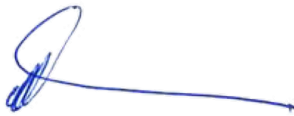


Emissions Management and Reduction Plan

Greater Wellington Regional Council

13 May 2024



Approved by
Nigel Corry
Tumu Whakarae | Chief Executive



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1. Rationale

Climate change is beginning to have a wide and varied effect on Greater Wellington Regional Council (Greater Wellington) as an organisation and as a region. The Wellington Region climate change projections and impacts summary (commissioned by Greater Wellington) shows that given the current global emissions trajectory, the intensity of the regional impact of climate change will continue to increase. More severe droughts, infrequent and more intense rainfall, larger storms and climate-related events are anticipated. Climate change intersects with all the Council's work, from flood protection to environmental restoration to public transport. To manage the risks and impacts and to provide leadership, the Council has established the Climate Change Emergency Response Programme and, as part of this, an organisational emissions management and reduction programme, which this plan describes.

This emissions management and reduction plan (EMRP) addresses Greater Wellington's largest emissions sources as reported in the emissions inventory report (EIR). The Council's major influence on reducing emissions will come through strategic decisions, policy and service procurement processes and contracts that can incentivise low-carbon outcomes.

2. Senior Management Commitment

Greater Wellington has been measuring its GHG emissions since 2015. From 2019, Greater Wellington has measured and verified its GHG emissions inventory in accordance with the ISO 14064-1:2018 standard.

In 2019, the Council voted to declare a Climate Emergency and voluntarily assumed responsibility over the Greater Wellington Group of companies' emissions on the public's behalf. At the same time, the Council adopted targets to achieve a 40% reduction in net emissions in 2025, to be 'carbon neutral', (have net annual emissions of zero), from 2030 and climate positive (the have a rate of carbon removal greater than its gross emissions) from 2035. The Council committed to specific actions that would help achieve them, in the form of its Organisational Climate Emergency Action Plan. In 2020 the Council established governance and policy for emissions management and reduction, including:

- The Climate Committee, a formal committee of Council that meets publicly and is made up of all Greater Wellington's elected members.
- The Climate Emergency Response Programme Board, made up of Group Managers for Strategy, Environment, Metlink, Te Hunga Whiriwhiri and Finance and Risk.
- The Organisational Emission Reduction Steering Group, made up of managers from each of council's main activity areas.
- A Climate Change Consideration Process that asks of all non-administrative decisions sought from Group Managers and Councillors what the implications for GHG emissions are, and what has been done to mitigate them.
- An Emissions Reduction Policy, that directs staff to select options that avoid, reduce or remove GHG emissions when undertaking their jobs. These decisions include operational matters and procurement.

- The Low Carbon Acceleration Fund (LCAF), that uses the value of Council's pre-1990 free allocation emissions units (NZUs) to fund actions that reduce organisational emissions.

For the 2021-31 and 2024-34 Long Term Plans, Council used these systems and tools to ensure climate change and emissions reduction actions were embedded in its forward work programme and adequately resourced.

3. Person Responsible

Chief Executive is the sole employee of the elected members of Council. As a group they oversee Chief Executive's performance. The Chief Executive is responsible for Council operations and public service delivery that directly influence our climate change response, GHG emissions reductions, intensity, and attainment of targets. The Chief Executive is supported by the Executive Leadership Team, made up of the organisation's Group Managers. The Chief Executive owns organisational emissions accountability through a key performance indicator stating reduction in emissions with an ongoing year on year target.

4. Awareness Raising and Training

The Emissions Reduction Policy says the organisation will provide training on the policy and what it means. Managers are responsible for engaging with staff regarding climate change and emissions reductions awareness and training.

The Climate Change Team have run staff Climate Change training sessions regularly since June 2023. To date, 11 sessions have been held at the Council's premises in Masterton, Upper Hutt and Cuba Street, Wellington. 147 staff members, including a trial cohort, have attended the training.

The internal Climate Action SharePoint page provides online resources and information to support all staff in their related work.

5. Organisational boundary and consolidation approach

An equity share consolidation approach is used to account for emissions from Council organisations. Council does not have direct operational control of the majority of emissions resulting from its Group of companies' activities. Public services are mostly supplied by contracted service providers and Council-owned organisations with separate management. However, it does have significant influence as an owner, shareholder and/or commissioner. Due to this influence, Council includes shares of the emissions of the entire Greater Wellington Group of companies, including Greater Wellington Rail Limited, Wellington Water Limited, Sky Stadium and CentrePort Limited.

Organisational boundaries were set with reference to the methodology described in the GHG Protocol and ISO 14064-1:2018 standards.

GREATER WELLINGTON EMISSIONS BOUNDARY

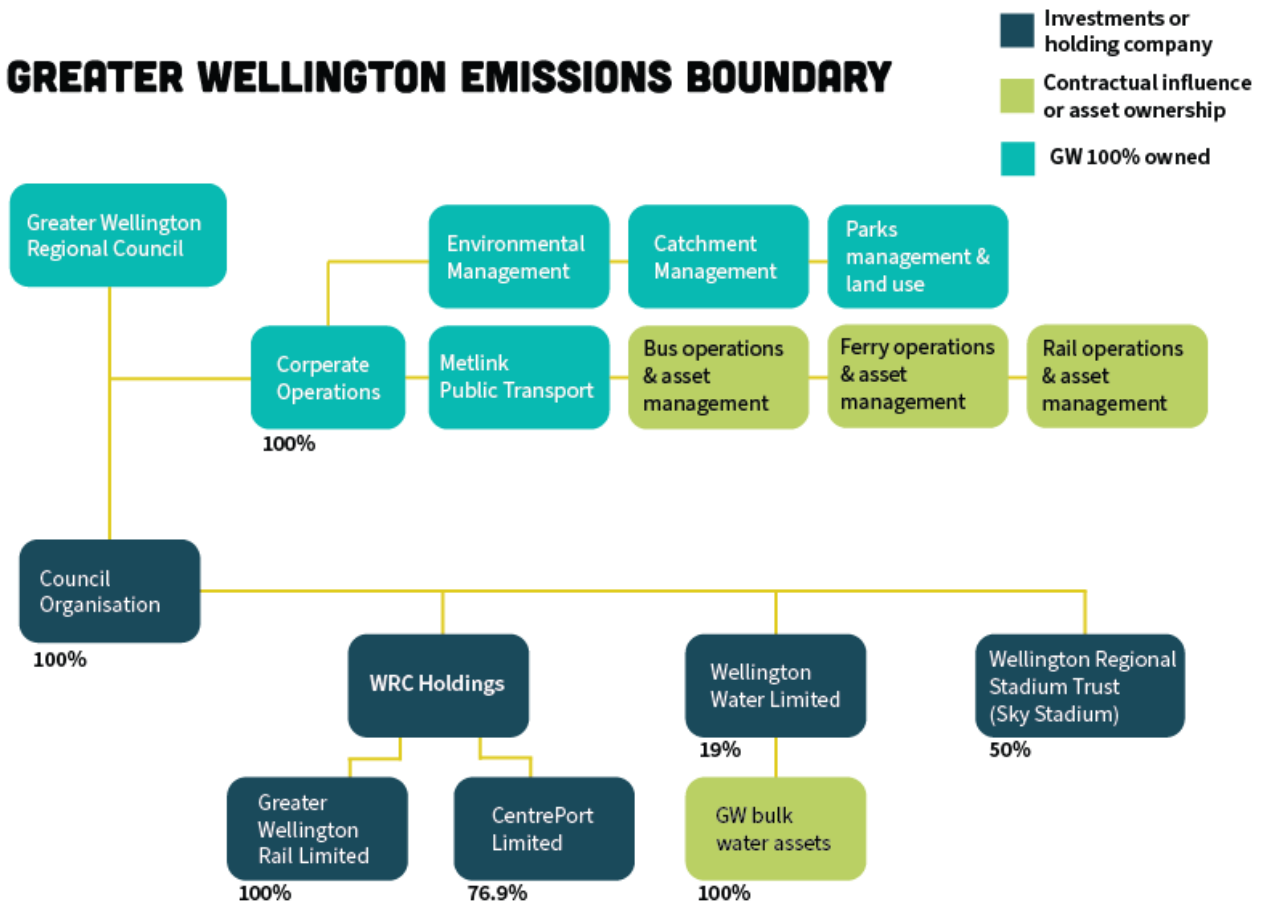


Figure 1: Greater Wellingtons Emissions Boundary

6. Description of Significant Emissions Sources

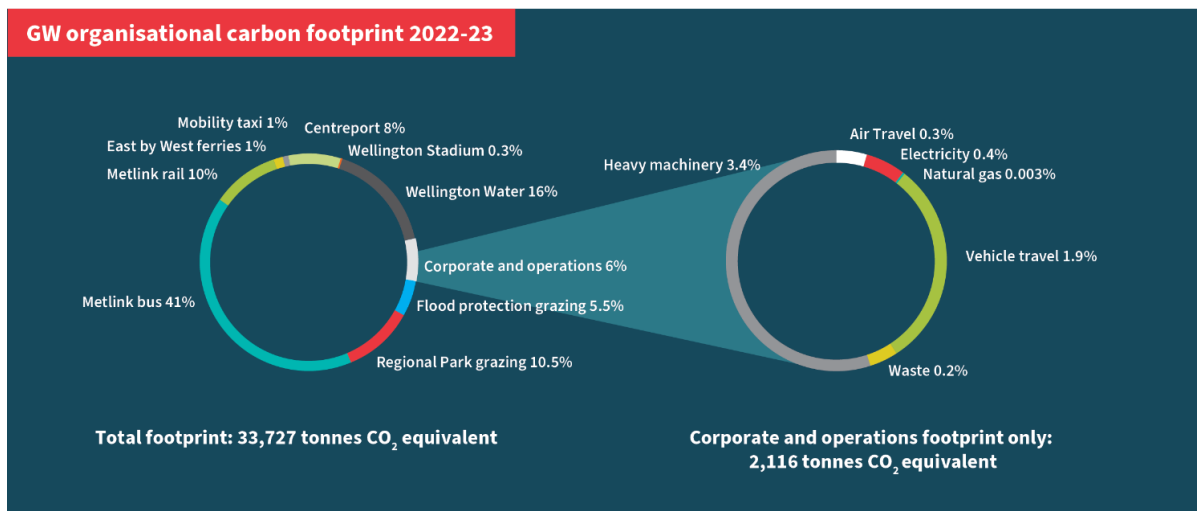


Figure 2: Greater Wellington’s organisational emissions FY2022/23

The largest source of emissions is diesel fuel used for Metlink public transport services. It represents the greatest opportunity for emissions reductions, especially through the use of emerging vehicle electrification technologies. Diesel use made up 56.8% of the organisation’s total emissions in 2022/23.

Table 1: Greater Wellington’s diesel usage FY2022/23

Activity	Business unit	tCO ₂ e	Percentage of total footprint
Metlink rail replacement buses	Metlink	713	2.11%
Metlink Bus - all public transport buses total	Metlink	12,452	36.92%
Metlink Ferry fleet diesel	Metlink	414	1.23%
Rail auxiliary generators - Wairarapa	Metlink	275	0.82%
Rail fleet	Metlink	1,447	4.29%
Greater Wellington Corporate Fleet Vehicles	Corporate Activities	547	1.62%
Heavy machinery	Corporate Activities	1,047	3.10%
Wellington Regional Stadium Trust	Council Controlled Organisations	4	0.01%
CentrePort Limited	Council Controlled Organisations	2,084	6.18%
Wellington Water Limited fleet	Council Controlled Organisations	176	0.52%
Total		19,160	56.8%

The second largest emissions source results from grazing animals and fertilizer from land use contractors on Council owned land and in regional parks (16% of the total). Land use change from grazing to restoration or low-emission activities is in progress. It has been identified as an area for emissions reductions and this will need to happen to meet Greater Wellington emissions reduction targets. In 2020 Council adopted Toitū Te Whenua Parks Network Plan 2020-30 with policies supporting climate action and environmental restoration. Grazing activities are progressively reducing.

The third largest source of emissions is purchased electricity used across the Greater Wellington Group offices, operations, and service delivery (12.8% of total emissions in 2022/23). The Council has direct control over a limited portion of total Group electricity use. Council manages and controls electricity in its main offices and many small sites, such as public transport stations and parks network facilities, and environmental monitoring stations. A significant proportion of electrical energy is consumed by Council Organisations Wellington Water Limited and CentrePort Limited, particularly to pump water from water catchments for municipal distribution. These entities have

separate governance and management and are not under the direct management influence of Greater Wellington, who is a shareholder. A large proportion of electrical energy is consumed by public transport electric trains and increasingly in electric bus charging.

Table 2: Greater Wellington's Electricity usage FY2022/23

Activity	Business unit	tCO ₂ e	Percentage of total footprint
Office buildings	Council Operations	61	0.18
Onsite and offsite electric fleet vehicle charging	Council Operations	1	0.00
Environment	Environment, Catchment & Parks	59	0.17
Battery charging for 100% Electric Buses	Metlink	396	1.17
Bus & Rail infrastructure	Metlink	169	0.50
Electric Ferry	Metlink	20	0.06
Rail fleet	Metlink	1578	4.68
CentrePort Limited	Council Controlled Organisations	406	1.20
Wellington Regional Stadium Trust	Council Controlled Organisations	48	0.14
Wellington Water Limited - managed Greater Wellington assets	Council Controlled Organisations	1570	4.66
Wellington Water Limited - Corporate	Council Controlled Organisations	2	0.01
Total		4,311	12.8%

The fourth largest source of emissions comes from Wellington Water Limited chemicals (10.1%) used for Water Supply. Wellington Water Limited has separate governance and management to Greater Wellington to manage water assets that Greater Wellington owns. Current management influence over Wellington Water Limited is limited to that of an equal shareholder with other councils.

7. Targets (net and gross)

The Council has formally adopted the following targets for its organisational GHG emissions. Each is relative to the Council's base year period of FY2018/19:

- Achieve a net reduction in its total emissions (all Scopes/Categories) of 40% in FY2024/25
- To be 'carbon neutral' (net-zero total emissions) from FY2029/30
- To be 'climate positive' (net emissions reduced more than 100%) from FY2034/35
- Achieve a 25% reduction in gross Scope 1 & 2 (Category 1 & 2) GHG emissions in FY2024/25

- Achieve a 50% reduction in gross Scope 1 & 2 (Category 1 & 2) GHG emissions in FY2029/30
- Achieve a 65% reduction in gross Scope 1 & 2 (Category 1 & 2) GHG emissions in FY2034/35

Note that Council intends to obtain the removals necessary to meet its net targets by creating them within its organisation, not by purchasing offsets from other parties.

8. Projected emissions

The Council has estimated its future emissions by projecting the impact of various programmes of work, including those emissions reduction actions described in Section 11, and likely changes, such as growing demand for its services. This estimate is summarised in Figure 3 below.

The projections show that the Council’s targets are achievable, provided all the actions are successful. For the net emissions targets, there is minimal margin of error, and insetting¹ is required using past sequestration by the Council’s post-1989 forests to meet the 2025 and 2030 targets. For the gross emissions targets, there is more flexibility.

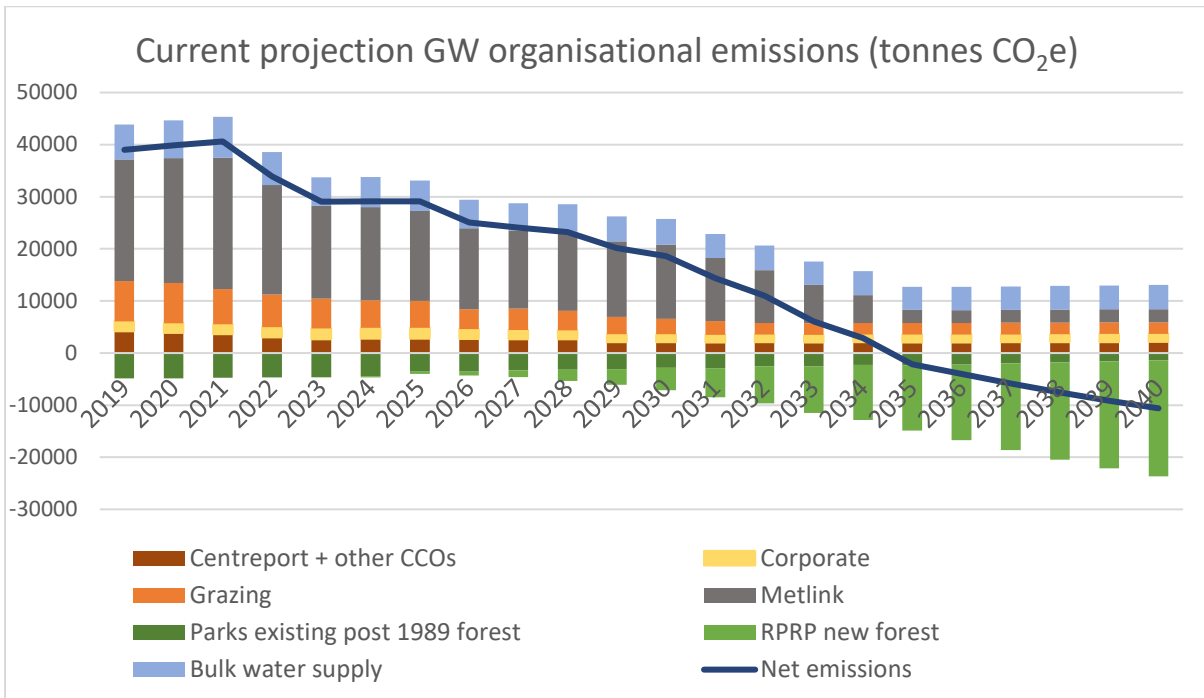


Figure 3: Greater Wellington's projected organisational emissions

9. Monitoring and Reporting

Organisational gross GHG emissions are measured annually and reported publicly in the Council’s Annual Report. It is also captured in the Chief Executive’s Key Performance Indicators, which is

¹ Insetting meanings crediting removals of carbon from the atmosphere (sequestration) against gross emissions. It differs from ‘offsetting’ in that the removals occur within the organisation, rather than outside it.

monitored by the Council. The Executive Leadership Team (Group Managers) are responsible for delivering emissions reduction across Greater Wellington's programmes and projects.

Organisational GHG emissions reduction and Metlink GHG emissions reduction indicators were included in Council's 2021-31 Long Term Plan and continue to be included in the 2024-34 Long Term Plan's Non-financial Performance Measures Framework. They are reported on through the Council's Annual Report, which is audited annually by Audit NZ at the direction of the Office of the Auditor General.

10. Improving measurement accuracy

There is a level of inherent uncertainty in reporting GHG emissions, both in some of the emissions factors, as well as certain types of activity data. Significant assumptions and judgements are disclosed in the EIR. Greater Wellington is working to improve data quality and controls over the measurement of GHG emissions which may lead to improved accuracy in future.

The EIR also describes emissions source exclusions in more detail. The Council is committed to including more supplier emissions (Categories 3-6) within its emissions inventory when the barriers to making defensible estimates of these can be overcome.

11. Emissions Results

Category	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Category 1: Direct emissions	8,227.90	8,264.22	7,260.55	6,614.82	6,221.75
Category 2: Indirect emissions from imported energy	408.89	418.56	514.66	457.93	255.71
Category 3: Indirect emissions from transportation	521.64	555.74	420.60	294.21	456.50
Category 4: Indirect emissions from products used by organisation	23,977.42	24,421.49	25,782.36	21,962.76	19,069.24
Category 5: Indirect emissions associated with the use of products from the organisation	10,697.27	10,877.90	11,353.24	9,240.90	7,724.45
Category 6: Indirect emissions from other sources	0.00	0.00	0.00	0.00	0.00
Total direct emissions	8,227.90	8,264.22	7,260.55	6,614.82	6,221.75
Total indirect emissions	35,605.22	36,273.69	38,070.86	31,955.80	27,505.91
Total gross emissions	43,833.12	44,537.91	45,331.41	38,570.62	33,727.66
Category 1 direct removals	0.00	0.00	0.00	0.00	0.00
Purchased emission reductions	0.00	0.00	0.00	0.00	0.00
Total net emissions	43,833.12	44,537.91	45,331.41	38,570.62	33,727.66
Reporting reductions (incl GDP deflator)					
5-year rolling average total emissions(tCO ₂ e)	43,833.12	44,185.51	44,567.48	43,068.26	41,200.14
5-year rolling average (tCO ₂ e) (category 1 & 2)	8,636.79	8,659.79	8,364.93	8,041.88	7,729.00
Emissions intensity reductions					
Change in absolute emissions (All measured emissions) since base year (tCO ₂ e)	0%	2%	3%	-12%	-23%
Change in absolute emissions (Category 1&2) since base year (tCO ₂ e)	0%	1%	-10%	-18%	-25%

12. Projects to reduce emissions

Note these projects have been included in the draft 2024-34 Long Term Plan and business group activity management plans.

Project	Responsibility	Completion date	Impact on emissions	Funding allocated	Status (May 2024)
Align Council Organisations (CentrePort Limited, Sky Stadium and Wellington Water Limited) to reduce emissions and be carbon neutral by 2030.	GM Strategy	30/06/2030	Significant. Council organisations represent 22% of total emissions.	N/A	Objectives included in statement of corporate intent for CentrePort Limited to be carbon neutral in 2040, cut gross emissions by 30% by 2030. 2030 target has already been achieved and may be increased.
Energy Transformation Initiative: investigate securing renewable electricity supplies via direct investment.	GM Strategy	30/06/2025	Significant. Full implementation may avoid ~4,000 tCO ₂ e in 2035.	\$60,000/yr	Seeking approval via the 2024-34 Long Term Plan for developing solar farms. Preliminary site identification underway.
Energy Transformation Initiative: install 100kW-peak solar PV system, Masterton Station.	Metlink Asset Management Team	Sept 2024	Minor	\$266,000 (LCAF)	Procurement stage.
Energy Transformation Initiative: investigate 500kW-peak solar PV system, EMU Depot, Wellington Railyards	Metlink Asset Management Team	June 2024	Moderate	\$20,000	Contract let.

Project	Responsibility	Completion date	Impact on emissions	Funding allocated	Status (May 2024)
Recloaking Papatūānuku Restoration Project (RPRP): as stock grazing licences phase out, accelerate reforestation planting in regional parks, with a 10-year plan of planting native species over 1,500Ha including wetlands.	GM Strategy / GM Environment	30/06/2032	Significant. Regional Parks grazing is 11% of emissions. Potential sequestration over 0.5MT	\$13.2M to date, (through to FY2027), includes \$10.6M from LCAF	285Ha of formerly grazed land actively restored/planted to date.
Metlink bus fleet electrification – core routes	GM Metlink	30/06/2030	Significant	Existing opex: \$5.1M ² /yr New opex for 109 extra e-buses: rising to \$8.6M/yr in FY27.	103 Metlink buses are now battery electric. 109 more are planned through to end FY27
Replacing rolling stock and expanding services with hybrid trains on Manawatu and Wairarapa lines (Lower North Island Integrated Rail Mobility project)	GM Metlink	2029/2030	Significant	\$71.1M ³ over FY25 to FY30	In progress – procurement planning
Options assessment for reducing emissions from protection grazing land	GM Strategy	Sept 2024	Significant, but has not yet been	Nil at this stage	In progress

² This is the GWRC contribution (49%)

³ This is the GWRC contribution (10%)

Project	Responsibility	Completion date	Impact on emissions	Funding allocated	Status (May 2024)
			factored into emissions projection		
LED lighting replacement, Sky Stadium.	GM Strategy, Sky Stadium team	Sept 2024	Minor	\$750,000 (LCAF)	Contract awarded
Electrify corporate light vehicle fleet	GM People and Customer	2030	Minor	Existing fleet renewal budget	Greater Wellington has 14 pure EVs, 24 plug-in hybrids and 12 regular hybrids. The other 130 vehicles in the fleet are nearly all diesel utes.

13. Projects to improve data quality

Emissions source	Actions to improve data quality	Responsibility	Completion date
Creation of sequestration measurement and tracking system	Determine the amount of carbon sequestered in our regional parks and Greater Wellington owned lands to understand the level of our liability and track progress with reducing net emissions.	Team Leader Data, Knowledge and Insights, Manager Data & Monitoring	TBC

Emissions source	Actions to improve data quality	Responsibility	Completion date
Transition Metlink bus emissions modelling/estimation from old system to NetBI.	This change will use more accurate and frequent real-time data on bus movements and enhance reliability, as the platform will be managed by more than one person.	Metlink Manager Customer Insights & Assets, Senior Environmental Scientist, Climate Change Advisor	30/9/2024
Supplier emissions	Investigate means to measure a greater range of supplier emissions including from capital works.	Climate Change Manager	30/04/2026

14. Projects to manage liabilities

Liability source	Actions to prevent emissions	Responsibility	Completion date
Permanent forests	Best practice afforestation planning, ongoing operational seasonal fire threat management, risk reduction and biosecurity work to support native ecosystem recovery and health.	Manager Ecosystems and Community - Delivery	Ongoing
Public transport	Public transport strategy to increase patronage, efficiency and minimise breakdowns	GM Metlink	Ongoing
Air conditioning /refrigeration units	Regular servicing and prevention of damage to units	Property manager	Ongoing
Fuel storage tanks	Regular servicing and prevention of damage to units	Site managers	Ongoing
Unintended accidents and or spills	Regular training and accident prevention, incident reporting system	Health and Safety	Ongoing

15. Further information

Greater Wellington's Climate Change webpages: www.gw.govt.nz/climate-change

Organisational Climate Emergency Action Plan: www.gw.govt.nz/environment/climate-change/what-we-are-doing/corporate-carbon-neutral-plan/

Greater Wellington FY2022/23 GHG Emissions Inventory Report (EIR):
www.gw.govt.nz/assets/Documents/2024/03/IMR_2223_Greater-Wellington-Regional-Council.pdf