.2.7) did not affect these findings.
3. assessing bus route operating conditions and the relative risk of a sample of school bus routes in different road environments. This included estimating the length of school bus route by risk category and service type and quantifying the relative crash risk of each type of school bus route. (The findings from this assessment are presented in chapter [5](#).)

1.3 Report structure

The findings across all stages of the research were collated and reported against topic-specific chapter headings as follows:

- Chapter 2 provides the context for school bus travel in New Zealand, including the types of school bus services that operate in New Zealand, eligibility for services, and key statistics by service type.
- Chapter 3 summarises prior research into school bus safety in New Zealand, including research into the relative risk of different modes of transport.
- Chapter 4 describes the methodology and findings from the crash and incident analysis.
- Chapter 5 describes the methodology and findings from the assessment of school bus route operating conditions.
- Chapter 6 describes current guidance, policy, legislation and practices regarding school bus safety, including relevant literature and international comparisons.
- Chapter 7 collates the findings from this research and identifies interventions for addressing identified issues and gaps. These interventions are grouped into 10 focus areas.
- Chapter 8 outlines the conclusions from the research.

¹ The focus on both fatal and serious crash risk in the technical analysis reflects the vision set in *Road to Zero: New Zealand's Road Safety Strategy 2020–2030* of 'a New Zealand where no one is killed or seriously injured in road crashes' (Te Manatū Waka, 2019, p. 6). The definition of 'serious' in this context is taken from the definition used in the Crash Analysis System; that is, 'where any of the parties required medical attention and was taken to hospital' (Waka Kotahi, 2023).

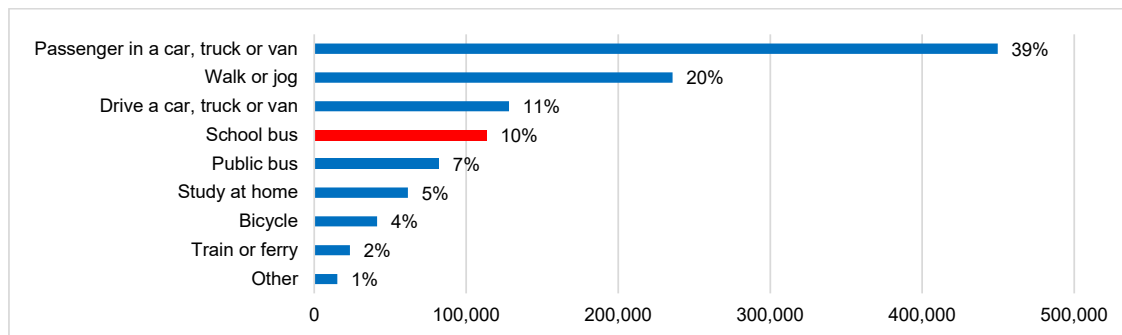
2 School bus travel in New Zealand

This chapter provides the context for school bus travel in New Zealand, including the types of school bus services that operate in New Zealand, eligibility for services, and key statistics by service type.

2.1 School travel in New Zealand

Census 2018 was the first census in New Zealand where people were asked about how they travelled to education, specifically asking ‘What is the one main way you usually travel to your place of education – that is, the one you use for the greatest distance?’ In 2018, approximately 113,400 people aged 5–19 recorded ‘school bus’ as their primary mode of travel to education, representing 10% of all travel to education in this age group ([Figure 2.1](#)).

Figure 2.1 Percentage of travel to education by mode for people aged 5–19 (Stats NZ, 2018)



Auckland had the most people travelling by school bus (27,264 people) followed by the other large cities and regions (Northland, Waikato, Bay of Plenty, Wellington and Canterbury) ([Table 2.1](#)). The regions with the greatest proportion of school bus travel were Northland (26%), the West Coast (21%), and Southland (18%). Despite having the highest absolute number of students travelling by school bus, Auckland had the least mode share (proportion) doing so. This indicates there is a need to consider both numbers of rides and mode share when thinking about school bus transport.

Table 2.1 Travel to education by school bus, by region and mode share – people aged 5–19 (Stats NZ, 2018)

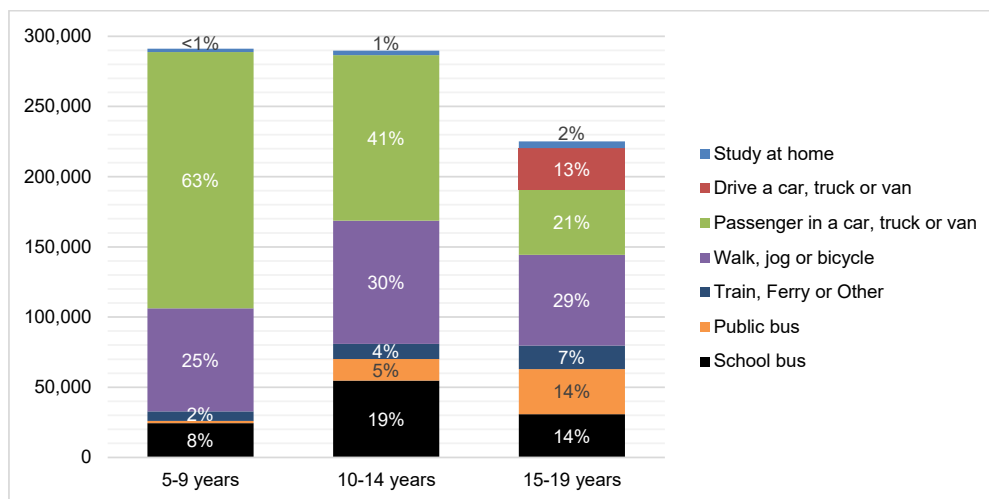
Region	Number of people	Mode share (percent)
Northland	10,083	26%
Auckland	27,264	7%
Waikato	13,323	12%
Bay of Plenty	10,524	15%
Gisborne	1,869	16%
Hawke’s Bay	4,569	12%
Taranaki	3,627	14%

Region	Number of people	Mode share (percent)
Manawatū-Whanganui	5,829	10%
Wellington	9,675	8%
Tasman, Nelson, Marlborough	4,155	13%
West Coast	1,257	21%
Canterbury	11,562	8%
Otago	5,238	9%
Southland	4,122	18%
Area outside region	39	< 1%
Total	113,136^a	

^a This total figure varies slightly from the national total in [Figure 2.1](#). This is due to fixed random rounding to base 3 in the Census data, in accordance with the confidentiality rules for the 2018 Census (Stats NZ, 2020).

Children aged 10–14 are most likely to travel by school bus, representing almost half of all school bus travel for people aged 5–19 (49.8%, as shown in [Figure 2.2](#)). Children in this age band often travel further to reach intermediate and secondary schools compared to younger children, whose primary schools are usually closer to home. Older children (aged 15–19) are more likely to drive or take a public bus, noting that the Census data for this age range also capture recent school leavers travelling to tertiary education providers. It is also noted that the total number of children aged 5–19 in [Figure 2.2](#) is approximately 3,100 fewer than the total number of people that reported a journey to education by school bus. This suggests there are children under the age of 5 and/or adults over the age of 19 who were also recorded in the Census as travelling to education on a 'school bus'.

Figure 2.2 Journey to education by mode and five-year age band (Stats NZ, 2018)



2.2 Types of school bus service

School bus services are primarily funded by the Ministry of Education or funded and provided by councils as part of their urban public transport services.

2.2.1 Services provided by the Ministry of Education

The Ministry of Education provides school transport assistance to help children get to school where distance and/or accessibility is a barrier to attending school.

2.2.1.1 Eligibility

To be eligible for travel assistance, students must meet the following criteria:

- They are enrolled at the closest state or state-integrated school they are eligible to attend.
- They live more than a certain distance from school, depending on their year level:
 - Years 1–8 (primary and intermediate school): at least 3.2 km from the school
 - Years 9–13 (secondary school): at least 4.8 km from the school
- There is no other suitable public transport option available.

2.2.1.2 Funding and delivery of school bus services

The Ministry of Education directly funds and delivers school transport assistance through:

- **Daily Bus** services, which are school bus services operating between schools and designated bus stops within a designated proximity to students' homes
- **Technology Bus** services, which enable Year 7 and 8 students to travel to other schools where technology classes are provided.

The Ministry of Education also delivers transport assistance through:

- **Direct Resourcing**, where bulk funding is provided directly to schools to provide school bus services
- **Māori Medium Schools**, where bulk funding is provided directly to kura, kura kaupapa Māori and designated character wharekura to provide school bus services
- **Specialised School Transport Assistance**, where transport assistance is provided for children with safety and/or mobility needs that prevent them from travelling independently to and from the nearest appropriate schools. This type of travel is outside the scope of this research project.

Transport service providers (bus operators) run these services under a contract with either the Ministry of Education, or with the school directly (for Direct Resourcing and Māori Medium Schools).

In addition to school bus services, a conveyance allowance is available for caregivers to assist with transport costs for eligible students where school bus services are impractical or unavailable.

2.2.1.3 Ineligible students

Transport service providers may carry students who are ineligible for school transport assistance, provided there is a seat available for them and they don't deviate from the defined bus route. Charging a fee for this service is at the discretion of the transport service provider.

2.2.1.4 Roles and responsibilities

The Ministry of Education outlines the roles and responsibilities of the different parties involved in Daily Bus and Technology Bus services and Conveyance Allowances in the *School Transport Roles and Responsibilities Guide* (Ministry of Education, 2021). The responsibilities in this guide are summarised in [Table 2.2](#). Roles and responsibilities for directly resourced schools are similar; however, schools are

responsible for service design (within the level of funding provided), contracting, safe siting of bus stops, and auditing and monitoring supplier performance.

At the Ministry of Education, the following roles are responsible for managing Daily Bus and Technology Bus services:

- Regional Transport Advisors design routes for the Daily Bus services, and review school bus routes as required.
- Transport Contract Managers ensure transport service providers comply with their legal and contractual requirements. They conduct audits and coordinate incident management (when required).

Table 2.2 Responsibilities of parties involved in school transport (adapted from Ministry of Education, 2021, p. 6)

Responsibility	Ministry of Education	Transport service provider	Schools	Caregivers
Policy	✓			
Communication with caregivers and students			✓	
Addressing student behaviour			✓	✓
Health and safety	✓	✓	✓	✓
Eligibility assessment and advice	✓		✓	
Route design, validation, and review	✓			
Ensuring students get safely to and from the bus stop or pick-up point				✓
Service delivery and operations		✓		
Safe siting of bus stops		✓	✓ (outside schools only)	
Contracts for service and contract variations	✓	✓		
Auditing and monitoring supplier performance	✓			
Emergency and incident management	✓	✓	✓	

2.2.2 Council services

Dedicated school bus services can be delivered by regional councils to supplement their urban transport network. Regional councils deliver these services under the Public Transport Operating Model, which is the same contract model used to deliver urban public transport services. This responsibility may be delegated to a city or district council; for example, Invercargill City Council has delegated authority from Environment Southland for their urban routes, including a small number of school bus services. Under the Public Transport Operating Model, these services will comply with the *Requirements for Urban Buses in New Zealand* (the ‘RUB’), which is a national standard for usability, accessibility and safety of urban buses (Waka Kotahi, 2021b).

2.2.3 Other services

Other types of school bus transport include:

- daily services operated by private schools, funded by parents through the school

- buses chartered by schools to transport children to cultural and sporting activities; for example, field trips, attending interschool competitions and travelling to swimming lessons
- services operated by Out of School Care and Recreation providers transporting children to and from after-school care, or for school holiday programmes
- urban public transport services that carry children to and from school but are not dedicated school bus services.

These services are considered outside the scope of this research project.

2.3 Key statistics by service type and funding model

This section presents key statistics for each type of bus service funded by the Ministry of Education and by councils. These statistics are:

- *service count* – the total number of daily inbound and outbound services each school day
- *passenger trips per day* – the total number of passengers trips per school day (inbound and outbound), based on either patronage data or the number of eligible students
- *bus kilometres travelled* – the total distance travelled by school buses daily in kilometres, in both directions (inbound and outbound); note that this statistic is based on actual or estimated average route lengths and does not consider any part of a bus route that is completed twice in one journey, known as ‘runbacks’
- *equivalent passenger kilometres travelled* – the number of passengers multiplied by the trip length. Where detailed data on patronage and route length are available, this was calculated on a route-by-route basis. If detailed data are not available, this is estimated by multiplying the total average daily patronage by the average route length across the bus network.

The measure ‘*equivalent passenger kilometres travelled*’ allows for a comparison of exposure to risk for different types of school bus services. Note that this measure should not be used to compare between daily school bus routes and technology routes, or to compare school bus travel with travel to school by other modes. On daily school bus routes, children are picked up and dropped off along the routes, whereas Technology Buses typically carry all students from the start of the route (the home school) to the end of the route (the technology centre). Therefore, actual passenger kilometres travelled for daily services will be much lower than the calculated equivalent passenger kilometres travelled. Daily school bus routes run every day, whereas the Technology Bus runs only on days when a technology class is scheduled.

Each statistic was sourced from each organisation directly, extracted from organisational websites or public datasets, or estimated using base rates for similar services. Estimated figures are denoted with an asterisk (*) where relevant. All data sources are listed in Appendix A.

2.3.1 Daily school bus services

Daily school bus services provide transport to children travelling to and from school every school day. These include Ministry of Education funded services (Daily Bus, Direct Resourcing and Māori-Medium Schools) and council-funded services.

2.3.1.1 Ministry of Education funded services

[Table 2.3](#) sets out total number of services, passenger trips, kilometres travelled, and equivalent passenger kilometres travelled for daily services funded by the Ministry of Education. Where data were not available for

Direct Resourcing and Māori Medium Schools services, these were estimated using the same base rates as the Daily Bus, on the assumption that these services operate in a similar manner to Daily Bus services with:

- an average number of 35.3 students per service
- an average trip length (inbound or outbound) of 26.5 km.

Table 2.3 Ministry of Education daily school bus travel statistics

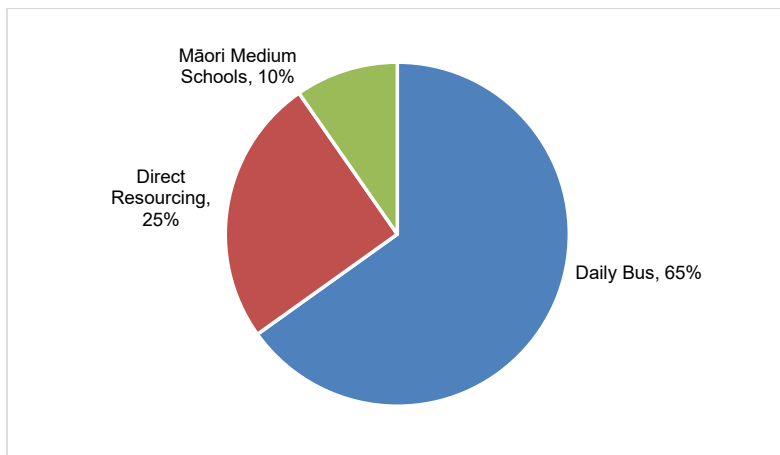
Service or funding model	Services per day (inbound + outbound)	Bus km travelled per day	Passenger trips per day ^a	Equivalent passenger km
Daily Bus	2,890	76,651	102,036	2,761,413
Direct Resourcing	1,118	29,650*	39,480*	1,047,000*
Māori Medium Schools	430*	11,405*	15,214	403,520*
Total	4,438	117,709	156,723	4,211,933

^a This value is based on a single eligible student making two trips each school day: from home to school in the morning, then from school to home in the afternoon.

* Estimated using base rates for similar services.

Figure 2.3 shows the split in services per day across Daily Bus, Direct Resourcing and Māori Medium Schools. This shows that approximately two-thirds of Ministry of Education funded services are delivered as Daily Bus services.

Figure 2.3 Percentage of Ministry of Education funded daily school bus services per day, by service/funding model



2.3.1.2 Services funded by councils

The statistics for council services are shown in Table 2.4 and graphed in Figure 2.4. These figures do not include school-specific services operated by Otago Regional Council (Dunedin), Invercargill City Council, and Horizons Regional Council (Whanganui), as these councils currently operate fewer than six services each.

Where some metrics for some councils were not available or sourced directly, these were estimated using the following average rates based on school bus services delivered in Auckland, Greater Wellington, and Canterbury:

- an average number of 32.5 students per service
- an average trip length (inbound or outbound) of 12.1 km.

Figure 2.4 shows that Auckland Transport operates over half (55%) of all council services for which data were gathered. Together, Auckland Transport and Greater Wellington Regional Council operate approximately 78% of all council-funded services. The statistics for Taranaki, Bay of Plenty and Gisborne should be interpreted with care as these are based on estimated base rates for similar services.

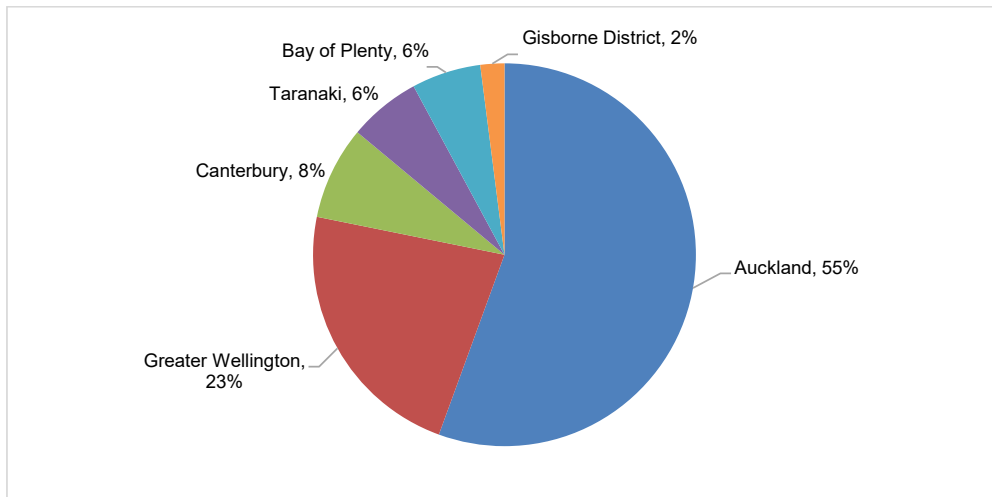
Table 2.4 Regional and local council school bus service statistics

Regional or local authority	Services per day (inbound + outbound)	Total km bus travel per day	Passenger trips per day	Equivalent passenger km
Auckland Transport	494	5,388	15,345	184,140
Greater Wellington Regional Council (Metlink)	201 ²	2,518	7,494	93,675
Environment Canterbury (Metro)	70	847*	2,051	24,817*
Taranaki Regional Council (Citylink)	54	653*	1,757*	21,259*
Bay of Plenty Regional Council (Baybus)	52	629*	1,692*	20,472*
Gisborne District Council (Waka Kura)	18	218*	586*	7,086*
Total	889	10,253	28,925	351,449

* Estimated using base rates for similar services.

² The odd number of inbound plus outbound services is due to some councils providing a different number of services in the morning, compared to the afternoon.

Figure 2.4 Percentage of council-funded daily school bus services per day, by region/district



2.3.1.3 Comparison of daily school bus services

Figure 2.5 shows the split in services delivered by different organisations/funding models. The Ministry of Education delivers or funds approximately 83% of school bus services in New Zealand through Daily Bus, Direct Resourcing and Māori Medium Schools, with approximately 17% of services delivered by regional or local councils.

Figure 2.5 Percentage of daily school bus services, by service type

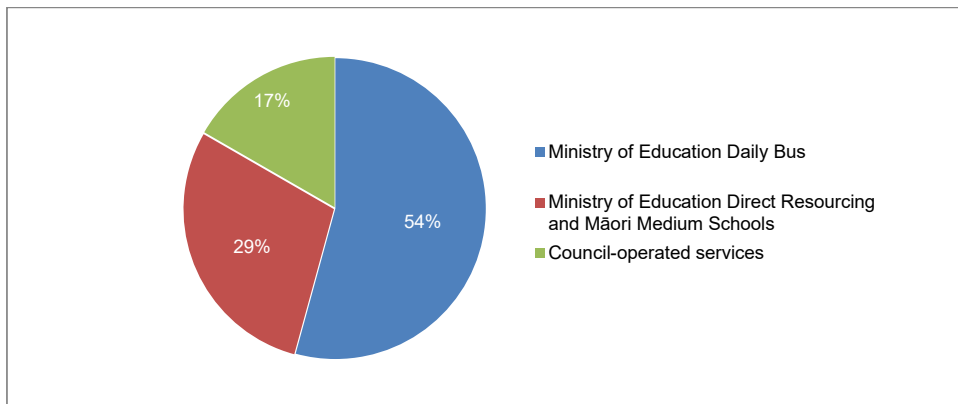
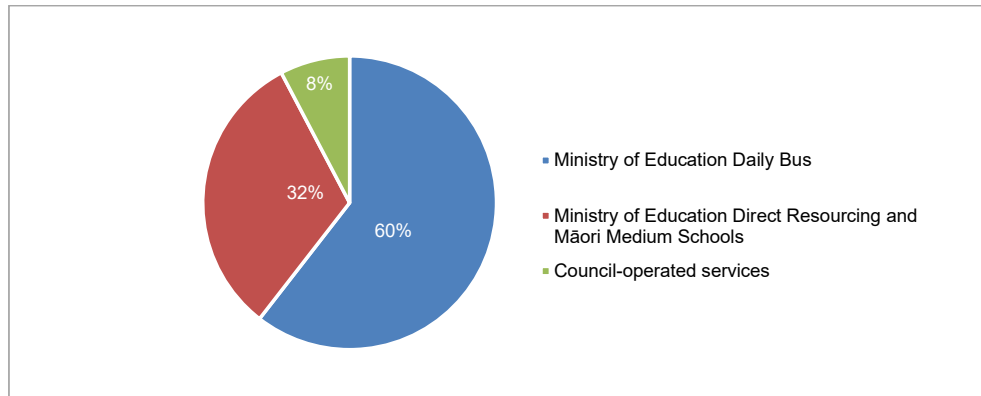


Table 2.5 shows the average patronage and average bus route length for each type of service where data were available. This demonstrates that while patronage across these services is relatively similar, Ministry of Education daily routes are at least twice as long (by distance) as those operated by Auckland Transport and Greater Wellington Regional Council. This results in much higher equivalent passenger kilometres travelled across Ministry of Education services compared to services operated by local and regional councils (Figure 2.6).

Table 2.5 Average patronage and average length of bus route by service type

Service type	Average patronage per service	Average length of bus route (one-way)
Ministry of Education Daily Bus	35.3 students	26.5 km
Auckland Transport school bus services	31.1 students	12.0 km
Greater Wellington Regional Council school bus services	37.3 students	12.5 km

Figure 2.6 Percentage equivalent passenger kilometres travelled, by service type

2.3.2 Technology Bus

The key statistics for Technology Bus services are provided in [Table 2.6](#), showing service count (return trip), total kilometres of bus travel (return trip), number of eligible students and equivalent passenger kilometres. Note that the statistics for Technology Bus services in this table are not directly comparable to daily school bus services for the following reasons:

- They do not run daily, therefore the number of services and equivalent passenger kilometres travelled are spread over a week or a fortnight, rather than being a 'daily' figure.
- Technology buses operate with 'full' patronage for the length of the route because all the passengers are picked up from the source school at the start of the route and dropped off at the technology centre (and vice versa on the return leg). The only exception is for technology services that pick up and drop off students from more than one school along the route.

Table 2.6 Ministry of Education Technology Bus travel: key statistics

Service count (return trip)	Total km bus travel (return trip)	Eligible students	Equivalent passenger km
644	16,940*	30,593	804,650

* Estimated using base rates for similar services.

For these reasons, the equivalent passenger kilometres travelled for Technology Buses is more reflective of actual passenger kilometres travelled compared to the equivalent passenger kilometres travelled calculated for daily school bus services.

2.3.3 Other school bus services

The contribution of other school bus activity towards total school bus passenger kilometres is unknown. This includes school buses operated by private schools, and buses chartered directly by schools for off-site activities. Charter services, for example, may be comparable to technology services as the number of passengers per bus would be relatively high. While further discussion of these services is outside the scope of this research, some consideration should be given to them when introducing interventions to improve bus passenger safety.

3 Prior research and recommendations regarding school bus safety in New Zealand

This chapter summarises previous research, statistics, and recommendations regarding school bus travel in New Zealand, including the relative risk of bus travel to other modes of travel to school.

3.1 Risk of travel by different modes, including school bus

There have been few studies into the risk of travel by school bus in New Zealand. Only three prior studies were found that investigated this area. Two of these are now relatively old, relying on data prior to 2007. The findings from all three of these studies, including limitations, are discussed below.

3.1.1 Risk associated with different modes of travel (2010–2014)

In 2015 The Ministry of Transport Te Manatū Waka released a series of factsheets titled *Risk on the Road*, which quantified the road safety risks associated with different modes of travel: driving a light four-wheeled vehicle, being a passenger in a light four-wheeled vehicle, motorcycling, cycling, walking, and travelling by bus (Te Manatū Waka, 2015). These factsheets used data from the New Zealand Household Travel Survey from July 2010 to June 2014 to estimate hours spent travelling by different mode, and data from CAS to quantify deaths and injuries by mode.

The outcomes of the analysis found that travelling as a bus passenger is the safest mode overall, with 0.7 deaths and injuries per million hours spent travelling as a bus passenger (Figure 3.1), and 3.0 deaths and injuries to bus passengers for every 100 million km travelled (Figure 3.2).

Figure 3.1 Deaths and injuries in motor vehicle crashes per million hours spent travelling (reprinted from Te Manatū Waka, 2015, p. 6)

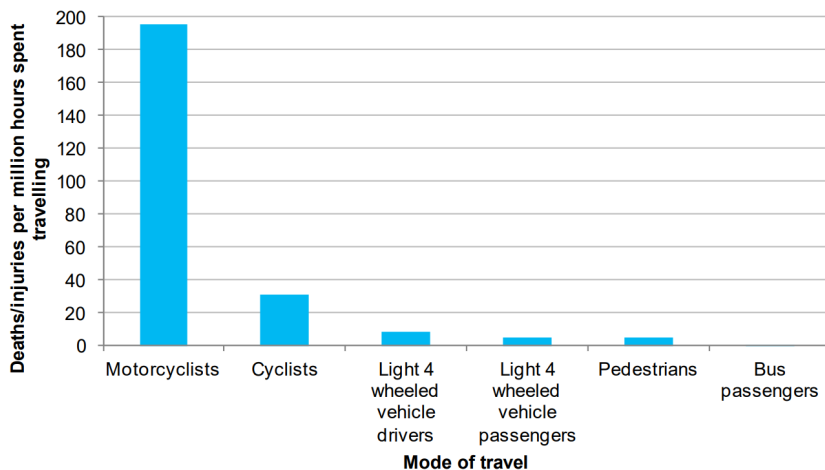
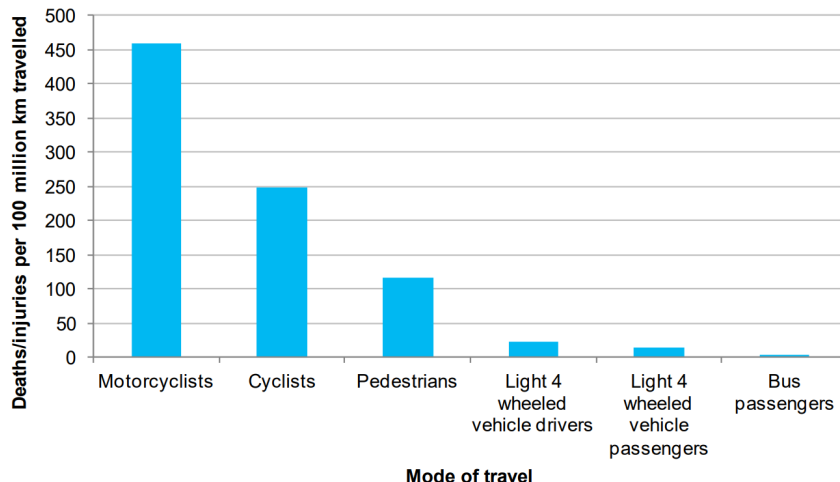


Figure 3.2 Deaths and injuries in motor vehicle crashes per 100 million km travelled per year (reprinted from Te Manatū Waka, 2015, p. 7)



Note that this study did not distinguish between the reason for travel – for example, travel to work versus travel to education – nor did it investigate relative risk by age group. Additionally, the mode for 'bus passengers' includes travel on all types of buses, including scheduled urban services, coach travel, inter-regional bus, and school bus services. Despite these limitations, this study provides a high-level baseline of the relative risk of different modes of travel in New Zealand.

3.1.2 CAS analysis of school bus deaths and injuries (1987–2007)

A research report into school bus safety in New Zealand was published by the NZ Transport Agency in 2010 (research report 408 – Baas et al., 2010). The research project was initiated by the Bus Safety Technical Advisory Committee with the Ministry of Education as the lead organisation. The research focused on two areas of school bus safety:

- the safety of children crossing the road to or from a school bus
- the safety of children while travelling on a school bus.

For each area of school bus safety, Baas et al. (2010) used CAS data to identify the number and rate of deaths, serious injuries and minor injuries to children for the 21-year period from 1987 to 2007 (Table 3.1).

Table 3.1 Deaths, serious injuries and minor injuries to children using school buses in New Zealand, 1987–2007 (data from Baas et al., 2010)

Area of school bus safety	Injuries reported in CAS 1987–2007			Deaths and serious injuries per year
	Fatal	Serious	Minor	
Children crossing the road to or from a school bus	22	45	91	3.2
Children while travelling on a school bus	6	35	112	2.0

This analysis shows that children are more likely to be killed or seriously injured when crossing the road to or from a school bus compared to when travelling on a school bus. However, a limitation of this study is it relied

solely on crash data and does not consider injuries that resulted from non-collision events – for example, harsh braking events, or slips and falls when embarking or disembarking the bus.

3.1.3 ACC travel-to-school injury analysis (2003–2005)

Schofield et al. (2008) combined injury data collected by the Accident Compensation Commission (ACC) for the period 1 July 2003 to 30 June 2005 with travel data from a Census at School survey to determine the absolute and relative risks of school-related travel in New Zealand. The injury data collected by ACC include any injury where a claim was made to ACC. These data do not distinguish between the severity of injury, which could range from a single visit to a doctor to injuries that require extended hospitalisation and ongoing treatment.

The findings from the analysis showed that private motor vehicle was the most dominant form of travel. It was found that cycling was the riskiest activity, followed by walking and motor vehicle travel, and lastly, bus and train travel in terms of trips and exposure risks (Schofield et al., 2008). When comparing the cost of the injuries, the most severe (and costly) injuries were due to motor vehicle travel, followed by walking, cycling and bus travel.

Bus injuries had a prevalence of 2.6 injuries per million trips, and 4.0 injuries per million hours, noting that this includes all types of bus travel to school (including urban buses not specifically designated as 'school buses'). The estimate of 4.0 injuries per million hours is much higher than the 0.7 deaths and injuries per million hours of travel by all bus passengers estimated by Te Manatū Waka (2015). Although the two studies are not directly comparable due to differences in the date periods covered, this suggests that many injuries on buses are under-reported or not reported in CAS (eg, injuries resulting from non-collision events such as heavy braking).

Detailed analysis of injuries while travelling to and from school by bus was reported in an unpublished presentation by Gianotti and Drader (2007) using the same data as the Schofield et al. (2008) study. The authors reviewed each injury and classified them by when and how the injury occurred. Of the 521 bus-related travel injuries reported over two years, it was found that:

- 18% of injuries occurred during pre-bus travel
- 76% of injuries occurred 'on bus'
- 6% of injuries occurred during post-bus travel.

While the raw data are not provided in this presentation, inferences from the graphs provided suggest that approximately:

- 26% of injuries were attributed to 'stopping/braking'
- 20% of injuries resulted from the bus colliding with another vehicle or external object
- 19% of injuries occurred during entry or exit to the bus, with most of these (76%) occurring while passengers were getting off the bus
- 14% of injuries resulted from an interaction with the interior of the bus (ie handrail/pole, seat, sharp edge)
- 13% of injuries were attributed to assault
- 6% of injuries occurred 'post-bus', where a pedestrian was struck by the bus or other vehicle.

It is noted that the data used in this study are relatively old, and care must be taken in considering whether these findings represent current travel and injury risk. However, this research takes a broader view of injury and risk beyond crashes, highlighting the range of injuries that can occur during school bus travel, including assault, during stopping/braking and while getting on and off the bus.

3.2 Improving school bus safety – recommendations and trials

There were several reports issued and recommendations made for improving school bus safety since 2010. These are summarised below.

3.2.1 NZ Transport Agency research report 408

A range of options to reduce deaths and injuries were reviewed in research report 408, with the authors recommending a package of measures to improve the safety of children using school buses (Baas et al., 2010).

The authors recommended the following measures to improve the safety of children who have to cross the road to and from school buses:

- Minimise the need for students to cross the road:
 - Encourage caregivers to meet their children at the bus stop.
 - Rearrange bus routes to reduce the number of children who have to cross the road.
 - Improve bus stops.
- Prevent children from running heedlessly across the road:
 - School community-based initiatives.
 - Road safety education in schools.
- Minimise the consequences by slowing down the traffic when children are crossing:
 - Amend the Land Transport Road User Rule to enable effective enforcement, including reviewing the speed limit when passing a stationary school bus and applying the speed limit whenever approved school bus active warning lights are activated.
 - Install active speed signs on school buses that display the speed limit when activated.
 - Review driver awareness campaigns.

Baas et al. (2010) also recommended the following measures to reduce the risk of injury to children while travelling on school buses:

- school bus management standards
- occupant protection.

Specific commentary and recommendations from this research are described throughout this report.

3.2.2 Seatbelts on school buses

Seatbelts on school buses were also investigated in the Baas et al. (2010) report. This included a literature review, international comparison, and cost–benefit analysis. A more detailed review of the costs of implementing seatbelts and seating requirements (ie, no students standing) was undertaken by Deloitte in 2019 for the Ministry of Education. The implications of these findings are discussed in section [6.6.4](#) of this report.

A petition to have school buses fitted with seatbelts was presented to Parliament in May 2021 with a request to require seatbelts in all school buses within five years (House of Representatives, 2022). The petition raised concerns regarding the fact that young children are required to be in a five-point harness or a seatbelt while in a vehicle travelling to a school bus stop, but the school bus has no similar requirements. This petitioner highlighted additional concerns due to high speeds on rural roads, as well as hazards such as black ice, snow, and winding terrain.

The Petitions Committee sought commentary from the Ministry of Education, NZTA and The Ministry of Transport Te Manatū Waka when responding to the petitioner. The Committee accepted assurances from these organisations that bus travel is generally very safe but noted there is a lack of information on the dangers of school buses travelling on rural roads, compared to urban roads. The Committee also noted the complexity, cost and regulatory consequences of requiring seatbelts on school buses, yet urged the Government to investigate the potential safety benefits of seatbelts on rural school buses and to find cost-effective mechanisms to address this issue.

3.2.3 School bus sign trials and evaluation

Trials of school bus signs lit with light-emitting diodes (known as LED signs) were undertaken in 2010 (Baas et al., 2010; Transport Engineering Research New Zealand, 2011), in 2013–14 (Mackie Research, n.d.) and again in 2016 (as described in New Zealand Coroners Court, 2022). The outcomes from these trials are discussed in more detail in section [6.4.3](#) of this report.

3.2.4 Recommendations of the New Zealand Coroner Court

There were five school bus deaths investigated by the New Zealand Coroners Court since 2007 which resulted in recommendations to improve school bus safety. The related Coroners' reports, with recommendations can be retrieved from the website of Coronial Services of New Zealand³. All the cases involved children who were killed after being struck by a vehicle when crossing the road after exiting a school bus. Each successive report makes similar recommendations, primarily around making school buses more identifiable to other road users, the rules around stopping or slowing around school buses, and education programmes.

The most recent inquiry (New Zealand Coroners Court, 2022) was highly critical of current practice. The Coroner summarised prior recommendations and included extensive commentary on the use of flashing lights on school buses, full stop laws/pneumatic barrier arms, education campaigns and the adequacy of the 20 km/h speed limit that applies while passing a stationary school bus. Specific references are made to the 2022 Coroner Court's recommendations, where relevant, throughout this report.

³ By searching the term "school bus" on [Findings of public interest | Coronial Services of New Zealand \(justice.govt.nz\)](https://www.justice.govt.nz/coronial-services/public-interest/). Note, this search may also return some records that are not related to this research project.

4 Crash and incident analysis 2010–2021

A review of injury crashes and reported injury incidents between 2010 and 2021 (inclusive) was undertaken to better quantify the safety of school buses, based on historical data. The extent of this analysis was confirmed with the project steering group, with the scope limited by the data that are currently available. The analysis was supplemented by a retrospective analysis of data from the years 2008 and 2009, not covered by Baas et al. (2010) nor initially included in this research (see section 4.2.7).

The crash and incident analysis involved three parts:

1. a query of CAS to determine the number of injury crashes involving ‘school buses’, including the severity of crash and injury outcomes for different road users
2. a detailed review of injury crashes in CAS and incidents reported to the Ministry of Education that occurred at or near PUDO locations, including injuries to children travelling to and from these locations
3. a detailed review of injuries to bus drivers and passengers caused by ‘on bus’ crashes and incidents reported to the Ministry of Education.

4.1 Crashes involving school buses

The number and severity of crashes and injuries involving collisions with school buses was queried in CAS using the following parameters:

- years: 2010–2021 (inclusive)
- vehicle usage: school bus
- injury severity: fatal, serious, or minor.

The high-level results of this analysis are presented in Tables [4.1](#) to [4.3](#).

Table 4.1 Injury crashes involving a school bus, by severity (2010–2021)

Crash severity	Number of crashes
Fatal crashes	10
Serious crashes	22
Minor crashes	92
Total	124

Table 4.2 Road users injured in crashes involving a school bus, by severity (2010–2021)

Road user type	Fatal injuries	Serious injuries	Minor injuries
Bus driver	2	4	26
Bus passenger	0	13	79
Other vehicle – driver	7	11	49
Other vehicle – passenger	0	10	9
Pedestrian	1	6	20
Cyclist	0	2	3

Road user type	Fatal injuries	Serious injuries	Minor injuries
Total	10	46	186

Table 4.3 Deaths and serious injuries (DSIs) for crashes involving school buses, by road user type (2010–2021)

Road user type	DSIs only	All injuries
Bus occupants	19 (34%)	124 (51%)
Other vehicle occupants	28 (50%)	86 (36%)
Pedestrians/cyclists	9 (16%)	32 (13%)
Total	56	242

The analysis showed there were 32 fatal or serious injury crashes involving school buses recorded in CAS between 2010 and 2021, which resulted in 10 fatalities and 46 serious injuries. The driver(s) in the other vehicle(s) were most likely to be fatally or seriously injured (18 DSIs), although bus passengers received the highest number of injuries overall. These findings are unsurprising given school buses carry more passengers than other types of vehicles, resulting in more injuries, but the mass difference between buses and other vehicles results in the drivers and passengers in those other vehicles being most seriously injured.

4.1.1 Limitations

The results presented above must be interpreted with caution due to the following limitations of the crash data in CAS:

- 'School buses' are sometimes coded only as 'buses', despite the description and crash diagram clearly identifying the bus as a 'school bus'. This means some crashes involving school buses are not reported as 'school bus' crashes.
- Where a child was struck by a vehicle after disembarking the school bus and the bus had already moved off, the bus is not captured as a party involved in the crash.
- Minor injuries to bus passengers are under-reported (see section [4.2.3](#) for more detail).
- The query includes crashes where a non-operational school bus (ie, a bus parked up overnight) was struck when another driver lost control and crashed into it.
- In some crashes, the vehicle was incorrectly coded as a school bus (see section [4.2.2](#) for more detail).

Additionally, non-collision events that result in injuries to bus passengers (eg, heavy braking) are not captured in the crash data.

4.2 Detailed crash and incident analysis

More detailed analysis of the crash data was coupled with incident data provided by the Ministry of Education to get a more accurate estimate of injuries related to school bus travel, focusing on the following areas:

1. injuries due to assault
2. crashes and incidents that occurred immediately before, after or during the pick-up or drop-off of students
3. crashes and incidents resulting in injuries to bus drivers and bus passengers while travelling 'on the bus'.

These analyses involved a wider range of CAS queries, a review of individual crash descriptions, and a review of incidents reported to the Ministry of Education. Where possible, crash reports were enriched with details from Ministry of Education incident reports for the same event, to improve the reporting of the number of passengers involved and the number and severity of injuries.

Note that the crash reports in CAS do not distinguish between the type of school bus service involved, and therefore also include crashes involving school buses that were chartered or operated directly by schools. The Ministry of Education incident reports only report on incidents involving Ministry of Education funded or contracted services, although some incidents involving chartered school buses were also reported by transport service providers in this dataset.

4.2.1 Injuries due to assault or dangerous passenger behaviour

In the Ministry of Education dataset, 26 incidents were identified where injury occurred due to assault or student behaviour, resulting in at least five potentially serious injuries and at least 22 minor injuries. Examples included a student assaulting another student, a student assaulting a bus driver, and dangerous behaviours such as jumping from a moving bus. These injuries are not included in the sections that follow.

4.2.2 Injuries to students and other road users during pick-up and drop-off

This analysis involved reviewing Ministry of Education incident reports and undertaking several queries in the CAS to identify events where a child or other road user was injured during school bus pick-up or drop-off (PUDO) activities. More detail on these queries is provided in Appendix B.

The review of crash and incident reports uncovered 96 PUDO-related injury events between 2010 and 2021, consisting of 80 crashes and 16 non-collision events.

Each injury event was reviewed to determine the number and severity of injuries, and to identify commonalities (Table 4.4). In all, there were 104 injuries reported, including 36 DSIs. This translates to the following injury rates for PUDO-related activities:

- 8.7 injuries per year
- 3.0 DSIs per year.

Table 4.4 Reported PUDO-related injuries, by movement or activity type (2010–2021)

Incident type	Movement or activity	Injuries to pedestrians			Injuries to other road users			Total DSIs
		Fatal	Serious	Minor	Fatal	Serious	Minor	
Collision	Pedestrian(s) struck by vehicle when crossing the road after disembarking	2	22	35	–	–	2	24
	Pedestrian(s) struck by vehicle when crossing the road towards the PUDO location or bus	–	3	2	–	–	–	3
	Pedestrian(s) struck by vehicle while travelling along the road towards a PUDO location or bus	–	1	3	–	–	–	1
	Pedestrian(s) or vehicle struck by bus manoeuvring at PUDO location	–	1	6	–	–	1	1

Incident type	Movement or activity	Injuries to pedestrians			Injuries to other road users			Total DSIs
	Pedestrian(s) struck by other vehicle at PUDO location (not crossing road)	–	1	4	–	–	–	1
	Vehicle struck bus while bus was stationary at PUDO	–	–	–	1	–	3	–
	Vehicle struck another vehicle while passing stationary bus at PUDO	–	–	–	1	1	–	–
Non-collision	Slip, trip or fall while entering/exiting the bus	–	3	4	–	–	–	3
	Caught in door while entering/exiting the bus	–	–	8	–	–	–	–
Total		2	31	62	2	1	6	36

Most PUDO-related injuries were suffered by pedestrians who were struck by another vehicle while crossing the road to or from the bus: 64 injuries, including 27 DSIs). This represents 75% of all DSIs for PUDO-related activities.

Additionally:

- A bus driver was killed when a vehicle struck a stationary bus that had stopped to pick up children.
- Another fatality and a serious injury occurred when two vehicles collided head-on while passing a stationary school bus.
- Three serious injuries involving slipping, tripping or falling while entering/exiting were reported by the Ministry of Education. All three injuries occurred while a passenger was exiting the bus.

4.2.2.1 Injuries to children crossing the road around PUDO locations

Commonalities among crashes involving pedestrians crossing the road around PUDO locations were further analysed (Tables 4.5 to 4.9). Note that not all attributes were documented for each injury, hence the total number of injuries in some tables is fewer than the 64 injuries shown in [Table 4.4](#).

The key findings were as follows.

- Most injuries (83%) occurred in the afternoon drop-off period, between 2.30 pm and 5 pm.
- Most injuries (55%) occurred on urban roads with a posted speed limit of 70 km/or below; however, most DSIs occurred on rural roads with higher speed limits (56% of DSIs).
- Most injuries (69%) occurred when the pedestrian was described by witnesses as ‘running across’ the road, as opposed to ‘walking across’ or ‘stepping out’.
- There were a similar number of injuries that resulted due to the pedestrian crossing in front of the bus (40%), compared to the back of the bus (44%).
- Males (60%) were more likely to be injured than females (40%).
- The age group most likely to be injured was 10–14 years (54%). This is similar to the proportion of children aged 10-14 years who reported using a school bus to travel to education in the 2018 Census (49.8%, as shown in Figure 2.2).

- Higher vehicle speeds at the time of the collision increased the severity outcome for the pedestrian(s). Where the suspected speed at the time of the crash was 20–39 km/h, 28% of injuries were DSIs. This increased to 77% for crashes where the suspected speed was more than 60 km/h.
- Of the 55 injury crashes where both the state of the bus (i.e. stationary or moving off) and the suspected speed of the other vehicle were reported in CAS:
 - 69% of vehicles that struck the pedestrian while the school bus was stationary were suspected of travelling faster than 20 km/h
 - 90% of vehicles that struck the pedestrian while the bus was moving away or not present at the time of the crash were travelling faster than 20 km/h.

Table 4.5 Reported PUDO-related injuries to pedestrians crossing the road, by time of day (where documented) (2010–2021)

Time of day	Injury count
AM (0700–0900)	9 (15%)
PM (1430–1700)	53 (84%)
Total	62

Table 4.6 Reported PUDO-related injuries, by description of pedestrian movement when crossing road (where documented) (2010–2021)

Police/witness description	Injury count
Running across/ran out	38 (69%)
Walking across/stepped out	17 (31%)
Total	55

Table 4.7 Reported PUDO-related injuries to pedestrians crossing the road after disembarking, by crossing location relative to the school bus (where documented) (2010–2021)

Crossing location relative to school bus when disembarking	Injury count
Front of bus	23 (40%)
Rear of bus	25 (44%)
Other/unknown	9 (16%)
Total	57

Table 4.8 Reported PUDO-related injuries to pedestrians crossing the road, by age (where documented) (2010–2021)

Age band	Injury count
5–9 years	14 (25%)
10–14 years	31 (54%)
> 15 years	12 (21%)
Total	57

Table 4.9 Reported PUDO-related injuries to pedestrians crossing the road (by gender) (2010–2021)

Gender	Injury count
Female	23 (40%)
Male	35 (60%)
Total	58

Table 4.10 Reported PUDO-related injuries to pedestrians crossing the road, by severity and speed environment (where documented) (2010–2021)

Speed and traffic environment	Fatal injuries	Serious injuries	Minor injuries	Total injuries	Total DSIs
Urban (< 80 km/h speed limit)	1	11	20	32 (55%)	12 (44%)
Rural (≥ 80 km/h speed limit)	1	14	11	26 (45%)	15 (56%)
Total	2	25	31	58	27

Table 4.11 Reported PUDO-related crashes involving pedestrians crossing the road: injury outcome, by suspected speed at time of crash

Suspected speed at time of crash (other vehicle)	Fatal or serious injuries only	All injuries (fatal, serious, minor)	DSIs as a proportion of all injuries
0–19 km/h	0	3	0.00
20–39 km/h	5	18	0.28
40–59 km/h	11	19	0.58
60+ km/h	10	13	0.77
Unknown or not recorded	1	11	n/a
Total	27	64	0.42

Table 4.12 Reported PUDO-related crashes involving pedestrians crossing the road: injury crashes, by bus state and suspected speed of the other vehicle (where recorded in CAS)

School bus state at time of crash	Suspected speed of the other vehicle at time of crash		Percentage of injury crashes where suspected speed at time of crash was > 20 km/h
	≤ 20 km/h	> 20 km/h	
Stationary – including ‘stopped’, ‘parked’ or ‘stationary’	11	24	69%
Not stationary – including ‘approaching’, ‘moving off’, or ‘the bus had left’	2	18	90%
Total (combined)	13	42	76%

4.2.3 Injuries to drivers and passengers ‘on bus’

This analysis involved reviewing Ministry of Education incident reports and undertaking several queries in the CAS to identify incidents where a bus driver or bus passengers were injured while the bus was travelling along the road. A description of the analysis methodology is provided in Appendix B.

The analysis found there were 296 injuries reported over the 12-year period ([Table 4.13](#)). This included 10 fatal or serious injury crashes, resulting in 21 DSIs ([Table 4.14](#)). This translates to the following injury and crash rates for school bus drivers and passengers travelling 'on bus':

- 24.7 injuries per year
- 1.8 DSIs per year
- 0.8 fatal or serious injury crashes per year.

A breakdown of crashes by event type is provided in [Table 4.13](#). Most reported injuries are the result of a collision (62%), with non-collision events accounting for 38% of injuries. However, none of the non-collision events reported by the Ministry of Education apparently resulted in fatal or serious injuries to drivers or passengers (based on the description of the injury provided in the incident report).

Table 4.13 Reported incidents and crashes where a bus driver or passenger was injured while 'on bus', by classification, injury count and severity (2010–2021)

Incident type	Classification	Incident Count	Injuries to bus drivers			Injuries to bus passengers			Total DSIs
			Fatal	Serious	Minor	Fatal	Serious	Minor	
Collision	Multi-vehicle, intersection	24	–	–	12	–	3	51	3
	Multi-vehicle, mid-block	19	–	1	11	–	12	66	13
	Single vehicle, run-off road	27	1	3	12	–	1	66	5
Non-collision	Heavy braking/other harsh movement	37	–	–	–	–	–	51	0
	Other (falls, interior etc)	6	–	–	–	–	–	6	0
Total		113	1	4	35	0	16	240	21

4.2.3.1 Fatal and serious 'on bus' crashes – detailed review

[Table 4.14](#) provides more detail on reported crashes where a driver or passenger(s) was killed or seriously injured, between 2010 and 2021. Of these, the worst crash involved 40 students who were injured, including 11 who were seriously injured. This crash alone accounted for 52% (over half) of the total 'on bus' DSIs for bus drivers and passengers between 2010 and 2021, demonstrating that a single, high-severity crash can have a significant impact on DSI counts for any period under review. For this reason, most of the tables that follow focus on *crash severity* (the most severe injury outcome from the crash), rather than comparing injury counts between different crash types and commonalities.

Table 4.14 Details of 'on bus' crashes resulting in fatal or serious injuries to the bus driver and/or passengers (2010–2021)

Crash type and movement	Time of day (AM/PM)	Number of passengers	Restraint use	Injuries to bus occupants
Single vehicle - bus ran off road to the right	PM	Not recorded	Driver: none available	Driver: serious injury
Single vehicle - bus ran off road to the left	PM	None	Driver: restrained	Driver: serious injury
Multi vehicle - bus hit by vehicle that failed to give way at an intersection.	PM	37	Driver: none available Passengers: uncertain	Passengers: • 2 serious injuries • 10 minor injuries
Multi vehicle - bus rear-ended by another vehicle	PM	48	Driver: uncertain Passengers: uncertain	Driver: minor injury Passengers: • 11 serious injuries • 29 minor injuries
Multi vehicle - bus hit other vehicle while existing the school driveway	PM	Unknown	Unknown	Driver: minor injuries Passengers: • 1 serious injury • 10 minor injuries
Single vehicle - bus ran off road to the left	PM	39	Driver: restrained Passengers: no details provided	Driver: minor injury Passengers: • 1 serious injury • 12 minor injuries
Multi vehicle - bus hit head-on by another vehicle	PM	25	Driver: restrained Passengers: uncertain	Passengers: • 1 serious injury • 3 minor injuries
Single vehicle - bus ran off road to the left	PM	None	Driver: uncertain	The driver died.
Multi vehicle - bus rear-ended by another vehicle	AM	3	Driver: restrained Passengers: none available	Driver: seriously injured Passengers: • 1 minor injury
Single vehicle - bus ran off road to the left	PM	None	Driver: uncertain	Driver: seriously injured

4.2.3.2 Commonalities among crashes

Common factors among the crashes were examined in detail (Tables [4.15](#) to [4.18](#)). Key findings were as follows.

- Slightly more collisions occurred in the afternoon ($n = 32$) compared to the morning ($n = 28$). However, there were twice as many harsh braking/harsh movement events recorded in the afternoon ($n = 22$) compared to the morning ($n = 11$). Children may be more likely to be injured during the afternoon because they are more likely to be moving about the bus or seated incorrectly when the harsh braking occurs. This is supported by evidence that children are rowdier on afternoon rides (see section [6.8.2](#)).
- Fourteen percent of incidents occurred outside of typical school PUDO hours. It is likely these incidents occurred on Technology Buses, or on school buses chartered for other purposes.

- Most (64%) 'on bus' injury crashes occurred on rural roads with posted speed limits 80 km/h or higher.
- In 20% of injury crashes there were no passengers on the bus at the time of the crash, with only the driver being injured. Most of these crashes are single vehicle crashes (71%).
- There were five crashes where a bus overturned, resulting in one death and one serious injury. In most of these crashes there were no or few passengers on board at the time.
- In crashes where both the damage severity and number of passengers are recorded ($n = 56$), the damage to the bus was reported as 'minor or moderate' ($n = 31$). However, most injuries to bus occupants were reported in crashes that resulted in 'overturn' or 'extensive' damage (68% of all injuries). There were no DSIs recorded in crashes where the bus received 'minor or moderate' damage.

Table 4.15 Reported incidents where a bus driver or passenger was injured while 'on bus', by time of day (2010–2021)

Incident type	Classification	AM (0630–0900)	PM (1430–1700)	Other/unknown
Collision	Multi-vehicle, intersection	11	11	2
	Multi-vehicle, mid-block	5	11	3
	Single vehicle, run-off road	12	10	5
Non-collision	Heavy braking/other harsh movement	11	22	4
	Other (falls, interior etc)	4	–	2
Total		43	54	16

Table 4.16 Reported crashes where a bus driver or passenger was injured while 'on bus', by speed environment and crash severity (2010–2021)

Speed and traffic environment	Fatal	Serious	Minor	Total
Urban (< 80 km/h speed limit)	–	2	23	25 (36%)
Rural (≥ 80 km/h speed limit)	1	7	37	45 (64%)

Table 4.17 Reported crashes where a bus driver or passenger was injured while 'on bus', by crash type and loading (2010–2021)

Crash type	With passengers on board		No passengers on board	
	Number of crashes	% of crashes	Number of crashes	% of crashes
Multi-vehicle, intersection	21	38%	3	21%
Multi-vehicle, mid-block	18	32%	1	7%
Single vehicle, run-off road	17	30%	10	71%
Total	56	100%	14	100%

Table 4.18 Reported crashes where a bus occupant was injured while 'on bus', by severity of damage to the bus and total occupant count, where recorded (2010–2021)

Damage severity	Crash count	Total bus occupant count	Injuries by severity			% of occupants injured
			Fatal	Serious	Minor	
Overturn	5	13	1	1	5	54%
Extensive	20	335	0	13	113	39%
Minor or moderate	31	546	0	0	64	12%
Total	56	838	1	19	182	23%

Note: Only includes collisions where the number of passengers and severity of damage were both recorded in CAS ($n = 56$).

Cause factors

Each crash was reviewed for commonalities regarding weather and road conditions, driver factors (fatigue, illness and impairment), or vehicle factors. Of the 70 injury crashes reported:

- Adverse weather or road conditions, such as ice, high winds, or a slippery road, were cause factors in nine crashes.
- The bus driver suffering a sudden illness or medical illness (not sudden) was a cause factor in six crashes.
- Fatigue due to lack of sleep was a cause factor in two crashes. In both crashes the driver was the only occupant of the bus, with one driver killed and the other seriously injured.
- A vehicle fault or maintenance issue was identified as a cause factor in three crashes.
- There were no reports of bus drivers being impaired by alcohol or drugs.

Restraint use

[Table 4.19](#) shows restraint use among bus drivers, as recorded in CAS. Restraint use among passengers was recorded only for passengers who were injured, and in all but seven crashes this was either not completed or recorded as 'uncertain'.

Table 4.19 Reported crashes where a bus driver or passenger was injured while 'on bus', injuries to bus drivers by severity and restraint use (2010–2021)

Restraint use	Fatal injury	Serious injury	Minor injury	No injury
Yes (available and worn)	–	2	14	7
No (available and not worn)	–	–	5	3
None available	–	1	6	4
Uncertain/not reported	1	1	8	17

Restraint use is poorly captured for injured passengers, and not recorded for uninjured passengers. Therefore it is impossible to draw conclusions from these data on how restraint use may affect crash outcomes.

4.2.4 Summary of incidents and injuries 2010–2021

[Table 4.20](#) shows the total number of injury events and injuries by severity across all the stages of bus travel analysed. This shows 'on bus' travel having the highest rate of injury at 24.7 injuries/year; however, PUDO-related activities have the highest DSI rate (3.0 DSIs/year).

Table 4.20 School bus travel: reported injury counts and rates, by severity

Activity	Road user	All injury incidents		DSI incidents only		All injuries		DSIs only	
		Total	Per year	Total	Per year	Total	Per year	Total	Per year
PUDO-related	All road users	96	8.0	35	2.9	104	8.7	36	3.0
'On bus' travel	Bus occupants	113	9.4	10	0.8	296	24.7	21	1.8
Assault/student behaviour	Bus occupants	26	2.2	5	0.4	27	2.3	5	0.4
Total		235	19.6	50	4.2	427	35.6	62	5.2

4.2.4.1 Interpretation

'On bus' crashes resulting in several fatal or serious injuries are relatively rare, with only one major incident in the 12-year period from 2010 to 2021. Whilst rare, if there had been another similar crash in the past 12 years, this would have considerably increased the DSI rate for 'on bus' travel. For example, several fatalities could have occurred had one of these previous crashes resulted in a rollover event with a large number of unrestrained passengers on board. For this reason, caution should be used in applying the DSI rate to predict the likelihood of future deaths and serious injuries to bus drivers and passengers for this type of crash.

In their review of bus crashes in New South Wales in 2012, the New South Wales School Bus Safety Community Advisory Committee also noted that statistics comparing the safety performance of different types of transport require careful interpretation (Transport for New South Wales, 2022b). Two reasons were given for this. Firstly, while the number of crashes resulting in fatalities for bus occupants had been very few, one multiple fatality crash has the potential to significantly vary the statistical results. Secondly, such a conclusion can lead to a complacent view that there is no room for improvement to safety in this mode.

4.2.5 Gaps in injury and incident reporting

Several limitations in how 'school bus' crashes are recorded in CAS were previously described in section [4.1.1](#) above. Additionally, the following gaps in the crash record were discovered when comparing the Ministry of Education incident reports to the crash reports in CAS:

- There were eight incidents involving a child who was struck and injured by a passing vehicle that were not recorded in CAS.
- There were many near-miss incidents involving children crossing the road reported by the Ministry of Education that are not captured in CAS because a collision did not occur.
- After reviewing the Ministry of Education incident reports, a further 23 injury crashes were matched and extracted from CAS. In these instances, the bus involved was either not identified as a 'school bus' in the

crash report, or the crash was classified as 'non-injury' despite injuries to passengers being documented in the Ministry of Education incident report.

- Some CAS reports incorrectly recorded 'nil' passengers on the bus, despite the matching Ministry of Education report stating several students were on board at the time.
- Nine collision events involving a school bus were reported by the Ministry of Education but could not be matched to a CAS record. Most were non-injury or minor injury crashes, although one crash resulted in 12 injuries to the driver and passengers, including at least one potentially serious injury.
- 'Journey Purpose' was recently added to crash reports in CAS, and this was investigated as another method for identifying crashes involving school bus travel. However, 'Journey Purpose' is only recorded for drivers, not passengers. For example, the bus passengers could be 'travelling to education' but the driver would likely report this as a 'work-related trip'. Journey Purpose is also not collected for pedestrians, so cannot be used to identify children who were injured while walking to school.

These gaps indicate that transport service providers are not reporting all injury crashes to NZ Police, particularly where children were injured by a passing vehicle. This suggests there is a gap in procedure in how collisions are reported (the research found that some transport service providers did not fully understand the crash reporting process and how this information is used).

4.2.6 Additional harms to children travelling on school buses

Some transport service providers interviewed in the engagement stage noted that children are exposed to vehicle emissions when walking around school buses. Small children walking around the back of the bus while it moves away from the stop are exposed to some of the highest doses of exhaust emissions.

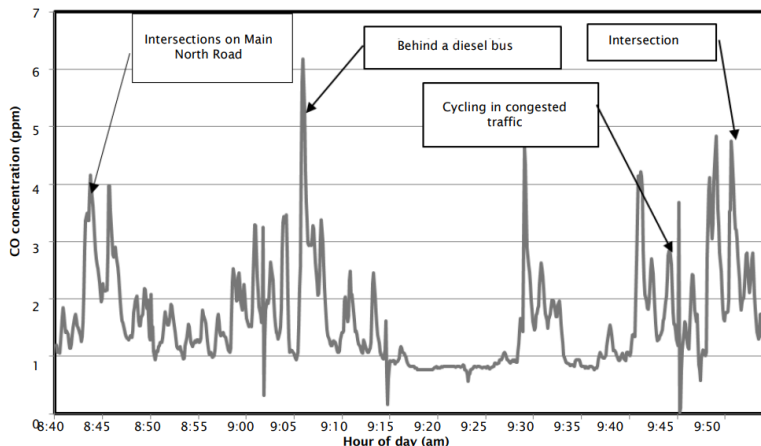
Kingham et al. (2011) conducted a study in Auckland and Christchurch to determine personal exposure to traffic pollution while travelling by different transport modes. Their literature review concludes that buses have the highest concentration of nitrogen dioxide (NO₂) levels compared to other modes due to the self-pollution from diesel engines. NO₂ has been linked to childhood asthma and increased rates of respiratory illnesses (Kingham et al., 2011).

Particulate matter (PM) was also found to be the highest in buses, with bus passengers exposed to 20% higher levels of PM₁₀ than car passengers.⁴ Bus passengers had the highest mean exposure to PM_{2.5}, PM₁ and ultrafine particles compared to car drivers, and on-road and off-road cyclists. Smaller fractions of PM have higher toxicity as they contain more organic matter and can penetrate deeper into the lungs.

Finally, Kingham et al. (2011) found that the concentration of pollutants experienced by an on-road cyclist spiked while behind a diesel bus ([Figure 4.1](#)). This finding is indicative of the spikes of emissions children may be exposed to while walking around the back of an idling bus. Additionally, children are generally more susceptible to the adverse effects of exposure than adults (Dirks et al., 2018).

⁴ Particulate matter is a traffic-related pollutant that is categorised by particle size – for example, PM₁₀ means particles with a diameter less than 10 microns.

Figure 4.1 Localised spikes of carbon monoxide (CO) observed during a cycling journey (reprinted from Kingham et al., 2011, p. 63)



Most (97%) of the heavy buses in New Zealand are diesel fuelled (Te Manatū Waka, 2022b). The Ministry of Education currently encourages the adoption of lower emission school buses through the tendering process by including an emission standard based on the age of vehicles used as school buses (Ministry of Education, 2020).

4.2.7 Data for years 2008 and 2009

Previous research, referred to above (Schofield et al. 2008; Gianotti, S. & Drader, F. 2007; Baas et al. 2010), incorporated data up until the year 2007, whereas the specification for the research reported on in this document (RR 710) focused on the years 2010 – 2021. This oversight in the original specification therefore left a gap of two years (2008 and 2009). A subsequent review of crash data for school buses in those years found no significant variation from other years in crashes involving school buses.

However, there were two fatalities with the cause code 729 (pedestrian to/from a school bus), one each in 2008 and 2009. The two fatalities in 2008-2009 is the same number of fatalities reported for the entire 12-year period that followed.

There were also a further four serious injuries in 2008-09, so six DSIs in total for those two years, or three DSI/year. This is consistent with findings for 2010-2021 (also averaging three DSI/year). Consequently, it was concluded that the analysis of data for 2008-09 should not affect the overall findings and conclusions contained in this report.

5 School bus route operating conditions and risk assessment

School buses in New Zealand operate over a range of road environments – from predominantly urban roads with lower speed limits and high numbers of vulnerable road users, to rural roads with varying traffic volumes and operating speeds and more challenging environmental conditions.

This chapter presents a risk assessment framework for assessing the relative risk of different road environments. This framework was applied to a representative sample of bus routes to:

- estimate the length of school bus route by risk category and service type
- quantify the relative crash risk of each type of route.

These assessments provide a baseline for understanding the relative risk of death or serious injury to school bus occupants and other road users.

5.1 Risk assessment framework

The *Australian Guidelines for the Risk Assessment of School Bus Routes* (Australian Transport Council, n.d., as cited in School Bus Safety Community Advisory Committee, 2012) provides a framework for assessing the relative risk of school bus routes. These guidelines were adapted to enable the assessment of New Zealand school bus routes, considering available datasets ([Table 5.1](#)).

Table 5.1 Adapted risk assessment framework for school bus routes

Description	Criteria	Comments
Urban	All roads with an urban land use.	Urban roads have generally lower speed limits and vehicle speeds. They also have more vulnerable road users present, such as cyclists and pedestrians.
Rural undivided – high volume	Undivided rural roads with: <ul style="list-style-type: none"> • high traffic volumes ($\geq 3,000$ vehicles per day), or • high heavy vehicle traffic volumes (≥ 500 heavy vehicles per day). 	Rural roads generally have higher speed limits and operating speeds, which increase the severity of crashes. The likelihood of a crash increases with traffic volumes, resulting in more crashes occurring on high-volume roads compared to low-volume roads. These crashes are more likely to be head-on, rear-end or intersection crashes. Roads with high volumes of heavy vehicle traffic could increase the severity of crashes involving buses as the additional weight of the other vehicle (eg, a truck) negates the benefit of mass that buses usually have in a collision.
Rural undivided – extreme environment	Undivided rural roads where any of the following criteria are met: <ul style="list-style-type: none"> • Infrastructure Risk Rating band = 'High', or • tortuous alignment, or • prone to extreme weather conditions, particularly snow/ice. This was assessed using regional elevation thresholds as a proxy: <ul style="list-style-type: none"> – > 200 m in Otago/Southland 	These rural roads also have higher speed limits, but operating speeds may be lower due to the road environment (eg, winding or tortuous alignment, narrow or unsealed roads). Roads with a high Infrastructure Risk Rating are less forgiving, increasing the likelihood of run-off road crashes. When a crash occurs, the severity is often higher due to the presence of roadside hazards such as cliffs and drop-offs. These roads are usually more remote and have lower traffic volumes. As such, overall crash rates (crashes/km) are low, but the number of crashes per vehicle kilometre travelled is relatively high.

Description	Criteria	Comments
	<ul style="list-style-type: none"> – > 300 m in Canterbury – > 400 m elsewhere. 	
Rural other	All other rural roads	This includes all rural undivided or divided roads not captured in the categories above.

5.2 Assessment methodology

The following school bus services were selected for assessment:

- Ministry of Education Daily Bus
- Ministry of Education Technology Bus
- school bus services operated by Auckland Transport and Greater Wellington Regional Council.

These services were selected based on the availability of data, but also because they are a representative sample of school bus services in New Zealand.

5.2.1 Categorising school bus routes by risk category

A geospatial methodology was developed to segment and assess sections of the school bus network against the criteria in [Table 5.1](#). This involved splitting and matching sections of school bus routes using the following existing road attribute datasets:

- road and roadside attributes from the National Infrastructure Risk Rating centreline dataset developed for MegaMaps Edition III (Waka Kotahi, 2020)
- heavy vehicle volumes from the National Road Centreline dataset (Waka Kotahi, 2021a)
- mean elevation (height above sea level) extracted from a national digital elevation model (University of Otago National School of Surveying, 2011).

The output from this analysis was used to estimate the length of the school bus network by service type and risk category.

5.2.2 Assessing relative crash risk for each risk category

A further assessment was undertaken to determine crash densities and crash rates for each school bus route risk category. This involved attaching 10 years of injury crash data from CAS (2012–2021) for all road users to each segment of bus route. This assessment was performed for the Ministry of Education Daily Bus routes only, using the methodology described in Appendix C.

Note that this assessment used crash data for all road users as there were insufficient school bus crashes in the crash record to draw meaningful conclusions regarding the actual relative risk of different types of school bus route. Additionally, for each school bus crash, it is not possible to determine what type of service this occurred on (eg, Daily Bus, Technology Bus, or charter bus), and therefore it is not possible to compare the historical crash risk across different types of service.

The following additional measures were calculated for each risk category:

- total vehicle kilometres travelled (VKT) per year
- total number of fatal and serious crashes per year
- number of fatal and serious crashes by movement category (head-on, run-off road, intersection/turning, pedestrian, or other)

- personal risk (fatal and serious crashes per 100 million VKT)
- collective risk (fatal and serious crashes per kilometre, per year).

5.3 Results

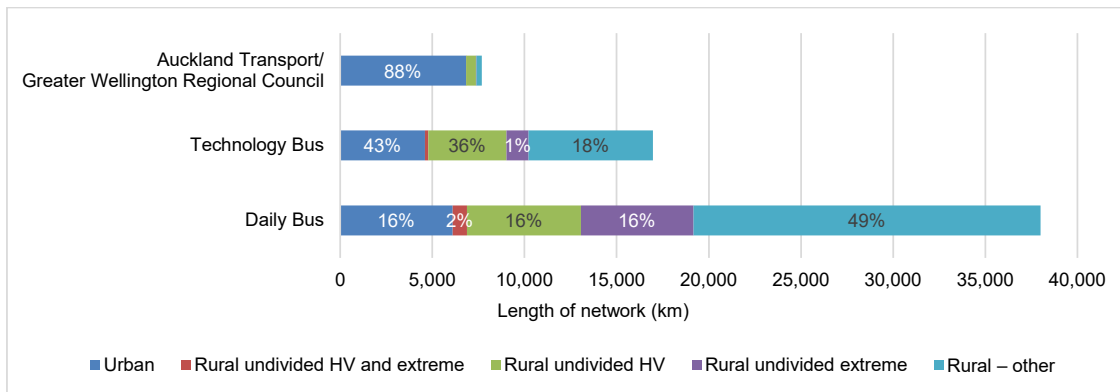
5.3.1 Classification of school bus route by service type and risk category

The length of school bus route by service type and risk category is presented in [Table 5.2](#), and graphed in [Figure 5.1](#). Mapped examples are provided in Figures [5.2](#) to [5.4](#). These figures include Technology Bus services; however, care must be taken in comparing these services to Daily Bus services as they do not run on a daily basis.

Table 5.2 School bus route assessment: length of school bus network, by service type and risk category

Service type	Urban	Rural undivided – high volume and extreme	Rural undivided – high volume	Rural undivided – extreme	Rural – other
Ministry of Education Daily Bus	6,105 km (16%)	773 km (2%)	6,179 km (16%)	6,110 km (16%)	18,838 km (49%)
Ministry of Education Technology Bus	4,603 km (43%)	184 km (1%)	4,237 km (36%)	1,205 km (1%)	6,735 km (18%)
Auckland Transport school bus service	4,687 km (88%)	6 km (< 1%)	309 km (6%)	25 km (< 1%)	228 km (4%)
Greater Wellington Regional Council school bus service	2,145 km (88%)	–	220 km (9%)	–	55 km (2%)

Figure 5.1 School bus route assessment: length of school bus network, by service type and risk category



Note: HV = heavy volume.

The results show that for the Ministry of Education Daily Bus services:

- These services predominantly operate on rural roads (84%).
- Approximately one-third of the roads these services operate on are classified as high-risk rural road environments, with either high traffic volumes (16%), an ‘extreme’ road environment (16%) or both (2%).

Figure 5.2 Ministry of Education Daily Bus routes in the Wellington Region, by risk classification

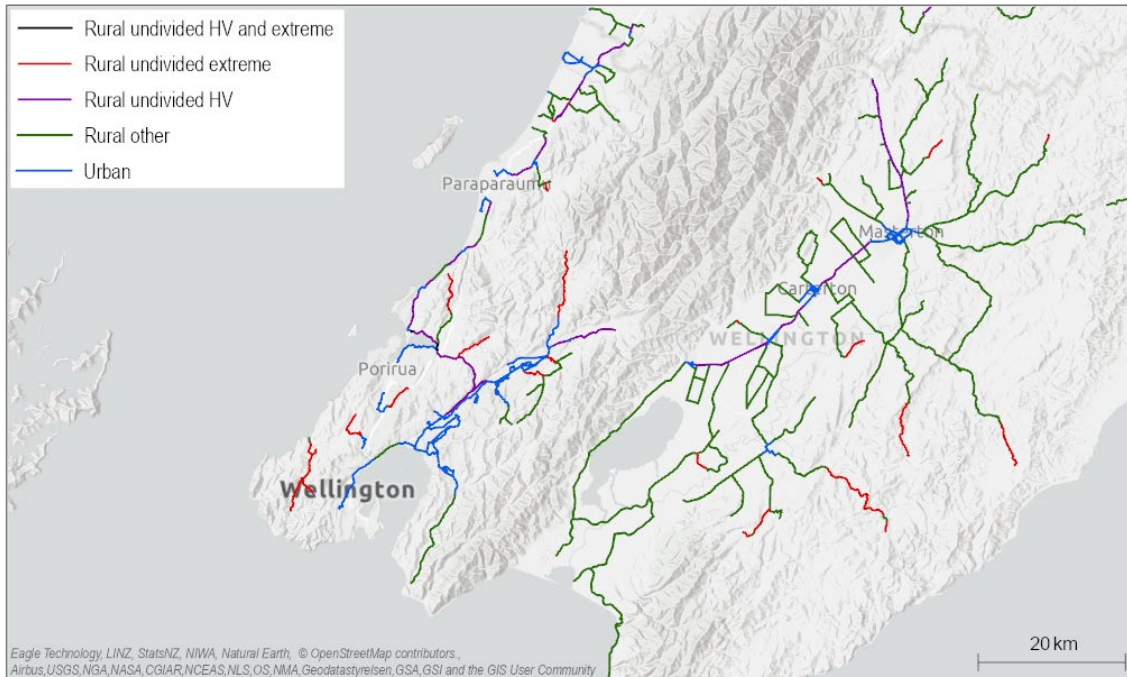


Figure 5.3 Ministry of Education Technology Bus routes in the Wellington Region, by risk classification

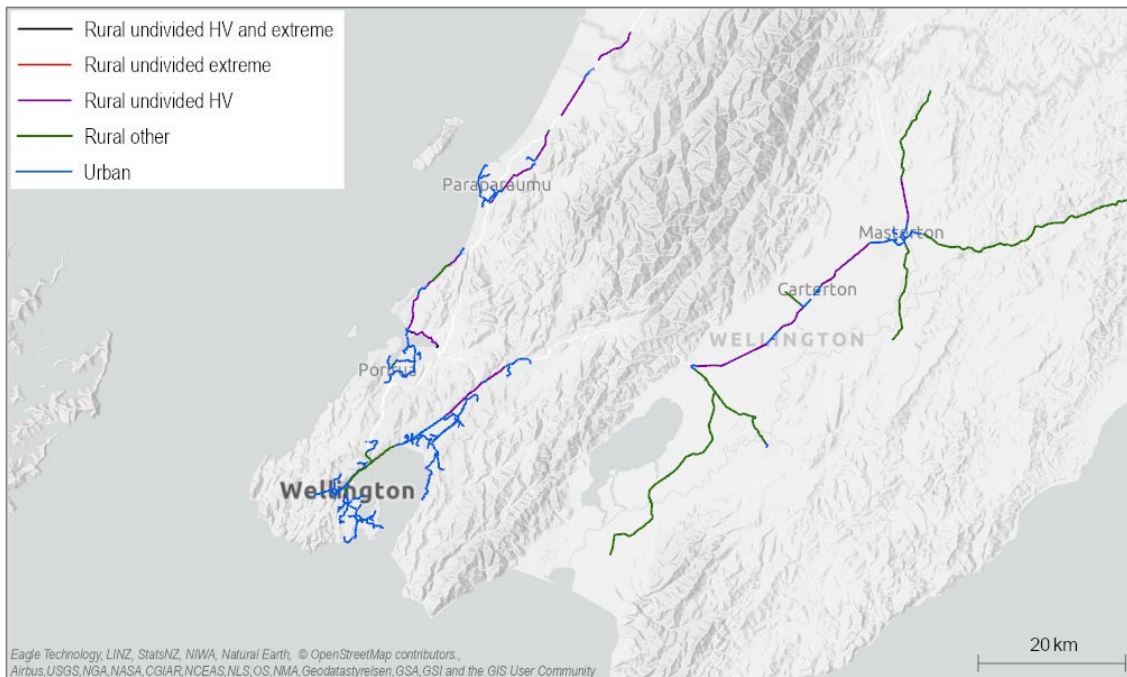
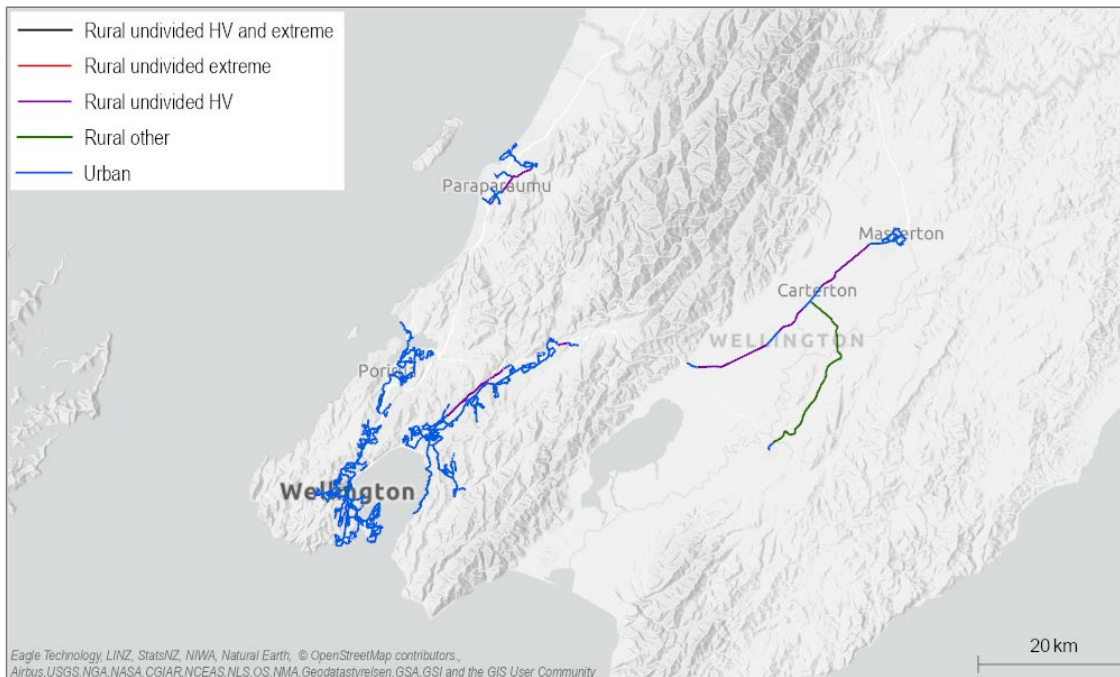


Figure 5.4 Regional council school bus routes in the Wellington Region, by risk classification



[Figure 5.1](#) shows that Technology Buses operate in a more mixed range of road environments, although a larger proportion of routes operate on urban roads or rural undivided high-volume roads compared to Daily Bus services. This reflects the routing of these services along major arterials and highways between towns, or within urban areas.

The regional council networks (Auckland and Greater Wellington) were both classified as 88% urban by length. Services on these networks are also much shorter overall compared to Daily Bus routes, as also discussed in section [2.3.1.3](#). However, in both regions there are a small number of routes operating in high-risk rural environments – for example, along SH2 between Featherston and Masterton in the Greater Wellington region, and on East Coast Road and Dairy Flat Highway in Auckland.

5.3.2 Crash risk by school bus route classification

[Table 5.3](#) shows collective and personal risk by aggregated road risk category for Ministry of Education Daily Bus routes.

Collective risk is a measure of crash density, expressed as the number of DSI crashes per kilometre, per year. This risk metric is highly correlated with traffic volumes, as the number of crashes generally increases as the number of vehicles and other road user activity increases. This is apparent in the results, with both rural undivided high-volume roads and urban roads assessed as ‘medium-high’ collective risk.

Personal risk is a measure of crash rate, expressed as the number of DSI crashes per 100 million VKT. This metric takes traffic volume into account and reflects the level of risk at an ‘individual’ level, and therefore is more useful in understanding the likelihood of an individual vehicle or road user being involved in a DSI crash. Rural undivided extreme environments were rated as ‘High’ personal risk, followed by ‘rural other’ with a ‘Medium High’ personal risk rating.

Table 5.3 Aggregate collective and personal risk for all road users on Ministry of Education Daily Bus routes, by road risk category

Category	Total length (km)	Total VKT (100 million VKT/year)	DSI crashes/year	Personal risk		Collective risk	
				DSI crashes/100 million VKT	Risk band	DSI crashes/km/year	Risk band
Rural undivided high volume ^a	6,952	168.72	977	5.80	Medium	0.141	Medium High
Rural undivided extreme environment	6,110	9.43	88.8	9.41	High	0.015	Low
Rural other	18,838	65.22	539.9	8.28	Medium High	0.029	Low
Urban	6,105	141.69	879.7	6.21	Medium	0.144	Medium High

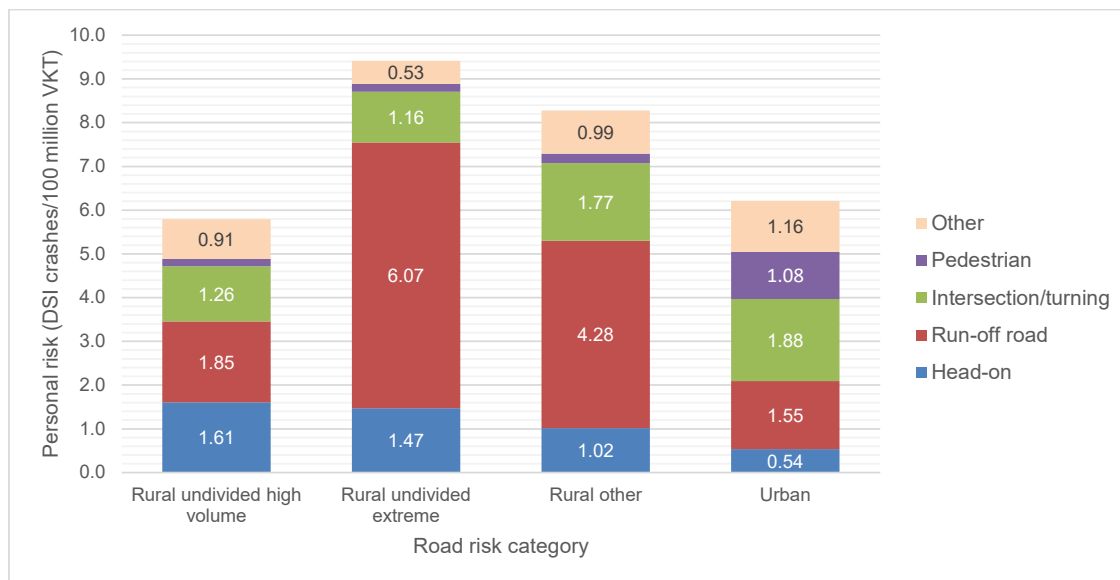
^a This category includes roads classified as both 'rural undivided – high volume' and 'rural undivided – extreme'.

Personal risk is a better metric for comparing the likelihood of an individual vehicle, such as a school bus, being involved in a DSI crash. However, it should be noted that these metrics reflect the level of risk to all road users, not just school bus occupants or children crossing roads. For this reason, the risk metrics presented in Table 5.3 should be used for comparative purposes only.

Figure 5.5 shows personal risk by road risk category and crash type. This figure demonstrates that:

- run-off road crashes have the highest crash rate on rural roads (the proportion of run-off road crashes is highest on roads classified as 'rural undivided extreme' and 'rural other')
- intersection/turning crashes have the highest crash rate on urban roads
- rural undivided high-volume roads have the highest rate for head-on crashes.

Figure 5.5 Ministry of Education Daily Bus routes: personal risk, by road risk category and crash type



6 Review of guidance, policy, legislation and practice

This chapter describes the current guidance, policy, legislation and practices that impact school bus safety. This includes a review of *Road to Zero: New Zealand's Road Safety Strategy 2020–2030* (Te Manatū Waka, 2019) to identify what actions are underway, or planned, that could impact school bus safety. The findings presented in this chapter were primarily informed by the literature review and stakeholder engagement, and international comparisons are provided where relevant.

6.1 Road to Zero: New Zealand's Road Safety Strategy

Road to Zero: New Zealand's Road Safety Strategy 2020–2030 sets a vision of 'a New Zealand where no one is killed or seriously injured in road crashes' (Te Manatū Waka, 2019, p. 6). It recognises that:

- no loss of life is acceptable in the transport system
- deaths and serious injuries on our roads are preventable
- we all make mistakes, but these mistakes should not cost us our lives.

The strategy sets a target of 40% reduction in road DSIs by 2030 (Te Manatū Waka, 2019). This will be achieved by in the following five focus areas:

1. infrastructure improvements and speed management
2. vehicle safety
3. work-related road safety
4. road user choices
5. system management.

The *Road to Zero Action Plan 2020–2022* (Te Manatū Waka, 2021) identifies specific actions under each focus area, including interventions and investments that will improve safety for all road users, including school bus users, as described below.

6.1.1 Speed and Infrastructure Programme

Improving the safety performance of roads and roadsides will reduce DSIs for all road users. This is achieved through infrastructure improvements and setting speed limits that are appropriate for the road environment. Significant government investment in safety infrastructure and speed management is planned this decade. Approximately half (600–650 DSIs) of the 40% reduction target set in *Road to Zero* is expected to be achieved through infrastructure and speed management (Waka Kotahi, 2021c).

6.1.1.1 Infrastructure improvements

The Road to Zero Speed and Infrastructure Programme is a whole-of-network approach to improving road infrastructure and setting and enforcing safe and appropriate speed limits. This 10-year, \$5 billion investment programme is led by NZTA, in partnership with local authorities. This investment includes a mix of interventions for higher-risk corridors and intersections, from transformational treatments such as central wire rope median barriers and upgrading rural intersections to roundabouts, to lower-cost supporting treatments such as carriageway widening and rural intersection safety treatments.

6.1.1.2 Speed management

Setting appropriate vehicle speeds is a critical part of the Speed and Infrastructure Programme. [Table 6.1](#) describes the survivable impact speeds for different collision scenarios. These speeds are well evidenced and becoming widely adopted globally (Waka Kotahi, 2022f). Children walking (including travelling to and from a school bus) are present outside vehicles, and therefore the desirable Safe System speed for vehicles travelling past these children should be no more than 30 km/h.

Table 6.1 Safe impact speeds for different collision scenarios (adapted from International Transport Forum, 2016, p. 88)

Road users combined with road and section type	Safe System speed
Roads and sections with people present outside and inside vehicles	No more than 30 km/h
Roads with intersections with potential for side-on conflicts between vehicles	No more than 50 km/h
Roads with potential for head-on conflicts between vehicles	No more than 70 km/h
Roads with no potential for head-on or side-on conflicts between vehicles and no people present outside vehicles	No more than 100 km/h

The *Speed Management Guide: Road to Zero Edition* (Waka Kotahi, 2022f) supports road controlling authorities to develop speed management plans that deliver safe and appropriate speed limits in line with the Road to Zero strategy (Te Manatū Waka, 2019) and the Land Transport Rule: Setting of Speed Limits 2022.⁵ The *Speed Management Guide: Road to Zero Edition* states that approximately 85% of speed limits in New Zealand are above the safe and appropriate speed limit, and that reducing speed limits to align with safe and appropriate speeds will be a significant challenge. Hence, speed limit changes across the network are being prioritised and phased, focusing on:

1. corridors where lowering speed limits to safe and appropriate speed limits will save the largest number of people from DSIs
2. all streets surrounding schools, including streets outside school frontages and within 100 m of a school boundary
3. areas where the highest concentrations of active road users are expected.

Speed limits outside schools

On point (2) above, the Land Transport Rule: Setting of Speed Limits 2022 sets targets for road controlling authorities to lower speed limits outside schools. Children are vulnerable road users, making it particularly important to reduce speeds around schools where children are likely to be present. The rule introduces two categories of schools for setting speed limits on roads outside a school:

- Category 1 schools (permanent or variable speed limit of 30 km/h)
- Category 2 schools (permanent or variable speed limit of 60 km/h or less).

Schools should be classified as Category 1 (30 km/h) unless road controlling authorities can justify that a speed limit of 40–60 km/h is safe and appropriate for the road environment – for example, there is no pedestrian activity along the frontage of the school.

⁵ See <https://www.nzta.govt.nz/resources/rules/setting-of-speed-limits-2022/> for further information.

Speed limits at 'stopping places'

Additionally, the 2022 *Speed Management Guide: Road to Zero Edition* allows road controlling authorities to set speed limits of 40–80 km/h on rural roads classified as 'Stopping Places' under the One Network Framework. These areas are described as sections of road where people gather in a rural setting, and where people might be expected to walk across the road. Some rural PUDO sites may meet the criteria for a 'stopping place' – for example, PUDOs co-located near rural halls or visitor destinations ([Figure 6.1](#)).

Figure 6.1 Example of a 'stopping place' located on a Daily Bus route: Wilsons Bay Reserve, Queenstown
(image source: Google Streetview, 2019)

*Speed limits that apply to school buses*

The Land Transport (Road User) Rule 2004 requires that a driver of a school bus that has a gross vehicle mass (GVM) over 2,000 kg (ie, most school buses) must not exceed 80 km/h.

6.1.1.3 Relevance for school bus safety

The Speed and Infrastructure Programme will improve the underlying safety on some school bus routes, particularly those currently running on corridors or travelling through intersections that are identified as having higher risk of fatal and serious crashes. However, some of these infrastructure projects could have other impacts on the operation of existing bus routes – for example, installing median barriers could prevent buses turning into driveways or pull-over areas.

The proposed speed limit reductions around schools and on rural corridors will also improve school bus safety in several ways:

- Reducing vehicle speeds around schools lowers the likelihood and severity of injuries to children crossing roads to and from schools. This is particularly relevant for urban schools with on-street bus stops – for example, those used by council school bus services.
- Reducing vehicle speeds around rural schools lowers the likelihood and severity of collisions involving school buses turning into and out of school PUDO locations.
- Reducing speed limits on rural roads from 100 km/h to 60–80 km/h will:
 - reduce the likelihood and severity of crashes around stationary school buses at PUDOs (this also reduces the amount of deceleration required for drivers to achieve 20 km/h when passing stationary school buses)

- reduce the speed difference between the existing speed limit for school buses (80 km/h) and the speed limit that applies to other road users (currently 100 km/h on most rural roads).

Any new requirement to develop local or regional speed management plans will require road controlling authorities to consider, among other things, road use activity and local knowledge of the road network. Likewise, when designing and implementing road safety projects, it is essential that designers are aware of PUDO sites and turning requirements of school buses so that these activities can be safely accommodated within infrastructure designs.

6.1.2 Other safety initiatives

Other focus areas and actions in Road to Zero that could impact school bus safety are:

- *Work-related road safety*: strengthening commercial transport regulation, including reviewing logbook and work-time requirements
- *Road-user choices*: prioritising road policing and enhanced drug-driver testing
- *System management*: development of in-depth crash investigations for fatal and serious crashes, and improving post-crash response.

There are no specific actions targeting heavy vehicles under the 'vehicle safety' focus area.

6.2 School bus route design

6.2.1 Current practice and guidance

Regional Transport Advisors at the Ministry of Education are responsible for designing routes for Ministry of Education Daily Bus services. These routes are modelled based on where school children reside, considering key design principles including the need to transport as many eligible students as efficiently as possible. These routes are mapped by the Ministry of Education and can be viewed on the Ministry of Education website. For Technology Buses, the transport service provider determines which route to take between the school(s) and the technology centre. Both Daily Bus and Technology Bus routes are reviewed annually.

The Ministry of Education also models routes for directly resourced schools in a similar manner to the Daily Bus services, but for funding purposes only. Directly resourced schools (or school clusters) are ultimately responsible for designing their school bus routes based on the funding provided to them by the Ministry of Education.

The locations of PUDO sites along bus routes are considered by the Ministry of Education as part of the route design and amendment process, although the transport service provider is responsible for determining these once the route is set. It is the responsibility of parents or caregivers to provide safe transport to and from the PUDO location. If the distance they need to travel to the PUDO location is more than 2.4 km, they may be eligible for a conveyance allowance (Ministry of Education, 2022a).

Route design guidelines are currently being reviewed internally by the Ministry of Education to provide more clarity to newer staff and to ensure routes are designed consistently across New Zealand. This document is not currently available externally, and therefore the degree to which safety factors are incorporated into these guidelines is unknown. However, during the stakeholder engagement, Regional Transport Advisors emphasised that safety comes first in route design, and no route is approved until the transport service provider has also approved it from a safety perspective. If the transport service provider raises a safety issue, Regional Transport Advisors will review the route, and Transport Contract Managers may also get

involved. The Ministry of Education may review routes where there are changes in land use or road condition – for example, a road is temporarily or permanently unsuitable for bus travel. Other examples include a bridge closure that requires a detour or a change in road layout, such as a new expressway opening, which affects the local roading network.

6.2.2 Australasian guidance and prior research

There is little research or guidance on how school bus routes can be designed to improve safety for bus users.

Baas et al. (2010) explored options for improving safety through route design in New Zealand, such that the need for children to cross the road is eliminated. This includes rearranging bus routes to enable more children to be dropped off on the side of the road where they live. This could include strengthening Ministry of Education policy and procedures by making specific reference to the aim of eliminating (where possible) the need for students to cross the road.

The *Australian Guidelines for the Risk Assessment of School Bus Routes* (Australian Transport Council, n.d., as cited in School Bus Safety Community Advisory Committee, 2012) provides a framework for assessing the relative risk of school bus routes. The Advisory Committee recommended that these guidelines are used to ‘facilitate risk-based allocation of resources to improve bus safety’ – for example, by requiring that buses running on the highest risk be compliant with Australian Design Rule (ADR) 68/00⁶ (School Bus Safety Community Advisory Committee, 2012, p. 14). The guidelines are being used in New South Wales to identify improvements to road and bus stop infrastructure.

The Austroads (2022) *Vehicles as a Workplace* guide identifies the attributes of roads that present higher risks to employees who are required to drive for work purposes. Austroads (2022, p. 25) describes the following characteristics of safer roads:

- *separation of opposing traffic*
- *separation of local traffic from through traffic*
- *elimination of or protection from roadside obstacles*
- *wide, sealed shoulders or emergency stopping lanes*
- *safe provision for pedestrians and cyclists*
- *speed limits aligned to the safety of the infrastructure*
- *well-maintained road surface*
- *roundabouts instead of traffic lights*
- *clear line markings.*

Many of these characteristics are captured in the road’s Infrastructure Risk Rating and Safe and Appropriate Speed, both of which are mapped for all roads in New Zealand as part of the MegaMaps platform (Waka Kotahi, 2022a, 2022b).

⁶ ADR 66/80 – *Occupant Protection in Buses* requires retracting three-point seatbelts on all passenger seats in heavy buses over 3,500 kg. This design rule is discussed in detail in section [6.6.4](#).

This guidance is provided to help managers determine the safest routes for their employees to travel on, but it also provides an indication of the risks posed on different types of school bus routes. This is also relevant for bus drivers transporting empty buses to the start of the run, and back to the depot at the end of the run.

In considering whether it is practicable to avoid certain roads, Austroads (2022) notes that higher-standard roads might also result in reductions in vehicle operating costs, but conversely a longer route may also increase time on the road.

6.2.3 Feedback from stakeholders

Rural organisations expressed concern about the safety of children travelling to and from PUDO locations, and the equity issues associated with this. The eligibility distance places a significant burden on families – particularly those in the agriculture sector. The lack of footpaths, and in some cases road shoulders, on high-speed rural roads with blind corners means that often the only safe form of transport to PUDO locations is for caregivers to drive children to and from them. Examples were given where children could not attend school as getting children to the school bus was too difficult given the work responsibilities on the farm. The stakeholders interviewed also noted (anecdotally) that this disproportionately affects women, who are often the primary caregiver and must balance work obligations with childcare. This concern was also voiced by the bus and coach industry, with one interview participant commenting that among migrant farm worker families, the mother may not have a driver licence and is therefore unable to drive her child to the PUDO location.

Transport service providers are aware that rural families want children to be picked up close to their homes. However, these locations may be unsafe locations for buses to stop at – for example, due to a lack of adequate site distance or shoulder width. Bus routes are also dictated by the availability of safe turning points, vehicle size, and which side of the road children are dropped off at school, which can make the siting of PUDO areas a complex decision. Transport service providers are also mindful that if a parent or caregiver cannot drive a child to a PUDO location, the child will have to walk, which is also a safety concern. This is a trade-off that some bus operators struggle to resolve.




During engagement with transport service providers, there seemed to be a misunderstanding of school bus route funding among providers, and how this translates to the actual bus route. Under current Ministry of Education school bus service contracts, routes are funded per kilometre based on the distance between the school and the start of the route. Some transport service providers thought this meant that the bus route only 'officially' starts at the furthest point, and that they are not allowed to pick up students on the way to this point (and vice versa for the afternoon drop-off). The Ministry of Education has clarified that it does not prohibit the transport service provider picking up eligible students if the outbound route passes the student.

6.2.4 Bus route signage

Road controlling authorities can install warning signs on bus routes to alert drivers of school buses operating on roads. This is the W16-6 school bus symbol, with additional 'SCHOOL BUS ROUTE' or 'SCHOOL BUS TURNS' supplementary plate, as defined in the Traffic Control Devices 2004 Rule⁷ ([Table 6.2](#)).

⁷ See <https://www.nzta.govt.nz/resources/rules/traffic-control-devices-2004/> for further information.

Table 6.2 Current school bus route warning signs

Sign code and description	Sign
W16-6 School bus symbol	
W16-6.1 School bus route supplementary	
W16-6.2 School bus turns supplementary	

Current guidance for road controlling authorities on the use of these signs is provided on the NZTA website (Waka Kotahi, 2022e):

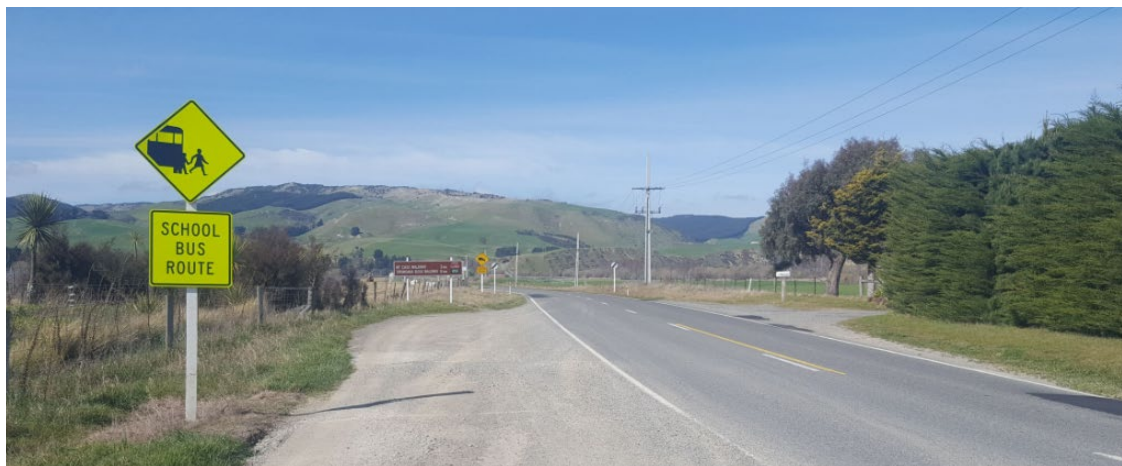
W16-6, W16-6.1 and W16-6.2 signs may be warranted on roads in rural areas where in the opinion of the road controlling authority, roadway conditions and the presence of school buses could create a hazard, in particular where the road is narrow and winding and the buses stop to allow children to board and alight. Signs should be installed at each end of a section of a school bus route where signing is warranted and may be installed near important intersections within that length. The sign should be located where approaching drivers have an uninterrupted view of it over a distance of at least 120m.

The signs should not be installed in urban areas.

The W16-6 and W16-6.2 School bus turns combination should be installed at the terminal points of a school bus route.

[Figure 6.2](#) shows a W16-6 sign with W16-6.2 supplementary plate, in situ on a school bus route.

Figure 6.2 School bus route warning sign



Installing school bus route signage is at the discretion of road controlling authorities. It is unknown how widely this signage is used in New Zealand. Given road controlling authorities do not know where all the bus routes and PUDO locations are, bus route signage has likely been added on an ad hoc basis when requested from transport service providers and rural communities. This was corroborated by one of the stakeholders interviewed, who mentioned they were aware of these signs being on roads that are not currently being used as school bus routes.

6.3 PUDO site selection, assessment and auditing

6.3.1 Current guidance

The New Zealand guidance for identifying and assessing PUDO locations for school buses is the *Guidelines for the Safe Siting of School Bus Stops* (Waka Kotahi, 2018). The guidelines only apply to bus stops where students are picked up and dropped off by dedicated school bus services and do not apply to permanent bus stops.

These guidelines were developed in 2004 by the (then) Land Transport Safety Authority to improve student safety when getting on and off buses. The guidance itself is relatively short, consisting of two pages of general guidance and single-page checklists for single bus stops, and school bus routes. For school bus stops, this includes:

- assessing the visibility of oncoming traffic for drivers and children required to cross the road, with minimum sight distances provided
- determining whether an adequate pull-in area is provided for the bus to pull off the road (eg, a wide shoulder) – where this is not possible, adequate visibility of the bus stop is essential
- identifying hazards near the school bus stop (eg, inadequate shoulder widths, one-lane bridges)
- identifying whether there is a waiting area set back from the road that students can use
- identifying whether there are likely to be winter issues with the stop (eg, the pull-in area becoming muddy)
- assessing whether there is adequate space for parents or caregivers to park their vehicle at the stop.

The guidelines do not identify who is responsible for siting school bus stops but indicate that advice may be needed from road controlling authorities for bus stops of significant concern with no practical alternative options. Additionally, the guidelines suggest that school bus operators and drivers should be consulted when auditing school bus stops but do not specify who should undertake an audit and how frequently stops should be audited.

There is no requirement to sign or mark a school bus stop location, except if the location is an urban area and is formalised as an urban bus stop or school bus stop.

6.3.1.1 Public transport design guidance

Waka Kotahi (2022c) recently published public transport design guidance online in draft form to support regional and local councils to deliver high-quality, user-centric public transport. This guidance covers all urban public transport services, including urban school bus services. It includes guidance on bus stop planning and design, and on how to consider first and last mile connections (how people travel to and from bus stops).

Some specific guidance on school bus stops is provided in the public transport design guidance, covering similar considerations as those covered in the *Guidelines for the Safe Siting of School Bus Stops* (Waka

Kotahi, 2018). However, the public transport design guidance also includes design principles for school stops, and guidance on when to provide bus shelters.

6.3.2 PUDO site selection in practice

For Daily Bus services, the Ministry of Education places the responsibility for identifying PUDO locations on transport service providers. This includes identifying potential PUDO locations and assessing these against the *Guidelines for the Safe Siting of School Bus Stops* (Waka Kotahi, 2018). Each transport service provider keeps a record of their PUDO sites, but this is not shared with the Ministry of Education except for the purpose of auditing them.

There are a variety of types of PUDO sites in New Zealand. They may be simple pull-over areas, larger areas with space for caregivers to park, or transfer areas where children move between buses. In rural areas PUDOs are unmarked and may be on high-speed roads with:

- no footpath
- an inadequate road shoulder
- high volumes of heavy vehicles.

As routes or PUDO locations may change in rural areas when families move away, or children change schools, there is usually little or no infrastructure associated with school bus PUDOs. Several stakeholders confirmed that these changes generally occur at the start of the year or term, and most PUDO sites are effectively permanent.

6.3.2.1 Reviewing and auditing PUDO locations

A sample of PUDO locations are audited by the Ministry of Education's Transport Contract Manager during their routine audits of transport service providers. The Ministry of Education currently aims to audit around 300 PUDO locations per year, which equates to approximately 2% of all PUDO locations in New Zealand. This is a new policy that started when the new school bus contracts commenced in 2022.

Transport Contract Managers sometimes assess PUDOs by following a bus on its route and observing where and how it pulls over for children to access or egress the bus. This also allows them to identify unofficial PUDO sites that would not otherwise be assessed (ie not identified by a transport service provider as a PUDO but the bus driver stops to pick up or drop off children). Transport Contract Managers also assess PUDO areas at schools as they are the terminus for bus services. They have also been involved with new schools where buses could not get into allocated bus stops. Due to the lack of compliance with the 20 km/h speed limit for vehicles passing a stationary school bus (as discussed in more detail in section [6.4.2](#)), Transport Contract Managers generally work on the assumption that no drivers slow down to 20 km/h when auditing PUDO sites, particularly in relation to their visibility.

Disputes regarding PUDO locations are managed by the Ministry of Education, and the NZ Police Commercial Vehicle Safety Team may get involved if disputes are escalated.

6.3.3 Feedback from stakeholders on current practice

PUDO site selection was a topical point among transport service providers, with some being surprised that the onus of selecting and assessing them was placed with them under the new contracts. Most transport service providers said they would like more support or more effective coordination from the Ministry of Education, with many noting that they are not road safety specialists.

Several stakeholders noted that the NZTA *Guidelines for the Safe Siting of School Bus Stops* do not provide sufficient detail for selecting or auditing PUDO locations. Some transport service providers have developed their own resources to help with PUDO site selection, including one provider who developed a separate, enhanced risk rating spreadsheet tool. One provider mentioned that they try to put senior drivers on more rural runs to assess the safety of PUDO sites, bearing in mind that the providers do not have road safety engineers to assess the safety of PUDO locations. Some transport service providers have also considered additional requirements when siting their PUDO locations, such as the walking distance to students' homes and whether they need to cross the road.

Transport service providers have taken different approaches to address the safety issues around PUDO locations. As the distance children must travel to a PUDO site is not considered in the route design, one provider attempts to site PUDO areas such that children do not have to walk more than 200 m to their home and do not have to cross the road. It is difficult to ensure that these requirements are met, in which case this transport service provider explained that caregivers are generally happy to travel a little further for a safer PUDO location.

Generally, transport service providers comply with what is required by the Ministry of Education and make bespoke changes to PUDO locations where safety is a significant concern. If there is an issue with a PUDO site, they are complex to change. If issues are raised by the community and NZ Police becomes involved, there have been situations when NZ Police, Transport Contract Managers and road controlling authorities could not agree on a resolution, leaving transport service providers 'stuck in the middle'. One provider mentioned that they have had drivers resign due to conflicts in their community over PUDO locations, which is a concern due to the nationwide driver retention problem (see section [6.7.2](#)).

The Ministry of Education Regional Transport Advisors mentioned that the NZTA guidance should be updated as road environments have changed over time as well. Additionally, the existing guidance does not differentiate between the different types of PUDO sites that are likely to require different safety considerations. The Ministry of Education is currently writing guidance on 'transfer' bus stops.

PUDO locations are sited on or alongside roads managed by road controlling authorities; however, these authorities are not systematically informed of PUDO locations, except where an issue is raised by a transport service provider, a caregiver, or a community member. This makes it difficult for road controlling authorities to consider school bus activities in their road infrastructure and maintenance planning. An example was provided by a district council of a roadside location being used as a storage area as part of a temporary traffic management plan, but they were unaware the site was also used for a daily school service PUDO. Transport service providers also reported some maintenance issues with PUDO areas such as trees blocking sight lines. The responsiveness of councils to these concerns can vary from council to council.

6.3.4 Comparison with Australia (New South Wales)

The existing guidance on school bus stops in New Zealand was compared with guidance provided in New South Wales. There are thousands of rural informal school bus stops on rural school bus routes in New South Wales. These bus stops are not signposted, like in New Zealand, and their locations are generally arranged between bus operators and parents. The guidance available in New South Wales – *Advice for Choosing Locations of Informal School Bus Stops* (New South Wales Centre for Road Safety, 2016) – is the most comprehensive PUDO guidance in Australia, and therefore useful for comparison with practices in New Zealand.

The New Zealand and New South Wales guidance documents are compared in [Table 6.3](#). The comparison in this table identifies some crucial safety considerations that the New Zealand guidance does not consider, including factors to consider when assessing sight distances; the location of bus stops relative to

intersections, crests and curves and other bus stops; and more detailed guidance on setbacks for waiting areas.

Table 6.3 Comparing New Zealand and New South Wales school bus stop siting guidance documents

Factor	New Zealand guidance ^a	New South Wales guidance ^b
Sight distance	<ul style="list-style-type: none"> School bus stops should be sited where they are clearly visible to motorists. (A table with recommended sight distances, by speed limit, is provided.) 	<ul style="list-style-type: none"> All school bus stops should be sited so that they are clearly visible to motorists. (Separate sightline guidance is provided for vehicles approaching from the front and behind the bus.) Site distance calculations are adjusted considering obstructions from curves, crests, roadside vegetation, gradients, sealed and unsealed roads, and heavy vehicle volumes.
Adequate pull-in area	<ul style="list-style-type: none"> Adequate pull-in shoulder or lane width is needed. Where this is unavailable, visibility is crucial. 	<ul style="list-style-type: none"> Buses should stop clear of traffic lane on road shoulder or verge. Buses should not stop near crests or curves. The condition of the shoulder should be considered.
Waiting area for students/ Hazards getting to the school bus stop	<ul style="list-style-type: none"> Firm, dry waiting areas away from the road are needed. Suitable road shoulder to walk on is needed. Bus stops should not require pedestrian access via non-signalised level crossings or bridges/without pathways. 	<ul style="list-style-type: none"> Cleared, firm, all-weather areas are needed. Areas should be preferably 8 m away from traffic lanes, and a minimum of 4 m away. Avoid waiting areas on outside of curves and ends of overtaking lanes. Bus stops should not require pedestrian access via narrow bridges, culverts, roads with no shoulder, or non-signalised railway level crossings.
Location relative to intersections	<ul style="list-style-type: none"> Not addressed 	<ul style="list-style-type: none"> Bus stops should be located on the departure from intersections (preferably 50 m from intersection)
Location relative to other bus stops	<ul style="list-style-type: none"> Not addressed 	<ul style="list-style-type: none"> Bus stops on both sides of the road should be staggered so pedestrians can cross between backs of buses that stop around the same time. Bus stops close together on the same side of the road should be consolidated to the safer site if access is adequate.
Weather conditions	<ul style="list-style-type: none"> If a hard shoulder could not be provided for buses to pull into, the bus stop may need to be moved in winter. 	<ul style="list-style-type: none"> Bus stop location should be located where wet weather will not affect pedestrian access, waiting areas, parking areas, and bus pull-off areas.
Parking for parents/caregivers	<ul style="list-style-type: none"> Approaching drivers need good visibility of vehicles pulling out. May need to limit the number of students using these bus stops to avoid congestion. Busy stops should be moved to safer locations. 	<ul style="list-style-type: none"> Bus stop location should have sufficient space for carers to drop off and pick up children. Parking should be on the same side of the road as the bus stop. This should be separate to the area where children wait for the bus. There should be clear and safe access from parking areas to where children wait for the bus.

^a *Guidelines for the Safe Siting of School Bus Stops* (Waka Kotahi, 2018).

^b *Advice for Choosing Locations of Informal School Bus Stops* (New South Wales Centre for Road Safety, 2016).

In addition to *Advice for Choosing Locations of Informal School Bus Stops*, the New South Wales Government (2019) developed a *Guide to Appointed School Bus Stops* for local councils. These two guidance documents were developed following recommendations from the School Bus Safety Community Advisory Committee (2012) to develop a standard methodology for fixed rural bus stop locations and design with 'best practice' examples. The *Guide to Appointed School Bus Stops* provides guidance on determining appropriate locations, layouts and features for 'formal' school bus stops in rural and urban areas under a Safe System approach. This involves considering:

- removing conflicts and risks
- behaviour of children and other pedestrians
- behaviour of motorists
- speed management
- other vehicle movements around bus stops.

These bus stops are chosen by bus operators or Transport for New South Wales and are approved by the road authority.

6.3.5 Prior research and recommendations into safety at PUDO locations

Baas et al. (2010) explored options for improving safety around PUDO locations, including improving school bus stops in rural areas. This includes providing parking for caregivers at afternoon bus stops to avoid the children having to cross the road (to parking areas on the other side). The seal could also be widened to enable buses to pull off the road, and improvements could be made where children must walk to the PUDO location. Baas et al. suggest that local authorities should focus on improving stops on high-speed, high-volume roads that are used in the afternoon by several children and that are likely to be used on a permanent basis.

As part of their research project, Baas et al. (2010) also prepared an extensive draft guide to improve safety at PUDO sites as an appendix to their research report. The aim of this guidance was to provide more comprehensive information about the principles and technical and safety considerations involved in the location and design of school bus stops and turning points on rural and urban roads and at schools. The draft guidance addresses many of the shortcomings of the guidance available in 2010 (and still in use), including many of the factors covered in New South Wales guidance. A hierarchy of potential treatments for PUDO locations is provided, including several examples of designs for roadside bus stops and bus stops at schools. The authors anticipated that this draft guidance would be finalised, approved and adopted as a formal guide or code of practice, but this was not progressed.

Successive Coroner recommendations since 2008 have also discussed safety around PUDO locations. Coroner Ho considered whether interactive LED signs or flashing lights positioned a calculated distance from rural bus stops would improve drivers' awareness of PUDO locations (New Zealand Coroners Court, 2022). Coroner Ho also suggested a risk matrix could be developed to assess likely school bus stop locations that are more dangerous than others, where the installation of such signs would be appropriate.




6.4 School bus signage, visibility and speed limits around buses

School buses running daily school bus routes, in both urban and rural environments, need to be clearly identifiable to other road users. Drivers need to be aware of potential hazards around school buses and understand how to drive safely around them. This includes slowing to the legal speed limit while passing a stationary school bus.

6.4.1 School bus signage and conspicuity

Vehicles operating as school buses must display a vehicle-mounted sign, as described in Schedule 1 of the Traffic Control Devices 2004 Rule and shown in [Table 6.4](#). Further guidance on the use of these signs is provided on the NZTA website (Waka Kotahi, 2022f), including where the sign should be mounted on a vehicle, and that signs must not be installed on the inside of bus windscreens.

Table 6.4 Current school bus signage

Sign code and description	Sign
W17-1.1 School bus – ‘school bus’	
W17-1.2 School bus – ‘school’	
W17-1.3 School bus – ‘children sign’ plus flashing lights The flashing lights operate when doors open to load or unload children.	

The Ministry of Education does not specify which ‘school bus’ sign transport service providers should use, nor does the Ministry specify that buses have any additional signage or features to improve visibility. The static ‘SCHOOL’ or ‘SCHOOL BUS’ signs are the preferred signs in use by the transport service providers interviewed, as these are much cheaper and easier to source than the ‘children sign’ with flashing lights. When inspecting buses, Transport Contract Managers check that the correct signs are being used.

As an alternative approach to improving the visibility of their buses, some transport service providers have installed cheaper, alternative flashing lights, or have encouraged their drivers to use their hazard lights when loading and unloading students. Feedback from stakeholders suggests that flashing lights are most likely to be installed on buses that travel on high-risk roads.

Where there is advertising or other signage on the back of urban school buses, this can ‘camouflage’ the legal school bus signage – for example, as observed in [Figure 6.3](#).

Figure 6.3 Example of advertising on the back of a school bus unintentionally camouflaging the ‘SCHOOL’ sign



6.4.2 Speed limits around buses

The Land Transport (Road User) Rule 2014⁸ requires drivers to slow to at least 20 km/h when passing a stationary school bus stopped to drop off or pick up children. This rule applies for drivers travelling on both sides of the road past the bus.

6.4.2.1 Enforcement and compliance

Enforcement of speed limits around stationary school buses is challenging, given the bus itself is a ‘moving’ speed limit. To be enforceable, it must be proven that the ‘SCHOOL BUS’ sign was visible to motorists, that the bus was stationary, and that the vehicle passing the bus (in either direction) was exceeding 20 km/h. In the past, some NZ Police districts had attempted to enforce the speed limit by having an officer on the bus estimate the speed of passing vehicles. This required a high degree of judgement, which was problematic, and the resulting infringement could be contested.

Infringements data provided by NZ Police show that very few infringements are issued for exceeding 20 km/h passing a stationary school bus (Table 6.5). Several districts have issued less than five infringements over six years.

Table 6.5 Infringements for exceeding 20 km/h passing a stationary school bus, 2017–2021 (data from NZ Police)

Police district	2017	2018	2019	2020	2021	Total
Northland	0	0	1	0	0	1
Waitemata	0	0	0	0	0	0
Auckland	0	0	0	0	0	0
Counties Manukau	0	0	2	1	1	4
Waikato	10	3	0	1	2	16
Bay of Plenty	0	0	0	0	0	0

⁸ See <https://www.legislation.govt.nz/regulation/public/2004/0427/latest/whole.html> for further information.

Police district	2017	2018	2019	2020	2021	Total
Eastern	6	5	3	0	2	16
Central	3	0	0	0	0	3
Wellington	0	1	0	0	2	3
Tasman	5	4	0	0	7	16
Canterbury	4	2	7	7	9	29
Southern	12	6	26	5	7	56
Total	40	21	39	14	30	144

6.4.2.2 Feedback from stakeholders

Transport service providers who were interviewed, including representatives who were also school bus drivers, expressed concerns about the ‘terrifying’ speed of some vehicles that pass them while dropping off or picking up children. This is particularly problematic for rural students who are exposed to higher-speed environments (Mackie, 2009). Transport service providers also reported poor compliance with the 20 km/h speed limit past school buses running as part of council-operated public transport networks, as these buses usually look identical to other urban buses except for displaying the ‘school bus’ sign.

Stakeholders mentioned it can be difficult to determine whether a school bus is stopped on rural high-speed roads. It was suggested that using the vehicles hazard lights or installing flashing lights may help draw drivers’ attention to a stationary school bus. Some transport service providers have added stickers on their bus to remind motorists of the 20 km/h limit – for example, as shown in [Figure 6.4](#).

Figure 6.4 Sign observed on a school bus reminding drivers to slow to 20 km/h when passing a stationary school bus



Stakeholders also mentioned previous awareness campaigns such as the ‘Either way it’s 20 k!’ campaign. The importance of education around the speed limit was highlighted by several stakeholders who felt there was low awareness among drivers of the 20 km/h speed limit. The benefits of using media campaigns to promote giving school buses space (similar to giving cyclists space on the road) were also discussed. Further evidence on the efficacy of education campaigns is discussed in the section below.

6.4.3 School bus signage trials

In 2011, Transport Engineering Research New Zealand trialled different configurations of LED 20 km/h roundel signs, flashing beacons, and the existing standard static signs to evaluate their effectiveness in reducing vehicle speeds around stationary school buses. The authors recommended that LED speed limit school bus signs, as shown in [Figure 6.5](#), be mandated as soon as possible, supporting a prior recommendation made by Baas et al. (2010).

Figure 6.5 Flashing LED '20' roundel sign on a school bus, as part of the 2011 trial (reprinted from Transport Engineering Research New Zealand, 2011, p. 13)



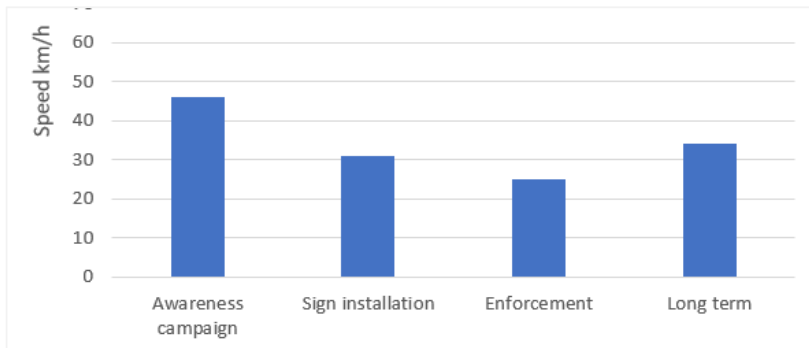
NZTA commissioned an extended trial in Ashburton during 2013 and 2014. The trial aimed to improve driver knowledge of the 20 km/h speed limit past stationary school buses and involved three stages delivered cumulatively:

1. a driver awareness campaign focusing on the 20 km/hr speed limit
2. LED signs on 30 buses that served Ashburton schools
3. targeted Police enforcement of the 20 km/h speed limit.

The LED signs used in this trial were designed to activate 20 seconds before the bus stopped and remained active until 20 seconds after the bus started moving again.

[Figure 6.6](#) shows the model speeds after each stage of the trial on a road with a posted speed limit of 100 km/h. Note that the bars on this graph show the cumulative impact of each intervention as it was introduced and do not reflect the impact of each intervention in isolation. This shows that the flashing signs, when supported with an awareness campaign and enforcement, was most effective in reducing speeds past stationary school buses.

Figure 6.6 Modal speeds from Ashburton school bus sign trial on a road with a 100 km/h posted speed limit, showing the impact of cumulative interventions over time (adapted from Mackie Research, n.d.)



Stakeholders viewed the signage trials as an important step towards controlling speeds around stationary school buses. The signs appeared to be progressing towards implementation on the school bus fleet. However, this was stalled due to the cost of retrofitting the signs. The Traffic Control Devices 2004 Rule (Schedule 3)⁹ also needs to be amended to make these signs legally enforceable. To date, they have not been implemented outside of the trials.

A NZTA funded research project is currently underway trialling interventions to improve school bus safety on SH60. This trial includes testing new signage on buses and the delineation of rural school bus stops. The types of signs being trialled include active signs with flashing lights, as well as signs reminding drivers of the 20 km/h speed limit past stationary school buses.

6.4.4 International comparison

Many comparable countries require drivers to slow down or come to a full stop while school buses are picking up or dropping off students.

6.4.4.1 Australia

Speed limits around school buses vary across Australia. South Australia requires drivers to reduce their speed to 25 km/h around stationary school buses (Government of South Australia, 2000). New South Wales and Queensland require drivers to slow down to 40 km/h around buses in ‘school bus stop zones’. Drivers in New South Wales and Tasmania must also slow to 40 km/h when travelling in the same direction as buses with ‘40 when lights flash’ signs when they have their ‘wig wag’ lights flashing, as seen in [Figure 6.7](#) (New South Wales Government, 2022b; Tasmanian Government, 2021).

⁹ See <https://www.nzta.govt.nz/resources/rules/traffic-control-devices-schedules#schedule1> for further information.

Figure 6.7 Flashing ‘wig wag’ lights and signage on a New South Wales school bus (reprinted from New South Wales Government, 2022b)



Victoria, Queensland and Western Australia currently do not have any speed limit requirements around school buses (Government of Western Australia Department of Transport, 2022; Queensland Government, 2022; VicRoads, 2021).

The visibility of school buses was reviewed extensively as part of an inquiry into school bus safety in rural and regional New South Wales (School Bus Safety Community Advisory Committee, 2012). The inquiry committee made several recommendations for improving the visibility of school buses, including improvements to the visibility and effectiveness of flashing warning lights, limiting the nature and extent of advertising on the rear of buses, and the use of fluorescent reflective tape on the rear and side of school buses. The combination of reflective tape and flashing signage would improve visibility of buses after dark and in fog-prone regions. It is not known if these recommendations were adopted.

6.4.4.2 United Kingdom

In the United Kingdom, drivers are encouraged to drive slowly around stationary school buses but are not required by law to do so. The Road Vehicles Lighting [Amendment] Regulations 2017 allow school buses fitted with retro-reflective school bus signs to have their hazard lights on when students are boarding or alighting.

6.4.4.3 North America

In all states in the USA and across the Canadian provinces, motorists travelling in both directions on streets with no raised medians are required to come to a full stop when a stationary school bus has extended its stop arm and has flashing lights on, as seen in [Figure 6.8](#) (Hawkins et al., 2012; National Highway Traffic Safety Administration, 2012; Transport Canada, 2020). On streets with raised medians, stop-arm laws vary from state to state. Some states only require vehicles travelling in the same direction as the school bus to stop.

Figure 6.8 School bus in Buffalo, New York, with flashing red lights and extended stop arm (reprinted from Hawkins et al., 2012, p. 9)



Similar to the difficulties in enforcing the 20 km/h speed limit in New Zealand, stop-arm violations (passing a school bus with an extended stop arm) are also poorly enforced in the USA. A 2019 survey conducted across 39 states with over 130,000 bus drivers recorded 95,319 stop-arm violations (Katz, Kissner, et al., 2021). At least 22 states in the USA passed legislation allowing 'stop-arm cameras' on buses for the enforcement of stop-arm violation laws. Many of these states have been successful at increasing enforcement. Muscogee County, Georgia, reported that the number of violations decreased by 50% from 2011 to 2012 after implementing 50 cameras on their school buses (Katz, Kissner, et al., 2021). A stop-arm camera provider, American Traffic Solutions, reports that in the 2013/14 school year, 99% of drivers who were cited for stop-arm violations did not receive a second violation (American Traffic Solutions, 2014). This may be an indication of the effectiveness of enforcement.

6.4.5 Prior research and recommendations

Poor compliance with the 20 km/h speed limit passing a stationary bus was discussed in Baas et al. (2010). In addition to recommendations regarding flashing signage discussed above, the authors recommended that the Land Transport (Road User) Rule 2004 be amended as follows to enable more effective enforcement.

- The 20 km/h speed limit and its application should be reviewed. The limit around school buses should be the same as that in other high-risk areas such as outside the school gate, in shared main street spaces and near road works. This uniformity is likely to increase driver awareness and the level of compliance.
- The speed limit should apply whenever approved warning lights are activated, including when the bus is moving to or away from a bus stop.
- The sign should only be activated when students are very likely to cross the road.

Baas et al. (2010) also noted there are advantages in having the speed limit and signage around schools the same as that around school buses. At the time this research was undertaken, 40 km/h speed zones were permitted around schools; however, under the new Land Transport Rule: Setting of Speed Limits 2022, most schools in New Zealand will have 30 km/h speed limits by 2027.

In 2022, concerns regarding speeds passing school buses were also raised by Coroner Ho (New Zealand Coroners Court, 2022). However, in this case the bus wasn't stationary and the driver who struck the student didn't see the bus because his view was obstructed by another vehicle. In her recommendations, Coroner Ho:

- supported prior coronial findings regarding flashing lights on buses and safety awareness campaigns, but also suggested more permanent, fixed flashing roadside signage should be considered to warn oncoming vehicles to expect a school bus operating on the route ahead
- commented on the appropriateness of 'full stop' laws and stop arms on school buses in the New Zealand context – considering New Zealand's typical winding road topography and the sight distance required for vehicles to stop in time, barrier arms on rural school buses were deemed impractical and possibly dangerous
- noted with concern that the 20 km/h rule does not apply when school buses are moving off from a PUDO, yet children are still vulnerable during this time
- recommended that a nationwide campaign educating motorists on the rules around passing school buses be developed and implemented.

6.5 Fleet profile, vehicle selection and vehicle technologies

The age and size of a vehicle used as a school bus, combined with the vehicle safety technologies installed on the vehicle, affect both the likelihood of a crash occurring and the severity outcomes for bus occupants and other road users should a collision occur.

Note that this section focuses on vehicle standards, vehicle technologies and the school bus fleet. Specific rules and standards regarding seating, seatbelts and seatbelt anchorages (where fitted) are discussed in more detail in section [6.6](#) regarding bus occupant protection.

6.5.1 Vehicle standards and contractual requirements

School buses are classified as passenger service vehicles (PSVs) and are subject to the relevant rules and standards for PSVs set by The Ministry of Transport Te Manatū Waka, primarily the Land Transport Rule: Passenger Service Vehicles 1999¹⁰ (the PSV Rule). The PSV Rule sets minimum standards for passenger service vehicles including for seating, exits and entrances, aisles, stability, and structural strength. These standards are checked regularly through certificate of fitness inspections.

6.5.1.1 Contractual requirements

The Ministry of Education sets additional vehicle standards for school buses through their contracts with transport service providers, primarily through average and maximum fleet age requirements. The maximum age of any vehicle used as a school bus is 26 years for large PSVs or 15 years for small PSVs. This requirement is set as an emission standard as part of the tendering process to reduce carbon emissions from the school bus fleet. Transport service providers are also required to install and use an approved telematics system on their school buses. Directly resourced schools can choose additional safety standards through their contracts with transport service providers. Compliance with contractual requirements is regularly checked through the Ministry of Education auditing process, as described in section [6.10](#).

Urban bus services contracted by a council adhere to standards under the *Requirements for Urban Buses in New Zealand* (the 'RUB'), which includes additional standards covering safety, accessibility, and emissions. This includes a maximum vehicle age of 20 years, and buses must have closed-circuit television (CCTV) and telematic systems installed.

¹⁰ See <https://www.nzta.govt.nz/resources/rules/passenger-service-vehicles-1999-index/> for further information.

6.5.1.2 International comparison

A list of all the relevant bus safety standards that apply in Australia (the Australian Design Rules), Canada, Europe and USA is provided in Appendix D.

The USA and Canada have specific vehicle standards for school buses, with both countries having dedicated school bus fleets. In the USA, the specific standards for school buses are Federal Motor Vehicle Safety Standard (FMVSS) 217 for emergency exits and window retention and release, and FMVSS 221, which specifies requirements for the strength of the body panel joints in school buses. Canada has specific standards for school buses, including Canadian Motor Vehicle Safety Standards (CMVSS) 217, 220, 221, and 301, and Canadian Standards Association (CSA) D250-22. CSA D250-22 is a specific standard for school buses developed by the Canada Standards Association Committee on School Bus Construction Standards.

Australia (Australian Design Rules) and Europe (United Nations Economic Commission for Europe (UNECE) Regulations) include provisions for bus safety within their general standards and have also developed new standards to accommodate new technologies. For example, UNECE Regulation No. 46 *Devices for Indirect Vision* includes provisions for reversing and blind spot cameras. UNECE Regulation No. 107 *Uniform Provisions Concerning the Approval of M2 or M3 Buses* was developed especially for light and heavy buses.

6.5.2 Fleet profile

The New Zealand school bus fleet is diverse. Transport service providers often use a mix of vehicle types on their school bus routes, including vans, truck buses, formerly urban buses, and coaches. This includes vehicles manufactured locally as well as imported from other countries such as Australia and Japan.

[Table 6.6](#) presents the top five vehicle makes and models used for Ministry of Education Daily Bus services, based on data sourced by the Ministry of Education from transport service providers as part of the tendering process for Daily Bus routes in late 2021.

Table 6.6 Most frequent makes and models of school buses used for Daily Bus services, as provided to Ministry of Education in 2021

Make	Model(s)	Number in fleet
Mitsubishi	Rosa, Fuso, Canter	491
MAN	TGL, TGM	470
Isuzu	F and M Series	146
Ford	Transit	116
Nissan	Civilian, Scorpion	69

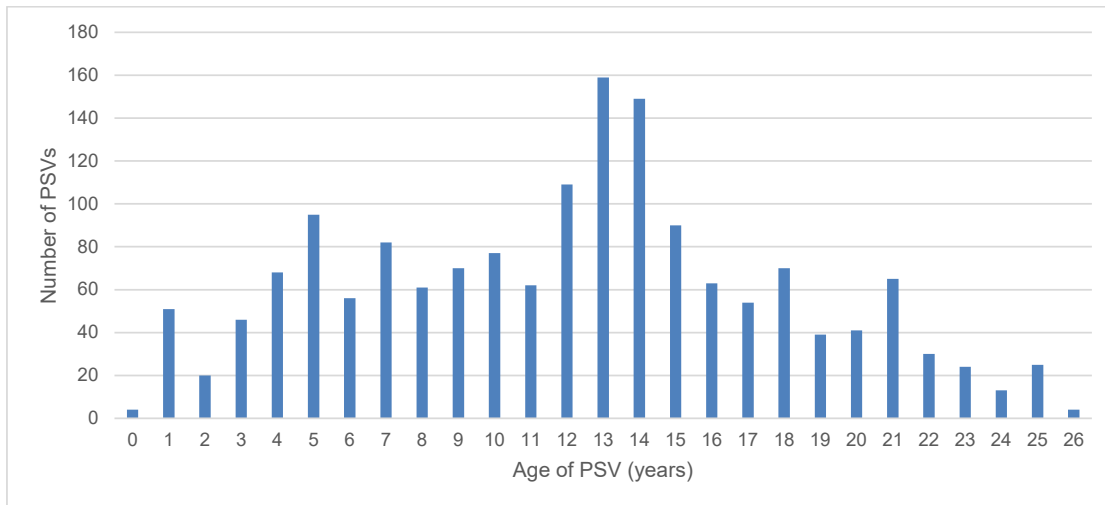
Vehicles operating as school buses are classified as PSVs and further classified as either:

- small PSVs with 12 seats or less, including the driver
- large PSVs with more than 12 seating positions.

The data provided by Ministry of Education indicate approximately 5–7% of the fleet are small PSVs, with the most common makes and models of small PSVs being the Toyota HiAce and Ford Transit.

The same dataset was analysed to determine the age profile of school buses, as shown in [Figure 6.9](#). This figure shows vehicles used for Daily Bus services range from 0 to 26 years old, with a peak around 12–14 years.

Figure 6.9 Ministry of Education Daily Bus services: vehicle age, as provided to the Ministry of Education in 2021



The variation in age, size, country of manufacture and vehicle type means that a wide range of combinations of safety features are possible across the school bus fleet. School buses range from 26-year-old truck buses with minimal safety features to new buses designed to Australian standards that include a range of safety features and occupant restraint systems.

6.5.2.1 Feedback from transport service providers

Transport service providers do not tend to have dedicated school bus fleets, with the vehicles in their fleet often used for different purposes.

The main factors that influence the type of vehicles purchased by transport service providers for use on school bus routes were price, operating costs and the Ministry of Education contractual requirements. Providers generally consider the types and ages of vehicles run on certain routes by, for example, putting newer truck buses into tougher operating environments (gravel roads, snow, and ice). This is primarily because newer buses are less likely to break down, and therefore can operate further away from workshops.

Generally, transport service providers believe newer buses are safer buses as they are more likely to have better safety features, including reversing cameras, anti-lock braking systems and cruise control. Transport service providers that also run urban buses for council public transport networks commented that once their urban buses reach the maximum age of 20 years (as required in the RUB), these are rotated into their school bus fleet.

6.5.3 Vehicle safety technologies

Vehicle technologies help ensure the safety of vehicle occupants and other road users. A list of technologies that could be present in or applied to the school bus fleet are summarised in [Table 6.7](#).

Table 6.7 In-vehicle road safety technologies (adapted and expanded from Pyta et al., 2022, p. 13)

Vehicle technology	Description
Autonomous (or automated) emergency	Uses sensors to detect the presence of a potential hazard in front of the

Vehicle technology	Description
braking (AEB)	vehicle and, where the driver has not done so in time, to apply the brakes to avoid a collision or to mitigate its severity.
Lane departure warning/Lane keep assist (LDW/LKA)	Uses sensors to detect the position of the vehicle in its lane and warns the driver if the course of the vehicle is gradually veering out of its lane and/or provides corrective directional control, through steering action or application of brakes on one side of vehicle.
Intelligent speed assist/adaptation (ISA)	Uses digital map data and/or visual data from a camera to identify the local speed limit, warns the driver if the limit is being exceeded and, at the driver's discretion, can limit the vehicle speed accordingly.
Rear collision warning (RCW)	Camera/audio system that alerts the driver of objects that are to the rear of the vehicle. Typically designed to assist with reversing manoeuvres.
Driver monitoring systems, including: <ul style="list-style-type: none"> • driver drowsiness and attention warning (DDAW) • advanced driver distraction warning (ADDW) 	Monitors the status of driver alertness and attention to the driving task and warns the driver if they are impaired. Systems detect status either directly (eg, by eye-monitoring sensors) or indirectly by identifying driving style behaviours that are characteristic of an impaired driver.
Fleet management telematics (telematics)	Allows the sending, receiving and storing of information relating to the vehicle via telecommunication devices (information may include location, speed, idling status, fuel consumption and driver inputs to controls such as accelerator and steering). This information can be used for fleet management purposes such as providing safer-driving feedback advice and informing maintenance schedules.
Alcohol interlock systems (AIS)	Automatic control system that is designed to prevent driving with excess alcohol by requiring the driver to blow into an in-car breathalyser before starting the ignition. The AIS can be set at different levels and limits.
Tyre pressure monitoring system	Monitors and reports tyre pressures information to the driver of the vehicle, either via a gauge, pictogram display, or a simple low-pressure warning light.
Vulnerable road user detection	Using either direct vision standards, cameras (CCTV) or vulnerable road user detection systems to reduce blind spots around buses and coaches.
Emergency stop signal	Automatically and simultaneously activating all stop and direction indication lamps when the vehicle speed is above 50 km/h and a harsh braking event occurs. A harsh braking event is defined as 4 m/s ² for passenger buses.
Event data recorders	Records technical vehicle and occupant information for a brief period of time before, during and after a crash or near-crash event.
Electronic stability control (ESC)	Prevents wheels from locking up during braking. This improves vehicle stability while braking and generally provides shorter controlled stopping distances.

6.5.3.1 Effectiveness of vehicle technologies in New Zealand

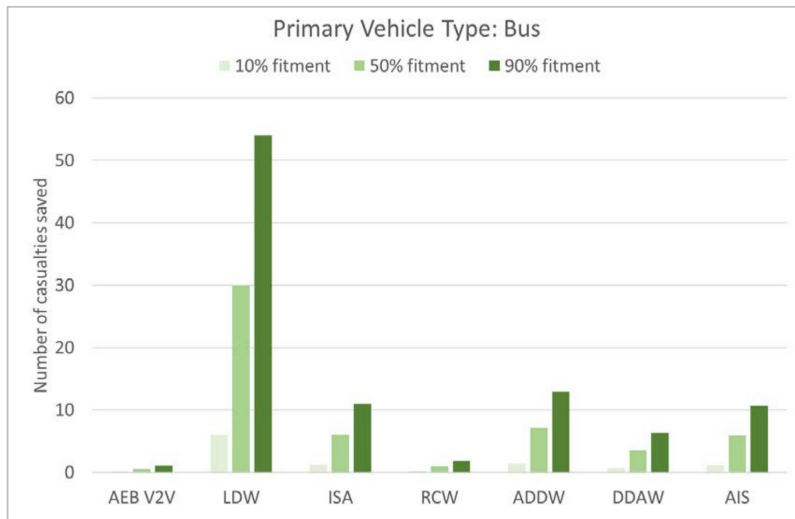
Pyta et al. (2022) investigated the effectiveness of in-vehicle safety technologies and explored the best ways to increase the uptake of these technologies in New Zealand. The authors undertook a literature review to determine effectiveness estimates (or crash reduction factors) to avoid or mitigate injury, including where the target vehicle included buses (Table 6.8). Using crash data for 2016 to 2020 from CAS, the authors estimated the number of casualties that would have been prevented and the corresponding cost savings had

vehicles been fitted with different types of vehicle technologies. This includes a breakdown by vehicle type, including buses ([Figure 6.10](#)).

Table 6.8 Vehicle technology effectiveness estimates where the target vehicle or population includes buses (adapted from Pyta et al., 2022, p. 64)

Technology	Effectiveness estimates by severity (casualty level)					Confidence
	Fatal (avoid)	Fatal (mitigate)	Serious (avoid)	Serious (mitigate)	Minor (avoid)	
Autonomous emergency braking (vehicle to vehicle only) (AEB V2V)	0%	25%	0%	25%	5%	Low
Lane departure warning (LDW)	20%	0%	20%	0%	20%	Low
Intelligent speed assist (ISA)	9%	9%	1.5%	17%	20%	High
Rear collision warning (RCW)	33%	0%	33%	0%	33%	Low
Driver drowsiness and attention warning (DDAW)	17%	0%	17%	0%	17%	Low
Advanced driver distraction warning (ADDW)	17%	0%	17%	0%	17%	Low
Alcohol interlock systems (AIS)	13%	0%	13%	0%	13%	Low

Figure 6.10 Number of casualties saved by each technology assuming varying levels of fitment in buses, 2016–2020 (reprinted from Pyta et al., 2022, p. 74)



The analysis showed that lane departure warning systems had the highest number of associated casualty savings for buses, followed by advanced driver distraction warning systems. The technologies with the greatest potential cost savings, assuming a baseline of 0% fitment moving to 100% fitment, were lane departure warning (\$19 million), and intelligent speed assistance (\$9 million).

6.5.3.2 Vehicle safety technology requirements in Europe (heavy vehicles and passenger vehicles)

In the European Union, the General Safety Regulation is a legislative framework designed to improve road safety (Regulation (EC) No. 661/2009). Initial requirements for heavy vehicles included electronic stability control, advanced emergency braking, and lane departure warning. These countermeasures contributed to a 28% reduction in road fatalities between 2009 and 2018. To achieve Vision Zero by 2050, the EU commissioned the Transport Research Laboratory to conduct a series of studies to identify and evaluate new technologies that could be included in future regulations (European Commission et al., 2015; European Commission et al., 2017). The General Safety Regulation was updated in 2019 and included changes that will be mandatory for all new vehicle registrations in Europe from July 2024. Vehicle technologies relevant to passenger bus safety include:

- intelligent speed assist
- emergency lane keeping system
- advanced emergency braking
- vulnerable road user detection
- reversing detection or camera
- alcohol interlock devices
- emergency stop signal.

In addition, more advanced driver distraction warning systems and event data recorders will be required by 2028 (General Safety Regulation (Regulation (EC) No. 661/2009). Buses must also currently meet the Pole Side Impact Occupant Protection Standard, a pole side impact crash test for passenger buses as per UNECE Regulation No. 135.

Transport for London (2018) developed a Bus Safety Standard as part of its Vision Zero strategy. This included an evaluation of a range of possible safety measures and resulted in the following new safety requirements for London Buses:

- advanced emergency braking
- intelligent speed assistance
- the Bus Vision Standard permitting system, which sets a minimum standard (star rating) based on an assessment of how much a driver can see through windows and mirrors and how big the resulting blind spots are – blind spots can be minimised using mirrors and camera monitor systems
- acoustic and visual conspicuity, which makes the bus more conspicuous to other road users, especially vulnerable road users, including acoustic vehicle alerting systems and additional marker lights
- impact protection for vulnerable road users, which reduces the severity of injuries for road users outside the bus in a collision through improved energy absorption and impact protection of windscreen wiper mount points.

6.5.4 Vehicle safety technologies in the New Zealand school bus fleet

The degree to which vehicle safety technologies are present within New Zealand's school bus fleet is not known, except for those that are mandated in school bus contracts, including:

- *telematics systems*, which are required by both the Ministry of Education and for urban buses funded by councils
- *CCTV systems*, which are not required by the Ministry of Education, but are required for urban buses under 'the RUB'.

6.5.4.1 Telematics

Telematics systems allow the Ministry of Education and transport service providers to monitor excess speed, harsh braking, and cornering. The Ministry of Education provides a list of approved telematic systems that transport service providers can use, and information generated from these systems can be accessed by both the provider and the Ministry of Education. As part of the auditing process, the Ministry of Education requires transport service providers to demonstrate that they are actively using their telematics systems to monitor driver behaviour.

Pyta et al. (2022) found little evidence in the literature regarding the effectiveness of 'fleet management' telematics systems in reducing crashes. The authors suggest this is due to telematics systems being primarily used to collect data from vehicles for fleet management purposes or to analyse events that occurred prior to an incident, rather than being used to monitor and respond to driver behaviour in real time. De Oliveira et al. (2019), as cited in Pyta et al. (2022), found that the improvement in driving behaviour occurred when drivers were conscious of being monitored, with the greatest improvement observed when this is coupled with appropriate feedback and training in response to undesirable behaviours.

Stakeholder feedback

Each telematics system approved by the Ministry of Education provides different end-user interfaces and functionality, and each transport service provider interviewed uses these systems to differing degrees in monitoring driver behaviour. Systems used currently include GreenRoad, EROAD, iBright and Tracker.

Some transport service providers are highly diligent in monitoring their telematics systems and use it to actively incentivise good driving behaviour and to follow up on poor driving behaviour. Reports can be pulled from the telematics system for managers to review and follow-up on. Drivers can also get alerts in real time, allowing them to rectify their driving behaviour. Some systems such as GreenRoad and EROAD have a scoring system that rates the driving of bus drivers across a company/depot. Some transport service providers have a performance pay scheme that includes incentives for safer driving, including by avoiding telematics alerts. However, this usually only applies to the urban fleet. Some transport service providers reported specific procedures for managing driver behaviour when drivers scored less than minimum requirements. Telematics have also been useful after incidents as reports can be provided to the Police to help their investigations.

There is some concern among transport service providers about the accuracy of some information generated by the telematics system. Speed readings tend to be accurate; however, measures such as sharp cornering or harsh braking may be less accurate. Some events that should have alerted the system may not do so, and sometimes the system may send an alert for a non-event.

While the Ministry of Education has access to data collected by these systems, to date this is not actively being used to monitor driver performance across transport service providers because the Ministry of Education has not yet been able to integrate and manage these data. The range of systems in use means integrating this information is complex.

6.5.4.2 CCTV

CCTV is not required on buses contracted by the Ministry of Education. This includes both internal cameras to monitor the driver and passengers and external cameras installed for blind spot monitoring.

Urban buses operated for councils must have CCTV installed, as required by the RUB. The CCTV systems on urban buses must allow drivers to view multiple views, including views of the front and rear doors, as well

as three blind spot cameras (left flank, right flank and reverse cameras). There are also combined systems available combining CCTV and driver voice recording or combining CCTV with telematics.

Stakeholder feedback

Because CCTV is not required under Ministry of Education contracts, school buses will only have CCTV if transport service providers choose to have the camera system installed. As such, the use of internal CCTV on Ministry of Education funded school bus services is rare, except on truck buses where there is limited visibility of students from the cab, or on school buses that were formerly used as urban buses where CCTV was previously installed as required under the RUB.

Most transport service providers supported the use of CCTV in school buses to protect both the passengers and the driver. They encourage safe driving behaviours and support incident investigation. All the transport service providers that did have CCTV installed had observed improved student behaviour when compared to buses without CCTV.

One transport service provider who operates urban school buses with CCTV on behalf of a regional council described how they were able to extract still images from the cameras and provide these to schools as evidence of bullying or bad behaviour. The school is then able to address the issue. For serious incidents, videos are provided to the Police to investigate.

However, transport service providers are reluctant to install CCTV as it is an additional cost. One large provider explained that they have not installed CCTV on school buses because they are not a requirement and are expensive, and the footage is inaccessible on more remote routes until the bus is brought into a workshop for a service.

6.6 Bus occupant protection

Occupant protection includes the standards, devices and systems that work to minimise the severity of injury to drivers and passengers during a collision or harsh-braking event. In New Zealand, the requirements and standards for these protections are set out in Land Transport Rules, some of which reference an ADR or regulation set by UNECE. Different rules may apply to light buses and heavy buses:

- *Light buses* carry more than nine people but with a gross vehicle mass (GVM) of 3,500 kg or less. This category is split further into two categories: light buses with less than 12 seats (MD1) and light buses with more than 12 seats (MD2)
- *Heavy buses* (sometimes called omnibuses) have a GVM of more than 3,500 kg. There are three classes of heavy bus: omnibuses with a GVM of 3,500 kg to 4,500 kg (MD3), omnibuses with a GVM of 4,500 kg to 5,000 kg (MD4), and heavy omnibuses with a GVM over 5,000 kg (ME).

As most of the vehicles in the school bus fleet are classified as heavy buses, this section focuses primarily on rules and standards that apply to heavy buses, focusing on the following areas of occupant protection:

1. rollover protection
2. passenger loading (seating vs standing passengers)
3. compartmentalisation
4. seatbelts.

6.6.1 Rollover protection

The requirements for structural strength and rollover protection are set out in the PSV Rule, with heavy buses required to meet at least one of the following standards:

- one of the approval methods of UNECE Regulation No. 66 – *Uniform technical prescriptions concerning the approval of large passenger vehicles with regard to the strength of their superstructure*¹¹
- one of the approval methods of ADR 59/00 – *Omnibus rollover strength*¹²
- the structural strength specifications in 7.5(3) to 7.5(14) of the PSV Rule.

ADR 59/00 is also the current design standard for buses in Australia.

6.6.2 Passenger loading (seated and standing passengers)

In the event of a crash or sudden braking incident there is a high risk of injury associated with standing on buses, including the potential for multiple fatalities and serious injuries (School Bus Safety Community Advisory Committee, 2012). Additionally, some standing students may be too small to hold a metal handrail effectively and are at higher risk of being struck by heavy school bags or thrown through the windscreen, particularly when the bus is travelling at high speed.

6.6.2.1 Regulation of seated and standing passengers

Under the PSV Rule, buses must display a Certificate of Loading, which specifies the maximum number of seated and standing passengers (excluding the driver). The number of passengers is divided into age categories: 'adult', 'secondary', 'intermediate' and 'primary'. The maximum number of standing passengers is determined based on the area available within the bus for standing passengers. Standing passengers are not permitted if seatbelts are installed.

When determining the maximum number of seated passengers, the PSV Rule allows three primary or intermediate school children to sit in the same space as two adults or secondary school-aged children. This Rule is a legacy of a time when most buses had bench seats, and still applies even when individual, moulded seats are provided. This allows three children to be seated across two formed seats and enables school buses to carry more students and run more efficiently – approximately 30% fewer buses are needed for school services than would otherwise be the case (Te Manatū Waka, 2018).

6.6.2.2 Contractual requirements

The school bus contracts that commenced in 2022 required bidders to confirm that seats would be provided for each eligible student (Ministry of Education, 2020). However, transport service providers are allowed to carry standing passengers if the actual number of eligible students is greater than the number released by the Ministry of Education with the request for proposal.

Standeers are permitted on urban buses on school routes funded by councils, as per the requirements in the RUB. Urban buses also have accessible seating, which reduces the seating capacity and increases the standing capacity on school runs.

6.6.2.3 Feedback from stakeholders

Transport service providers were supportive of disallowing standees for safety reasons. However, they recognised the nationwide problem of driver recruitment and retention, which could affect their ability to

¹¹ See <https://op.europa.eu/en/publication-detail/-/publication/69a98949-88be-4e2a-bcb7-d26d4e8778b3/language-en> for further information.

¹² See <https://www.legislation.gov.au/Series/F2007L04077> for further information.

provide more services to offset the reduction in bus capacity. School buses also tend to be fuller at the start of the year than at the end of the year.

On urban buses funded by councils, the bus will start to fill up as it moves through the city and gets closer to the school, and vice versa on the outbound route. The councils rely on the bus operators' observations of bus capacity to ensure that where students are required to stand, they are not standing for too long. Drivers are expected not to compromise safety by overloading the bus.

6.6.3 Compartmentalisation

Compartmentalisation is the concept of providing passive protection to bus passengers by surrounding them with closely spaced, heavily padded seats. Specific requirements for compartmentalisation include setting minimum requirements for seat back height, seat back width, padding on the rear of the seat back, and seat spacing requirements.

6.6.3.1 Effectiveness of compartmentalisation

Recent studies highlight the limitations of compartmentalisation in containing passengers in the event of a collision. Chang et al. (2021) reported on two bus crash demonstrations using full-scale anthropomorphic test devices. The demonstrations showed that compartmentalisation offered limited protection for unrestrained passengers, including when seated both properly and in common out-of-position configurations. In particular:

- The benefits of compartmentalisation are only fully realised when all passengers are seated upright, facing forward, with their backs contacting the seat. This is seldom realised when considering the normal behaviour of school children on buses.
- The interior surroundings affect the safety of passengers during an incident. The protective environment varies depending on the physical characteristics of the compartment, the size of the passenger, and the environment (whether there are other passengers behind, in front of, or across from each other).
- The type of crash determines the extent of potential harm to passengers. Compartmentalisation is most effective in forward collisions, but the protective intent of compartmentalisation is compromised in other types of collisions, particularly rollovers and side impacts.

In addition, there has been increasing evidence that compartmentalisation is not sufficient to protect passengers in all types of crashes. In its special investigation report on two school bus crashes, and its review of previous investigations it had undertaken, the National Transportation Safety Board (2018b) indicated that compartmentalisation fails to provide protection to occupants in school buses that are involved in lateral and rollover collisions. These types of collisions expose unbelted passengers to injury due to passengers:

- colliding with injury-producing components within the vehicle
- being in the intrusion zone
- being thrown out of their seating compartments, making compartmentalisation ineffective
- being ejected from the vehicle.

Due to the limitations in the compartmentalisation approach, both Chang et al. (2021) and the National Transportation Safety Board (2018b) highlight the need for seatbelt systems to further mitigate personal injury during a collision.

6.6.3.2 Vehicle standards for compartmentalisation – New Zealand and international comparison

The PSV Rule requires that if seatbelts are not installed, every forward-facing passenger seat must have either another seat, a partition or a guard rail positioned no more than 1 m in front of the seat. The Land Transport Rule: Seats and Seat Anchorages 2002¹³ does not require buses to be compliant with the features necessary for effective compartmentalisation, such as high seat backs or padded seat backs.

In Australia, ADR 66/00 – *Seat strength, seat anchorage strength and padding in omnibuses*¹⁴ specifies requirements for the strength of seats and seatbelt anchorages, and for protecting occupants through padding. This standard includes requirements for compartmentalisation/padding of seat backs.

The USA and Canada have specific vehicle standards for school buses, with both countries having dedicated school bus fleets. In the USA, FMVSS 222¹⁵ includes requirements for compartmentalisation in school buses by setting minimum requirements for seats, including seat height, position and cushioning on contactable surfaces.

6.6.3.3 Compartmentalisation on New Zealand school buses

The degree to which compartmentalisation is provided across the current school bus fleet is unknown and likely to be varied. The type of seat and padding depends on the type of vehicle (eg, an urban bus versus a coach), where it was constructed (eg, to Australian versus New Zealand design standards), and the costs to transport service providers associated with outfitting and maintaining seats.

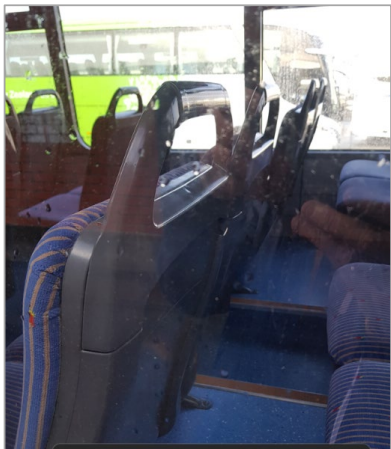
Under the RUB, seats on urban buses must consist of either a fabricated frame or moulded shell. They must also be hard-wearing and easy to clean, and therefore are usually constructed with a hard plastic shell and no cushioning on the rear of the seats. Bus builders also provide an option of building school truck-buses with hard-backed seats and no seatbelts, as shown in [Figure 6.11](#). These types of seats offer little protection to bus passengers through compartmentalisation.

¹³ See <https://www.nzta.govt.nz/resources/rules/seats-and-seat-anchorages-2002/> for further information.

¹⁴ See <https://www.legislation.gov.au/Series/F2006L02312> for further information.

¹⁵ See <https://www.federalregister.gov/documents/2007/11/21/07-5758/federal-motor-vehicle-safety-standards-seating-systems-occupant-crash-protection-seat-belt-assembly> for further information.

Figure 6.11 Example of hard plastic-backed seats on a New Zealand school bus (truck bus)



6.6.4 Seatbelts

The use of seatbelts and other restraints by adult and child vehicle occupants has been shown to be an effective safety measure (Austroads, 2021). Seatbelts retain passengers within the seating compartment and provide occupant protection in collisions involving high levels of deceleration such as a head-on crash, or where occupants are at risk of being ejected from the vehicle, such as in a rollover event (Baas et al., 2010).

6.6.4.1 Regulation of seatbelts in New Zealand

The Land Transport Rule: Seatbelts and Seatbelt Anchorages 2002¹⁶ sets out the minimum requirements for seatbelts on buses:

- Light buses (class MD1/MD2) must have seatbelts in all seating positions, with the minimum requirements being lap-and-diagonal retractor seatbelts in all seats except for middle seating positions where lap seatbelts are permitted.
- Heavy buses (class MD3/MD4/ME) are not required to have seatbelts for the driver or passenger.

Where seatbelts are installed on heavy buses, these must meet all the requirements in this Rule. This means they must be operational and will be inspected through the Certificate of Fitness process.

The Land Transport (Road User) Rule 2004 clauses 7.6 to 7.11 set out the requirements for seatbelt and restraint use. Drivers and passengers are required to wear seatbelts where they are installed. However, bus drivers are not responsible for ensuring passengers are wearing seatbelts (as per the exemption given in clause 7.11[4]).

6.6.4.2 Previous research in New Zealand

NZ Transport Agency research report 408 (Baas et al., 2010) investigated the benefits and costs of installing seatbelts on school buses in New Zealand. It was found that most crashes that resulted in injuries to school bus occupants between 1987 and 2008 involved a hard braking event and/or a frontal collision with another

¹⁶ See <https://www.nzta.govt.nz/resources/rules/seatbelts-and-seatbelt-anchorages-2002-index> for further information.

vehicle or stationary object. The authors suggested that had lap-sash seatbelts been worn by occupants of those crashes, some injuries might have been less severe. Considering the costs of mandatory retrofitting seatbelts into school buses, it was estimated this would return a cost–benefit ratio of 0.14. This analysis only considered social costs of injuries in collisions recorded in CAS and did not consider the benefit of preventing or reducing injury severity in non-collision events.

A further evaluation of the costs of mandating seatbelts on Ministry of Education funded services was undertaken for the Ministry in 2018 (Deloitte, 2019). At the time it was estimated that introducing seatbelts would cost in the region of \$56 million to \$87 million per year initially, with an ongoing cost of \$19 million per year. This would be in addition to the cost of a ‘no standing’ policy, which is estimated to cost \$14 million to \$26 million per year. Several limitations and unintended consequences for these policies were identified, including impacts on ineligible students currently using school bus services, the capacity and capability of the industry in retrofitting seatbelts, and concerns regarding how seatbelt use will be enforced.

6.6.4.3 International approaches

In Australia, ADR 68/00 – *Occupant protection in buses*¹⁷ requires retracting three-point seatbelts on all passenger seats in heavy buses weighing over 3,500 kg (categories MD3, MD4 and ME). ADR 68/00 also requires a seat anchorage strength of 20 g, which is double the requirement for seat anchorages in UNECE Regulation No. 80 (10 g). This requirement was to accommodate the potential for bus rollover crashes at higher speeds (School Bus Safety Community Advisory Committee, 2012). An exemption applies to ‘Route Service Omnibuses’ (omnibuses specially designed with spaces for standing passengers), omnibuses with less than 17 seats, or vehicles in which all passenger seats have a reference height of less than 1 metre.

ADR 68/00 was introduced in Australia in 1994–1995 following two bus crashes in 1989 where 55 passengers were killed and 54 were seriously injured (School Bus Safety Community Advisory Committee, 2012). Any new vehicle registered for use in Australia must comply with this design requirement. As of March 2022, all rural and regional school buses operating outside urban environments in New South Wales must be fitted with lap/sash seatbelts in accordance with ADR 68/00 following an inquiry into school bus safety in 2012 (School Bus Safety Community Advisory Committee, 2012; Transport for New South Wales, 2022a). At the same time, New South Wales adopted a policy to disallow standing passengers on unsealed roads, roads with a speed limit of 80 km/h or more, or outside urban areas. Allowances were made for when a student cannot be left in an unsafe environment and a seat with a seatbelt is unavailable. To meet this allowance, the buses must meet the applicable parts of ADR 59/00 (Rural and Regional Seatbelt Program Taskforce, 2019).

In the USA, three-point seatbelts are required for all passengers of small new school buses (less than 4,536 kilograms or 10,000 pounds). There are also performance standards for three-point seatbelts installed voluntarily on large school buses in FMVSS 222. Each state or local jurisdiction may decide whether to install seatbelts on large school buses, and many states have adopted three-point seatbelts in school buses, including Louisiana, Texas, California, Florida, New York, New Jersey, Arkansas and Nevada (Taskforce on School Bus Safety, 2020).

In Scotland, since 2001 all new coaches, minibuses and buses must be fitted with seatbelts (lap belts at a minimum) (Transport Research Laboratory, 2010). In 2017, a law was passed in Scotland that requires all school transportation vehicles to be fitted with seatbelts (Transport Scotland, 2017).

¹⁷ See <https://www.legislation.gov.au/Series/F2006L01454> for further information.

6.6.4.4 Types of seatbelts

Research into the forces exerted on coach passengers during a collision found that only the three-point safety belt system resulted in forces and injuries that were acceptable under standards set in UNECE Regulation 80 and Regulation 94 (Jamroziak et al., 2020). This study also recommended that the three-point safety belt system should be obligatory in all intercity buses. The National Transportation Safety Board (2018b) also found that lap belts only restrained the pelvis area and did not prevent the upper body from flailing. The same report recommended that because lap-and-shoulder belts provide a greater level of occupant protection than lap belts, they should be installed as standard equipment on medium-sized buses (National Transportation Safety Board, 2018a).

6.6.4.5 Supporting measures

For seatbelts to be effective, they must be worn (and worn correctly) by passengers. In Israel, where seatbelts are compulsory in all vehicles used for school transportation since 2006, seatbelt use rates by students were reported as being low (Goldman & Peleg, 2010). This observational study found low rates of seatbelt use by students, with no students using seatbelts in 42% of school buses observed, and only 23% of school buses had 100% of students using seatbelts. Seatbelt use was higher when a bus was equipped with lap-and-shoulder belts (as opposed to lap-only belts), when an adult chaperone was present, and when the pupils on the bus were primary school children. The authors conclude that without enforcement, government regulations and seatbelt availability on school buses are not sufficient to ensure seatbelt usage among pupils. Another study in the USA also found that education, training and enforcement were needed for effective implementation of seatbelts in school buses (Katz, Graham, et al., 2021).

6.6.4.6 Additional benefits of seatbelts in school buses

A study in the USA found that seatbelts on school buses contributed to calmer and less distracting environments for school bus drivers (Katz, Graham, et al., 2021). Even students who did not wear restraints were less likely to move from their seats as it would be obvious that they were not wearing a seatbelt. Sixty percent of school bus drivers reported that they observed improved behaviour from students.

6.6.4.7 Feedback from stakeholders

All the stakeholders could see the safety benefits of seatbelts, and that it was inherently a 'good thing'. However, cost and other practicalities are significant barriers, in particular:

- Retrofitting seatbelts requires a significant amount of structural work on the buses, which incurs significant cost to operators.
- Operators are unsure about the rules regarding the responsibility of bus drivers in ensuring children are wearing seatbelts. There are different interpretations of the Land Transport (Road User) Rule 2004. It was expressed that the bus driver should have their full attention on the driving task, not monitoring children for seatbelt use.
- Children vandalise and damage the seatbelts, requiring additional maintenance. One stakeholder commented that they were aware of one operator who was proactive in installing seatbelts, but later removed them due to the high ongoing maintenance costs.
- The situation is complicated further as school bus passengers are often young children who require different types of restraints according to their age.

Most transport service providers interviewed indicated few of their school buses have seatbelts fitted. Some of these were tour buses, although some were retrofitted as trials. Tour coaches are often fitted with seatbelts as they operate on open roads and tour operators often request coaches with seatbelts.

Most transport service providers have decided not to install seatbelts due to the cost, and they are contractually not required to do so. Recently, a large provider purchased a large number of new buses from a New Zealand bus manufacturer. All were truck buses, and none were fitted with seatbelts. Another transport service provider purchased truck buses from the same manufacturer but required seatbelts to be fitted. The difference in price between truck buses fitted with seatbelts and those not fitted with seatbelts was estimated to be an additional 6–7% of the total cost of the bus.

One transport service provider mentioned that some primary schools have begun indicating that they would like seatbelts provided on their buses. For this reason, and due to the expense of retrofitting seatbelts, they have made a conscious decision to start phasing in seatbelts through all new vehicles. All their new vehicles have high seat backs and three-point seatbelts. Another transport service provider also stated that all their new buses had seatbelts because they saw it as a point of differentiation in the market. A manager of a directly resourced school network emphasised that providing seatbelts resulted in significant improvements in student behaviour, supporting the findings discussed in Katz, Graham, et al. (2021). Children are less likely to move around the bus, knowing that the driver expects them to be seated and wearing their seatbelt.

Some directly resourced schools have requested buses with seatbelts. The manager had worked with the transport service provider to install seatbelts and pay them off over time. They mentioned that their contract with the provider is longer than that of the Ministry of Education contracts, which allows the provider to pay for seatbelts over a longer time period. With shorter contracts, it would be more cost effective to phase in seatbelts with new buses.

The NZ Police Commercial Vehicle Safety Team conducted workshops with bus operators on the implementation of seatbelts on buses. This occurred following the tour bus crash in Rotorua in which there were five fatalities, where some passengers were ejected from the vehicle and others were thrown off their seats. Additional examples were provided of how harsh braking on urban buses with standees can cause injuries due to the passenger falling over or being thrown around the vehicle. The Commercial Vehicle Safety Team received resistance from bus operators due to the cost of implementation, and the liability issues around ensuring the seatbelts are worn.

The Ministry of Transport Te Manatū Waka mentioned the challenge of mandating seatbelts under the existing regulatory framework. The PSV Rule does not differentiate between buses used for different purposes. If seatbelts were mandated, they would have to be installed in all PSVs regardless of their use. It is likely a contractual approach would be a more practical approach to getting seatbelts on school buses alone.

6.7 Driver management

Comprehensive safety management systems are needed to ensure that school bus drivers are medically fit, well-trained, alert, responsive and unimpaired.

6.7.1 Current requirements

Bus drivers must hold a current passenger (P) endorsement and a current licence for the type of vehicle being driven. The P endorsement includes a check to confirm the applicant is a 'fit and proper person', is medically fit, and meets the minimum eyesight requirements. Under the Land Transport Rule – Work Time

and Logbooks 2007,¹⁸ school bus drivers are exempt from logbook requirements that otherwise apply to other commercial and heavy vehicle drivers.

In addition to these minimum requirements, the Ministry of Education sets additional driver standards within their contracts with transport service providers, including:

- annual medical fitness to drive
- current first aid certificate
- requirements associated with the Children's Act 2014¹⁹ such as police vetting and safety checks
- a drug and alcohol management plan, including pre-employment, post-incident and random drug and alcohol testing
- compliance with the Work Time and Logbooks Rule, including keeping logbook records and monitoring for signs of fatigue
- the requirement to stand down any driver the Ministry of Education considers may pose a risk to the health and safety of students
- drivers adequately trained by either completing specified New Zealand Qualification Authority (NZQA) unit standards or an equivalent approved training programme
- minimum ongoing training requirements for drivers, equivalent to two half-days per annum.

Transport service providers must also have a passenger service licence, child protection policy and health and safety policy. Vehicles used as school buses must have a telematics system installed to monitor driving behaviours, as described in section [6.5.4.1](#). The Ministry of Education undertakes routine audits of transport service providers to confirm compliance with these driver management requirements.

6.7.2 Stakeholder feedback

There is a significant nationwide driver shortage. It is particularly difficult to recruit and retain school bus drivers as it is part-time work. Therefore, school bus drivers are generally older and semi-retired, especially in rural areas where there is little opportunity to pick up other types of bus and coach driving.

The transport service providers did not raise any concerns regarding the generally older age of school bus drivers, as drivers are required to have annual medicals and they are audited on this. Older drivers were also regarded as very experienced. The literature also indicates that older drivers (as a cohort) are involved in fewer crashes than younger drivers, and therefore do not pose an increased risk on the road (Austroads, 2016). However, some health, functional and cognitive factors associated with aging are shown to decrease driving ability and increase crash risk – for example, cardiovascular diseases, declining vision, and declining cognitive ability.

All transport service providers who were interviewed confirmed that they had zero-tolerance drug and alcohol policies. Many providers also provide counselling and support for drivers who return a positive drug or alcohol test. This is important due to the issue of driver recruitment and retention.

The NZQA driver training requirements include hazard identification and risk reduction for safe driving, first aid, rigid vehicle handling and dynamics, and fatigue management. These training modules were developed some time ago and are currently being updated by the NZQA and may require updating to include training in

¹⁸ See <https://www.nzta.govt.nz/resources/rules/work-time-and-logbooks-2007-index> for further information.

¹⁹ See <https://www.legislation.govt.nz/act/public/2014/0040/latest/whole.html> for further information.

the use of new technology available on buses. Some transport service providers interviewed stated that they train their bus drivers beyond what is required under the Ministry of Education contracts and provide refresher training as required. One transport service provider also mentioned that they have been struggling to provide first aid training as required by the Ministry of Education due to the unavailability of external training providers.

In engagement with the NZ Police Commercial Vehicle Safety Team, it was noted that bus drivers have the same legal alcohol limits as other motorists. In many international jurisdictions, drivers of passenger service vehicles have a reduced legal alcohol limit, usually a zero blood or breath alcohol limit. An example was provided of a driver who had consumed alcohol between the morning and afternoon school runs. This driver was under the legal limit, but it was concerning to the NZ Police as there were children on board.

6.8 Education and behaviour management

Students and caregivers (and other road users) need be aware of safe behaviours while travelling on or moving around school buses. The behaviour of students should not distract the driver from the driving task. Students must be seated and wearing seatbelts correctly (where provided) for occupant protection systems to be effective. Students and their caregivers also need to know how to keep themselves safe at PUDO locations. Similarly, other road users need to be aware of what to expect around school buses, and how to behave accordingly.

6.8.1 Current practice

No single organisation is responsible for educating children and caregivers about safety on school buses in New Zealand. The amount and frequency of education on safe bus travel that students and parents receive depends on how proactive the school, transport service provider, council, and/or NZ Police are in delivering this education.

6.8.1.1 Ministry of Education

The Ministry of Education expects schools and caregivers to educate children on appropriate and safe behaviours for school bus use. Guidance on keeping safe while using school buses is provided on the Ministry's website (Ministry of Education, 2022b).

Transport Contract Managers may investigate serious behaviour-related incidents. During engagement with these managers, it was mentioned that they try to get notices into schools to share with students and caregivers particularly about crossing the road to get to or from school buses.

School bus safety and road safety are not currently part of the New Zealand education curriculum.

6.8.1.2 NZ Transport Agency Waka Kotahi (NZTA)

NZTA provides a guide for schools, teachers and families called *School bus safety: What you need to know* on its Education Portal (Waka Kotahi, 2021d, 2022d). It identifies important points to talk to students about, including how to stay safe when waiting for the bus, safely getting on the bus, and where to wait after getting off the bus for the bus to move before crossing the road. It also provides a 'kerb drill' to teach children how to cross the road safely and provides advice for parents and other road users. The extent to which this resource is used is unclear.

6.8.1.3 Councils

City and district councils are a secondary audience for the NZTA Education Portal. One stakeholder mentioned that some local councils use these resources to conduct road safety workshops with student leaders. Some councils have been creative with these workshops – for example, one council created a puppet show on the ‘10 commandments of bus safety’.

In urban areas, school travel coordinators may work with schools to create school travel plans. However, as bus travel in these areas is the responsibility of the regional council, it may be omitted in these plans. Instead, schools are encouraged to work with regional councils regarding bus travel when developing school travel plans.

6.8.1.4 Transport service providers

Transport service providers are expected to ensure bus drivers understand their responsibilities in behaviour management, report incidents to the school, liaise with the school when behavioural issues arise, and work with schools to introduce a code of conduct for students (Ministry of Education, 2021).

Most transport service providers that were interviewed are active in providing safety information to their students and parents, although to varying degrees. Specific examples given from providers include:

- working with rural schools and community constables to teach children how to safely get on and off the bus
- stating an intention to be more involved in school education programmes with school bus controllers
- producing videos on school bus safety and taking 20 km/h signs to schools at the start of the year as part of an awareness campaign on the speed limit when passing stationary school buses
- developing their own training resources and conducting roadshows where they teach bus safety at school assemblies.

One transport service provider mentioned that when ineligible students receive their ‘term pass’ for the bus, they are provided with a ‘terms and conditions’ leaflet from the provider, which covers a significant amount of safety information. Nothing like this appears to be provided to eligible students by the Ministry of Education or most schools. Transport service providers also expressed that information needs to be provided to parents on how to park safely to pick up or drop off their children at the school bus stop; however, this is not currently provided.

6.8.1.5 Schools and community constables

Schools are also responsible for addressing student behaviour issues on buses, in conjunction with caregivers and the transport service provider. They are expected to clearly communicate expectations for appropriate behaviour on school transport services to caregivers and students (Ministry of Education, 2022b). This includes notifying caregivers and students of rules around PUDO, safety information and caregiver responsibilities. Schools are also responsible for the safe loading and unloading of students at the school bus bays. Each school must nominate a bus controller, usually a teacher or the school principal, who takes responsibility for these tasks.

Schools may choose to use a Code of Conduct to help reinforce safe behaviours, but this is not compulsory. The Ministry of Education provides a sample Code of Conduct that can be signed by the student, their caregiver, the school, and the transport service provider (Ministry of Education, 2022b). Some schools have student behaviour agreements that children must adhere to. However, the administration involved in getting these completed can be onerous for schools.

Community constables with the NZ Police deliver road safety training in conjunction with schools and transport service providers, which can include training and talks about safety on school buses.

Some school buses may have student bus wardens. They are usually a senior student on the route who supervises younger students and are usually on primary school buses. Schools are not required to appoint bus wardens. Student bus wardens are nominated by school staff and trained by Police School Community Officers. Their role includes ensuring orderly entry onto the bus, making the driver aware of passenger list changes, ensuring passengers are seated safely or standing in appropriate places, that students remain seated and behave appropriately, and assisting with emergency procedures after a crash or other incident (Waka Kotahi, 2021d).

6.8.2 Observations of student behaviour

In their study observing student behaviour and seatbelt use on school buses in Israel, Goldman and Peleg (2010) found that on morning bus rides from home to school, students were calmer, while rowdy behaviour and conflicts between students were more common on afternoon rides. This not only affected the overall bus environment, but also bus driver concentration.

The ACC travel-to-school injury analysis (section [3.1.2](#)) and review of Ministry of Education incident reports (section [4.2.1](#)) show that students assaulting other students is a concern. Assault and bullying were also raised by bus operators as a safety issue. The bus driver is the only adult on the school bus. The lack of supervision can lead to bullying and general bad behaviour among the students.

There is evidence that CCTV and seatbelts can help improve student behaviour while on the bus (refer section [6.5.4.2](#) and section [6.6.4](#), respectively, for more detail).

6.8.3 Comparison with Australia (New South Wales and Victoria)

In New South Wales, road safety education is taught in schools from kindergarten to year six. Safety Town (New South Wales Government, 2022a) is a website used for interactive learning and teaching of road safety. There are resources available for teachers and families on this website on a range of road safety topics, including safety around school buses.

In Victoria, 'Safe Bus Travel Education Programs' are delivered in schools by BusVic (BusVic, 2019). There are two programmes, one for primary schools and one for secondary schools. These programmes cover how to behave at the bus stop, on board the bus and leaving the bus.

6.8.4 Previous research and recommendations

Baas et al. (2010) recommended that caregivers should be encouraged to meet their children at the bus stop. It was also noted that NZ Police, the NZ Transport Agency, the Ministry of Education, schools, and community groups had been raising awareness of the need for caregivers to meet their children at the bus stop, including parking on the same side of the road as the bus. Road safety education in schools was also discussed in the 2010 report.

Several coroners have also called for improved education regarding school bus safety since 2008, including public campaigns, education programmes run at schools, and appointing bus monitors. These recommendations were made in an effort to improve safety around stationary school buses dropping off or picking up children. In 2022, Coroner Ho (New Zealand Coroners Court, 2022) considered education campaigns in depth, noting that:

- There appears to be virtually no education campaigns directed at motorists to remind them of their legal requirement to slow to 20 km/h, and that a national campaign to address this should be developed and implemented.
- It would also be beneficial to ensure that children are educated, and frequently reminded, about the importance of the role they themselves play in school bus safety. Such education campaigns should be delivered in school at the beginning of the school year, with refreshers delivered at least every six months. Posters could also be developed reminding children of key school bus safety principles.

6.9 Crash and incident reporting

Many injuries on buses may go unreported, or at least will not be captured in crash data (Elvik et al., 2009). A collision is not required to injure passengers, as demonstrated in the ACC school bus injury analysis described in section 3.1.2 and the incident analysis findings in chapter 4. There were also several gaps observed in how school bus crashes are reported, including the number and severity of injuries, as discovered and described in the crash analysis (section 4.2.5).

A study from the United Kingdom found that three-quarters of people injured while travelling on buses were not involved in an impact, with this proportion rising for seriously injured casualties (Edwards et al., 2019). This study used 'STATS19' data, which captures both crash data and non-collision incidents involving buses or coaches. The researchers also analysed CCTV recordings on London buses, in combination with inspections of current buses. It was found that a significant proportion of passengers are injured in non-collision events, such as harsh braking and emergency braking manoeuvres. Factors that contributed to injuries included poorly positioned handrails, lack of compartmentalisation, and objects with sharp edges and corners.

6.9.1 Incident reporting processes

For Ministry of Education funded services, transport service providers are required to report incidents to the Ministry of Education. The Ministry of Education may also receive incident reports from schools, caregivers, and members of the public. Incidents can include near misses, as well as collisions and injury events. If transport service providers have no incidents to report, they must actively tick a box confirming this when submitting their monthly reports on the electronic reporting system. The transport service provider is expected to carry out their own investigation into the incident and undertake corrective action, including notifying the school if the incident is related to student behaviour.

Transport service providers encourage their drivers to report near misses but acknowledge that not all near misses are reported. One provider mentioned that conveying the importance of reporting near misses to their drivers is difficult and that the paperwork associated with it is onerous for drivers.

Transport service providers must provide monthly reports to the Ministry of Education. However, they do not receive any reporting back from the Ministry – for example, on trends or patterns of incidents observed across providers. The Ministry of Education does not currently undertake any detailed analysis across incident reports – for example, to examine patterns over time. The transport service providers mentioned they would like more information on the types of incidents reported across the sector, and that having access to this information would encourage both them and their drivers to be more diligent in reporting incidents.

The Transport Contract Managers at the Ministry of Education found that incident reporting from transport service providers can be varied and that there is some reluctance to report incidents. For serious incidents, the Ministry of Education is generally more heavily involved in following up on these. This can include notifying schools and parents, carrying out investigations, injury follow-up, coordinating with regulatory

authorities, and identifying corrective improvements. There is a formal process for this, and it may include ongoing monitoring. If the NZ Police are involved, the Ministry of Education may step back and let them lead the investigation.

6.10 Ministry of Education auditing processes

Transport Contract Managers at the Ministry of Education audit transport service providers to ensure they are complying with their contract conditions. This includes auditing compliance with vehicle safety, licensing, driver management, PUDO site selection and incident reporting requirements. There are two parts to the Ministry of Education audit process: administration and vehicle inspections.

The administration audit inspects the transport service provider's record keeping, including reviewing policies related to driver management, reviewing qualifications and competencies of drivers and workshop staff, and checking that managers' policies and procedures are complied with.

Vehicle inspections include auditing a selection of buses in the transport service providers' fleet. For a smaller provider, all the buses may be inspected, but for larger operators, 10 to 12 buses may be looked at as a representative sample. Fleet checks are carried out using a checklist. Items may get added to the checklist with learnings from incidents and experiences of the Transport Contract Manager. The vehicle inspections also include inspecting some of the equipment used (such as torque wrenches for calibration).

If a transport service provider fails part of an audit, there is a timeframe to rectify it and the Transport Contract Manager must ensure that it is rectified. The Transport Contract Managers mentioned that resolutions are generally reached as transport service providers follow their instructions. The managers also work with providers, educating them on how to improve their processes above minimum standards.

The Ministry of Education has recently doubled the number of Transport Contract Managers across New Zealand from four to eight people. This increased capacity means they are now able to visit schools to look at buses in operation during PUDO times. Schools may be advised when these visits will take place, but the transport service provider may not be notified.

Common issues Transport Contract Managers have observed in the audits include a poor understanding of hazard and risk management, poor maintenance of the Hazard and Risk Register and failing to address identified hazards and risks. Vehicle audits are scheduled with the transport service provider ahead of time, and it was suggested that it may be more appropriate for audits to be randomly conducted as opposed to scheduled. In this case providers would not have the opportunity to choose which vehicles remain at the depot for audits.

Transport service providers have generally found the auditing process to work well. However, some providers have found the process to be resource intensive. Some also expressed that they feel as though there is some inconsistency among Transport Contract Managers undertaking audits. One transport service provider felt that some parts of the audit were beyond the scope of what needed to be audited. In these situations, the providers spoke to the Ministry of Education about it and the issues were resolved.

Both the Ministry of Education and transport service providers have a primary duty of care for health and safety as they are both 'persons conducting a business or undertaking' (otherwise known as a PCBU). For Transport Contract Managers, this means that they must ensure that the Ministry of Education is meeting its obligations for the health and safety of bus drivers and passengers as the lead PCBU in the 'contracting chain' with the transport service providers. This includes ensuring that providers make necessary improvements, whilst being careful that they do not take over running a provider's business.

7 Interventions to improve school bus safety

This chapter collates and critically reviews the findings from across all stages of the research project. Potential interventions and further research are then identified to address identified issues and gaps.

7.1 Development of interventions

To assist in identifying and categorising interventions, the project team developed two 'bow tie' diagrams, replicating the approach used in New South Wales (School Bus Safety Community Advisory Committee, 2012). The two bow tie diagrams reflect the most likely risk events involving school buses in New Zealand:

1. A school bus travels into the path of another vehicle or runs off the road.
2. A bus is slowing, stationary or moving off from a PUDO location and either:
 - a. a child moves into the path of an approaching or manoeuvring vehicle, or
 - b. the bus obstructs the path of an oncoming vehicle.

Each diagram identifies the risk pathways leading to and from the event and identifies the interventions (or countermeasures) that eliminate, substitute, isolate or reduce the impact of the risk. These diagrams can be viewed in Appendix E. After developing the bow tie diagrams, the project team were able to identify potential interventions and areas for further research, and group these by focus area.

7.1.1 Assessment and prioritisation of interventions

When considering options for mitigating a safety risk, the first approach should be to eliminate the risk. Where this is not reasonably practicable, the risk should be minimised so far as is reasonably practicable, also known as the 'so far as is reasonably practicable' obligation.²⁰ To determine if something is reasonably practicable, the following factors would be assessed:

- the likelihood of the risk occurring
- the degree of harm that might result from the risk
- what is known (or should be known) about mitigating (eliminating or minimising) the risk
- the availability and suitability of the ways to mitigate the risk
- the cost associated with the ways of mitigating the risk.

The interventions presented in this chapter are high-level actions to improve school bus safety. It was not possible, within the scope of this project, to undertake a detailed assessment for each intervention. This is primarily due to the costs of many actions or interventions being uncertain. A lack of data on the baseline level of exposure or risk, or the effectiveness of some interventions, also prevented a full and complete assessment.

²⁰ This principle is enshrined in the Health and Safety at Work Act 2015 regarding the responsibility of PCBUs in managing health and safety risks. See <https://www.legislation.govt.nz/act/public/2015/0070/latest/DLM5976660.html> for further information.

7.2 Summary of interventions

Potential interventions and actions to improve school bus safety are described below, grouped by focus area.

7.2.1 Focus area 1: School bus route design

Between 2010 to 2021 there were 10 crashes resulting in death or serious injury to bus drivers or passengers. Eight of these crashes occurred on roads with speed limits 80 km/h or higher. Three of these crashes involved a school bus with no passengers onboard. In all vehicle collisions involving school buses, it is usually the occupants of the other vehicle(s) involved who are most seriously injured. Approximately 84% of Ministry of Education Daily Bus routes (by length) travel in rural road environments. These types of routes are inherently at higher risk of a fatal or serious injury crash due to the higher vehicle speeds.

To reduce the likelihood and severity of an injury crash resulting in death or serious injury to bus occupants and other road users, buses should be routed along roads with a high standard of safety available, where there is the option to do so. Characteristics of safer roads are described in section [6.2.2](#). Designing routes that minimise the need for children to cross the road should also be a high priority.

There are three areas where routes could potentially be designed to improve safety for bus occupants and other road users:

1. when routes are initially modelled or reviewed as part of the tendering process
2. when routes are reviewed in response to a safety concern, change in road conditions/layout, or a change in the number and location of eligible students
3. the routes used by bus drivers to reach the start of the school run, and to return from the end of the run.

Route design for Daily Bus services involves careful balancing of efficiency, safety and accessibility. School bus routes funded or contracted by the Ministry of Education are designed to transport as many eligible students as efficiently as possible, although safety is taken into consideration when finalising these routes.

The 'safest' road may result in eligible students having to travel further to the PUDO location on less safe modes such as walking or being driven by a caregiver. Similarly, the 'safer' rural route may have fewer safe PUDO locations – for example, roads with a roadside barrier and fewer pull-over locations. A 'safer' alternative also may be longer, and therefore more costly to run. Transport service providers report there are often no alternative routes available, especially in remote rural areas. For these reasons, it is desirable to model safer routes prior to tendering, rather than adjusting existing routes. It is noted, however, that this approach could increase the total number of routes and/or increase the length of the routes.

There may be an opportunity to optimise technology routes for safety. These routes travel between schools and technology centres, with no PUDOs. These buses are also usually full, meaning a greater number of occupants are exposed to road hazards.

Once routes are set, they should be reviewed if the road operating environment changes, either permanently or temporarily – for example, due to weather-related damage or prolonged roadworks. In considering these changes, Regional Transport Advisors at the Ministry of Education should be equipped with the best knowledge and guidance for determining the safest alternative route options.

Bus drivers travelling to and from the start or end of their route may also have alternative, safer options available to them. As demonstrated in the crash analysis, drivers appear to be at higher risk of being killed or seriously injured during this stage of the school bus journey. The Austroads (2022) *Vehicles as a Workplace*

– *Work Health and Safety Guide* provides further information on different risks posed by different types of roads, including potential controls for managing road-related risks.

Potential interventions for focus area 1 are described in [Table 7.1](#).

Table 7.1 Interventions: School bus route design

Interventions	
1.1	Review existing route design guidelines to ensure they provide consistent, best practice guidance that considers Safe System principles.
1.2	Investigate whether existing routing algorithms (for developing school bus routes) could be improved to manage road-related risks – for example, by minimising travel on high-risk roads and avoiding high-risk manoeuvres, where practicable.
1.3	Remind transport service providers of the safety risks to drivers travelling to/from the start of the bus route and encourage them to review hazards along these routes as part of their risk management processes.

Refer also to the interventions in the following related focus areas:

- focus area 2 regarding efforts to improve the underlying safety of roads that school buses operate on
- focus area 3 regarding PUDO selection and operation.

7.2.2 Focus area 2: Speed and infrastructure (on roads that school buses operate on)

Improving the safety performance of roads and roadsides will reduce DSIs for all road users. This is achieved through infrastructure improvements and setting speed limits that are appropriate for the road environment, as described in section [6.1.1](#).

Road safety infrastructure projects implemented under the Speed and Infrastructure Programme will improve the underlying safety on some school bus routes, particularly those currently running on corridors or travelling through intersections that are identified as having higher risk of DSI crashes. However, some of these projects could have other impacts on the operation of existing bus routes – for example, installing median barriers could prevent buses turning into driveways or pull-over areas.

Proposed speed limit reductions around schools and on rural corridors will also improve school bus safety in several ways:

- Reducing vehicle speeds around schools lowers the likelihood and severity of injuries to children crossing roads to and from schools. This is particularly relevant for urban schools with on-street bus stops – for example, those used by council school bus services.
- Reducing vehicle speeds around rural schools lowers the likelihood and severity of collisions involving school buses turning into and out of school bus stops.
- Reducing speed limits on rural roads from 100 km/h to 60–80 km/h will lower the likelihood and severity of crashes around school buses when they are stationary on the side of the road picking up or dropping off children. This also reduces the amount of deceleration required for drivers to achieve 20 km/h when passing stationary school buses.

Any requirement to develop local or regional speed management plans will require road controlling authorities to consider, among other things, road use activity and local knowledge of the road network. Likewise, when designing and implementing road safety projects, it is essential that designers are aware of

PUDO locations and turning requirements of school buses, so these activities can be safely accommodated within infrastructure designs.

To support the speed management process, road controlling authorities need to be aware of where school buses are running, and the location of PUDO areas, therefore the primary intervention in this focus area is that this information is shared with these authorities.

A potential intervention for focus area 2 is described in [Table 7.2](#).

Table 7.2 Intervention: Speed and infrastructure (on roads that school buses operate on)

Intervention	
2.1	Provide road controlling authorities with the location of all school bus routes and PUDO sites for consideration when planning and designing safety infrastructure projects, and to assist with developing local or regional speed management plans.

Refer also to the interventions in the following related focus areas:

- focus area 1 regarding designing school bus routes for safety
- focus area 10 regarding data collection and information sharing.

7.2.3 Focus area 3: Selection, design, visibility and operation of PUDO sites

Twenty-six children died or were seriously injured crossing the road to or from a school bus between 2010 and 2021. Concerns regarding safety of children crossing the road at PUDO sites have been raised by several coroners since 2008, and interventions to improve safety in this area were considered in some depth in research report 408 (Baas et al., 2010). Feedback from stakeholders (section [6.3.2](#)) also highlighted several issues regarding the existing PUDO site selection guidance and the difficulty in balancing accessibility and safety when selecting appropriate PUDO locations.

Ideally, PUDO areas should be sited, and routes designed, so that children do not need to cross the road – particularly where this involves crossing a high-speed road or a road with high traffic volumes, including large volumes of heavy vehicles. However, as there is no central record of PUDO locations and their location relative to where children live, the extent of the current risk to children is unknown.

The Waka Kotahi (2018) *Guidelines for the Safe Siting of School Bus Stops* could be improved to provide more detail on site selection and to align with Safe System principles. Updated draft guidance was developed as part of research report 408 (Baas et al., 2010), which included more comprehensive information on the principles and technical and safety considerations involved in the location and design of school bus stops and turning points. However, this guidance did not progress to being finalised and adopted as a formal guide or code of practice.

The number of PUDO sites audited annually by the Ministry of Education is relatively small and could result in many higher risk PUDO locations being overlooked. It is unclear if critical safety findings from these audits are shared with other agencies – for example, road controlling authorities and NZ Police.

Because of these issues, it is recommended that updated guidance for identifying and assessing the risk of PUDO sites is developed and adopted. Both Baas et al. (2010) and the New South Wales Centre for Road Safety's (2016) guidance identify a range of interventions that could be incorporated into this updated guidance, including:

- a method or matrix for risk assessment of PUDO sites based on their use and the road context

- additional guidance on calculating sight distance/stopping distance where there are curves, crests, vegetation, gradients, sealed or unsealed roads, and high volumes of heavy vehicles
- guidance on distance the waiting area is from the traffic lane
- guidance on the location of the PUDO sites relative to intersections
- marking/signposting guidance for PUDO areas
- consideration of broader safety and accessibility impacts of PUDO locations.

A national assessment of PUDO locations could then be undertaken to identify higher-risk sites. This would enable the prioritisation of higher-risk PUDO sites for auditing and could also help road controlling authorities prioritise funding for infrastructure improvements on sites where the current level of infrastructure is inadequate – for example, high-risk sites lacking adequate separation from live traffic lanes.

PUDO locations could be documented and shared between transport service providers, the Ministry of Education, and road controlling authorities. This would allow road controlling authorities to maintain PUDO sites appropriately by upgrading infrastructure as required. It would also allow road controlling authorities to take PUDO locations into consideration when undertaking road maintenance and approving temporary traffic management plans. Noting that the effort in collating this information is potentially onerous for the agencies involved, consideration should be given to at least prioritising the mapping of PUDO sites that are highly used and unlikely to change in the future.

Signposting PUDO locations that are mostly permanent may improve other motorists' awareness of school buses or children in the area during school PUDO times. At high-risk sites, signs could be electronic and/or have flashing lights around the time the school bus runs to draw attention to it. Documenting and sharing PUDO locations will also help record which sites change over time, and which ones may need additional infrastructure to support their more permanent nature.

Potential interventions for focus area 3 are described in [Table 7.3](#).

Table 7.3 Interventions: Selection, design, visibility and operation of PUDO locations

Interventions	
3.1	Update guidance for PUDO siting to align with Safe System principles, including improved selection and design guidance, and risk assessment methods, and considering broader safety/accessibility impacts.
3.2	Develop and formalise framework to categorise and classify PUDO sites by risk. Consider undertaking a national assessment of PUDO locations to prioritise high-risk sites for auditing and infrastructure improvements.
3.3	Investigate markings, signage, and infrastructure improvements at PUDO areas that are effectively permanent.

Refer also to the interventions in the following related focus areas:

- focus area 4 regarding conspicuity of stationary school buses (at PUDO locations)
- focus area 10 regarding the collection and sharing of data on PUDO locations and monitoring school bus safety metrics.

7.2.4 Focus area 4: Conspicuity of school buses, visibility of school bus routes, and speeds around stationary buses

Between 2010 and 2021, 26 children were killed or seriously injured crossing the road to or from a school bus, and three vehicle occupants were killed or seriously injured in collisions around stationary buses dropping off or picking up children. Over two-thirds of crashes where a child was injured crossing the road to or from a bus involved a vehicle that was suspected to be travelling over 20 km/h at the time of collision.

Most DSIs (57%) for this type of crash occurred on roads with speed limits 80 km/h or higher, although there were a higher number of injury crashes on urban roads (< 80 km/h), including 43% of DSIs.

To reduce the likelihood and severity of these types of collisions in the future, school buses running daily school bus routes should be identifiable to other road users. Drivers need to respond appropriately and drive safely around them, including by reducing vehicle speeds to safe and survivable speeds.

There is a wide range in the types of buses and vans used for school bus transport. The minimum standard of school bus signage is insufficient to alert motorists to the risks around the bus, particularly the presence of children on the roadside. Many transport service providers have sought to improve the visibility of buses by using hazard lights or by installing a mix of flashing lights, additional signage, and warning stickers. These clearly show a desire to improve the visibility of their buses; however, it has arguably resulted in an inconsistent approach to school bus signage across the country. Therefore, implementing an improved and consistent approach to school bus visibility and signage should be considered.

The current regulations are not achieving safe speeds around stationary school buses. There is poor awareness among motorists of the 20 km/h speed limit, and it is difficult to enforce. Therefore, the 20 km/h speed limit could be reviewed to expand its application to include while a bus is approaching and leaving a PUDO area. This review should also evaluate the 20 km/h speed limit against Safe System principles, considering:

- current levels of compliance and ease of enforcement
- the additional risks generated when vehicles must decelerate heavily to reach 20 km/h, particularly in rural environments
- consistency of messaging to motorists, considering the current speed management guidance and the introduction of 30 km/h speed limits around most schools.

In the USA, drivers are required to come to a complete stop when a school bus is stationary on the side of the road. However, as discussed at length by Coroner Ho in New Zealand Coroners Court (2022), this is unlikely to be practical given New Zealand's typical winding topography and the risk of stopped traffic creating hidden queues where there is insufficient sight distance.

New approaches to enforcing speed limits could also be considered – for example, by rotating mobile speed cameras around higher-risk PUDO locations.

To address the visibility of bus routes more generally, a national risk assessment of rural school bus routes funded by the Ministry of Education could be undertaken to identify higher-risk, regularly used school bus routes where improved signage should be targeted. The outputs should be provided to road controlling authorities with guidance on how to prioritise and implement signage improvements. Innovative approaches for alerting drivers when school buses are operating should be explored – for example, the use of low-cost roadside flashing beacons or sharing bus route information with in-car navigation system providers.

Potential interventions for focus area 4 are described in [Table 7.4](#).

Table 7.4 Interventions: Conspicuity of school buses, school bus routes and reducing speeds around stationary buses

Interventions	
4.1	<p>Improve signage for school buses so that it communicates both the speed limit passing the bus and when the speed limit applies. Desirably, this would be the flashing LED signage tested and evaluated in research report 408 (Baas et al., 2010).</p> <p>The implementation of this signage should ideally align with a review of the 20 km/h speed limit passing the school bus (see intervention 4.2 below), and a national awareness and enforcement campaign that coincides with the new signs being introduced (see intervention 8.2).</p>
4.2	Review the 20 km/h speed limit while passing a stationary school bus to consider expanding it to include the period when a bus is moving in/out of PUDO locations, and whether a 30 km/h speed limit is more appropriate.
4.3	Undertake a national risk assessment of school bus routes funded by the Ministry of Education, to prioritise bus route signage improvements. This should align with action 3.2 regarding PUDO site classification and risk assessment.
4.4	Amend the RUB to require that urban buses operating as school buses must not have advertising on the front or rear of the bus that affects the visibility of school bus signage.
4.5	Investigate options for enforcing the 20 km/h (or 30 km/h) speed limit passing stationary school buses – for example, using mobile speed cameras at PUDO locations.
4.6	Support and fund innovative projects to develop and pilot effective, low-cost solutions for improving the visibility of school buses and school bus routes.

Refer also to the interventions in the following related focus areas:

- focus area 3 regarding PUDO site classification and risk assessment
- focus area 8 on education campaigns regarding the 20 km/h speed limit rule
- focus area 10 regarding data sharing.

7.2.5 Focus area 5: School bus vehicle safety technologies

The New Zealand school bus fleet is diverse. School buses currently range from 26-year-old imported buses with minimal safety features to modern coaches designed to Australian standards with a range of vehicle technologies.

Vehicle safety technologies, including technologies and standards for buses, were extensively reviewed in section 6.5. The most promising safety technology for New Zealand buses is lane departure warning/lane keep assist, followed by advanced driver distraction warning systems (Figure 6.10) and Vulnerable Road User (VRU) detection systems (including CCTV). CCTV systems, like those used in urban buses, can also reduce blind spots for drivers outside the bus while encouraging safe behaviours with cameras inside the bus. This can also be used to monitor seatbelt use (where seatbelts are installed).

Many vehicle safety technologies, such as lane keep assist, are installed at the time of manufacture and cannot be retrofitted. Given school buses in the Ministry of Education funded fleet are aged up to 26 years old, the extent to which the school bus fleet can be modernised is challenging.

Options to mandate or incentivise the uptake of new technologies should be explored. Some technologies could also be mandated through the school bus tendering process – for example, CCTV systems, which are currently required for urban buses under the RUB. If this is not feasible, the opportunities to incentivise the uptake of vehicle technologies should be explored – for example, by adding fleet safety criteria in the quality (non-price) weighting criteria when tendering for school bus services.

Telematics systems are required on school buses; however, these systems are only effective if the driver is aware they are being monitored, and appropriate feedback and training is given in response to undesirable behaviours. There were some concerns raised by transport service providers about the adequacy and accuracy of some systems. The existing approved telematics systems should be reviewed to ensure they include interfaces that effectively provide feedback on driving behaviours to both drivers and transport service providers.

Currently there is no record of the safety standards and safety systems installed across the school bus fleet. If better records were kept, then the value of these systems could be evaluated in terms of their safety performance. This in turn would help ascertain which types of school bus are the safest for operating in New Zealand conditions.

Potential interventions for focus area 5 are described in [Table 7.5](#).

Table 7.5 Interventions: School bus vehicle safety technologies

Interventions	
5.1	Undertake an audit of vehicle standards and vehicle technologies across the school bus fleet and require this information to be supplied by transport service providers in future school bus service tenders.
5.2	Investigate options to mandate or incentivise the uptake of vehicle technologies in the school bus fleet, focusing on VRU detection systems (including CCTV), lane departure warning/lane keep assist, and advanced driver distraction warning systems.
5.3	Review the list of telematics providers to ensure approved providers are effective in providing feedback on driving behaviours to drivers and transport service providers.

Refer also to the interventions in the following related focus areas:

- focus area 7 regarding safer bus drivers, including the use of technology to detect poor driving behaviour
- focus area 10 regarding collecting and analysing data on school bus fleets, including safety standards and safety technologies.

7.2.6 Focus area 6: Bus occupant protection

The large mass of a bus means that in a collision with a smaller vehicle, such as a passenger car, occupants in the bus are not subjected to the same degree of deceleration compared to occupants in the other vehicle. However, the mass advantage of a bus can be significantly reduced if the bus collides with another heavy vehicle or a solid object, or if the collision causes the bus to roll over.

Occupants are at higher risk of injury in the crash when the bus is travelling at higher speed. Most crashes that resulted in a school bus occupant being injured occurred on rural roads with a speed limit of 80 km/h or higher. This included 8 out of 10 crashes where a bus occupant was killed or seriously injured between 2010 and 2021.

Compartmentalisation and seatbelts reduce the likelihood and severity of injuries to bus occupants in a collision or harsh braking event. However, seatbelts are not required on heavy buses in New Zealand and there is no requirement for buses to meet a minimum standard for compartmentalisation, such as ADR 66/00

– *Seat strength, seat anchorage strength and padding in omnibuses.*²¹ In the USA, all large school buses must also meet an equivalent federal standard for compartmentalisation.

Many school buses in New Zealand have low seat backs and/or hard plastic seat backs, and most lack seatbelts. Hard plastic seat backs and grab handles are common on urban buses where plastic is used for durability; however, this material offers little protection to passengers in high-speed collisions. It is common practice for transport service providers to shift urban buses with these plastic-backed seats into their school bus fleet once they reach the maximum allowable age of 20 years under the RUB. Additionally, some transport service providers are ordering new truck buses with these types of seats installed specifically for their school bus fleet.

As discussed in section [6.6.3](#), compartmentalisation provides limited occupant protection in rollover and side-impact crashes. The benefits of compartmentalisation are only fully realised when all passengers are seated upright in their individual seats, facing forward, with their backs contacting the seat. This is difficult to achieve considering how children behave on school buses and considering the PSV Rule, which currently allows three primary or intermediate school children to sit in the same space as two adults or secondary school-aged children.

The proportion of the school bus fleet with seatbelts installed is unknown. Based on discussions with transport service providers, only a limited number of school buses are fitted with them. These are generally lap-sash (three-point) seatbelts on padded, high-backed seats. Some transport service providers have decided to phase seatbelts into their new school buses, whilst other providers continue to purchase new buses without them. Internationally, seatbelts are increasingly becoming the preferred occupant protection in many jurisdictions, such as Scotland and in New South Wales, Australia.

There is a high risk of serious injury to children who are required to stand on buses. Current Ministry of Education contracts endeavour to reduce standing on school buses by requiring transport service providers to confirm that seats would be provided for each eligible student. However, providers can carry standing passengers if the actual number of eligible students is greater than the number initially indicated by the Ministry of Education and provided the Certificate of Loading for the school bus vehicle allows standing passengers.

To reduce risk of death or serious injury to school bus occupants, the occupant protection features of the school bus fleet should progressively be improved to:

- meet compartmentalisation standards, including minimum height and padding requirements for seatbacks as is set out in ADR 66/00 – *Seat strength, seat anchorage strength and padding in omnibuses*
- ensure lap-sash seatbelts are provided for all passengers, compliant with ADR 68/00 – *Occupant protection in buses*
- prohibit standing passengers.

Additionally, school bus interiors should be regularly inspected to ensure that potential hazards inside the passenger area are identified and removed.

Potential interventions for focus area 6 are described in [Table 7.6](#).

²¹ See <https://www.legislation.gov.au/Details/F2006L02312> for further information.

Table 7.6 Interventions: Bus occupant protection

Interventions	
6.1	Progressively prioritise and adopt: <ul style="list-style-type: none"> • ADR 68/00 for occupant protection (three-point seatbelts for all occupants) on all heavy buses used as school buses • ADR 66/00 for seat strength, seat anchorage strength and padding on all heavy buses used as school buses.
6.2	Clarify, and educate transport service providers on, the responsibilities of bus drivers in ensuring seatbelts are worn where provided.

Refer also to the interventions in the following related focus area:

- focus area 5 regarding safer bus drivers, including the use of technology to detect poor driving behaviour.

7.2.7 Focus area 7: Bus driver management

Between 2010 and 2021, sudden illness or medical illness were factors in six (out of 70) crashes where a school bus driver and/or passenger was injured. Fatigue due to lack of sleep was a factor in a further two crashes. These crashes occurred at the end of the school run when the bus was empty, and resulted in one driver being killed and the other seriously injured. There were no reports of bus drivers involved in these crashes being impaired by alcohol or other drugs.

The Ministry of Education has comprehensive fleet safety management requirements for school bus operators to manage the safety of school bus drivers and their passengers. This includes health and safety requirements that exceed the minimum legal standard required for bus drivers, including annual medical fitness to drive, logbook requirements and drug and alcohol management plans. Telematics systems also monitor driver performance, with an onus on transport service providers to manage drivers if poor driving is detected.

Advanced driver distraction warning systems can help detect and manage impairment, distraction, illness, and poor driving behaviours. These systems can work in real time to detect and alert the driver to changes in driving behaviour. As discussed under focus area 5 (section [7.2.5](#) above), options to roll out these systems across the school bus fleet should be explored.

Finally, the Ministry of Education requirements set a high standard for driver management, and the legislation could be updated to reinforce these standards in law, including a zero-alcohol limit for commercial bus drivers and removing the logbook exemption for school bus drivers.

A potential intervention for focus area 7 is described in [Table 7.7](#).

Table 7.7 Intervention: Bus driver management

Intervention	
7.1	Consider amending the Land Transport Act 1998 to align with current practice. <ul style="list-style-type: none"> • Introduce a zero-alcohol limit for school bus drivers. • Require school bus drivers to complete logbooks.

Refer also to the interventions in the following related focus area:

- focus area 5 regarding CCTV, telematics and advanced driver distraction warning systems.

7.2.8 Focus area 8: Education and behaviour management

Currently, no single organisation is responsible for educating children and caregivers on how to use school buses safely. Road safety education is not part of the New Zealand curriculum. Both the Ministry of Education and NZTA provide education material on school bus safety, but the delivery of this material to children is the responsibility of transport service providers, schools and parents. Local councils and NZ Police may also teach children about school bus safety as part of broader road safety training programmes. The amount and frequency of education that is delivered depends on how proactive schools, transport service providers, local councils and community constables are in delivering this information. Several Coroners have called for improvements to the delivery of school bus safety education since 2008.

Education on school bus safety should be mandatory for school bus users, delivered frequently, and provided in a range of formats. This education should focus on the main areas of risk to students, including crossing the road to and from the bus (and avoiding this where necessary) and staying seated with seatbelts on (where provided) while on the bus.

Education alone will not prevent some students from misbehaving – for example, being reckless, distracting the driver or assaulting other children. There is evidence in the literature, and from anecdotal experience, that CCTV and seatbelts are effective measures for improving student behaviour on school buses. Other measures include a mandatory code of conduct and bus wardens.

Education on safety around school buses can be extended to other motorists as there is currently poor awareness of the 20 km/h speed limit around stationary school buses. Baas et al. (2010) recommended that driver education campaigns should be continued, and Coroner Ho also recommended a national campaign be developed and implemented, noting that low-cost options for developing this should be explored if funding is a barrier (New Zealand Coroners Court, 2022). Such a campaign could be developed and run to support legislative changes to speeds around schools, and in support of enforcement activities.

Potential interventions for focus area 8 are described in [Table 7.8](#).

Table 7.8 Interventions: Education and behaviour management

Interventions	
8.1	Develop a nationally consistent safety education programme for school bus users that is delivered regularly throughout the year, using a range of delivery channels in a range of formats. This could include a requirement that a specified quantity and frequency of targeted education is provided to school bus users each year.
8.2	Develop and deliver an education campaign targeting motorists to raise awareness of the 20 km/h speed limit passing a stationary school bus. This should be timed to support other initiatives, including enforcement activity or the introduction of new school bus signage.

Refer also to the interventions in the following related focus areas:

- focus area 4 regarding the 20 km/h speed limit
- focus area 5 regarding CCTV
- focus area 6 regarding seatbelts.

7.2.9 Focus area 9: Eligibility for school bus transport from a safety perspective

Students in Years 1–8 who live at least 3.2 km away from their nearest state or state-integrated school are eligible for transport assistance. This distance increases to 4.8 km for students in Years 9–13. The eligibility criteria also require there must not be any suitable public transport within 2.4 km of the roadside gate to their home or 2.4 km to the closest school. Therefore, students may travel up to 2.4 km to get to their nearest

PUDO location or travel up to 4.8 km to get to school before transport assistance (in the form of financial assistance) is provided by the Ministry of Education. This travel may be on a range of roads, from urban roads with good pedestrian infrastructure to winding rural roads with no pedestrian facilities and high traffic volumes.

Parents and caregivers are responsible for ensuring children travel safely to school; however, some stakeholders raised concern about the safety of children who must travel long distances along unsafe roads, especially where parents are unable or unavailable to drive them. This means some children must either walk along unsafe roads, in any weather, to get to school, or alternatively these children stay home and avoid school entirely.

Of all modes of travel to school, school buses are the safest option available. Therefore, if school bus eligibility is viewed through a safety lens, children who would otherwise be required to travel on high-risk roads should be incentivised to use school buses. This would require reducing the eligibility distance and could increase the number of school bus services.

Potential interventions for focus area 9 are described in [Table 7.9](#).

Table 7.9 Interventions: Eligibility for school bus transport

Interventions	
9.1	Undertake further research to determine the degree to which children, who are currently ineligible for travel assistance, otherwise walk or cycle along high-risk roads to get to school.
9.2	Review eligibility for school transport through a safety perspective, with an aim of updating the eligibility criteria to reduce the distance children must travel on high-risk roads to get to school or to school bus PUDO locations.

Refer also to the interventions in the following related focus areas:

- focus area 1 regarding optimising school bus routes for safety
- focus area 3 regarding PUDO site selection and operation.

7.2.10 Focus area 10: Data collection, reporting and sharing

Information relevant to school bus safety is often lacking or difficult to source. For example, there is no single repository of school bus routes or PUDO locations. It is not known how many children cross the road to or from school buses, despite this being the riskiest stage of the school bus journey. The degree to which vehicle safety technologies and occupant protection systems are currently implemented across the school bus fleet is unknown.

The lack of information and data makes it difficult, if not impossible, to objectively assess school bus safety risks. Because this assessment of risk is lacking, it will be difficult to then evaluate potential interventions and prioritise these interventions against the relative risk of each part of the school bus system.

One step in correcting this could be to collate existing information from the Ministry of Education, transport service providers, and councils that operate school bus services. A suite of road safety metrics could then be developed to establish a baseline understanding of school bus operations. Suggested metrics include how many children are currently crossing the road to/from PUDO areas, how often children are required to stand on buses, and how many buses have seatbelts installed. The collection and reporting of data to enable these metrics could potentially be linked to contractual and auditing requirements.

Since the mid-2010s, New Zealand has moved towards more centralised and proactive road safety assessment and mapping. For example, the MegaMaps map viewer displays risk metrics and safe and

appropriate speeds for all roads in New Zealand (Waka Kotahi, 2022b). This is available to all road controlling authorities to assist them with proactively prioritising speed and infrastructure improvements. This technology could potentially be leveraged to also map, assess and share school bus routes and PUDO locations. This would, for example, enable NZTA, road controlling authorities and NZ Police to see where school bus routes and stops are located, and for the Ministry of Education to better understand the underlying safety of the roads school buses are running on.

Several limitations were also identified in how crashes involving school bus travel are recorded in CAS, including instances where school buses were not coded as ‘school buses’, and instances where the number of passengers (and sometimes injuries to passengers) is not recorded. Additionally, several injury crashes were reported to the Ministry of Education by transport service providers, but not also recorded in CAS. Opportunities to improve reporting school bus crashes and non-collision events should be explored.

Potential interventions for focus area 10 are described in [Table 7.10](#).

Table 7.10 Interventions: Data collection, reporting and sharing

Interventions	
10.1	Collate and map school bus routes and PUDO sites and share these data with key organisations involved in road safety, including NZ Police, road controlling authorities and NZTA.
10.2	Develop and monitor a suite of school bus safety metrics. The selection of metrics should align with key gaps in the evidence base for school bus safety; for example: <ul style="list-style-type: none"> • number of school bus related injuries reported to the Ministry of Education, by severity • number and proportion of school buses with seatbelts, and the features necessary for compartmentalisation • percentage of the school bus fleet with specific vehicle safety technologies installed • number of instances where a child (or children) was required to stand on a school bus, by speed environment.
10.3	Ensure transport service providers report all collisions to NZ Police, especially collisions that resulted in injuries. This could be implemented, for example, by requiring that a Police reference number is attached to every relevant transport service provider incident report submitted to the Ministry of Education.
10.4	Investigate improvements to CAS and crash reporting to improve the capture of school bus crashes and the injuries that result from these crashes.

Refer also to the interventions in the following related focus areas:

- focus area 3 regarding mapping and assessment of PUDO locations
- focus area 5 regarding an audit of vehicle standards and vehicle technologies.

7.3 Responsibilities for interventions

There are currently multiple groups and organisations that influence school bus safety in New Zealand. Contracting and funding models for school bus services include:

- Ministry of Education contracted services, which cover most school bus services in New Zealand (Daily Bus and Technology Bus)
- schools (or school networks) designing their own transport routes and tendering school bus services through the Direct Resourcing or Māori Medium Schools model, funded by the Ministry of Education
- councils delivering school bus services as part of urban public transport networks
- schools directly chartering school buses for student transport to/from school or out-of-school activities.

In addition:

- The Ministry of Transport Te Manatū Waka is responsible for the regulations for minimum safety standards for vehicles and road user activity.
- NZTA is responsible for vehicle and driver licensing, road safety infrastructure investment, and providing guidance on road design and use, including guidance on bus stops. NZTA also currently provides educational resources for school bus users.
- NZ Police is responsible for encouraging safe road use and ensuring compliance with safety regulations, particularly in commercial vehicle and driver safety. Police officers may also be involved in delivering road safety education.
- School buses travel on roads and infrastructure provided and managed by road controlling authorities.
- Transport service providers are responsible for operating school bus services, including complying with vehicle and driver safety regulations and contractual requirements, as well as being responsible for the health and safety of their employees.
- Schools are responsible for communicating with caregivers and students and addressing student behaviour issues.
- Additionally, school children, parents, caregivers, and other road users all play a role ensuring the safety of themselves and others when travelling on or around school buses.

Because there is no single organisation with oversight of all areas of school bus operation, gaps can form where responsibilities are unclear – for example, which organisation(s) are responsible for educating school bus students about bus safety. There are limited opportunities for collaboration across the sector – for example, sharing information on school bus safety trends, innovations and insights between the Ministry of Education and transport service providers, or between the Ministry of Education and councils that are operating school bus services. Finally, because school buses are the safest mode of transport to school, there is little motivation among the organisations involved to prioritise interventions that specifically improve school bus safety.

The Ministry of Education's primary responsibility is to deliver a quality education system, which includes providing transport assistance where distance and/or accessibility may be a barrier for students attending school. While safety is a consideration in the procurement of Ministry of Education school bus services, there is pressure to also deliver these services as efficiently as possible. . Additionally, the Ministry of Education does not have dedicated road safety expertise within their school bus transport advisory or contracting teams, although advice is sought from the NZ Police Commercial Vehicle Safety Team when required.

Potentially, a single government organisation could have overall responsibility for all components of school bus safety, across all pillars of the Safe System. If this is not possible, then reflection must be had on how the school bus system currently operates, the stakeholders involved, and how responsibilities can be better defined to ensure the delivery of school bus services that prioritise safety.

7.4 Recommendation

Considering the findings presented in this chapter, it is recommended that a government or industry-wide school bus safety working group be established to review the findings of this report, consider how the interventions identified in this chapter will be progressed, and assign responsibility for the investigation and delivery of them. This group should include key government agencies (NZTA, Te Manatū Waka, Ministry of Education and NZ Police) and other relevant industry stakeholders, including school bus operators and relevant community/stakeholder organisations.

There is precedent for the working group approach in New Zealand. The Bus Safety Technical Advisory Committee, a government and industry initiative led by the Ministry of Education, initiated the first report into school bus safety in 2010 (Baas et al., 2010). Similar sector-wide approaches include the working group that developed the Alpine Code of Practice (Bus & Coach Association New Zealand, 2020) and the independent Cycling Safety Panel, which developed the Cycling Safety Action Plan (Cycle Safety Panel, 2014). In New South Wales, Australia, a School Bus Safety Community Advisory Committee (Transport for New South Wales, 2022b) is responsible for the safe transportation of children in rural and regional New South Wales. This committee has an independent chair and representatives from relevant government, industry and community organisations.

8 Conclusion

The purpose of this research was to review the current state of school bus safety in New Zealand and to identify a suite of interventions that will enhance the safety of students and bus drivers in and around school buses. The research objectives were to:

- understand current best practice both nationally and internationally, including interventions that have been tried
- undertake an assessment of the operating conditions for school buses and the vehicle fleet used for delivering school bus services (where data are available)
- review current legislation, guidance, policy and practices that impact on the safety of school bus travel
- make recommendations on measures to improve the safety of those travelling on school buses.

This research project addressed these objectives by:

1. reviewing New Zealand, Australian and international literature on school bus safety, including best practice guidance, evaluations and trials of safety interventions, and vehicle safety standards
2. engaging with stakeholders from relevant New Zealand ministries and other organisations to understand current practices in school bus safety
3. analysing a range of available data to:
 - a. quantify the type and split of school bus services across New Zealand
 - b. quantify the type and split of crashes and injury events involving school buses
 - c. assess the relative risk of school bus routes in different road environments.

The research updates prior research on school bus safety (Baas et al., 2010) by addressing gaps in current knowledge, and by considering broader safety interventions being implemented under *Road to Zero – New Zealand’s Road Safety Strategy 2020–2030* (Te Manatū Waka, 2019). This report collates existing knowledge and provides a baseline understanding of school bus safety to support the prioritisation of interventions that will improve school bus safety in the future.

Findings across each stage of the research were collated in chapter 7, where potential interventions to improve school bus safety were identified. These are summarised in [Table 8.1](#) below.

The primary recommendation of this project is that a government or industry-wide school bus safety working group be established to review the findings of this report, to consider how the interventions identified in this chapter will be progressed and assign responsibility for the investigation and delivery of them. This group should include key government agencies (NZTA, The Ministry of Transport Te Manatū Waka, Ministry of Education and NZ Police) and other relevant industry stakeholders, including school bus operators and relevant community/stakeholder organisations.

Table 8.1 Summary of potential interventions

Focus area		Intervention/action	
1	School bus route design	1.1	Review existing route design guidelines to ensure they provide consistent, best practice guidance that considers Safe System principles.
		1.2	Investigate whether existing routing algorithms (for developing school bus routes) could be improved to manage road-related risks – for example, by minimising travel on high-risk roads and avoiding high-risk manoeuvres, where practicable.
		1.3	Remind transport service providers of the safety risks to drivers travelling to/from the start of the bus route and encourage them to review hazards along these routes as part of their risk management processes.
2	Speed and infrastructure (on roads that school buses operate on)	2.1	Provide road controlling authorities with the location of all school bus routes and PUDO sites for consideration when planning and designing safety infrastructure projects, and to assist with developing local or regional speed management plans.
3	Selection, design, visibility and operation of PUDO sites	3.1	Update guidance for PUDO siting to align with Safe System principles, including improved selection and design guidance, and risk assessment methods, and considering broader safety/accessibility impacts.
		3.2	Develop and formalise framework to categorise and classify PUDO sites by risk. Consider undertaking a national assessment of PUDO locations to prioritise high-risk sites for auditing and infrastructure improvements.
		3.3	Investigate markings, signage, and infrastructure improvements at PUDO areas that are effectively permanent.
4	Conspicuity of school buses, visibility of school bus routes, and speeds around stationary buses	4.1	Improve signage for school buses so that it communicates both the speed limit passing the bus and when the speed limit applies. Desirably, this would be the flashing LED signage tested and evaluated in research report 408 (Baas et al., 2010). The implementation of this signage should ideally align with a review of the 20 km/h speed limit passing the school bus (see intervention 4.2 below), and a national awareness and enforcement campaign that coincides with the new signs being introduced (see intervention 8.2).
		4.2	Review the 20 km/h speed limit while passing a stationary school bus to consider expanding it to include the period when a bus is moving in/out of PUDO locations, and whether a 30 km/h speed limit is more appropriate.
		4.3	Undertake a national risk assessment of school bus routes funded by the Ministry of Education, to prioritise bus route signage improvements. This should align with action 3.2 regarding PUDO site classification and risk assessment.
		4.4	Amend the RUB to require that urban buses operating as school buses must not have advertising on the front or rear of the bus that affects the visibility of school bus signage.
		4.5	Investigate options for enforcing the 20 km/h (or 30 km/h) speed limit passing stationary school buses – for example, using mobile speed cameras at PUDO locations.
		4.6	Support and fund innovative projects to develop and pilot effective, low-cost solutions for improving the visibility of school buses and school bus routes.
5	School bus vehicle safety technologies	5.1	Undertake an audit of vehicle standards and vehicle technologies across the school bus fleet and require this information to be supplied by transport service providers in future school bus service tenders.

Focus area		Intervention/action	
		5.2	Investigate options to mandate or incentivise the uptake of vehicle technologies in the school bus fleet, focusing on VRU detection systems, (including CCTV), lane departure warning/lane keep assist, and advanced driver distraction warning systems.
		5.3	Review the list of telematics providers to ensure approved providers are effective in providing feedback on driving behaviours to drivers and transport service providers.
6	Bus occupant protection	6.1	Progressively prioritise and adopt: <ul style="list-style-type: none"> • ADR 68/00 for occupant protection (three-point seatbelts for all occupants) on all heavy buses used as school buses • ADR 66/00 for seat strength, seat anchorage strength and padding on all heavy buses used as school buses.
		6.2	Clarify, and educate transport service providers on, the responsibilities of bus drivers in ensuring seatbelts are worn where provided.
7	Bus driver management	7.1	Consider amending the Land Transport Act 1998 to align with current practice. <ul style="list-style-type: none"> • Introduce a zero-alcohol limit for school bus drivers. • Require school bus drivers to complete logbooks.
8	Education and behaviour management	8.1	Develop a nationally consistent safety education programme for school bus users that is delivered regularly throughout the year, using a range of delivery channels in a range of formats. This could include a requirement that a specified quantity and frequency of targeted education is provided to school bus users each year.
		8.2	Develop and deliver an education campaign targeting motorists to raise awareness of the 20 km/h speed limit passing a stationary school bus. This should be timed to support other initiatives, including enforcement activity or the introduction of new school bus signage.
9	Eligibility for school bus transport from a safety perspective	9.1	Undertake further research to determine the degree to which children, who are currently ineligible for travel assistance, otherwise walk or cycle along high-risk roads to get to school.
		9.2	Review eligibility for school transport through a safety perspective, with an aim of updating the eligibility criteria to reduce the distance children must travel on high-risk roads to get to school or to school bus PUDO locations.
10	Data collection, reporting and sharing	10.1	Collate and map school bus routes and PUDO sites and share these data with key organisations involved in road safety, including NZ Police, road controlling authorities and NZTA.
		10.2	Develop and monitor a suite of school bus safety metrics. The selection of metrics should align with key gaps in the evidence base for school bus safety; for example: <ul style="list-style-type: none"> • number of school bus related injuries reported to the Ministry of Education, by severity • number and proportion of school buses with seatbelts, and the features necessary for compartmentalisation • percentage of the school bus fleet with specific vehicle safety technologies installed • number of instances where a child (or children) was required to stand on a school bus, by speed environment.
		10.3	Ensure transport service providers report all collisions to NZ Police, especially collisions that resulted in injuries. This could be implemented, for example, by requiring that a Police reference number is attached to every relevant transport service provider incident report submitted to the Ministry of Education.
		10.4	Investigate improvements to CAS and crash reporting to improve the capture of school bus crashes and the injuries that result from these crashes.

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Appendix A: Data sources for school bus service statistics

Data sources for [Table 2.3: Ministry of Education daily school bus travel statistics](#)

Service type	Data/statistic	Source(s)
Ministry of Education Daily Bus	<ul style="list-style-type: none"> Route count Eligible students Route length (km) 	Ministry of Education Daily Bus school bus routes online GIS layer. ^a The layer is dated 'November 2021' and was extracted in May 2022.
Ministry of Education Direct Resourcing	<ul style="list-style-type: none"> Route count 	Ministry of Education, 18 July 2022 (pers. comm.).
	<ul style="list-style-type: none"> Eligible students Average route length (km) 	Estimated based on rates generated from the Daily Bus statistics: <ul style="list-style-type: none"> 35.3 passengers per service average bus route length (one way) of 26.5 km.
Ministry of Education Māori Medium Schools	<ul style="list-style-type: none"> Eligible students 	Ministry of Education, 18 July 2022 (pers. comm.).
	<ul style="list-style-type: none"> Route count Average route length (km) 	Estimated based on rates generated from the Daily Bus statistics: <ul style="list-style-type: none"> 35.3 passengers per service average bus route length (one way) of 26.5 km.

^a https://www.arcgis.com/home/webmap/viewer.html?url=https://services9.arcgis.com/yqJ1AFEQ1sNGJz4H/ArcGIS/rest/services/ST_All_Bus_Routes_Nov21Update_view/FeatureServer/42

Data sources for [Table 2.4: Regional and local council school bus service statistics](#)

Service provider	Statistic	Source(s)
Auckland Transport	<ul style="list-style-type: none"> Services per day Total km of bus travel 	Auckland Transport open GIS data: School Bus Route. ^a Downloaded 29 June 2022.
	<ul style="list-style-type: none"> Patronage 	Auckland Transport, 26 July 2022 (pers. comm.). Data provided: daily HOP boardings on school bus services, by route, for each school day in May 2022.
Greater Wellington Regional Council (Metlink)	<ul style="list-style-type: none"> Services per day Total km of bus travel 	Metlink bus route dataset in General Transport Feed Specification (GTFS) format. ^b Downloaded 29 June 2022.
	<ul style="list-style-type: none"> Patronage 	Greater Wellington Regional Council, 10 August 2022 (pers. comm.). Data provided: total daily HOP boardings on school bus services for each school day in May 2022.
Environment Canterbury (Metro)	<ul style="list-style-type: none"> Services per day Patronage 	Environment Canterbury, 9 June 2022 (pers. comm.). Data provided: passengers by service and school day during May 2022 (school bus services only).
	<ul style="list-style-type: none"> Average route length (km) 	Estimated based on the average route length across Auckland and Wellington: 12.1 km.
Taranaki Regional Council (Citylink)	<ul style="list-style-type: none"> Services per day 	Taranaki Regional Council website. ^c Accessed 5 August 2022. Note: The number of advertised school bus services were added up to determine total services per day.

Service provider	Statistic	Source(s)
	<ul style="list-style-type: none"> Patronage Average route length (km) 	<p>Estimated based on school bus passenger boarding rates for Auckland, Wellington and Christchurch, and average route lengths for Auckland and Wellington:</p> <ul style="list-style-type: none"> 32.5 passengers per service average route length (one way): 12.1 km.
Bay of Plenty Regional Council (Baybus)	<ul style="list-style-type: none"> Services per day 	Baybus website. ^d Accessed 5 August 2022. Note: The number of advertised school bus services were added up to determine total services per day.
	<ul style="list-style-type: none"> Patronage Average route length (km) 	<p>Estimated based on school bus passenger boarding rates for Auckland, Wellington and Christchurch, and average route lengths for Auckland and Wellington:</p> <ul style="list-style-type: none"> 32.5 passengers per service average route length (one way): 12.1 km.
Gisborne District Council (Waka Kura)	<ul style="list-style-type: none"> Services per day 	Gisborne District Council's Waka Kura website. ^e Accessed 5 August 2022. Note: The number of advertised school bus services were added up to determine total services per day.
	<ul style="list-style-type: none"> Patronage Average route length (km) 	<p>Estimated based on school bus passenger boarding rates for Auckland, Wellington and Christchurch, and average route lengths for Auckland and Wellington:</p> <ul style="list-style-type: none"> 32.5 passengers per service average route length (one way): 12.1 km.

^a <https://data-atqis.opendata.arcgis.com/datasets/ATqis::school-bus-route>

^b <https://www.metlink.org.nz/about/legal/general-transit-specification-feed/>

^c <https://www.trc.govt.nz/buses-transport/passenger-info/citylink-information/school-buses/>

^d <https://www.baybus.co.nz/tauranga-schools/school-bus-routes-2022/>

^e <https://www.gdc.govt.nz/services/transport-and-parking/waka-kura-bus-service>

Data sources for [Table 2.6: Ministry of Education Technology Bus travel: key statistics](#)

Data/statistic	Source(s)
<ul style="list-style-type: none"> Route count Eligible students 	Ministry of Education, 18 July 2022 (pers. comm.).
<ul style="list-style-type: none"> Route list 	Ministry of Education, list of suppliers for each school bus route from 2022 (Excel spreadsheet). ^a Downloaded 22 June 2022.
<ul style="list-style-type: none"> Route length 	Routes were modelled using the schools listed in the route list, using GIS network analysis tools. Average route length could be extracted from the output GIS layers.

^a <https://www.education.govt.nz/school/property-and-transport/suppliers/school-bus-procurement/>

Appendix B: Crash and incident analysis – detailed methodology

B.1 Injuries to students and other road users during PUDO

This analysis involved reviewing:

- injury crashes with cause codes '115 inappropriate speed past a school bus' or '729 pedestrian from or to school bus'
- injury crashes involving pedestrians aged 5–19 years, on school days between 0630–0900 and 1500–1730, on roads with a speed limit of 70 km/h or higher
- crashes involving school buses (vehicle usage = 'school bus')
- incidents reported to the Ministry of Education where an injury occurred during PUDO.

After reviewing the CAS crash records, two crashes were discarded because the vehicles involved were incorrectly coded as 'school bus'. One involved an elderly woman injured while boarding a scheduled bus service, while the other involved an 'unidentified black car' striking a child in a hit-and-run incident.

B.2 Injuries to drivers and passengers 'on bus'

This detailed analysis involved reviewing:

- crashes in CAS where all the following criteria were met:
 - the crash involved a school bus, as either a vehicle coded with the usage = 'school bus', or where the description or diagram describe the vehicle as a 'school bus'
 - the crash resulted in injuries to the bus driver and/or passenger(s)
 - the school bus was travelling along the road at the time of the crash
- incidents reported to the Ministry of Education where a driver or passenger was injured while the bus was travelling along the road, including both collision and non-collision events. Where possible, collision events were matched to the corresponding crash records in CAS.

On reviewing the 'school bus' crashes in CAS, one crash was removed where a car/wagon was incorrectly coded as 'school bus'. After reviewing the Ministry of Education incident reports, a further 23 injury crashes were matched and extracted from CAS. In these instances, the bus was either not identified as a 'school bus' in the crash report, or the crash was classified as 'non-injury' despite injuries to passengers being documented in the Ministry of Education incident report.

Additionally:

- Some CAS reports incorrectly recorded 'nil' passengers, despite the matching Ministry of Education report stating several students were onboard at the time.
- Nine collision events were reported by the Ministry of Education but could not be matched to a CAS record. Most were minor crashes, although one crash resulted in 12 injuries to the driver and passengers, including at least one serious injury.

Appendix C: Crash risk assessment methodology

The crash risk of different categories of bus route were assessed as follows:

1. Injury crashes (2012–2021) within 30 m of any section of Daily Bus route were attached to the closest section of bus route.
2. Each crash was classified by movement code category, as either head-on, run-off road, intersection/turning, pedestrian or other (see [Table D.1](#) below).
3. Vehicle kilometres travelled per year (VKT) were calculated for each section, using the MegaMaps ADT attribute.
4. The total kilometres, VKT and number of crashes by severity and crash type were summarised for each road risk category and crash type. Given the relatively short length of rural undivided roads classified as both 'high volume' and 'extreme environment', these were reclassified as 'high volume' only.
5. Personal risk and collective risk were calculated, and risk bands determined for each road risk category at an aggregate level, using the methodology in the *High-risk rural roads guide* (Waka Kotahi, 2011).

Table D.1 Classification of crashes by movement code in CAS

Crash type	Movement code categories (from CAS)
Head-on	<ul style="list-style-type: none"> • Head on
Loss of control	<ul style="list-style-type: none"> • Lost control bend • Lost control straight road
Intersection/turning	<ul style="list-style-type: none"> • Crossing not turning • Crossing one turning • One turns right • Same direction turning
Pedestrian	<ul style="list-style-type: none"> • Pedestrian crossing road • Other pedestrian
Other	<ul style="list-style-type: none"> • Manoeuvring • Merging • Miscellaneous • Obstruction • Overtaking • Rear end crash

Appendix D: International vehicle safety standards that apply to school buses

Country/Continent	Safety standards	Comments
Australia Australian Design Rules	<ul style="list-style-type: none"> • ADR 3 Seats and seat anchorages • ADR 4 Seat belts • ADR 5 Anchorages for seat belts and child restraints • ADR 59 Omnibus rollover strength • ADR 66 Seat strength, seat anchorage and padding in omnibuses • ADR 68 Occupant protection in buses • ADR 69 Full frontal impact occupant protection 	ADR standards include specific standards for buses ADR 59, 66, 68.
Canada Canadian Motor Vehicle Safety Standards and Canada Standards Association	<ul style="list-style-type: none"> • CMVSS111 Mirrors and rear visibility systems • CMVSS108 Lighting systems and reflective devices • CMVSS301 School pedestrian safety devices • CMVSS220 School bus rollover protection • CMVSS208 Occupant restraint systems in frontal impact • CMVSS210 Seat belt anchorages • CMVSS217 Bus window retention and emergency exits • CMVSS221 School bus body joint strength • CMVSS301 Fuel system integrity • CSA D250-22 School buses 	Canada has specific standards for school buses, including CMVSS217, 220, 221, 301 and CSA D250-22.
Europe UNECE Regulations	<ul style="list-style-type: none"> • Regulation No. 14 Safety-belt anchorages • Regulation No. 16 Safety-belts for occupants of power-driven vehicles • Regulation No. 36 Construction of public service vehicles • Regulation No. 52 Construction of small capacity public service vehicles • Regulation No. 66 Strength of superstructure • Regulation No. 80 Strength of seats and their anchorages • Regulation No. 46 Devices for indirect vision • Regulation No. 107 General construction of M2 (light) and M3 (heavy) buses 	Additional standards have been developed for new technologies, including UNECE Regulation No. 46 (2014) and UNECE Regulation No. 107 (2015).
USA Federal Motor Vehicle Standards	<ul style="list-style-type: none"> • FMVS 217 Bus emergency exits and window retention and release • FMVS 208 Occupant crash protection • FMVS 209 Seat belt assemblies • FMVS 210 Seat belt assembly anchorages • FMVS 221 School bus body joint strength • FMVS 222 School bus passenger seating and crash protection 	Specific standards for school buses FMVS 221 and 222.

Appendix E: Bow tie diagrams

Diagram 1: A school bus travels into the path of another vehicle or runs off the road.

Attachment 6 to Report 24 371

Potential outcomes when the risk event occurs

Something that has the potential to cause harm or trigger the risk event

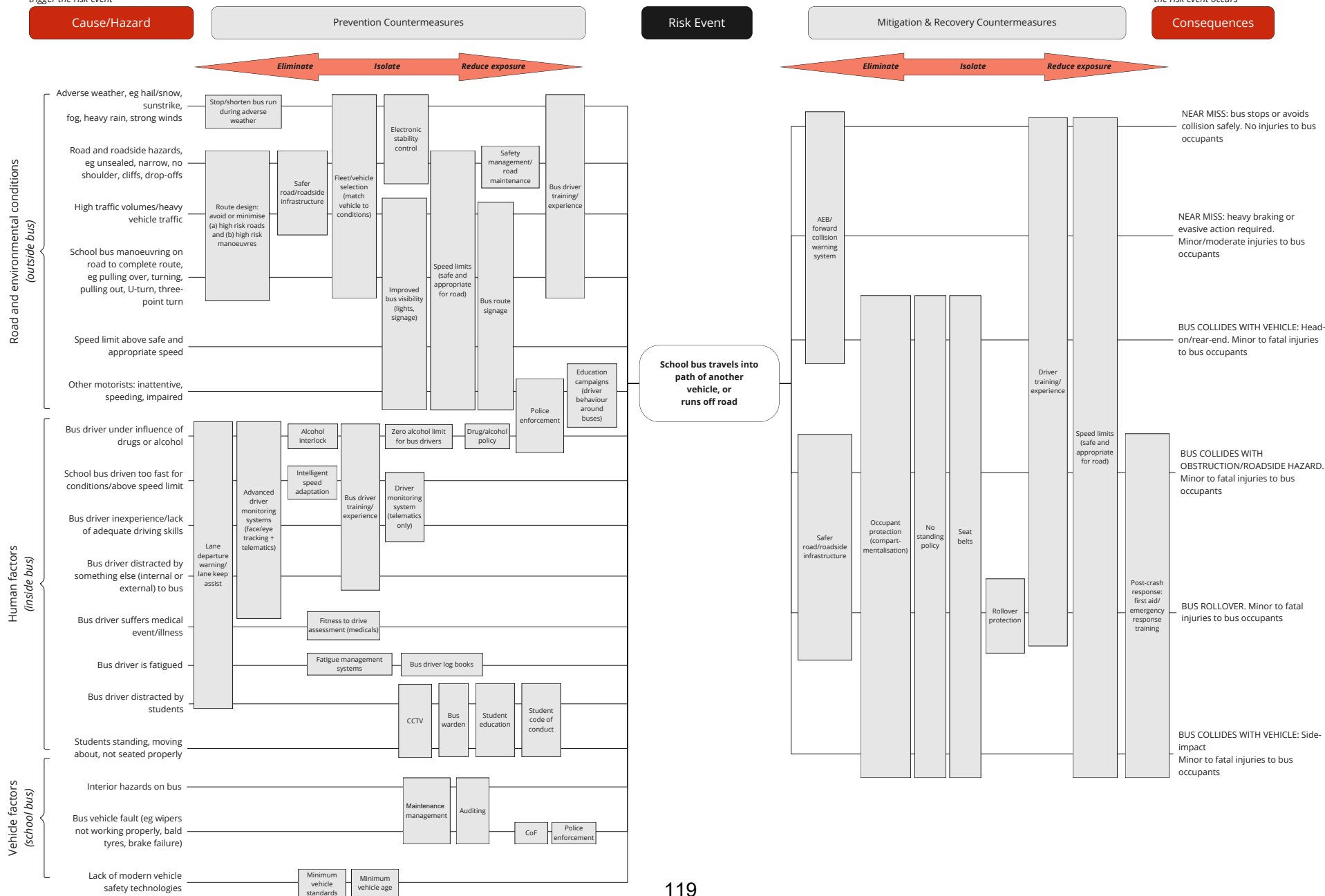
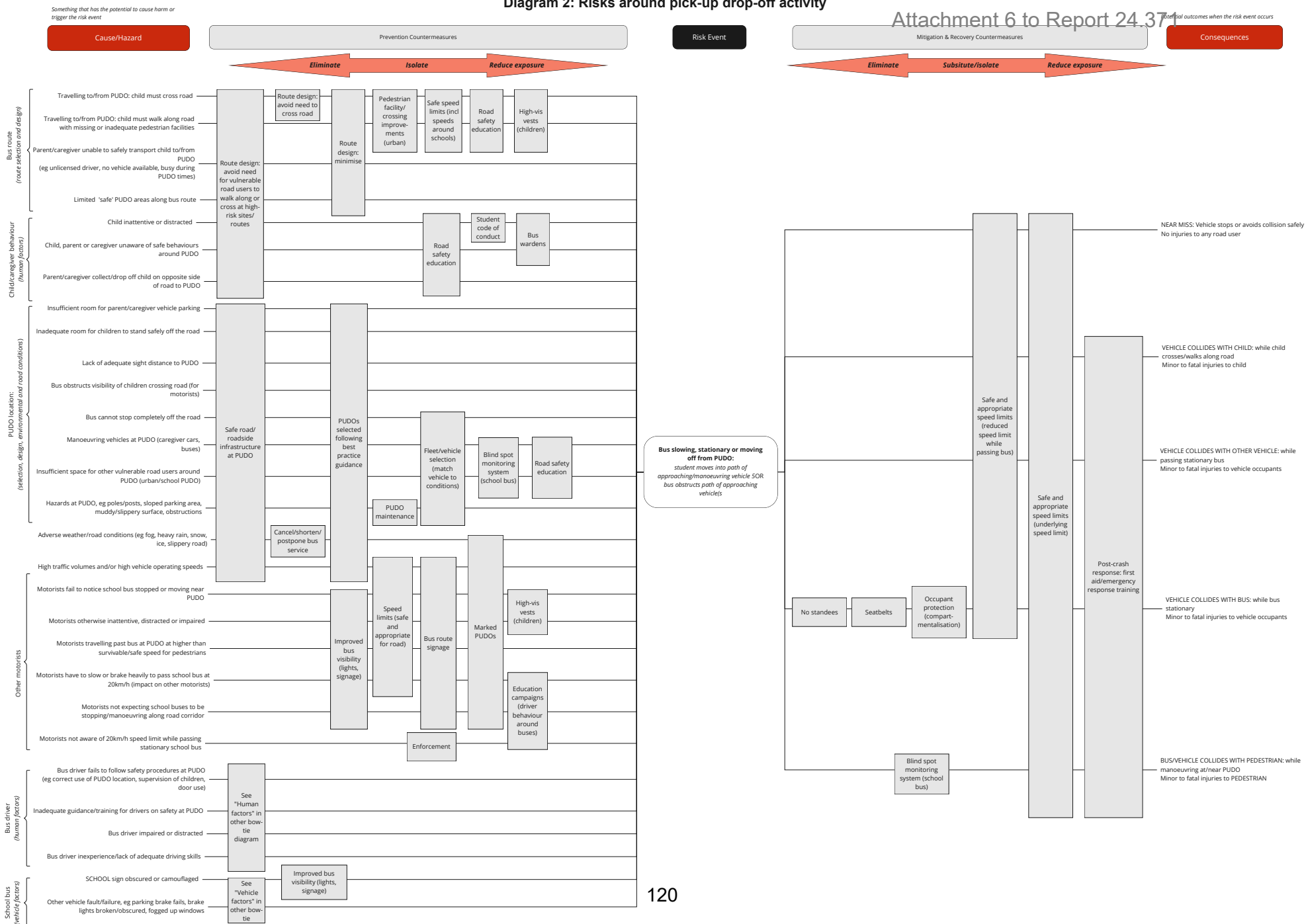


Diagram 2: Risks around pick-up drop-off activity

Attachment 6 to Report 24_371



Finance, Risk and Assurance Committee
13 August 2024
Report 24.372



For Information

INTERNAL AUDIT PARTNER 2024-27

Te take mō te pūrongo

Purpose

1. To introduce our internal audit partner for 2024-27 to the Finance, Risk and Assurance Committee (the Committee).

Te tātaritanga

Analysis

2. The internal audit procurement process ran from January until April 2024 with the contract to support the 2024-27 assurance plan being signed in May 2024.
3. We note that PWC supported the delivery of the 2021-24 assurance plan. Continuation of their service through to 2024-27 will ensure minimal disruption in delivering the plan, and associated reviews like revenue completeness (Snapper) and the Te Tiriti o Waitangi audit.
4. We will continue a similar assurance delivery model whereby the Risk and Assurance group is responsible for:
 - a The development and management of the assurance plan
 - b Supporting our internal audit partner in delivering review engagements
 - c Presenting of review findings
 - d Regular reporting on the assurance plan to ELT and the Committee
 - e Tracking of review recommendations.
5. PWC will be responsible for:
 - a Leading, planning and engagement for individual reviews as outlined in the assurance plan
 - b Undertaking the required fieldwork to deliver reviews.
 - c Internal quality assurance processes across the fieldwork and reporting
 - d Developing reporting that supports and delivers review findings.
6. The Risk and Assurance group and PWC will work together to finalise review reporting, with the Risk and Assurance group continuing to be responsible for tabling the reports to the Committee and ELT.

7. While we have retained our existing internal audit partner and assurance delivery model, we are looking for ways we can continue to improve, for example PWC have:
 - a Reviewed the 2024-27 assurance plan to ensure they can deliver the plan and to inform its development based on their wider sector knowledge
 - b Offered ‘Come Think With Us’ sessions to help with our annual review of the assurance plan and to further engage with Senior Management
 - c Continued to work on improvements to reporting and how we can ensure review findings are presented in a format that suits its audience.
8. [Attachment 1](#) outlines PWC’s engagement team for the 2024-27 assurance plan and provides further context around how they can support us in delivering our plan effectively.

Ngā hua ahumoni
Financial implications

9. There are no financial implications arising from this report.

Ngā Take e hāngai ana te iwi Māori
Implications for Māori

10. [Attachment 1](#) outlines how PWC support and deliver outcomes for Māori within New Zealand and the Wellington Region.

Te huritao ki te huringa o te āhuarangi
Consideration of climate change

11. [Attachment 1](#) outlines how PWC support and deliver climate outcomes within New Zealand and the Wellington Region.

Ngā tikanga whakatau
Decision-making process

12. The matters requiring decision in this report were considered by officers against the decision-making requirements of Part 6 of the Local Government Act 2002.

Ngā āpitihanga
Attachments

Number	Title
1	Introduction to PWC’s engagement team for 2024-27

Ngā kaiwaitohu

Signatories

Writers	Jacob Boyes – Head of Corporate Risk & Assurance Adele Hawk - Associate Director, Risk Services (PWC)
Approvers	Ali Trustrum-Rainey – Kaiwhakahaere Matua, Pūtea me ngā Tūraru Group Manager, Finance and Risk

He whakarāpopoto i ngā huritaonga Summary of considerations
<p>Fit with Council’s roles or with Committee’s terms of reference</p> <p>The Committee has a specific responsibilities to:</p> <ul style="list-style-type: none"> • review the effectiveness of Greater Wellington’s identification and management of risks faced by Council and the organisation; and to • approve an internal audit plan.
<p>Contribution to Annual Plan / Long Term Plan / Other key strategies and policies</p> <p>Greater Wellington makes decisions every day on order to deliver what it has committed to through the Long Term Plan.</p> <p>Risk management is essentially enabling good decisions to be made that reflects a good understanding of uncertainty within the environment and tradeoffs between competing choices.</p> <p>Internal audit / assurance reviews the effectiveness of Greater Wellington’s internal controls framework and processes such that Council can deliver effectively on its objectives, including safeguarding assets as set out in its Long-Term Plan and Annual Plans.</p> <p>Internal audit also supports the risk management framework.</p>
<p>Internal consultation</p> <p>Consultation and input were provided by</p> <ul style="list-style-type: none"> - The GM Finance and Risk - The Executive Leadership Team
<p>Risks and impacts - legal / health and safety etc.</p> <p>Internal audit acts to reduce risk by ensuring controls are operating as Greater Wellington has developed through its policies and procedures.</p>

Internal Audit Partner

**Greater Wellington Regional Council - Te
Pane Matua Taiao**

August 2024



Your PwC Internal Audit Co-Sourced team

You have an Internal Audit team with the right blend of technical skills, sector expertise, specialist knowledge and experience working with you.

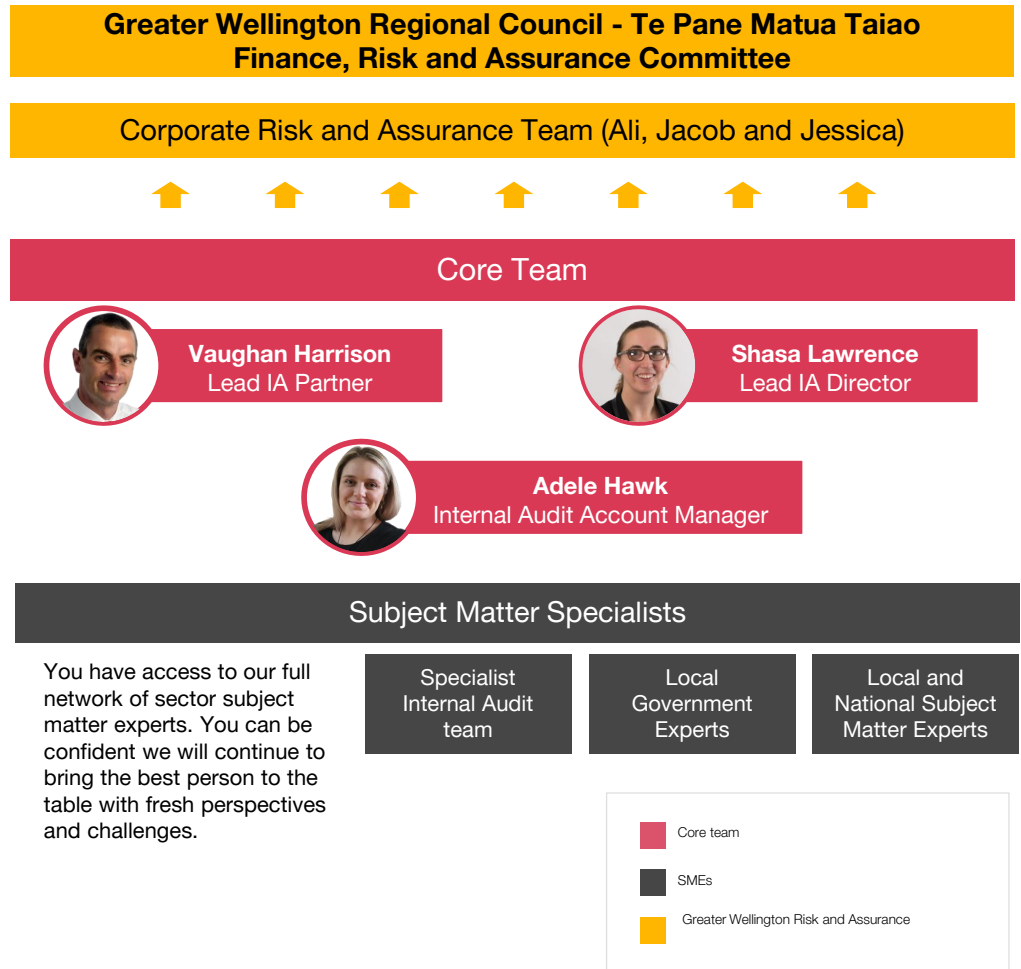
Your Core Team

Vaughan, with his experience leading internal audits of Government, asset management and financial services organisations, will be responsible for overall delivery by the PwC team and ensuring that our work is delivered to GW's expectations.

Shasa with her multidisciplinary experience of leading Governance, Risk and Compliance reviews of public, and private sector organisations will be your dedicated point of contact responsible for day-to-day delivery of work.

Adele will be your Account Manager and will support Shasa and Vaughan. Adele play a key role in ensuring that we leverage our SME's throughout delivery.

How we will work together



Providing meaningful insights to the Council

We bring strong internal audit experience and the largest and most diverse internal audit team in Aotearoa New Zealand - both in terms of geography, sector and client base. Our dedicated local government team has advised on, and delivered, practical and sustained outcomes to the sector for over 30 years and currently service over 90% of Aotearoa New Zealand's local authorities.

This means that you get to work with a team that is engaging every day with a variety of clients, across many sectors, with a diverse range of risks, needs and issues, and innovative smart responses.

This also means that you:



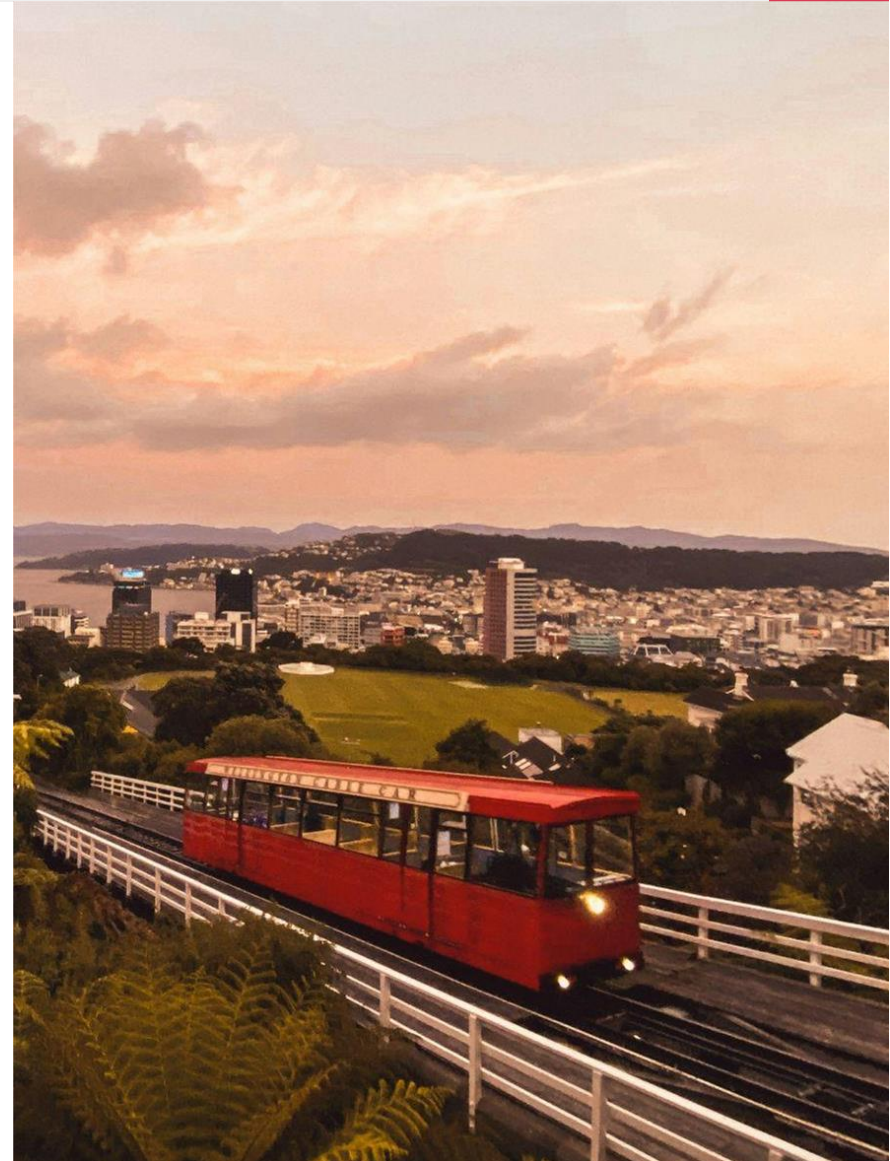
Have access to SMEs that are most suited to your needs, now and as they evolve



Options to co-design and tailor internal audit to operate the way you want it to



Have access to relevant industry and cross-industry insights and leading thinking on different ways comparable organisations are mitigating risks (for example, cybersecurity risks)



Driving positive outcomes for Māori within Te Whanganui-a-Tara



Manukura Māori Business Team

- PwC actively engages with Māori businesses through their Manukura Business Network within the GWR. This network provides support, advice, and connections to help Māori businesses thrive. By fostering relationships with Māori businesses in the Wellington region (Ngāti Toa Rangatira, Te Wānanga o Raukawa, Ngāi Tahu). PwC contributes to the growth and success of these enterprises with a range of professional services provided and are some of our key relationships.
- We also engage with Māori local artists to design taonga and art within our Wellington PwC building that are mana whenua - commissioning local talent reflecting local history and pūrākau/ stories.



Rautaki Māori, He Tau Tangata (Māori Strategy)

- Our strategy draws inspiration from te ao Māori perspectives. Working with our [Manukura](#) team we have drawn on our karakia, vision, [purpose](#), values and mātāpono leading us to Te Ao Tūroa. The concept and essence of Te Ao Tūroa is the ability to continue to support life now and for future generations.



PwC Foundation (toitōi) within Ponēke

- FY23 309 Wellington PwC volunteers
- 8 schools and 45 classes.



Employment and Career Development

- PwC is committed to increasing Māori representation within their workforce. They provide employment opportunities, internships, and graduate programmes for Māori individuals. By offering career development and support, PwC aims to empower Māori professionals and contribute to their success within the Wellington region.
- We had a kura kaupapa Māori year 13 student do work experience with us (within the equity Practice) from June 2023 to November 2023 through a MoU with Te Ara Whānui Kura Kaupapa Māori o Ngā Kōhanga Reo o Te Awa Kairangi situated in Alicetown, Lower Hutt.
- We have hired Reo Māori kaiako/ teachers (from a Kura kaupapa in Ōtaki and another from a kōhanga reo in Wainuiomata) within the Equity practice building the strength and breadth of talent within our workforce.
- We have 'Mā te huruhuru ka rere te manu' scholarships for talented Māori rangatahi to apply every year.



Delivery of Te Tiriti o Waitangi Audit

- Continuing relationship and whakawhanaungatanga with Te Hunga Whiriwhiri
- The objective of the Audit was to assess GWRC's statutory compliance against key Te Tiriti o Waitangi legislative provisions, how mātauranga Māori influences core activities and working relationships with mana whenua. This report highlighted key targeted areas the Council can focus for uplift.
- Highlighted Iwi's appreciation for our engagement.



The narrative of Manukura is the story that underpins the tohu, representing a bird that leads and carries the moemoea (dreams and aspirations) of its kāhui manu, taking them to new heights and new spaces.

Broader outcomes for Te Taiao (Environment)



Te Ao Tūroa

Our Sustainability Strategy Te Ao Tūroa draws inspiration from te ao Māori perspectives and outlines our four chosen pathways forward, in which we have made commitments and prioritised six of the United Nations Sustainable Development Goals.

Our four pathways are:

1. **Te ara ā one - Environmental Stewardship** - reminds us of our deep connection to our planet.
2. **Te ara ā mahuta - Social Equity** - represents the action of moving forward with knowledge and understanding.
3. **Te ara ā rongō - Trust and Transparency** - represents the sense of shared understanding that drives us to operate in a way that is trustworthy, transparent and accountable.
4. **Te ara ā nuku - Responsible Business** - represents the movement and shifts we make to respond to a constantly changing environment.

Currently, PwC is on track to meet its net Zero commitments by 2030.

Our work for Te Taiao (Environment)



We are committed to supporting clients adapt to low carbon Aotearoa

We (PwC) believe we can make our biggest impact by working with our clients to help them develop and deliver their climate and sustainability goals. Our Sustainability, Climate and Nature (SC&N) team, part of our Risk Services team, support clients to effectively respond to the challenges and opportunities presented by climate, nature and the transition to a more sustainable future. SC&N's expertise spans climate-related risks, climate change scenario analysis, target setting and metrics, disclosures and opportunities, nature-related risks and reporting, sustainability strategy, carbon management, ESG transformation and circular economy.

Below is a short snapshot of how the team is helping Aotearoa New Zealand adapt to a low carbon world.

- **Led the development and implementation of the Task Force on Nature-related Financial Disclosures Framework: The Aotearoa Circle**
- **Local sustainable energy and circularity options: Christchurch NZ urban regeneration sustainability roadmap**
- **Climate Change Response (Zero Carbon) Amendment Act: Climate Change Commission**
- **Carbon impact of alternative approaches to traditional home construction: Kāinga Ora**
- **Climate-related disclosures regime, Risk Assessments and Maturity Development: Fonterra, Kāinga Ora, NZTA, EBOS, Contact Energy**

Ngā Mihi

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This content is for general information purposes only, and should not be used as a substitute for consultation with professional advisors. This is a proposal document and does not constitute a contract of engagement with PricewaterhouseCoopers New Zealand. In the event that our proposal to you is successful, our acceptance of the engagement will be contingent upon the completion of all our internal engagement acceptance procedures.

**Finance, Risk and Assurance Committee
13 August 2024
Report 24.420**



For Decision

RESOLUTION TO EXCLUDE THE PUBLIC

That the Finance, Risk and Assurance Committee excludes the public from the following parts of the proceedings of this meeting, namely:

Insurance update – Report PE24.369

Cyber Security update – Report PE24.414

Confirmation of the Restricted Public Excluded minutes of the Finance, Risk and Assurance Committee meeting on 14 May 2024 – Report RPE24.230

The general subject of each matter to be considered while the public is excluded, the reasons for passing this resolution in relation to each matter and the specific grounds under section 48(1) of the Local Government Official Information and Meetings Act 1987 (the Act) for the passing of this resolution are as follows:

Insurance update – Report PE24.369	
<i>Reason for passing this resolution in relation to each matter</i>	<i>Ground(s) under section 48(1) for the passing of this resolution</i>
<p>The report contains information provided by insurance providers relating to pricing for the renewal of Greater Wellington’s insurance. Release of this information would likely prejudice the insurers’ and Greater Wellington’s commercial position in the market as it would reveal the related pricing (section 7(2)(b)(ii) of the Local Government Official Information and Meetings Act 1987).</p> <p>Greater Wellington has not been able to identify a public interest favouring disclosure of this particular information in public proceedings of the meeting that would override this prejudice to the insurers’ commercial position.</p>	<p>The public conduct of this part of the meeting is excluded as per section 7(2)(b)(ii) of the Act in order to protect information where the making available of the information would be likely unreasonably to prejudice the commercial position of the person who supplied or who is the subject of the information.</p>

Cyber Security update – Report PE24.414	
<i>Reason for passing this resolution in relation to each matter</i>	<i>Ground(s) under section 48(1) for the passing of this resolution</i>
<p>The report contains information about Greater Wellington’s information security and cybersecurity status. Release of this information exposes Greater Wellington to cyber-attack threats by making it easier for the public to know Greater Wellington’s cyber security status and utilise the information for improper gain or improper advantage (section 7(2)(j)). It is necessary for Greater Wellington to exclude the information contained in this report from the public domain to protect our information assets and reduce the likelihood of cyber-attack.</p> <p>Greater Wellington has not been able to identify a public interest favouring disclosure of this particular information in public proceedings of the meeting that would override this risk.</p>	<p>The public conduct of this part of the meeting is excluded as per section 7(2)(j) of the Act to prevent the disclosure or use of official information for improper gain or improper advantage</p>
Confirmation of the Restricted Public Excluded minutes of the Finance, Risk and Assurance Committee meeting on 14 May 2024 – Report RPE24.230	
<i>Reason for passing this resolution in relation to each matter</i>	<i>Ground(s) under section 48(1) for the passing of this resolution</i>
<p>These minutes contains information relating to Greater Wellington’s financial support of CentrePort Limited. Release of the information contained in this report would be likely to prejudice Greater Wellington and CPL’s commercial position as the report identifies interest rate margins (section 7(2)(b)(ii) of the Act).</p> <p>Greater Wellington has not been able to identify a public interest favouring disclosure of this particular information in public proceedings of the meeting that would override this prejudice.</p>	<p>The public conduct of this part of the meeting is excluded as per section 7(2)(b)(ii) of the Act in order to protect information where the making available of the information would be likely unreasonably to prejudice the commercial position of the person who supplied or who is the subject of the information.</p>

This resolution is made in reliance on section 48(1)(a) of the Act and the particular interest or interests protected by section 6 or section 7 of that Act or section 6 or section 7 or section 9 of the Official Information Act 1982, as the case may require, which would be prejudiced by the holding of the whole or the relevant part of the proceedings of the meeting in public.