

## Meeting of the Regional Transport Committee

**Date:** Friday 10 February 2023  
**Time:** 10.00am  
**Venue:** Council Chamber  
Hawke's Bay Regional Council  
159 Dalton Street  
NAPIER

### Agenda

Item	Title	Page
1.	Welcome/Karakia/Notices/Apologies	
2.	Conflict of Interest Declarations	
<b>Decision Items</b>		
3.	Regional Transport Committee Terms of Reference and member appointments	3
4.	Setting the priorities and principles for the Regional Speed Management Plan	19
<b>Information or Performance Monitoring</b>		
5.	Johanna Birrell Deputation - Te Whatu Ora HB Safe Cycling report	29
6.	Regional Land Transport Plan investment and delivery update	83
7.	Transport Emissions Reduction Plan update	91
8.	Regional Transport Programme Tracker February 2023	143
9.	Regional Road Safety update	147
3.	Public Transport update	159
4.	Active Transport update	165
5	NZTA Regional Relationships Director's February 2023 report	169
6.	Verbal updates by Advisory Representatives	



**Hawke's Bay Regional Council**  
**Regional Transport Committee**  
**Friday 10 February 2023**

**Item 3**

**Subject: Regional Transport Committee Terms of Reference and member appointments**

**Reason for Report**

1. This agenda item provides the means for the Regional Transport Committee to confirm its Terms of Reference and the appointments to its membership.

**Executive Summary**

2. Following the 2022 Local Body Elections, the Regional Transport Committee was re-established by resolution of Hawke's Bay Regional Council, including its Terms of Reference, as required by the Land Transport Management Act 2003.
3. The Territorial Local Authorities of the region also met following the 2022 Local Body Elections and resolved their representatives on the Committee.

**Background**

4. The Regional Transport Committee and its membership is prescribed by the Land Transport Management Act 2003 as being:
  - 4.1. As soon as practicable after each triennial election, every regional council must establish a regional transport committee under this section for its region.
  - 4.2. Each regional council must appoint to its regional transport committee— 2 persons to represent the regional council, 1 person from each territorial authority in the region to represent that territorial authority and 1 person to represent the Agency.
  - 4.3. Each regional council must appoint from its representatives the chair and deputy chair of the committee.
  - 4.4. At any meeting of a regional transport committee, the chair, or any other person presiding at the meeting has a deliberative vote and in the case of an equality of votes, does not have a casting vote (and therefore the act or question is defeated and the status quo is preserved).
  - 4.5. S105A KiwiRail representation on regional transport committees - A regional transport committee must include 1 additional member to represent KiwiRail (the KiwiRail member); KiwiRail must appoint the KiwiRail member; and The KiwiRail member has no voting rights at any meeting of the committee and must not be appointed as the chairperson or deputy chairperson (or by any other process preside at any meeting).

**Discussion**

5. At the Regional Council meeting on 16 November 2022, councillors Martin Williams and Jerf van Beek were appointed as the Council's representatives, as Chair and Deputy Chair respectively.
6. The Territorial Authority representatives for Napier City, Central Hawke's Bay District, and Hastings District Council, and the advisory representative for KiwiRail have been confirmed as attached and noted in the *Recommendations* section.
7. We await confirmation of the appointments from:
  - 7.1. Wairoa District Council (1 rep & 1 alternate)

- 7.2. HBRC Māori Committee (1 advisory rep)
- 7.3. Te Whatu Ora Hawke's Bay (1 advisory rep)
- 7.4. Active Transport (1 advisory rep to be appointed once the group has been established).

### Decision Making Process

- 8. Councils and their committees are required to make every decision in accordance with the requirements of the Local Government Act 2002 (the Act). Staff have assessed the requirements in relation to this item and have concluded:
  - 8.1. Councils are required to (LGA sch.7 cl.19(1)) hold the meetings that are necessary for the good governance of their district or region
  - 8.2. Councils may appoint (LGA sch.7 cl. 30(1)(a)) the committees, subcommittees, and other subordinate decision-making bodies that they consider appropriate, including joint committees
  - 8.3. The establishment of a Regional Transport Committee, including its membership, is prescribed by the Land Transport Management Act 2003 Part 4, sub-part 2, sections 105-107 inclusive.
  - 8.4. Given the provisions above, the Regional Transport Committee can exercise its discretion and make these decisions without consulting with the community or others having an interest in the decision.

### Recommendations

That the Regional Transport Committee:

- 1. Receives and considers the *Regional Transport Committee Terms of Reference and member appointments* staff report.
- 2. Agrees that the decisions to be made are not significant under the criteria contained in Council's adopted Significance and Engagement Policy, and that Council can exercise its discretion and make decisions on this issue without conferring with the community or persons likely to have an interest in the decision.
- 3. Confirms the Terms of Reference for the committee as adopted by Hawke's Bay Regional Council on 16 November 2022.
- 4. Agrees to the membership as detailed in the Terms of Reference adopted by Hawke's Bay Regional Council on 16 November 2022, and accepts the appointment of representatives, being:
  - 4.1. Councillor Martin Williams representing Hawke's Bay Regional Council as Chair of the Regional Transport Committee
  - 4.2. Councillor Jerf van Beek representing Hawke's Bay Regional Council as Deputy Chair of the Regional Transport Committee
  - 4.3. Mayor Alex Walker and councillor Kate Taylor as alternate, representing Central Hawke's Bay District Council.
  - 4.4. Councillor Tania Kerr and Mayor Sandra Hazlehurst as alternate, representing Hastings District Council.
  - 4.5. Councillor Keith Price and Mayor Kirsten Wise as alternate, representing Napier City Council.
  - 4.6. Councillor \_\_\_\_ and councillor \_\_\_\_ as alternate, representing Wairoa District Council.
  - 4.7. Linda Stewart and Sarah Downs as alternate, representing Waka Kotahi.
  - 4.8. Angus Hodgson representing KiwiRail as a non-voting advisory member.



- 4.9. Matthew Broderick representing New Zealand Policy as a non-voting advisory member.
- 4.10. Nick Ganivet representing Napier Port as a non-voting advisory member.
- 4.11. Paul Michaelson representing Automobile Association (access and mobility, including private motorists, pedestrians, cyclists and public transport users) as a non-voting advisory member.
- 4.12. Ian Emerson representing Road Transport Association NZ (road transport industry) as a non-voting advisory member.
- 4.13. \_\_\_\_\_ representing the HBRC Māori Committee (cultural and environmental interests) as a non-voting advisory member.
- 4.14. \_\_\_\_\_ representing Te Whatu Ora in Hawke's Bay as a non-voting advisory member.
- 4.15. A representative of active transport in the Hawke's Bay region to be confirmed.

**Authored by:**

**Leeanne Hooper**  
Team Leader Governance

**Katie Nimon**  
Transport Manager

**Approved by:**

**Katrina Brunton**  
Group Manager Policy & Regulation

**Attachment/s**

- 1** [!\[\]\(49aa2e1da5fe39294864e9598c593810\_img.jpg\)](#) 2022-25 Regional Transport Committee Terms of Reference
- 2** [!\[\]\(7d0a8d8b1031f74abe67b09fcf4a2322\_img.jpg\)](#) HDC 2022 appointments to HBRC committees
- 3** [!\[\]\(6557fa7496e6a507d2326ea0bef061ee\_img.jpg\)](#) NCC appointments
- 4** [!\[\]\(1fe0339452ba17bd8ae951d8509f80d6\_img.jpg\)](#) 2023 Kiwirail advisory member appointment
- 5** [!\[\]\(3f7dbef097b87c46047901c2927193e7\_img.jpg\)](#) CHBDC Committee Appointments 2022





## Regional Transport Committee

### Terms of Reference

*Adopted by Hawke's Bay Regional Council resolution 16 November 2022*

The purpose of the Regional Transport Committee is to:

1. Prepare the Regional Land Transport Plan (RLTP) and any significant variation to the RLTP for adoption by the Regional Council, in accordance with the Land Transport Management Act 2003.
2. Prepare the Regional Public Transport Plan (RPTP) for adoption by the Regional Council, in accordance with the Land Transport Management Act 2003.
3. Monitor the implementation of the Regional Land Transport Plan and the Regional Public Transport Plan.
4. Adopt a policy that determines significance in respect of:
  - 4.1. variations made to regional land transport plans under section 18D of the Land Transport Management Act 2003, and
  - 4.2. the activities that are included in the regional land transport plan under section 16 of the Land Transport Management Act 2003.
5. Plan and advocate for emissions reductions through multi modal activities.
6. Promote and plan for active transport in the region.
7. Provide advocacy on strategic regional and inter-regional transport matters to Central Government and other key stakeholders as appropriate.
8. Make recommendations in support of land transport activities that are eligible for national funding and align with the regional land transport plan.
9. Approve submissions to Central Government, local authorities and other agencies on Regional Transport Committee matters.
10. Monitor and provide advocacy on regional road safety matters.
11. Monitor passenger transport objectives and make recommendations to the Regional Council on public transport policies.
12. Provide the Regional Council with any advice and assistance it may request in relation to its transport responsibilities.

#### Members

#### Voting Members

Two elected members of the Regional Council, being:

- Martin Williams and Jerf van Beek

One representative and one alternate, appointed by each of the following organisations, being:

- Wairoa District Council: \_\_\_\_, and \_\_\_\_ as alternate
- Hastings District Council: \_\_\_\_, and \_\_\_\_ as alternate
- Napier City Council: \_\_\_\_, and \_\_\_\_ alternate
- Central Hawke's Bay District Council: \_\_\_\_, and \_\_\_\_ as alternate

	<ul style="list-style-type: none"> <li>– New Zealand Transport Agency, being Linda Stewart and Sarah Downs as alternate</li> </ul>
	<b>Advisory Members (non- voting)</b>
	<ul style="list-style-type: none"> <li>– New Zealand Police (representing road safety), being Matthew Broderick</li> <li>– Automobile Association (representing access and mobility, including private motorists, pedestrians, cyclists and public transport users), being Paul Michaelsen</li> <li>– Port of Napier – representing the Port and coastal shipping- Nick Ganivet</li> <li>– KiwiRail (representing rail issues) to be confirmed</li> <li>– Road Transport Association NZ (representing the road transport industry) being Ian Emmerson</li> <li>– HBRC Māori Committee (representing cultural and environmental interests) to be confirmed</li> <li>– Health sector representative to be confirmed</li> <li>– HB Regional Active Transport Committee (name to be confirmed) representing active transport, to be confirmed</li> </ul>
<b>Chair</b>	One Regional Council elected member, being Martin Williams
<b>Deputy Chair</b>	One Regional Council elected member, being Jerf van Beek
<b>Quorum</b>	Majority of voting members (4)
<b>Voting</b>	<p>In accordance with section 105(7) of the Land Transport Management Act, at any meeting of the RTC, the Chairperson, or any other legislated person presiding at the meeting:</p> <ul style="list-style-type: none"> <li>(a) has a deliberative vote and</li> <li>(b) in the case of an equality of votes, does <b>not</b> have a casting vote (and therefore the act or question is defeated and the status quo is preserved).</li> </ul> <p><i>Regional Council, Territorial Authority and NZ Transport Agency representative members have full speaking and voting rights on all matters</i></p>
<b>Advisory Members</b>	<p>The role of advisory members is to:</p> <ul style="list-style-type: none"> <li>– Provide advice to the Regional Transport Committee on matters pertaining to their advisory portfolios, when requested by the Chair</li> <li>– Report on relevant activities or events pertaining to their advisory portfolios.</li> </ul> <p><i>Advisory members have full speaking rights on all matters, but no voting rights.</i></p>
<b>Meeting Frequency</b>	Quarterly, or as required
<b>Staff Executive</b>	Group Manager Policy & Regulation and Transport Manager
<b>Technical Advisory Group (TAG)</b>	<p>The Transport Committee considers advice relating to strategic transport issues from a Technical Advisory Group (TAG), generally comprising roading and infrastructural planning officers from NZTA and the Territorial Authorities, and chaired by the HBRC Transport Manager. TAG members may attend RTC meetings and may provide advice at meetings when invited to do so by the Chair, but do not vote.</p>

**From:** Louise Stettner <[louises@hdc.govt.nz](mailto:louises@hdc.govt.nz)>  
**Sent:** Monday, 9 January 2023 10:20 am  
**HBRT to:** Leeanne Hooper <[Leeanne@hbrc.govt.nz](mailto:Leeanne@hbrc.govt.nz)>  
**Cc:** Democratic Support <[DemocraticSupport@hdc.govt.nz](mailto:DemocraticSupport@hdc.govt.nz)>  
**Subject:** Appointments HDC appointments to Joint Committees with the HBRC for the 2022 - 2025 triennium

This e-mail advises of HDC appointments to Joint Committees with the Hawke's Bay Regional Council that have been agreed to by the Hastings District Council for the 2022-2025 triennium, for your information/records.

**Clifton to Tāngoio Coastal Hazards Strategy Joint Committee**

Councillor Alwyn Corban – [councillor.corban@hdc.govt.nz](mailto:councillor.corban@hdc.govt.nz)

Councillor Ann Redstone – [councillor.redstone@hdc.govt.nz](mailto:councillor.redstone@hdc.govt.nz)

Councillor Malcolm Dixon – [councillor.dixon@hdc.govt.nz](mailto:councillor.dixon@hdc.govt.nz)

Alternate: Councillor Tania Kerr – [councillor.kerr@hdc.govt.nz](mailto:councillor.kerr@hdc.govt.nz)

At the Council meeting on the 8<sup>th</sup> of December 2022 Council approved the revised Terms of Reference for the Clifton to Tāngoio Coastal Hazards Strategy Joint Committee.

**Regional Transport Committee**

Councillor Tania Kerr – [councillor.kerr@hdc.govt.nz](mailto:councillor.kerr@hdc.govt.nz)

Alternate: Mayor Sandra Hazlehurst - [Sandra.Hazlehurst@hdc.govt.nz](mailto:Sandra.Hazlehurst@hdc.govt.nz)

**Hawke's Bay Civil Defence Emergency Management Joint Committee**

Mayor Sandra Hazlehurst - [Sandra.Hazlehurst@hdc.govt.nz](mailto:Sandra.Hazlehurst@hdc.govt.nz)

Councillor Tania Kerr – [councillor.kerr@hdc.govt.nz](mailto:councillor.kerr@hdc.govt.nz)

At the Council meeting on the 15<sup>th</sup> of December 2022, Council addressed the establishment and appointments to the Napier-Hastings Future Development Strategy Joint Committee.

**Napier-Hastings Future Development Strategy Joint Committee**

Mayor Sandra Hazlehurst - [Sandra.Hazlehurst@hdc.govt.nz](mailto:Sandra.Hazlehurst@hdc.govt.nz)

Deputy Mayor Tania Kerr – [councillor.kerr@hdc.govt.nz](mailto:councillor.kerr@hdc.govt.nz)

Alternate: Councillor Alwyn Corban – [councillor.corban@govt.nz](mailto:councillor.corban@govt.nz)

Note – The Council agreed to the establishment of the Napier-Hastings Future Development Strategy Joint Committee (subject to agreement by HBRC & NCC) and approved the Terms of Reference (with some amendments). If it is ok, I will forward you a copy of the minutes including the amended Terms of Reference once these minutes have been confirmed by Council later this month.

Please let me know if you have any questions or need any further information.

Ngā mihi,  
 Louise

LOUISE STETTNER  
 MANAGER, DEMOCRACY & GOVERNANCE SERVICES





Ordinary Meeting of Council - 15 November 2022 - Open Minutes

# ORDINARY MEETING OF COUNCIL

## Open Minutes

Meeting Date: Tuesday 15 November 2022

Time: 9.00am – 9.30am

Venue The Ocean Suite  
East Pier Hotel  
50 Nelson Quay  
Ahuriri  
Napier

*Livestreamed via Council's Facebook site*

Present **Chair:** Mayor Wise

**Members:** Deputy Mayor Brosnan, Councillors Boag, Browne, Chrystal, Crown, Greig, Mawson, McGrath, Price, Tareha and Taylor

In Attendance Acting Chief Executive (Richard Munneke)  
Acting Deputy Chief Executive / Executive Director Corporate Services (Caroline Thomson)  
Executive Director Infrastructure Services (Debra Stewart)  
Acting Executive Director City Strategy (Rachael Bailey)  
Executive Director Community Services (Thunes Cloete)  
Manager Communications and Marketing (Julia Atkinson)  
Pou Whakarae (Mōrehu Te Tomo)  
Acting Team Leader Governance (Anna Eady)

Administration Governance Advisor (Carolyn Hunt)



Ordinary Meeting of Council - 15 November 2022 - Open Minutes

# AGENDA ITEMS

## 1. COMMITTEE AND PORTFOLIO RESPONSIBILITIES FOR THE 2022-2025 TRIENNium

Type of Report:	Legal and Operational
Legal Reference:	Local Government Act 2002
Document ID:	1612227
Reporting Officer/s & Unit:	Jessica Ellerm, Deputy Chief Executive / Executive Director Corporate Services

### 1.1 Purpose of Report

To present the committee structure and appointments to Committees, Subcommittees, Joint Committees and External Organisations decided by the Mayor for approval.

#### At the meeting

- Mayor Wise noted an addition to the external appointments. This is for the addition of Waipureku Waitangi Charitable Trust, who organise the annual Waitangi Day celebrations. Councillor Boag will be the appointee for this organisation.
- Tabled at the meeting was a letter from the Waipureku Waitangi Charitable Trust (*Doc Id 1614382*) requesting a Napier City Council representative be appointed to their Trust. A letter of support from Council's Pou Whakarae supported this appointment.
- Mayor Wise advised that there were a number of factors to be considered when establishing the Committee and Portfolio responsibilities including the impacts on work load of the elected members and council officers. Appointments had been made to align with elected members interest and skill sets.
- A new Senior Chair role had been created to provide support to the Mayor and Deputy Mayor in the areas of growth, infrastructure and planning, as there is a significant amount of work ahead in these areas. Councillor Price has been appointed to the Senior Chair role.
- Mayor Wise confirmed that the governance structure for this triennium would retain the previous four Standing Committees, which aligned well to Council's directorates (Napier People and Places Committee, Prosperous Napier Committee, Sustainable Napier Committee and Future Napier Committee), with decision making delegations.
- Portfolios also remained the same except for the removal of Three Waters which was primarily internally focussed and no longer required.



Ordinary Meeting of Council - 15 November 2022 - Open Minutes

- The role for the Portfolio Leads for this triennium is to focus on external relationships and develop networks and connections with relevant community groups and organisations.
- It was noted that representation on Ngā Mānukanuka o te Iwi has changed, following extensive consultation with key iwi partners and which has been endorsed by Council's Kaumatua, Piri Prentice, to include representatives from each of the seven marae, and two representatives from the Post Settlement Government Entities (Mana Ahuriri Trust and Mangahururu-Tangitū Trust). The Kaumatua, Mayor, and the four Chairs of the Standing Committees would also be on the Committee.
- Terms of Reference are currently being reviewed and finalised for Council/Committees and would be brought back to Council for adoption in the New Year.

**COUNCIL** Dep. Mayor Brosnan / Councillor Price

**RESOLUTION** That Council:

- Note** the governance structure and appointments for the 2022-2025 triennium, established by Mayor Wise in accordance with Section 41A of the Local Government Act 2002.
- Approve** the appointments to Committees, Subcommittees, Joint Committees and External Organisations included in the governance structure for the 2022-2025 triennium.
- Adopt** the recommendations of Her Worship the Mayor in respect of the appointments to Committees, Subcommittees, Joint Committees and External Organisations, as outlined in the table below:

APPOINTMENTS TO COMMITTEES / ORGANISATIONS		
Appointment/ committee/ organisation	Membership	Appointments
Mayor	Full voting member of all committees	Mayor Kirsten Wise
Deputy Mayor		Cr Annette Brosnan
Council	Mayor & All Councillors	Mayor Wise (Chair) Deputy Mayor (Deputy Chair) All Councillors
Standing Committees		
Napier People and Places	Mayor & All Councillors 2 Ngā Mānukanuka o te Iwi appointees	Chair: Cr McGrath Deputy Chair: Cr Boag

Ordinary Meeting of Council - 15 November 2022 - Open Minutes

	(Chair and Deputy appointed by Committee) <i>Hastings District Council is the administering body.</i>	
Hawke's Bay Museum Storage Working Group	2 NCC Councillors 2 HDC Councillors 1 External (independent Chair) 3 NCC Officers 3 HDC Officers	Cr Crown Cr Chrystal
HB Regional Transport Committee	1 Councillor 1 alternate <i>Established in accordance with Section 105 of the Land Management Transport Act 2003 as soon as practicable after a triennial election. Hawke's Bay Regional Council is the administering body.</i>	Cr Price Mayor Wise (alternate)
Joint Waste Futures Project Steering Committee	3 NCC Councillors 3 HDC Councillors (Chair and deputy appointed by Committee) <i>Hastings District Council is the administering body.</i>	Cr McGrath Cr Browne Cr Tareha
Omarunui Joint Refuse Landfill Committee	2 NCC Councillors 1 NCC alternate 4 HDC Councillors 1 HDC alternate <i>Hastings District Council is the administering body.</i>	Cr McGrath Cr Tareha Cr Simpson (alternate)
Te Komiti Muriwai o Te Whanga	1 Councillor <i>This is a co-governance entity established through the passing of the Ahuriri Hapū Claims Settlement Bill. Napier City Council is the administering body.</i>	Deputy Mayor Brosnan
<b>Internal Panels</b>		
Napier Civic Awards Panel	Mayor (or nominee) 2 Councillors (Annual event first Wednesday in September)	Mayor Wise Cr Boag Cr Greig

**From:** Angus Hodgson <[Angus.Hodgson@kiwirail.co.nz](mailto:Angus.Hodgson@kiwirail.co.nz)>  
**Sent:** Tuesday, 17 January 2023 3:46 pm  
**To:** Katie Nimon <[Katie.Nimon@hbrc.govt.nz](mailto:Katie.Nimon@hbrc.govt.nz)>  
**Cc:** Lyndon Hammond <[Lyndon.Hammond@kiwirail.co.nz](mailto:Lyndon.Hammond@kiwirail.co.nz)>  
**Subject:** RE: Regional Transport Committee attendance

**Caution:** This email is from outside of Hawke's Bay Regional Council. Do not click links or open attachments unless you are certain the content is safe. If this email claims to be from a HBRC staff member, do not click on any links or attachments and contact HelpDesk immediately.

Kia ora Katie

I'll have a discussion internally about who we can send to the 10 February meeting. Unfortunately I have already accepted a Waikato RTC meeting on the same day, as I was otherwise going to come to this on our behalf. I'll be in touch shortly.

Hei konā

**Angus Hodgson** | Group Manager – Government Policy and Funding (Acting)  
M: +64 21 202 3428



### Regional Joint and other Regional Committees of Council

Organisation	Appointment	Description of Organisation
<b>Hawke's Bay Disaster Relief Trust</b>	Mayor Alex Walker	<p>Created by the Hawke's Bay Civil Defence Emergency Management (CDEM) Group in March 2020, the Hawke's Bay Disaster Relief Trust is a charitable Trust that provides financial and any other relief or assistance to meet the welfare and other needs of people who have suffered any injury, damage or loss following the occurrence of a disaster that qualifies as an "emergency" under the Civil Defence Emergency Management Act 2002 (or any later replacement thereof), whether natural or otherwise, within the legal boundaries of the Wairoa, Hastings, and Central Hawke's Bay District Councils and Napier City Council.</p> <p>Under the Trust deed, the Hawke's Bay Mayors and Regional Council Chair are the Trustees.</p>
<b>Joint Standing Committee Civil Defence Emergency Management</b>	Mayor Alex Walker	The Civil Defence Emergency Management Group Joint Committee is required under section 12 (1) of the Civil Defence Emergency Management Act, with membership made up of Mayors and Regional Council Chair and their deputies as alternates.
<b>Regional Transport Committee</b>	Mayor Alex Walker  Alternate: Councillor Kate Taylor	<p>The RTC is a subcommittee of the Hawke's Bay Regional Council (HBRC). It has two HBRC Councillors. One councillor is the chairman, and the other is their elected representative on the RTC and the Mayor from each of the four (4) Hawke's Bay local authorities.</p> <p>Each of the Land Transport Managers in the local authorities are a representative on the TAG (Transportation Advisory Group) who support and provide information and recommendations to and attend the RTC meetings.</p> <p>The key responsibility of the RTC is to coordinate, discuss and prioritise the land transport projects and direction at a regional level before they are submitted to HBRC for approval and submission to the NZ Transport Agency (NZTA) for inclusion in the National Land Transport Program (NLTP) at a national level.</p>



**Hawke's Bay Regional Council**  
**Regional Transport Committee**  
**Friday 10 February 2023**

**Item 4**

**Subject: Setting the priorities and principles for the Regional Speed Management Plan**

**Reason for Report**

1. This report presents the draft regional principles, priorities, and guidelines to be reflected and built into the local road controlling authority Speed Management plans to create a regionally aligned plan to enable a decision by the Regional Transport Committee (RTC).

**Officers' Recommendation**

2. Staff recommend the RTC adopts the proposed regionally aligned speed management planning principles and priorities to progress Road Controlling Authority (RCA) speed management planning.

**Executive Summary**

3. Speed management is a facet of Waka Kotahi's Road to Zero strategy, recognising speed management as a key part of an all of system approach to safer roading and roading environments. Hawke's Bay has some challenging roads with speeds that are currently not fit for their intended form and function.
4. The report sets the context for regionally aligned speed management planning principles and priorities. It lays out the roles and responsibilities of HBRC and the RCA within the region and discusses the importance of having aligned, agreed, and endorsed speed management principles and priorities

**Background /Discussion**

**Road to Zero**

5. Road to Zero is the governments road safety strategy, replacing Safer Journey's strategy which reached the end of its' tenure in 2019. The strategic vision is for New Zealand to be a country where no one is killed or seriously injured in road crashes. Effectively, this means that no death or serious injury is acceptable while travelling on New Zealand roads. The strategic target of Road to Zero is a 40% reduction in Death and Serious Injuries by 2030.
6. The Road to Zero strategy is an evidence based and internationally proven approach to practically reducing serious road trauma. It takes an all of system approach that actively recognises that humans are inherently vulnerable and make mistakes. This means that a holistic all of system approach must be taken that enables us to promote good choices and behaviour, but plan for mistakes. This strategy is informed by a range of guiding principles and strategic priorities. Importantly, the five focus areas of Road to Zero inform and direct investment and education activities through an all of system approach. The focus areas are:
  - 6.1. Vehicle safety – focused on significantly improving the safety performance of the national fleet
  - 6.2. Work related safety – ensuring that businesses and other organisations treat road safety as a critical health and safety issue
  - 6.3. Road user choice – Encouraging safer choices and safer behaviours on our roads
  - 6.4. System Management – develop a management system that reflects international best practice.

- 6.5. Infrastructure improvements and speed management – improve road safety of our cities and regions through infrastructure improvements and speed management
7. Speed management forms a part of the Road to Zero strategy and is a proven low-cost tool that can be applied to enable positive change in road deaths and serious injury.

### **Land Transport Rule: Setting of Speed Limits 2022**

8. In May 2022 the new Land Transport Rule: Setting of Speed Limits 2022 (the Rule) came into force. The new Rule is designed to form a more consistent approach to applying speed management within regions, with consideration of speed limits alongside investment in safety infrastructure by RCAs.
9. More specifically, the Rule establishes an integrated speed management planning process the considers how safety infrastructure, safety cameras, and speed limits can be combined effectively to help achieve a safe transport system. The Rule sets out to achieve this by:
  - 9.1. Providing for a whole of network approach where speed management is considered alongside investment in safety infrastructure
  - 9.2. Empowering or requiring RCAs to set speed limits for roads under their control
  - 9.3. Setting out requirements RCAs must comply with when setting speed limits
10. Each RCA in Hawke's Bay will be required to develop a speed management plan for the roads they control. This will subsequently be offered for public consultation ahead of adoption and certification by Waka Kotahi.
11. Waka Kotahi have developed resources to assist with the development of speed management plans, outlining their place and importance in an all of system approach. The *Speed management guide: Road to Zero edition* provides detailed information and guidance around safe and appropriate speeds along with applicable roles and responsibilities in relation to the development of speed management guides. The speed management guide also provides guidance around partnerships with Māori throughout the speed management plan development process.

### **The role of Hawke's Bay Regional Council (HBRC)**

12. HBRC is not a road controlling authority, therefore cannot develop or implement a speed management plan. However, the Rule does encourage and empower regional councils to collectively create regionally aligned principles and priorities. These are outlined below.
13. The ongoing role of HBRC in the speed management process will be largely administrative and see HBRC assisting RCAs with engagement and consultation as requested. HBRC will also enable Māori to have opportunities to contribute to the preparation of the regional speed management plan.
14. HBRC will work to facilitate the administrative function of regional consultation, for all RCA plans following the regional process.
15. HBRC officers will also assist in the collation and analysis of RCA consultation feedback, if requested and play a role in collating the overall regional speed management plan.
16. HBRC must ensure the regionally aligned principles and priorities are endorsed and adopted by the Regional Transport Committee. RCA speed management plans will then be developed following the regionally agreed principles and priorities. For completeness, HBRC and council transport officers are developing a suite of regional guidelines to ensure a consistent approach is taken in the development and implementation of RCA speed management plans.
17. The full regional speed management plan that is a collation of the RCA speed management plan must be certified through Waka Kotahi by 30 June 2024. Agreeing the vision, priorities, and principles at this stage enables RCAs to adopt a consistent regional approach. Additionally, it



will assist HBRC with the collation of the final regional speed management plan, giving sufficient time to ensure consistency.

### Regional approach to be taken by RCAs in developing speed management plans

18. The RCAs of Hawke's Bay recognise and have reviewed the Speed Management Guide: Road to Zero, developed by Waka Kotahi, fully understanding the all-of-system approach discussed within the guide.
19. Given the diverse nature of the roads in Hawke's Bay, it is likely the RCAs will take a road-by-road approach to speed management planning. Waka Kotahi guidance suggests a speed management approach that aligns with the *One Network Framework urban street categories and safe speed limit ranges*. This is a roading classification applied to an area or grouping of roads. The nature of the roads in Hawke's Bay mean it is more practical and robust to adopt a road-by-road approach to speed management planning and implementation.
20. It is important that the RTC is aware that the process of developing and implementing speed management plans occurs over a 10-year period. Schools will be completed in the short term, with other roads and areas implemented in a phased manner. Ultimately, this is one tool in and all of system approach of Road to Zero.
21. To support a regionally aligned approach a suite of guidelines is being developed to ensure consistency across all RCAs in approach and process. These draft regional guidelines can be found in appendix 1 and are subject to change. Regional guidelines do not form part of the legislative responsibility held within the speed management planning process. However, all officers saw significant added value in the development and use of region wide guidelines / ways of working.

### The role of the Regional Transport Committee (RTC)

22. Following the development of speed management plans by the relevant RCA, the RTC will play a role in consolidating the information from RCAs into a draft regional speed management plan.
23. The RTC will also provide a forum to address any regional boundary or consistency issues that may arise from the RCA speed management process and require decision making.
24. The RTC will play a role in preparing a final draft regional speed management plan for certification by the Director of Land Transport.

### Draft vision, principles, and priorities

25. The RTC is charged with endorsing and adopting the principles and priorities for speed management in Hawke's Bay. These recognise the diversity of the physical roading environment and communities within our region and set the tone for an aligned and proactive approach to speed management. Further, these principles and priorities actively recognise that speed management is part of an *all of system* approach to achieve safer roads.
26. HBRC and RCA staff are working on a draft regional speed management plan. This will evolve along with the overall process. The document sets the context and tone for the regional speed management plan, with the principles and priorities forming the foundations.
27. The vision, principles, and priorities have been developed by HBRC and RCA transport staff as subject matter experts.

### Vision

28. The vision for Hawke's Bay is to have a transport system that is safe, appropriate, coherent, and fits the intended form, function, and use across our vastly different regional landscape.
29. While the vision sets the strategic tone, it does not require RTC approval or endorsement.

## **Principles**

30. The following principles will be closely considered when making decisions about appropriate speed management across Hawke's Bay:
  - 30.1. Safe communities and connections for all
  - 30.2. Greater public understanding of safe system principles, including that of elected members
  - 30.3. Increased connectivity within and between communities – designed with and for the community
  - 30.4. Network coherence / uniformity across the region and beyond
  - 30.5. Increased opportunity for, and access to multi-modal / active transport
  - 30.6. A speed management approach that serves the needs of the community that the network is serving / supporting
  - 30.7. Work with Iwi and community leaders as key partners in the development of speed management plans.

## **Priorities for speed management**

31. The below priorities articulate the collective initial focus areas across Hawke's Bay. This list seeks to outline the initial priority areas that will be the short to medium term focus. This is not an exhaustive list.
32. Primary priority areas include:
  - 32.1. Schools / Kura
  - 32.2. Marae
33. Other priority areas include:
  - 33.1. Community plan areas
  - 33.2. Those streets and roads with currently misaligned speed limits across our urban and rural networks
  - 33.3. Isolated rural communities
  - 33.4. Town centres
  - 33.5. Locations with the presence of other key community facilities, such as hospitals, parks, rest homes, early childhood education centres, etc
  - 33.6. Road works zones, as applicable and appropriate.

## **Options Assessment**

### **Option 1**

34. The Regional Transport Committee endorses and adopts the draft principles and priorities, as above.
  - 34.1. Advantages – Satisfies the requirements of the RTC's role in the initial development of speed management plans, creating regionally aligned and agreed principles, and priorities. Additionally, sets a strong regionally aligned tone.
  - 34.2. Disadvantages – there are no perceived or material disadvantages.

**Option 2**

- 35. The Regional Transport Committee does not endorse the draft principles and priorities. The RTC provides council staff with clear direction on changes and amendments to ensure momentum is maintained.
  - 35.1. Advantages – The RTC can give clear and concise input into the principles and priorities over and above discussion of changes or amendments in the context of the RTC meeting.
  - 35.2. Disadvantages – this would stifle the progress of speed management planning and subsequent consultation, pushing the timeline back to mid-year. It may result in the requirement to hold an out of cycle RTC meeting to agree and endorse any changes.

**Option 3**

- 36. The Regional Transport Committee elects to do nothing.
  - 36.1. Advantages – there are no perceived or material advantages
  - 36.2. Disadvantages – The RTC will not meet the requirements of its role within regional speed management planning and may push timelines back significantly. Additionally, to meet their legislative requirements, the RCAs will develop speed management plans that do not consider a regionally aligned approach.

**Strategic Fit**

- 37. Safer speeds support sustainable and climate-resilient services and infrastructure.

**Significance and Engagement Policy Assessment**

- 38. The priorities and principles inform the Speed Management Plan which is of a high significance due to the likely impact of change and requires detailed community engagement.
- 39. This is assessed as having a low significance; however, it informs the Speed Management Plan which will have a high significance as it will be of substantial interest to the community and will be likely to impact individuals and groups in the region, however, it promotes positive community safety outcomes. This will be subject to its own consultation process.

**Considerations of Tangata Whenua**

- 40. As Marae are a primary priority area for speed management plans it is expected engagement and consultation with Tangata Whenua will occur. As this will be within each RCA the requirement for engagement and consultation will fall there. HBRC will support, if requested
- 41. Waka Kotahi's *speed management guide: Road to Zero edition* clearly sets out the expectation that RCAs will closely partner with Māori throughout the speed management plan development process. A regional principle has been included highlighting the role Iwi and community leaders plan as key partners in the development of speed management plans.

**Financial and Resource Implications**

- 42. It is anticipated there will be very minimal budget implications to developing this plan.
- 43. There will be a resource requirement to support consultation. Staff will be required to assist in the collation of consultation feedback and development of a complete regional speed management plan. It is expected this will firmly fall within staff BAU activities.
- 44. An education and communication campaign may be required to assist with driving public awareness and understanding of safe system principles. This will fall into staff BAU activities and will run across all councils.

## Consultation

45. HBRC will be conducting consultation on the Speed Management Plan on behalf of and in partnership with the Hawke's Bay RCAs.

## Decision Making Process

46. Council and its committees are required to make every decision in accordance with the requirements of the Local Government Act 2002 (the Act). Staff have assessed the requirements in relation to this item and have concluded:
  - 46.1. The decision does not significantly alter the service provision or affect a strategic asset, nor is it inconsistent with an existing policy or plan.
  - 46.2. The use of the special consultative procedure is not prescribed by legislation.
  - 46.3. The persons affected by this decision are all residents, rate payers, tourists, and inter-regional authorities.
  - 46.4. Given the nature and significance of the issue to be considered and decided, and also the persons likely to be affected by, or have an interest in the decisions made, Council can exercise its discretion and make a decision without consulting directly with the community or others having an interest in the decision.

## Recommendations

That the Regional Transport Committee:

1. Receives and considers the *Setting the principles and priorities for the Regional Speed Management Plan* staff report.
2. Agrees that the decisions to be made are not significant under the criteria contained in Hawke's Bay Regional Council's adopted Significance and Engagement Policy, and that the Committee can exercise its discretion and make decisions on this issue without conferring directly with the community or persons likely to have an interest in the decision.
3. Adopts the principles and priority areas as proposed; being:

### Principles

- 3.1. Safe communities and connections for all
- 3.2. Greater public understanding of safe system principles, including that of elected members
- 3.3. Increased connectivity within and between communities – designed with and for the community
- 3.4. Network coherence / uniformity across the region and beyond
- 3.5. Increased opportunity for, and access to multi-modal / active transport
- 3.6. A speed management approach that serves the needs of the community that the network is serving / supporting
- 3.7. Work with Iwi and community leaders as key partners in the development of speed management plans.

### Primary priority areas

- 3.8. Schools / Kura
- 3.9. Marae

### Other priority areas

- 3.10. Community plan areas

- 3.11. Those streets and roads with currently misaligned speed limits across our urban and rural networks
- 3.12. Isolated rural communities
- 3.13. Town centres
- 3.14. Locations with the presence of other key community facilities, such as hospitals, parks, rest homes, early childhood education centres, etc
- 3.15. Road works zones, as applicable and appropriate.

**Authored by:**

**Bryce Cullen**  
**Transport Strategy & Policy Analyst**

**Katie Nimon**  
**Transport Manager**

**Approved by:**

**Katrina Brunton**  
**Group Manager Policy & Regulation**

**Attachment/s**

- 1 [↓](#) Draft Regional Speed Management guidelines



### Appendix 1 Regional speed management plan guidelines

To drive greater collaboration and regional co-ordination, council officers saw significant value in developing a set of guidelines to shape and help direct the overall approach to speed management planning. These guidelines are outside the legislative scope of speed management planning and are subject to change as the process develops. Essentially, they help to direct our collective way of working and are subject to change and development.

As a region, Hawke's Bay will work together to develop and implement a regional speed management plan that fits the intended form and function of our unique roads the community the network is serving. Our agreed regional guidelines set out how we will support and enable the principles and priorities to be realised. As a region we will aim to:

- Work collaboratively to actively support and enable integration with other road safety activities, working with road safety partners and other agencies.
- Collectively recognise that speed management forms part of an all of system view and informs the approach to other transport related activities and investments.
- Recognise the speed management planning process is long term (10 years+) in nature.
- In the first instance, reduce speeds in those areas that are currently priority areas and / or where speeds are misaligned between RCA borders.
- Actively assess corridors and roads on a road-by-road basis using the speed management guide and community insights to drive decision making.
- Approach speed management planning with the knowledge that RCAs are developing interim speed management plans to address higher priority corridors to get ahead of the planning timeline. Schools will be the highest priority for all RCAs in the first instance.
- Take a community centric approach to speed management planning and implementation.
- Create greater understanding of the safe system principles and approach including ongoing community education around safe and appropriate speeds for both the public and elected members.
- Work closely with Police to enable effective and efficient enforcement of speed management plans regionally.
- Ensure consistency between different communities and councils with a focus on the right speed for the physical environment.
- Work to identify and implement quick wins across the region.
- Be proactive to community level changes.
- Strive for network coherence within and across regional borders focusing on -
  - Areas where roads cross RCA boundaries ensure consultation and collective discussion occurs to enable network coherence.
  - Work collectively in a co-ordinated manner to ensure the public is suitably informed of changes and / or treatments in a timely manner.
  - Give close consideration of roading demand levels to inform cross boundary treatments.
- Work collaborative to continually develop an aligned approach to inter-regional roads, with focus on:
  - Paying attention to inter-regional speed management plans and approaches where roads cross regional boundaries
  - Work together with other RCAs outside the region to implement speed management plans where roads cross boundaries.

- Consider what would be reasonably expected in the physical environment of a cross regional road where the physical environment may change or be incoherent.
- Apply speed limits that are fit for the intended physical form and function of the roading environment, particularly where they cross regional boundaries.



**Hawke's Bay Regional Council**  
**Regional Transport Committee**  
**Friday 10 February 2023**

**Item 5**

**Subject: Johanna Birrell Deputation - Te Whatu Ora HB Safe Cycling report**

**Reason for Report**

1. This item introduces the deputation from Johanna Birrell about the Te Whatu Ora HB Safe Cycling report (attached).

**Decision Making Process**

2. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision making provisions do not apply.

**Recommendation**

That the Regional Transport Committee receives and notes the That the Regional Transport Committee receives and notes the *Johanna Birrell Deputation - Te Whatu Ora HB Safe Cycling report*.

**Authored by:**

**Peter Martin**  
**Senior Governance Advisor**

**Approved by:**

**Katie Nimon**  
**Transport Manager**

**Attachment/s**

- 1 [!\[\]\(569ff5d1aa9137b5defb690d1175fea6\_img.jpg\)](#) Supporting safe bike and e-bike commuting report



**Te Whatu Ora**  
Health New Zealand

## Supporting safe bike and e-bike commuting for employees of Te Whatu Ora – Health New Zealand, Te Matau a Māui Hawke's Bay

Dr Johanna Birrell

Public Health Registrar, Population Health

National Public Health Service | Te Matau a Māui Hawke's Bay

December 2022

1

## Contents

<b>Executive summary</b> .....	3
<b>Background</b> .....	4
Staff active transport at Te Whatu Ora – Health New Zealand, Te Matau a Māui Hawke's Bay.....	4
Active transport and climate change.....	6
Cycling and public health.....	7
The impact of cycleway upgrades on local businesses.....	9
Why now? The e-bike era.....	10
Safe cycleways: urban planning standards.....	11
<b>Aims</b> .....	15
<b>Methods</b> .....	15
<b>Results</b> .....	16
Cycleway analysis.....	20
(1) Within urban Hastings.....	21
(2) Havelock North to urban Hastings.....	23
(3) Hastings Campus to Taradale.....	25
(4) Taradale to Napier Health Centre / central Napier.....	26
Bike storage assessment.....	27
Emissions reduction modelling.....	28
<b>Recommendations from public health review</b> .....	28
<b>Conclusions</b> .....	29
<b>Acknowledgements</b> .....	30
<b>References</b> .....	30
<b>Appendix 1: On-road cycle evaluation</b>	
<b>Appendix 2: Quality of Service Tool – road analysis</b>	

## Executive summary

There is a high level of car dependency in Hawke's Bay, and Te Whatu Ora – Health New Zealand, Te Matau a Māui Hawke's Bay is no exception. Despite significant efforts since 2015, organisational targets for staff active transport use have not been met. Travel surveys consistently highlight **road safety** as the key concern preventing more employees from cycling to work.

Increases in safe active transport commuting offer substantial public health benefits for the Hawke's Bay community. Hastings-based research has estimated a health benefit/cost ratio of **11:1** from improvements in cycling infrastructure, with associated education and promotion. Transformative change is needed to achieve the **2035 target of 41% reduction** in transport sector emissions. **E-bike** use is rapidly increasing in Hawke's Bay, offering an opportunity to expand the 'active transport radius' for cycle commuting. It is important that the healthcare sector in Hawke's Bay takes on a **leadership role** for other industries in supporting safe active transport and climate action for its staff and community.

This project aimed to analyse the **feasibility and safety** of current bike and e-bike commuting infrastructure for Te Whatu Ora – Hawke's Bay employees living in urban Hastings and Napier districts, and to identify priority cycle routes for safety improvement. Methodology included a literature review, Geographic Information System (GIS) mapping, qualitative interviews, quantitative analysis of domicile and survey data and on-road assessment.

Domicile mapping of **3,344 employees** living within urban Hastings and Napier found that **84%** reside within the 15km radius considered comfortable for e-bike commuting if a direct cycle route is available. Cycleway analysis found that infrastructure on existing key routes to Hawke's Bay Fallen Soldiers' Memorial Hospital does not meet contemporary safety criteria and secure on-site bike storage facilities are insufficient. High-quality safe cycling infrastructure that accommodates the ongoing rise in e-bike use in Hawke's Bay is required.

Overall, a network of **direct 'cycle highways' between the three urban centres of Napier, Hastings and Havelock North** has the potential to significantly reduce transport emissions and congestion, and provide multi-faceted health benefits for the whole Hawke's Bay community.

## Background

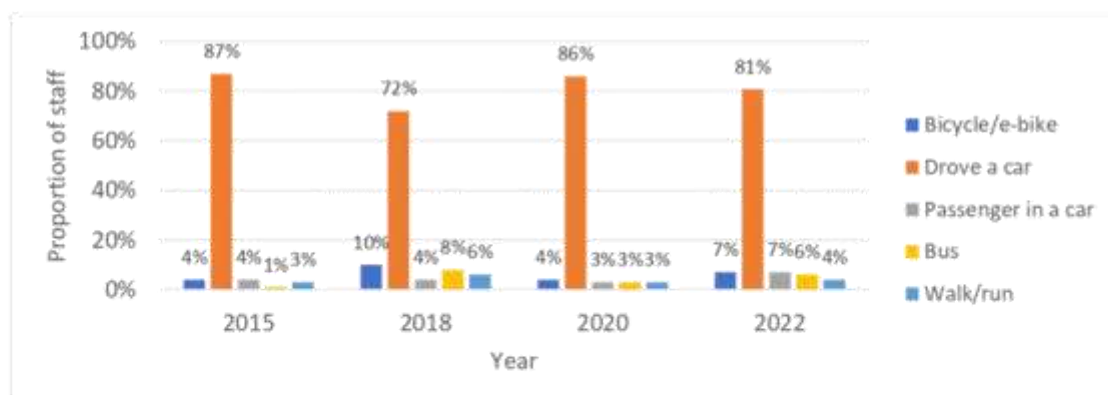
Despite a sunny climate and relatively flat urban areas, cycling to work is uncommon in Hawke's Bay, including among Te Whatu Ora – Health New Zealand employees. Cycle commuting has a broad range of potential public health and societal benefits. However, healthcare staff can only safely cycle to work if appropriate infrastructure is in place.

### Staff active transport at Te Whatu Ora – Health New Zealand, Te Matau a Māui Hawke's Bay

The primary campus of Te Whatu Ora – Hawke's Bay (formerly Hawke's Bay District Health Board [HBDHB]) is located on Omaha Road, Hastings. This campus includes the Hawke's Bay Fallen Soldiers' Memorial Hospital (364 beds) and a Corporate Office. The Napier Health Centre is a small secondary campus that includes an urgent care clinic, district nursing, mental health and addiction, oral health, population health, sexual health and child health services. In 2015-16, HBDHB launched the Go Well Travel Plan aiming to address parking issues and improve sustainable transport access to its facilities. Targets included reducing the proportion of staff that drive a car to work (from 87% in 2015, to 55% by 2018) and increasing staff cycle commuting (from 4% in 2015, to 9% by 2018), carpooling and public transport use. Outcome evaluation data is collected from an annual Staff Travel Survey.

As shown in Figure 1, the Travel Surveys indicated an initial trend towards cycle commuting in 2018 but this has not been sustained in the longer-term. In the 2022 Staff Travel Survey (465 respondents), **road safety** was the key concern that prevented staff from cycling to work. 'More/improved cycleways on the way to work' was the most requested intervention to encourage active transport commuting.<sup>1</sup> In particular, there were multiple requests for safer cycleways within urban Hastings and between Napier/Taradale and the Hastings campus, and for improved on-site bike and e-bike storage infrastructure. Examples of staff comments are shown in Box 1.

Figure 1. HBDHB Staff Travel Survey data – mode of travel to work, by year<sup>1</sup>



Box 1. Sample of staff comments: HBDHB Travel Survey 2022<sup>1</sup>**"Reasons that you travel this way"**

- "Too dangerous for bike"
- "I would love to bike but too unsafe on the highway and road"
- "I used to ride to work, I stopped due to feeling unsafe on open roads"
- "Often need to drop or pick children up around work hours"

**"What improvements, if any, would encourage you to walk or cycle to work?"**

- "Although cycleways exist not comfortable with the amount of traffic which cannot be avoided as the lanes are not solidly separated"
- "Better/safer cycle paths"
- "Bike track so I don't have to go on the road"
- "Confidence in driver awareness of cyclists"
- "Dedicated cycle lanes to the Hospital in Hastings Town"
- "Bike ride will be impossible as I live in Napier"
- "I do not feel safe cycling on the state highway"
- "I would seriously consider it if there was a safer way to get from Taradale to Hastings that wouldn't take me kilometres out of the way"
- "If there was a dedicated cycle path from Napier to Hastings I'd use it most days"
- "Safer route, currently the cycle path disappears at every roundabout and cars constantly pull into it to go around turning vehicles, just doesn't feel safe"
- "Better access on cycle-dedicated paths to secure bike sheds, more signage increased safety at exits and entrances, improve heightened awareness of car drivers in carparking and roads inside hospital grounds, more secure bike sheds and storage"
- "I wouldn't walk or bike as the road is too dangerous"
- "More bike parking spaces. I have an e-bike but it is too heavy to lift onto the upper racks"
- "More space in the bike sheds would be a great start"
- "Motor vehicle driver education on close passes and space to overtake, cycle user awareness, car dooring, intrusion into cycle lanes"
- "Not prepared to bike over the expressway and 100km areas"
- "None i drop a child off to day care"
- "Recuperation from previous bike accident!"
- "Safer cycling conditions, the traffic is too heavy and in too much of a hurry to get to a destination during peak times"
- "Safer roads for cyclists"
- "I need a e bike but can't afford one"
- "Safer, better maintained routes"
- "Some aspects of the cycle route home are extremely dangerous during peak hour traffic"
- "The cycle lane is great into work (Kennedy Road) but it's still a death wish, drivers have no respect for cyclists"
- "The roads are just not safe enough especially coming from Napier"
- "There is no current safe cycling route from my home to Hospital"
- "This is not applicable if you are coming from Napier"
- "Too dangerous"
- "Unless there is a specified bike trail off road, there's no way i am riding a bike on the expressway from Napier to Hospital"
- "Cycling to work is not feasible for me along a state highway"



### Active transport and climate change

The 2022 Lancet Countdown report outlines how, at 1.1°C of heating to date, climate change is increasingly undermining every pillar of good health.<sup>2</sup> These health impacts are adding additional pressures on overwhelmed health systems. A persistent fossil fuel overdependence has pushed the world into global energy and cost-of-living crises. With a further 0.4°C temperature rise probably unavoidable, accelerated adaptation is more urgent than ever if we are to avert a catastrophic temperature rise globally.<sup>2</sup> The International Panel on Climate Changes states that “it’s now or never, if we want to limit global warming to 1.5°C. Without immediate and deep emissions reductions across all sectors, it will be impossible.”<sup>3</sup>

On 16 May 2022, the government launched Aotearoa New Zealand’s first emissions reduction plan. Transport has a significant role to play. The plan calls for a 41% reduction in emissions from the transport sector by 2035 (from 2019 levels). Pertinent key initiatives from the emissions reduction plan include to<sup>4</sup>:

- Substantially improve infrastructure for walking and cycling
- Support initiatives to increase the uptake of e-bikes
- Deliver a national plan to significantly increase the safety and attractiveness of cycling and micromobility (e.g. e-bikes and electric scooters)
- Provide support for local government to develop network plans for walking and cycling
- Implement Accessible Streets proposals nationwide to support safe walking, cycling/scootering and other active modes
- Incentivise local government to quickly deliver bike/scooter networks, dedicated bus lanes, and walking improvements by reallocating street space (including during street renewals)
- Consider regulatory changes to make it simpler and quicker to make street changes
- Improve walking and cycling infrastructure to and along school routes, in schools, and in surrounding neighbourhoods.

On 4 December 2022, the government announced the Waka Kotahi Transport Choices programme.<sup>5</sup> This \$350 million package of investments drawn from the Climate Emergency Response Fund aims to “quickly progress strategic cycle routes; create walkable neighbourhoods; ensure safe, green and healthy school travel and make public transport more reliable and easier to use”, within a two-year timeframe.<sup>5</sup> This will include \$15 million to fund projects in Hawke’s Bay, which presents an important opportunity to strengthen the network of cycleways to support safe active commuting.<sup>6</sup>



### Cycling and public health

A 2022 prospective burden of disease study demonstrated that current transport systems in New Zealand, like many other car-dominated transport systems, have substantial negative impacts on health, at a similar level to the effects of tobacco and obesity. Transport contributes to health inequity in New Zealand, with Māori bearing a greater share of the negative health impacts.<sup>7</sup>

According to the Hawke's Bay Regional Land Transport Plan 2021-2031, "Hawke's Bay has the lowest physical activity rate in New Zealand. The region also has one of the highest overweight/obesity rates in the country, with over 70% of adults and over 35% of children aged 2-14 years considered overweight/obese. One of the key factors that contributes to a sedentary lifestyle, and leads to poor health outcomes, is car dependency. Walking and cycling for transport is one of the most practical and effective ways of incorporating physical activity into daily life."<sup>8</sup>

Additionally, the Health and Air Pollution in New Zealand 2016 (HAPINZ 3.0) study found that the Hawke's Bay Region has the fourth highest rate of premature death (30+ years) due to anthropogenic<sup>\*</sup> air pollution in New Zealand.<sup>9</sup> Air pollution was reported to cause 158 premature deaths in Hawke's Bay in 2016, with a rate of 156 deaths per 100,000 people aged 30+ years. Motor vehicles accounted for 63% (\$466 million) of the social cost<sup>†</sup> of anthropogenic air pollution in Hawke's Bay in 2016.<sup>9</sup> In combination with other measures, improvements in cycling infrastructure can provide concurrent air quality and climate change benefits by encouraging people to replace car trips with bike trips.

In 2013, New Zealand's Model Communities Programme (MCP) invested \$13.1 million in the provincial cities of Hastings and New Plymouth to build a mix of separated cycleways, walkways and cycle lanes, with associated education and promotion. Infrastructure spending was \$11.2 million across the two sites, of which the New Zealand Transport Agency funded \$7.8 million.<sup>10</sup> Educational measures such as travel planning, cycle skills training and website development received \$1.9 million in funding, from the demand management community programmes (DMCP) activity class.<sup>11</sup> Hastings invested in four arterial paths (29.5 km), to link the city to surrounding centres, and connected these with more than 50 km of marked on- and off-road walking and cycling 'collector' facilities. The ACTIVE before-and-after quasi-experimental study estimated the net benefits of health and other outcomes from the

<sup>\*</sup> The term 'anthropogenic' refers to environmental change caused or influenced by people, either directly or indirectly.

<sup>†</sup> 'Social costs' in the study included mortality costs (premature deaths, years of life lost), morbidity costs (hospital admissions, restricted activity days, childhood asthma) and damage costs (values comparing the benefits to society of a change in policy/operation with the cost of implementing the change).

MCP, using empiric analysis comparing two intervention cities with two control cities.<sup>10</sup> Annual benefits for health in the intervention cities were estimated at 34.4 disability-adjusted life years (DALYs) and two lives saved due to reductions in cardiac disease, diabetes, depression, cancers, respiratory disease and injuries. Reductions in transport-related carbon emissions were also estimated and valued. The estimated benefit/cost ratio was 11:1. The study concluded that when concerted investment is made in active travel, there is likely to be a measurable, positive return on investment.<sup>10</sup> The off-road cycle paths created during the MCP have been highly valuable for recreational cycling and tourism in the Hastings district. However, there remains a shortage of protected cycleways for urban commuting in Hawke's Bay.

The Hawke's Bay Regional Land Transport Plan states that from 2017-2020 there were 32 reported cyclist Deaths and Serious Injuries (DSIs) from road crashes in Hawke's Bay. "Safer cycle and walking networks are needed to protect these vulnerable road users, including by segregated infrastructure and safer cycling and driver education programmes. This will support promotion of active transport for purpose, that is to places of work, education and sport".<sup>8</sup>

*Motor vehicle door opening into the path of a cyclist<sup>12</sup>:*



Investment in infrastructure for safe active transport is an important and cost-effective public health intervention, with potential benefits in the prevention of injuries, chronic disease, mental illness, air quality and climate change-related health impacts.<sup>10</sup> However, barriers to uptake and expansion of active transport can include (1) the cost to individuals of purchasing and maintaining bikes and e-bikes, (2) the upfront cost to councils and organisations of upgrading cycling infrastructure and (3) concerns from community members regarding economic and motor vehicle impacts.

### The impact of cycleway upgrades on local businesses

Local councils frequently face opposition to new or expanded urban cycling infrastructure, including from local business owners who are concerned that the removal of or reductions in car parking or travel lanes will reduce patronage from motorists. However, a recent review examining 23 studies from the US and Canada demonstrated that improving active transport facilities had positive or non-significant economic impacts on hospitality and retail businesses abutting or within a short distance of the facilities. The results were similar regardless of whether vehicle parking or travel lanes were removed or reduced to make room for the active travel facilities.<sup>13</sup>

A study by the Auckland City Council reviewed their Fort Street upgrades (2010-13), which reduced driving lanes and made the street more attractive to pedestrians and cyclists. The street network provided alternative routes for cars to avoid Fort Street and surrounding shared spaces, to ensure spaces remain lightly trafficked. The study found that pedestrian numbers increased by 47% during peak hours, business was boosted, and the development led to significant investment in the area. Over 75% of property owners said it was valuable being sited near or adjacent to the shared space, there was a 429% increase in hospitality spending and 47% increase in retail spending.<sup>14</sup>

*Fort Street shared spaces, Auckland - permitting low-volume, one-way road traffic but providing greater pedestrian and cyclist priority<sup>14</sup>:*



*Shared space for pedestrians, cyclists and one-way motor vehicles in Emerson Street, Napier:*





### Why now? The e-bike era

E-bike imports to New Zealand have been steadily rising over the past 5 years, with electric micro-transport imports (e-bikes, e-mopeds and e-scooters) reaching \$112 million in the year to March 2022, and overtaking the value of mechanical bicycles in 2021.<sup>14-15</sup> The owners of the Electrify NZ e-bike franchise in Taradale, Hawke's Bay have observed demand for e-bikes tripling over the last 3 years.<sup>16</sup>

The University of Auckland's Electric City research programme has found that e-bikes have expanded Auckland's 'active transport radius'. While the average pedestrian is traditionally predicted to be willing to walk up to 3km, and those on pushbikes to commute up to 5km, a large number of participants were regularly and comfortably commuting 15km each way to work on e-bikes.<sup>14</sup> There is an absence of e-bike usage data specific to Hawke's Bay. However, the Electric City findings from Auckland are likely to be locally generalisable, particularly given the large open plains, relatively flat urban areas, minor traffic congestion and sunny climate of Hawke's Bay.

Expanded active transport commutes were particularly likely where high-quality cycling 'highways' were available. "Cycle highways: wide, protected, high quality environments for fast cyclists, provide the best conditions for e-cycling. High priority should be given to investing in cycle highways that enable people within 15km of the central business district (CBD), and other key employment/education hubs, to use an e-bike for everyday transport."<sup>14</sup>

Research suggests high e-bike uptake among women. E-bike counts on the Auckland Northwestern cycleway found that women represented 27% of cyclists but 41% of e-cyclists.<sup>14</sup> **As 82% of Te Whatu Ora – Hawke's Bay employees are female<sup>17</sup>**, e-bikes present a major opportunity. E-bikes can also enable people to undertake more 'car like' trips using active transport. The pedal-assist also makes it feasible to carry heavy loads such as children and shopping, particularly on cargo e-bikes.<sup>14</sup>

*A family commuting to work via e-bikes on Wellington's cycleway network<sup>28</sup>:*



Safe cycleways: urban planning standards

The Auckland Transport 'Cycling Infrastructure Transport Design Manual'<sup>19</sup> and 'Urban Street and Road Design Guide'<sup>20</sup> provide detailed direction on planning approved cycleway facilities for each street type. A tool is included to assess the Quality of Service of existing and proposed infrastructure, to determine safe and consistent travel routes for cyclists (Figure 2).<sup>19</sup>

On roads with  $\geq 3000$  vehicles per day, vehicle travel speeds of  $\geq 40\text{km/hr}$  or  $\geq 4\%$  heavy vehicles, protected (separated) cycle paths become the appropriate on-street cycling facility. The cycle path can be protected from the vehicle travel lane by a raised buffer and/or parked cars where parking is required (Figure 3).

Alternatively, the cycle path can be raised to footpath level or to an intermediate height. Alternative road designs in Auckland now require specific approval and need to demonstrate compliance with design principles.<sup>20</sup> Examples of protected cycleway designs are shown in Figure 4.

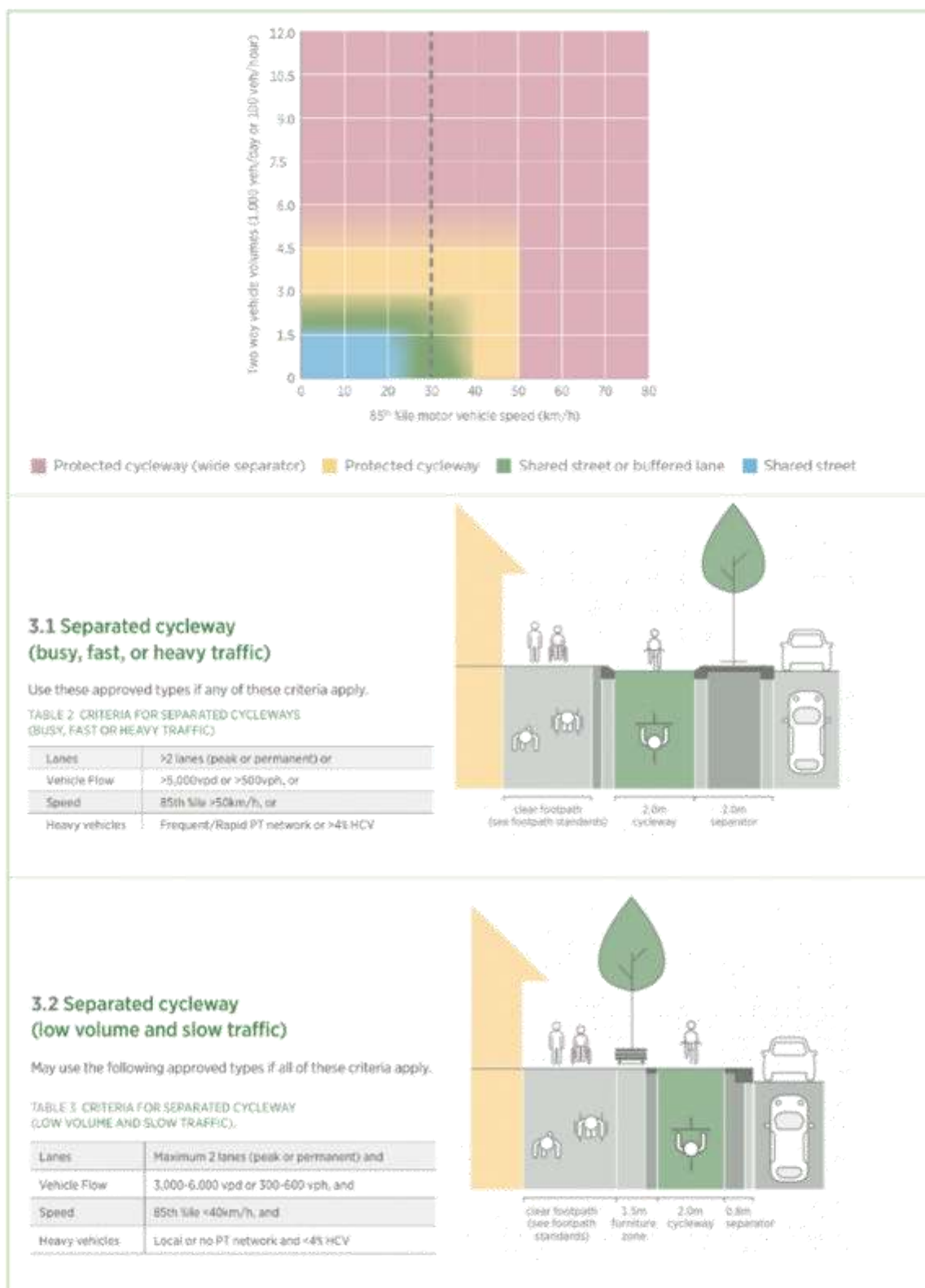
Figure 2. Guide to Facilities for Traffic Condition<sup>19-20</sup>

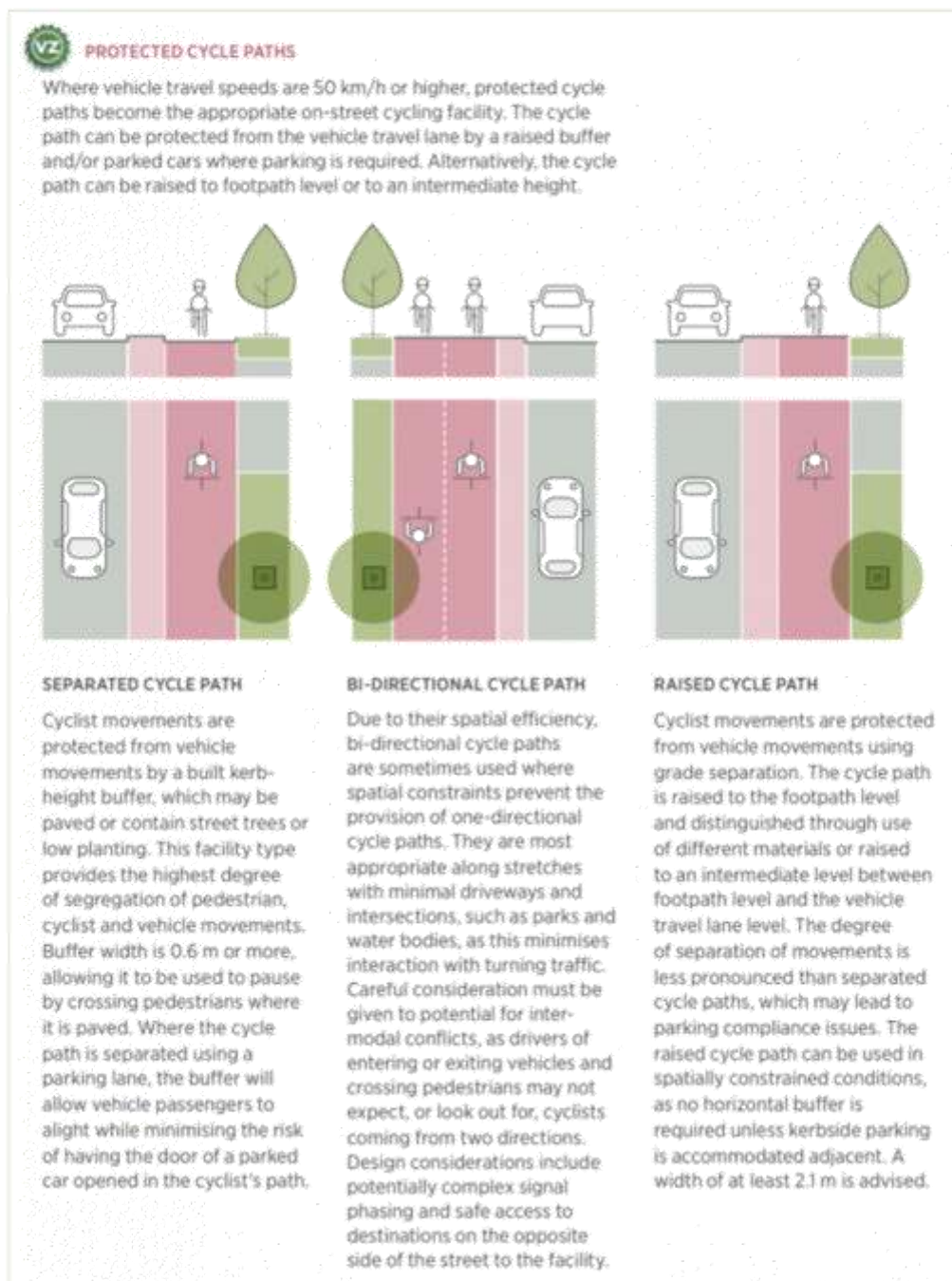
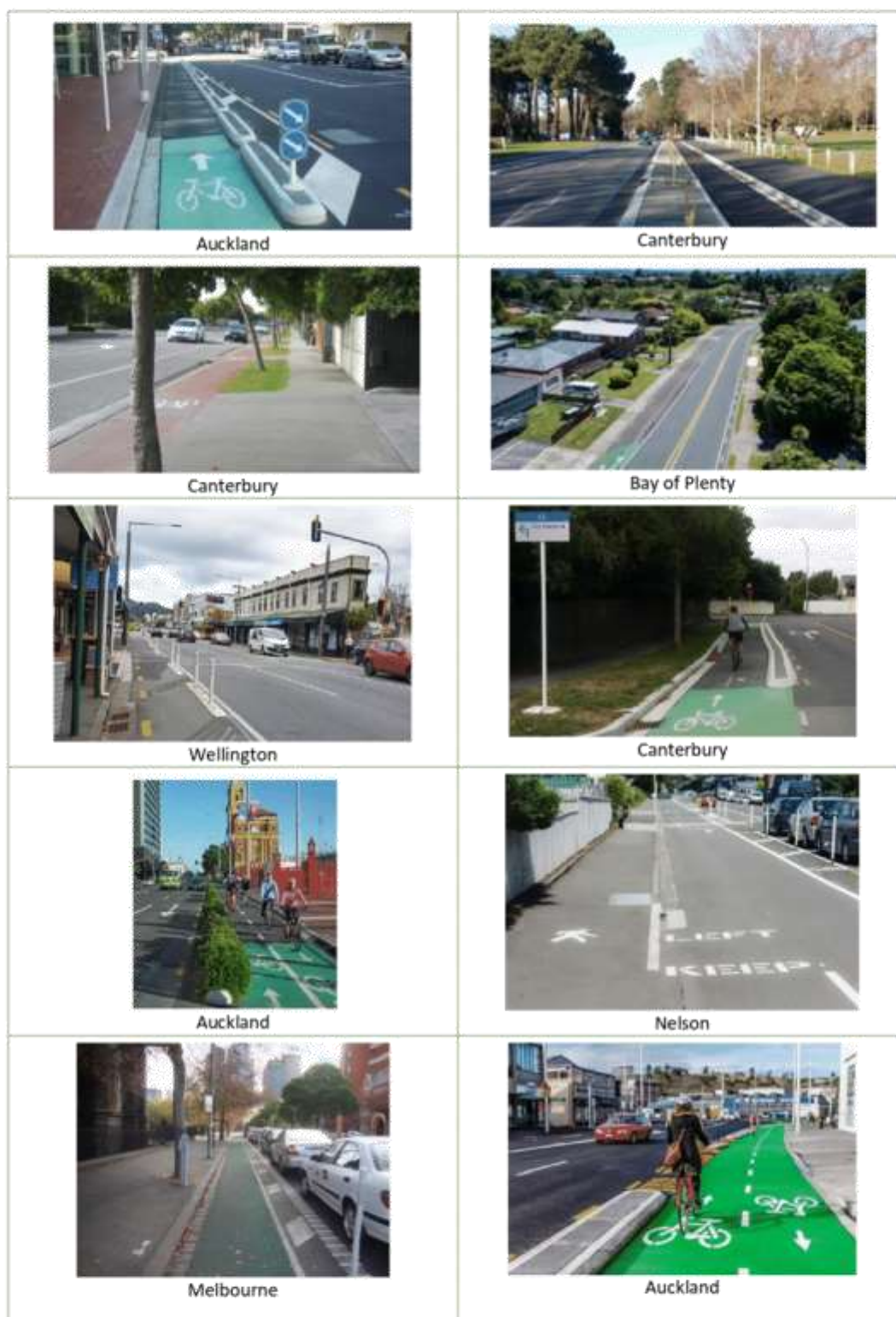
Figure 3. Types of protected cycle paths<sup>20</sup>



Figure 4. Protected cycle path examples<sup>21</sup>



It is vital that the healthcare sector in Hawke's Bay takes on a leadership role for other industries in supporting safe active transport and climate action for its staff and community. Recognising the barriers cited by staff, this project will seek practical interventions to improve the safety and feasibility of cycle commuting.

## Aims

This project aimed to analyse the feasibility and safety of current bike and e-bike commuting infrastructure for Te Whatu Ora – Hawke's Bay employees living in urban Hastings and Napier districts, and to identify priority cycle routes for safety improvement.

## Methods

This mixed-methods project included a narrative literature review, Geographic Information System (GIS) mapping, qualitative interviews, quantitative analysis of domicile and survey data, and an on-road assessment. Ethics approval was sought from the New Zealand Health and Disability Ethics Committees for domicile mapping (Reference # 2022 OOS 13528). The project was deemed out of scope and not requiring ethics review. De-identified residential data for Te Whatu Ora – Hawke's Bay staff were obtained from the organisation's Human Resources & Workforce Analytics unit and geo-coded using the eSAM Address Validation Web Service. To maintain staff privacy, only domicile codes were used for mapping (not street address). Missing and outdated staff residential data is acknowledged as an important limitation of the analysis.

GIS mapping was performed using ArcMap 10.8<sup>®</sup>. Layers including cycle tracks, kerb-lines, traffic islands, schools and early childcare centres (ECEs) were obtained from Hawke's Bay Regional Council and Hastings District Council datasets and added to the GIS map. An additional 15km radius map around the Hospital was generated using Google Maps<sup>®</sup>. The approximate geographical distribution of the workforce was used to define the population of potential bike or e-bike users.

Phone interviews were undertaken with four regular cycle commuters working at the Hastings campus (residing in Hastings, Havelock North, Napier and Taradale) to obtain informal feedback on preferred routes and perceived safety hazards. An on-road evaluation of safety and accessibility was performed via e-bike on Tuesday 8<sup>th</sup> November 2022 (Appendix 1) with video footage captured. The Auckland Transport Quality of Service Tool (Figure 3) was used to analyse the safety of current cycleway

infrastructure. Bike shed capacity at the Hospital and Napier Health Centre were assessed at peak times (09:15 and 10:45 respectively) on this fine-weather day. Data from the Hospital's 2022 (March to August) Bike Parking Count Workbook were also reviewed.

Current cycleways were classified into the following categories from Waka Kotahi NZ Transport Agency<sup>22</sup>:

- Shared roadway
- Sealed shoulder
- Cycle lane (kerbside / cycle lane next to parking / contra-flow cycle lane)
- Protected (separated) cycleway
- Shared path (cyclist / pedestrian)
- Trail (unsealed)
- Cycle-only path.

Emissions reduction estimates were calculated using the Waka Kotahi Transport 2035 Emissions Calculator<sup>23</sup> for Te Matau a Māui Hawke's Bay.

## Results

Domicile data were available for 3,344 employees living within urban Hastings and Napier districts. A total of 515 employees were excluded as their domicile was missing or outside the urban zones outlined in Table 1. Tables 1 and 2 provide a summary of the residential distribution of Te Whatu Ora – Hawke's Bay employees.

*Table 1. Residential distribution of Te Whatu Ora – Hawke's Bay workforce (residing within urban areas of Napier and Hastings)*

Urban centre	Number of employees (%)	Number of employees living within 15km direct radius of Hastings campus (%)
Hastings	1481 (44%)	1481 (44%)
Napier	1295 (39%)	755* (23%)
Havelock North	464 (14%)	464 (14%)
Clive	63 (2%)	63 (2%)
Haumoana / Te Awanga	41 (1%)	41 (1%)
<b>Total</b>	<b>3344 (100%)</b>	<b>2804 (84%)</b>

\*Napier domiciles included within the 15km radius (if a direct cycleway is built): Taradale South, Taradale North, Greenmeadows, Tamatea South, Tamatea North, Meeanee, Pirimai, Poraiti, Awatoto, Maraenui.

*Table 2. Most frequent residential domiciles (≥100 staff residents)*

Domiciles with ≥100 staff residents	Number of employees
<b>Napier</b>	
- Taradale North	151
- Greenmeadows	144
- Taradale South	123
<b>Hastings</b>	
- Frimley	208
- Akina	147
- Mahora	130
- Raureka	125
- St Leonards	120
- Hastings Central	101
<b>Havelock North</b>	
- Te Mata	115
- Havelock North Central	111
- Iona	110

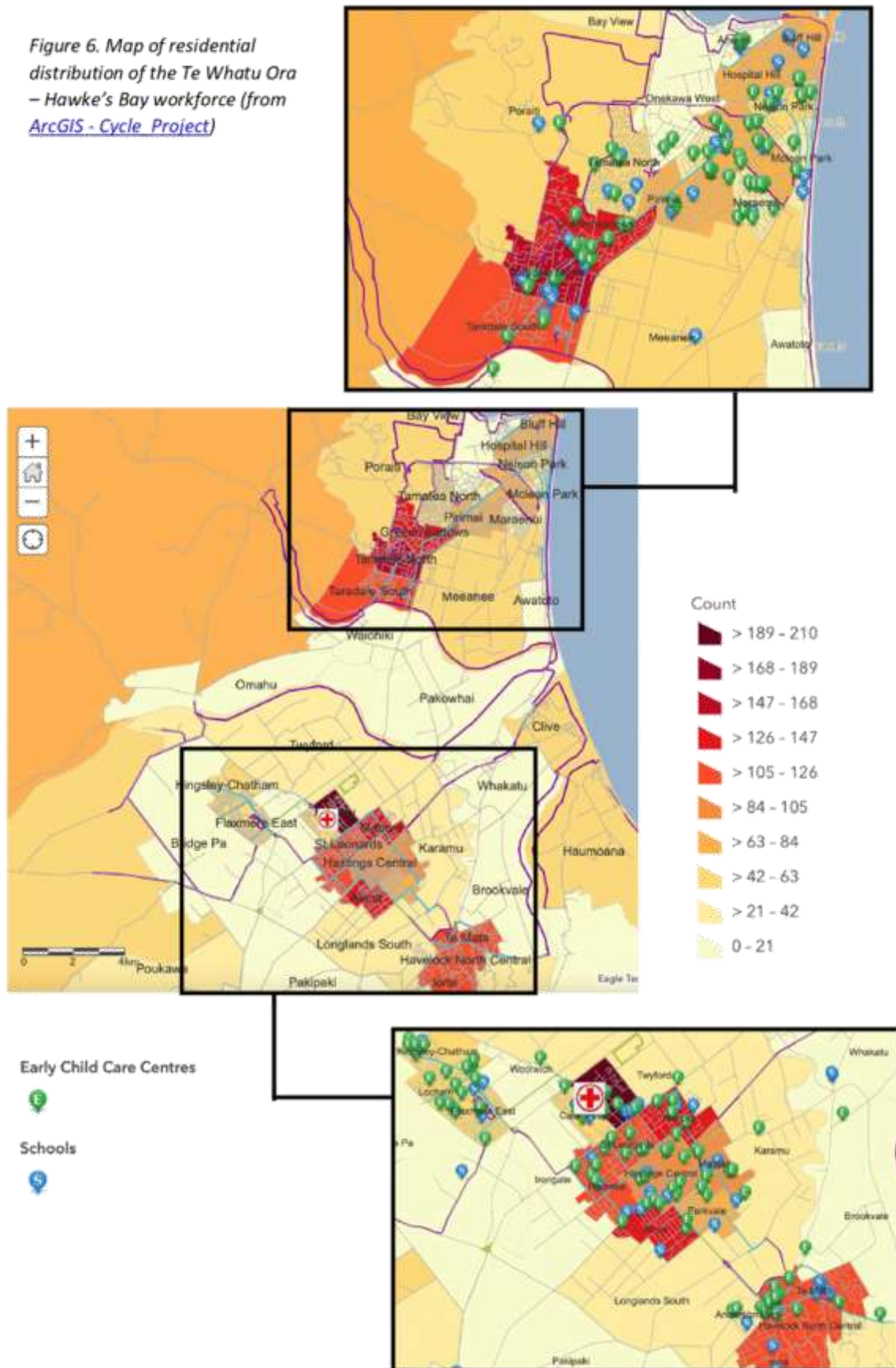
Figure 5 shows the 15km radius from the Hastings campus, considered comfortable for e-bike commuting if a direct cycle route is available.<sup>14</sup> An estimated 2,804 employees living in urban Hastings and Napier (84%) reside within this 15km zone.

*Figure 5. 15km radius from Hastings campus*



Sample images from the GIS map of staff residential distribution are shown in Figure 6. The interactive map (including domicile counts) is available at [ArcGIS - Cycle Project](#).

Figure 6. Map of residential distribution of the Te Whatu Ora – Hawke's Bay workforce (from [ArcGIS - Cycle Project](#))





### Cycleway analysis

Figure 7 and Table 3 provide an outline of key cycle routes within a 15km radius of the Hospital: (1) within urban Hastings, (2) between Havelock North and urban Hastings and (3) between Taradale and the Hastings (Hospital) campus; and (4) between Taradale and Napier Health Centre. Detailed on-road cycle evaluation results are outlined in **Appendix 1**. Road analyses using the Auckland Transport Quality of Service Tool are presented in **Appendix 2**.

Figure 7. Key cycle routes to Hawke's Bay Hospital



Table 3. Safety analysis of key cycle routes (see Figure 8 for coloured routes)

(1) Within urban Hastings

Road Link to e-bike footage (in fast forward!)	Average daily traffic	85% motor vehicle speed	% heavy vehicles	Current cycleway status	Required upgrades to meet Auckland Transport safety criteria
<p>Heretaunga St E</p> <p>Norton Rd to Hastings St S: <a href="#">Heretaunga St E (Norton Rd to Hastings St S) - 8x speed.mp4 - Google Drive</a></p> <p>Hastings St S to Russell St N: <a href="#">Heretaunga St E (Hastings St S to Russell St N) - 8x speed.mp4 - Google Drive</a></p>	14,561	47 km/h	5%	<p>Norton Rd to Hastings St S: cycle lane next to parking. Shared roadway on entry/exit to roundabouts.</p> <p>Hastings St S to Russell St N: shared roadway.</p> <p>3-way roundabouts: 1</p> <p>4-way roundabouts: 3</p>	<p>Protected cycleway (2m separator).</p> <p><u>Roundabouts:</u> Speed limit should be capped at maximum 30km/hr.</p> <p>Width of entry and circulating lanes should be limited, so that cars do not pass alongside people on bikes.</p> <p>Where traffic speeds and volumes are higher and approach roads have cycleways, the facility should:</p> <ul style="list-style-type: none"> <li>• transition to a suitable protected cycle path around the roundabout</li> <li>• provide off-road paths that are separated from pedestrians, and</li> <li>• have dedicated parallel cycle crossings across all traffic lanes.</li> </ul>
Hastings City Mall	n/a	n/a	n/a	Pedestrian-only, no cycleway across mall.	Create marked pedestrian/ cyclist shared space or establish a cycleway through Mall.
<p>Heretaunga St W</p> <p><a href="#">Heretaunga St W - 8x speed.mp4 - Google Drive</a></p>	5,605	34 km/h	6%	<p>Shared roadway (no cycle lane).</p> <p>3-way roundabouts: 5</p> <p>4-way roundabouts: 2</p> <p>Traffic light intersections: 1</p>	<p>Protected cycleway (2m separator), or shared street / buffered lane if vehicle volumes can be reduced to &lt;3,000/day (e.g. convert to one-way traffic).</p> <p><u>Roundabouts:</u> See advice above (row 2).</p>

Omahu Rd <a href="#">Omahu Rd - 8x speed.mp4 - Google Drive</a>	12,928	52 km/h	13%	Shared roadway departing the multi-lane roundabout with Maraekakaho Rd, then a cycle lane next to parking.	Protected cycleway (2m separator) in place of current car parking spaces or on the kerb-side of car parks.
Southampton St	10,584	49 km/h	6%	Cycle lane next to parking. Shared roadway on entry/exit to roundabouts.  4-way roundabouts: 4  Traffic light intersections: 2	Protected cycleway (2m separator).  <u>Roundabouts:</u> See advice above (row 2).
Orchard Rd	5,098	54 km/h	9%	Cycle lane next to parking.	Protected cycleway (2m separator).

## Comments:

- A protected express cycle highway is needed through central Hastings (southeast – northwest) for commuters from Hastings and Havelock North to safely cycle to the Hospital campus.
- Route options for a cycle highway include Heretaunga Street (East and West) to Omahu Road and/or Southampton St (East and West) to Orchard Road.
- A cycle highway along Heretaunga Street could connect directly onto the existing Havelock Road Cycleway. This would offer the most direct route through Hastings to the Hospital and improve cycle access to 2 schools and 12 ECEs. There would likely be concurrent benefits for the tourism, hospitality and retail sectors in central Hastings and reductions in central traffic congestion.
- A protected cycle highway along Southampton Road and Orchard Road would also provide good commuting access and would service 5 schools and 10 adjacent ECEs.
- However, the multiple 4-way roundabouts along both of these routes currently present a significant safety hazard for cyclists and would continue to deter many potential commuters (particularly parents cycling with children). Measures to improve cycling infrastructure and reduce traffic volumes and speeds through these intersections are critical.



## (2) Havelock North to urban Hastings (Heretaunga St East)

Road Link to e-bike footage	Average daily traffic	85% motor vehicle speed	% heavy vehicles	Current cycleway status	Required upgrades to meet Auckland Transport safety criteria
Te Mata Rd <a href="#">Te Mata Rd - 8x speed.mp4</a> <a href="#">- Google Drive</a>	8,282	57 km/h	7%	Cycle lane next to parking / kerbside cycle lane / shared roadway.  4-way roundabouts: 1  3-way roundabouts: 3	Protected cycleway (2m separator) – potentially a single two-way cycleway on southern aspect of road (see image in comments).  Speed limit across roundabouts should be capped at desirably 30 km/hr, with design changes as outlined in (1).  An external perimeter path and platform crossing could be added at the Napier Road roundabout.
Karanema Dr <a href="#">Karanema Dr - 8x speed.mp4</a> <a href="#">- Google Drive</a>	9,589	42 km/h	8%	Cycle lane next to parking.	Protected cycleway (2m separator) – potentially a single two-way cycleway on the northern aspect (see image in comments).
Havelock Rd <a href="#">Havelock Rd - 8x speed.mp4</a> <a href="#">- Google Drive</a>	Not available			Shared path	Unclear if raised path on western aspect of Havelock Rd is still an intended cycleway (cycle sharrows are faded). If so, driveway markings (e.g. coloured surfacing) should be improved. If not, improved bike signage and crossings to eastern side are required.  For the multi-lane roundabout at St Georges Rd intersection, grade separation (bridge or tunnel) is preferred. Alternatively, a platform crossing could be added to the current external perimeter paths.

Napier Rd	9,608	40 km/h	7%	Cycle lane next to parking / kerbside cycle lane/ shared path.	Protected cycleway (2m separator) in place of cycle lane sections.
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## Comments:

- Protected cycleways along Te Mata Road, Napier Road and Karanema Drive would also improve access for 4 adjacent schools and 7 ECEs.
- These changes may help to alleviate the significant traffic congestion along Te Mata Road and Napier Road, particularly at school drop-off and pick-up times, in the context of recent and ongoing urban development in north-eastern Havelock North. The route would also improve cycle access to Havelock North Village, with potential tourism, hospitality and retail benefits.

*Example of a potential two-way protected cycleway model<sup>22</sup>:*



## (3) Hastings campus to Taradale —

Road Link to e-bike footage	Average daily traffic	85% motor vehicle speed	% heavy vehicles	Current cycleway status	Required upgrades to meet Auckland Transport safety criteria
Pakowhai Rd <a href="#">Pakowhai Rd - 8x speed.mp4 - Google Drive</a>	14,209	55 km/h	8%	Kerbside cycle lane/ sealed shoulder/ shared path	Protected cycleway (2m separator), shared path or cycle-only path.  Recommend a cycleway detour around the Pakowhai Regional Park grid and gates to prevent cyclists from having to dismount.
Brookfields Rd <a href="#">Brookfields Rd - 8x speed.mp4 - Google Drive</a>	3,108	88 km/h	8%	Sealed shoulder	Protected cycleway (2m separator), shared path or cycle-only path.
Guppy Rd	1,502	54 km/h	8%	Cycle lane next to parking	Protected cycleway (2m separator), shared path or cycle-only path.

## Comments:

- Even with the above upgrades, only a minor proportion of staff could feasibly e-bike commute from Taradale to the Hastings campus as the indirect route exceeds 15km. The route is also unpleasant due to high adjacent traffic volumes, high heavy vehicle rates and poor air quality from diesel fumes.
- Current combined bus/cycle commuters from Taradale also report significant challenges, including there being only two bike racks on each bus (if occupied then they cannot board with their bike) and frequent last-minute bus cancellations. Multi-modal commuting presents significant logistical complexities for Hospital employees with strict shift onset and clinical handover times.
- A new direct cycle highway between Taradale and Omaha Road, Hastings would increase the estimated proportion of staff that reside within the 15km Hospital e-bike radius from **61%** (current) to **84%**.

## (4) Taradale to Napier Health Centre / Central Napier

Road Link to e-bike footage	Average daily traffic	85% motor vehicle speed	% heavy vehicles	Current cycleway status	Required upgrades to meet Auckland Transport safety criteria
Gloucester St <a href="#">Gloucester St - 8x speed.mp4</a> <a href="#">- Google Drive</a>	10,470	54km/h	5%	Shared roadway / intermittent cycle lane next to parking.	Protected cycleway (2m separator).
Kennedy Rd <a href="#">Kennedy Rd - 8x speed.mp4</a> <a href="#">- Google Drive</a>	6,753	54km/h	4%	Shared roadway / intermittent cycle lane next to parking.	Protected cycleway (2m separator).
Wellesley Rd <a href="#">Wellesley Rd - 4x speed.mp4</a> <a href="#">- Google Drive</a>	5,752	49km/h	8%	Shared roadway	Protected cycleway (2m separator).

## Comments:

- A protected express cycle highway along Gloucester Street and Kennedy Road is likely to have broader benefits for the Napier community, improving safe cycle access to Anderson Park, more than 10 adjacent schools and 20 ECEs.
- Linking this route onto a direct cycle highway from Taradale to Hastings Hospital, Hastings CBD and Havelock North, would be transformational for active transport commuting in Hawke's Bay.

### Bike storage assessment

No marked cycle path or lane was visible on entry to or transit through the Hastings campus. It is necessary to cycle directly through a carpark, and bike sheds may be difficult for new cycle commuters to locate. Bike Parking Count Workbook data from March to July 2022 demonstrated a shortage of secure bike parks at the Hastings Campus, with 91% occupancy in April and 100% occupancy in May (Table 4). This is consistent with findings from the on-road bike assessment and from staff feedback in the 2022 Travel Survey.<sup>1</sup>

*Table 4. Overall proportion of bike parks occupied at Hastings Campus, by month:*

Monthly Averages (%)	Total secure	Total unsecure
Mar-22	79%	14%
Apr-22	91%	10%
May-22	100%	28%
Jun-22	71%	13%
Jul-22	38%	18%

Facilities for e-bike storage at the Hastings Campus and Napier Health Centre (Appendix 1) are inadequate. Staff are unlikely to feel comfortable in storing their e-bike (often valued at several thousand dollars) in an unsecure park. There are minimal charging outlets available in bike sheds (one outlet, in the shed by Harding Hall), which may be required for low-range e-bikes/long-distance commuters). Due to weight the elevated storage racks are unsuitable for e-bikes, which further limits secure e-bike parking capacity.

*Secure bike shed with elevated storage racks at Hastings Hospital Campus:*





### Emissions reduction estimates

Using the Waka Kotahi Transport 2035 Emissions Calculator<sup>23</sup>, cycling was estimated to comprise 3% of all passenger trips taken in Hawke's Bay in 2018, while cars accounted for 79%. To illustrate potential impact: if cycling could be increased to 15% of all passenger trips by 2035, 33 tonnes of CO<sub>2</sub>-e would be prevented from entering the atmosphere per year when compared to current 2035 projections (a 6% reduction in overall annual transport emissions in Hawke's Bay). If increased to 30% of passenger trips, 74 tonnes of CO<sub>2</sub>-e would be prevented per year (a 14% reduction).<sup>23</sup>

### **Recommendations from public health review:**

For Te Whatu Ora – Te Matau a Māui Hawke's Bay:

- Significantly increase bike and e-bike secure storage capacity at the Hastings Campus and Napier Health Centre, including e-bike charging ports and adequate ground-level e-bike storage. Installation of secure charging stations (e.g. 'Locky Docks') could be considered as an alternative to bike sheds.<sup>24</sup>
- Establish marked cycleways or shared zones from Omahu Rd and Orchard Rd through the Hastings campus, directing cyclists to secure bike storage sites.
- Participate in active transport forums with council (Population Health, Health Promotion and Sustainability teams) to advocate for healthy public policy.

For Hawke's Bay Regional Council / Hastings District Council / Napier City Council:

- Establish visionary **policies** for reallocating street space for pedestrians and cyclists (including mandatory upgrades during street renewals) based on traffic conditions. This could be adapted from existing policies in other regions, such as the Auckland Transport Cycling Infrastructure Transport Design Manual'.<sup>19</sup>
- Establish an off-road direct 'cycle highway' from **Taradale to Omahu Road**.
- Create a protected cycle highway through central Hastings (southeast – northwest). Options could include along **Heretaunga Street and Omahu Road**, and/or **Southampton Rd and Orchard Rd**.
- Create protected cycleways along **Te Mata Road** and **Napier Road** in Havelock North.
- Create a protected cycle highway between **Taradale and central Napier**, such as along Gloucester Street and Kennedy Road.

## Conclusions

Increases in safe active transport commuting have substantial potential health benefits for the Hawke's Bay community, including in the prevention of cardiac disease, diabetes, depression, cancers and respiratory disease.<sup>10</sup> Transformative change is needed if the target of 41% reduction in transport sector emissions is to be achieved by 2035<sup>4</sup> and for the health effects of local air pollution are to be addressed.<sup>9</sup>

An important principle of public health action is to *'make the healthy choice the easy choice'*. The report has found that current cycleways to Te Whatu Ora – Hawke's Bay do not meet contemporary safety criteria and secure on-site bike/e-bike storage facilities are inadequate. It is currently infeasible for Taradale/Napier residents to cycle commute to the Hastings Campus due to the indirect routes and safety concerns. High-quality safe cycling infrastructure that accommodates the ongoing rise in e-bike use in Hawke's Bay is required.

Hastings-based research has estimated a potential health benefit/cost ratio of **11:1** from improvements in cycling infrastructure, with associated education and promotion.<sup>10</sup> When concerted investment is made in active travel there is likely to be a measurable, positive return on investment.<sup>10</sup> It is important that the healthcare sector in Hawke's Bay takes on a leadership role for other industries in advocating for safe active transport for its staff and community.

Implementation of contemporary safe cycleway standards and creation of 'cycle highways' along key routes would also allow staff to safely drop children off to ECEs and schools by bike or e-bike, patients and whānau to cycle to visit the hospital, and for other members of the public to commute into central Hastings.

Recommendations in this report for potential 'cycle highway' locations are based on results from:

- GIS mapping of workforce residential distribution and school/ECE locations
- Interviews with current regular cycle commuters
- On-road evaluation
- Number and type of roundabouts and major intersections
- Motor vehicle volumes and 85<sup>th</sup> percentile speeds (Hastings District Council and Napier City Council data)
- Hastings District Council Active Transport Business Case Short List
- iWay Network Development Plan 2018-2028.

Overall, a network of direct cycle highways between the three urban centres of Napier, Hastings and Havelock North has the potential to significantly reduce transport emissions and congestion and provide multi-faceted health benefits for the whole Hawke's Bay community.

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- Dr Alexandra Greig, Public Health Physician, Te Whatu Ora – Nelson-Marlborough Public Health.

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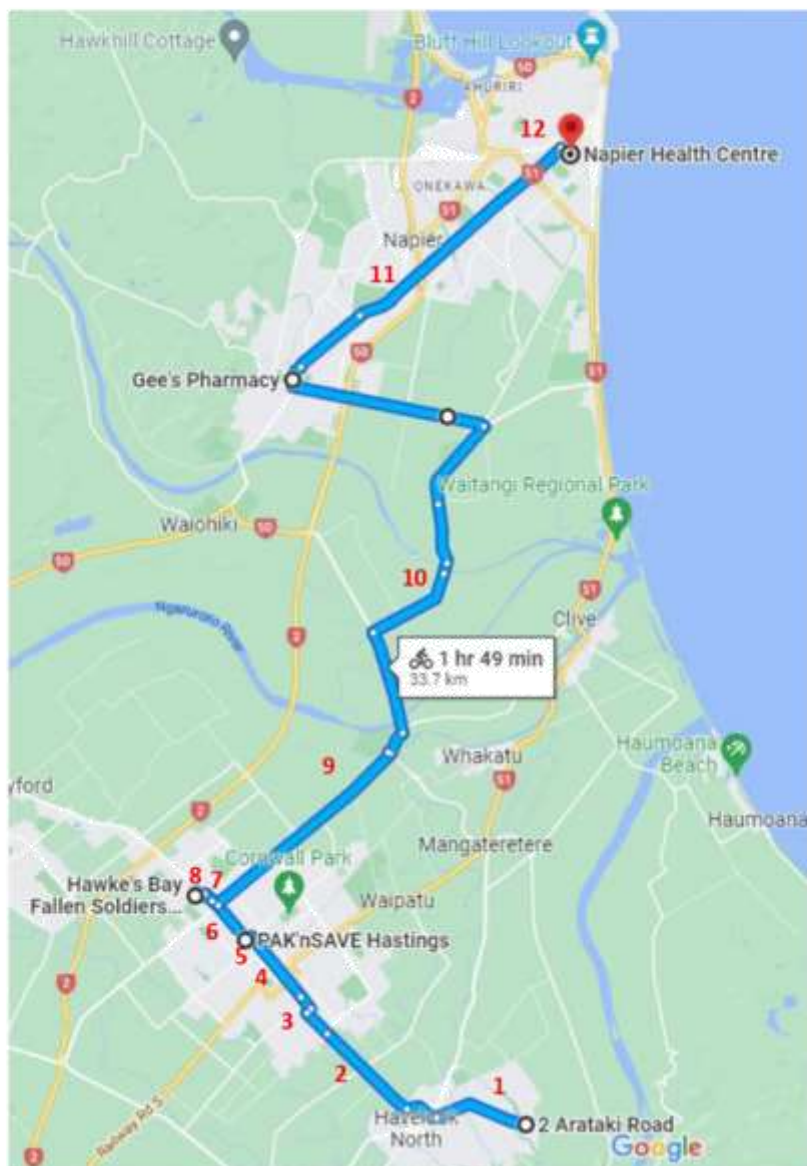


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24. Waka Kotahi NZ Transport Agency. Transport 2035 – Dashboard. Available at: [Transport 2035 \(mrcagney.works\)](#)
25. Hayward M. Free locking, charging 'Locky Docks' launch in Christchurch. Stuff. 2020 Jun 11. Available at: [Free locking, charging 'Locky Docks' launch in Christchurch | Stuff.co.nz](#)

## Appendix 1: On-road cycle evaluation







*Cycle route (south to north using e-bike), 08/11/2022:*



**Note:** From Brookfields Bridge to Taradale, Meeanee Road route was taken as cycle path along north bank of Tutaekuri River was closed for stop bank upgrades.

Departed Arataki Rd, Havelock North at 0850  
Arrived at Hospital 0915 (25 mins, 9km)







Departed Hospital at 0920  
Arrived at Napier Health Centre 1045 (1h 25 mins, 25km)






Step number	Experience (positive/negative/neutral) – would I cycle this route with a child?	Comments
1. Te Mata Rd to Karenema Drive, Havelock North	Negative	Risk from parked cars in cycle lane and door opening. Cycle lane abruptly stops at roundabouts. Recommend separated cycleway on other side of parked cars.
   		
2. Havelock Road	Positive	Shared path separate from road is enjoyable to ride along.
 		



3. Heretaunga St East (Norton Rd to Willowpark Rd)	Negative	Risk from parked cars in cycle lane and door opening, and no barrier between cycle lane and busy traffic. Cycle lane cuts off at entry to roundabouts. Recommend separated cycleway (on other side of parked cars or replacing carparks).
<div data-bbox="293 586 762 931"></div> <div data-bbox="778 586 1299 931"></div> <div data-bbox="280 963 785 1321"></div> <div data-bbox="801 963 1311 1321"></div>		
4. Heretaunga St East (Willowpark Rd to Hastings St S)	Negative	Risk from parked cars in cycle lane and door opening, and no barrier between cycle lane and traffic.
<div data-bbox="293 1541 746 1845"></div> <div data-bbox="762 1541 1299 1845"></div>		

5. Heretaunga St East (Hastings St S to Mall)	Negative	No cycle lane, despite being the city centre and popular tourist / hospitality destination. Risk to cyclists from reversing parked vehicles. Low traffic volumes - could be transformed into a shared space or one-way road with adjacent bi-directional separated cycleway. No speed limit signs along this road. If currently 50km/hr, recommend reducing.
		
6. Heretaunga St West (Mall to Maraekakaho Rd)	Negative	No cycleway across mall. No cycle lane on Heretaunga St West with many hazards – very unsafe for cyclists. Major roundabout at junction of Heretaunga St West & Maraekakaho Rd has no infrastructure or signage for cyclists.
		









		
		
		
7. Omaha Rd to Hospital	Negative	Wide cycle lane, but risk from parked cars and door opening. No barrier between cycle lane and traffic (busy road with frequent heavy vehicles). No cycle lane on entry to hospital (need to cycle directly through a carpark).

		
		
8. Bike storage at Hospital	Neutral	Locked shed with swipe access provides secure storage. Shed almost at capacity. Two-level storage system poorly suited to heavy e-bikes. No charging facilities.
		



		
<p>9. Hospital to Brookfields Rd (via Omaha Rd and Pakowhai Rd)</p>	<p>Negative</p>	<p>Poor air quality due to diesel fumes. No separated cycleway on Pakowhai Rd despite high vehicle speeds, frequent heavy vehicles and wide road. Loose gravel and debris in cycle lane.</p> <p>Needed to dismount 3 times for grid and gates.</p> <p>Very unsafe beyond Ngaruroro Bridge – no cycle lane (narrow shoulder only ), high vehicle speeds.</p>
		

 		
 		
10. Brookfields Rd to Taradale	Negative	No or very intermittent cycle lane along Brookfields Rd despite high speeds and many heavy vehicles. Poor air quality from diesel fumes. Brookfields Bridge extremely unsafe for cyclists and no alternative river crossing.
 		

 <p>Brookfields Bridge crossing</p>		
 <p>Heavy vehicles</p>	 <p>Crossing under State Highway 2</p>	
11. Taradale to Napier Health Centre (via Gloucester St, Kennedy Rd and Wellesley Rd)	Negative	Inconsistent cycle lane. Risk from parked cars (reversing and door opening) and roundabouts.
 <p>Central Taradale – reversing cars, no cycle lane</p>	 <p>Risk from car doors</p>	
		

		
12. Bike storage at Napier Health Centre	Neutral	Very limited attachment space to chain bike up within cage, and e-bike too heavy to lift onto wall hook. Combination lock on gate is difficult to detach and reattach. Swipe card access into shed would be more secure.



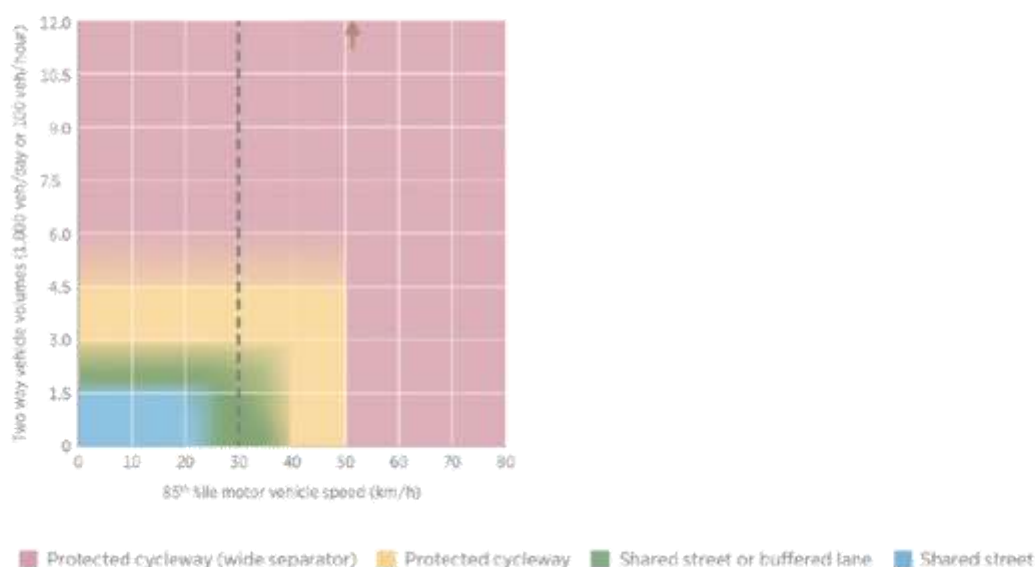


## Appendix 2 – Quality of Service Tool – road analysis

Road use data includes the mean value of the two most recent counts (provided by Hastings District Council). Quality of Service Tool obtained from Auckland Transport Cycling Infrastructure Transport Design Manual: [5794-tdm-engineering-design-code-cycling-infrastructure-version-1.pdf](https://at.govt.nz/assets/Uploads/5794-tdm-engineering-design-code-cycling-infrastructure-version-1.pdf) (at.govt.nz)

### Omahu Road, Hastings

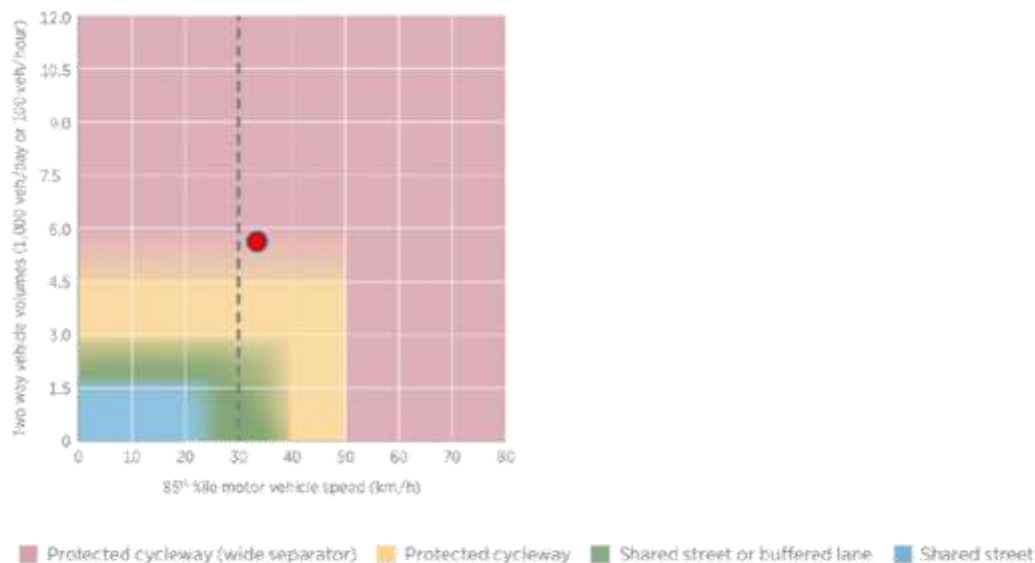
Count dates	17/03/2022 and 29/04/2022
Average daily traffic	12928
% heavy vehicles	13%
85% speed	52km/hr
Number of lanes	2
Required cycleway type	Separated cycleway (2.0m separator)



### Heretaunga Street West

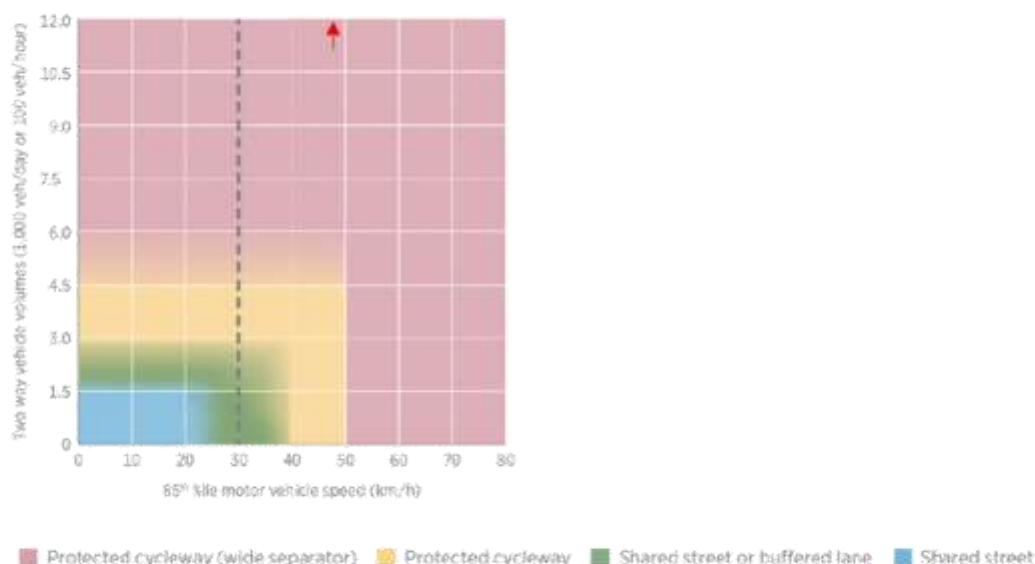
Count dates	17/03/2022 and 16/06/2022
Average daily traffic	5605
% heavy vehicles	6%
85% speed	34km/hr
Number of lanes	2
Number of roundabouts	7
Required cycleway	Separated cycleway (2.0m separator)





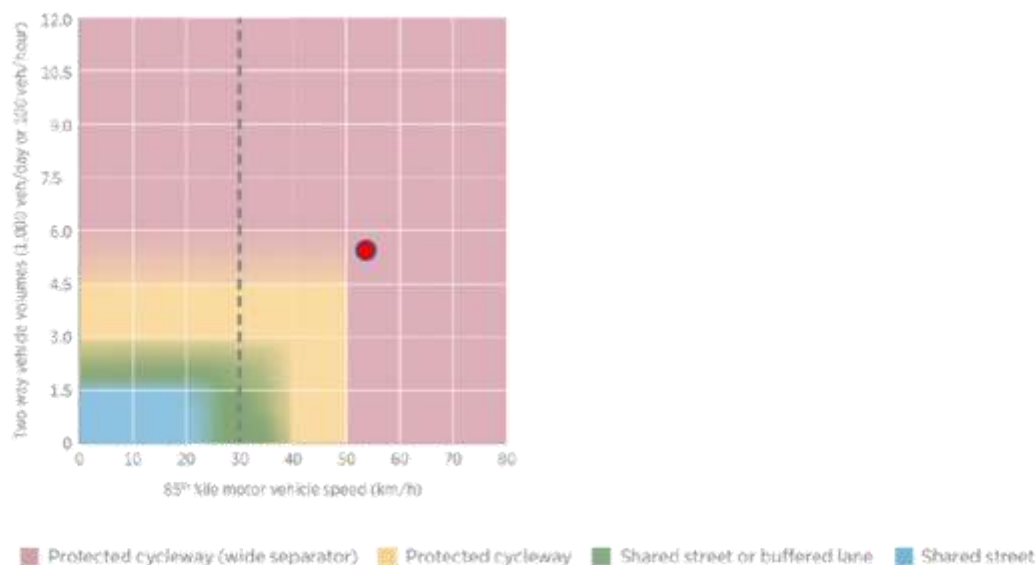
#### Heretaunga Street East

Count dates	15/07/2019 and 16/06/2022
Average daily traffic	14561
% heavy vehicles	5%
85% speed	47km/hr
Number of lanes	2
Number of roundabouts	2
Required cycleway type	Separated cycleway (2.0m separator)



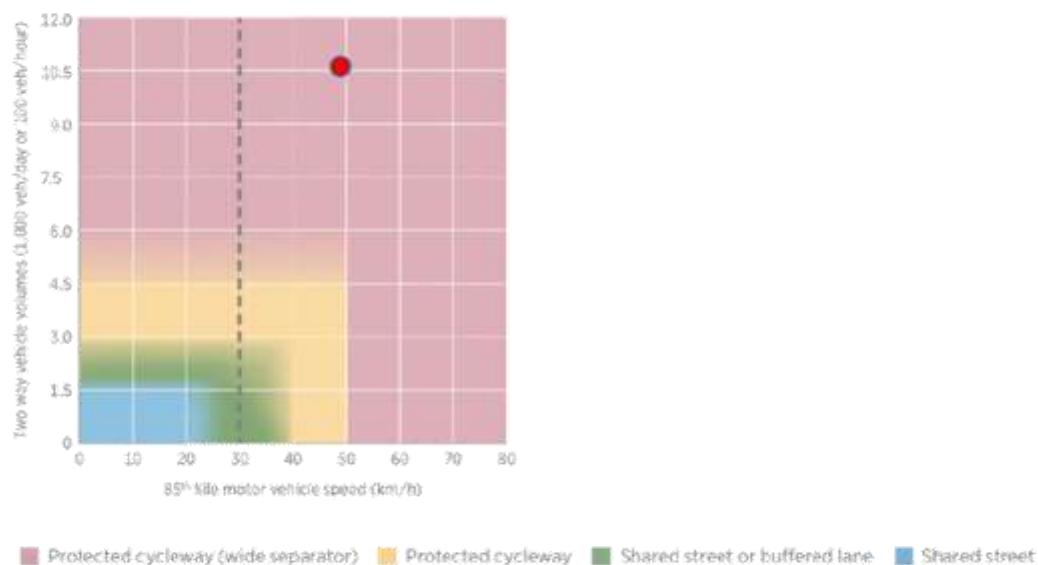
## Orchard Road

Count dates	20/07/2017 and 11/04/2021
Average daily traffic	5098
% heavy vehicles	9%
85% speed	54km/hr
Number of lanes	2
Required cycleway type	Separated cycleway (2.0m separator)



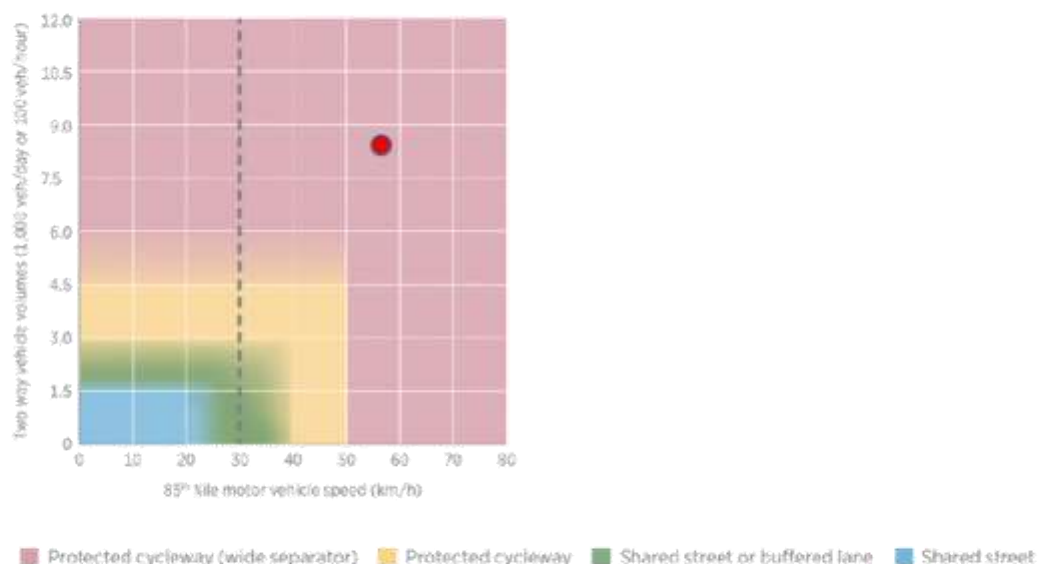
## Southampton Street West (Willowpark Rd to Maraekakaho Rd)

Count date	15/05/2022 (3 counts)
Average daily traffic	10584
% heavy vehicles	6%
85% speed	49km/hr
Number of lanes	2
Number of roundabouts	4
Number of major intersections	2
Required cycleway type	Separated cycleway (2.0m separator)



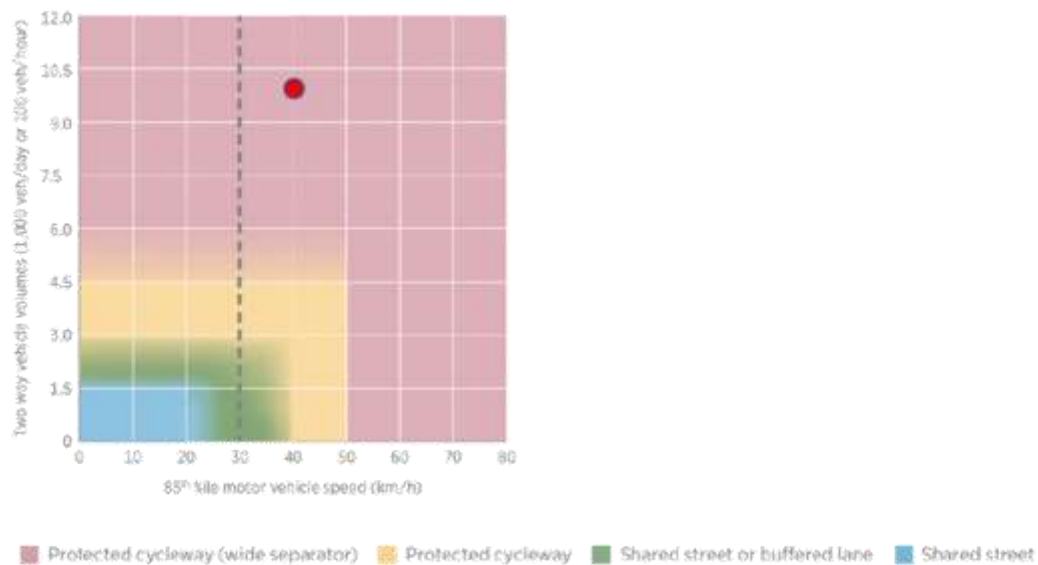
#### Te Mata Road

Count dates	22/11/2020 and 11/04/2021
Average daily traffic	8282
% heavy vehicles	7%
85th speed	57km/hr
Number of lanes	2
Required cycleway type	Separated cycleway (2.0m separator)



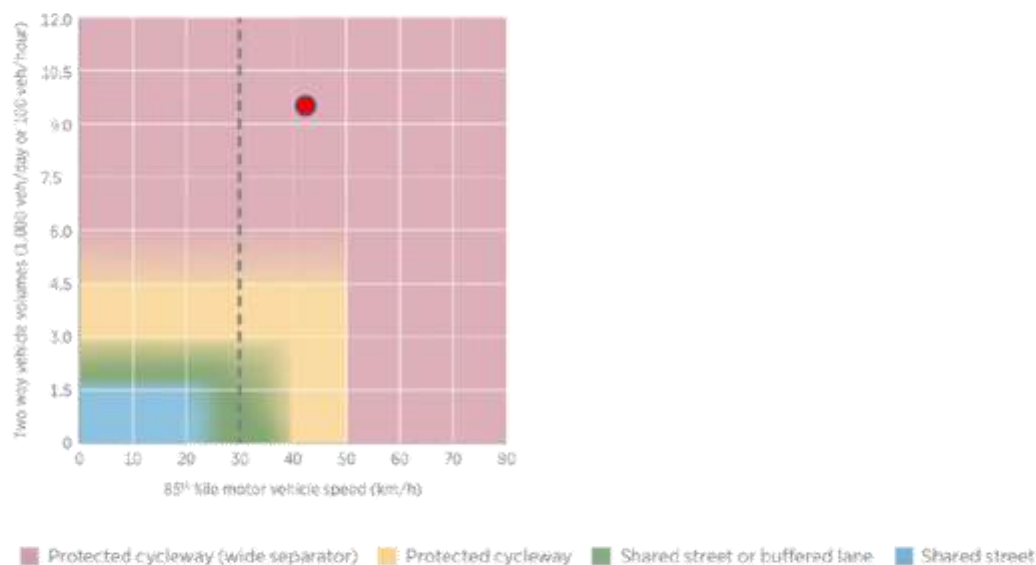
## Napier Rd

Count dates	23/12/2018 and 05/11/2022
Average daily traffic	9608
% heavy vehicles	7%
85% speed	40km/hr
Number of lanes	2
Required cycleway type	Separated cycleway (2.0m separator)



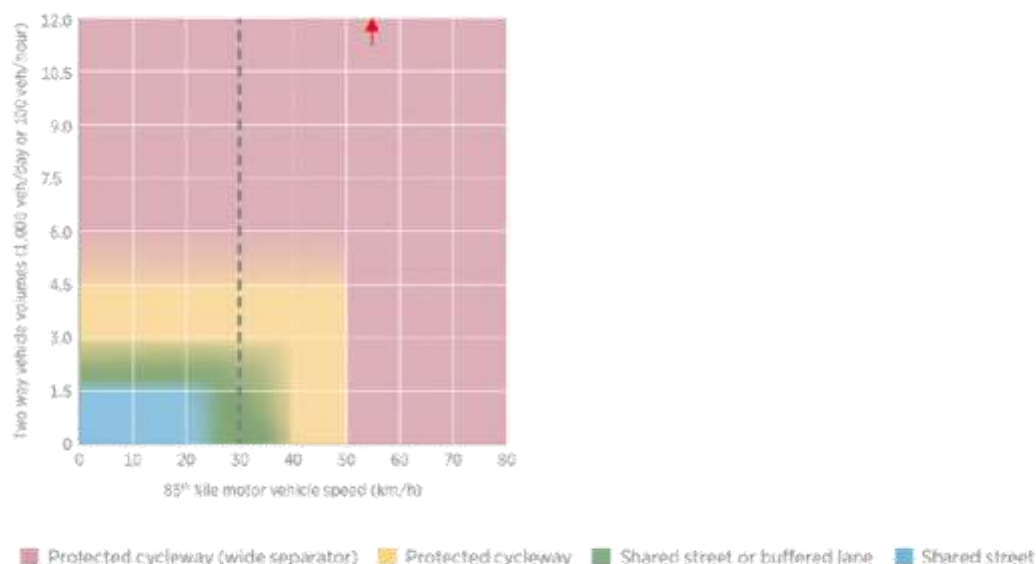
## Karanema Drive

Count date	12/10/2021
Average daily traffic	9589
% heavy vehicles	8%
85% speed	42km/hr
Number of lanes	2
Required cycleway type	Separated cycleway (2.0m separator)



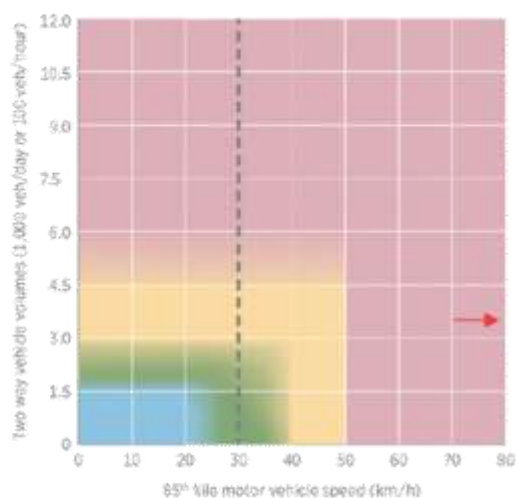
#### Pakowhai Road

Count date	05/02/2022 (2 counts)
Average daily traffic	14209
% heavy vehicles	8%
85% speed	55km/hr
Number of lanes	2
Required cycleway type	Separated cycleway (2.0m separator)



## Brookfields Road, Napier

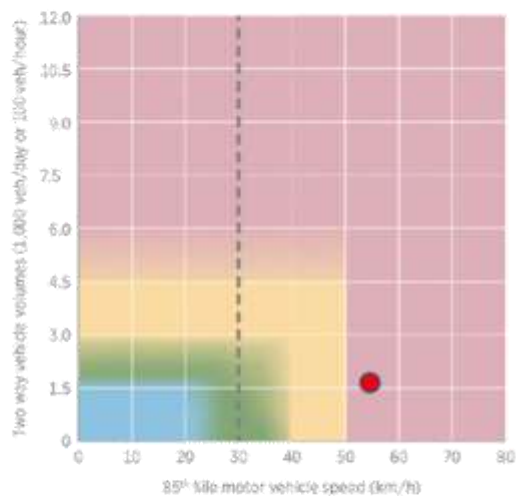
Count date	2022
Average daily traffic	3,108
% heavy vehicles	8%
85% speed	88km/hr
Number of lanes	2
Required cycleway type	Separated cycleway (2.0m separator) or dedicated cycle path



## Guppy Road, Napier

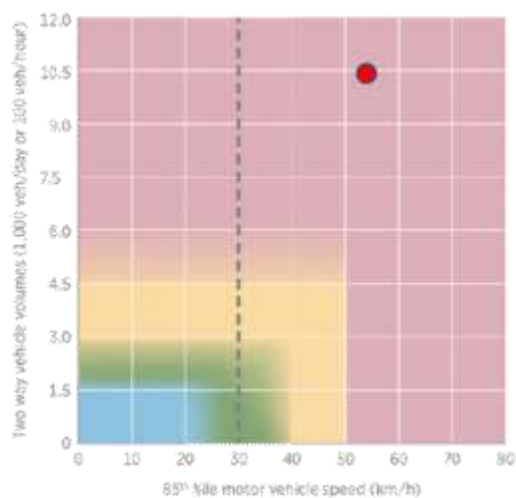
Count date	2022
Average daily traffic	1,502
% heavy vehicles	8%
85% speed	54km/hr
Number of lanes	2
Required cycleway type	Separated cycleway (2.0m separator)





#### Gloucester Street, Napier

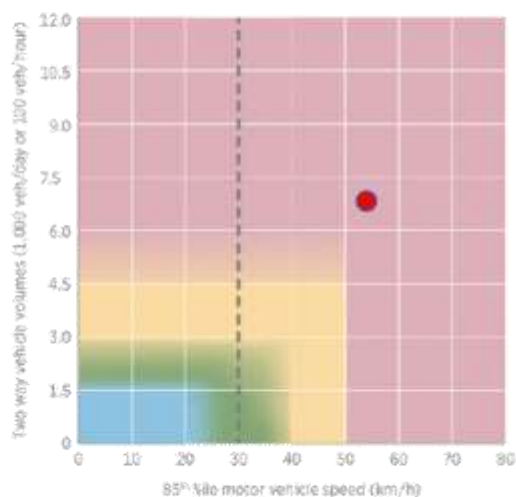
Count date	2022
Average daily traffic	10,470
% heavy vehicles	5%
85% speed	54km/hr
Number of lanes	2
Required cycleway type	Separated cycleway (2.0m separator)



#### Kennedy Road, Napier

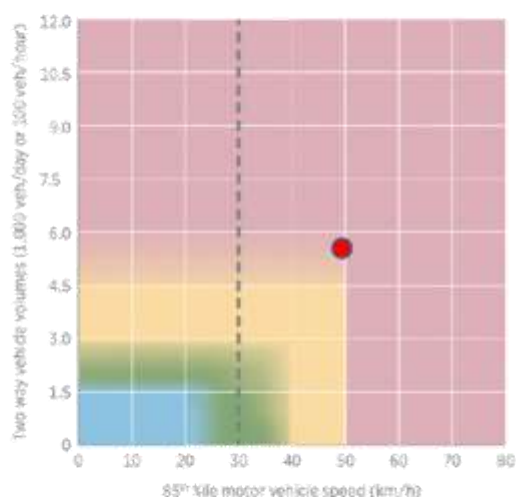
Count date	2021
Average daily traffic	6,753
% heavy vehicles	4%

85% speed	54km/hr
Number of lanes	2
Required cycleway type	Separated cycleway (2.0m separator)



#### Wellesley Road, Napier

Count date	2022
Average daily traffic	5,752
% heavy vehicles	8%
85% speed	49km/hr
Number of lanes	2
Required cycleway type	Separated cycleway (2.0m separator)



**Hawke's Bay Regional Council**  
**Regional Transport Committee**  
**Friday 10 February 2023**

**Item 6**

**Subject: Regional Land Transport Plan investment and delivery update**

**Reason for Report**

1. This agenda item updates the Committee on Regional Land Transport Plan investment and delivery.

**Background**

2. Regional land transport plans (RLTPs) are six-year plans that document the regions' land transport objectives, policies, and measures as well as providing a statement of transport priorities for the region. The plans incorporate programmes of regional land transport activities, including those activities proposed for inclusion in the National Land Transport Programme. They are reviewed after three years.

**Discussion**

**RLTP 2024 timeline**

3. In most cases Waka Kotahi aims to adopt the National Land Transport Programme (NLTP) by 30 June of the year immediately preceding the start of the NLTP.
4. This means that the final RLTPs are required to be submitted to Waka Kotahi by 30 April of that year (2024).
5. The date by which the final RLTP must be published is usually set at 31 July of the start year of the RLTP.
6. Where development of the NLTP is delayed, e.g., due to late release of the GPS, Waka Kotahi has until 31 August of the first year of the NLTP to adopt the NLTP.
7. As a consequence of such a delay Waka Kotahi may adjust the deadlines for RLTP submission and publishing.
8. Hawke's Bay Regional Council aim to consult on the draft RLTP by November or December 2023. It is likely the Regional Speed Management Plan (SMP) will be reviewed concurrently.
9. The Regional Technical Advisory Group (TAG) will begin reviewing and developing the RLTP no later than 30 June 2023.
10. Prior to the review of the RLTP, the TAG will have completed Investment Logic Mapping (ILM) and updated the Regional Programme Business Case (PBC) that informs the review of the RLTP.
  - 10.1. The ILM is in final draft as of January 2023.
  - 10.2. The PBC is due to be peer reviewed and updated between March and May 2023.

**RLTP Investment Logic Mapping (ILM)**

11. The TAG met twice in December 2022 to workshop the ILM and develop the regional investment logic map and benefits map in advance of requesting funding through the National Land Transport Fund (NLTF).
12. The draft ILM (attachment 1) and Benefits Map (Appendix 2.) are included for comment.

## **Regional Programme Business Case (PBC)**

13. The Regional Transport Committee (RTC) did not have an approved PBC ahead of the 2021 RLTP. The document was completed as a Transport Study and had not been endorsed as a PBC by Waka Kotahi. The document needs to be finalized based on Investment Quality Assurance (IQA) feedback from Waka Kotahi.
14. The council and Waka Kotahi have reviewed the scope of work outlined from the current draft programme business case, to determine if there is any work outstanding with the current contractor. Stantec are now undertaking a review of the work delivered in 2021 in accordance with the feedback from the IQA.
15. The PBC will need to be peer reviewed and then updated ahead of the 2024 RLTP review.
16. The PBC needs to be completed in the next six months to ensure the region is best placed to begin reviewing the RLTP.

## **Technical Advisory Group**

17. The TAG now meets quarterly with full-day agenda, made up of workstreams for each area of transport, focussed on modes and outcomes. The workstreams are open to a wide range of representatives, to ensure there is broad input into the transport outcomes. The workstreams meet more regularly, ranging from monthly to bi-monthly depending on the subject matter.
18. The TAG needs to represent all land modes across all five transport outcomes. The workstreams are representative of the activities undertaken by the Road Controlling Authorities (RCAs) and the Council, as well as the transport outcomes set by the Ministry of Transport (MoT). The workstreams include:
  - 18.1. RLTP investment, delivery, and development
  - 18.2. Network resilience
  - 18.3. Active Transport Strategy
  - 18.4. Public Transport Implementation
  - 18.5. Road Safety Strategy
  - 18.6. Emissions Reduction Plan (Transport)
  - 18.7. Speed Management Plan.

## **RLTP investment and delivery issues**

19. The TAG RLTP workstream has not met since October 2022 due to the closedown period, ILM development, and Speed Management Plan development.
20. Approved organisation RLTP investment and delivery updates are currently being redeveloped based on feedback and are not available this quarter. We will include them as items on the agenda going forward, as a set of live documents with ongoing commentary. These items will be talked to by each territorial authorities' elected member discussion.

## **Decision Making Process**

21. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision-making provisions do not apply.

## **Recommendation**

That the Regional Transport Committee receives and notes the *Regional Land Transport Plan investment and delivery update* staff report.

**Authored by:**

**Bryce Cullen**  
**Transport Strategy & Policy Analyst**

**Katie Nimon**  
**Transport Manager**

**Approved by:**

**Katrina Brunton**  
**Group Manager Policy & Regulation**

**Attachment/s**

- 1** [!\[\]\(223f1a84e0bc2cacb9c165f716817dcc\_img.jpg\)](#) HBRC RLTP Investment Logic Mapping
- 2** [!\[\]\(c437123967ec19fa50ef7951237304ba\_img.jpg\)](#) HBRC RLTP Draft Benefits Map





## DRAFT FOR COMMENT



## Hawkes Bay's Regional Land Transport Plan

## INVESTMENT LOGIC MAP

Activity

## PROBLEM

## BENEFIT

The geography, increasing demand, assets at the limit of their durability, and changing climate and events is **resulting in** disruption to supply chains, economic losses, community isolation and hardship, and access to key lifelines (medical, education, services) and social and economic opportunities (35%)

30%

5%

A resilient network that can improve outcomes for the community, with reliable access to lifelines (35%)

KPI 1: Increase throughput of exports/goods across network  
KPI 2: Closure detection AAGT (number of people impacted) –full and partial  
KPI 3: Number of identifiable hazards within 10km  
KPI 4: Weather events –frequency and intensification  
KPI 5: Bridge structure and standards – design manual and loading  
KPI 6: Changes in regulation, standards, policy  
KPI 7: Reduction in spend on restoration of corridor after weather events etc

Limited (coverage and frequency) public transport options, disconnected and unsafe active modes network, coupled with ease of car use is **leading to** poor outcomes for the community (health, and safety), reduced ability to achieve emission reduction targets and disproportionate impacts to the transport disadvantaged (30%)

5%

25%

Reduced reliance on single occupancy vehicles and improving health, social and environmental outcomes (30%)

KPI 1: Percentage of short journeys by car  
KPI 2: Reduction in CO2 emissions  
KPI 3: Number of people with access to PT services  
KPI 4: Public transport frequency and patronage  
KPI 5: Number of pedestrians and cyclists  
KPI 6: Perception of PT and active modes  
KPI 7: Access to PT information through technology (social deprivation)\*  
KPI 8: Cost of access and farebox recovery  
KPI 9: Mode share  
KPI 10: Reduction in healthcare costs in the region

Increasing network demand, rising (input) costs, limited resource availability and increasing adverse weather events **resulting in** declining levels of service across the network, regional competitiveness (reduced productivity and increasing operating costs) and access to economic and social opportunities (25%)

5%

15%

5%

Improved regional competitiveness and social accessibility (20%)

KPI 1: Reduced number of closures  
KPI 2: Improved journey time reliability  
KPI 3: Vehicle frequency and intensity (Primary industry)  
KPI 4: Cost to maintain LOS  
KPI 5: Improved asset condition  
KPI 6: Cost indices (materials and input costs)

The form of our roads, the way people drive (speed, unsafe car, risk taking) and poor protection for active modes users **resulting in** harm to our communities, with people killed or injured as well as economic impact (10%)\*

10%

A regional network that enables the safe movement of people (15%)

KPI 1: KM of safe and connected cycle ways/active mode corridors  
KPI 2: Perception of safety  
KPI 3: Number of speed infringements/complaints  
KPI 4: DSIs and Crash by severity  
KPI 5: Number of high-risk corridors  
KPI 6: Reduction in average 85th percentile speeds across urban and rural networks

\* This % is lower as it considers that the Road to Zero Programme is being delivered separate to this work – This % should be discussed and confirmed with the RLTP

Business Problem Owner: Katie Nimon, Transport Manager, Hawke's Bay Regional Council  
Facilitator: Tim Eldridge  
Accredited Facilitator: No; Accredited business case practitioner

Version no: 0.2  
Initial Workshop: 12/12/2022  
Last modified by: 26/01/2023  
Template version: 1.0



DRAFT FOR COMMENT

## Hawkes Bay's Regional Land Transport Plan



## BENEFIT MAP

BENEFIT

INVESTMENT  
BENEFIT

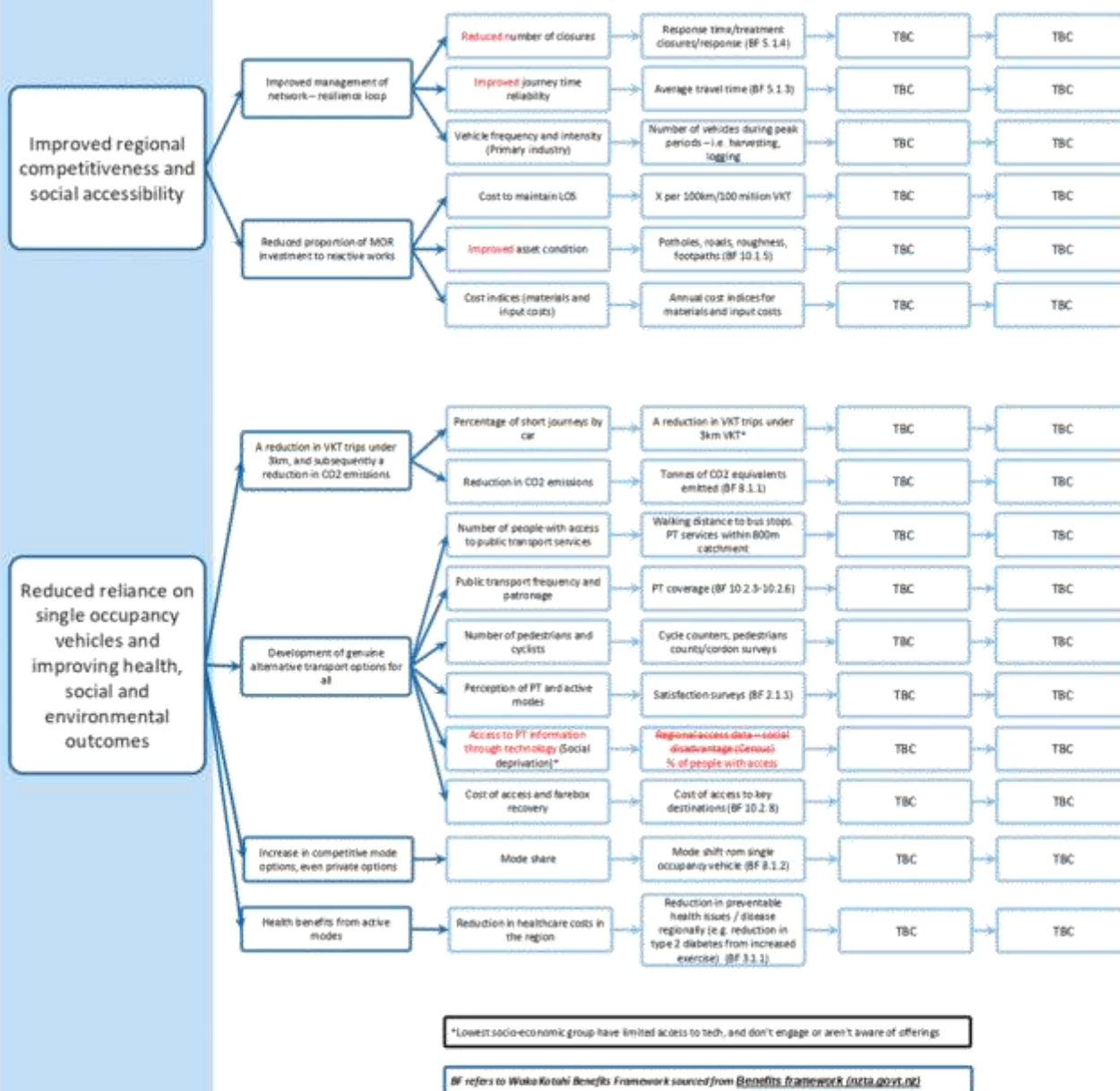
MEASURE

DESCRIPTION

BASELINE

ESTIMATED  
OUTCOME

Note: The number of KPIs will need to be reduced (to approximately 12-16) and also cross referenced with those as part of the regional PBC



## RESPONSIBILITY FOR DELIVERING THE BENEFITS

Name: Katie Nimon

Position: Transport Manager

23/12/2022

Business Problem Owner: Katie Nimon, Transport Manager, Hawke's Bay Regional Council  
 Facilitator: Tim Eldridge  
 Accredited Facilitator: No; Accredited business case practitioner

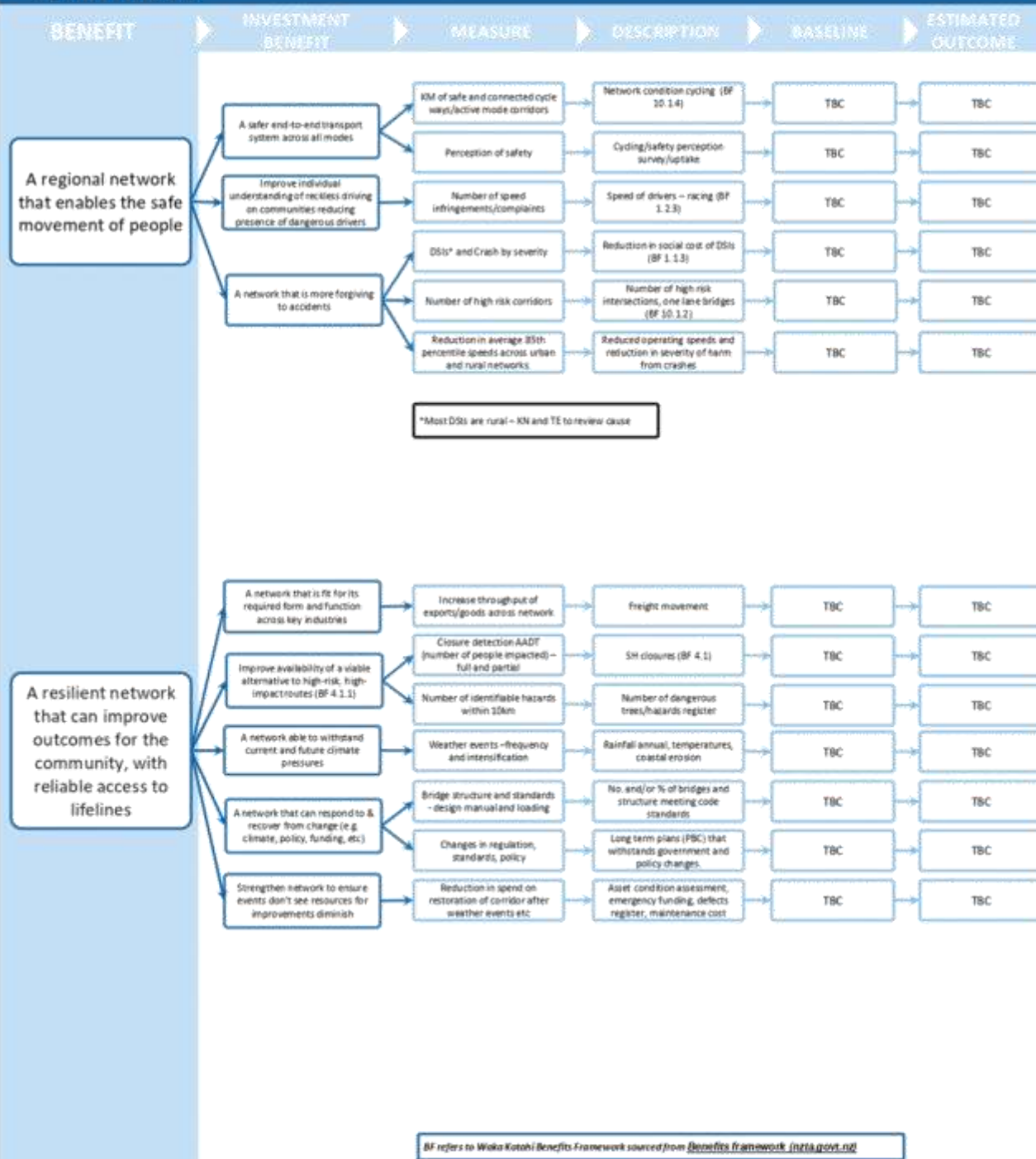
Version no: 0.2  
 Initial Workshop: 12/12/2022  
 Last modified by: 26/01/2023

## DRAFT FOR COMMENT

## Hawkes Bay's Regional Land Transport Plan



## BENEFIT MAP



## RESPONSIBILITY FOR DELIVERING THE BENEFITS

Name: Katie Nimon

Position: Transport Manager

23/12/2022

Business Problem Owner: Katie Nimon, Transport Manager, Hawke's Bay Regional Council

Facilitator: Tim Eldridge

Accredited Facilitator: No; Accredited business case practitioner

Version no: 0.2

Initial Workshop: 12/12/2022

Last modified by: 26/01/2023

Template version: 1.0

**Hawke's Bay Regional Council**  
**Regional Transport Committee**  
**Friday 10 February 2023**

**Subject: Transport Emissions Reduction Plan update**

**Reason for Report**

1. This report provides the Regional Transport Committee with an update on the Transport Emissions Reduction plan.

**Executive Summary**

2. Hawke's Bay Regional Council is developing a transport emissions reduction plan which will form a chapter of the Regional Emissions Reduction Plan.
3. The transport emissions reduction plan will be informed by the community carbon footprint 2022 and will direct the focus and efforts to set plans and targets for emissions reduction. The plan will be developed through a series of workshops consisting of transport staff, subject matter experts, and a working group of practitioners, focusing on objectives and practical solutions.

**Background**

4. Emissions reduction across transport modes is a clear focus area coming from central government. A national emissions reduction plan has been developed with clear targets and indicative enablers. A working group of practitioners and subject matter experts has been convened to develop an emissions reduction plan for the Hawke's Bay region.
5. The plan is being led by Pippa McKelvie-Sebileau, Climate Action Ambassador at Hawke's Bay Regional Council. The working group meetings are chaired and facilitated by Pippa, Heather Bosselmann from Napier City Council, and Taylor Eubanks from Hastings District Council.
6. The Transport Emissions Reduction Plan will form a chapter of the Hawke's Bay Emissions Reduction Plan.

**Discussion**

7. A National Emission Reduction Plan has been developed by the Ministry for the Environment, focusing on reducing emissions across the New Zealand economy. A range of evidence-based targets have been developed across all major emissions generating sectors of New Zealand.
8. Many of the actions in the National Emissions Reduction Plan have relevance for local government. We are developing a regionally specific emissions reduction plan (the plan), echoing the national plan, and setting out actions to reduce emissions across a complex array of industries and modes within the region.
9. Primary industry forms a large part of the Hawke's Bay economy, naturally requiring a significant heavy transport industry to support existing operations and growth aspirations. The primary industry in Hawke's Bay is experiencing ongoing growth, with more expected. Inevitably, this will result in the increased movement of goods. A growing need exists to support and enable this growth whilst actively reducing emissions.
10. The residential population in Hawke's Bay continues to grow. This continued increase in population, coupled with a car-centric culture and a need to travel across a geographically dispersed region for work and leisure has supported a steady increase in journeys for a range of purposes, both short and long. Therefore, vehicle kilometers travelled, and transport emissions have increased.
11. In September 2022, the first community carbon footprint was released identifying the sources of greenhouse gas emissions in the region. Transport emissions account for 20% of the regional footprint. An additional transport emissions analysis was commissioned to identify sources from private / commercial

vehicles and on-road / off-road emissions. This granular analysis showed that cars make up 51% of total emission, while commercial vehicles make up 46%, and buses the remaining 3%. Interestingly, on an tonnes of CO<sub>2</sub> emitted per vehicle kilometer travelled basis, buses were ranked the highest, ahead of heavy commercial vehicles. The community carbon footprint can be found in attachment 1.

12. A working group of practitioners has been established, led by Pippa McKelvie-Sebileau, to develop the Hawke's Bay emissions reduction plan. The plan is being developed through a series of intensive, targeted workshops held monthly. Each workshop focuses on a specific chapter of the national plan and seeks to tease out the options and opportunities for Hawke's Bay. Each workshop seeks to develop a series of aspirational, measurable, and tangible actions to support emissions reduction in our region.
13. The transport emissions reduction plan will form a chapter of the regional plan and be developed by council officers and subject matter experts, as required.
14. It is intended that a first draft of the regional plan, including the transport chapter, is completed by June 2023. This will enable alignment with territorial authority long term planning (LTP) cycles, giving the opportunity for actions and outputs from the draft plan to be included in LTP cycles. It is important to note that the draft plan will be open to changes and builds.

### **Next Steps**

15. Two workshops will be held to develop and advance the transport chapter of the plan, focusing on the national targets in a Hawke's Bay context and seeking to identify options and opportunities for the region. The first workshop is scheduled for 28 March with the core group of practitioners and transport staff from all councils. The second workshop is scheduled for 3 April with the full working group of practitioners, convened by Pippa McKelvie-Sebileau, and transport staff from each TA.
16. Several detailed planning and preparation sessions will be held ahead of the scheduled workshops to review the national plan, examine draft plans from other regions, and develop some indicative options of best fit for Hawke's Bay.

### **Decision Making Process**

17. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision-making provisions do not apply.

### **Recommendation**

That the Regional Transport Committee receives and notes the *Transport Emission Reduction Plan update* staff report.

### **Authored by:**

**Bryce Cullen**  
**Transport Strategy & Policy Analyst**

### **Approved by:**

**Katrina Brunton**  
**Group Manager Policy & Regulation**

### **Attachment/s**

- 1 [!\[\]\(e615ca91639aee4263e67e1cc9ac86eb\_img.jpg\)](#) Transport Emissions Reduction Community Carbon Footprint 2022





AECOM

Hawke's Bay Community Carbon Footprint

## Hawke's Bay Community Carbon Footprint

Client: Hawke's Bay Regional Council

Co No.: N/A

Prepared by

**AECOM New Zealand Limited**

Level 19, 171 Featherston Street, Pōneke|Wellington 6011, PO Box 27277, Pōneke|Wellington 6141, New Zealand  
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29-Nov-2022

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Hawke's Bay Community Carbon Footprint

## Quality Information

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 Revision 3 – 29-Nov-2022  
 Prepared for – Hawke's Bay Regional Council – Co No.: N/A

AECOM

Hawke's Bay Community Carbon Footprint

## Table of Contents

Executive Summary	5
1.0 Introduction	9
2.0 Approach and Limitations	9
3.0 Community Carbon Footprint for 2020/21	12
3.1 Agriculture	13
3.2 Transport	14
3.3 Stationary Energy	15
3.4 Waste	16
3.5 Industrial Processes and Product Use (IPPU)	17
3.6 Forestry	17
3.7 Total Gross Emissions by Greenhouse Gas	18
3.8 Biogenic emissions	20
3.9 Territorial Authorities in the Hawke's Bay Region	21
4.0 Emissions change from 2018/19 to 2020/21	23
4.1 Agriculture	25
4.2 Transport	26
4.3 Stationary Energy	27
4.4 Waste	27
4.5 Industrial Processes and Product Use (IPPU)	28
4.6 Forestry	28
5.0 Decoupling of GHG emissions from population growth and GDP	30
6.0 Impact of the COVID-19 pandemic on GHG Emissions	32
7.0 Closing Statement	33
8.0 Limitations	34
Appendix A	
Assumptions and Data Sources	A
Appendix B	
Additional Transport Emissions Analysis	B



AECOM

Hawke's Bay Community Carbon Footprint

5

## Executive Summary

Greenhouse Gas (GHG) emissions for the Hawke's Bay Region (that is covered by the Hawke's Bay Regional Council) have been measured using the Global Protocol for Community Scale Greenhouse Gas Emissions Inventory (GPC) methodology. This approach includes emissions from Stationary Energy, Transport, Waste, Industrial Processes and Product Use (IPPU), Agriculture and Forestry sectors. This document reports greenhouse gas emissions produced in or resulting from activity or consumption within the geographic boundaries of the Hawke's Bay Region for the 2020/21 financial reporting year and examines greenhouse gas emissions produced from 2018/19 to 2020/21.

The Hawke's Bay Region is referred to hereafter as Hawke's Bay for ease. Greenhouse gas emissions are generally reported in this document in units of Carbon Dioxide Equivalents (CO<sub>2</sub>e) and are referred to as 'emissions'.

Major findings of the project include:

### 2020/21 Emissions Footprint

- In the 2020/21 reporting year (1<sup>st</sup> July 2020 to 30<sup>th</sup> June 2021), **total gross emissions** in Hawke's Bay were 4,345,997 tCO<sub>2</sub>e.
- Agriculture** (e.g., emissions from livestock and crops) is the largest source of emissions, accounting for 67% of the Hawke's Bay's total gross emissions, with enteric fermentation from livestock accounting for 78% of Agriculture emissions.
- Transport** (e.g., emissions from road and air travel) is the second largest emitting sector in Hawke's Bay, representing 20% of total gross emissions, with petrol and diesel consumption accounting for 90% of Transport emissions.
- Stationary Energy** (e.g., consumption of electricity and natural gas) is the third highest emitting sector in the region, producing 10% of total gross emissions.
- Net Forestry** emissions were -2,862,841 in 2020/21 as carbon sequestration (carbon captured and stored in plants or soil by forests) was higher than emissions from forest harvesting (e.g., the release of carbon from roots and organic matter following harvesting). **Net Forestry** emissions are not included in total gross emissions.
- The **total net emissions** in Hawke's Bay were 1,483,156 tCO<sub>2</sub>e. The total net emissions include emissions and sequestration from forestry.

### Changes in Emissions, 2018/19 to 2020/21

- Between 2018/19 and 2020/21, **total gross emissions** in Hawke's Bay decreased from 4,497,263 tCO<sub>2</sub>e to 4,345,997 tCO<sub>2</sub>e, a decrease of 3% (151,267 tCO<sub>2</sub>e).
- Over this time the population of the Region increased by 4%, resulting in **per capita gross emissions** in Hawke's Bay decreasing by 7% between 2018/19 and 2020/21, from 25.9 to 24.1 tCO<sub>2</sub>e per person per year.
- Emissions from **Stationary Energy** increased by 20% between 2018/19 and 2020/21 (69,806 tCO<sub>2</sub>e), driven by a 45% increase in electricity consumption emissions (56,198 tCO<sub>2</sub>e). This increase in electricity consumption emissions was due to a 4% increase in electricity consumption (kWh) coupled with a 41% increase in the emissions intensity of the national electricity grid (tCO<sub>2</sub>e/kWh).
- Emissions from **Agriculture** decreased by 8%, between 2018/19 and 2020/21 (245,553 tCO<sub>2</sub>e), due to a reduction in livestock numbers, particularly of sheep and non-dairy cattle.
- Transport** and **Waste** emissions both increased by 3% (21,822 tCO<sub>2</sub>e and 2,491 tCO<sub>2</sub>e respectively).

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 Revision 3 – 29-Nov-2022  
 Prepared for – Hawke's Bay Regional Council – Co No.: N/A

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Hawke's Bay Community Carbon Footprint

6

- Emissions from forest harvesting reduced by 3% (118,442 tCO<sub>2</sub>e), while sequestration from forestry increased by 2% (102,706 tCO<sub>2</sub>e) resulting in the net impact of **Forestry** changing by 8% from -2,641,693 tCO<sub>2</sub>e to -2,862,841 tCO<sub>2</sub>e.

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Revision 3 – 29-Nov-2022  
Prepared for – Hawke's Bay Regional Council – Co No.: N/A



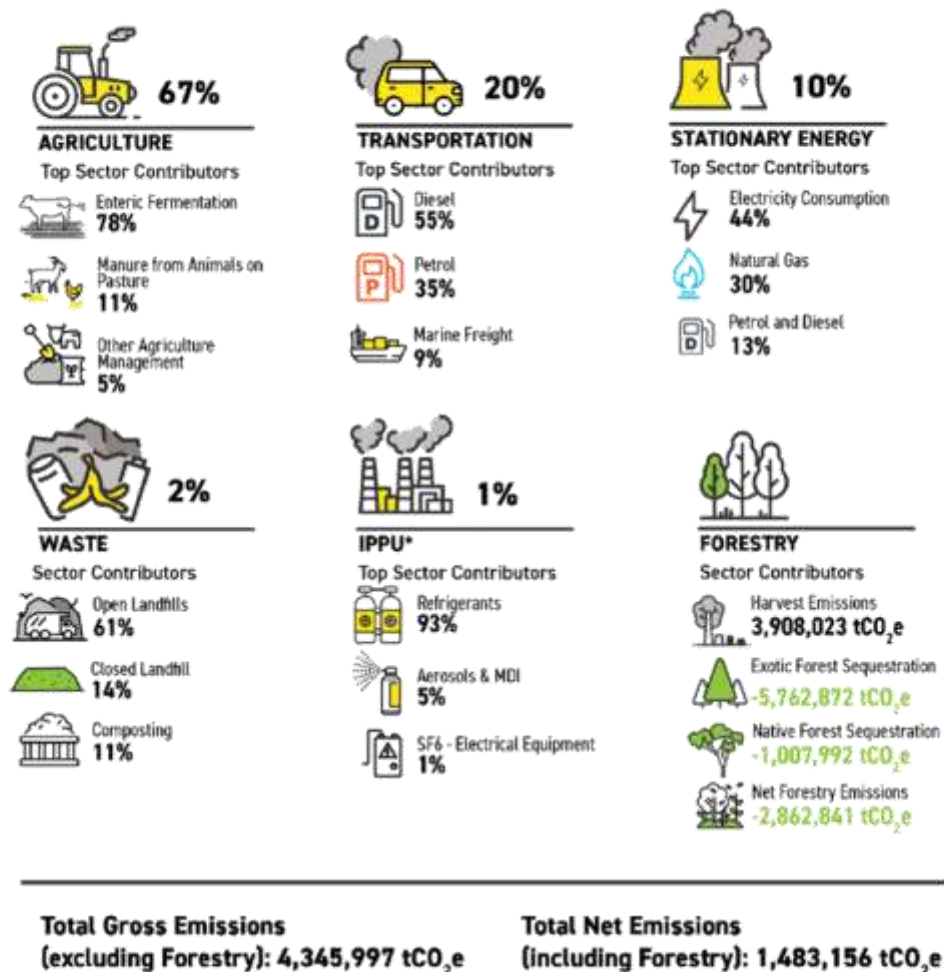
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7

Figure 1: Hawke's Bay 2020/21 Emissions Footprint

## Hawke's Bay Region Greenhouse Gas Emissions 2020/21



\*IPPU = Industrial Processes and Product Use

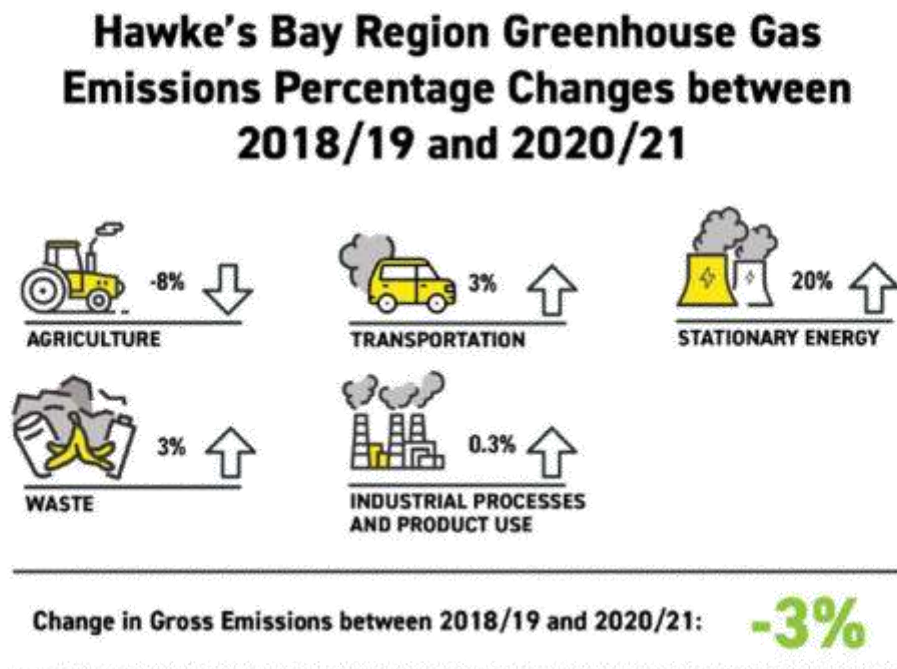
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 Revision 3 – 29-Nov-2022  
 Prepared for – Hawke's Bay Regional Council – Co No.: N/A

AECOM

Hawke's Bay Community Carbon Footprint

8

Figure 2: Change in Hawke's Bay Emissions Footprint between 2018/19 and 2020/21



## 1.0 Introduction

AECOM New Zealand Limited (AECOM) was commissioned by the Hawke's Bay Regional Council to assist in the development of community-scale greenhouse gas (GHG) footprints for the Hawke's Bay for the 2018/19, 2019/20, and 2020/21 financial years. This is part of a wider study to develop community carbon footprints for each district within the Hawke's Bay region. Emissions are reported for the period from 1 July to 30 June for the respective years. The study boundary reported in the following pages incorporates the jurisdiction of the Hawke's Bay Regional Council.

The Hawke's Bay region is referred to hereafter as Hawke's Bay for ease. Greenhouse gas emissions are generally reported in this document in units of Carbon Dioxide Equivalents (CO<sub>2</sub>e) and are referred to as 'emissions'.

## 2.0 Approach and Limitations

The methodological approach used to calculate emissions follows the Global Protocol for Community Scale Greenhouse Gas Emissions Inventory v1.1 (GPC) published by the World Resources Institute (WRI) 2021. The GPC includes emissions from Stationary Energy, Transport, Waste, Industrial Processes and Product Use (IPPU), Agriculture, and Forestry activities within the Region's boundary. The sector calculations for Agriculture, Forestry and Waste are based on Intergovernmental Panel on Climate Change (IPCC) workbooks and guidance for emissions measurement. The sector calculators also use methods consistent with GHG Protocol standards published by the WRI for emissions measurement when needed.

The same methodology has been used for other community scale GHG footprints around New Zealand, (e.g., Wellington, Auckland, Christchurch, Dunedin, and the Waikato region) and internationally. The GPC methodology<sup>1</sup> represents international best practice for city and regional level GHG emissions reporting.

This emissions footprint assesses both direct and indirect emissions sources. Direct emissions are production-based and occur within the geographic area (Scope 1 in the GPC reporting framework). Indirect emissions are produced outside the geographic boundary (Scope 2 and 3) but are allocated to the location of consumption. An example of indirect emissions is those associated with the consumption of electricity, which is supplied by the national grid (Scope 2). All other indirect emissions such as cross-boundary travel (e.g. flights) and energy transportation and distribution losses fit into Scope 3.

All major assumptions made during data collection and analysis have been detailed within **Appendix A – Assumptions**. The following aspects are worth noting in reviewing the emissions footprint:

- Emissions are expressed on a carbon dioxide-equivalent basis (CO<sub>2</sub>e) including climate change feedback using the 100-year Global Warming Potential (GWP) values<sup>2</sup>. Climate change feedbacks are the climate change impacts from GHGs that are increased as the climate changes. For example, once the Earth begins to warm, it triggers other processes on the surface and in the atmosphere. Current climate change feedback guidance is important to estimate the long-term impacts of GHGs.
- GPC reporting is predominately production-based (as opposed to consumption-based) but includes some elements of consumption-based footprinting (e.g. indirect emissions from electricity consumption). Production-based emissions reporting is generally preferred by policy-makers due to robust established methodologies such as the GPC, which enables comparisons between different studies. Production-based approaches exclude globally produced emissions relating to consumption (e.g. embodied emissions relating to products produced elsewhere but consumed within the geographic area such as imported food products, cars, phones, clothes etc.).
- Total emissions are reported as both gross emissions (excluding Forestry) and net emissions (including Forestry).

<sup>1</sup> <http://www.ghgprotocol.org/greenhouse-gas-protocol-accounting-reporting-standard-cities>

<sup>2</sup> [https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5\\_Chapter08\\_FINAL.pdf](https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter08_FINAL.pdf) (Table 8.7)

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Revision 3 – 29-Nov-2022

Prepared for – Hawke's Bay Regional Council – Co No.: N/A

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Hawke's Bay Community Carbon Footprint

10

- Emissions for individual main greenhouse gases for each emissions source are provided in the supplementary spreadsheet information supplied with this report.
- Where location specific data were not accessible, information was calculated based on national or regional level data.
- Transport emissions:
  - Transport emissions associated with air travel, rail, and marine fuel were calculated by working out the emissions relating to each journey arriving or departing the area based on data provided by the relevant operators. Emissions for these sources are then split equally between the destination and origin. Emissions relating to a particular point source (e.g. an airport or port) are allocated to the expected users of that source, not just the area that it is located in. For example, in the Hawke's Bay Region, it is expected that all territorial authorities will use the Port of Napier for imported and exported goods, so emissions from this source have been allocated to all territorial authorities in the region based on population. It is understood that freight imports moving through the Port of Napier do not exclusively serve the Hawke's Bay Region, and freight exports do not exclusively originate from the Hawke's Bay Region, this should be considered when examining these emissions.
  - All other transport emissions are calculated using the fuel sold in the area (e.g. petrol, diesel, LPG).
- Solid waste emissions:
  - Solid waste emissions from landfill are measured using the IPCC First Order Decay method that covers landfill activity between 1950 and the present day.
  - Emissions are calculated for waste produced within the geographic boundary, even if they are transported outside the boundary to be entered into landfill.
  - An additional assessment of transport emissions related to the transport of landfill waste and recycled/diverted waste has been included in this assessment, outside of the GPC requirements for Community Carbon Footprints. Emissions were estimated based on the amount of material, distance transported from transfer station to next processing location, and the vehicles used. Any onward transport of materials post-processing have not been included.
- Wastewater emissions:
  - Emissions have been calculated based on the local data provided, following IPCC 2019 guidelines. Where data is missing, IPCC and Ministry for the Environment (MfE) figures have been used. Wastewater emissions from both wastewater treatment plants, and individual septic tanks have been calculated.
  - Wastewater emissions include those released directly from wastewater treatment, flaring of captured gas, and from discharge onto land/water.
- Industrial Processes and Product Use (IPPU) emissions:
  - IPPU emissions are estimated based on data provided in the New Zealand Greenhouse Gas Emissions 1990-2020 report (MfE 2022). Emissions are estimated on a per capita basis applying a national average per person.
- Forestry emissions:
  - This emissions footprint accounts for forest carbon stock changes from afforestation, reforestation, deforestation, and forest management (i.e. it applies land-use accounting conventions under the United Nations Framework Convention on Climate Change rather than the Kyoto Protocol). It treats emissions from harvesting and deforestation as instantaneous rather than accounting for the longer-term emission flows associated with harvested wood products.
  - The emissions footprint considers regenerating (growing) forest areas only. Capture of carbon from the atmosphere is negligible for mature forests that have reached a steady state.

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 Revision 3 – 29-Nov-2022  
 Prepared for – Hawke's Bay Regional Council – Co No.: N/A



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Hawke's Bay Community Carbon Footprint

11

Overall sector data and results for the emissions footprint have been provided to the Hawke's Bay Regional Council in calculation table spreadsheets. All assumptions made during data collection and analysis have been detailed within **Appendix A – Assumptions**.

It is important to consider the level of uncertainty associated with the results, particularly given the different datasets used. Depending on data availability, national, regional, and local datasets are used across the different calculators. At the national level, New Zealand's Greenhouse Gas Inventory shows that for 2018 (the most recent national level inventory) an estimate of gross emissions uncertainty was +/- 9%, whereas a net emissions uncertainty estimate was +/- 12%. These levels of uncertainty should be considered when interpreting the results of this community carbon footprint (MfE, 2020).

### StatsNZ Regional Footprint

Due to differences in emission factors and methodology used between the StatsNZ Regional Footprints and this community carbon footprint (based on the GPC requirements and available data), caution should be taken when making comparison of reported emissions. One example of this is where this footprint used updated emission factors for methane and nitrous oxide following guidance from the IPCC and in line with other Region and regional level GHG inventories in New Zealand. This difference is especially relevant for the Agriculture and Transport sectors.

Differences between the StatsNZ Regional Footprints and this community carbon footprint may be due to scope, coverage, data sources, and methods. The StatsNZ Regional Footprint approach is based on production, while the GPC methodology includes elements of consumption. The Stats NZ Regional Footprints use a residence approach, while GPC is based on the territory approach. The Stats NZ Regional Footprints also use global warming potentials from the IPCC Fourth Assessment Report, whilst this community carbon footprint uses global warming potentials from the IPCC Fifth Assessment Report.

Refer to the StatsNZ website for further information regarding StatsNZ Regional Footprint <https://www.stats.govt.nz/methods/about-regional-greenhouse-gas-emissions-statistics/>.

### 3.0 Community Carbon Footprint for 2020/21

The paragraphs, figures and tables below outline the Hawke's Bay's greenhouse gas emissions, referred to as 'emissions' in this assessment. This includes The Hawke's Bay's total emissions, emissions from each sector, and major emissions sources within each sector. The focus of emissions reporting is on gross emissions.

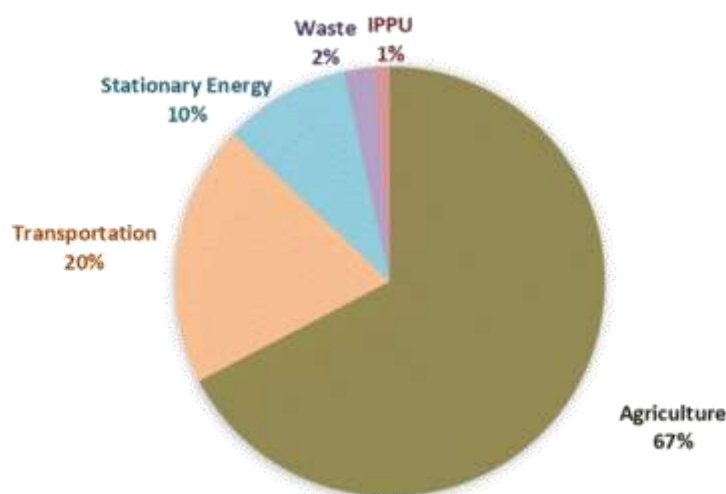
During the 2020/21 reporting period, Hawke's Bay emitted **gross** 4,345,997 tCO<sub>2</sub>e. Note that gross emissions do not account for Forestry. Agriculture and Transport emissions are the largest contributors to total gross emissions for the Region.

The population of Hawke's Bay in 2020/21 was approximately 180,610 people, resulting in per capita gross emissions of 24.1 tCO<sub>2</sub>e/person. Discussion of per capita emissions is limited to when it is useful for comparing emission figures against other territorial authorities. A breakdown of net emissions (i.e. including results from Forestry resources) is reported separately.

**Table 1** Total net and gross emissions

Total emissions	tCO <sub>2</sub> e
Total Net Emissions (including forestry)	1,483,156
Total Gross emissions (excluding forestry)	4,345,997

**Figure 3:** Hawke's Bay Region's total gross GHG emissions split by sector (tCO<sub>2</sub>e).



During the 2020/21 reporting period, Hawke's Bay emitted **net** 1,483,156 tCO<sub>2</sub>e.

Net emissions differ from gross emissions because they include emissions related to forestry activity (harvesting and planting) within an area. Forestry emissions are influenced by the cyclical nature of harvesting and planting regimes. In addition, with each subsequent planting of harvestable trees, there is a decreasing ebb and flow of sequestration.

Carbon sequestered by forestry can be viewed as a liability/risk that needs careful consideration. For example, if plantations are not replanted or other land use change occurs to exotic forested areas, then net emissions may rise quickly. Equally, if native forest is not protected from removal, and removal does happen, then net emissions may rise.

The community carbon footprint comprises emissions from six different sectors, summarised below:

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 Revision 3 – 29-Nov-2022  
 Prepared for – Hawke's Bay Regional Council – Co No.: N/A



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Hawke's Bay Community Carbon Footprint

13

### 3.1 Agriculture

The highest emitting sector in Hawke's Bay, Agriculture, emitted 2,925,915 tCO<sub>2</sub>e in 2020/21. Table 2 provides the emissions, percentage of total gross emissions, and percentage of the sector total for each sector/emissions source. Agricultural emissions are the result of both livestock and crop farming and do not include emissions relating to fuel or electricity consumption (reported in the Transport and Stationary Energy sectors).

Enteric fermentation from livestock produced 78% of Hawke's Bay's Agricultural emissions (2,274,432 tCO<sub>2</sub>e). Enteric fermentation GHG emissions are produced by methane (CH<sub>4</sub>) released from the digestive process of ruminant animals (e.g. cattle and sheep). The second largest source of agricultural emissions was produced from nitrous oxide (N<sub>2</sub>O) released by unmanaged manure from grazing animals on pasture (332,570 tCO<sub>2</sub>e or 11% of the Agricultural sector's emissions).

**Table 2 Agriculture emissions by emission source**

Sector / Emissions Source	tCO <sub>2</sub> e	% of Total Gross Emissions	% of Sector Total
Enteric Fermentation	2,274,432	52.3%	77.7%
Manure from Grazing Animals on pasture	332,570	7.7%	11.4%
Other Agriculture Emissions	132,079	3.0%	4.5%
Atmospheric Deposition	93,329	2.1%	3.2%
Manure Management	47,822	1.1%	1.6%
Agricultural Soils	22,614	0.5%	0.8%
Fertiliser used in Horticulture	23,070	0.5%	0.8%
<b>Total</b>	<b>2,925,915</b>	<b>67%</b>	<b>100%</b>

Livestock were responsible for 96% of the Agriculture sector's GHG emissions (1,796,732 tCO<sub>2</sub>e) (Table 3). Sheep account for 49% of agricultural emissions in the Hawke's Bay and 33% of the Hawke's Bay's total gross emissions. Non-dairy cattle account for 37% of agricultural emissions in the Hawke's Bay and 25% of the Hawke's Bay's total gross emissions.

**Table 3 Agriculture emissions by emission source**

Sector / Emissions Source	tCO <sub>2</sub> e	% of Total Gross Emissions	% of Sector Total
Sheep	1,427,404	33%	49%
Non-dairy Cattle	1,072,780	25%	37%
Dairy Cattle	293,306	7%	10%
Other livestock	65,709	2%	2%
Fertiliser (other)	43,646	1%	1%
Fertiliser for Horticulture	23,070	1%	0.8%
<b>Total</b>	<b>2,925,915</b>	<b>67%</b>	<b>100%</b>

Fertilisers used for livestock and horticulture represent 4% of Agriculture emissions. An additional breakdown of emissions from fertiliser use in horticulture is included based on land-use information provided by HBRC covering the Hastings and Napier area only. Fertiliser use in horticulture represented 0.8% of the sector emissions. The largest contributor to 'Fertiliser for Horticulture' emissions in Hastings was sweetcorn (12,643 tCO<sub>2</sub>e, 1.1% of Agricultural emissions) (displayed in Table 4). There is some

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 Revision 3 – 29-Nov-2022  
 Prepared for – Hawke's Bay Regional Council – Co No.: N/A

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Hawke's Bay Community Carbon Footprint

14

potential for emissions double counting between the 'Fertiliser for Horticulture' and 'Fertiliser (other)' as these emissions have been calculated based on different datasets, where the 'Fertiliser (other)' category may also include some fertilisers used in horticulture. However, it is expected that the majority of the 'Fertiliser (other)' emissions are caused by fertiliser use for livestock land. Changes in soil carbon associated with horticulture have not been quantified due to absence of a defined appropriate method for assessing the carbon footprint associated with soil carbon change over time.

**Table 4 Fertiliser for horticulture emissions by crop type**

Sector / Emissions Source	tCO <sub>2</sub> e	Hectares (Ha)
Sweetcorn	12,643	4,026
Pipfruit	2,380	4,829
Squash	2,188	1,736
Peas and Beans	1,479	2,791
Stonefruit	1,230	2,495
Beetroot	983	1,854
Grapes	910	5,351
Onions	839	482
Wheat	196	248
Kiwifruit	146	216
Grain	69	88
Tomato	7	82
<b>Total</b>	<b>23,070</b>	<b>24,197</b>

### 3.2 Transport

Transport, the second highest emitting sector in Hawke's Bay, produced 856,520 tCO<sub>2</sub>e in 2020/21 (20% of the Hawke's Bay's gross total emissions). Table 5 provides the total emissions, percentage of the total gross emissions, and percentage of the sector total for each sector/emissions source.

**Table 5 Transport emissions by emission source**

Sector / Emissions Source	tCO <sub>2</sub> e	% of Total Gross Emissions	% of Sector Total
Diesel	472,063	10.9%	55.1%
Petrol	300,868	6.9%	35.1%
Marine Freight	78,488	1.8%	9.2%
Jet Kerosene	2,635	0.1%	0.3%
LPG	1,546	<0.1%	0.2%
Rail	647	<0.0%	0.1%
Aviation Gas	272	<0.1%	<0.1%
<b>Total</b>	<b>856,520</b>	<b>20%</b>	<b>100%</b>

Most of the transport emissions can be attributed to on and off-road diesel and petrol use, which collectively produced 90% of the sector's emissions and 18% of total gross emissions. Diesel and petrol transport emissions are broken down into on-road and off-road use. On-road transport consists of all standard transportation vehicles used on roads (including cars, trucks, buses, etc.). Off-road transport consists of all fuel used for the movement of machinery and vehicles off roads (including agricultural

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Hawke's Bay Community Carbon Footprint

15

tractors and vehicles, forklifts, etc.). On-road transport produced 681,394 tCO<sub>2</sub>e (80% of Transport emissions). Off-road transport produced 93,084 tCO<sub>2</sub>e (11% of Transport emissions).

The next largest Transport emission source is marine freight, which contributed to 9% of the sectors emissions and 2% of Hawke's Bay's total gross emissions (74,488 tCO<sub>2</sub>e). Marine freight emissions are the result of freight movements to and from the Port of Napier. Emissions from this source have been divided between all territorial authorities in the Hawke's Bay region based on relative population sizes. It is understood that the imports and exports through this port are not exclusively related to activities in the Hawke's Bay region, however, to ensure that these emissions are reflected in community carbon footprints as per the GPC requirements this approach is appropriate.

The remaining transport emissions are attributed to air travel (jet kerosene and aviation gas), rail freight emissions and LPG use for transport (e.g. forklifts).

### 3.3 Stationary Energy

Producing 414,152 tCO<sub>2</sub>e in 2020/21, Stationary Energy was The Hawke's Bay's third highest emitting sector (10% of total gross emissions). Table 6 provides the total emissions, percentage of total gross emissions, and percentage of the sector total for each sector/emissions source.

Electricity consumption was the cause of 44% of Stationary Energy emissions (181,396 tCO<sub>2</sub>e), and 4% of The Hawke's Bay's total gross emissions. Electricity consumption emissions increase to 198,058 tCO<sub>2</sub>e when including transmission and distribution losses related to that consumption.

Natural gas consumption accounted for 33% of the sector's emissions (135,607 tCO<sub>2</sub>e) when including transmission and distribution losses. Stationary petrol and diesel consumption generated 13% of the sectors emissions (52,339 tCO<sub>2</sub>e). Use of LPG, and the burning of coal, biofuels and biogas produced the remaining Stationary Energy emissions.

**Table 6 Stationary Energy emissions by emission source**

Sector / Emissions Source	tCO <sub>2</sub> e	% of Total Gross Emissions	% of Sector Total
Electricity Consumption	181,396	4.2%	43.8%
Natural Gas	125,465	2.9%	30.3%
Stationary Petrol & Diesel Use	52,339	1.2%	12.6%
Electricity Transmission and Distribution Losses	16,663	0.4%	4.0%
LPG	12,261	0.3%	3.0%
Coal	10,343	0.2%	2.5%
Natural Gas Transmission and Distribution losses	10,143	0.2%	2.4%
Biofuel / Wood	5,447	0.1%	1.3%
Biogas	96	<0.1%	<0.1%
<b>Total:</b>	<b>414,152</b>	<b>10%</b>	<b>100%</b>

Stationary Energy demand can also be broken down by the sector in which it is consumed. Stationary Energy demand is reported for the following sectors: commercial; residential and industrial.

- Industrial Stationary Energy consumption accounts for 51% of Stationary Energy emissions (209,500 tCO<sub>2</sub>e) and 5% of total gross emissions. Industrial Stationary Energy is energy used

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 Revision 3 – 29-Nov-2022  
 Prepared for – Hawke's Bay Regional Council – Co No.: N/A



within all industrial settings (including agriculture, forestry and fishing, mining, food processing, textiles, chemicals, metals, mechanical/electrical equipment and building and construction activities).

- Residential Stationary Energy consumption accounts for 20% of Stationary Energy emissions (82,378 tCO<sub>2</sub>e) and 2% of total gross emissions. Residential Stationary Energy is energy used in homes (e.g. for heating, lighting, and cooking).
- Commercial Stationary Energy consumption accounts for 17% of Stationary Energy emissions (69,839 tCO<sub>2</sub>e) and 2% of total gross emissions. Commercial Stationary Energy is energy used in all non-residential and non-industrial settings (e.g. in retail, hospitality, education, and healthcare).
- The remaining 13% of Stationary Energy emissions (52,435 tCO<sub>2</sub>e, 1% of gross emissions) were produced by diesel and petrol, and the burning of biogas, which were not allocated to the above categories. Stationary Energy uses of diesel and petrol include stationary generators and motors and for heating.

### 3.4 Waste

Waste originating in Hawke's Bay (solid waste and wastewater) produced 99,459 tCO<sub>2</sub>e in 2020/21, which comprises 2% of Hawke's Bay's total gross emissions. Table 7 provides the total emissions, percentage of total gross emissions, and percentage of the sector total for each sector/emissions source.

**Table 7 Waste emissions by emission source**

Sector / Emissions Source	tCO <sub>2</sub> e	% of Total Gross Emissions	% of Sector Total
Waste in open landfill sites	60,295	1.4%	60.6%
Waste in closed landfill sites	13,743	0.3%	13.8%
Composting	11,125	0.3%	11.2%
Wastewater treatment plants	7,673	0.2%	7.7%
Individual septic tanks	6,623	0.2%	6.7%
<b>Total:</b>	<b>99,459</b>	<b>2%</b>	<b>100%</b>

Solid waste produced the bulk of Waste emissions (74,038 tCO<sub>2</sub>e), making up 74% of total Waste emissions. Solid waste emissions include emissions from open landfills and closed landfills. Both open and closed landfills emit methane from the breakdown of organic materials disposed of in the landfill for many years after waste enters the landfill. Waste from Hawke's Bay sent to open landfill sites contributed 60,295 tCO<sub>2</sub>e. Emissions from closed landfill sites produced 13,743 tCO<sub>2</sub>e. Annual emissions from closed landfill sites will decrease over time as no new waste enters these sites.

Wastewater treatment (treatment plants and individual septic tanks) produced 14,296 tCO<sub>2</sub>e making up 14% of total Waste emissions. Most of the households in Hawke's Bay are connected to wastewater treatment plants, which produced total emissions of 7,673 tCO<sub>2</sub>e. Due to the production of methane, septic tanks have a higher emissions intensity compared to the wastewater treatment plants in Hawke's Bay. Households connected to individual septic tanks produced 6,623 tCO<sub>2</sub>e in wastewater emissions.

Wastewater treatment tends to be a relatively small emission source compared to solid waste as advanced treatment of wastewater produces low emissions. In contrast, solid waste generates methane gas over many years as organic material enters landfill.

Composting produced 11,125 tCO<sub>2</sub>e making up 11% of total Waste emissions. Waste diverted from landfill for composting in the Hawke's Bay Region includes horticultural, animal waste products, green waste, bark and sawdust.

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 Revision 3 – 29-Nov-2022  
 Prepared for – Hawke's Bay Regional Council – Co No.: N/A

AECOM

Hawke's Bay Community Carbon Footprint

17

### 3.5 Industrial Processes and Product Use (IPPU)

IPPU in Hawke's Bay produced 49,950 tCO<sub>2</sub>e in 2020/21, contributing 1% to Hawke's Bay's total gross emissions. This sector includes emissions associated with the production of GHGs for refrigerants, foam blowing, fire extinguishers, aerosols, metered dose inhalers and Sulphur Hexafluoride for electrical insulation and equipment production. IPPU emissions do not include energy use for industrial manufacturing, which is included in the relevant Stationary Energy sub-category (e.g. coal, electricity and/or petrol and diesel). These emissions are based on nationally reported IPPU emissions and apportioned based on population due to the difficulty of allocating emissions to particular geographic locations.

There are no known industrial processes (as defined in the GPC requirements) present in the Hawke's Bay (e.g. aluminium manufacture).

Table 8 provides the total emissions, percentage of total gross emissions, and percentage of the sector's total for each sector/emissions source. The most significant contributor to IPPU emissions is the use of refrigerants which produced 93% of IPPU emissions (46,441 tCO<sub>2</sub>e).

**Table 8 Industrial processes and product use emissions by emission source**

Sector / Emissions Source	tCO <sub>2</sub> e	% of Total Gross Emissions	% of Sector Total
Refrigerants and air conditioning	46,441	1.1%	93.0%
Aerosols	2,601	0.1%	5.2%
SF6 - Electrical Equipment	508	<0.1%	1.0%
Foam Blowing	220	<0.1%	0.4%
SF6 - Other	100	<0.1%	0.2%
Fire extinguishers	80	<0.1%	0.2%
<b>Total</b>	<b>49,950</b>	<b>1.0%</b>	<b>100%</b>

### 3.6 Forestry

Planting of native forest (e.g. mānuka and kānuka) and exotic forest (e.g. pine), sequesters (captures) carbon from the atmosphere while the trees are growing to maturity. Harvesting of forest releases emissions via the release of carbon from organic matter and soils following harvesting. When sequestration by forests exceeds emissions from harvesting, the extra quantity of carbon sequestered by forest reduces net Forestry emissions. Conversely when emissions from harvesting exceed the amount of carbon sequestered by native and exotic forests, then net Forestry emissions will increase.

Sequestration in 2020/21 was 6,770,864 tCO<sub>2</sub>e (which was mostly from exotic forests) while harvesting emissions were 3,908,023 tCO<sub>2</sub>e. This meant that Forestry in Hawke's Bay was a net negative source of emissions in 2020/21 (rather than a positive source of emissions, where harvesting exceeds sequestration). Total Forestry emissions in 2020/21 were -2,862,841 tCO<sub>2</sub>e. It is noted that harvesting of exotic forest can be cyclical in nature where some years will have higher sequestration and some years will have higher harvesting emissions determined by age of forests, commercial operators, and the global market.

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Hawke's Bay Community Carbon Footprint

18

Table 9 Forestry emissions by emission source (including sequestration)

Sector / Emissions Source	tCO <sub>2</sub> e
Total harvest emissions	3,908,023
Native forest sequestration	-1,007,992
Exotic forest sequestration	-5,762,872
<b>Total</b>	<b>-2,862,841</b>

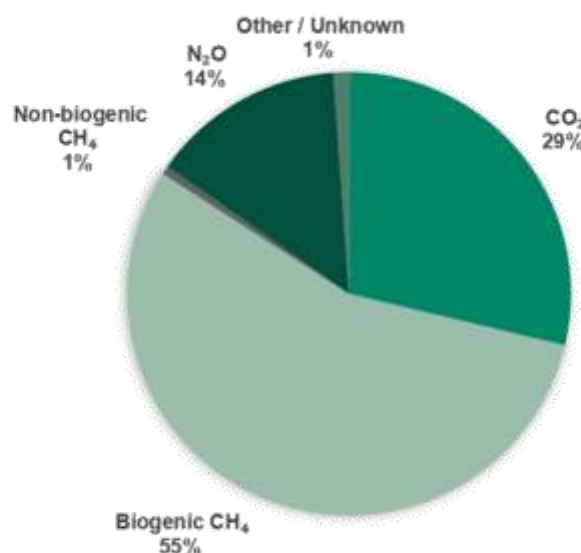
### 3.7 Total Gross Emissions by Greenhouse Gas

Each greenhouse gas has a different level of impact on climate change, this is accounted for when converting quantities of each gas into units of carbon dioxide equivalent (CO<sub>2</sub>e).

Table 10: Hawke's Bay's total gross emissions, by greenhouse gas

Greenhouse Gas	Tonnes	Tonnes of CO <sub>2</sub> e
Carbon Dioxide (CO <sub>2</sub> )	1,248,710	1,248,710
Biogenic Methane (CH <sub>4</sub> )	70,814	2,407,693
Non-biogenic Methane (CH <sub>4</sub> )	795	27,030
Nitrous Oxide (N <sub>2</sub> O)	2,060	613,673
Other / Unknown Gas (in CO <sub>2</sub> e)	48,891	48,891
<b>Total</b>	<b>1,369,680</b>	<b>4,345,997</b>

Figure 4 illustrates the Hawke's Bay's total gross emissions by greenhouse gas in units of carbon dioxide equivalents (CO<sub>2</sub>e).

Figure 4: The Hawke's Bay Region's total gross emissions, by greenhouse gas (in tCO<sub>2</sub>e)

Due to the greater global warming impact of methane, methane represents just 5% of the total tonnage of GHG emissions from the Hawke's Bay but represents 55% of CO<sub>2</sub>e. Nitrous oxide represents 0.2% of the total tonnage of GHG emissions from Hawke's Bay but represents 14% of CO<sub>2</sub>e. This effect can be seen in Figure 5.

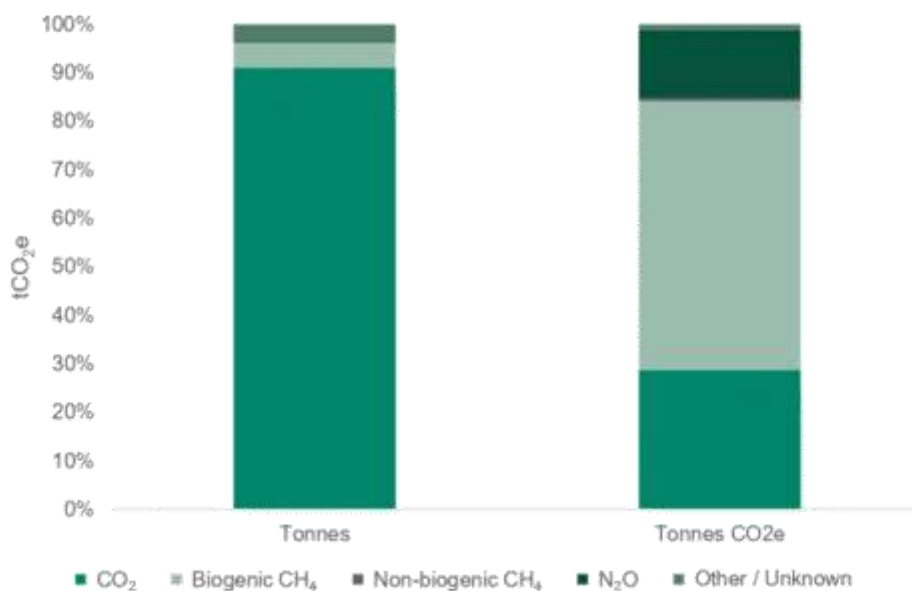


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Hawke's Bay Community Carbon Footprint

19

Figure 5: Hawke's Bay Region's total gross emissions, by greenhouse gas in tonnes and in tonnes of CO<sub>2</sub>e



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 Revision 3 – 29-Nov-2022  
 Prepared for – Hawke's Bay Regional Council – Co No.: N/A

### 3.8 Biogenic emissions

Biogenic carbon dioxide and methane emissions are stated in Table 11 and Table 12, respectively.

Biogenic CO<sub>2</sub> emissions are those that result from the combustion of biomass materials that store and sequester CO<sub>2</sub>, including materials used to make biofuels (e.g. trees, crops, vegetable oils, or animal fats). Biogenic CO<sub>2</sub> emissions from plants and animals are excluded from gross and net emissions as they are part of the natural carbon cycle.

Table 11: Biogenic CO<sub>2</sub> in the Hawke's Bay (Excluded from gross emissions)

Biogenic Carbon Dioxide (CO <sub>2</sub> ) (Excluded from gross emissions)		
Biofuel	178,324	t CO <sub>2</sub>
Combusted Landfill Gas	14,793	t CO <sub>2</sub>
<b>Total Biogenic CO<sub>2</sub></b>	<b>193,117</b>	<b>t CO<sub>2</sub></b>

Biogenic CH<sub>4</sub> emissions (e.g., produced by farmed cattle via enteric fermentation) are included in gross emissions due to their relatively large impact on global warming relative to biogenic CO<sub>2</sub>. Biogenic methane represents 5% of the gross total tonnage of GHG emissions in the Hawke's Bay but represents 55% of total gross GHG emissions when expressed in CO<sub>2</sub>e. This is caused by the higher global warming impact of methane per tonne, compared to carbon dioxide. The total tonnage of each GHG and the contribution of each GHG to total gross emissions when expressed in CO<sub>2</sub>e is shown in Table 10.

The importance of biogenic CH<sub>4</sub> is highlighted in NZ's Climate Change Response (Zero Carbon) Amendment Act. The Act includes specific targets to reduce biogenic CH<sub>4</sub> by between 24% and 47% below 2017 levels by 2050, and by 10% below 2017 levels by 2030. More information on the Act is available here: <https://www.mfe.govt.nz/climate-change/zero-carbon-amendment-act>.

Table 12: Biogenic Methane in the Hawke's Bay (Included in gross emissions)

Biogenic Methane (CH <sub>4</sub> ) (Included in gross emissions)		
Enteric Fermentation	66,895	t CH <sub>4</sub>
Landfill Gas	2,177	t CH <sub>4</sub>
Manure Management	1,407	t CH <sub>4</sub>
Wastewater Treatment	404	t CH <sub>4</sub>
Composting (Green Waste)	190	t CH <sub>4</sub>
Biofuel	143	t CH <sub>4</sub>
<b>Total Biogenic CH<sub>4</sub></b>	<b>71,217</b>	<b>t CH<sub>4</sub></b>

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Hawke's Bay Community Carbon Footprint

21

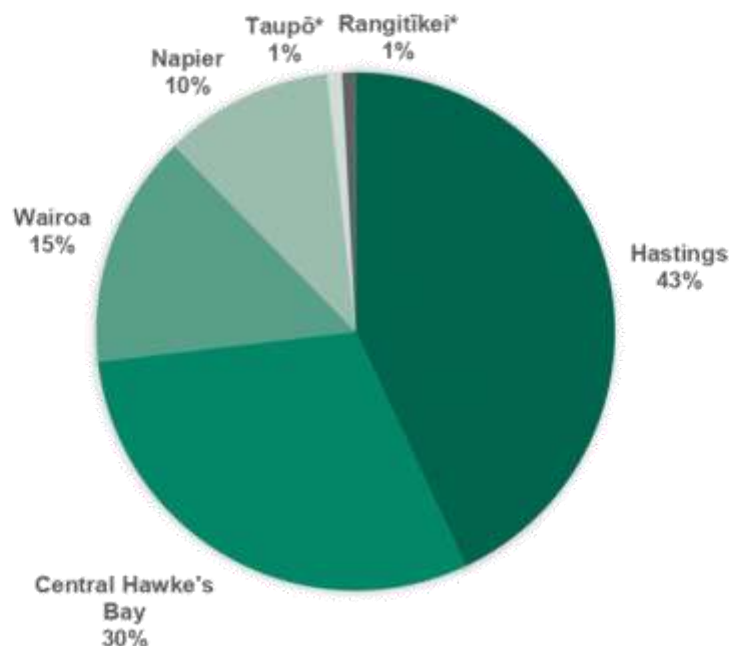
### 3.9 Territorial Authorities in the Hawke's Bay Region

The Hawke's Bay regional area contains several territorial authorities. Hastings District, Napier City, Central Hawke's Bay District, and Wairoa District are all exclusively within the boundaries of the Hawke's Bay region. Additionally, areas of Taupō District and Rangitikei District are also part of the Hawke's Bay region. We estimate that 0.1% of Taupō's population and 12% of Taupō's area, and 0.3% of Rangitikei's population and 14% of Rangitikei's area are within the Hawke's Bay region.

Figure 6 shows the Hawke's Bay's total gross emissions divided by territorial authority. Figure 7 shows total gross emissions for the territorial authorities in the Hawke's Bay Region, split by sector. Both figures only include the emissions produced within the Hawke's Bay region for Taupō and Rangitikei.

Hastings is the highest emitting territorial authority in the region, representing 43% of the Hawke's Bay's total gross emissions. Hastings' emissions inventory is predominantly agriculture-related emissions with the next largest emitting territorial authorities; Central Hawke's Bay and Wairoa, also containing significant agricultural emissions. Of the four territorial authorities entirely within the Hawke's Bay region, Napier has the lowest total gross emissions, with emissions mostly from Transport and Stationary Energy. The areas of Taupō and Rangitikei contribute to 2% of the Hawke's Bay region's total gross emissions, almost entirely from Agriculture.

**Figure 6** Hawke's Bay's total gross emissions divided by territorial authority (tCO<sub>2</sub>e). \*Taupō and Rangitikei totals only include emissions produced in the Hawke's Bay region.

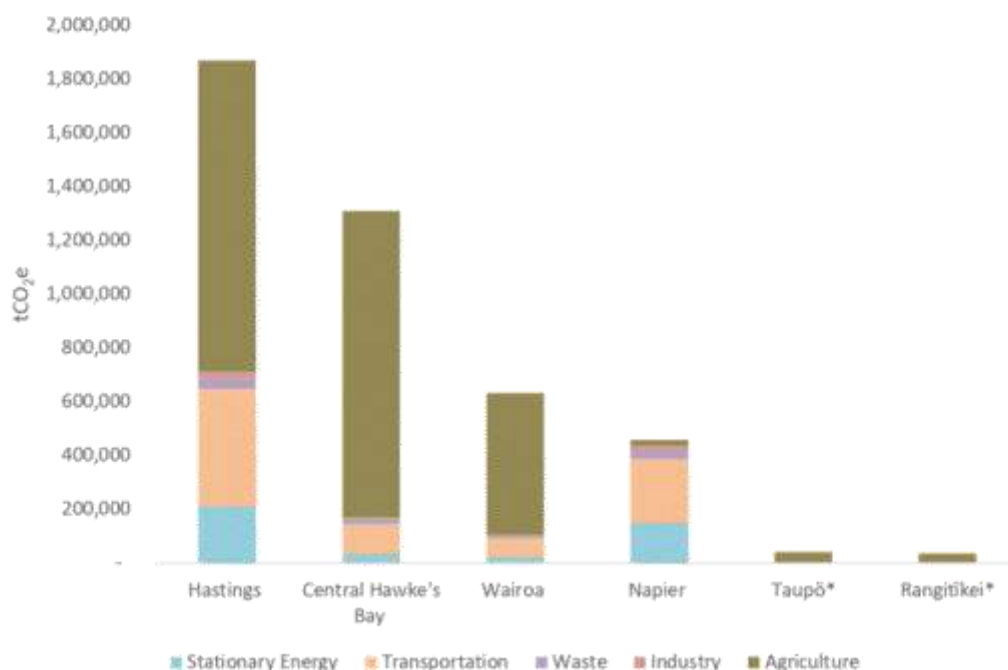


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Hawke's Bay Community Carbon Footprint

22

**Figure 7** Total gross emissions by territorial authority in the Hawke's Bay region (tCO<sub>2</sub>e). \*Taupō and Rangitīkei totals only include emissions produced in the Hawke's Bay region.



When comparing emissions inventories from different areas, a per capita figure can be useful because it provides a common reference point to understand the difference in emissions. Figure 8 shows emissions per capita for the region and territorial authorities within the region. Taupō and Rangitīkei are excluded from this figure due to the tiny population and large agriculture within the small area in the Hawke's Bay creating very large per capita emissions (this is not the case for the entire Taupō or Rangitīkei district).

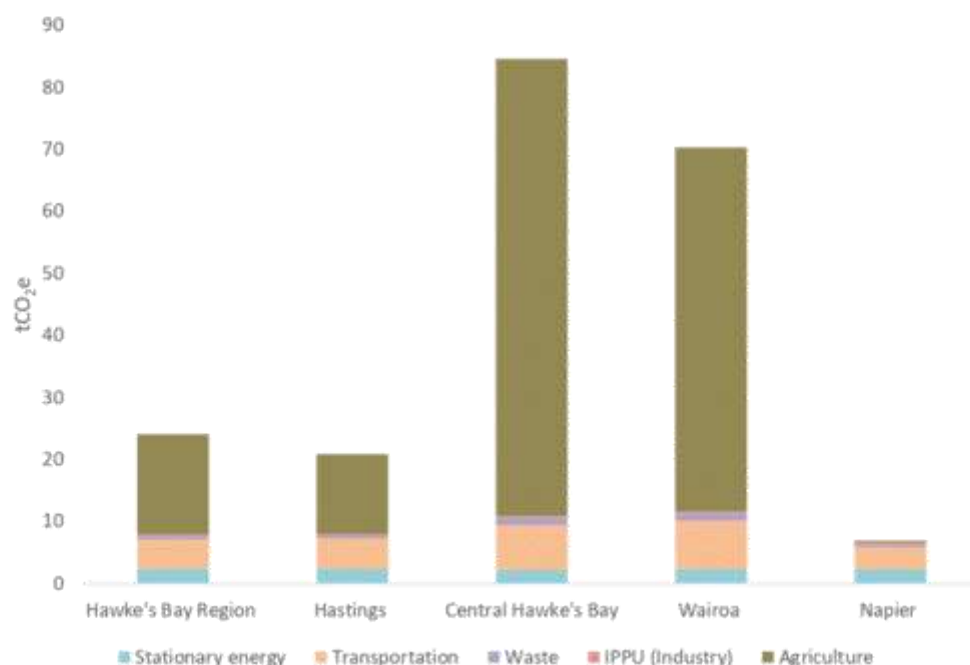
The Hawke's Bay region has a 24.1 tCO<sub>2</sub>e/per capita figure for total gross emissions which is higher than the national value of 15.7 tCO<sub>2</sub>e/per capita. Notably, Napier has the lowest per capita total emissions at 6.9 tCO<sub>2</sub>e/per capita. Central Hawke's Bay and Wairoa have the largest per capita total gross emissions at 84.6 tCO<sub>2</sub>e/per capita and 70.3 tCO<sub>2</sub>e/per capita respectively, both due to high Agriculture emissions in the district. Hastings has the third highest per capita emissions at 20.9 tCO<sub>2</sub>e/per capita, similar to that of the region.

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Hawke's Bay Community Carbon Footprint

23

**Figure 8** Total gross emissions per capita for the region and territorial authorities within the region (tCO<sub>2</sub>e). \*Taupō and Rangitikei areas not included



#### 4.0 Emissions change from 2018/19 to 2020/21

Alongside calculating The Hawke's Bay's emissions footprint for 2020/21, we have calculated the Hawke's Bay's emissions footprint for 2018/19 and 2019/20. This section displays the results of the 2018/19, 2019/20, and 2020/21 emissions footprints with a focus on Gross emissions and documents the change in emissions from 2018/19 to 2020/21.

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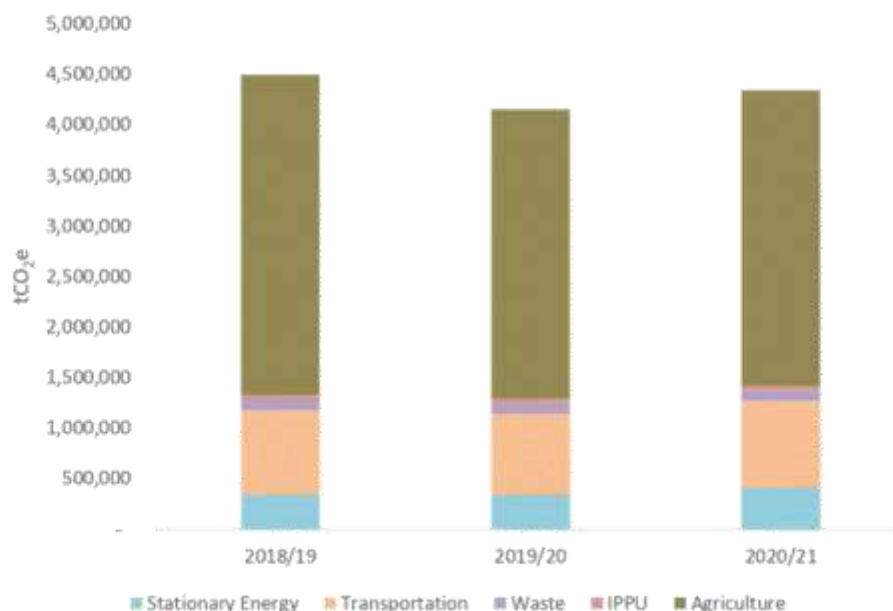
**Table 13** Change in The Hawke's Bay's Total Gross and Net emissions from 2018/19 to 2020/21

	2018/19 (tCO <sub>2</sub> e)	2019/20 (tCO <sub>2</sub> e)	2020/21 (tCO <sub>2</sub> e)	% Change (2018/19 to 2020/21)
Total Net Emissions (including forestry)	1,855,570	1,413,954	1,483,156	-20%
Total Gross Emissions (excluding forestry)	4,497,263	4,155,767	4,345,997	-3%

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Hawke's Bay Community Carbon Footprint

24

**Figure 9** Change in The Hawke's Bay's total gross emissions from 2018/19 to 2020/21

Total gross emissions per year decreased by 3% from 4,497,263 tCO<sub>2</sub>e in 2018/19 to 4,345,997 tCO<sub>2</sub>e in 2020/21. This was driven by a decrease in Agricultural emissions of 8%, between 2018/19 and 2020/21 (245,553 tCO<sub>2</sub>e), due to a reduction in livestock numbers, particularly of sheep and non-dairy cattle.

Total net emissions in Hawke's Bay decreased by 20% from 1,855,570 in 2018/19 to 1,483,156 tCO<sub>2</sub>e. This decrease was predominantly due to a decrease in annual forest harvesting emissions. This is discussed further below under the 'Forestry' heading.

The population of Hawke's Bay grew by 4% during this time, resulting in a 7% reduction in per capita gross emissions between 2018/19 and 2020/21, from 25.9 to 24.1 tCO<sub>2</sub>e per person per year. A discussion of the decoupling of gross emissions from population growth and economic growth is found in Section 5.0.

The sections below outline the change in emissions between 2018/19 and 2020/21 for each sector and emissions source, highlighting the changes that have had the largest impact on total gross emissions.

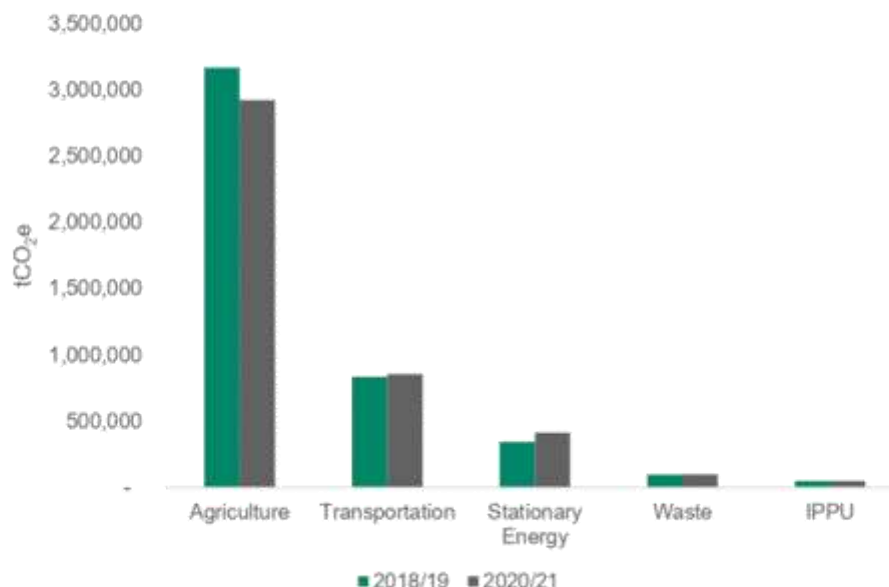


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Hawke's Bay Community Carbon Footprint

25

Figure 10 Emissions for each sector of The Hawke's Bay's gross emissions footprint for 2018/19 and 2020/21



#### 4.1 Agriculture

Table 14 Change in Hawke's Bay's Agriculture emissions from 2018/19 to 2020/21

Sector / Emissions Source	2018/19 (tCO <sub>2</sub> e)	2019/20 (tCO <sub>2</sub> e)	2020/21 (tCO <sub>2</sub> e)	% Change (2018/19 to 2020/21)
Enteric fermentation	2,457,058	2,219,534	2,274,432	-7%
Manure from Grazing Animals	360,412	324,471	332,570	-8%
Other Agriculture Emissions	147,558	132,002	132,079	-10%
Atmospheric Deposition	101,881	91,618	93,329	-8%
Manure Management	51,814	47,881	47,822	-8%
Agricultural Soils	29,657	25,712	22,614	-24%
Fertiliser used in Horticulture	23,070	23,070	23,070	N/A
<b>Total</b>	<b>3,171,449</b>	<b>2,864,287</b>	<b>2,925,915</b>	<b>-8%</b>

Agriculture is the most significant contributor to the Hawke's Bay's community carbon footprint. The sector's emissions decreased by 8% between 2018/19 and 2020/21 (245,533 tCO<sub>2</sub>e). This decrease is driven by a reduction in total livestock numbers, especially of dairy cattle and sheep (see Table 15 and Table 16).

Emissions related to sheep decreased by 149,172 tCO<sub>2</sub>e due to a reduction in the number of sheep (272,146 sheep). Emissions related to non-dairy cattle decreased by 60,255 tCO<sub>2</sub>e due to a reduction in the number of non-dairy cattle (30,490 cattle). The number of dairy cattle also reduced, reducing dairy cattle emissions by 20,394 tCO<sub>2</sub>e.

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 Revision 3 – 29-Nov-2022  
 Prepared for – Hawke's Bay Regional Council – Co No.: N/A

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Hawke's Bay Community Carbon Footprint

26

Table 15 Change in The Hawke's Bay's livestock numbers from 2018/19 to 2020/21

	Number of animals (2018/19)	Number of animals (2020/21)	Change in number of animals (2018/19 to 2020/21)
Sheep	2,876,262	2,604,116	-272,146
Non-dairy Cattle	448,764	418,274	-30,490
Dairy Cattle	78,002	72,208	-5,794
Other livestock	71,257	71,414	157
<b>Total livestock</b>	<b>3,474,285</b>	<b>3,166,012</b>	<b>-308,273</b>

Table 16 Change in the Hawke's Bay's livestock-associated Agriculture emissions from 2018/19 to 2020/21

	2018/19 emissions (tCO <sub>2</sub> e)	2020/21 emissions (tCO <sub>2</sub> e)	Change in emissions, 2018/19 to 2020/21 (tCO <sub>2</sub> e)
Sheep	1,576,576	1,427,404	-149,172
Non-dairy Cattle	1,133,035	1,072,780	-60,255
Dairy Cattle	313,700	293,306	-20,394
Other livestock	67,427	65,709	-1,718
<b>Total livestock</b>	<b>3,090,738</b>	<b>2,859,199</b>	<b>-149,172</b>

## 4.2 Transport

Table 17 Change in Hawke's Bay's Transport emissions from 2018/19 to 2020/21

Sector / Emissions Source	2018/19 (tCO <sub>2</sub> e)	2019/20 (tCO <sub>2</sub> e)	2020/21 (tCO <sub>2</sub> e)	% Change (2018/19 to 2020/21)
Diesel	433,808	421,738	472,063	9%
Petrol	301,531	281,543	300,868	0%
Marine Freight	90,698	90,634	78,488	-13%
Jet Kerosene	3,820	3,293	2,635	-31%
Rail	3,160	861	647	-80%
LPG	1,460	1,477	1,546	6%
Aviation Gas	222	265	272	23%
<b>Total:</b>	<b>834,698</b>	<b>799,813</b>	<b>856,520</b>	<b>3%</b>

Transport emissions increased by 3% between 2018/19 and 2020/21 (21,822 tCO<sub>2</sub>e). This was driven by a 5% increase in on-road fuel emissions (30,363 tCO<sub>2</sub>e) combined with a 13% decrease in marine freight emissions (12,210 tCO<sub>2</sub>e).

It is noted the impact of the COVID-19 pandemic can be seen in Transport emissions where emissions decreased by 4% between 2018/19 and 2019/20 due to reductions in road and air transport fuel use. Aviation emissions continued to reduce in the 2020/21 reporting year, reflective of ongoing COVID-19 impacts to the industry.

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 Revision 3 – 29-Nov-2022  
 Prepared for – Hawke's Bay Regional Council – Co No.: N/A

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Hawke's Bay Community Carbon Footprint

27

### 4.3 Stationary Energy

Table 18 Change in Hawke's Bay's Stationary Energy emissions from 2018/19 to 2020/21

Emissions Source	2018/19 (tCO <sub>2</sub> e)	2019/20 (tCO <sub>2</sub> e)	2020/21 (tCO <sub>2</sub> e)	% Change (2018/19 to 2020/21)
Electricity Consumption	125,197	129,010	181,396	45%
Natural Gas	120,436	117,023	125,465	4%
Stationary Petrol & Diesel Use	48,276	46,850	52,339	8%
Coal	12,690	13,259	10,343	-18%
LPG	11,573	11,713	12,261	6%
Electricity Transmission and Distribution Losses	10,931	11,308	16,663	52%
Natural Gas Transmission and Distribution Losses	9,737	9,461	10,143	4%
Biofuel / Wood	5,414	5,424	5,447	1%
Biogas (landfill)	92	93	96	4%
<b>Total:</b>	<b>344,347</b>	<b>344,141</b>	<b>414,152</b>	<b>20%</b>

Emissions from Stationary Energy increased by 20% between 2018/19 and 2020/21 (69,806 tCO<sub>2</sub>e). This was driven by a 45% increase in electricity consumption emissions (56,198 tCO<sub>2</sub>e). This rise in electricity consumption emissions was caused by a 3% increase in electricity consumption in the Hawke's Bay coupled with a 41% increase in the emissions intensity of the national electricity grid (tCO<sub>2</sub>e/kWh). The emissions intensity of the national grid has increased in recent years due to the increased use of fossil fuels during years with low hydro electricity generation.

### 4.4 Waste

Table 19 Change in Hawke's Bay's Waste emissions from 2018/19 to 2020/21

Sector / Emissions Source	2018/19 (tCO <sub>2</sub> e)	2019/20 (tCO <sub>2</sub> e)	2020/21 (tCO <sub>2</sub> e)	% Change (2018/19 to 2020/21)
Waste in open landfill sites	57,126	58,590	60,295	6%
Waste in closed landfill sites	15,380	14,533	13,743	-11%
Individual septic tanks	5,655	6,199	6,623	17%
Wastewater treatment plants	7,682	7,240	7,673	0%
Composting	11,125	11,125	11,125	0%
<b>Total</b>	<b>96,968</b>	<b>97,686</b>	<b>99,459</b>	<b>3%</b>

Waste emissions increased between 2018/19 and 2020/21, by 3% (2,491 tCO<sub>2</sub>e). Total solid waste in landfill emissions increased by 2%. Emissions from closed landfills decreased due to no extra waste being added, the existing waste in landfill releases fewer emissions over time. Emissions from waste in

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 Revision 3 – 29-Nov-2022  
 Prepared for – Hawke's Bay Regional Council – Co No.: N/A

AECOM

Hawke's Bay Community Carbon Footprint

28

open landfills increased as the volume of waste entering the landfill increased, and waste recently deposited in landfill reaches peak emissions per year (this is after approximately two years in landfill). Due to data only being available for one singular year, no change in composting emissions is recorded.

Total wastewater emissions increased by 7%, due to the increase in emissions from individual septic tanks (968 tCO<sub>2</sub>e). Better data on the number of households connected to centralized wastewater treatment would improve the accuracy of the emissions calculations. Due to the production of methane, septic tanks have a higher emissions intensity compared to a wastewater treatment plant.

#### 4.5 Industrial Processes and Product Use (IPPU)

Table 20 Change in Hawke's Bays IPPU emissions from 2018/19 to 2020/21

Sector / Emissions Source	2018/19 (tCO <sub>2</sub> e)	2019/20 (tCO <sub>2</sub> e)	2020/21 (tCO <sub>2</sub> e)	% Change (2018/19 to 2020/21)
Refrigerants and air conditioning	46,065	46,242	46,441	1%
Aerosols	2,899	2,707	2,601	-10%
SF6 - Electrical Equipment	457	493	508	11%
Foam Blowing	202	219	220	9%
SF6 - Other	99	99	100	1%
Fire extinguishers	80	80	80	0%
<b>Total</b>	<b>49,802</b>	<b>49,840</b>	<b>49,950</b>	<b>0.3%</b>

IPPU emissions remained stable between 2018/19 and 2020/21. There was a decrease in aerosols emissions (298 tCO<sub>2</sub>e) and an increase in refrigerants and air conditioning (376 tCO<sub>2</sub>e). Note that national level data is used for this sector and is portioned out using a population approach; exact emissions for the Region are unknown.

#### 4.6 Forestry

Table 21 Change in Hawke's Bays Forestry emissions from 2018/19 to 2020/21

Sector / Emissions Source	2018/19 (tCO <sub>2</sub> e)	2019/20 (tCO <sub>2</sub> e)	2020/21 (tCO <sub>2</sub> e)	% Change (2018/19 to 2020/21)
Total harvest emissions	4,026,465	3,945,810	3,908,023	-3%
Native forest sequestration	-1,007,992	-1,007,992	-1,007,992	0%
Exotic forest sequestration	-5,660,165	-5,679,631	-5,762,872	2%
<b>Total</b>	<b>-2,641,693</b>	<b>-2,741,813</b>	<b>-2,862,841</b>	<b>8%</b>

Forestry emissions decreased by 221,148 tCO<sub>2</sub>e (8%) between 2018/19 and 2020/21. This decrease was driven by a decrease in total harvest emissions (118,442 tCO<sub>2</sub>e) and an increase in exotic forest sequestration during this time. Forestry emissions are influenced by the cyclical nature of harvesting and planting regimes where some years will have higher sequestration and some years will have higher harvesting emissions. This is dependent on age of forests and the demand for lumber and timber. Improved and updated data sources may impact the estimation of emissions from this source in the future.

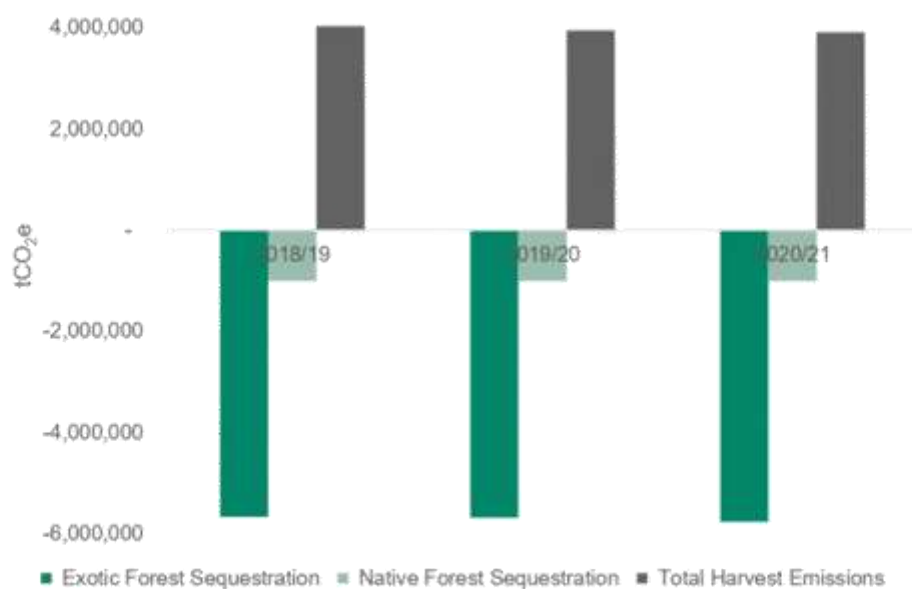
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 Revision 3 – 29-Nov-2022  
 Prepared for – Hawke's Bay Regional Council – Co No.: N/A

AECOM

Hawke's Bay Community Carbon Footprint

29

Figure 11 Forestry sequestration and harvesting emissions from 2018/19 to 2020/21



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 Revision 3 – 29-Nov-2022  
 Prepared for – Hawke's Bay Regional Council – Co No.: N/A



## 5.0 Decoupling of GHG emissions from population growth and GDP

Figure 12 shows the change in gross emissions when compared to changes in other metrics of interest between 2018/19 and 2020/21. For example, total gross emissions have decreased by 3% as the population has grown by 4%, resulting in a 7% decrease in per capita gross emissions.

When emissions grow less rapidly than Gross Domestic Product (GDP) as a measure of regional income then this process is known as decoupling. The term decoupling is an expression of the desire to mitigate emissions without harming economic wellbeing. A full discussion of decoupling of emissions is beyond the scope of this project. However, the changes in emissions and GDP illustrated in Figure 12 suggest at a high-level decoupling has occurred between 2018/19 and 2020/21. GDP increased by 7% while gross emissions decreased by 3%, resulting in a 10% decrease in the GHG emissions ratio to GDP.

The exact drivers for the decoupling of emissions from GDP are difficult to pinpoint. New policies, for restructuring the way to meet demand for energy, food, transportation, and housing will all contribute. In this case, both direct local actions including reducing the emissions from landfill gas and indirect national trends (e.g. reduction of emissions from electricity generation) will have contributed to the trends noted.



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Hawke's Bay Community Carbon Footprint

31

Figure 12 Change in total gross emissions compared to other metrics of interest

## Hawke's Bay Region Emissions change over time 2019 – 2021



Decoupling GDP Growth from GHG Emissions

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 Revision 3 – 29-Nov-2022  
 Prepared for – Hawke's Bay Regional Council – Co No.: N/A

## 6.0 Impact of the COVID-19 pandemic on GHG Emissions

COVID-19 impacted New Zealand and the entire world during 2020 and 2021, causing widespread government-imposed restrictions on businesses and individuals and huge shifts in behaviours and economic markets. Restrictions in New Zealand relating to COVID-19 began in mid-March 2020 with many personal and business restrictions continuing past the end of 2019/20 and throughout 2020/21.<sup>3</sup>

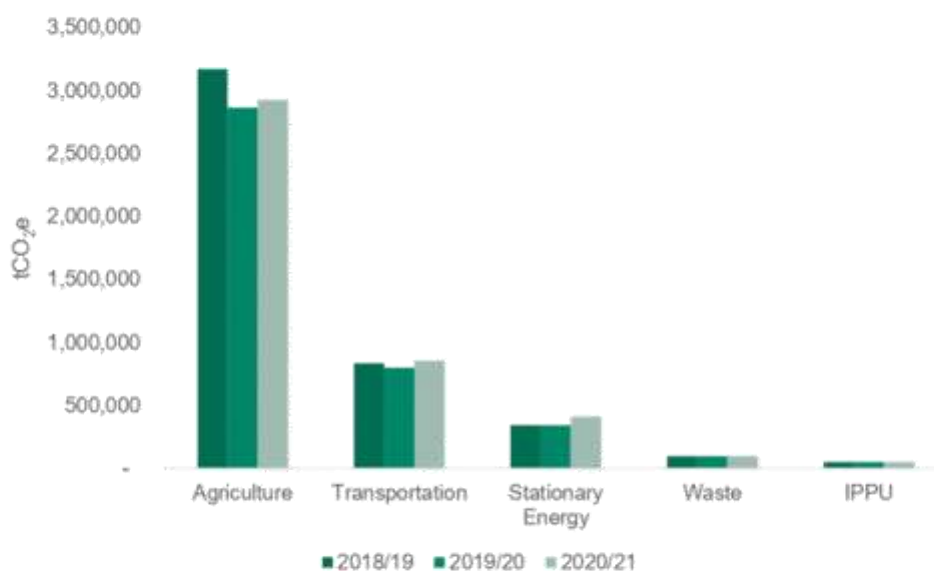
Globally, carbon dioxide emissions from fossil fuels (the largest contributor to greenhouse gas emissions) in 2020 decreased by 7% compared to 2019<sup>4</sup>. Emissions from the transportation sector account for the largest share of this decrease. Surface transport, e.g. car journeys, fell by approximately half at the peak of COVID-19 restrictions in April 2020 (when restrictions were at their maximum, particularly across Europe and the U.S. Globally, emissions recovered to near 2019 levels in 2021 and are expected to continue to increase.

In New Zealand, national daily carbon dioxide emissions are estimated to have fell by up to 41% during the level 4 lockdown in April 2020<sup>5</sup>. National gross emissions decreased by 3% from 2018/19 to 2019/20, which was largely driven by a decrease in fuel use in road transport due to COVID-19 pandemic restrictions, a decrease in fuel use in manufacturing industries and construction due to COVID-19 restrictions, and a decrease in fuel use from domestic aviation also due to COVID-19 restrictions.

Total gross emissions in the Hawke's Bay decreased by 341,496 tCO<sub>2</sub>e (8%) between 2018/19 and 2019/20. Total gross emissions then increased by 190,229 tCO<sub>2</sub>e (4%) from 2019/20 to 2020/21, however this is still lower than the pre-covid-19 2018/19 year.

The impact on emissions in different sectors varied. Notably, Transport emissions reduced by 4% between 2018/19 and 2019/20, driven by reduced on-road and off-road transport fuel use. Agriculture emissions reduced between 2018/19 and 2019/20, potentially due to impacts on transport and global supply chains. Despite changes in Stationary Energy emissions, this sector is not judged to have been significantly affected by COVID-19. Waste and IPPU emissions were relatively unchanged between 2018/19 and 2019/20.

**Figure 13 Hawke's Bay emissions per sector for 2018/19, 2019/20, and 2020/21 (tCO<sub>2</sub>e)**



<sup>3</sup> <https://covid19.govt.nz/alert-system/history-of-the-covid-19-alert-system/>

<sup>4</sup> Pierre Friedlingstein et al. – Global Carbon Budget 2020 (2020)

<sup>5</sup> Corinne Le Quere et al. – Temporary Reduction in Daily Global CO<sub>2</sub> Emissions During the COVID-19 Forced Confinement

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Revision 3 – 29-Nov-2022

Prepared for – Hawke's Bay Regional Council – Co No.: N/A

AECOM

Hawke's Bay Community Carbon Footprint

33

## 7.0 Closing Statement

The Hawke's Bay GHG emissions footprint provides information for decision-making and action by the council, stakeholders, and the wider community. We encourage the council to use the results of this study to update current climate actions plans and set emission reduction targets.

The emissions footprint developed for the Hawke's Bay region covers emissions produced in the Stationary Energy, Transport, Waste, IPPU, Agriculture, and Forestry sectors using the GPC reporting framework. Sector-level data allows the Hawke's Bay Regional Council to target and work with the sectors that contribute the most emissions to the footprint.

Understanding of the extensive and long-lasting effects of climate change is improving all the time. It is recommended that this emissions footprint be updated regularly (every two or three years) to inform ongoing positive decision making to address climate change issues.

The accuracy of any emissions footprint is limited by the availability, quality, and applicability of data. Areas where data could be improved for future footprints include forestry (forest cover and harvesting), agriculture (especially livestock numbers), solid waste and wastewater, and on and off-road transport fuel use.

## 8.0 Limitations

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# Appendix A

## Assumptions and Data Sources

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Sector / Category	Assumption and Data Sources
<b>General</b>	
Geographical Boundary	<p>LGNZ local council mapping boundaries have been applied.</p> <p>The emissions footprint for the Hawke's Bay Region covers the entirety of the Hawke's Bay Region (this excludes some of the Rangitikei and Taupō territorial authorities).</p> <p>Emissions footprints for each territorial authority covers the entirety of the territorial authority area.</p>
Population	<p>Population figures are provided by StatsNZ.</p> <p>Financial year populations have been used, these are based on the average population from the two calendar years (e.g. the average of 2018 and 2019 calendar year populations for FY19).</p> <p>The population of Taupo and Rangitikei Districts within the Hawke's Bay geographical boundary has been calculated.</p>
<b>Transport Emissions</b>	
Petrol and Diesel:	<p>Petrol and diesel sales data provided by Napier City Council for Napier, Central Hawke's Bay and Hastings. Combined sales data for Gisborne and Wairoa provided by Gisborne District Council and allocated to a region based on Waka Kotahi emissions data.</p> <p>Sales have been divided between territorial authorities based on the number of kilometres travelled by vehicles on roads (VKT) in each territorial authority. VKT data provided by Waka Kotahi.</p> <p>The division into transport and stationary energy end use (and within transport into on-road and off-road) has been calculated using fuel end use data provided by the Energy Efficiency and Conservation Authority (EECA) from the 2019 database.</p> <p>Biofuel sales information provided directly by the supplier.</p>
Rail Diesel	<p>Emissions from fuel use have been calculated and provided by Kiwi Rail. The following assumptions were made:</p> <ul style="list-style-type: none"> <li>- Net Weight is product weight only and excludes container tare (the weight of an empty container)</li> <li>- The Net Tonne-Kilometres (NTK) measurement has been used. NTK is the sum of the tonnes carried multiplied by the distance travelled.</li> <li>- National fuel consumption rates have been used to derive litres of fuel for distance.</li> <li>- Type of locomotive engine used, and jurisdiction topography, have not been incorporated in the calculations.</li> </ul> <p>The trans-boundary routes were determined, and the number of stops taken along the way derived. The total amount of litres of diesel consumed per route was then split between the departure district, arrival district and any district the freight stopped at along the way. If the freight travelled through but did not stop within a district, no emissions were allocated.</p> <p>This data is subject to commercial confidentiality.</p>
Jet Kerosene (Scheduled Flights) Aviation Gas (General Aviation)	<p>Calculated from information provided by Hawke's Bay Airport.</p> <p>Aviation fuel and jet kerosene fuel volumes were provided and emissions have been calculated using these volumes. Emissions have been divided between territorial authorities based the relative population of each territorial authority.</p>

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Revision 3 – 29-Nov-2022  
Prepared for – Hawke's Bay Regional Council – Co No.: N/A



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Hawke's Bay Community Carbon Footprint

Marine Freight	<p>Shipping schedules have been provided by the Port of Napier. Emissions have been calculated based on ship weight and distance from the origin/destination to Napier.</p> <p>This figure does not include fishing vessels, or vessels with destination to be confirmed.</p> <p>Emissions from freight and international shipping are allocated equally between the origin and destination area emissions footprints.</p> <p>It is expected that imports and exports travelling through the Port of Napier service the entire Hawke's Bay Region. Emissions relating to freight and international shipping emissions have been divided between all Hawke's Bay territorial authorities based on population size.</p>
Marine Fuel (Local)	<p>Non-freight marine fuel use has not been included in this study. Fuel use by Port of Napier-controlled vessels has not been included due to a lack of available information.</p> <p>Most private marine vessels use fuel purchased at vehicle fuel stations. Petrol and diesel used in private marine vessels is included in off-road transportation.</p>
LPG Consumption	<p>North Island LPG sales data (tonnes) has been provided by the LPG Association.</p> <p>'Auto' and 'Forklift' sales represent transport uses of LPG.</p> <p>Sales have been divided between territorial authorities on a per capita basis.</p>
<b>Stationary Energy Emissions</b>	
Electricity Demand	<p>Electricity demand has been calculated using grid exit point (GXP) data from the EMI website (<a href="http://www.emi.ea.govt.nz">www.emi.ea.govt.nz</a>). Reconciled demand has been used as per EMI's confirmation.</p> <p>The territorial authorities serviced by each GXP have been confirmed by the respective electricity suppliers.</p> <p>The breakdown into sectors (Residential, Commercial, and Industrial) is based on NZ average consumption per sector as per Ministry for the Environment (MfE) data.</p>
Electricity Generation	<p>Electricity generation has been calculated using data from the EMI website (<a href="http://www.emi.ea.govt.nz">www.emi.ea.govt.nz</a>).</p> <p>Small electricity generation has not been included in this data (e.g. domestic solar generation). This figure only includes electricity that is connected to the national electricity grid, direct users of electricity are not included.</p>
Coal Consumption	<p>National coal consumption data has been provided by MBIE. Regional industrial coal data has been provided by EECA.</p> <p>National residential and commercial coal consumption has been divided between territorial authorities on a per capita basis.</p> <p>Regional industrial coal consumption has been divided between territorial authorities on a per capita basis.</p>
Coal Production and Fugitive Emissions	Not Calculated: There are no active coal mines within the region.
Biofuel Consumption	<p>National biofuel consumption data has been provided by the Ministry for Business, Innovation and Employment (MBIE).</p> <p>Biofuel consumption has been divided between territorial authorities on a per capita basis.</p> <p>Biofuel emissions are broken down into Biogenic emissions (CO<sub>2</sub>) and Non-Biogenic emissions (CH<sub>4</sub> and N<sub>2</sub>O)</p>

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 Revision 3 – 29-Nov-2022  
 Prepared for – Hawke's Bay Regional Council – Co No.: N/A

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Hawke's Bay Community Carbon Footprint

LPG Consumption	<p>North Island LPG sales data (tonnes) has been provided by the LPG Association.</p> <p>'Auto' and 'Forklift' sales represent transport uses of LPG. All other sales represent stationary energy uses of LPG.</p> <p>Sales have been divided between territorial authorities on a per capita basis.</p> <p>The breakdown into sectors (Residential, Commercial, and Industrial) is based on NZ average consumption per sector as per MfE data.</p>
Natural Gas Consumption	<p>Natural gas consumption data has been provided by FirstGas. Territorial Authorities supplied by gas from each Point of Connection (POC) have been confirmed by FirstGas.</p> <p>Natural gas consumption has been split into residential, commercial, and industrial consumption based on information provided by PowerCo and national statistics from MBIE. Some POCs supply gas to particular industrial users exclusively, these have been taken into account.</p>
Oil and Gas Fugitive Emissions	Not Calculated: There are no gas or oil processing plants within the region.
<b>Agricultural Emissions</b>	
General	<p>Territorial authority livestock numbers and fertiliser data taken from the Agricultural Census (StatsNZ). The last territorial authority census was in 2017. Regional agricultural data from StatsNZ (2021) has been used to estimate the change in livestock and fertiliser use since 2017.</p> <p>Territorial authority land-use data provided by HBRC covering horticulture land-use.</p>
<b>Solid Waste Emissions</b>	
Waste in Landfill	<p>Landfill waste volume and end location information has been provided by the respective council departments.</p> <p>Where information is not available, waste volumes have been estimated based on historical national data on a per capita basis.</p> <p>Emissions are allocated to territorial authorities based on where the waste was produced, even if the waste is disposed in landfill outside the territorial authority.</p>
<b>Wastewater Emissions</b>	
Wastewater Volume and Treatment Systems	<p>Information on treated wastewater, and treatment plants has been provided by the respective council departments.</p> <p>Where information is not available, reasonable assumptions have been made and the WaterNZ database has been consulted.</p> <p>The population connected to septic tank systems have been estimated by the respective council departments. Where the population covered by Wastewater treatment plants and septic tanks does not account for the entire population, the remaining population is assigned to septic tanks.</p> <p>Emissions are allocated to territorial authorities based on where the wastewater was produced, even if the wastewater is treated outside the territorial authority.</p>
<b>Industrial Emissions</b>	
Industrial processes	It is assumed that there are no significant non-energy related emissions of greenhouse gasses from industrial processes in the Region (e.g. aluminium manufacture).
Industrial Product Use	<p>National data covering industrial product use (e.g. fire extinguishers, refrigerants) has been provided by the MfE.</p> <p>Emissions have been allocated to territorial authorities on a per capita basis.</p>

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Revision 3 – 29-Nov-2022  
Prepared for – Hawke's Bay Regional Council – Co No.: N/A

AECOM

Hawke's Bay Community Carbon Footprint

Forestry Emissions	
Exotic Forestry Harvested	<p>Harvested forestry, and forest cover information for each territorial authority has been derived from Landcare Research data.</p> <p>It has been assumed that only 70% of the tree is removed as roundwood and that the above ground tree makes up approximately 74% of the total carbon stored.</p>
Exotic Forest	Exotic forest land area for each territorial authority has been provided by Landcare Research.
Emission Factors	
General	<p>All emission factors have detailed source information in the calculation tables within which they are used. Where possible, the most up to date, NZ-specific EFs have been applied.</p> <p>AR5 Global Warming Potential (GWP) figures for greenhouse gases have been used accounting for climate change feedbacks.</p>

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Revision 3 – 29-Nov-2022  
Prepared for – Hawke's Bay Regional Council – Co No.: N/A

# Appendix B

## Additional Transport Emissions Analysis



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1

## Additional Transport Emissions Analysis – Hawke's Bay Region

This section details the additional analysis undertaken to further breakdown the Hawke's Bay Region's transport sector GHG emissions. The focus of this additional analysis addresses on-road and off-road transport emissions which together represent 18% of Hawke's Bay total gross emissions. Within on-road and off-road transport emissions this assessment looks at the relative contribution of each vehicle type (Cars, Commercial Vehicles, Buses) to the region's transport emissions.

### Key findings:

- Cars represent 51% of Hawke's Bay on-road transport emissions, and 8% of Hawke's Bay total gross emissions.
- Light commercial vehicles represent 22% of Hawke's Bay's on-road transport emissions and 3% of Hawke's Bay's total gross emissions.
- Heavy commercial vehicles represent 24% of Hawke's Bay's on-road transport emissions and 4% of Hawke's Bay's total gross emissions.
- Electric vehicles currently represent less than 106 tCO<sub>2</sub>e (0.02%) of Hawke's Bay on-road transport emissions based on emissions related to the electricity consumed.
- Cars represent 73% of all Vehicle Kilometres Travelled (VKT) in Hawke's Bay but represent 51% of all on-road emissions in Hawke's Bay. This is due to the relatively low average tCO<sub>2</sub>e per VKT of cars compared to heavier vehicles.
- 25-50+ tonne heavy vehicles represent 4% of all Vehicle Kilometres Travelled (VKT) in Hawke's Bay but represent 18% of all on-road emissions in Hawke's Bay.
- Diesel is the predominant fuel for off-road transport use, representing 95% of off-road transport emissions in Hawke's Bay.
- Nationally, agriculture is the highest producing sector of off-road transport emissions, producing 27% of all off-road transport emissions. The next largest off-road transport producing sectors are building and construction, commercial, and industrial uses. Data specific to Hawke's Bay was not available at the time of writing.

## 1.0 Methodology

The basis for this assessment is the results presented in the Hawke's Bay Community Carbon Footprint for the financial year 2020/21 (July 1<sup>st</sup> to June 30<sup>th</sup>). The emissions for on-road and off-road transport have been calculated directly based on the sale of petrol and diesel in Hawke's Bay, and then these have been broken down by sector and vehicle type using data provided by Waka Kotahi and the Energy Efficiency and Conservation Authority (EECA).

Data provided by Waka Kotahi covering Vehicle Kilometres Travelled (VKT) and emissions (by gas) for each territorial authority by vehicle class in 2018/19 has been used to assess the relative contribution of vehicle class types to on-road transport emissions in Hawke's Bay.

Emissions related to energy use from electric vehicles (EVs) in the Community Carbon Footprint is included in the Stationary Energy sector and not included in transport emissions, due to lack of available data at the time of calculation. Total emissions presented here include the EV emissions contribution. These emissions have been calculated using an average electricity consumption per km travelled and based on the carbon intensity of the national electricity grid in 2020/21.

All calculated emissions have been converted to tonnes of CO<sub>2</sub> equivalent (tCO<sub>2</sub>e) to allow direct comparison with the results of the Community Carbon Footprint.

Off-road transport data is limited at the local level, so this assessment utilises national data provided by the EECA to determine the relative contribution of emission sources within the on-road transport emissions source.

Revision – 26-Sep-2022

## 2.0 Key Limitations

### On-road transport

- The data underlying the breakdown of on-road transport emissions is based on calendar year 2019 data, not financial year 2020/21. There may be some differences between these years regarding the vehicle fleet make-up, but it is expected that the proportions used are representative.

### Off-road transport

- Calculations have been based on national-level data resulting in a lower level of confidence in their applicability to the territorial authority's off-road emissions given the variation in off-road transport uses across the country.
- In the Community Carbon Footprint, recreational marine fuel usage is included in 'off-road transport' due to the lack of data able to separate this marine fuel consumption from other on-land fuel consumption. This recreational marine fuel is estimated and included in 'off-road transport' here for consistency.

### Marine freight transport, air travel, and rail

- These emissions sources have not been broken down further. Additional work could be done to separate cruise ships from marine freight (although there is limited available and reliable data to do so). Additional work could also assess the relative contribution of the origin and destination of marine and air travel movements. These are beyond the scope of this study.



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3

### 3.0 Transport Emissions Summary

The paragraphs, figures and tables below outline Hawke's Bay greenhouse gas emissions from transport. During the 2020/21 reporting period, transport in Hawke's Bay emitted 856,520 tCO<sub>2</sub>e, representing 20% of Hawke's Bay total gross emissions.

On-road transport is the largest contributor to Transport emissions, representing 80% of Transport emissions and 16% of Hawke's Bay total gross emissions. This is followed by off-road transport and marine transport (all relating to marine freight).

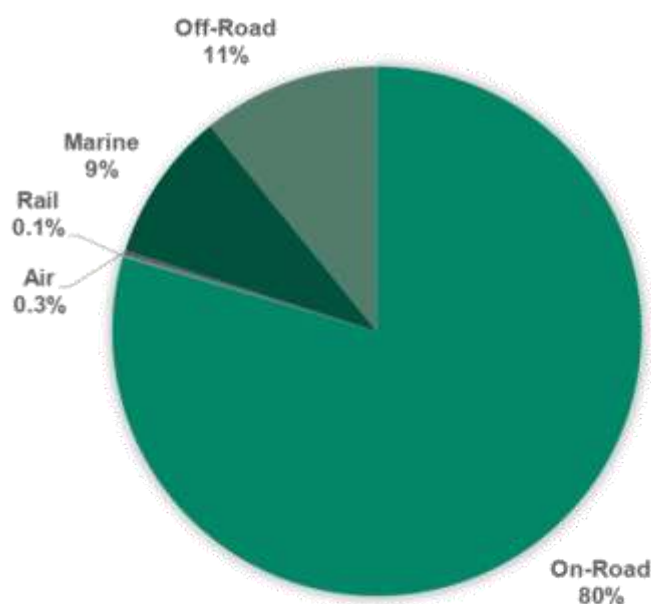


Figure 1 Hawke's Bay – transport emissions (tCO<sub>2</sub>e)

### 4.0 On-Road Transport Emissions Breakdown

#### 4.1 Hawke's Bay Region

On-road transport emissions are those relating to cars, commercial vehicles (including utes, trucks, and large commercial vehicles), and buses on-roads.

Table 1 and Figure 2 detail on-road transport emissions per vehicle category. The results show that cars in Hawke's Bay tend to be fuelled by petrol while Commercial Vehicles and Buses almost exclusively use diesel.

Low emission Electric Vehicle (EV) use is currently minimal within the Hawke's Bay resulting in an extremely small contribution to on-road transport emissions (140 tCO<sub>2</sub>e). Note that sales and use of electric vehicles have likely increased since 2018/19 (the most recent year available for the dataset used), however emissions will likely still represent an extremely small contribution to on-road transport emissions.

In Hawke's Bay, the largest contributor to on-road transport emissions are cars, representing 51% of on-road transport emissions, and 8% percent of Hawke's Bay's total gross emissions. Commercial vehicles represent 46% of on-road transport emissions, and 7% percent of Hawke's Bay total gross emissions. A further breakdown of commercial vehicle types is provided below.

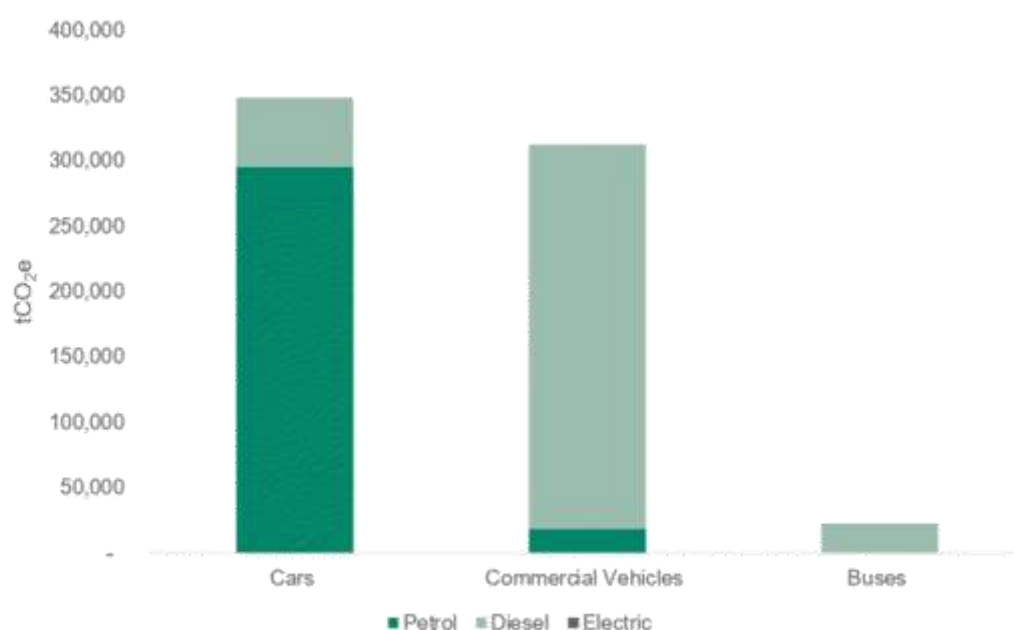
Revision – 26-Sep-2022

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4

**Table 1 On-road transport emissions by vehicle type and fuel type (tCO<sub>2</sub>e)**

Vehicle Type	Petrol	Diesel	Electric	Total	% of Total
Cars	295,523	52,210	138	347,871	51%
Commercial Vehicles	18,171	293,527	0	311,698	46%
Buses	-	21,824	2	21,825	3%
<b>Total</b>	<b>313,693</b>	<b>367,561</b>	<b>140</b>	<b>681,394</b>	
<b>% of Total</b>	<b>46%</b>	<b>54%</b>	<b>0.02%</b>		



**Figure 2 On-road transport emissions by vehicle type and fuel type**

In Hawke's Bay, 85% of total car emissions are from petrol, while commercial vehicles are primarily diesel (94% of total commercial vehicle emissions). Buses are almost entirely diesel fuelled and contribute 3% of total vehicle emissions for the region. The buses category includes all buses including public transport, school buses, and private commercial buses (including tourist coaches).

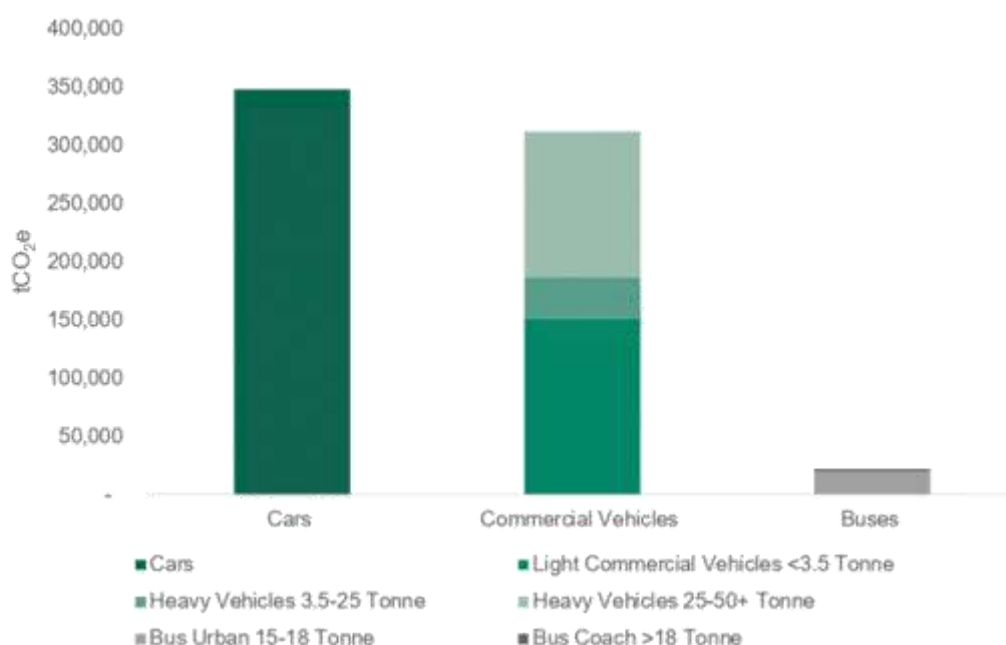
Emissions from these vehicle types can be broken down further by vehicle class. Table 2 and Figure 3 detail on-road transport emissions per vehicle class.

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5

**Table 2 On-road transport emissions by vehicle class (tCO<sub>2</sub>e)**

Vehicle Class	GHG Emissions (tCO <sub>2</sub> e)	% of Total
Cars	347,871	51%
Light Commercial Vehicles <3.5 Tonne	151,209	22%
Heavy Vehicles 3.5-25 Tonne	35,460	5%
Heavy Vehicles 25-50+ Tonne	125,029	18%
Bus Urban 15-18 Tonne	19,852	3%
Bus Coach >18 Tonne	1,974	<1%
<b>Total</b>	<b>681,394</b>	



**Figure 3 On-road transport emissions by vehicle class**

Alongside total transport emissions, we can also look at emissions compared to distance travelled by different vehicle types. Table 3 shows the emissions per vehicle class as above but also includes the Vehicle Kilometres Travelled (VKT) by each vehicle class in Hawke's Bay and shows the average GHG emissions per VKT for each vehicle class. The average GHG emissions per VKT figure was calculated from the distance travelled (as per the Waka Kotahi data) and reported emissions (calculated from fuel sales and broken-down using Waka Kotahi emissions data).

Cars represent 73% of all VKT in Hawke's Bay but represent 51% of all on-road emissions in Hawke's Bay. This is due to the relatively low average tCO<sub>2</sub>e per VKT of cars compared to heavier vehicles (which is also partly due to the use of petrol rather than diesel for cars). Despite 25-50+ tonne heavy vehicles representing 4% of all VKT in Hawke's Bay these vehicles represent 18% of all on-road emissions in Hawke's Bay. It is important to note that these figures do not take into account the weight of freight, or the number of people, being moved per vehicle, where larger vehicles may be more efficient per tonne of freight moved than smaller vehicles, or where busses may be more efficient per person than cars.

Efforts to reduce the kilometres travelled by all vehicles should be considered to reduce emissions from on-road transport. This could include enabling and encouraging increased public transport use, or

Revision – 26-Sep-2022

**AECOM**  
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6

diverting freight from roads onto rail and marine transport options. Efforts to improve the fuel efficiency of all vehicles should also be considered.

**Table 3 On-road transport vehicle class VKT, emissions, and calculated average emissions per VKT**

Vehicle Type	Vehicle Kilometres Travelled (VKT)	GHG Emissions (tCO <sub>2</sub> e)	Average tCO <sub>2</sub> e per VKT
Cars	1,261,391,621	347,871	0.0003
Light Commercial Vehicles <3.5 Tonne	339,983,103	151,209	0.0004
Heavy Vehicles 3.5-25 Tonne	38,335,525	35,460	0.0009
Heavy Vehicles 25-50+ Tonne	71,355,816	125,029	0.0018
Bus Urban 15-18 Tonne	9,975,917	19,852	0.0020
Bus Coach >18 Tonne	1,504,270	1,974	0.0013
<b>Total</b>	<b>1,722,546,252</b>	<b>681,394</b>	

## 4.2 Territorial Authorities in Hawke's Bay Region

This section briefly presents the main results of this assessment at the territorial authority level. All calculations and results have been provided to Hawke's Bay Regional Council in excel format.

Due to the differences in geographic boundaries between the territorial authorities and the region, the sum of GHG emissions from the territorial authorities covered here does not equal the emissions for the Hawke's Bay Region.

**Table 4 On-road transport emissions by vehicle type and fuel type for the territorial authorities in Hawke's Bay (tCO<sub>2</sub>e)**

Vehicle Type	Hastings District	Napier City	Wairoa District	Central Hawke's Bay District
Cars	179,692	100,583	24,872	45,264
Commercial Vehicles	157,912	78,847	29,281	42,613
Buses	10,728	5,375	2,247	3,051
<b>Total</b>	<b>348,332</b>	<b>184,805</b>	<b>56,400</b>	<b>90,928</b>

**Table 5 Proportion of on-road transport emissions by vehicle type and fuel type for the territorial authorities in Hawke's Bay**

Vehicle Type	Hastings District	Napier City	Wairoa District	Central Hawke's Bay District
Cars	52%	54%	44%	50%
Commercial Vehicles	45%	43%	52%	47%
Buses	3%	3%	4%	3%

Hastings has the largest amount of GHG emissions across each vehicle type, while Wairoa has the lowest across each vehicle type.

Revision – 26-Sep-2022

**AECOM**  
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7

Regarding the proportion of emissions by vehicle type, notably Napier has the highest proportion of car related GHG emissions compared to the other territorial authorities, while Wairoa and Central Hawke's Bay have the highest proportion of commercial vehicle GHG emissions.

On a per capita basis, the lowest on-road car, commercial vehicle and bus emissions are found in Napier while the highest per capita car, commercial vehicle and bus emissions are found in Wairoa and Central Hawke's Bay. Per capita emissions for on-road transport in Hastings and the entire Hawke's Bay region are similar to that of the entirety of New Zealand.

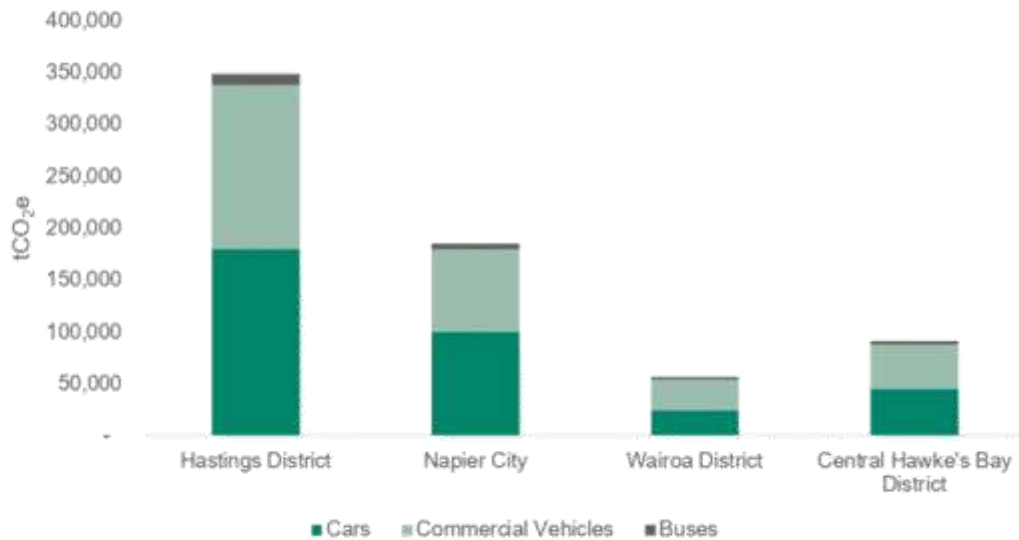


Figure 4 On-road transport emissions by vehicle type for the territorial authorities in the Hawke's Bay Region

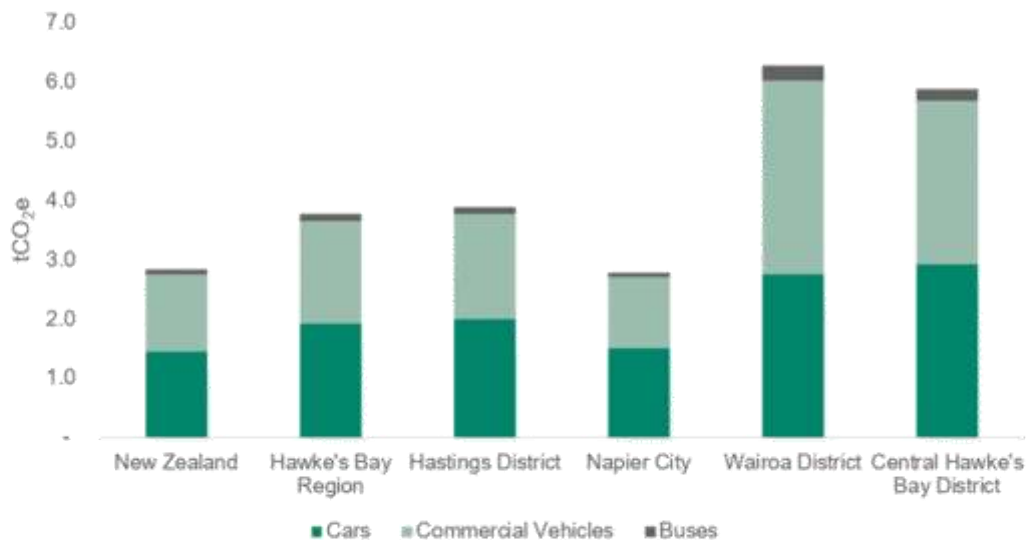


Figure 5 Per capita on-road transport emissions by vehicle type for the territorial authorities in the Hawke's Bay Region and New Zealand

Revision – 26-Sep-2022



## 5.0 Off-Road Transport Emissions Breakdown

The off-road transport emissions breakdown by sector is presented in Table 6 and Figure 6. The total off-road petrol and diesel figures are based on the Community Carbon Footprint for Hawke's Bay. These totals have then been allocated to sectors based on the *Off-road liquid fuel insights- Quantifying off-road diesel and petrol use in New Zealand*, July 2021 produced by the Energy Efficiency and Conservation Authority (EECA). It is important to note that the EECA figures used are from 2019 and are based on values for the entirety of New Zealand and are therefore not specific to uses of off-road transport fuels in Hawke's Bay.

*The allocation of petrol and diesel to these sectors should be used for context only as they are not robustly reflective of fuel use in Hawke's Bay.*

Diesel is the predominant fuel for off-road transport use, representing 95% of off-road transport emissions. Nationally, agriculture is the highest producing sector for off-road transport emissions, producing 27% of all off-road transport emissions. The next largest off-road transport producing sectors are building and construction, commercial, and industrial uses. These figures would likely be significantly different if data for Hawke's Bay was available.

**Table 6 Off-road transport emissions by sector type and fuel type (tCO<sub>2</sub>e)**

Sector Type	Diesel	Petrol	Total	% of Total
Agriculture	24,584	346	24,930	27%
Fishing & Hunting	3,833	3	3,837	4%
Forestry & Logging	6,584	1	6,585	7%
Building & Construction	16,084	2	16,086	17%
Mining	6,834	-	6,834	7%
Industrial	11,750	20	11,770	13%
Commercial	12,417	220	12,637	14%
Recreational marine	4,167	4,019	8,186	9%
Marina Refuelling Stations	2,167	52	2,219	2%
<b>Total</b>	<b>88,419</b>	<b>4,665</b>	<b>93,084</b>	
<b>% of Total</b>	<b>95%</b>	<b>5%</b>	<b>-</b>	



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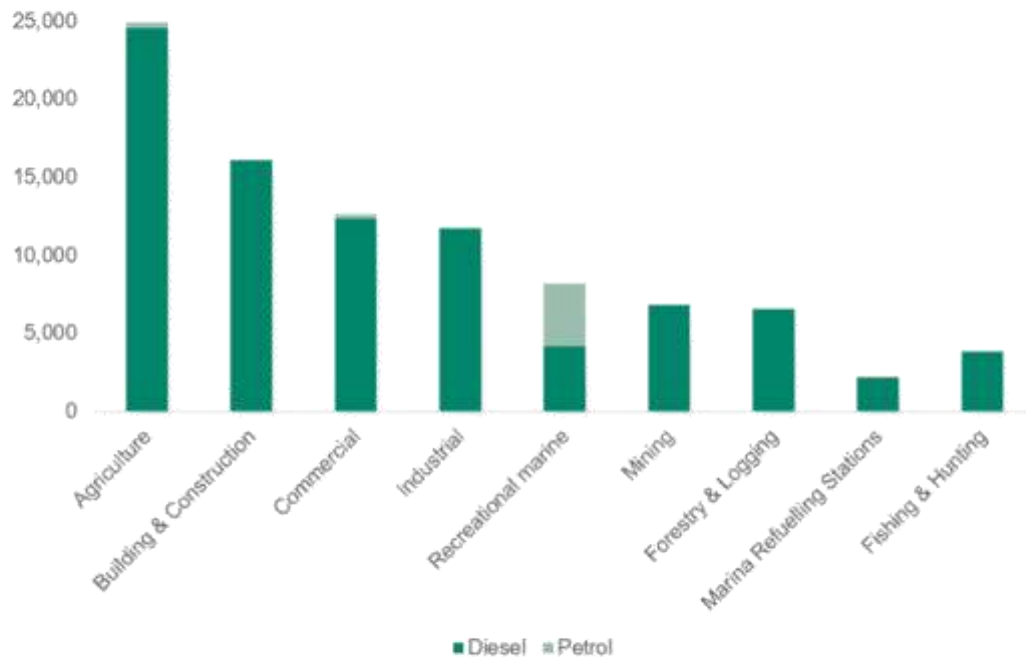


Figure 6 Off-road transport emissions by sector type and fuel type (tCO<sub>2</sub>e)

Revision – 26-Sep-2022



**Hawke's Bay Regional Council**  
**Regional Transport Committee**  
**Friday 10 February 2023**

**Item 8**

**Subject: Regional Transport Programme Tracker February 2023**

**Reason for Report**

1. This agenda item introduces the Regional Transport Programme Tracker to the Committee. The programme tracker will be a standing item on the Committee agenda providing an update of progress on RTAG workstreams.

**Background**

2. The TAG format was restructured in late 2022, taking a focused workstream structure. The programme tracker has been developed to track progress against deliverables and report to the RTC. Comment is welcomed.

**Decision Making Process**

3. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision-making provisions do not apply.

**Recommendation**

That the Regional Transport Committee receives and notes the *Regional Transport programme overview February 2023* staff report.

**Authored by:**

**Bryce Cullen**  
**Transport Strategy & Policy Analyst**

**Katie Nimon**  
**Transport Manager**

**Approved by:**

**Katrina Brunton**  
**Group Manager Policy & Regulation**

**Attachment/s**

- 1 [!\[\]\(00e558ce89be4dcec517713b4394e0f1\_img.jpg\)](#) Regional Transport Programme Tracker



## Regional Transport programme tracker

N.N Workstream N.N.N Sub-project	GPS Alignme			Road Blocks	Next steps	Commentary	Milestones		
	Climate Change	Better travel options	Safety				H88C resource	RCA resource	External resource
	Progress	Overall Status							
<b>1.1 Regional Land Transport Plan</b>									
1.1.1 ILM	✓	✓	✓	100%	Build ILM into PBC	ILM workshops completed	20	20	75
1.1.2 PBC	✓	✓	✓	15%	Review existing PBC	Next steps developed following review	20	0	80
1.1.3 Freight network distribution study	✓	✓	✓	10%	Overview of approach required		5	5	100
1.1.4 RLTP planning				0%		Dependent on PBC			TBC
1.1.5 RLTP consultation				0%		No actions yet			TBC
<b>1.2 Network Resilience</b>									
1.2.1 Develop standardised regional approach to resilience	✓		✓	0%		Next steps to be developed	50	50	25
1.2.2 Develop regionally aligned view of best practice for resilience	✓		✓	0%		Next steps to be developed	95	5	75
1.2.3 Develop programmes of work to reduce long term emergency spend	✓		✓	0%		Next steps to be developed	70	30	10
1.2.4 Develop regional strategy of network resilience	✓		✓	0%		Next steps to be developed	20	80	50
<b>1.3 Speed Management Planning</b>									
1.3.1 Principles & priorities	✓	✓		85%	RTC endorsement required	RCA development post sign off	75	75	10
1.3.2 Draft regional speed management plan - front end	✓	✓		45%		Working draft developed	50	20	0
1.3.3 RCA speed management plans	✓	✓		10%	Will start following RTC sign off		20	80	0
1.3.4 Draft regional speed management plan				0%		Requires RCA plans	75	40	0
1.3.5 Regional speed management plan consultation				0%		No actions yet	75	50	0
1.3.6 Certification by Waka Kotahi				0%		No actions yet	10	10	75
<b>1.4 Road Safety</b>									
1.4.1 Strategic direction and framework	✓	✓		100%	RTC endorsement	Strategic direction & framework developed	100	10	0
1.4.2 Rebrand				15%		Process to soon commence	25	0	75
1.4.3 HDC strategy development	✓	✓		5%		Development commencing	50	50	25
1.4.4 WDC strategy development	✓	✓		5%	Continue strategy development		50	50	25
1.4.5 NCC strategy development	✓	✓		5%		Development commencing	50	50	25
1.4.6 CHBDC strategy development	✓	✓		20%	Continue strategy development		50	50	25
1.4.7 RTC road safety strategy workshop				0%		No actions yet			TBC
<b>1.5 Emissions reduction Plan</b>									
1.5.1 Emissions reduction prep work	✓	✓	✓	5%		Preliminary prep work commenced	50	50	Complete workshop
1.5.2 SME workshop	✓	✓	✓	0%		Workshops scheduled	50	50	Workshops completed
1.5.3 Draft transport emissions reduction plan				0%		Draft to come following workshop	50	50	Draft developed
1.5.4 Ongoing amendments / development				0%		No actions yet			
<b>1.6 Active Transport</b>									
1.6.1 Review of regional cycling plan	✓	✓	✓	10%	Commence review		50	25	15
1.6.2 Develop whole of network view	✓	✓	✓	0%	To commence following review	Will be conducted in RTAG workstream	50	50	0
1.6.3 Gap analysis	✓	✓	✓	0%	To commence following review	Will be conducted in RTAG workstream	50	50	0
1.6.4 Develop active transport strategy				0%		Next steps TBC			
<b>1.7 PT Implementation</b>									
1.7.1 MyWay Hastings review	✓	✓		80%	Review service against Benefits Map		100	0	0
1.7.2 MyWay Napier trial implementation	✓	✓		5%	Waiting for Go Bus to provide costings		50		50
1.7.3 Develop transport procurement strategy	✓	✓		5%		In progress with Resolve Consultants	20		80
1.7.4 Review current PT contract	✓	✓		0%	Procurement Strategy req.		80		20
1.7.5 Develop new PT contract	✓	✓		0%	Contract review req.		50		50
1.7.6 Request for Tender (RTF)	✓	✓		0%	New contract developed		100		
1.7.7 Rate reset				5%	Meet with Go Bus		50		50
1.7.8 Short term RPTP change implementation	✓	✓		0%	Budget	This will likely take place after rate reset, or after next NLTF	50		50
1.7.9 CHB express trial	✓	✓		0%	Budget	Likely to take place after LTP and RLTP	33	33	33
1.7.10 2025 contract implementation	✓	✓		0%	Tenders received and accepted		33	33	33





**Hawke's Bay Regional Council**  
**Regional Transport Committee**  
**Friday 10 February 2023**

**Item 9**

**Subject: Regional Road Safety update**

**Reason for Report**

1. This report outlines the new strategic framework and direction of Roadsaw Hawke's Bay. It sets out the framework, models, approach, and strategic ownership of Roadsaw Hawke's Bay activities into the future.

**Executive Summary**

2. Roadsaw Hawke's Bay is a business unit of the Hawke's Bay Regional Council and is responsible for delivering road safety education, messaging, and training across the region.
3. In 2022 a section 17(a) review of the Roadsaw Hawke's Bay function was undertaken, finding that ownership and delivery of road safety initiatives should sit within the TLAs and be facilitated and enabled by the Roadsaw Hawke's Bay business unit. Essentially, Roadsaw Hawke's Bay should create a fully integrated regional road safety management solution that aligns engineering, education, services, and enforcement.
4. A new strategic direction has been developed to give effect to the recommendations of the sections 17(a) review. This information paper, in conjunction with the supporting appendix, give an overview of the new strategic direction and framework to enable Roadsaw Hawke's Bay to play a more strategic and integrated role across the region.
5. The report sets out the ongoing roles and responsibilities the Regional Transport Committee will have in the RoadSafe Hawke's Bay strategy.
6. Staff recommend the Regional Transport Committee receives this information paper and endorses the new strategic approach.

**Strategic Fit**

7. The RoadSafe Hawke's Bay strategy contributes to the strategic goal of having sustainable and climate-resilient services and infrastructure. Road safety forms a critical portion of this strategic goal. Safe roads closely support and enable greater sustainability and resilience.

**Background**

8. RoadSafe Hawke's Bay (RSHB) is a business unit of the Hawke's Bay Regional Council (HBRC) responsible for delivering road safety education and messaging across the region. RSHB is funded through a mixed model that sees each territorial authority contribute some funding, as well as Waka Kotahi via a funding assistant rate (FAR). The education and messaging are intended to support Waka Kotahi's Road to Zero strategy and is targeted to several prevalent risks across the region. Historically, a team of five staff based out of HBRC has delivered the road safety activities for the region. Through a series of staff changes and period of structural change the team has gone from five staff to one.
9. In 2022 a Section 17 (a) review of RSHB was conducted. The review found that it is impractical for the sole ownership and deliver of region wide road safety education to sit solely within HBRC and be delivered by a single member of staff. The impact of the existing operational model is a marked reduction in levels of service, largely attributed to the limited time and resource.

10. The review outlined the preferred option identified by regional stakeholders was to develop a fully collaborative regional approach to delivering road safety. This recommendation has been the catalyst for a new strategic direction that will see RSHB serve as a facilitator and enabler of the delivery of road safety education in Hawke's Bay. Ownership of deliverables and / or activities will sit within each council. A new strategic framework and direction has been developed to reflect and give effect to this recommendation, set out in more detail in attachment 1.

## Discussion

11. The new RSHB strategy casts a wide net when considering road safety, largely aligning with Waka Kotahi's all of system approach. It encourages communities and councils to think of all possible levers, interventions, and tools that may be available to make material gain against risk factors.
12. The strategy goes down to not only a Road Controlling Authority (RCA) level of detail, but down to the communities within each RCA. Community strategies will be developed jointly with RSHB, RCAs, and the community as the key subject matter experts. There are multiple reasons for this, including:
  - ☐ The community will have an intimate, detailed knowledge of the risk factors present in their community. This will extend to a level of knowledge around who, why, what, and how we can collectively enable change.
  - ☐ Gives depth and granular detail to the strategy.
  - ☐ Creates a fully collaborative regional approach to delivering road safety.
  - ☐ Offers action plans that present an opportunity to make material change as they are developed by and for the community. That being, they are targeted and specific.
  - ☐ Empowers the community and / or community groups to be the champions of change.
  - ☐ Enables the community to deliver on their action plans themselves, where applicable and appropriate. Help will be provided by RCAs, RSHB, and strategic partners when required.
  - ☐ Develops a holistic, integrated picture of what road safety is in each community. It builds an all of system picture and pulls on all threads (e.g. education, infrastructure, services, etc.), enabling them to work together to create change.
  - ☐ Creates cross discipline and cross community visibility of road safety and associated interventions or actions.
13. The overall strategic approach has been developed to recognize the outcomes of the section 17(a) review, with the Road to Zero strategy setting the 'north star' for the country. This then informs and directs the approach RSHB will take, filtering this down to TLA strategies and deliverables. The strategy on a page is detailed in Appendix 1; Section 1.
14. At a cursory level, the strategy looks at all potential interventions using two key frameworks that operate collaboratively. Using these frameworks in conjunction recognizes that education is only a piece of the puzzle. The strategy takes an all of system approach within communities, identifying ways to make practical and material progress. The two key frameworks are described in detail in Appendix 1; Section 4 (a & b).
15. Importantly, what really differentiates the new approach from historic RSHB business as usual is the segmentation-based approach within districts and communities. The approach is formed around an I, WE, ALL OF US segmentation model. The model will be applied to the strategy as a whole and remains consistent as the basis for behavioral driver / choice identification and intervention development and design. The segmentation model is discussed further in Appendix 1, Section 3
16. Community risks, needs, and evidence-based interventions sit at the heart of RSHB's new strategy. The evidence used to define risk factors and develop interventions will be a blend of qualitative and quantitative insights, and crucially, builds in citizen led insights and knowledge.

The strategy recognises community members as subject matter experts to assist in the development and execution of the strategy.

### Strategy development process

17. As part of the new strategic direction, RSHB will enter a brand redevelopment process. This will see a new brand personality / tone of voice established, supported by a new visual identity. The refresh will also encompass a new RSHB website that will serve as a detailed resource and information hub, giving life to the delivery of the new strategy.
18. A framework has been developed to ensure risk factors, causal factors, citizen insights, and key enablers of change have been identified and captured for each district and community. This is the strategy development process, and it follows six steps, being:
  - 18.1.1. Identification of district risk factors
  - 18.1.2. Development of district specific segmentation model (I, WE, ALL OF US)
  - 18.1.3. Development of district risk identification model
  - 18.1.4. Transformation of key enablers of change into the behaviour intervention matrix
  - 18.1.5. Development of clear action plans based off the behaviour intervention matrix
- 18.2. More detail on the strategy development process and outcomes can be found in Appendix 1, Section 6
- 18.3. A standardized framework to develop the strategy and capture relevant insights has been developed. This is described in Appendix 1, Section 7 a – e.

### RoadSafe Hawke's Bay governance and the role of the RTC

19. The RTC play a critical role in road safety across the region. At a high level, the RTC is responsible for the strategic governance of road safety activities and working to keep our roads safe. At a council level, RTC members are the champions of road safety messaging, education, and interventions. For the purposes of this new strategy, RTC members are also the champions of change.
20. We expect that the ownership of strategic governance sits with the RTC, and the chair is the overall owner of the RSHB strategic governance. RTC members will be the champions and owners within their respective territorial authorities.
21. The RTC will have operational involvement at two clear points throughout the strategy development process.
  - 21.1. Firstly, RTC consideration and endorsement of the new strategic direction and framework as presented in this paper.
  - 21.2. Secondly, once the majority of the strategy development has taken place (i.e. risk factors and causal elements identified by the community) the draft interventions for each community and risk factor will be brought back to the RTC. It is anticipated that the RTC will play a role in reviewing, providing feedback, and validating the intervention mix. This will then form an action plan within each TLA.

### Next Steps

22. RSHB will initiate a rebranding process that will encompass a new brand personality and tone of voice, accompanied by refreshed visual identity. A new website will form part of this process with the intention of being a resource and information hub to underpin the new strategic direction and empower partners and communities. Road safety messaging, detailed resources, and collateral will be developed in line with the new strategic direction, segmentation model, and risk factors.

23. HBRC staff will continue the strategy development process with TLAs and existing road safety action groups, updating the RTC as required.
24. Once draft interventions are designed these will be brought back to the RTC for review, feedback, and validation before being transformed into an agreed action plan. The timeline for this is fluid as the strategy development process is expected to take some time.

### **Decision Making Process**

25. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision-making provisions do not apply.

### **Recommendation**

That the Regional Transport Committee receives and notes the *Roadsafe Hawke's Bay* staff report and that it endorses the new approach.

### **Authored by:**

**Bryce Cullen**  
**Transport Strategy & Policy Analyst**

### **Approved by:**

**Katrina Brunton**  
**Group Manager Policy & Regulation**

### **Attachment/s**

- 1 [!\[\]\(9bfa69b6b0f097b09744337d04f22d78\_img.jpg\)](#) Roadsafe HB overview

## Appendix 1 – Roadsafe Hawke's Bay strategic direction and framework

### 1. Strategy on a page



1. The overall strategic direction is set via the Road to Zero strategy, as developed by Waka Kotahi. This sets the target of a 40% reduction in deaths and serious injuries (DSI) by 2030. The Hawke's Bay Roadsafe strategy must ultimately feed back into the strategic goal.
2. The Hawke's Bay Roadsafe strategy will be a summary or aggregation of the district and community strategies. The thinking (to be confirmed) is that there will be several key regional risk factors that will be reflected in each of the district / affected community strategies. These will become clear during the strategy development process. It is likely that these regional risk factors (if any) will be the most critically important and a significant amount of focus and resource placed into them.
3. Territorial authority strategies will be developed collectively with the subject matter experts and community. These strategies identify and place focus on risk factors that are present and of concern in the district – these will be informed by the *communities at risk register* as well as subject matter expert and community input. Ultimately, the strategy and deliverables will need to make positive steps towards Waka Kotahi's strategic goal. The strategy & deliverables for each TA will be owned and driven by the TA with oversight and programme management delivered by HBRC / Roadsafe HB. Where it is appropriate and applicable action items will be delivered within the community, should a suitable entity be identified.
4. Community strategies will be developed. This could come from a community first perspective with the TA strategy functioning as a roll up, or vice versa. The community element of the strategy is very important as members of the community will know what the issues, causes, and potential remedies are. Where and when applicable, actions will be delivered in the community, provided a suitable delivery partner or entity is found.

## 2. A cursory look at social marketing

### What is Social Marketing?

*A cursory look*



Social marketing is an approach used to develop activities and interventions aimed at changing or maintaining people's behaviour for the benefit of individuals and society.

The RSHB strategy takes a segmentation-based approach and seeks to tailor interventions around the needs and drivers of specific target segments. It is outcomes focused and evidence based.

Importantly, the strategic approach seeks to 'sell not tell' and is focused on benefits, not features.

The approach enables greater understanding and targeting of risk in a community specific setting. Importantly, the approach allows the capturing and analysis of citizen evidence and insights, recognizing this as a critical source of information. Fundamentally, social marketing aims to understand the person and the behaviour along with causal factors and areas and channels of influence.

The person element helps us to understand key segmentation drivers such as location, employment, levels of education, socio-economic drivers, habits, etc. The behaviour element helps us to understand the underlying drivers - what people do, why they do it, where and how they get their information, and who they trust. This enables greater and more accurate targeting of interventions, use of messaging, language, and approaches that resonate with them.

By understanding the above areas and segment specific elements, we have a greater opportunity to accurately target messaging, education, and interventions to each segment for specific risk factors. In addition, it gives us the opportunity to develop new and innovative communication and intervention channels or leverage existing ones if they are the best option.





### 3. RoadSafe Hawke's Bay segmentation design and model

Every person in society has a role to play in making the roads safer and more efficient. An all of system approach must be taken to affect material change.

I, WE, ALL OF US forms the segmentation approach underpinning the RSHB strategy. While the segmentation model will remain consistent across the strategy, the constituents of each segment will differ significantly by community.

The segmentation model and approach enables us to understand different groups and people across the region and target them through appropriate channels, using relatable language, with interventions designed to make material gain against risk factors. The segments will be largely designed and informed by the community and community experts.

The 'WE' segment is very much focused on family and community – likely where the majority of focus and traction will be. For the purposes of this strategy, we are looking at 'community' through all possible formats and guises. By way of example, a community could be a school, marae, workplace, domiciled community, and so on. During the strategy development process, should we find a community that is more adversely impacted by or susceptible to certain risk factors a specific strategy can be developed. This approach is concerned with district and domiciled communities in the first instance.

The RSHB rebranding process will bring the segmentation model to life with messaging and channels developed around the I, WE, ALL OF US approach. The segmentation model is a key foundational element of brand and any subsequent messaging.

### 4. Social marketing frameworks

Two social marketing frameworks will be applied in conjunction to develop the form and type of intervention that will be used with the intent of making material gain against risk factors.



### a. Value / cost exchange matrix

The value / cost exchange matrix articulates the different forms of exchange or cognitive intervention that can be used to influence decisions and behaviors and promote change within individuals and groups. The Hug and Slap quadrants both have clear choice and clear outcomes presented to the individual. For example, taking a keep cup to a café and getting 50

cents off is a hug. There is a clear choice and a clear incentive. A fine for speeding would be a slap – there is a clear choice and a clear disincentive.

The matrix encompasses active decisions – those with a clear choice for the user accompanied by a clear incentive or disincentive. Conversely, it offers a passive decision with more subtle incentives or disincentives, more in the realm of choice architecture or sub-conscious decision making, largely driven by a more intuitive response. By way of example, a nudge would be a default saving scheme or a deposit on bottle recycling. A shove is a little more overt and can seek to impose restriction or make behaviours difficult. An example of a shove would be smoke free zones.

Successful long-term behaviour change and social marketing strategies leverage a blend of interventions to enable and support change. A nudge is seldom enough.

### b. The deCIDES framework tool

The deCIDES framework tool sets out the five types of intervention that can be used to encourage and foster social good and necessary behaviour change. The framework enables the targeted development of interventions in an integrated manner, encompassing key elements such as design and support.

deCIDES intervention types	
<b>Control</b>	Rules  Requirements  Monitoring  Enforcement  Police  Regulation  Legislation  Treat  Screen Incentives  Dis-incentives
<b>Inform</b>	Communicate  Advise  Highlight  Signal  Make aware  Remind  Trigger
<b>Design</b>	Physical environment  Systems  Policy  Service  Technology  Products
<b>Educate</b>	Engage  Motivate  Inspire  Critical consciousness  Mobilise  Build skills (analytical & practical) Teach
<b>Support</b>	Assist  Provide service  Care  Support  Advice  Advocate  Nurture

The framework offers a type or types of intervention that can be developed, based on the need and solution of best fit to make material gain against a specific risk factor. The framework ties in many different types of interventions, casting a much wider net of what is both needed and possible. It enables us to build in infrastructure or physical environment changes and services and systems that may be required to support and enable material gain. By forming our approach using these two frameworks we effectively take an all of system approach, giving effect to the Road to Zero strategic approach.

An integrated approach such as this offers the opportunity to pull together existing or planned pieces of work and examine them from a road safety perspective. Further, it supports and enables better planning to ensure all elements of a safe system are considered in an integrated manner.

## 5. Behaviour intervention matrix – two frameworks working in collaboration

The behaviour intervention matrix ties together both frameworks enabling the articulation of the forms and types of interventions that are required to make material progress against risk factors. Fortunately, these tools enable the development of creative, innovative, and practical solutions. The framework should be viewed as a suite of tools that will help to direct and develop thinking to enable material and impactful change.

	Hug	Nudge	Shove	Smack
Control				
Inform				
Design				
Educate				
Support				

Once interventions have been designed, they will fall into an action plan. This will be multifaceted in nature, and likely spread over a period of years. Importantly, this approach enables the development of a fully integrated view of interventions and creates meaningful and useful visibility of works both planned and currently underway. It stitches together initiatives in the transport, infrastructure, community development, and policy spaces to work collaboratively towards safer roads for all.

## 6. Strategy development – process and outcomes

Underpinning the overall strategic approach and framework are rich, detailed, and relevant citizen evidence and insight. A framework has been developed to capture and build in citizen insights and evidence and use this as a clear piece of information and quantified research, recognizing this as a critical piece of the puzzle to identify real and appropriate risk factors. Qualitative and quantitative research and data, such as Waka Kotahi's *Communities at Risk Register*, are also utilized to build a full picture of risk factors right across the region and within each community.

A strategic framework has been constructed to develop a complete picture of risk factors relevant to each TLA, whilst capturing the citizen and subject matter expert input. The overall strategic framework and process comprises five parts, being:

1. Identification of district risk factors
  - a. Includes citizen insights and existing Waka Kotahi evidence
  - b. Set out risk factor, Road to Zero outcome alignment, impact, and driving factors of the risk factor
2. Development of district specific segmentation model (I, WE, ALL OF US)
  - a. Identifies characteristics, key traits / behaviour, motivations, drivers, and influencers of each segment
  - b. Built from existing sources (where available and applicable) and citizen / subject matter expert input



- c. Enables us to understand the person, their drivers, who they trust, and what their habits are. This then informs the channel / method through which we deliver the intervention and the language / tone of voice we use.
3. Development of district risk identification model
  - a. Each risk factor is broken down to the applicable segment and looks to identify causes of the risk factor within the segment and develops key enablers of change
  - b. This is risk factor and segment specific
4. The key enablers of change are transformed and placed into the intervention matrix
  - a. This articulates the forms and types of interventions against each risk factor
  - b. Ideally, offers a holistic and integrated approach
5. The interventions are transformed into an action plan with clear actions, timelines, owners, supporters, and funding streams
  - a. It is important to note that the action plan ties all elements in and is the mechanism that creates visibility. By way of example, infrastructure work may be identified in this strategy and action plan but will still be delivered through the applicable team with the funding stream coming through that team.
  - b. The action plan will be the mechanism for tracking progress of actions and deliverables
  - c. The action plan creates the holistic visibility of all interventions and can inform the design of infrastructure and services.

## 7. Strategic framework

This section sets out the template that will be applied to develop both the district and community road safe strategies. The framework set out below is what will be used to align with section 6, strategy development process, above. Each section, along with outputs are described below.

### a) District / community road safety landscape

District risk factor	Focus area alignment	Source	Risk factor impact	Risk factor drivers – community insights	At risk groups

This sets out to understand all the risk factors in a district and / or community. It will articulate the risks that we know of today, and the ones that are emerging.

- Known risks – these will be driven by statistics and risks represented in the communities at risk register.
- Emerging risks – this is where community and citizen insights come in giving us the opportunity to capture risk factors that may be present on the ground and under-represented in statistics

The focus area alignment relates directly to the five focus areas in Road to Zero. Each risk factor should be able to be easily mapped directly back to these focus areas. Risk factors drivers will be a blend of research and insights known at a point in time, coupled with citizen and subject matter expert inputs and insights. The most at-risk groups will be identified against each risk factor.

## b) District / community segmentation design

Segment	Characteristics	Key traits / behaviors	Motivations, drivers, influencers
I			
WE			
ALL OF US			

Utilizing the I, WE, ALL OF US segmentation model and approach a district / community segmentation model is developed leveraging community, citizen, and subject matter expert insights. Evidence and research will be used where available and applicable. The segmentation design seeks to understand (generally) the characteristics of each segment, that being some of the key identifiers, the segments key traits, and importantly their motivations and influences. This will enable us to understand what each segment does, some of their habits, why they do what they do, where they get their information, and who they trust. Ultimately, this will greatly assist in understanding the channel and message of best fit for each segment.

Additionally, the segmentation approach ensures we are delivering messaging and education in language each segment understands, through a channel they are familiar with, and (at times) through a person or institution they trust, using targeted, specific, and tailored messaging.

## c) District / community risk identification model

*Note. The content in the slide is for illustrative purposes only and is fictional in nature.*

Risk Factor	Segment	Causes	Risk priority	Key enablers of change
Speed	I	<ul style="list-style-type: none"> <li>Time poor lives lead to sub optimal speed decisions</li> <li>Keen for thrills</li> <li>Lack of awareness around personal responsibility in relation to speed</li> <li>Lack of awareness of adverse affects of speed</li> <li>Lack understanding of speed trade off</li> </ul>		<ul style="list-style-type: none"> <li>Regular education &amp; communications around impacts of trip time management &amp; planning</li> <li>Education around the opportunity cost of rushing (e.g. distraction, lack of focus, speed)</li> <li>Business partnerships to facilitate driver speed and fatigue education</li> </ul>
	WE	<ul style="list-style-type: none"> <li>encouraging higher speed through space perception</li> <li>Unnecessary speeding in local communities / built up areas</li> <li>Perception around lack of road policing in communities</li> </ul>		<ul style="list-style-type: none"> <li>Safety barriers on main arterial routes</li> <li>Speed reduction on high-risk roads</li> <li>Traffic calming measures in built up areas</li> <li>Community specific speed education programmes</li> </ul>
	ALL OF US			

This portion of the strategy development will take a risk factor, break it down to the applicable segment, identify the causes (general and / or specific), and develop key enablers of change. The causes will be based on information and insights captured to date, coupled with specific and detailed citizen and/or subject matter expert insights. By capturing such insight and input we are capturing real, validated, defensible insights that are truly from the ground up.

The key enablers of change will come almost exclusively from the community and subject matter experts (e.g. Police, FENZ, St. John, etc.). These can be anything required to make material gain – from simple practical solutions to blue sky aspirational thinking, or long term behavioural or structural change initiatives. The core purpose is to step through the process, capturing information / evidence and building up the picture of current state and what is causing it, irrespective of complexity. We will then have a good picture of what is driving behaviours and choice, allowing us to develop better and more effective enablers of change.

### d) District / community behaviour intervention matrix

*Note. The content in the slide is for illustrative purposes only and is fictional in nature.*

	Hug	Nudge	Shove	Slap
Control			<ul style="list-style-type: none"> <li>Increased road policing presence in at risk communities</li> </ul>	
Inform				
Design				
Educate		<ul style="list-style-type: none"> <li>Education campaign around time management &amp; opportunity cost of running late</li> </ul>		
Support				

Key enablers of change will be transformed into behaviour interventions, utilising the intervention matrix driven off the two key social marketing frameworks described in Section 4 a&b. Ideally, we are after a blended approach that has several different forms (e.g. Hug, Shove) and types (e.g. Control, Inform) creating a well thought out, holistic, and integrated approach to making material change.

It is expected we will develop interventions that span the majority of forms and types. Ideally, this would see interventions such as infrastructure improvements, new or improved services, targeted education campaigns, support services, and enforcement all working together to enable change.

This matrix will be applied to each risk factor in each district / community. This is a detailed oriented and targeted strategy in nature, and it is where its strength lies.

### e) District / community action plan

It is important to note that the content in the slide is for illustrative purposes only and is fictional in nature.

Risk factor	Segment	Action	Enablers	Action owner	Supporting	Funding stream	Timeline
Speed	1	Develop speed education & management plan – build into ignite driver licensing scheme	<ul style="list-style-type: none"> <li>Targeted, specific speed information around causes &amp; impacts</li> <li>Development of visual context to assist learning impaired people understand the consequences of speed</li> </ul>	RSM	HOC, HCC, CHDC, ALC, Police	SSRB budget	Q2 2023

The interventions will be transformed into action plans for each district / community. These will apply to all the interventions.

An approach such as this creates visibility of all the threads that need to be pulled to enable material change and progress within a road safety context. It will include many different agencies and organisations, a range of different activities or interventions, and many different action owners. Ultimately, it will develop a community action plan this is developed by the community, for the community, and delivered largely within the community. It also offers councils the opportunity to ask their communities what road safety issues matter most to them, identify the causes of these, and develop fit for purpose interventions within the community using a range of mechanisms. Finally, the creation of this visibility means that any infrastructure, policy, town, transport, or spatial planning is done through a road safety lens. Through this strategy we are developing a true all of system approach to road safety.



**Hawke's Bay Regional Council**  
**Regional Transport Committee**  
**Friday 10 February 2023**

**Item 10**

**Subject: Public Transport update**

**Reason for Report**

1. This agenda item provides an update on Public Transport operations in the region.

**Background**

2. The responsibility for contracting public transport services is assigned to regional councils under the Land Transport Management Act 2003. Under Section 35, the council must consider the needs of the *transport disadvantaged* when preparing its Regional Public Transport Plan (RPTP), which sets out the services that the council will provide.
3. *Transport disadvantaged* means people who the regional council has reasonable grounds to believe are the least able to travel to basic community activities and services (for example work, education, healthcare, welfare, and shopping). As part of the responsibility to the transport disadvantaged, councils also provide Total Mobility services where suitable transport operators exist to deliver the service.

**Discussion**

**goBay operations**

4. The goBay service implemented a set of 20 indefinite cancellations since 21 November 2022 to mitigate the impact of ongoing ad hoc cancellations because of recruitment issues experienced by our contract operator. Since January, goBay has seen additional cancellations due to further Go Bus staff shortages, due to driver departures, illness, and long-term injuries. The additional ad hoc cancellations are difficult for the Council to communicate to the public. The Council continues to work with Go Bus to achieve a more sustainable set of cancellations that can be better communicated and are consistent. This can take weeks to achieve due to scheduling, which results in varied cancellations in the interim. Go Bus is working on further recruitment methods to address the issue. Figure 1 shows the cancellation rates for the last 12 months.

Month	Expected trips (Ave.)	Cancelled trips #	Cancelled trips %
Feb-22	3667	867	24%
Mar-22	3834	1667	43%
Apr-22	3758	1379	37%
May-22	3815	1117	29%
<i>Monthly trips decrease from June due to 16a, 16b, 17 being replaced by MyWay</i>			
Jun-22	3287	267	8%
Jul-22	3397	243	7%
Aug-22	3397	279	8%
Sep-22	3287	54	2%
Oct-22	3397	114	3%
Nov-22	3287	464	14%
Dec-22	3195	392	12%

Figure 1: goBay cancellation rates (February 22 – December 22)

## 5. Public Transport Patronage

Month	Total Patronage	Peak Patronage	Total Pax KMs	Total Fare Revenue
Jul-22	32,964	17,714	359,852	\$ 19,620.00
Aug-22	44,621	27,172	460,202	\$ 26,241.00
Sep-22	47,562	28,442	471,112	\$ 30,501.00
Oct-22	38,157	20,566	383,367	\$ 24,404.00
Nov-22	41,168	23,876	412,889	\$ 26,852.00
Dec-22	31,332	14,755	317,811	\$ 20,238.00

Figure 2: Public Transport patronage (July 22 - December 22) incl. MyWay

- The Napier Hastings Bus Unit contract requires a gross price rate reset at the end of the sixth year of the contract. This was due in July 2022 and is currently underway. This is in accordance with Section 2.4 of the Contracting Manual for SD-16-000, which is advised by the Waka Kotahi Procurement Manual, Section 10.28:

### **Section 10.28 – Gross Price Resets for PT units**

#### *Rule*

- Bus public transport unit contracts procured through an open supplier selection process will have a cost reset of the annual gross price informed by benchmarked price data (see appendix I Contract negotiation processes for bus public transport units) at six years of the nine-year term.*
- This section does not apply to contracts for commercial units.*
- Approved Organisations with small or medium-sized bus markets and where suitable price benchmark information is not or is unlikely to be available, can reconfirm the contract price at the current contract price when undertaking a gross cost reset.*

#### *Guidelines*

*Bus public transport unit contracts longer than six years, will have the annual gross price reset at year six of the contract to ensure confidence in costs. This is a reset of the price only. It is not a review of the contract terms, or an opportunity to end the contract early.*

*The reset price will apply for the start of year seven of the contract, and if necessary, will be paid in arrears.*

*The price reset is intended to recognise that agreements need to ensure best value for money is being achieved in the longer term, and a reasonable balance is being maintained between operator profit and the expenditure of public funds.*

*Over time, indexation payments, changes in farebox recovery and financial incentive mechanisms may shift the balance between best value for money and sustainable revenue. The reset process is designed to restore the balance.*

*This reset may result in the annual gross price increasing or decreasing.*

## **Half Price Fares**

- The Government funded Half Price Fares scheme has been in operation since 1 April 2022, to mitigate the impact of rising fuel prices and encourage the use of public transport. During the scheme, we have not seen a noticeable increase in patronage as a result. The scheme is due to end on 30 June 2023. From 1 July 2023, the Half Price Fares will stay in place for Total Mobility users, as well as Public Transport users with Community Services Cards (CSC). This will be known as Community Connect.

8. Community Connect will go live on 1 July 2023 and will have a medium impact on the organisation. This is due to the likelihood of an increase in Bee Card sales, and the requirement to set up the concessions required for CSC holders to access the concession. The Bee Card technical team are working with technology partners to automatically integrate the data with the Ministry of Social Development, so our teams aren't required to manually authorise each individual request. Council staff will simply enter the CSC number and the validation will occur in the back end. Waka Kotahi is making funding available to cover the increased administration cost that may be involved.

### On Demand Public Transport (ODPT)

9. MyWay has been operating as a separately funded improvement activity under Public Transport Programme since June 2022 with the intention to trial a new mode of transport to increase patronage.
10. MyWay performs well comparative to similar services around Australasia. The Hastings Trial has met its successful ridership targets; however, we can see that the service is vulnerable to driver shortages and struggles to meet demand during peak time due to the size of the zone and number of vehicles. Figure 3 shows the trends across the last quarter in relation to meeting demand and ride requests.

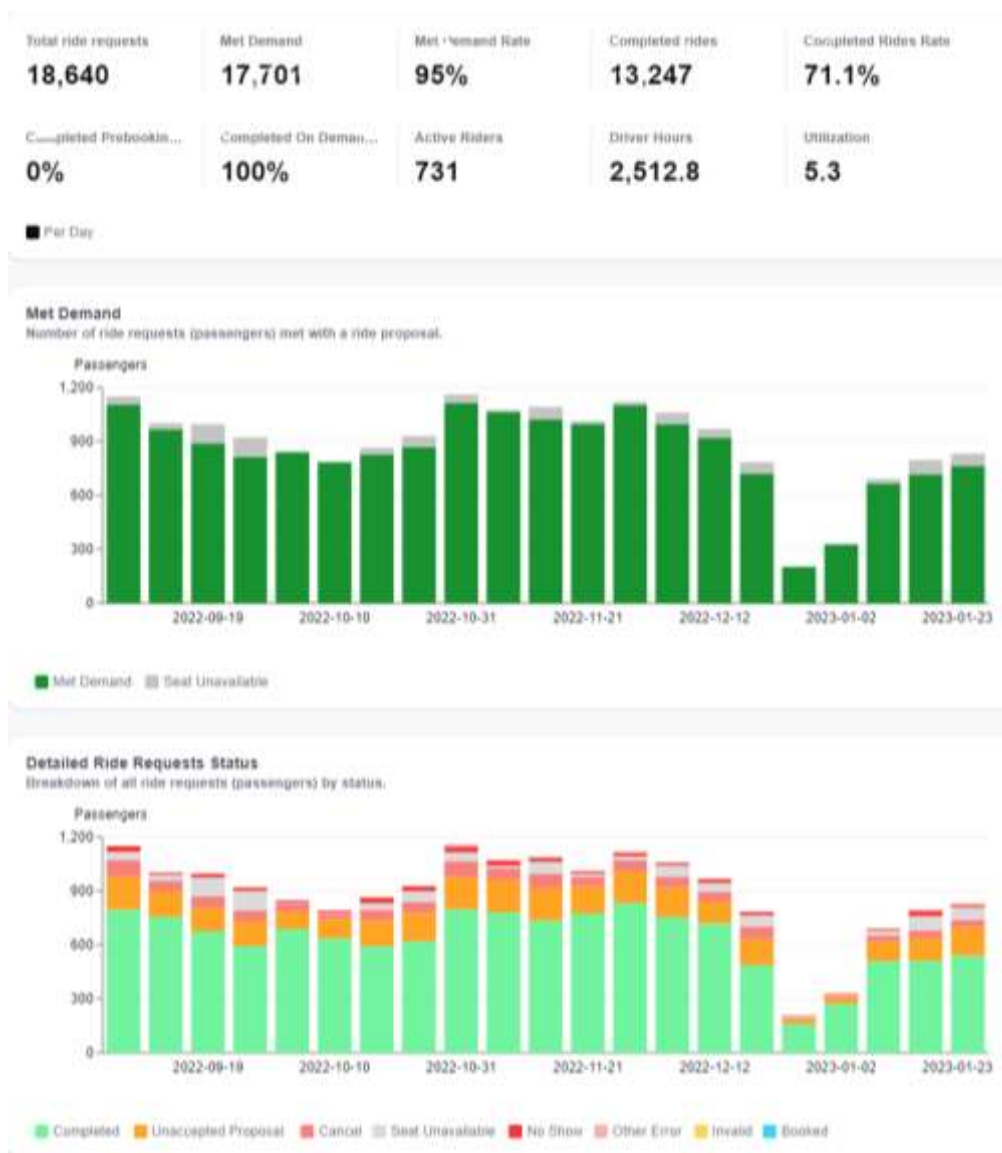


Figure 3: MyWay Service Operation (September 22 to January 23)

11. MyWay has undergone several service-parameter changes to increase service levels in response to feedback and pressure points in delivery. These changes have included:
  - 11.1. Increased detour rates (the time the rider spends in the vehicle can increase to allow additional riders to be collected that might be further out of range), which allows MyWay to offer more rides to users at peak times.
  - 11.2. Increased booking window (increased from 30 minutes to 45 minutes), which improves the likelihood of being offered a ride. Although this results in a longer wait time, the rider can secure a ride and doesn't need to make ongoing attempts to book.
  - 11.3. Reduced virtual stops (eliminating several possible stops that are within a close walkable distance to the same likely location i.e., Kmart and Hastings Hospital) which results in a faster trip time for the passengers.
  - 11.4. Increased walking distance (yet to be actioned), which sees riders walk further to connect to the service, allowing the vehicle to take a more efficient route. This decreases the "walking distance" level of service, which would make this measure a last resort.
12. The Hastings MyWay service is still in its trial period. The service will be reviewed using a benefit map and an evaluation plan. The review will likely take place between February and April to inform a trial in Napier due to be implemented in the 23/24 financial year.
13. The Napier MyWay trial is still in the scoping phase, and further development is dependent on the success of the Hastings trial. More options are being explored for the Napier trial, as trialling a different model for Napier would be beneficial; to identify whether another style of ODPT will have better community or patronage outcomes. This will determine whether the trial is delivered inside the scope of the current bus unit contract, or as a complimentary service.

## Total Mobility

14. The Total Mobility Scheme provides subsidised taxi travel for Hawke's Bay residents who are unable to use public transport due to a significant, permanent impairment. People assessed for and registered to the scheme receive taxi vouchers entitling them to a 50% fare discount (which is currently subsidised to 75% under the Half Price Fares scheme). The scheme is administered by the Regional Council and funded by both the Council and Waka Kotahi.
15. Total Mobility trips have risen as a result of the increased subsidy; however, they continue to remain stable. Figure 4 shows the trips compared to total fares. The concession amount is the amount of subsidy the scheme covers per month. The lower trips and fare in July are directly related to the month Ridewise was launched, where some trips were still being recorded by voucher rather than captured in the data.

Month	Total Trips	Total Fare	Concession Amount
Jul-22	5,002	\$ 90,242.90	\$ 63,929.28
Aug-22	8,181	\$ 156,511.04	\$ 110,948.68
Sep-22	8,627	\$ 167,754.17	\$ 119,641.10
Oct-22	8,348	\$ 164,278.81	\$ 115,913.21
Nov-22	9,247	\$ 187,423.20	\$ 132,424.56
Dec-22	8,850	\$ 174,783.10	\$ 123,713.01

Figure 4: Total Mobility Trips and Cost (including flat fee hoist charges)

## Climate Emergency Response Fund (CERF) Transport Choices Package

16. Hawke's Bay Regional Council has successfully secured funding of \$1.39 million from Central Government to spend on projects aimed at the Transport Choices package. The funding is part of a \$350 million Transport Choices package included in the Government's Climate Emergency Response Fund (CERF) led by Waka Kotahi. The funding secured by the Regional Council will upgrade ten bus stops in the region, as well as creating two new stops. This package is fully funded by Waka Kotahi. Bus stops will be upgraded at key locations across the network, designed in accordance with expected patronage and use style i.e., main terminus, transfer point, high-volume stop. This also includes the development of two new bus stops at locations new to the network: Whakatu, and the Hawke's Bay Regional Sports Park. Upgrades to the stops will include real-time bus information, solar power for real-time travel information displays, charging for scooters, bikes, and phones, as well as WiFi capability, secure bike/scooter parking, 24-hour security lighting and cameras. The bus stops will be designed for all abilities and allow bus users to get a sense of the improved services that they can expect to the region's bus network from mid-2025.

### Decision Making Process

17. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision-making provisions do not apply.

### Recommendation

That the Regional Transport Committee receives and notes the *Public Transport update* staff report.

### Authored & Approved by:

**Katie Nimon**  
Transport Manager

### Attachment/s

There are no attachments for this report.





**Hawke's Bay Regional Council**  
**Regional Transport Committee**  
**Friday 10 February 2023**

**Item 11**

**Subject: Active Transport update**

**Reason for Report**

1. The purpose of this report is to give an update of active transport specific actions and deliverables that are either planned or underway in each territorial authority. Additionally, this paper outlines the purpose and focus areas of the active transport workstream.

**Executive Summary**

2. The report updates the RTC on active transport activities that are either planned or underway across the region. Detailed planning is well underway within councils that received Transport Choices and Streets for People funding.
3. The report sets out the next steps for the active transport workstream, with the overall goal being the development of a regional active transport strategy. The existing regional cycling plan will be reviewed as the foundation to the new active transport strategy. The strategy will look at active transport through the lens of vehicle kilometres travelled (VKT) reductions, emission reduction plan, one network framework, and modal shift to determine what needs to be updated and added to form a robust active transport strategy for Hawke's Bay.
4. The TAG agreed that the core purpose of the workstream is not to be involved in operational detail or planned works. Instead, the workstream would take a strategic focus, setting the 'north star' for active transport in Hawke's Bay.

**Background**

5. The technical advisory group (TAG) was restructured in late 2022 to take a workstream based structure, resulting in a more focused approach to workstream content and deliverables. With a regional focus on modal shift, emissions, and VKT reductions the establishment of an active transport workstream was a clear decision.

**Discussion**

The following sections will give an overview of current active transport activities that are either underway or planned in each council

**6. Central Hawke's Bay District Council (CHBDC)**

- 6.1. Towards the end of 2022 CHBDC successfully secured funding from Streets for People and Transport choices. Streets for People funding will be used to encourage walking and community connectedness in Waipawa. Preliminary design is underway and an initial site safety walk has taken place.
- 6.2. CHBDC was awarded \$4.2 million from the Transport Choices fund, with most of this funding focused on the Ōtāne community. The vision is to completely link the Ōtāne community through well designed, modern footpaths throughout the settlement, creating a model connected community. Pōrangahau is set to become increasingly connected via footpaths linking the school to key areas of the community, provided funding allows.

**7. Wairoa District Council (WDC)**

- 7.1. WDC successfully secured funding through the Transport Choices package in 2022. The funding will see the design and development of a network of integrated multi modal paths

with the urban area of Wairoa. WDC envision a network that links all key areas around the town. Planning is currently underway.

- 7.2. WDC's aspiration is to encourage increased active transport among the younger generations, using this as a springboard to involve the entire family and creative positive habits.

## **8. Hastings District Council (HDC)**

- 8.1. Like the other TA's, HDC successfully secured funding from both the Transport Choices and Streets for People packages. The funding will see the design and development of a several infrastructure interventions, including traffic calming around several schools along with supporting and enabling infrastructure.
- 8.2. A portion of the Transport Choices funding has been allocated to the Camberley and Mahora communities. The funding will focus on the design and development of safe walking and cycling in and around these communities and will be carried out in a targeted, integrated way.
- 8.3. The Akina to Mayfair cycleway project has been initiated, increasing connectivity north-south across Hastings. A network wide review of the existing iWays in the district is taking place with a view to increasing separation within the network, improving levels of comfort and safety for cyclists. Other projects will focus on remediation of some existing network gaps in suburbs such as Flaxmere.
- 8.4. HDC continues to place significant focus on enabling and encouraging active transport in and around schools. The underpinning principle is that schools are one of the best mechanisms to create and support long term behaviour change and habits.

## **9. Napier City Council (NCC)**

- 9.1. No update from NCC

## **10. Hawke's Bay Regional Council (HBRC)**

- 10.1. Over the coming months several active transport events across the region will take place, including the Aotearoa bike challenge and the Hawke's Bay marathon. Both large events will heavily leverage and utilize the Hawke's Bay trails.
- 10.2. Detailed feasibility analysis and costing is underway on the Ngaruroro explorer, a new trail skirting the Ngaruroro River and connecting Omaha iWay routes and wineries ride with Taradale iWay, water ride, and Pakowhai regional park. This is part of the NZCT 2018 Business Case for Hawke's Bay Trails.
- 10.3. Repairs and maintenance are ongoing, with priority of repairs in the wake of ex cyclone Hale. Most damage around Ngaruroro / Tūtaekurī rivers and Waitangi regional park. A New Zealand cycle network audit was completed, resulting in several priorities for health and safety and need to update operational documents.

## **11. Technical Advisory Group structure (TAG)**

- 11.1. Following a full day structure workshop in 2022, the TAG has been restructured to focus on key workstreams, with active transport being one. The intent of this workstream is not to replace any existing committees, or review work currently underway.
- 11.2. The workstream is made up of staff from all councils who are leading work in the active transport space. A representative from Waka Kotahi also sits on the workstream. Subject matter experts will be brought in when required.
- 11.3. At the active transport TAG meeting on 19 January 2023, it was agreed that the workstream would focus on the development of a regional active transport strategy. This would encompass active modes and micro mobility across Hawke's Bay. The strategy would not

seek to review work currently underway from the draft Hawke's Bay Regional Cycle Plan but use these as a base to build an integrated active transport strategy.

### Next Steps

12. The active transport TAG workstream agreed a regional active transport strategy was required, focusing on network connections, emissions reduction, VKT reduction, modal shift / behaviour change, safety, and useability. The TAG workstream will review the existing regional cycling plan as the foundational document for the strategy.
13. The first stage in the development of the active transport strategy will be pulling together a full view of the regional network, including the urban network and Hawke's Bay trails. Subsequently, this will be used to develop a network wide gap analysis, informing the focus of the strategy development.
14. Key themes in the active transport strategy will be enabling safe and effective active transport, integration with the future public transport network, enabling and supporting modal shift, and focusing on long term behaviour change. Influencing future spatial planning will be a central consideration.
15. Initially, the focus will be to review the current regional cycling plan through the lens of vehicle kilometer travelled reductions, emission reduction plan, one network framework, and modal shift to determine what needs to be updated and added to form a robust active transport strategy for Hawke's Bay.

### Decision Making Process

16. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision-making provisions do not apply.

### Recommendation

That the Regional Transport Committee receives and notes the *Active Transport workstream* staff report.

### Authored by:

**Bryce Cullen**  
Transport Strategy & Policy Analyst

### Approved by:

**Katrina Brunton**  
Group Manager Policy & Regulation

### Attachment/s

There are no attachments for this report.



**Hawke's Bay Regional Council**  
**Regional Transport Committee**  
**Friday 10 February 2023**

**Item 12**

**Subject: NZTA Regional Relationships Director's February 2023 report**

**Reason for Report**

1. This item introduces the NZTA Central Region Regional Relationships Director's report.

**Decision Making Process**

2. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision-making provisions do not apply.

**Recommendation**

That the Regional Transport Committee receives and notes the *Regional Relationships Director's February 2023 report*.

**Authored by:**

**Linda Stewart**  
**Waka Kotahi Regional Relationships Manager**

**Attachment/s**

- 1 [📄](#) Waka Kotahi Presentation February 2023
- 2 [📄](#) Waka Kotahi update February 2023





# Regional Transport Committee

Hawke's Bay  
10 February 2023



New Zealand Government



# National Ticketing Solution

- In October 2022, Waka Kotahi and our partners signed a contract with Cubic Transport systems to deliver a National Ticketing Solution for public transport across the country.
- When implemented customers will be able to pay for public transport using contactless debit or credit cards, digital payment methods like Apple Pay or Google Pay, or a pre-paid transit card.
- The payment system will be convenient, easy-to-use, and offer a consistent customer experience to make it more attractive for Kiwis to use public transport.
- Through improved access and increased patronage of public transport, roads will become less congested, safer and we will reduce our emissions.



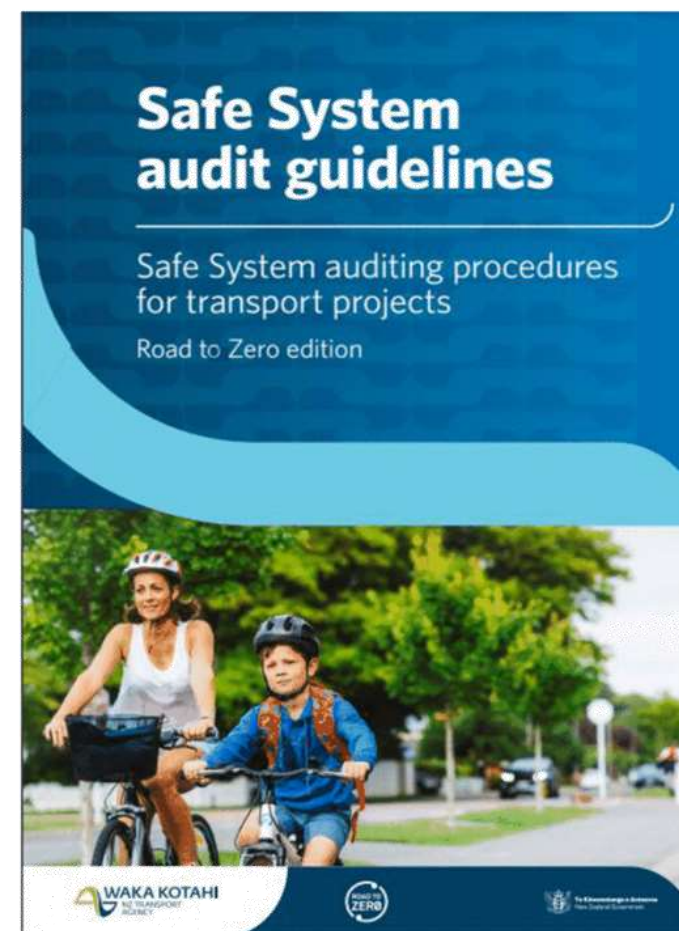


# Safe System audit guidelines

New Safe System audits for transport projects in New Zealand guidance – replacing the existing road safety audit procedures for projects guideline released in May 2013.

- Provides an improved approach to system level thinking.
- Recognises how the different components of our transport projects influence crash likelihood, risk and injury severity outcomes.
- Simplifies two different assessment/audit guidelines into a single Safe System audit
- Incorporates the Safe System assessment, driving better value for money and improved road safety outcomes.

Virtual training courses are available - Waka Kotahi will provide financial support to local government staff to attend <https://www.nzta.govt.nz/safety/partners/road-to-zero-resources/vision-zero-learning/>



# Motorcycling safety events

Shiny Side Up is back on tour in 2023, with 10 motorcycle safety-focused events around the country - including **Napier**.

- Aligned with the ACC Motorcycle Safety Strategy and Road to Zero.
- Focus is engaging with motorcycle riders around how to keep themselves safe and promoting Ride Forever coaching (an ACC-initiative).
- Talk Series event at Napier War Memorial Centre on Wednesday 22 February, from 6pm - 9pm.
- Please come along and/or help us promote the event.
- Visit [www.shinysideup.co.nz](http://www.shinysideup.co.nz) for more information.

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**SHINY SIDE UP**  
Talk Series  
Where Riders' Questions Get Answered

A series of presentations by the Shiny Side Up tech gurus and personalities. A must for all bikers and a great chance to meet fellow riders. Enjoy some light refreshments and hear from the experts.

<b>Invercargill</b> <b>Fri 10 Feb</b> Transport World 491 Tay Street 6:00pm - 9:00pm	<b>Queenstown</b> <b>Tue 14 Feb</b> Lake Hayes Pavilion 1/719 Gibbston Highway 6:00pm - 9:00pm
<b>Nelson</b> <b>Thu 16 Feb</b> Nelson Classic Car Museum 95 Quarantine Road 6:00pm - 9:00pm	<b>Napier</b> <b>Wed 22 Feb</b> Napier War Memorial Centre 48 Marine Parade 6:00pm - 9:00pm
<b>Gisborne</b> <b>Thu 23 Feb</b> Lawson Field Theatre 7 Fitzherbert Street 6:00pm - 9:00pm	<b>Whanganui</b> <b>Wed 01 Mar</b> Whanganui War Memorial Centre Watt Street 6:00pm - 9:00pm
<b>Rotorua</b> <b>Thu 02 Mar</b> Millennium Hotel, Mokoia Room 1270 Hinemaru Street 6:00pm - 9:00pm	<b>Auckland</b> <b>Sat 04 Mar</b> Western Springs Garden Community Hall 1, 956 Great Road Breakfast 8:00am - 11:00am

2023 Tour Free Entry

For more information visit [www.shinysideup.co.nz](http://www.shinysideup.co.nz)

Logos: RIDE FOREVER, ACC, ROAD TO ZERO

# Driver Licensing Improvement Programme

Driver Licensing Improvement Programme (DLIP) is a cross-agency initiative led by Waka Kotahi and established in mid-2022 to improve access, equity, safety and wellbeing across the driver licensing system.

The work includes:

- Identifying barriers to accessing or progressing through the driver licensing system
- Working with stakeholders to address issues and improve access
- Community-based trials to increase practical testing access and testing officer capacity
- Increasing numbers of test routes and expansion of mobile theory testing
- Recommendations and roadmap to Ministers in 2023





## 2021-24 Hawke's Bay RLTP Tracking

The forecast \$410 million investment in the Hawke's Bay land transport system during the 2021–24 National Land Transport Programme (NLTP) period is targeted at improving safety and resilience while supporting the region's economy and forecast growth.

NLTP	Investment in 2021/22	Forecast investment for 2021-24
<b>Total</b>	\$130 million	\$410 million
<b>Maintenance and operations</b>	\$80 million	\$244 million
<b>Public transport investment</b>	\$5.3 million	\$17 million
<b>Walking and cycling</b>	\$4.3 million	\$18.5 million
<b>Road to Zero (safety)</b>	\$8 million	\$46 million
<b>Network Improvements</b>	\$8.6 million	\$39 million



## Regional Update – RLTP Significant Related Activities

Activity	Activity description	Status	On track
SH5 Napier to Taupō Corridor Improvements	Programme Business Case addressing safety, efficiency and resilience and subsequent Detailed Business Case phase, delivered alongside shorter-term Low Cost/Low Risk safety improvements.	PBC underway; SIP Project in feasibility stage, will need to align with PBC	
Maraekakaho Road/York Road Roundabout	Identified as a high risk intersection and recommendation for intersection transformation and endorsed in the Road to Zero programme	Final design complete	
Hastings bridges strengthening	Programme proposed to improve Hastings District's transport accessibility needs for HPMV, 50Max and VDM (2016) class 1 limits on local roads	Funding was approved and construction underway.	
SH51 Napier to Hastings (Safety Improvements)	Implementing safety improvements on SH51 between Ellison Str and Waitangi Road (Road to Zero)	Phase 1 - February 2023 - construction start (changes to lane marking, median wire barrier, temporary roundabout) Phase 2 – late 2023 - construction start (permanent roundabout)	
Mahia connectivity	Nuhaka-Opoutama Road – Blowhole realignment/retreat and coastal protection.	Council project – probable funding. (no change)	
SH38 Wairoa to Aniwanui	Develop and implement the business case to address the safety, resilience and levels of service issues on the corridor.	Business Case completed and Funding approved for Tall Oil Pitch application on three sections of SH38 between Frasertown and Aniwanui including corridor safety improvements and short term resilience work. The project is underway and being delivered in partnership with Tūhoe.	
SH2 Napier to Wairoa road realignment	Develop a strategic case to investigate alternative road network options	A Point of Entry is currently being developed – (Strategic Case to be completed in 2021-24 NLTP).	

# Renewals Programme 2022/23

- Includes 134 lane kilometres of state highways across Hawke's Bay

Type	Number of sites	Lane km	Costs
Reseal sites	141	123	\$2.8m
Rehab sites:	9	9	\$1.7m
<ul style="list-style-type: none"> <li>SH2 Te Uhi Ascent</li> <li>SH2 McKenzies</li> <li>Tui Rau Nth</li> <li>SH5 Kings Woolshed</li> <li>SH50 Sainsbury Farm</li> <li>SH50 Nth Gwavas Station</li> <li>SH50 Makaroro Rd South 2</li> <li>Silky Oak</li> <li>Mangaroa Rd</li> </ul>			
Thin asphalt	18	2.1	\$1.28m



# Regional Update – Speed and Infrastructure 2021-2024

## Speed

SH No.	Area	Length of speed review	Infrastructure interface	Timeframe	Status
SH51	Napier to Hastings (excl. Clive urban)	13.8km	Y		Completed
SH5	Taupō SH1/SH5 RAB to Bay View	120km	Y	February 2022	Completed
SH2	Hastings to Norsewood	72km		2024 – 2027*	*These corridors will be assessed to see if they will progress in the 24-27 NLTP.
SH2	Matawhero to Bay View	197.8km		2024 – 2027*	
SH50	Napier to SH2 Takapau	82.8km		2024 – 2027*	

## Infrastructure

Project name	Primary treatment Type	Timeframe	21-24 NLTF contribution	Potential total funding (subject to approval)	Status
SH51 Napier to Hastings	Median barrier/ Awatoto roundabout	FY 22/23 – 25/26	\$9.1M	\$28.7M	Detailed Design underway, construction due to start in June 2023.
SH5 HB Regional Boundary to SH2	Barriers and wide centre line	FY 22/23 – 28/29	\$24M	\$100M (SH2 to HB regional boundary)	Feasibility work completed and awaiting the PBC to be further advanced to ensure any short-term interventions identified by SIP can proceed into construction. The engagement for PBC and safety improvements is developed together so they align.
SH5 HB Regional Boundary to Taupō	Barriers and wide centre line			\$17M (regional boundary to Taupō)	



# State Highway Speed Management Plan

- Consultation on the **Interim Speed Management Plan** (r.) under the new Land Transport Rule: Setting of Speed Limits 2022 closed 12 December 2022
- Consultation on the **Full Speed Management Plan** for the 2024-27 NLTP period to start in mid-2023
  - Engagement with councils to start in February 2023.

State highway	Reference number	Location	Existing speed limit (km/h)	Proposed speed limit (km/h) **Variable
2	1	SH2 SH50 intersection speed zone (ISZ) On SH2, approaching intersection with SH50	100	100/60**
50	1	Links Road From Pakowhai roundabout to Waiohiki Road intersection	100	80

State highway	School	Existing speed limit (km/h)	Proposed speed limit (km/h) *Permanent or variable
2	Wairoa College	50	50/30*
	Kotemaori School	100	100/ ≤ 60*
	Tutira School	100	100/ ≤ 60*
	Pukehou School	100/70*	100/ ≤ 60*
51	Te Kura o Mangateretere	80	80/ ≤ 60*
	Te Aratika Academy	80	80/ ≤ 60*

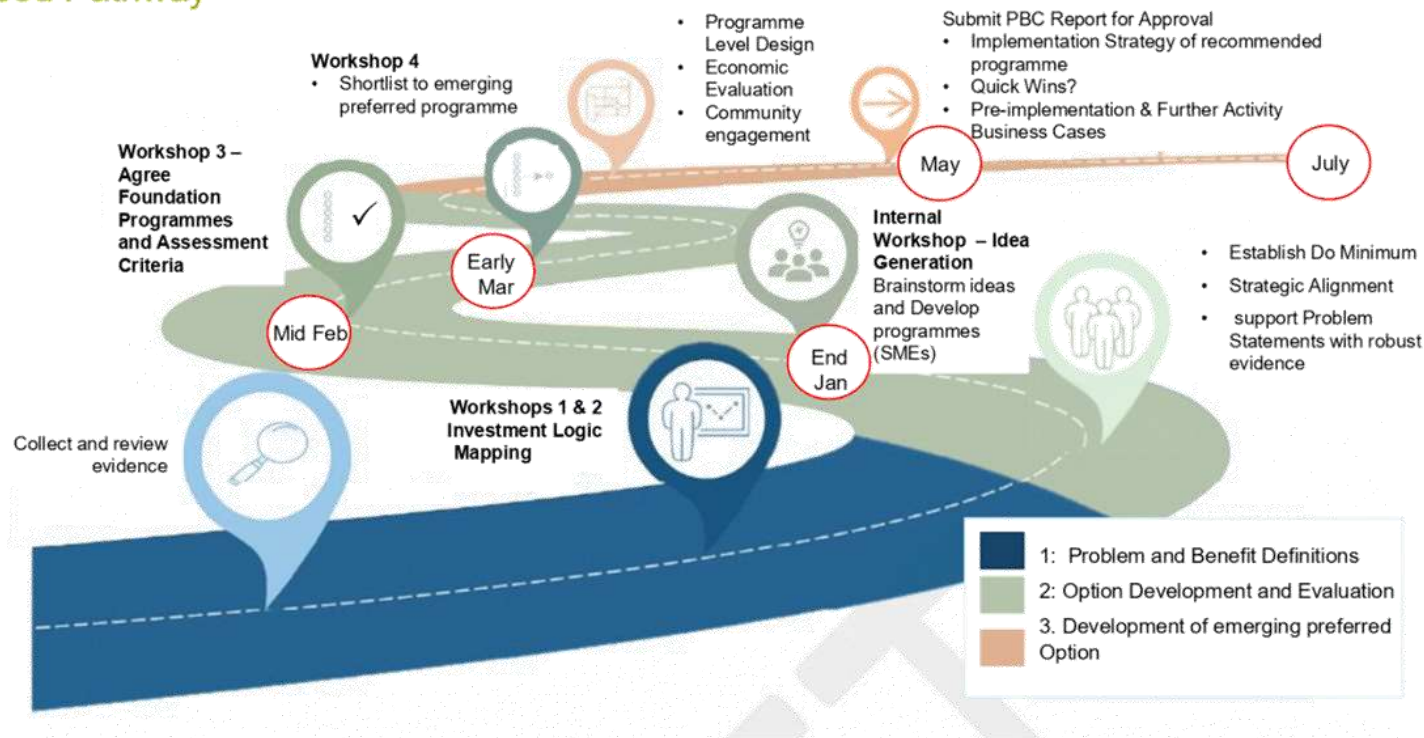


## SH5 Napier - Taupō

- Large programme of work underway
  - Programme Business Case
  - SIP - short-term safety interventions (in design)
  - SH5 Evaluation of the impact of the 80km/h speed limit (12-month post-implementation)
  - Maintenance & Operations programme

# SH5 Programme Business Case

## Proposed Pathway





# Hei konā mai



New Zealand Government





# Regional Transport Committee

Hawke's Bay  
10 February 2023

*Note: The following slides are detailed updates, and to be taken as read. The committee are welcome to ask questions relating to the information as required.*

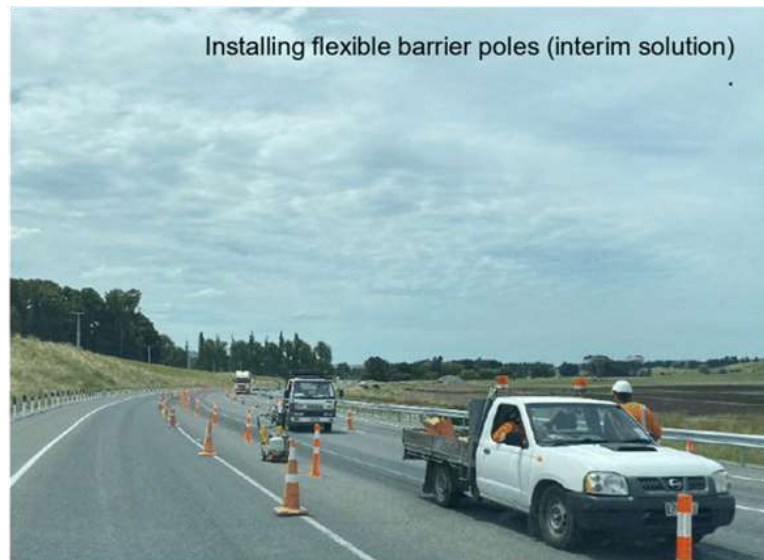


New Zealand Government

## SH2 College Road to Silverstream

- Status: complete (median wire barriers installed early 2023)
- Project benefit: increase regional development, safety, resilience, and accessibility
- Project included:
  - Realignment of 1.7km of the SH2 within green field site
  - Connecting into the existing SH in the North and South locations
  - A new southbound passing lane
  - Upgrading culverts under the road and downstream KiwiRail tracks
  - New centre wire rope barrier
  - Catering for access for local property owners
- Budget: \$11.638m

Installing flexible barrier poles (interim solution)



In late December a blessing was held with the project team and local Hapū Te Whātu-i-Apiti).





## SH2 Waikare Gorge

- Project includes: 4k road realignment and a new 160m bridge across the Waikare Gorge at Putorino
- Outcome: increase safety, resilience, and access for communities in the north of the region
- Engagement with landowners and iwi ongoing
- Early 2023: Lodgement of resource consent & design work to be completed
- Once complete:  
Apply for construction funding



Top: The preferred arch bridge solution over Waikare river  
Left: Slip at Waikare Gorge (December 2022).  
Right: The preferred 'white' option / alignment.

## Hawke's Bay Project Updates

Activity	Estimated Value	Key date(s)	Progress	Commentary
<b>SH51 Napier to Hastings (Road to Zero – SIP)</b>	Approx. \$20m	Phase 1 - February 2023 - construction start (changes to lane marking, median wire barrier)  Phase 2 – late 2023 - construction start (permanent roundabout)		<ul style="list-style-type: none"> <li>The project is part of the Speed and Infrastructure Programme (SIP).</li> <li>Planned safety improvements include: <ul style="list-style-type: none"> <li>Median barrier (4.5k)</li> <li>Wide centreline (1.2k)</li> <li>New roundabout at the Awatoto intersection</li> <li>Improve Waitangi Road intersection (one-way in)</li> <li>Edge barrier protection (1.1k)</li> <li>Shoulder widening (2.1k)</li> <li>ATPs (5.3k)</li> </ul> </li> </ul>
<b>SH50 Prebensen Hyderabad Intersection Upgrades</b>	\$3.95m	2023 - complete		<ul style="list-style-type: none"> <li>Shared path and lane changes (SP1) - complete</li> <li>Level crossing at Pandora Roundabout (SP2) – one year delay due to lengthy KiwiRail engineering approval process</li> <li>Level crossing and shared path connection at Prebensen Dr Roundabout (SP3) and SP2 planned to get underway early 2023, complete by end of Q4</li> <li>Contractor removed from SP2 and SP3 and replaced</li> <li>Procurement of long-lead items (e.g. engineered retaining wall blocks) underway</li> </ul>



## Hawke's Bay Project Updates

Activity	Estimated Value	Key date(s)	Progress	Commentary
<b>SH38 Tall Oil Pitch Trial</b>	\$8m	Ongoing		<ul style="list-style-type: none"> <li>18km of unsealed road across three sites on State SH/Special Purpose Road 38 from Wairoa through Te Urewera to Murupara) will be sealed using Tall Oil Pitch (a by-product of paper manufacturing)</li> <li>Includes safety improvements and resilience work</li> <li>Delivered in partnership with Ngāi Tūhoe</li> </ul>
<b>SH2 Mohaka SVB</b>	part of \$35m SH2/SH35 Passing Opps Project	March 2023 - completion		<ul style="list-style-type: none"> <li>Location: 2km south of Raupunga just after southbound traffic pass under the Mohaka Rail Viaduct</li> </ul>
<b>SH2 Kakeriki SVB</b>	part of \$35m SH2/SH35 Passing Opps Project	Design underway  Spring 2023 - start  Summer 2024 – completion		<ul style="list-style-type: none"> <li>Location: section of SH2 includes Kotemaori School</li> <li>Kotemaori School included in ISMP (project design allows for variable speed signs)</li> <li>Project involves a realignment of SH2 and the construction of a slow vehicle bay</li> <li>The project will involve 30-40,000 cubic meters of cut to fill, and building retaining walls</li> </ul>

## Hawke's Bay Project Updates – Low Cost Low Risk

Activity	2021 – 24 NLTP Funding Allocation	Status	Commentary
SH2 Waipawa Zebra Crossing Improvements	\$250,000	In design and pre-implementation	<ul style="list-style-type: none"> <li>• Road to Zero</li> <li>• In conjunction with CHB District Council as part of their "Streets for People" programme</li> <li>• Safety improvement of the existing pedestrian crossing (two raised medians)</li> </ul>
SH51 Clive Pedestrian Crossing Improvements	\$397,000		<ul style="list-style-type: none"> <li>• Road to Zero</li> <li>• Safety improvement of the existing pedestrian crossing (one raised median)</li> </ul>
SH2 Latham St Roundabout Improvements	\$150,000		<ul style="list-style-type: none"> <li>• Road to Zero</li> <li>• Safety improvements of existing roundabout</li> </ul>
SH2 Havelock North - Waipawa Alternative route	\$300,980		<ul style="list-style-type: none"> <li>• New Zealand Cycle Trail</li> <li>• Based around cyclist safety (Middle road is used as an alternate route when SH2 is closed but is also a high-use cycle route)</li> <li>• In conjunction with HBRC</li> </ul>

## Emergency Works Slip Sites

- **SH5 Dropout** – repaired – new/bigger culvert being installed (est. completion date: 13 Feb)
- **SH2 Slip at Waikoau Hill** - repaired
- **SH2 Slip at Tangoio** (South of White Pine Bush) – design underway
- **SH2 Raupunga Subsidence** – design underway
- **SH38 Waikaretaheke River Underslip** – design completed; next step: resource consent application
- **SH38 Waiau River Underslip** – design underway





## Bridge repairs

### SH2 Esk River Bridge:

- Tender awarded in early February
- Works likely to start in late February (subject to weather and availability of materials)

### SH50 Ngaruroro Bridge – Fernhill:

- Investigation underway, ongoing inspections continue
- Bridge restricted for loading and speed until the bridge can be strengthened (likely to occur in the next NLTP)

### SH38 Frasertown Bridge - Wairoa:

- Bridge down to one lane and restricted for speed until the bridge can be strengthened (likely to occur in the next NLTP 2024-2027)



Esk River Bridge (top)  
Ngaruroro Bridge (bottom)



## SH2 Passing Opportunities

- Part of the \$35m SH2/SH35 passing opportunities project.
- The project is included in the Tairāwhiti Roothing Package and has received funding from the PGF.
- Four slow vehicle bays have been constructed at Matahorua, Kotemaori, Wharerata and Waikoau Hill
- Underway:
  - Mohaka Ascent (complete March 2023)
  - Kakariki (design underway, complete summer 2024)



Progress at Mohaka Ascent Slow Vehicle Bay (top)  
Works at the Waikoau Hill construction site (bottom)





## Connecting Tairāwhiti

- Connecting Tairāwhiti is a programme of capital projects (SH35 resilience project and SH35/SH2 passing opportunities project) and across the northern Hawke's Bay and Tairāwhiti regions.
- Outcome: improve safety and driver experience on our state highways, create employment opportunities, and provide a more resilient roading network for local communities.
- Projects are funded by:
  - National Land Transport Fund
  - Provincial Growth Fund
  - Regional package of the New Zealand Upgrade Programme

WAKA KOTAHI

### Connecting Tairāwhiti key projects 2021-24



## Connecting Tairāwhiti

**SH35 Resilience Project** includes 14 individual sites up SH35 on the East Coast:

Up to \$13.5m allocated to treat some of the worst 'resilience hot spots' between Gisborne and Potaka.

- Six resilience sites have been completed
- Four sites planned for completion in this construction season
- Four sites planned for next season



# Connecting Tairāwhiti

**SH35/SH2 Passing Opportunities project** includes 21 individual sites along SH35 and SH2:

- Seven passing opportunities complete
- Seven sites planned for completion this construction season
- Seven sites planned for completion next season





# Hei konā mai



New Zealand Government