

If calling, please ask for Democratic Services

Transport Committee

Thursday 19 September 2024, 09.30am

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

Quorum: Seven Members

Members

Councillors

Thomas Nash (Chair) Simon Woolf (Deputy Chair)

David Bassett Ros Connelly
Quentin Duthie Penny Gaylor
Chris Kirk-Burnnand Ken Laban
David Lee Daran Ponter
Hikitia Ropata Yadana Saw

Adrienne Staples

Appointee

Andrew Lensen

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

Transport Committee (A Committee of the Whole)

1 Purposes

- 1.1 Oversee the development, implementation and review of Council's strategic direction and policies for transport and mode-shift.
- 1.2 Set the operational direction to deliver public transport and mode-shift.
- 1.3 Provide input into joint transport-related projects and initiatives.
- 1.4 Ensure these matters promote the social, economic, and environmental well-being of the Wellington Region.

2 Specific responsibilities

- 2.1 Apply Council's Te Tiriti o Waitangi principles when conducting the Committee's business and making decisions.
- 2.2 Prepare the Wellington Regional Public Transport Plan (and variations) and recommend its adoption by Council.
- 2.3 Approve strategies, policies and guidelines to deliver public transport in accordance with the Wellington Regional Public Transport Plan.
- 2.4 Approve transport strategies, policies, plans, programmes, initiatives and indicators related to transport demand management and active mode promotion.
- 2.5 Review performance trends related to public transport and transport demand management activities.
- 2.6 Review periodically the performance and effectiveness of transport strategies, policies, plans, programmes, initiatives and indicators including:
 - a Delivery of the Wellington Regional Public Transport Plan, including:
 - i Inter-regional transport initiatives
 - ii Fare strategies and methods
 - iii Increased mode share to public transport and active modes
 - iv Promoting transport equity, and increasing access to public transport, for groups that are more likely to be transport disadvantaged
 - Alignment of Greater Wellington's accessibility work to the United Nations Convention on the Rights of Persons with Disabilities 2006 (UNCRPD)
 - b Transport demand management, including Vehicle Kilometres Travelled (VKT) reduction, and active mode promotion initiatives.
- 2.7 Oversee Council's involvement in jointly-managed regional and national transport programmes and projects, including Let's Get Wellington Moving and the National Ticketing Solution.
- 2.8 Consider matters relating to public ownership of public transport and recommend on these to Council.

- 2.9 Consider regional, national and international developments; emerging issues and impacts; and changes in the legislative frameworks for their implications for transport strategies, policies, plans, programmes, initiatives and indicators.
- 2.10 Consider and endorse business cases for submission to Waka Kotahi NZ Transport Agency or other agencies on strategic transport projects with the potential for significant financial impact.
- 2.11 Inform Council's representatives on matters going forward to the Regional Transport Committee to assist that committee in developing the Wellington Regional Land Transport Plan.
- 2.12 Ensure that the Committee's decision-making:
 - a Considers climate change-related risks (mitigation and adaptation)
 - b Is consistent with Council's plans and initiatives to give effect to Council's declaration of a climate emergency on 21 August 2019, including agreed emissions reduction targets.

2.13 Advocate:

- a For the alignment of initiatives across the Wellington Region with transport implications, including for spatial planning and land use planning
- b To support the Wellington Region's territorial authorities in their traffic resolution processes that reallocate road space for public transport and active modes.
- 2.14 Review, after each Public Transport Advisory Group meeting, a written report of the business conducted at that meeting.

3 Delegations

- 3.1 Subject to sections 3.3 to 3.7, Council delegates to the Committee all the powers, functions and duties necessary to perform the Committee's responsibilities (except those that must not be delegated, have been retained by Council, have been delegated to another committee, or have been delegated to the Chief Executive).
- 3.2 The Committee has the authority to approve submissions to external organisations for matters pertaining directly to the Committee's purpose.
- 3.3 The Committee may make decisions on matters with a financial impact only where the related costs are:
 - a Budgeted for in the relevant business group's budget
 - b Not budgeted for in the relevant business group's budget, but can be met from savings within that budget.
- 3.4 Where the Committee considers a decision with a material financial impact is needed¹, the Committee must refer the matter to Council for its decision.

That is, where savings are identified from other business groups' budgets to meet the related costs; or no savings are identified across Greater Wellington's overall budget to meet the related costs.

- 3.5 The Committee may not make a decision that is materially inconsistent with Council's Annual Plan or Long Term Plan.
- 3.6 Where a matter proposed for consideration by the Committee (including during the development of proposed Greater Wellington plans and policies) is of strategic importance to the Wairarapa Constituency, that matter shall first be referred to the Wairarapa Committee or its members for their consideration.
- 3.7 The Committee shall ensure that it acts under the guidance of the Memorandum of Partnership in working with Greater Wellington's mana whenua partners of the Wellington Region to ensure effective Māori participation in the Committee's deliberations and decision-making processes.

4 Members

- 4.1 All thirteen Councillors.
- 4.2 The Chair of the Public Transport Advisory Group.

5 Voting entitlement

The Chair of the Public Transport Advisory Group member sits at the table and has full speaking rights, but has no voting rights at any Committee meeting.

6 Quorum

Seven Committee members.

Transport Committee

Thursday 19 September 2024

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

Public Business

No.	Item	Report	Page
1.	Apologies		
2.	Conflict of interest declarations		
3.	Public participation		
4.	Confirmation of the Public minutes of the Transport Committee meeting on 15 August 2024	24.436	6
5.	<u>Update on Progress of Action Items from</u> <u>Previous Transport Committee Meetings – September 2024</u>	24.482	9
6.	Metlink Bus Fleet Emissions 2023/24	24.462	16
7.	<u>Public Transport Performance Update – September 2024</u>	24.452	47
8.	Public Transport Operator Update - Transdev	24.454	78
9.	<u>Driver Toilet Facilities Update</u>	24.511	93



Please note these minutes remain unconfirmed until the Transport Committee meeting on 19 September 2024.

Report 24.436

Public minutes of the Transport Committee meeting on Thursday 15 August 2024

Taumata Korero - Council Chamber, Greater Wellington Regional Council 100 Cuba St, Te Aro, Wellington at 9.31am

Members Present

Councillor Nash (Chair)

Councillor Woolf (Deputy Chair)

Councillor Bassett

Councillor Connelly

Councillor Duthie (from 9.36am)

Councillor Gaylor

Councillor Kirk-Burnnand

Councillor Laban

Councillor Lee

Councillor Ponter (from 9.31am until 10.13am, from 10.21am)

Councillor Ropata

Councillor Saw

Councillor Staples

Andrew Lensen

Karakia timatanga

The Committee Chair opened the meeting with a karakia timatanga.

Public Business

1 Apologies

Moved: Cr Gaylor / Cr Kirk-Burnnand

That the Committee accepts the apology for lateness from Councillor Duthie.

The motion was carried.

Councillor Ponter arrived at the meeting at 9.31am, during the above item.

2 Declarations of conflicts of interest

There were no declarations of conflicts of interest.

3 Public participation

There was no public participation.

4 Confirmation of the Public minutes of the Transport Committee meeting of 20 June 2024 - Report 24.336

Moved: Cr Bassett / Cr Ropata

That the Committee confirms the Public minutes of the Transport Committee meeting of 20 June 2024 – Report 24.336.

The motion was carried

Councillor Duthie arrived at the meeting at 9.36am, during the above item.

5 Update on the Progress of Action Items from Previous Transport Committee Meetings – August 2024 – Report 24.376 [For Information]

Samantha Gain, Kaiwhakahaere Matua Waka-ā-atea | Group Manager Metlink, spoke to the report.

2024 Metlink Public Transport Customer Satisfaction Survey Results – Report 24.386 [For Information]

David Boyd, Manager, Customer Experience, spoke to the report.

Noted: The Committee requested that officers reach out to gender diverse advocacy groups to learn more about gender diverse communities' experiences using public transport and referred the survey results to the Public Transport Advisory Group for discussion.

Noted: The Committee requested officers to provide an update on the RTI 2.0 roll out at a future Committee meeting or workshop.

Wellington Metropolitan Rail Network Performance and Funding Challenges Update - Report 24.387 [For Information]

Fiona Abbott, Senior Manager Assets & Infrastructure, and David Mawson, Rail Network Delivery Manager, Assets & Infrastructure, spoke to the report.

8 Review of Wellington Regional Public Transport Plan - Update - Report 24.389 [For Information]

Emmet McElhatton, Manager Policy, Metlink, and Scott Walker, Senior Policy Advisor, Metlink, spoke to the report and advised that the dates for the public hearings stated

in paragraph 18 of the report should have been 27 and 28 November (not 27 and 28 October).

Noted: The Committee requested that staff include councillors in engagement with communities, including briefings with territorial authorities.

Councillor Ponter left the meeting at 10.13am and returned to the meeting at 10.21am, during the above item.

9 Public Transport Advisory Group Meeting – 1 August 2024– Report 24.431 [For Information]

Andrew Lensen, Chair, Public Transport Advisory Group, and David Boyd, Manager, Customer Experience, spoke to the report.

10 Delivery of Wellington Regional Public Transport Plan - Update - Report 24.391 [For Information]

Samantha Gain, Kaiwhakahaere Matua Waka-ā-atea | Group Manager Metlink, spoke to the report.

Noted: The Committee requested that it receive an end of term report on the implementation of the current Regional Public Transport Plan.

11 Public Transport Performance Update – Report 24.390 [For Information]

Matthew Chote, Senior Manager Operations and Partnerships, spoke to the report.

Noted: The Committee requested staff consult with and look at ways to better serve passengers that use the Maymorn Station in Upper Hutt with the upcoming temporary closure for the Wairarapa line upgrade and the distance from the station to the Bus Replacement stop.

Karakia whakamutunga

			hakamutunga.

The meeting closed at 11.11am

Councillor T Nash	
Chair	

Date:

Transport Committee 19 September 2024 Report 24.482



For Information

UPDATE ON THE PROGRESS OF ACTION ITEMS FROM PREVIOUS TRANSPORT COMMITTEE MEETINGS – SEPTEMBER 2024

Te take mō te pūrongo Purpose

1. To update the Transport Committee (the Committee) on the progress of action items arising from previous Committee meetings.

Te horopaki Context

Items raised at Committee meetings that require actions from staff are listed in the
table of actions from previous Committee meetings (<u>Attachment 1 – Action items</u>
<u>from previous Transport Committee meetings – September 2024</u>). All action items
include an outline of the current status and a brief comment.

Ngā hua ahumoni Financial implications

 There are no financial implications arising from this report, but any implications arising from specific action items will be discussed in the brief comment in Attachment 1.

Ngā tūāoma e whai ake nei Next steps

- 4. Completed items will be removed from the action items table for the next report.
- 5. Items not completed will be added to the table following this Committee meeting and circulated to the relevant business group(s) and functions for action.

Ngā āpitihanga Attachment

Number	Title
1	Action items from previous Transport Committee meetings – September
	2024

Ngā kaiwaitohu Signatory

Approver	Samantha Gain – Kaiwhakahaere Matua Waka-ā-atea Group Manager
	Metlink

He whakarāpopoto i ngā huritaonga Summary of considerations

Fit with Council's roles or with Committee's terms of reference

The action items are of an administrative nature and support the functioning of the Committee.

Contribution to Annual Plan / Long Term Plan / Other key strategies and policies

Action items contribute to Council's or Greater Wellington's related strategies, policies and plans to the extent identified in **Attachment 1**.

Internal consultation

There was no additional internal consultation in preparing this report and updating the action items.

Risks and impacts - legal / health and safety etc.

There are no known risks or impacts.

Date	Action item	Status and comment	
16 February 2023	Transport Committee Update - Public	Status:	
	Participation	In progress	
	Noted:	Comment:	
	The Committee requested a report on East/West	East/West connectivity will be considered as part of the	
	connectivity of public transport.	Council's review of the Regional Public Transport Plan	
22 June 2023	Public Transport On-Demand Review - Report	Status:	
	23.229	Under consideration	
	Noted:	Comment:	
	The Committee requested that a matrix be prepared with criteria for assessing future Public Transport On-Demand options, including population density, demographics, topography, value of money.	Metlink has commissioned an independent piece of work to assess the viability of On Demand services in the Wellington Region.	
		Note that the recently released National Land Transport Plan (NLTP) funding decisions does not include On Demand services.	
		NZ Transport Agency Waka Kotahi is currently developing national guidance on criteria for assessing On-Demand PT opportunities. Draft guidance to date indicates a 'business case light' approach will be required from Public Transport Authorities and will require a range of criteria to be factored including those discussed at Committee.	

14 September 2023	Update on Progress of Action Items from previous	Status:
	Transport Committee meetings – September 2023 – Report 23.448	On hold
	Noted: The Committee requested an update on the consideration of multi-modal options for the closure	Comment: This work is on hold pending more information about
	of the Melling Line	RiverLink construction phasing.
22 February 2024	Wellington Metropolitan Rail Network Performance and Funding Challenges – update – Report 24.2 Noted: The Committee requested: • That the action plan be shared with the Committee That staff provide the Committee with information on the effect of service reductions for the network and passengers and what the trade-offs are for short closures over a longer period of time versus longer closures in order to complete maintenance and upgrades.	In progress Comment: We have detailed asset health information that has been shared with us. The information is technical, spans 10 years, and involves thousands of assets. We will look for ways to interpret and present this information in a meaningful way potentially as part of the service impact scenario analysis we are working on with KiwiRail and Transdev. Service reduction based on Temporary Speed Restriction forecast modelling has taken place. However, the additional funding in Budget 2024 was more than forecast and additional work is required to
		understand how this additional funding changes the forecasts (if at all).
20 June 2024	Emerging Trends in Transport – Report 24.310 [For	Status:
	Information]	Noted
		Comment:

	Noted: The Committee requested officers to include	Officers have noted this request and will include the
	in the next presentation in six months' time, a cost	information in the next presentation scheduled for
	comparison between private motoring and using	November 2024.
	public transport.	
15 August 2024	2024 Metlink Public Transport Customer	Status:
	Satisfaction Survey Results - Report 24.386 [For Information]	In progress
	Noted: The Committee requested that officers reach	Comment:
	out to gender diverse advocacy groups to learn more about gender diverse communities' experiences using public transport and referred the survey results to the Public Transport Advisory Group for discussion.	Officers are undertaking further analysis of the survey results in order to learn more about gender diverse communities' experiences using public transport. Following completion of the analysis, officers will reach
	,,	out to gender diverse advocacy groups
		Survey results will be presented to PTAG for discussion at its next meeting on 7 November 2024.
15 August 2024	2024 Metlink Public Transport Customer	Status:
	Satisfaction Survey Results - Report 24.386 [For Information]	Noted
	Noted: The Committee requested officers to provide	Comment:
	an update on the RTI 2.0 roll out at a future Committee	Officers have noted this request and have scheduled an
	or workshop.	RTI 2.0 update for the Transport Workshop on 24
		October 2024.
15 August 2024	Review of Wellington Regional Public Transport	Status:
	Plan - Update - Report 24.389 [For Information]	In progress
		Comment:

	Noted: The Committee requested that staff include councillors in engagement with communities, including briefings with territorial authorities.	Councillors had been advised of upcoming engagements with communities and territorial authorities. However, due to the NLTP funding decisions, the RPTP review timeframes are being reassessed.
15 August 2024	Delivery of Wellington Regional Public Transport Plan - Update - Report 24.391 [For Information] Noted: The Committee requested that it receive an end of term report on the implementation of the current Regional Public Transport Plan.	Status: Noted Comment: Officers have noted this request and will include the information in the next scheduled Regional Public Transport Plan update (28 November 2024).
15 August 2024	Public Transport Performance Update – Report 24.390 [For Information] Noted: The Committee requested staff consult with and look at ways to better serve passengers that use the Maymorn Station in Upper Hutt with the upcoming temporary closure for the Wairarapa line upgrade and the distance from the station to the Bus Replacement stop.	In progress Comment: Officers have undertaken analysis of boardings at Maymorn Station; on weekdays there is a maximum of 15 boardings, but boardings are as low as 1-2 boardings on some week-days and weekends. Officers will visit Maymorn Station before the upcoming planned block of line over Summer 24/25 to engage with users.

Transport Committee 19 September 2024 Report 24.462



For Information

METLINK BUS FLEET EMISSIONS 2023/24

Te take mō te pūrongo Purpose

1. To present the Metlink bus fleet emissions 2023/24 environmental performance report. (2023/24 Report) (attachment 1).

Te tāhū kōrero Background

- 2. Diesel buses emit both greenhouse gases (which impact globally) and harmful air pollutants (which impact locally and regionally). Increasing the number of electric buses and the distance they travel relative to diesel buses is key to improving the environmental performance of the Metlink bus fleet.
- Bus fleet emissions are tracked to report on two high level performance measures in Greater Wellington Regional Council's (Greater Wellington) Long-Term Plan (2024-34 LTP):
 - a Metlink: All core service bus routes are decarbonised by 2030
 - b Greater Wellington: Gross emissions from Metlink's public transport fleet will be minimised, reducing offsets required to reach net carbon neutrality.

2023/24 Metlink bus fleet emissions report

- 4. The 2023/24 Report summarises trends in greenhouse gas as CO_2 equivalents (CO_2 e) and harmful pollutant emissions from the bus fleet from August 2018 to June 2024.
- 5. The 2023/24 Report has been published on Greater Wellington's website².
- 6. The 2023/24 Report presents a range of performance indicators that show progress towards bus fleet decarbonisation, trends in greenhouse gas emissions and harmful emissions, and local air quality impacts.

Core services routes currently include routes 1, 2, 3, 7, 110, 120, 130, 220 and AX (Airport).

https://www.gw.govt.nz/document/22844/metlink-bus-fleet-emissions-202324-environmental-performance-report/

2021/22 Metlink bus fleet emissions report

- 7. In September 2022, the 2021/22 Metlink bus fleet emissions report (2021/22 Report) was published on Greater Wellington's website³.
- 8. The 2021/22 Report covered the period January 2017 to June 2022.

Bus Emissions Model update

- 9. Since the publication of the 2021/22 Report, the Bus Emissions Model (the Model) has been updated and migrated to a new data warehouse and analytics platform designed for public transport by netBI.
- 10. As some of the inputs to the updated Model are different from the previous emissions model, the emissions trend has been re-calculated back to 1 August 2018 (the start date of the updated model).
- 11. As a result of the updated Model, emissions trends reported in the 2023/24 Report supersede those in the 2021/22 Report.
- 12. Note the Model update does not affect the direction of emissions trends or conclusions in the 2021/22 Report.

Te tātaritanga Analysis

Key findings in the 2023/24 Report

- 13. CO₂e from the bus network has trended down since September 2021 as the proportion of service km travelled by electric buses increased relative to diesel service km. In 2023/24 total network CO₂e increased slightly as km by diesel vehicles increased as well as electric vehicle km.
- 14. Electric buses performed 27% of the total fleet km in 2023/24 continuing the trend of improving network carbon efficiency as CO₂e g per km reduces.
- 15. Bus operators Kinetic (formerly NZ Bus) and Mana have improved their carbon efficiency by increasing electric buses services, resulting in lower CO₂e emissions per km.
- 16. The increase in electric service km corresponded to a decrease in harmful emissions (NOx and particulate matter) but this trend was slightly reversed in 2023/24 as the km travelled by diesel buses also increased.
- 17. Most of the social costs estimated for bus fleet emissions in 2022/23 were due to air pollutant emissions (NOx) from diesel buses.
- 18. An increase in the proportion of electric buses travelling on Manners Street (Golden Mile) was associated with reductions in harmful pollutants. Diesel particulate air pollution reduced by 42% from the 2020/21 baseline. There was a slight increase in diesel particulate in 2023/24 as the number of diesel vehicles was higher than the previous year.

https://www.gw.govt.nz/assets/Documents/2022/10/Metlink-bus-emissions-annual-report-2021 22.pdf

Core service bus routes

- 19. Metlink has a target for all core service bus routes to be zero emissions by 2030.
- 20. The 2023/24 Report (section 3.5) identifies that there are four routes which are not identified as core routes but produce more CO₂e than some of the identified core routes.
- 21. The findings suggest that the route-based priority list may need to be reviewed; this matter will be considered and addressed through the Zero Emissions Bus strategy (ZEB Strategy), which is currently being undertaken by Metlink.

Ngā tūāoma e whai ake nei Next steps

- 22. The 2023/24 Report will be used to inform the ZEB Strategy and other emissions reduction initiatives.
- 23. An update to the bus fleet emissions will be presented to the Committee annually.

Ngā āpitihanga Attachment

Number	Title
1	Metlink bus fleet emissions 2023/24 environmental performance report

Ngā kaiwaitohu Signatories

Writers	Tamsin Mitchell – Senior Environmental Scientist, Knowledge and Insights
	Paul Blane – Principal Advisor Bus Fleet
Approvers	Evan Harrison - Manager, Knowledge and Insights
	Fiona Abbott – Senior Manager Assets and Infrastructure
	Samantha Gain – Kaiwhakahaere Matua Waka-ā-atea Group Manager Metlink

He whakarāpopoto i ngā huritaonga Summary of considerations

Fit with Council's roles or with Committee's terms of reference

The Committee has the specific responsibility to review performance trends related to public transport as set out in the Committee's Terms of Reference.

Contribution to Annual Plan / Long Term Plan / Other key strategies and policies

Bus fleet emissions are tracked to report on two high level performance measures in 2024-34 Long-Term Plan

Internal consultation

No other departments were consulted in preparing this report.

Risks and impacts - legal / health and safety etc.

There are no known risks arising from this report.

Metlink bus fleet emissions 2023/24

Environmental performance report



Tamsin Mitchell Knowledge and Insights

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July 2024

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Report prepared by:	T Mitchell	Senior Scientist Air Quality	T. Antewell
Report reviewed by:	P Blane	Principal Advisor Bus Fleet	hell
Report approved for release by:	F Abbott	Manager, Assets & Infrastructure	Howell. Date: 23 July 2024
	E Harrison	Manager, Knowledge and Insights	Date: 30 July 2024

DISCLAIMER

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The report may be cited as:

Mitchell T. 2024. *Metlink bus fleet emissions 2023/24: Environmental performance report.* Greater Wellington Regional Council, Publication No. GW/KI-T24/04 Wellington.

Contents

1
2
4
4
5
7
8
8
9
10
13
14
14
14
16
18
19
19
20
21
24

1. Summary

Metlink is committed to delivering an environmentally friendly bus fleet across the region by reducing emissions of greenhouse gases and harmful air pollutants from buses whilst increasing patronage.

This report summarises trends in greenhouse gas (CO_2 equivalents) and harmful pollutant emissions from the bus fleet from August 2018 to June 2024. Emissions were calculated by the new Metlink data analytics platform.

Air quality trends along the bus corridor through Wellington's Golden Mile are also presented.

Key findings

- CO₂e from the bus network has trended down since September 2021
 as the proportion of service km travelled by electric buses increased
 relative to diesel service km. In 2023/24 total network CO₂e increased
 slightly as km by diesel vehicles increased as well as electric vehicle
 km.
- Electric buses performed 27% of the total fleet km in 2023/24 continuing the trend of improving network carbon efficiency as CO₂e g per km reduces.
- Bus operators Kinetic (formerly NZ Bus) and Mana have improved their carbon efficiency by increasing electric buses services, resulting in lower CO₂e emissions per km.
- The increase in electric service km corresponded to a decrease in harmful emissions (NOx and particulate matter) but this trend was slightly reversed in 2023/24 as the km travelled by diesel buses also increased.
- Most of the social costs estimated for bus fleet emissions in 2022/23 were due to air pollutant emissions (NOx) from diesel buses.
- An increase in the proportion of electric buses travelling on Manners Street (Golden Mile) was associated with reductions in harmful pollutants. Diesel particulate air pollution reduced by 42% from the 2020/21 baseline. There was a slight increase in diesel particulate in 2023/24 as the number of diesel vehicles was higher than the previous year.

2. Introduction

Diesel buses emit both greenhouse gases (which impact globally) and harmful air pollutants (which impact locally and regionally). Increasing the number of electric buses and the distance they travel relative to diesel buses is key to improving the environmental performance of the Metlink bus fleet.

Bus fleet emissions are tracked to report on two high level performance measures in Greater Wellington's Long-Term Plan (2024-34 LTP):

Metlink:

All core service bus routes are decarbonised by 2030.

Greater Wellington organisation:

 Gross emissions from Metlink's public transport fleet will be minimised, reducing offsets required to reach net carbon neutrality.

This report presents a range of performance indicators that show progress towards bus fleet decarbonisation, trends in greenhouse gas emissions and harmful emissions, and local air quality impacts.

Bus fleet emissions were modelled using a detailed bottom-up approach that estimates emissions for greenhouse gases and harmful pollutants. The overall method is consistent with a Tier 3 assessment method as described in IPCC¹ and EEA² guidance. The model uses COPERT³ emissions factors which are the best available as they are intended to represent real-world performance as opposed to regulatory emission limits.

Since the last emissions performance report (Mitchell & Clark 2022)⁴, covering the period January 2017 to June 2022, the Bus Emissions Model has been updated and migrated to a new data warehouse and analytics platform designed for public transport by netBl⁵. As some of the inputs to the updated model are different from the previous emissions model, the emissions trend has been re-calculated back to 1 August 2018 (the start date of the updated model). Therefore, emissions trends reported here supersede those previously reported. Note the model update does not affect the direction of emissions trends or conclusions in the 2021/22 Metlink bus fleet emissions report.

¹ IPCC 2019. 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Calvo Buendia, E., Tanabe, K., Kranjc, A., Baasansuren, J., Fukuda, M., Ngarize, S., Osako, A., Pyrozhenko, Y., Shermanau, P. and Federici, S. (eds). Published: IPCC, Switzerland

² EEA 2023. Air pollutant emission inventory guidebook 2023 1.A.3.bi-iv Road Transport

³ European Computer Model to Calculate Emissions from Road Transport

⁴ Mitchell T. & Clark, H. 2022. Metlink bus fleet emissions: Environment impacts annual summary. Greater Wellington Regional Council, Publication No. GW/ESCI-T-22/14, Wellington.

⁵ https://netbi.com.au/

3. Greenhouse gas emission performance indicators

Greenhouse gases (GHG) from bus emissions are:

- Carbon dioxide (CO₂). The primary contributor to global climate change produced by burning of diesel and petrol.
- Methane (CH₄) and nitrous oxide (N₂O). Although emitted in smaller quantities and shorter-lived than CO_2 , they are potent GHG which trap more heat than CO_2 .

Bus fleet GHG emissions are reported as CO_2 equivalents (CO_2 e) which include methane and nitrous oxide. Methane and nitrous oxide emissions are converted to CO_2 e by multiplying by their Global Warming Potential (GWP) as follows: CO_2 e = CO_2 + (N_2O_2 x 298) + (CH_4 x 25).

The CO₂e emissions performance indicator does not include GHG emissions from upstream electricity generation used to charge electric bus batteries.

3.1 Fleet decarbonisation CO2e emissions

This high-level indicator shows the trend in total CO_2e emissions per month from the bus fleet (Figure 3.1). The main driver of CO_2e emissions is distance travelled by diesel buses. The diesel bus fleet (excluding rail replacements) was 37% of GW's organisational carbon footprint in $2022/23^{g}$. Electrification of the bus fleet is key to GW becoming carbon neutral with the co-benefit of reducing levels of harmful emissions.

 CO_2e emissions fell in 2020 (2019/20) due to reduced services during the COVID-19 travel restrictions. From September 2021 CO_2e emissions trended downwards as the proportion of total in-service km by electric buses increased. There was further dip in CO_2e from January to February 2023 as bus driver shortages necessitated reducing services resulting in fewer km travelled.

Network CO_2e emissions were slightly higher in 2023/24 than in 2022/23 as service km by both diesel and electric buses increased (Figure 3.2).

 $^{{}^{6}\,\}underline{\text{https://www.gw.govt.nz/assets/Documents/2024/05/GWRC-Emissions-Management-and-Reduction-Plan-2024.pdf}}$

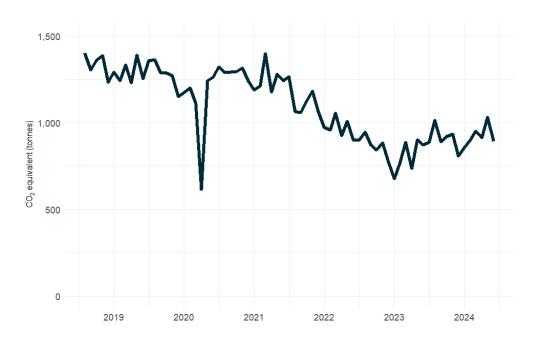


Figure 3.1: Bus fleet CO2e emissions (tonnes) per month (August 2018 to June 2024)

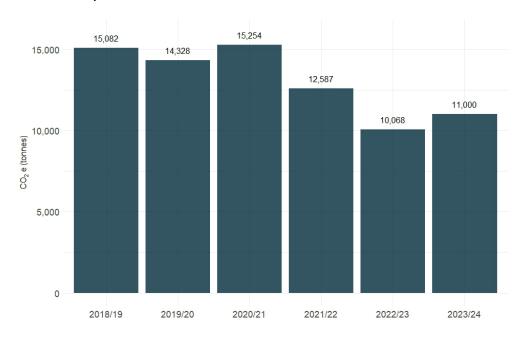


Figure 3.2: Bus fleet CO₂e emissions (tonnes) by financial year

3.2 Distance travelled by electric and diesel buses

This indicator shows the proportion of in-service km travelled by diesel and electric buses (Figure 3.3). The quantity of CO_2e and harmful emissions produced by the network is determined by how far the buses travel and the

proportion of the distance travelled that is electric. The proportion total service km by electric buses has increased across the network (Figure 3.4). In 2023/24 the total in-service km across the network increased by almost 1.9 million km from 2022/23. The 2023/24 increase in km was made up of 980,162 electric km and 907,846 diesel km.

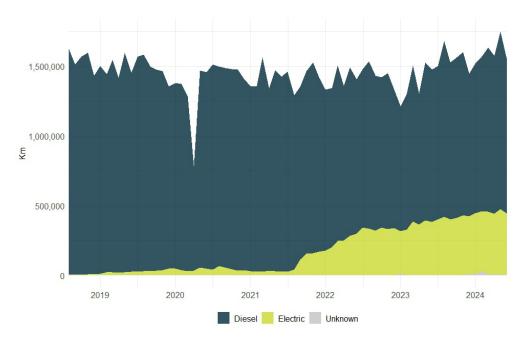


Figure 3.3: Bus fleet km per month by fuel type (August 2018 to June 2024)

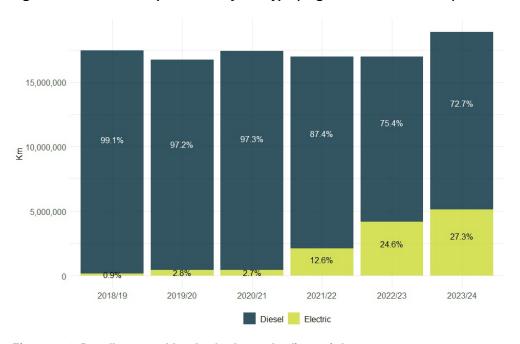


Figure 3.4: Bus fleet total km by fuel type by financial year

3.3 Organisational carbon footprint reporting

Estimated diesel fuel use across the network by financial year (Figure 3.5) is used to calculate the annual CO_2e contribution from Metlink diesel buses to GW's organisational carbon footprint⁷. Organisational reporting is based on the *GHG Protocol Corporate Accounting and Reporting Standard* in alliance with ISO 14064-1:2018 standards which calculates CO_2e kg for GW's GHG inventory as follows:

CO₂e (kg) = diesel fuel (l) * transport fuel emission factor 2.715 (MfE 2023)⁸

There is good agreement between CO_2e estimated by applying the MfE factor to the modelled diesel use and CO_2e calculated by the model for bus exhaust emissions (Figure 3.2). Annual CO_2e calculated from modelled diesel use is approximately 1% higher than when calculated from modelled exhaust emissions.

Diesel fuel use calculated by the updated emissions model (2022) was lower than that calculated by the previous emissions model (eg, 18% lower in 2022/23) - although the trend is similar for both models. The difference in diesel fuel use calculated by the two models is attributed to the change in the method for tracking vehicle km which was previously based on PTBIS (Public Transport Business Information System). The current model uses the Real Time Information system (provided by Vix Technology) or Snapper trips to determine if a trip was run for in-service fixed-route services.

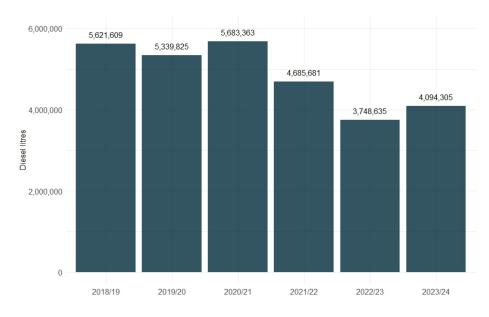


Figure 3.5: Bus fleet diesel fuel consumption (litres) by financial year

⁷ Ceelen, M. 2024. Greenhouse gas emissions inventory and management report. Greater Wellington Regional Council. https://www.gw.govt.nz/assets/Documents/2024/03/IMR_2223_Greater-Wellington-Regional-Council.pdf

⁸ The national transport fuel emission factor is from the Ministry for the Environment's Emission Factor Workbook https://environment.govt.nz/publications/measuring-emissions-a-guide-for-organisations-2023-detailed-guide/

The GW organisation footprint includes CO_2e from electricity generation used to charge electric bus batteries. CO_2e emissions for electric buses are calculated by:

- Estimating annual kilowatt-hours (kWh) by multiplying km travelled by electric buses by a conversion factor 1.075 supplied by MfE (Table 3.1).
- Converting kWh to CO₂e by the location-based method, ie, an emission factor calculated from all electricity delivered to the national grid in a year or quarter published by MfE (2024)⁹.

Table 3.1: Metlink bus fleet electric km (excluding rail replacement) and kWh by financial year

Financial year	Electric km	kWh
2018/19	162,231	174,398
2019/20	472,091	507,498
2020/21	463,908	498,701
2021/22	2,137,424	2,297,731
2022/23	4,173,703	4,486,731
2023/24	5,153,865	5,540,405

3.4 CO₂e emissions per km

3.4.1 Network-wide

This indicator tracks CO_2e g per km emitted in service each month as a measure of carbon use efficiency (Figure 3.6). CO_2e emissions per km reduced across the network from September 2021 as more distance was travelled by electric buses relative to diesel buses. In 2023/24 network CO_2e intensity was 580 g/km which is lower than the peak of 878 g/km in 2020/21. In 2023/24 CO_2e emissions per km declined slightly as distance travelled by electric buses increased marginally relative to the to the increase in distance travelled by diesel buses.

^{9:} Ministry for the Environment. 2024. Measuring emissions: A guide for organisations: 2024 detailed guide. Wellington: Ministry for the Environment. https://environment.govt.nz/assets/publications/Measuring-Emissions-2024/Measuring-emissions_Detailed-guide_2024_ME1829.pdf

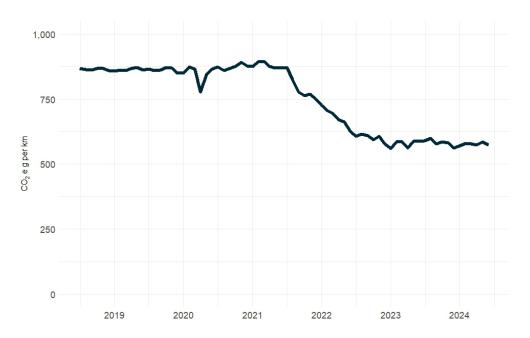


Figure 3.6. Bus fleet CO2e emissions (g per service km per month) (August 2018 to June 2024).

A useful measure for evaluating the carbon footprint of different travel options is CO_2e per passenger km. This indicator will be reported in future when more granular data on bus passenger occupancy is included in the bus emissions model.

3.4.2 Operators

This indicator shows CO₂e g per km emitted in service each month by bus fleet operator (Figure 3.7).

Services provided by Kenetic (formerly NZ Bus) became more carbon efficient from September 2021 when they added 51 electric buses to their fleet, replacing diesel service km with electric. Mana has improved carbon efficiency from July 2022 when they introduced the airport service which uses 10 electric buses.



Figure 3.7: Bus fleet CO2e emissions (kg per service km per month) by operator (August 2018 to June 2024)

3.5 CO₂e emissions by bus route

The Metlink target is for all core services to be electric by 2030. Core services are provided by routes 1, 2, 3, 7, 110, 120, 130, 220 and AX (Airport). The long-term trend in monthly total CO_2e emissions by core route (except for AX which is fully electric) is shown in Figure 3.8.

In 2023/24 core routes produced 31% of the total network CO_2e emissions. The top 10 emitting routes (which include six core routes) produced 44% of the total network CO_2e emissions (Table 3.2).

Route 2 (Miramar/Seatoun to Karori) has reduced CO_2e emissions from September 2021 when 51 new electric vehicles were introduced. In 2023/24 99% of distance travelled on Route 2 was electric making it the most carbon efficient route producing 8 g of CO_2e per km.

Route 1 (Island Bay to Johnsonville West/Churton Park) has reduced CO_2e emissions from late 2022 due to the introduction of 21 additional electric vehicles. In 2023/24 60% of distance was travelled by electric buses. Despite the relatively high electric km, Route 1 produces 5% of the network CO_2e due to the high number of km travelled.

Route 110 (Emerald Hill to Upper Hutt) has the largest contribution (8.6%) to network CO₂e emissions as it is a high km route with no electric service.

Route 52 (Newlands to Johnsonville) and **Route 25** (Khandallah to Wellington Aro Valley) have the highest CO_2e g/km of the top 10 emitting

routes. This is attributed to the steep road grade of the Ngauranga Gorge and Kaiwharawhara Gorge which increases diesel fuel consumption and associated emissions.

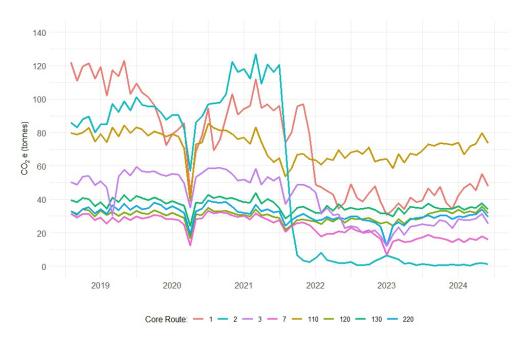


Figure 3.8: Core routes total CO2e (tonnes) per month (August 2018 to June 2024)

Table 3.2: Contribution by route to total network CO_2e in 2023/24. Top highest emitting routes are shown by rank 1 to 10. Total km does not include the additional 15% estimated for repositioning.

Route	Rank	Percent total network CO₂e	Total km	% electric km
110*	1	8.6%	1,011,182	0%
1*	2	5.3%	1,222,435	59.2%
83	3	4.5%	703,210	24.8%
130*	4	4.2%	576,229	0%
52	5	3.9%	388,598	0%
120*	6	3.8%	475,293	0%
24	7	3.8%	570,801	29.9%
220*	8	3.6%	442,740	0%
25	9	3.3%	314,613	0.1%
3*	10	3.2%	501,623	45.0%
7*	17	2.0%	269,129	37.4%
2*	66	0.1%	1,383,742	99.0%
AX*	207	0%	406,855	100%

^{*}core route

4. Harmful pollutant emissions indicators

Harmful emissions or air pollutants have adverse human health effects, these include:

- Particulate matter both particles smaller than 10 micrometres (PM₁₀) and those smaller than 2.5 micrometres (PM_{2.5}) which arises primarily from diesel fuel combustion, brake/tyre wear and road dust. Effects are mainly respiratory and cardiovascular, ranging from reduced lung function, more hospital admissions and reduced life expectancy.
- Nitrogen oxides (NOx), in particular nitrogen dioxide (NO₂) which are emitted from diesel and petrol fuel combustion – increases susceptibility to infections and asthma, reduces lung development in children and has been associated with reduced life expectancy.

A significant factor influencing harmful emissions from diesel buses is the European emission standard (Euro) that the vehicle was manufactured to meet. Overtime Euro emission limits for heavy vehicles have become more stringent (Figure 4.1). On-road testing shows that heavy-duty vehicles built to Euro IV and Euro V frequently do not meet their specified emission limits. However, Euro VI vehicles have delivered a step change in reducing NOx emissions compared to previous standards (Metcalfe & Kuschel, 2022)¹⁰.

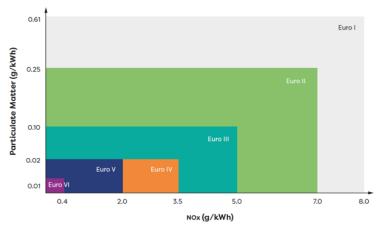


Figure 4.1: Development of European heavy-duty legislated emission limits. Source: https://www.aecc.eu/legislation/heavy-duty-vehicles/

In mid-2018 Metlink rolled out major changes to bus routes and replaced the oldest and most polluting buses with newer models manufactured to meet more stringent Euro emission limits. This fleet change resulted in a

¹⁰ Metcalfe J and Kuschel G (2022). Estimating the impacts of introducing Euro 6/VI vehicle emission standards for New Zealand. Report prepared by Emission Impossible Ltd for Te Manatū Waka Ministry of Transport, 4 July 2022. MoT-Euro-6-modelling-final-report-4-July.pdf (transport.govt.nz)

downward step change in modelled harmful emissions across the network (Mitchell & Clark, 2022)¹¹.

A breakdown of the fleet in-service kilometres (kms) by bus types in 2023/24 across the network shows a 27% of all kms were undertaken by electric buses (Figure 3.4). Although 5% of kms were travelled by Euro III buses, they produced 35% of the fleet modelled NOx emissions and 56% of $PM_{2.5}$ exhaust emissions.

4.1 Engine type emissions standards

A more detailed view of the trends in service km by engine type (Figure 4.2) shows that since September 2021 there's been fewer km by Euro III (red) and increased km by electric buses (green).

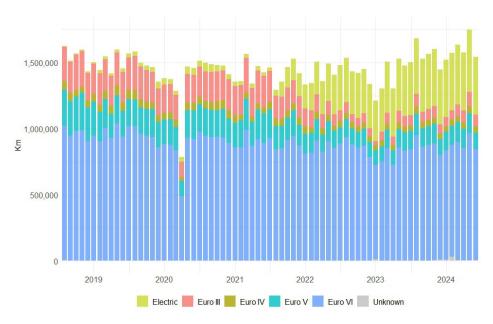


Figure 4.2: Bus fleet in-service km per month by engine type (August 2018 to June 2024)

4.2 Harmful pollutant emissions

4.2.1 PM_{2.5} emissions trend

Previously $PM_{2.5}$ emissions were only able to be reported for diesel exhaust. The updated bus emissions model (2022) now includes non-exhaust emission factors relating to brake and tyre wear which are produced by all vehicles including electric. Brake and tyre wear produce particles through mechanical abrasion. These particles contribute to road dust with the

[&]quot;Mitchell TA and Clark H. 2024. *Metlink bus fleet decarbonisation impacts on air quality. Wellington City Golden Mile 2022/23 update.* Greater Wellington Regional Council, Publication No. GW/KI-T-23-22. https://www.gw.govt.nz/assets/Documents/2024/05/Bus-fleet-decarbonisation-and-Golden-Mile-air-quality.pdf

smaller sized particles being re-suspended in air due to turbulence of passing vehicles. Currently the brake and tyre wear emission factors are the same for both electric and diesel buses and do not consider different braking systems. Brake and tyre wear emission factors are an ongoing area of international research and emission factors in the bus emissions model will be updated as the evidence base develops.

Across the network exhaust $PM_{2.5}$ is reducing as the proportion of electric bus km increases relative to diesel buses (Figure 4.3). Brake and tyre wear emissions are produced by all vehicles and depend on total network km. These non-exhaust emissions will not reduce with decarbonisation.

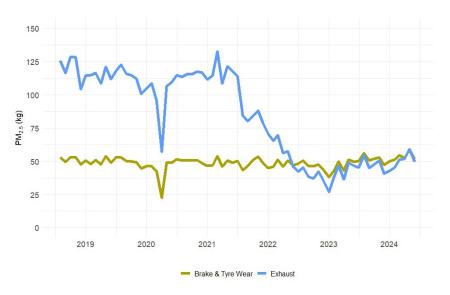


Figure 4.3: Bus fleet total $PM_{2.5}$ (kg) per month (August 2018 to June 2024)

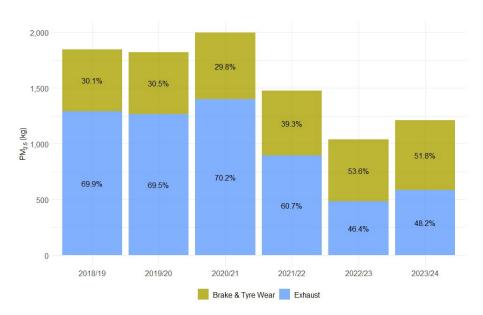


Figure 4.4: Bus fleet total PM_{2.5} (kg) emissions by financial year

4.2.2 NOx emissions trend

The trend in NOx emissions (Figure 4.5) is the same as the trend in $PM_{2.5}$ exhaust emissions and diesel fuel usage. Total NOx emissions by financial year are shown in Figure 4.6.

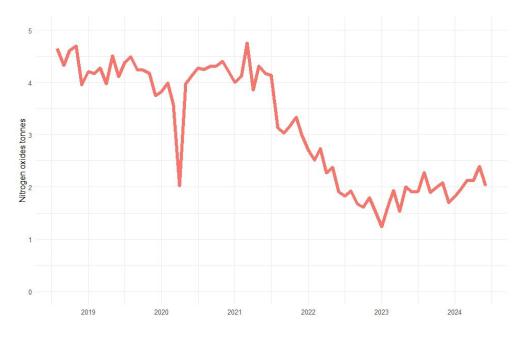


Figure 4.5: Bus fleet total NOx emissions (tonnes) per month (August 2018 to June 2024)

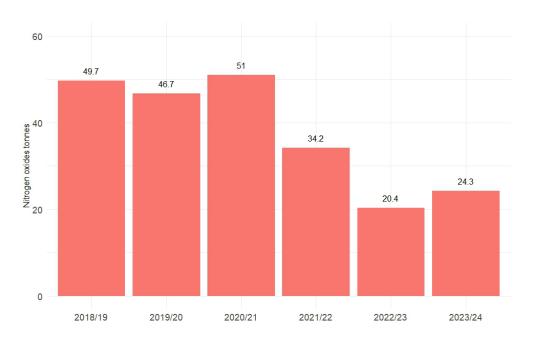


Figure 4.6: Bus fleet total NOx emissions (tonnes) by financial year.

5. Social costs of bus fleet emissions and noise

Transport emissions, either GHG or air pollutants, impact society though increased medications use, lost productivity through illness, increased hospitalisation, premature death and climate extremes.

The value to society of reducing GHG, harmful emissions and noise impacts from the bus fleet through decarbonisation was calculated for Metlink by Emission Impossible Ltd (EIL). GHG emissions were valued using the shadow price of carbon published by Treasury in their CBAx Tool¹². Air quality costs were calculated using 2021 damage costs published by NZTA Waka Kotahi Monetised Benefits and Costs Manual (MBCM)¹³ derived from the national Health and Air Pollution Study (Kuschel, 2022¹⁴). Noise was costed using values reported by the Victorian Transport Policy Institute (VTP 2020)¹⁵.

The total social cost of bus emissions in 2022/23 was estimated as \$26.1 million (in 2024 dollars). Most of these social costs are due to NOx emissions from diesel buses (Figure 5.1). For comparison the estimated social costs for NOx emissions from all land transport in our region in 2016 was estimated as \$755 million (Kuschel, 2022)16. Therefore, Metlink bus emissions are responsible for approximately 3% of the damage caused by NOx emissions from all vehicles in our region.

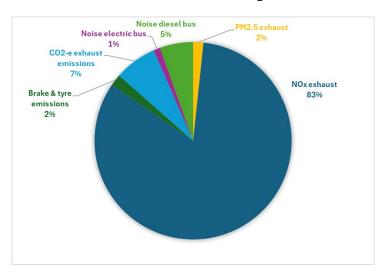


Figure 5.1: Relative contribution of bus fleet sources of emission and noise to total social costs estimated based on 2022/23 bus fleet data

¹² Treasury (2023) CBAx Spreadsheet Model | The Treasury New Zealand

¹³ https://www.nzta.govt.nz/assets/resources/monetised-benefits-and-costs-manual/Monetised-benefits-and-costs-manual.pdf

¹⁴ Health and air pollution in New Zealand 2016 (HAPINZ 3.0): Findings and implications | Ministry for the Environment

¹⁵ VTPI (2020). Transportation Cost and Benefit Analysis II – Noise Costs, Victorian Transport Policy Institute, Australia, 20 March 2020. Transportation Cost and Benefit Analysis - Noise Costs (vtpi.org).

16 Health and air pollution in New Zealand 2016 (HAPINZ 3.0); Findings and implications | Ministry for the Environment

6. Local air quality indicators

Levels of two harmful pollutants, black carbon (fine diesel soot particles) and NO_2 (nitrogen dioxide), were monitored beside a bus-only lane on Manners Street in Wellington city to track impacts of bus fleet electrification on air quality along the Golden Mile.

- Black carbon is released from incomplete fuel combustion and makes up most of the PM_{2.5} in diesel exhaust. Black carbon is a strong marker for diesel particulate. Euro III buses are high emitters of black carbon compared to the Euro IV and newer models that are required to be fitted with diesel particulate exhaust filters. However, the emissions performance of buses on the road varies depending on maintenance and driving conditions.
- Nitrogen dioxide (NO₂) is formed when NOx exhaust emissions emitted from diesel and petrol fuel combustion are oxidised in air. Although regulated Euro emission limits for NOx have been reducing, they have not achieved the world reductions expected. The exception is Euro VI in which real-world test cycles show the stringent NOx emission limit is largely met (Metcalfe and Kuschel 2022)¹⁷.

More information on the air quality monitoring project is available in a separate report (Mitchell & Clark, 2024)¹⁰.

6.1 Changes in Manners Street bus fleet emissions profile

Since the introduction of new fleets and routes in July 2018 the bus fleet profile traversing Manners Street on Wellington's Golden Mile has improved (Figure 6.1) as diesel buses are replaced by electric. From 2021/22 the progressive electrification of routes 1, 2, 3, 83 and Airport (AX) has reduced the number of diesel buses that travel through Golden Mile.

¹⁷ Metcalfe J and Kuschel G (2022). Estimating the impacts of introducing Euro 6/VI vehicle emission standards for New Zealand. Report prepared by Emission Impossible Ltd for Te Manatū Waka Ministry of Transport, 4 July 2022. MoT-Euro-6-modelling-final-report-4-July.pdf (transport.govt.nz)

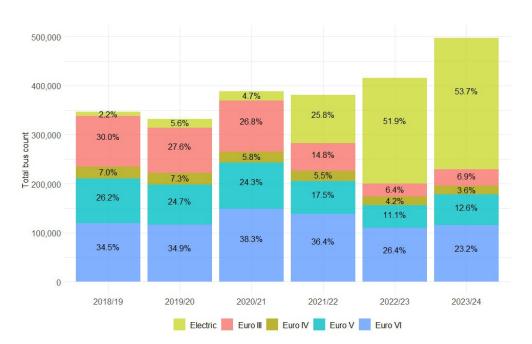


Figure 6.1: Total bus count by engine type and financial year sighted for stop 5006 on Manners Street (northbound) and Willis Street stop 5510

6.2 Diesel particulate (black carbon) trend

Black carbon has been monitored at the Manners Street bus stop since July 2020 (Figure 6.2). Since monitoring began, diesel particulate levels on Manners Street have declined sharply (Figure 6.3). In contrast, levels of diesel particulate from general traffic measured near the Urban Motorway have decreased at a much lower rate (Figure 6.3).

Annual average black carbon was 42% lower in 2023/24 than in 2021/22 when the fleet profile was 95% diesel.

Black carbon levels were slightly higher in 2023/24 than in 2022/23 reflecting the increase in the number of diesel buses (Figure 6.1).



Figure 6.2: Monitoring site at bus stop 5006 on Manners Street northbound lane (Lat -41.28967, Lon 174.7750)

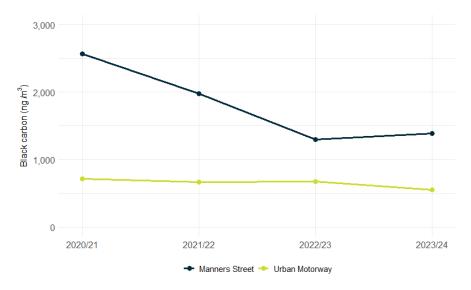


Figure 6.3: Average black carbon (ng/m³) by financial year monitored on Manners Street bus only lane and near the Urban Motorway

6.3 Nitrogen dioxide (NO₂) trend

Nitrogen dioxide has been measured in Manners Street since July 2016 and at the Manners Street bus stop next to the black carbon monitor since July 2020 using passive diffusion tubes (Figure 6.4).

Data is not yet available for the 2023/24 financial year as the monitoring tubes are analysed in the United Kingdom resulting in a 3–4-month delay before results are received.

 NO_2 levels on Manners have reduced significantly over the seven-year monitoring period (2016/17 to 2022/23) following the introduction of the new bus fleet and routes in July 2018 (Figure 6.5).

There was a small NO_2 reduction in 2019/20 due to the impact of COVID-19 travel restrictions followed by a larger reduction between 2020/21 and 2022/23 as electric buses replaced diesel buses along Manners Street.

From 2017/18 to 2020/21 NO_2 concentrations on Manners Street were approximately double the concentrations measured by the Urban Motorway monitoring site. However, in 2022/23 NO_2 concentrations at Manners Street had reduced to 1.4 times higher than Wellington Central in 2022/23.

In 2022/23 all Golden Mile tube sites (Manners Street, Courtney Place and Lambton Quay) recorded similar NO_2 concentrations, indicating the diminishing impact of bus emissions on air quality relative to other traffic, as the fleet is electrified.



Figure 6.4: Location of air monitoring sites



Figure 6.5: Average NO_2 (µg/m³) by financial year monitored on Manners Street bus only lane and near the Urban Motorway

7. Emissions calculation method

Emissions modelling

Bus fleet emissions are modelled using a detailed bottom-up approach that estimates emissions for greenhouse gases and harmful pollutants. The overall method is consistent with a Tier 3 assessment method as described in IPCC18 and EEA19 guidance. The GW Bus Emissions Model was developed by Emission Impossible Ltd (EIL) and uses COPERT20 emissions factors which are the best available as they are intended to represent real-world performance as opposed to regulatory emission limits.

Briefly, the following assumptions have been used in this report:

- Km for unsighted trips that ran have been included based on scheduled km for all non-cancelled trips.
- To account for fuel used during bus repositioning (dead running) whilst not in service, 15% was added to the calculated emissions totals.
- Vehicle loading is fixed at 50% of maximum passenger loading.
- CO_2 e emissions for electricity used to charge bus electric batteries are not calculated in the model.

Model development and reporting

The GW Bus Emissions Model was developed in 2016 by EIL to evaluate the emissions associated with tenders for new bus fleet and routes. This model was updated in 2019 and used in-house for corporate GHG reporting from 2018/19 to 2022/23 and for bus emissions environmental reporting for the period 4/1/2017 to 30/6/2022 (Mitchell & Clark, 2022)⁴. This model version was called EMMA (Emissions Modelling, Monitoring and Analysis)

The Bus Emissions Model (underpinning EMMA) was updated in 2022 by EIL to be consistent with the methodology and assumptions for calculating emission factors in the national Vehicle Emission Prediction Model (VEPM)²¹. The 2022 model version was implemented on Metlink's new cloud-based business data analytics and reporting system (netBI). This model version is called the Bus Emissions Cube.

This report is based on the Bus Emissions Cube with emissions data back cast to 1 August 2018. There are some differences in emissions calculated by EMMA compared to the Bus Emissions Cube, although the trends are generally consistent. The differences between these two models are attributed to updated emission factors, new parameters in the Bus Emissions Cube (eg, road gradient) and differences in the way bus trips are

¹⁸ IPCC 2019. 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Calvo Buendia, E., Tanabe, K., Kranjc, A., Baasansuren, J., Fukuda, M., Ngarize, S., Osako, A., Pyrozhenko, Y., Shermanau, P. and Federici, S. (eds). Published: IPCC, Switzerland

¹⁹ EEA 2023. Air pollutant emission inventory guidebook 2023 1.A.3.bi-iv Road Transport

 $^{^{\}rm 20}$ European Computer Model to Calculate Emissions from Road Transport

tracked. The method for tracking vehicle km was previously based on PTBIS (Public Transport Business Information System) which was retired in May 2023. The Bus Emissions Cube uses the Real Time Information system (provided by Vix Technology) or Snapper trips to determine if a trip was run for in-service fixed-route services.

Future changes to the Bus Emissions Cube

Like EMMA the Bus Emissions Cube only tracks mileage and calculates emissions for buses at the start and end of an in-service trip. Therefore, for consistency with previous reporting 15% has been added to emissions totals to account for emissions produced while buses move between depots and reposition at the end or start of a trip (dead running).

From mid-2024 buses will be fitted with new telematics which will improve the accuracy of calculating distances and speeds as well as allowing more buses to be sighted. This will also allow out-of-service kms to be tracked so that more accurate estimates of emissions from dead running can be reported and allow real-world fuel use validation. This will improve the accuracy of of bus km tracking for future reporting.

A further improvement to the model will be to have more granular parameters for passenger occupancy which can be matched to patronage data so that emissions per passenger km can be calculated.

Transport Committee 19 September 2024 Report 24.452



PUBLIC TRANSPORT PERFORMANCE UPDATE – SEPTEMBER 2024

For Information

Te take mō te pūrongo Purpose

1. To update the Transport Committee (the Committee) on the current performance of the public transport network.

Te horopaki Context

- 2. Since the introduction of the Public Transport Operating Model (PTOM) bus partnering contracts in July 2018, Metlink has had access to information that helps us to better appreciate and understand the performance of our public transport network.
- 3. Monthly operational performance reports were developed in early 2019; drawing on available information to provide performance reporting at the level provided in other authorities.
- 4. Monthly performance reports are published on the Metlink website to enable the public to easily access this information.
- 5. Over time, Metlink has amended the content of these operational reports to respond to requests from members and to make improvements/changes identified by officers.
- 6. At recent meetings, members of the Committee have requested that the information provided in these performance reports be reviewed and amended to ensure that the information is reported on in the most useful and meaningful way possible.
- 7. Metlink met with relevant Committee members to better understand the performance outcome reporting Councillors would like to see and what performance data Metlink has to facilitate that requirement. It was agreed to include in reporting:
 - a driver numbers
 - b note on graphs the reasons for major spikes in performance
 - c add a quarterly report on Health, Safety and Wellbeing
 - d add 'target' patronage on the 12-month rolling graph

- e show suspended trips along with cancelled trips
- f accessibility
- g bus capacity
- h emissions/decarbonisation.
- 8. The performance reports incorporate the following requested changes:
 - a 2018/19 patronage line added to 'all modes' graph
 - b brief comments added on graphs for reliability and punctuality
 - c added suspended services to the bus cancellations graph
 - d section added on driver numbers
 - e bus emissions/ decarbonisation
 - f explanation of what is included under 'Other' in the complaints section.
- 9. A Health, Safety and Wellbeing update is included in this report.
- 10. Information relating to Metlink social media is included in this report.
- 11. Metlink expects to be able to provide the Committee with further changes over the next few months as data required for the additional sections is sourced and collated.
- 12. Performance information is published on the Metlink website.¹ Patronage graphs are updated weekly, punctuality and reliability graphs are updated fortnightly, and other metrics are updated and published to this page monthly.
- 13. Attachment 1 contains an overview (including commentary) of the key results in Metlink's monthly performance report for July 2024. The performance report for August was not available at the timing of writing this report; if available, the August performance report will be tabled at the meeting.
- 14. Metlink looks forward to continuing to strengthen our access to data, insight, expertise, and capability.

Te tātaritanga Analysis

Bus performance - July 2024

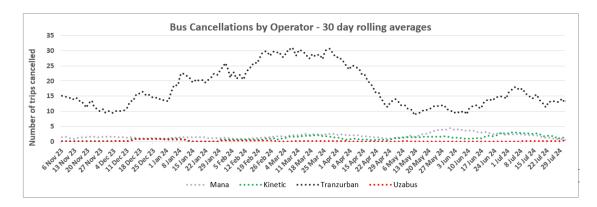
Patronage

15. Bus passenger boardings for July 2024 were 2.25 million, this compares to boardings of 2.25 million in July 2019 (pre-COVID-19). Patronage for the year to date is at 99.7% of pre-COVID-19 levels.

Reliability

https://www.metlink.org.nz/about-us/performance-of-our-network

- 16. The reliability metric is a measure of services deemed to have run. The daily reliability target for our bus services is 98%.
- 17. Reliability for July 2024 was 99.5% compared to June 2024 which was 99.4%. Reliability this month continues to reflect stabilising driver numbers and retention rates.
- 18. The graph below provides information on cancellation trends by operator.



19. Bus Operators are achieving the required performance levels for reliability. Metlink continues to monitor bus driver recruitment levels and recruitment plans. Currently no issues of concern with recruitment or retention.

Punctuality

- 20. The punctuality metric is a measure of services departing from origin, leaving between one minute early and five minutes late.
- 21. The punctuality target for our bus services is 95%.
- 22. Bus service punctuality was 95.2% in July 2024, compared to 93.8% in June 2024. Punctuality this month continues to reflect traffic congestion in the usual places in Wellington City, including continuing disruption on Thorndon Quay and at Island Bay.

Rail performance - July 2024

Patronage

23. Rail passenger boardings for July 2024 were 0.96 million, this compares to boardings of 1.30 million in July 2019 (pre-COVID-19). Patronage for the year to date is at 73.8% of pre-COVID-19 levels, which may indicate changed travel behaviour.

Reliability

- 24. The rail reliability measure shows the percentage of scheduled services that depart from origin and key stations no earlier than 30 seconds before the scheduled time, meet the consist size for the scheduled service, and stop at all stations timetabled for the service.
- 25. The rail reliability target is 99.5%.

- 26. Rail service reliability was 97.8% in July 2024, compared to 97.9% in June 2024.
- 27. Reliability was affected by the issues at the seawall near Porirua, resulting in services being terminated early to enable services to return to the timetable. Icy conditions also affected services on the Hutt Valley line and 0.3% of services were affect by mechanical issues.
- 28. Staff absence through sickness impacts reliability as there are agreed staffing levels to operate services. When a staff member is not available on a rostered shift and a replacement cannot be found, service levels are impacted. Staff absence through sickness accounted for 0.6% of the reliability failures in July 2024.

Punctuality

- 29. The rail punctuality measure records the percentage of services arriving at key interchange stations and final destination within five minutes of the scheduled time.
- 30. The rail punctuality target is 90%.
- 31. Punctuality for July 2024 was 87.0% compared to 82.0% in June 2024.
- 32. Punctuality continues to be impacted by a high level of speed restrictions across the network, in particular on the Kāpiti and Wairarapa Lines. Speed restrictions are put in place to help keep everyone safe while KiwiRail works on the line are completed or bedded in.

Bus replacements

- 33. In July 2024, 17.8% of rail services were replaced by buses (planned and unplanned):
 - a 16.8% of the rail services that were replaced by buses were planned.
 - b 1.0% of the rail services that were replaced by buses were unplanned.
- 34. Of the 16.8% of planned rail services that were replaced by buses, 74% were awarded to Metlink bus operators (Tranzurban, Kinetic and Mana); the remainder were awarded to NCS buses, which meet Metlink's preferred fleet requirements (bike racks, accessible, and electronic ticketing).
- 35. Planned bus replacements are used to allow upgrade works across the rail network to continue on a regular basis.

Upcoming Blocks of Line (planned bus replacements)

36. Information on upcoming planned Blocks of Line covering the period September 2024 to October 2024 is attached as Attachment 2 to this report. Note this information is subject to change (for example, late notice essential works). The most up-to-date information is available on our website: https://www.metlink.org.nz/news-and-updates/buses-replacing-trains/.

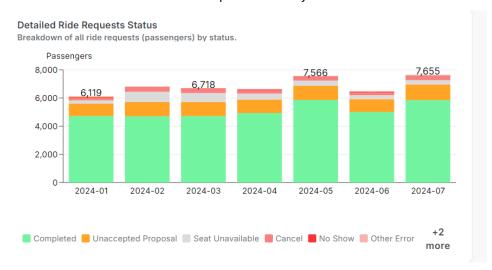
Ferry performance - July 2024

37. Ferry services have operated according to their reduced timetable; trips to Matiu / Somes Island are not operating as the island is closed for six to eight months (from February 2024) for wharf improvements.

38. Boardings were 66.7% of July 2019 numbers (pre COVID-19).

Tawa Public Transport On Demand Trial - patronage

39. Tawa on Demand Trial passenger boardings for July 2024 were 5,854. There has been steady increase in demand over the year with 35,825 completed rides in 2024. This is an increase of 8,507 passengers on the same period in 2023. The graph below shows total demand and completed rides by month for 2024.



- 40. In the period since the commencement of the Tawa on Demand Trial on 16 May 2022 to 31 July 2024, there have been 104,414 completed rides and 3,045 unique riders have used the service.
- 41. The Tawa on Demand Trial expanded to the Porirua City centre on 6 November 2023; since the expansion on a rolling quarter average ridership has increased by 16%.
- 42. The average monthly patronage in the eight months since the expansion is 5,311, compared to the average monthly patronage for the same period in the previous year at 4,226 (like for like, excluding Sundays).
- 43. Sunday services for this trial started on 10 December 2023. There have been 1874 completed rides on a Sunday compared to 4,145 for the same period on a Saturday.
- 44. The gross costs for the current financial year (2024/25) are \$101,000 This is in line with budget.
- 45. The forecast total cost to the end of the pilot on 31 December 2024 is within the \$2.9 million budget, and in line with forecast costs when Council approved the extension (report 23.229 Public Transport On-demand Trial Review refers).

Fare revenue

46. In July 2024, there was a budget shortfall of \$586,000 for the month across bus and rail services.

- 47. The fare revenue budget shortfall is due to there being school and public holidays during the month and the budget being phased evenly during the year. This is expected to recover as the year progresses as patronage is improving.
- 48. The budget does not include ferry fare revenue as harbour ferry services operate under a different (net) PTOM contract. Unlike the bus and rail operators, the ferry operator has revenue responsibility for its Metlink harbour ferry services.

Warranted Transport Officer activity – July

- 49. Metlink's Warranted Transport Officers undertook 1,731 payment validations onboard rail services in July 2024.
- 50. Payment validations of Metlink bus services fares are based on observations customers who are requesting free fares from drivers and/or passengers who are using an incorrect card are engaged in a conversation and details collected. We continue working with drivers and passengers to remind them of the tickets to be issued for all non-snapper trips, including fares which do not incur a charge to the customer.
- 51. In July 2024, no infringement notices were issued by Warranted Transport Officers.
- 52. The table below reports on the number of times Warranted Transport Officers have sought customer details in relation to their non-payment of the correct fare in the July 2024 period.

Mode		Rail - KPL	Rail - JVL	Rail - MEL	Rail - WRL	Bus	Ferry	TOTAL
Details sought	15	7	0	0	1	2	0	25

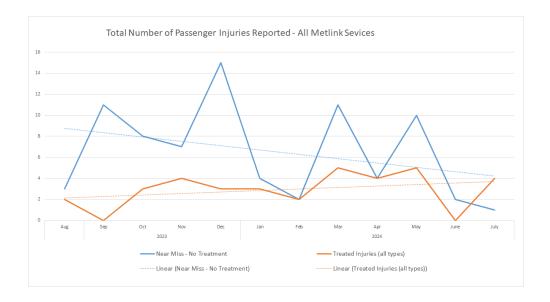
Health, Safety and Wellbeing

Metlink involvement in national safety campaigns

53. Metlink was a partner in Rail Safety Week 2024, which ran from 5 to 11 August 2024, actively supporting and participating in initiatives across the Wellington region rail network. Rail Safety Week 2024 has a particular focus on level crossing safety.

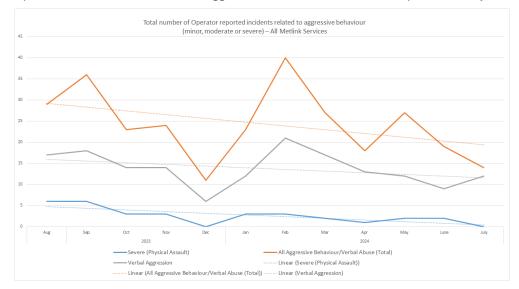
Passenger injuries

- 54. The graph below shows that the incidence of reported 'near miss incidents' involving passengers has trended down since August 2023.
- 55. The graph below shows that the number of 'minor and moderate passenger injuries' has been increasing. The spike in July includes three events where a passenger suffered a medical event while travelling on the service. It is pleasing to see that again operators were able to quickly contact emergency services and get help to those involved.
- Near miss incidents are those where no treatment is required as a result of the incident
- ³ Minor and moderate passenger injuries are those that require first aid or some further treatment



Aggressive behaviour or verbal abuse

56. The graph below shows the continuing gradual decrease in overall reporting by operators of passenger-related aggressive behaviour since August 2023. Verbal abuse directed toward operators continues to be the common abuse event type reported. There were no serious aggressive or abusive incidents reported in July.



Social media – July

- 57. Social media is a key means for Metlink to reach its customers. Metlink's Facebook page is used to provide customer communications.
- 58. The table below sets out information relating to Metlink social media for the July period:

Followers	New followers	Total reach	Content interactions	Engagement rate	Total posts
13,818	18	370,419	758	0.1%	6

59. Officers will report on this information each month to illustrate performance over time.

Ngā āpitihanga Attachments

Number	Title
1	Metlink performance report – July 2024
2	Upcoming Planned Rail Replacements – September 2024 to October 2024

Ngā kaiwaitohu Signatories

Writers	Matthew Lear – Manager Network Operations			
	Andrew Myers – Manager Customer Insights & Assets			
Approvers	Fiona Abbott – Senior Manager Assets and Infrastructure			
	Matthew Chote – Senior Manager Operations and Partnerships (Acting)			
	Samantha Gain – Kaiwhakahaere Matua Waka-ā-atea Group Manager Metlink			

He whakarāpopoto i ngā huritaonga Summary of considerations

Fit with Council's roles or with Committee's terms of reference

The Committee has the specific responsibility to review performance trends related to public transport and transport demand management activities as set out in the Committee's Terms of Reference.

Contribution to Annual Plan / Long Term Plan / Other key strategies and policies

Certain performance measures in the 2024-34 Long-Term Plan relate to matters reported on in the operational performance report.

Internal consultation

No other departments were consulted in preparing this report.

Risks and impacts - legal / health and safety etc.

There are no risks arising from this report.



Performance report

July 2024









Contents

Partner Performance	3
Bus operators	3
Ferry operator	6
Rail operator	7
Rail network owner	g
Operational Performance	12
Patronage	12
Bus emissions	16
Customer Contact	17
Complaints	17
Financial Performance	20
Fare revenue	20

Partner Performance

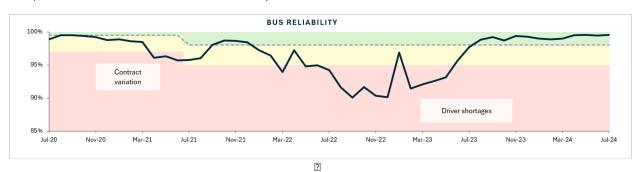


Bus operators

Reliability

 $The \ bus \ reliability \ measure \ shows \ the \ percentage \ of \ scheduled \ services \ that \ ran, \ as \ tracked \ by \ RTI \ and \ Snapper \ systems.$

In July, 99.5% of bus services were delivered. Reliability this month continues to reflect stable driver numbers and retention rates.



Reliability - current month

	Jul-24	Jul-23	Change
Wellington City			
Newlands & Tawa	99.4%	99.4%	0.1%
East, West & City	99.8%	99.7%	0.1%
North, South, Khandallah & Brooklyn	98.9%	94.9%	4.0%
Hutt Valley	99.8%	98.8%	1.0%
Porirua	99.2%	94.4%	4.8%
Kapiti	99.8%	96.1%	3.8%
Wairarapa	99.7%	97.3%	2.4%
Total	99.5%	97.7%	1.8%

Reliability - year to date (Jul - July)

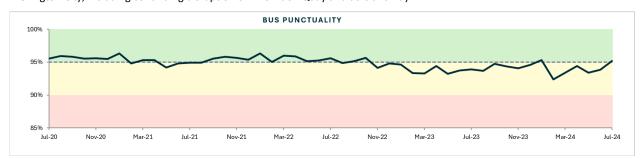
	2024/25	2023/24	Change
Wellington City			
Newlands & Tawa	99.4%	99.4%	0.0%
East, West & City	99.8%	99.7%	0.1%
North, South, Khandallah & Brooklyn	98.9%	94.9%	4.0%
Hutt Valley	99.8%	98.8%	1.0%
Porirua	99.2%	94.4%	4.8%
Kapiti	99.8%	96.1%	3.7%
Wairarapa	99.7%	97.3%	2.4%
Total	99.5%	97.7%	1.8%



Punctuality

We measure bus punctuality by recording the bus departure from origin, leaving between one minute early and five minutes late.

Bus service punctuality was 95.2% in July. Punctuality this month continues to reflect traffic congestion in the usual places in Wellington City, including continuing disruption on Thorndon Quay and at Island Bay.



Punctuality - current month

	Jul-24	Jul-23	Change
Wellington City			
Newlands & Tawa	96.6%	95.2%	1.4%
East, West & City	95.6%	95.5%	0.1%
North, South, Khandallah & Brooklyn	93.5%	88.8%	4.7%
Hutt Valley	94.9%	95.2%	-0.3%
Porirua	97.1%	94.8%	2.3%
Kapiti	95.3%	94.7%	0.7%
Wairarapa	93.7%	90.6%	3.1%
Total	95.2%	93.9%	1.3%

Punctuality - year to date (Jul - July)

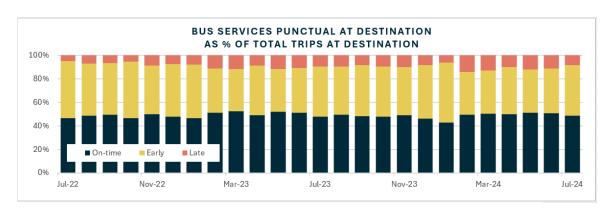
	2024/25	2023/24	Change
Wellington City			
Newlands & Tawa	96.6%	95.2%	1.4%
East, West & City	95.6%	95.5%	0.1%
North, South, Khandallah & Brooklyn	93.5%	88.8%	4.7%
Hutt Valley	94.9%	95.2%	-0.3%
Porirua	97.1%	94.8%	2.3%
Kapiti	95.3%	94.7%	0.6%
Wairarapa	93.7%	90.6%	3.1%
Total	95.2%	93.9%	1.3%

Punctuality at destination

Bus punctuality at destination is not a contractual measure and is included here at the request of our auditors. We have used the same criteria as for punctuality at origin as a proxy, recording the bus arrival at destination between one minute early and five minutes late.

We have little influence over punctuality once a bus has departed from the origin stop, with factors such as traffic, passenger volumes and behaviour, weather events, accidents and roadworks all affecting the punctuality of services.

In July, 48.8% of bus services recorded at destination arrived on time, with a further 43.1% arriving more than one minute early, while 8.1% of services arrived more than five minutes late.



Punctuality at destination - current month

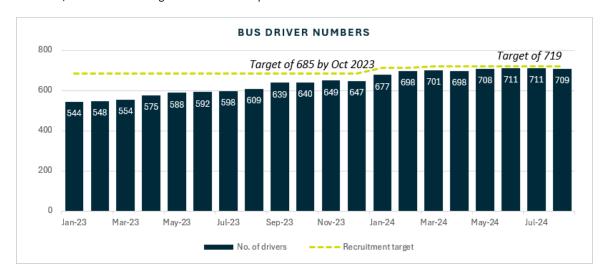
	Jul-24	Jul-23	Change
On-time	48.8%	47.9%	1.0%
Early	43.1%	42.9%	0.2%
Late	8.1%	9.3%	-1.2%

Punctuality at destination - year to date (Jul - Jul

	2024/25	2023/24	Change
On-time	48.7%	47.9%	0.9%
Early	41.4%	42.9%	-1.5%
Late	9.9%	9.3%	0.7%

Bus driver numbers

The graph below shows monthly total numbers of bus drivers against the original recruitment target of having 685 drivers by October 2023, and the current target of 719 drivers required to run the network.

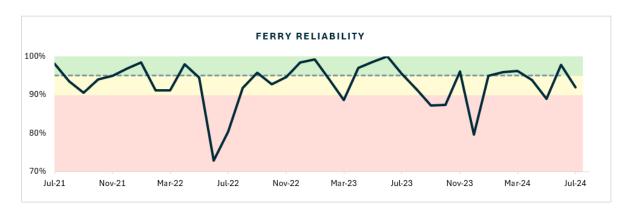




Reliability

Ferry reliability is a measure of the number of scheduled services that ran.

Reliability for July was 92.0%, compared to 95.5% for the same month last year. There were 72 trips cancelled this month – 56 of these cancellations were weather related, and the remaining 16 cancellations were attributed to vessel maintenance and staff sickness.

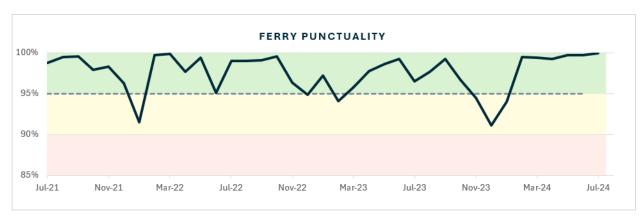


Reliability - current month					
	Jul-24	Jul-23	% Change		
Total	92.0%	95.5%	-3.5%		

Punctuality

Ferry punctuality is a measure of ferries leaving the origin wharf no earlier than 4 minutes 59 seconds before schedule.

Punctuality for July was 100.0%, compared to 96.5% for the same month last year.



Punctuality - current month					
Jul-24 Jul-23 % Change					
Total	100.0%	96.5%	3.5%		

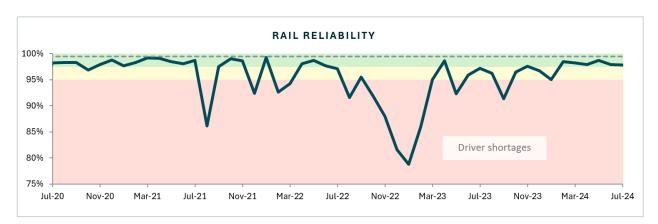


Reliability

The rail reliability measure shows the percentage of scheduled services that depart from origin and key stations no earlier than 30 seconds before the scheduled time, meet the consist size for the scheduled service, and stop at all stations timetabled for the service.

Rail service reliability was 97.8% in July, and 97.2% for this month last year.

The speed restrictions around the Porirua seawall erosion continued to impact the journey time for KPL services throughout July. This resulted in early termination of services and brought down the line's overall performance. Although early for the season, ice on the overhead prevented trains from getting traction power on 8 and 10 July on the HVL. 0.6% of services were affected by staff sickness. Mechanical issues accounted for 0.3%.



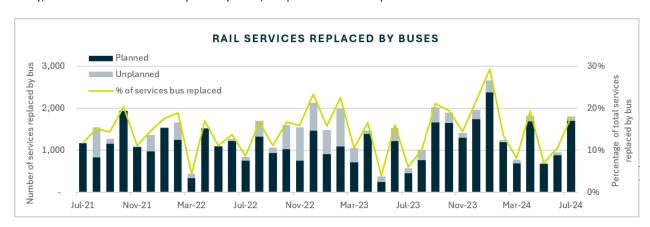
Reliability - current month

	Jul-24	Jul-23	Change
Hutt Valley	98.1%	98.2%	-0.1%
Johnsonville	98.4%	96.0%	2.4%
Kapiti	97.5%	97.8%	-0.3%
Wairarapa	88.9%	96.4%	-7.5%
Total	97.8%	97.2%	0.6%

Reliability - year to date (Jul - July)

	2024/25	2023/24	Change
Hutt Valley	98.1%	98.2%	-0.1%
Johnsonville	98.4%	96.0%	2.4%
Kapiti	97.5%	97.8%	-0.3%
Wairarapa	88.9%	96.4%	-7.5%
Total	97.8%	97.2%	0.6%

In July, 17.8% of rail services were replaced by buses, compared to 10.6% the previous month.



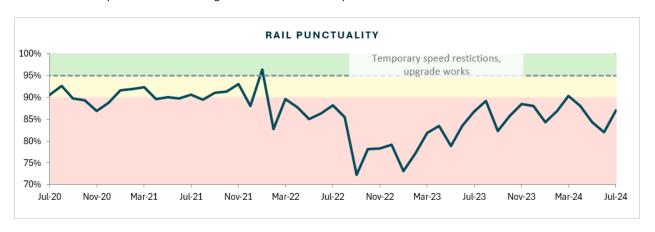


Punctuality

The rail punctuality measure records the percentage of services arriving at key interchange stations and at the final destination within five minutes of the scheduled time.

Punctuality for July was 87.0%.

Punctuality continues to be impacted by a high level of speed restrictions across the network, in particular on the KPL and WRL lines. The speed restrictions around the Porirua seawall erosion continued to impact the journey time for KPL services through July, this resulted in delays of services and brought down the line's overall performance.



Punctuality - current month

	Jul-24	Jul-23	Change
Hutt Valley	91.9%	88.4%	3.5%
Johnsonville	97.6%	88.8%	8.8%
Kapiti	78.4%	88.2%	-9.8%
Wairarapa	14.6%	27.9%	-13.3%
Total	87.0%	86.8%	0.2%

Punctuality - year to date (Jul - July)

	2024/25	2023/24	Change
Hutt Valley	91.9%	88.4%	3.5%
Johnsonville	97.6%	88.8%	8.8%
Kapiti	78.4%	88.2%	-9.8%
Wairarapa	14.6%	27.9%	-13.3%
Total	87.0%	86.8%	0.2%

Rail network owner

Commentary

This commentary summarises the performance of the rail network, owned and operated by KiwiRail. The Key Performance Indicator (KPI) results below are for Wellington Network Services only and represent the measures in the contract. The following delays are not counted in the network owner's KPI results:

- Network Temporary Speed Restrictions (TSR) relating to work being addressed by the Wellington Metro Upgrade
 Programme (WMUP). If this were included, the impact on performance measures would be significantly lower.
- Metro Rail Services Operator (Transdev) initiated delays.
- Events caused by third parties other than KiwiRail, which cause delays on the rail network.
- 'Force Majeure' events such as weather induced issues that can cause delays; this includes all delays associated with slope instability and weather warning events.

Therefore, the results do not mirror the customer experience of the punctuality and reliability of the rail network.

Rail network punctuality in July was 99.35%, this decreased slightly from June which was 1.75%. Rail network reliability in July was 99.55%, this increased slightly from June which was 0.26%.

Rail network punctuality and reliability was impacted by the following events in July:

- The main disruptions which affected performance in July were a SPAD B at Ngauranga and a damaged Train stop at Taita.
- On 10 July a SPAD occurred at 460 Signal at Ngauranga. This was initially treated as a SPAD A with the driver being relieved, 3 services cancelled, and 6 services bus replaced. It was later reclassified as a SPAD B by after an investigation by Network Control.
- On 17 July a contractor's digger damaged a train stop at Taita during an Interpeak BOL. Signals Technicians were called out to replace with a new MK5 train stop. This led to and additional 9 services being replaced by bus after a late hand back of the line while repairs were carried out.
- TSRs on the NIMT continue to impact performance with the Kapiti Line being over KPI throughout July. Two TSRs on the Seawall Erosion sites between Porirua and Paremata are due to lift towards the end of August. Work has been completed and is now awaiting inspection from Engineering consultants before normal line speed can be reinstated.

KPI summary

Network Availability

There were no unplanned line closures on all lines for the month of July.

Maintenance Compliance

Maintenance is 100% compliant across both Track and STTE.

Maintenance Backlog

One Signals work order is outstanding. This is for the Level Crossing Alarm at Ngamutawa Road in Masterton, it is in plan status and is currently with Signals Engineering for design.

Health & safety

HSE

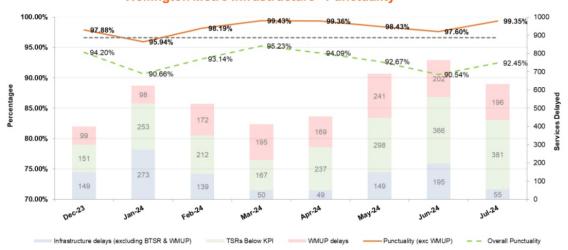
July had 31 Harm Free Days

NB: Green dotted line indicates performance of the network with WMUP delays included. Highlight with a red arrow.

Rail network performance Graphs

Punctuality All services 99.35%

Wellington Metro Infrastructure - Punctuality

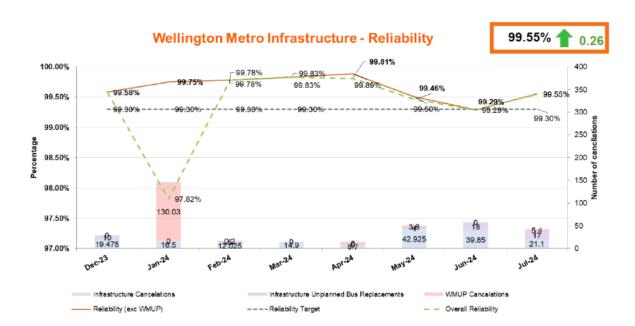


Peak services 92.82%

Wellington Metro Infrastructure - Punctuality (Peak)

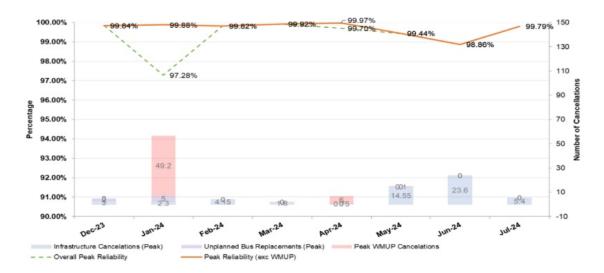


Reliability
All services 99.55%



Peak services 99.79%

Wellington Metro Infrastructure-Reliability (Peak)



Operational Performance

Patronage

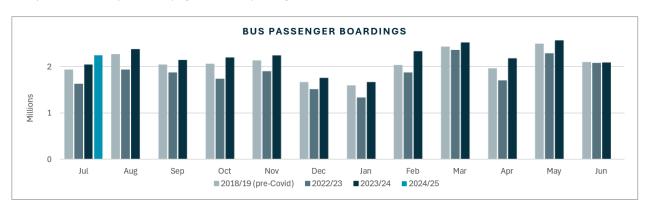
There are two ways to report on patronage - passenger boardings and passenger journeys. We calculate passenger journeys by subtracting recorded transfers (movements from one vehicle to another within 30 minutes) from passenger boardings. Metlink generally reports passenger boardings given the lack of visibility on transfers between modes and on rail and ferry services.

In July 2024, we saw increased passenger boardings when compared to the same month last year.

Bus passenger boardings

July bus passenger boardings were 9.8% higher than the same month last year, and 9.8% higher for the year to date. Boardings this month were 15.7% higher than July 2019 numbers (pre-Covid).

In July, 101,900 bus trips ran, carrying 2.25 million passengers.



Boardings by area - current month

	Jul-24	Jul-23	% Change
Wellington	1,685,635	1,552,801	8.6%
Hutt Valley	408,836	365,324	11.9%
Porirua	83,705	66,084	26.7%
Kapiti	53,237	47,231	12.7%
Wairarapa	13,089	12,083	8.3%
Total	2,244,502	2,043,523	9.8%

Boardings by area - year to date (Jul - July)

	2024/25	2023/24	% Change
Wellington	1,685,635	1,552,801	8.6%
Hutt Valley	408,836	365,324	11.9%
Porirua	83,705	66,084	26.7%
Kapiti	53,237	47,231	12.7%
Wairarapa	13,089	12,083	8.3%
Total	2,244,502	2,043,523	9.8%

Rail passenger boardings

July rail passenger boardings were 6.8% lower than the same month last year, and 6.8% lower than the year to date. Boardings this month were 26.2% lower than July 2019 numbers (pre-Covid).

In July, there were 10,119 rail trips run, carrying 960 thousand passengers.



Boardings by line - current month

	Jul-24	Jul-23	% Change
Hutt Valley	418,662	445,724	-6.1%
Kapiti	391,271	415,879	-5.9%
Johnsonville	96,580	115,328	-16.3%
Wairarapa	53,169	53,169	0.0%
Total	959,682	1,030,100	-6.8%

Boardings by line - year to date (Jul - July)

	2024/25	2023/24	% Change
Hutt Valley	418,662	445,724	-6.1%
Kapiti	391,271	415,879	-5.9%
Johnsonville	96,580	115,328	-16.3%
Wairarapa	53,169	53,169	0.0%
Total	959,682	1,030,100	-6.8%

Ferry passenger boardings

Ferry boardings show a decrease of 38.1% on the same month last year. Boarding is often affected by weather. Services to Matiu/Somes Island have been suspended for 6-8 months from 19th February 2024, while improvements are made to the wharf.

Boardings for the month were 33.3% lower than July 2019 numbers (pre-Covid).



Boardings - current month

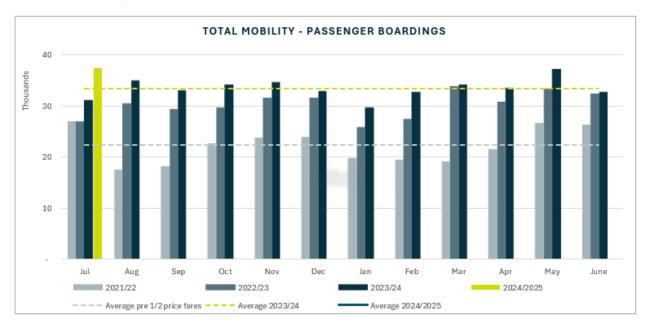
	Jul-24	Jul-23	% Change
Total	9,315	15,044	-38.1%

Boardings - year to date (Jul - July)

	2024/25	2023/24	% Change	
Total	9,315	15,044	-38.1%	

Te Hunga Whaikaha Total Mobility passenger boardings

In July there were 37,314 Te Hunga Whaikaha Total Mobility trips, an increase of 20.2% compared to the same month in the previous year. This shows continuing strong levels of usage of Te Hunga Whaikaha Total Mobility, reflective of the half price fares initiative which is now permanent.



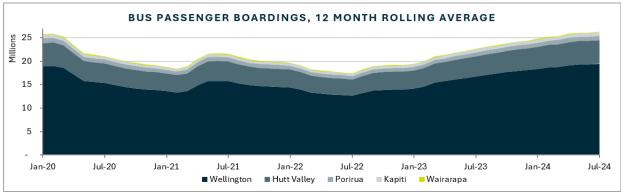
Passenger boardings trend – 12 month rolling totals

The following graphs show the number of passengers boardings using a 12-month rolling total.

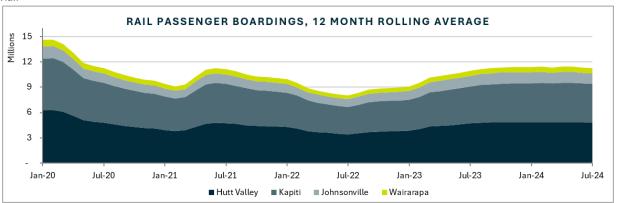
Each column in the graphs below represents the total boardings for the 12 months prior (e.g., for January 2024, the column is total boardings for February 2023 to January 2024). Rolling totals smooth out any seasonal differences (e.g., school and public holidays) and are a better indication of growth trends overall. For month-on-month totals refer to the graphs in the section above. All modes

There had been continuing growth up to February 2020, then decreases with the Covid-19 pandemic (mid-March 2020 onwards, a move to level 4 in August 2021, and a move to Red of the Covid-19 Protection Framework in late January 2022) - we can now see trending growth again for all modes, but this has not yet reached pre-Covid levels, as shown by blue dotted line in the graph Below.

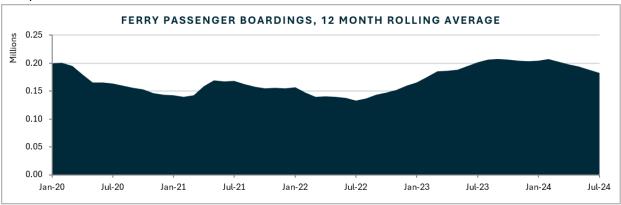










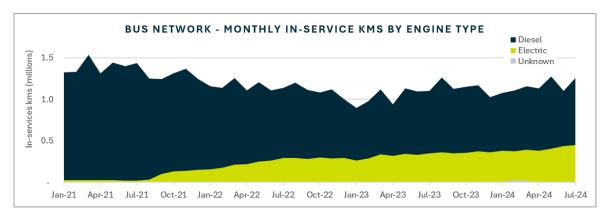


Bus emissions

Please note that numbers include a 15% adjustment estimated for dead running (e.g. moving from a depot to a first stop), and interpolation for unsighted stops or where there is other information missing (e.g. a vehicle cannot be matched to an engine type).

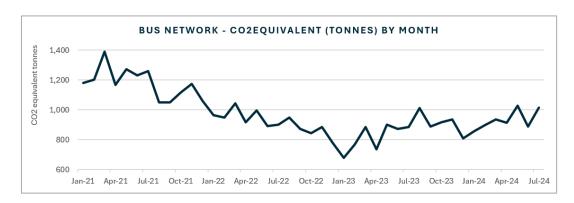
In-service kilometres by engine type

The graph below shows the monthly in-service kilometres by engine type for vehicles that have run Greater Wellington bus network services.



CO₂ equivalent tonnes

The graph below shows the monthly CO₂ equivalent tonnes emitted by vehicles that have run Greater Wellington bus network services.



Bus vehicles by engine type

The table below shows the number of vehicles by engine type that ran bus network services in the Greater Wellington region in July 2024.

Engine type	Electric	EURO3	EURO4	EURO5	EURO6	Unknown	Total
Count	99	45	19	70	213	6	452

Customer Contact

Call centre incoming calls

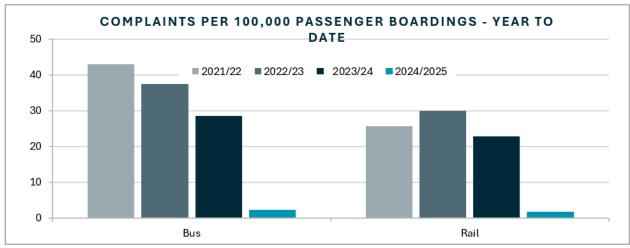
Metlink answered 95.9% of the 7,470 calls received in July.

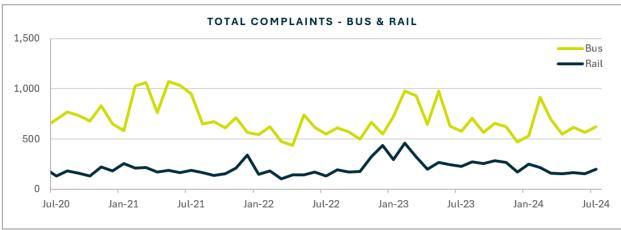


Complaints

Complaints volume

To compare complaint volumes, Metlink reports the number of complaints per 100,000 passenger boardings. This shows that complaint volumes relative to passenger boardings are slightly higher for bus than rail.



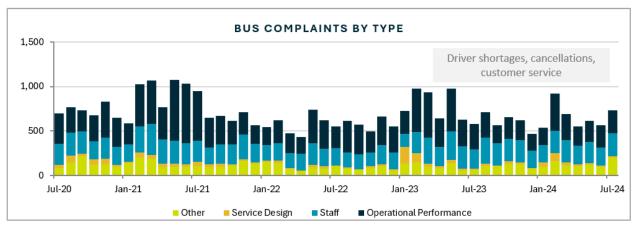


Metlink performance report Page 17 of 20

Bus complaints

Bus complaints for the month were 7.5% higher than in July last year.

Complaint levels have returned to normal levels. They relate mostly to customer service/driver behavior; failure to stop/pick-up; early operation of services part way along the route and system information.



'Other' includes complaints re: Covid, passenger information, stops/stations, vehicles.

Bus complaints - current month

	Jul-24	Jul-23	Change
Wellington			
Newlands, Tawa	38	33	15.2%
East-West, City	206	157	31.2%
North-south, Khandallah, Brooklyn	164	216	-24.1%
Hutt Valley	147	128	14.8%
Porirua	31	26	19.2%
Kapiti	24	12	100.0%
Wairarapa	9	4	125.0%
Total	619	576	7.5%

Bus complaints - year to date (Jul - July)

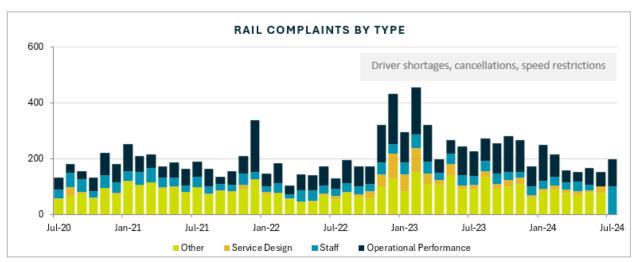
	2024/25	2023/24	Change
Wellington			
Newlands, Tawa	38	33	15.2%
East-West, City	206	157	31.2%
North-south, Khandallah, Brooklyn	164	216	-24.1%
Hutt Valley	147	128	14.8%
Porirua	31	26	19.2%
Kapiti	24	12	100.0%
Wairarapa	9	4	125.0%
Total	619	576	7.5%

Attachment 1 to Report 24.452

Rail complaints

Rail complaints for July were 11.5% lower than the same month last year.

Complaints remain quite low, there has been an increase in complaints about poor timekeeping due to the speed restrictions and bus replacements.



'Other' includes complaints re: Covid, passenger information, stops/stations, vehicles.

Rail complaints - current month

·	Jul-24	Jul-23	Change
Hutt Valley	71	75	-5.3%
Kapiti	58	52	11.5%
Johnsonville	9	24	-62.5%
Wairarapa	17	28	-39.3%
General	46	48	-4.2%
Total	201	227	-11.5%

Rail complaints - year to date (Jul - July)

	2024/25	2023/24	Change
Hutt Valley	71	75	-5.3%
Kapiti	58	52	11.5%
Johnsonville	9	24	-62.5%
Wairarapa	17	28	-39.3%
General	46	48	-4.2%
Total	201	227	-11.5%

Financial Performance

Fare revenue

Bus and rail fare revenue

The table below compares revenue received for fares on bus and rail, compared to budgeted fare revenue.

In July there was a budget shortfall of \$0.6m. This is due there being School and Public holidays during the month and the budget being phased evenly during the year. Farebox revenue is expected to improve as year progresses due to growth in patronage.

Fare revenue - current month

	Jul-24	Budget	Exc	ess/Shortfall
Bus	4,436,106	3,861,872		574,235
Rail	3,024,402	4,186,172	-	1,161,771
Total	\$ 7,460,508	\$ 8,048,044	-\$	587,536

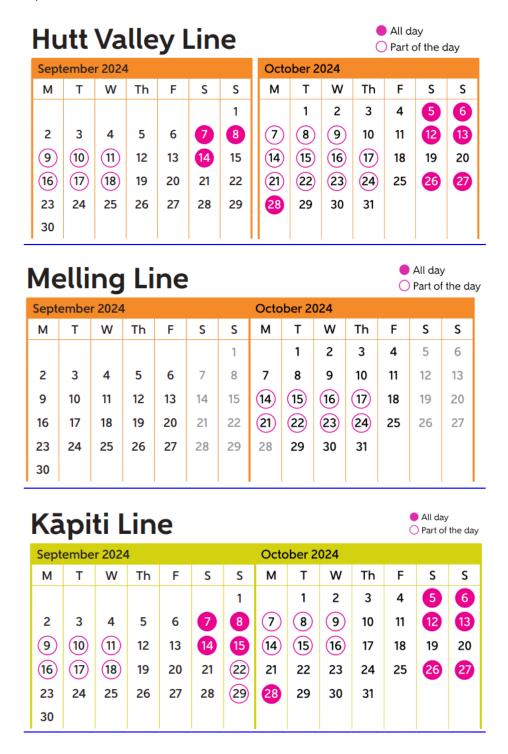
Fare revenue - year to date (Jul - July)

	2024/25	Budget	Exc	ess/Shortfall
Bus	4,436,106	3,861,872		574,235
Rail	3,024,402	4,186,172	-	1,161,771
Total	\$ 7,460,508	\$ 8,048,044	-\$	587,536

Attachment 2 to Report 24.452

Buses Replacing Trains

To help customers better plan their travel, Bus replacement information is available on the Metlink website on the <u>buses replacing trains</u> page. Copies of the current calendars are provided below. Please click on the calendar to link through to the bus replacement information for that specific line, which includes bus replacement timetables for each date.



Attachment 2 to Report 24.452 All day Johnsonville Line O Part of the day September 2024 October 2024 W М Т S М Т Th F S S W Th F S 6 (1) 5 1 2 3 4 13 (3) (5) Ø 8 $\overline{7}$ 12 (2)(4) (8) (9)10 11 6 (10) (9)(11) 14 15 (14) (15) (16) 20 12 13 17 18 19 (17) (16)(18) 27 19 20 21 22 21 22 23 24 25 26 23 24 25 29 28 29 30 31 26 27 28 30 **Wairarapa Line** All day O Part of the day September 2024 October 2024 Μ Т W Th F S S M Т W Th F S S 5 6 1 2 4 1 3 13 12 8 2 9 3 4 5 6 8 10 11 (14) (9) 10 15 (15) (16) (17)19 20 11 12 18 (21) (16) (22) (23) (24) 27 25 26 17 18 19 20 (23) 28 29 29 30 31 25 27 28 24 26 (30)

KiwiRail provides further information about the full programme of KiwiRail works on their website.

Transport Committee 19 September 2024 Report 24.454



For Information

PUBLIC TRANSPORT OPERATOR UPDATE - TRANSDEV

Te take mō te pūrongo Purpose

1. To provide the Transport Committee with a brief overview of public transport bus operator Transdev's business.

Te tāhū kōrero Background

- 2. Both the Council Chair and Chair of the Transport Committee have expressed a desire for there to be ongoing opportunities for interaction between Councillors and public transport operators.
- 3. Each of our six public transport operators are scheduled to attend a Transport Committee meeting in 2024 to provide a brief overview of their business.

Ngā tūāoma e whai ake nei Next steps

4. A senior manager from Transdev will speak to <u>Attachment 1</u> at the Committee's meeting on 19 September 2024.

Ngā āpitihanga Attachment

Number	Title
1	<u>Transdev presentation</u>

Ngā kaiwaitohu Signatories

Writer	Margaret Meek – Principal Advisor Public Transport Governance, Metlink
Approvers	Matthew Chote – Senior Manager Operations and Partnerships, Metlink
	Samantha Gain – Kaiwhakahaere Matua Waka-ā-Atea Group Manager, Metlink

He whakarāpopoto i ngā huritaonga Summary of considerations

Fit with Council's roles or with Committee's terms of reference

It is appropriate for the Committee to receive an overview of its public transport operators' businesses.

Contribution to Annual Plan / Long Term Plan / Other key strategies and policies

This overview provides information that will help inform delivery of public transport.

Internal consultation

There was no internal consultation.

Risks and impacts - legal / health and safety etc.

There are no known risks and impacts.



Three Key Priorities



Look after our passengers and ensure we get people home as fast as possible.

Our passengers are at the heart of everything we do. It's our responsibility to ensure they reach their destinations safely and as quickly as possible, no matter the circumstances. Whether through timely communication or efficient service recovery, we're committed to making every journey smooth and reliable.



Look after our team.

We focus on creating a supportive environment where every employee feels valued, equipped, and motivated to perform their best.



Maintain network continuity.

We're dedicated to maintaining service continuity and finding solutions to keep trains operating, even if it's in partial modes.

Attachment 1 to Report 24.454



2

Recent and Upcoming Improvements

Attachment 1 to Report 24.454



Transition to Customer Kiosk

- In line with our commitment to improving customer service, we've made the decision to close the traditional retail ticket windows at Wellington Station. This change is aimed at streamlining customer transactions and enhancing the overall customer experience at the station.
- All ticket purchases and customer inquiries will now be handled at our open Customer Kiosk, which provides a more flexible and accessible space for our passengers.
- The Customer Kiosk is staffed by a skilled team of customer service ambassadors who are trained to assist passengers with everything from ticketing and journey planning to real-time service information.
- By centralising services at the Kiosk, we aim to create a more open and welcoming environment where passengers can easily access the help they need.

Strengthening Customer Service Leadership at Wellington Station

- A dedicated leadership team will now be more visible and available at the station to make on-the-spot decisions when service issues arise, ensuring passengers are informed and disruptions are minimized.
- This initiative also reflects our commitment to delivering exceptional customer service by providing immediate support to both passengers and frontline staff when it's needed most.
- By implementing a new leadership structure at the station, we aim to create a more efficient, responsive, and customer-focused environment, especially during peak times or when there are disruptions.

3

Communicating with our customers



Real-time updates for staff through the MyTransdev app, to make informed decisions on what to tell customers. This is managed by the Customer Communications Officers, who are the first to know about any network updates, service changes etc.



Customer Service
Ambassadors are placed at both Wellington and outer stations, always on hand to answer questions and give customers the correct information.



Any service updates are pushed through to the customers' device, depending on their push notification settings. These are issued under the Metlink brand and are managed by our Customer Communications Officers.

Wellington Station has automated announcements in place to keep passengers informed about their upcoming trains. These are programmed to provide key updates such as train departures and platform information. In addition to this, we make real-time, ad-hoc announcements at the station and broadcast important updates to all outer stations when necessary, ensuring passengers receive the latest information, especially during disruptions or changes.

Attachment 1 to Report 24.454



4

Retail and Customer Experience

As part of the recent changes, we have established two new **Station Duty Manager** roles at Wellington Station. These leaders will be responsible for overseeing the day-to-day operations of the Customer Service Ambassadors (CSAs), ensuring smooth operations and a high level of service.

Station Duty Managers will manage all aspects of Wellington Station's retail operations, coordinating with the Operations Duty Managers in the SCC for additional support.

The new leadership structure is designed to provide clear oversight, improve operational efficiency, and ensure that all aspects of Wellington Station run seamlessly.

Benefits of the new structure

- > One-stop-shop for customers at Wellington Station: Customers can access all services at a single, convenient location.
- Greater face-to-face engagement: The open layout of the kiosk facilitates more personal interaction with customers.
- More rewarding and fulfilling work: Existing retail window staff will benefit from better training opportunities and a more varied role.
- Improved scalability for special events: The new structure allows for easier scaling of customer ambassadors during special events.
- Enhanced Kiosk operating hours: The customer service kiosk will be available to customers when they need it most.

Head of Operations & Performance

Manager Operations Delivery

Station Duty Manager x 2

Customer Service Ambassador x 14 FTE

Attachment 1 to Report 24.454



5

Managing Wellington Station

- Disruptions at Wellington Station have a dedicated disruption management plan that focuses on maintaining customer experience by ensuring we have staff that are highly visible and informed, and having clear queue management and orderly boarding of BRT.
- > Disruptions are broken into 3 scales: **Status 1**, **Status 2** and **Status 3**.
- A specialist disruption org chart kicks in led by our Head of Operations, with all team operating the **CIMS framework.** All operational leaders are minimum of CIMS 3 trained.

STATUS THREE

Off-peak partial line closure of two hours or less and/or ad-hoc incidents which may require the cancelling or significant delay of 2+ services off peak to return the network to prime state.

STATUS TWO

Off-peak disruption lasting between 2-4 hours, partial or full line closure.

(Status One initiated if disruption is ongoing and predicted to impact peak).

STATUS ONE

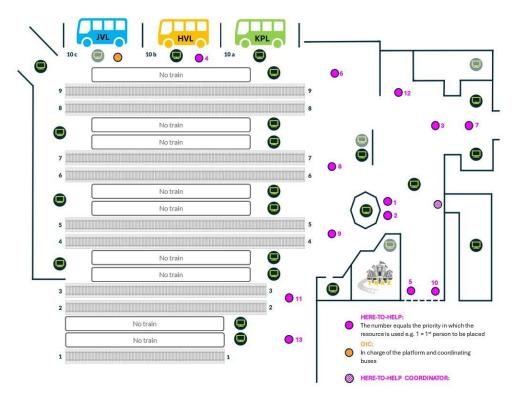
Any incident occurring in peak which will have significant operational impact on the network and/or full network closure for over 1 hour.

Attachment 1 to Report 24.454



6

Managing Wellington Station



- As part of the disruption framework, roles have a placement map ensuring there is good visibility and assistance available to our customers. The lower numbers are filled first, equaling the priority in which the resource is used.
- Queue management is set up early, with clear signage to advise customers which lines lead to which bus, ensuring they get home.
- All bus operators in Wellington are contacted, with Metlink operators called first.

Attachment 1 to Report 24.454



7

Managing Wellington Station





BRT queues are roped off and Customer Service Ambassadors are always on hand to direct passengers to their correct buses.







Clear signage is placed at the start of each queue for passengers to easily deduce which service is theirs. QR codes allow passengers to see the full timetable from their own device.

Photos by Andrew Tobin - Metlink

C1 - Internal

Attachment 1 to Report 24.454



8



Attachment 1 to Report 24.454



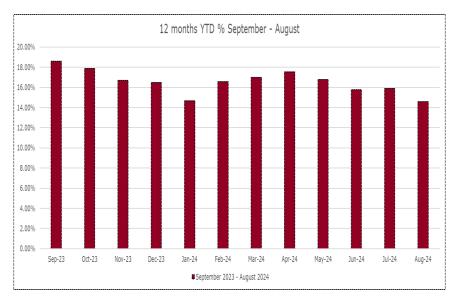
9

Employee Trends

Attachment 1 to Report 24.454



Employee turnover - 12 month



Women in TDW workforce

- → Total staff = 30.32%
- → Onboard Customer Service Staff = 34.62%
- → Train Drivers = 13.45%
- → Customer Ambassadors = 54.55%
- → Team Leaders/Managers = 33.33%
- → Senior Leadership Team = 50%

10

Recruitment

- All positions advertised at least internally, encouraging all staff to apply for any opportunities
- Strong relief programme that exposes staff to development for future role
- Relief programme also provides valuable back-up in those roles for absences
- Meet fortnightly to review operational resourcing needs, including current vacancies, long term absences, and any other staffing needs
- Renewed focus on recruitment pipelines planned we will seek to partner with colleges across the region, and utilise social media to access a greater diversity of candidates
- · Particular focus on Female Drivers
- New psychometric testing is being introduced (Sept 2024) to provide additional information for recruitment, this includes verbal, numerical and abstract reasoning (to check new employees have ability to complete the critical safety and customer focused training) and personality testing (for organisational and team fit)
- · Greater public engagement through careers expos and schools around a career in Rail

Attachment 1 to Report 24.454



11

Retention

transdev the mobility company

Attachment 1 to Report 24.454

- The excellent employment terms and conditions greatly assist in retaining staff as most organisations do not over overtime rates, travel and medical retirement financial benefits
- · Regular staff engagement activities, usually over kai:
 - Matariki Hangi
 - o Gumboot Friday Mental health awareness
 - o Diwali Indian religious festival
 - Pink Shirt Day Bullying awareness
 - o Daffodil Day Cancer awareness
 - o Breast Cancer Breast cancer awareness
- Investment in leadership development, particularly staff relationships and performance
- Ongoing investment in staff development (see next slide)

12

Training in 2024



Attachment 1 to Report 24.454



13

Transport Committee 19 September 2024 Report 24.511



For Information

BUS DRIVER TOILET FACILITIES - UPDATE

Te take mō te pūrongo Purpose

 To provide the Transport Committee (Committee) with an update on progress to improve the condition of and access to toilet facilities for Wellington City Metlink bus drivers.

Te tāhū kōrero Background

- 2. At its meeting on 30 November 2023, the Committee requested that it receive updates on the progress of the project to install new bus driver toilet facilities.
- 3. On 22 February 2024, an update was provided to the Committee, which provided an update on the installation of seven replacement toilets (Report 24.6 Driver Toilet Facilities Update).
- 4. While the accountability for providing rest and toilet facilities for Metlink bus driver staff resides with the employer, Metlink provides some toilet facilities for operators to use at key/strategic locations across the network. These driver toilet facilities are owned and maintained by Metlink with costs for cleaning and consumables paid for by the operators.
- 5. The issue of drivers not having access to appropriate, clean, and safe toilet facilities while taking their scheduled breaks and/or waiting for their next trips has frequently been raised over the years.
- 6. The existing driver only toilets in Wellington were in very poor condition. Wellington City Council (WCC) has transferred ownership of these driver only toilets at no cost to Metlink.
- 7. <u>Attachment 1</u> provides a map with the location of driver toilet facilities in Wellington City, including the driver only facilities.
- 8. Metlink is in the process of replacing seven bus driver toilets (which we took over from WCC) at the following locations in Wellington City:

#	Toilet Location	Address
1.	Karori Park terminus	Stop 5332 (418 Karori Road, Karori)

#	Toilet Location	Address
2.	Houghton Bay terminus	Stop 6937 (Opposite 250 Houghton Bay Road)
3.	Mairangi terminus	Stop 4128 (Opposite 45 Wilton Road)
4	Lyall Bay terminus	Stop 7338 (Near 2 Hungerford Road / Slip)
5	Wilton terminus	Stop 5128 (213 Wilton Road / Surrey Street)
6	Highbury terminus	Stop 4947 (62 Highbury Road)
7.	Darlington Road	Stop 7241 (Outside 124a Darlington Road, Miramar)

Te tātaritanga Analysis

Progress on installation of replacement bus driver toilets

9. The table below sets out current progress on the installation of replacement bus driver toilets:

#	Toilet Location	Progress
1	Karori Park terminus	Facility operational (from 1 August 2024)
2	Houghton Bay terminus	Facility operational (from 15 August 2024)
3	Mairangi terminus	Facility installed; awaiting Code Compliance Certificate (CCC) from WCC (expected to be issued in late-September 2024). Facility scheduled to be operational in late-September 2024.
4	Lyall Bay terminus	Facility installed; awaiting CCC from WCC (expected to be issued in late-September 2024). Facility scheduled to be operational in late-September 2024.
5	Wilton terminus	Facility installed; awaiting power pole installation and power connection; CCC to be sought from WCC following power connection and power pole.
6	Highbury terminus	Facility installed; awaiting service connections (scheduled for completion by early-October 2024). CCC to be sought from WCC following service connections
7	Darlington Road	Facility installed; civil works required for services and access in progress.

10. The images below set out the new facilities:



Image 1: Facility – installation in progress (Darlington Rd)



Image 2: Facility in progress (Wilton)



Image 3: Facility – installation completed – photo prior to opening (Karori)



Image 4: Facility – installation in progress (Darlington Rd)

Delivery of driver toilet facilities

Budget and tender process

- 11. A business case was developed in early 2022, which identified two main suppliers in the toilet facility market.
- 12. To comply with NZ Transport Agency Waka Kotahi (NZTA) requirements, an open tender was required to procure these services.
- 13. Tender documents (two step non-price and price) were developed and released in early November 2022. Three responses were received. Site Weld was identified as the preferred supplier and a contract was signed early May 2023.
- 14. The 2022 Business Case budget for the seven driver toilet facilities was \$1.260m.
- 15. The forecast completion budget for the seven driver toilet facilities is \$1.264m.
- 16. The \$4,000 variance is considered acceptable for the project

Timeframe

- 17. The design, manufacture and installation of driver toilet facilities has taken longer than originally expected (June 2024).
- 18. Installation of the driver toilet facilities has been the main cause of delay; this was due to unforeseen issues with civil works and services connections.

Driver feedback

19. Metlink has received positive feedback from drivers regarding the operation toilets; including the following statement:

"I have received feedback from the drivers regarding the new toilet unit in Karori. The response has been overwhelmingly positive, with one driver even comparing it to a restroom in a five-star hotel. Please extend a heartfelt thank you from our team of drivers to the assets and infrastructure team."

Potential additional driver toilet facility works

Johnsonville West

- 20. Officers plan to assess the feasibility of providing a new bus driver toilet at Johnsonville West, to replace an existing port-a-loo. The total cost of providing a new toilet facility in this location is estimated to be approximately \$150,000 in total.
- 21. Budget to cover this piece of work was included in the Council's recently adopted Long Term Plan 2024-2034. However, there was no NZTA funding provided in the recently announced National Land Transport Fund decisions. Officers are in the process of determining the impact on the project of not receiving funding in the National Land Transport Fund.

Te whakatūtakitaki Engagement

22. Bus operators were involved in the development of the toilet requirement specifications.

23. Impacted operators receive regular updates on the progress of this project.

Ngā tūāoma e whai ake nei Next steps

24. Councillors will be updated on progress regarding the driver toilet facilities as required.

Ngā āpitihanga Attachments

Number	Title
1	Map of bus driver toilet facility locations in Wellington City

Ngā kaiwaitohu Signatories

Writer	Hamish Burns – Manager, Bus & Ferry Assets, Assets & Infrastructure
Approvers	Fiona Abbott – Senior Manager Assets & Infrastructure
	Samantha Gain – Kaiwhakahaere Matua Waka-ā-atea Group Manager, Metlink

He whakarāpopoto i ngā huritaonga Summary of considerations

Fit with Council's roles or with Committee's terms of reference

The Committee requested that it be provided with an update on driver facilities. The Committee also has responsibility for considering regional, national and international developments; emerging issues and impacts; and changes in the legislative frameworks for their implications for transport strategies, policies, plans, programmes, initiatives and indicators

Contribution to Annual Plan / Long Term Plan / Other key strategies and policies

Improving driver conditions helps retain drivers, having an adequate level of drivers has a direct impact on service levels. Certain performance measures in the 2024-34 Long-Term Plan relate to service levels.

Internal consultation

There was no internal consultation needed.

Risks and impacts - legal / health and safety etc.

There are no known risks or impacts.

Attachment 1 to Report 24.511

Driver toilet facilities in Wellington City

