



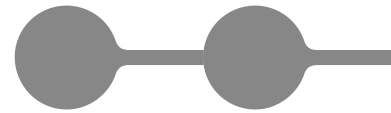
# Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan

## 2023 Progress Report

September 2023

# Contents

- Contents..... 1
- Purpose of this report .....2
- Governance arrangements .....3
- Global update..... 9
- National update .....11
- Auckland Council’s update..... 13
- Case Study: Performance of the Blue-Green Networks During the Auckland Floods.....35
- What’s next? ..... 41



# Purpose of this report

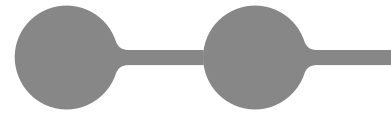
Te Tāruke-ā-Tāwhiri: Auckland’s Climate Plan is a long-term approach to climate action for the Auckland region. It outlines eight priority action areas designed to deliver our goals to reducing emissions and adapting to the impacts of climate change. Key action areas are outlined within these priorities, as well as key partners required to deliver on these actions.

Regular monitoring and reporting are fundamental for understanding progress towards the main goals of reducing emissions and adapting to climate change impacts. The plan specifies that we will report on progress of actions contained within the plan annually and that we will employ a series of indicators to identify trends and measure success in delivery against our climate goals. Further development of monitoring targets, relating to climate adaptation is underway, which will enable us to track progress towards a more resilient Auckland.

This report is focused on evaluating progress, summarising achievements and challenges, and identifying areas that require further attention. It is important to recognise that achieving our goals relies on individual action, collective action, and partnerships across all sectors of the economy and society. To ensure consistency, the publication date of this progress report aligns with the Auckland Plan Annual Dashboard, Māori Outcomes Report and Annual Report (Figure 1). The previous annual progress report was published in September 2022; therefore, this annual progress report (September 2023) is reporting on progress in the financial year 2022/2023 (FY23).

Figure 1 Reporting cycle (strategic plans)





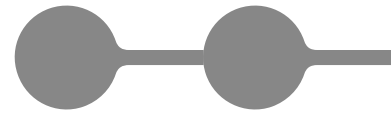
# Governance arrangements

In order to achieve the goals in Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan, a coordinated, cross sectoral approach across the region is required. Auckland Council's Environment and Climate Change Committee (superseded by the Planning, Environment and Parks Committee) agreed to establish two groups that will facilitate the effective implementation and broad acceptance of Te Tāruke-ā-Tāwhiri: a Regional Leadership Group and a Climate Political Reference Group (Figure 2).

Figure 2 Proposed regional governance and partnership structure



The Climate Political Reference Group has been established and is made up of six councillors (including the Chair and Deputy Chair of the Planning, Environment and Parks Committee), six local board members and two Independent Māori Statutory Board members. Mana whenua has been invited to propose a format for selecting and appointing representation. The purpose of the Climate Political Reference Group is to provide guidance and oversee the implementation of Te Tāruke-ā-Tāwhiri. The Regional Leadership Group is in the process of being established. This group aims to accelerate climate action and the implementation of Te Tāruke-ā-Tāwhiri through cross-sectoral partnership with Mana Whenua

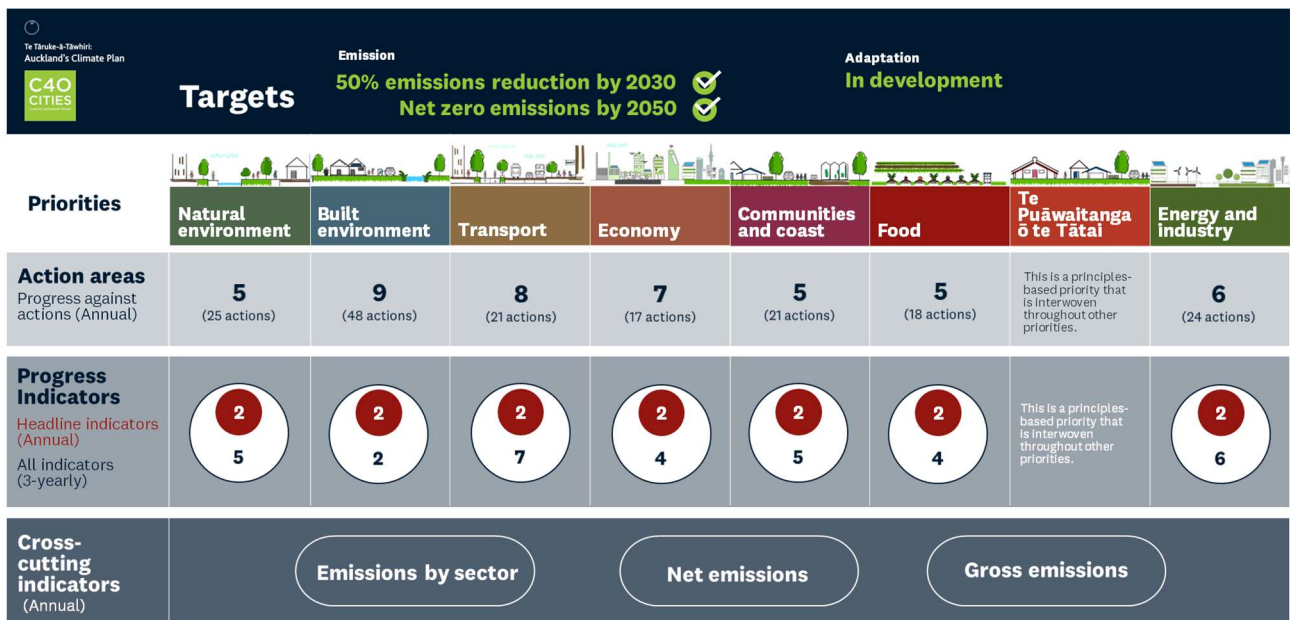


The Mana Whenua Kaitiaki Forum (now the Tāmaki Makaurau Mana Whenua Forum), a collective of the 19 hapū and iwi authorities of Tāmaki Makaurau, worked closely with Auckland Council throughout the development of Te Tāruke-ā-Tāwhiri. The forum established a working group with representatives from the forum, council, and Māori subject matter experts, to focus on supporting the development of climate actions for Tāmaki Makaurau. This partnership has been instrumental in ensuring the incorporation of kaupapa Māori and mātauranga a-iwi values and principles into the plan from the outset. Over the past 12 months, Māori specialist staff have provided support to build knowledge and capability amongst staff working on the delivery phase of Te Tāruke-ā-Tāwhiri. This includes supporting engagement with the Infrastructure and Environmental Services Kaitiaki Forum to discuss the implementation of Te Tāruke-ā-Tāwhiri and the development of the Regional Leadership Group. Staff will continue to engage with mana whenua to ensure the partnership with mana whenua established in development of the plan is maintained in its delivery.

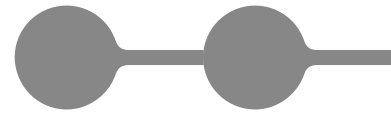
## Monitoring and reporting framework

The monitoring framework assesses progress at three levels (Figure 3). The highest level (referred to as cross-cutting indicators) will monitor progress on the plan’s targets for emissions reduction. The secondary level will use headline indicators (data) of progress against each of the priorities to indicate how well we are tracking in those areas. The third level of monitoring relates to the actions set out in the plan and will show the progress that has been made in what we are doing in each of those priority areas to achieve our climate goals.

Figure 3 Monitoring and reporting framework



The plan is guided by two overarching targets, a 50% emissions reduction by 2030 (against a 2016 baseline) and net zero emissions by 2050. Progress towards these targets is monitored through Auckland’s Greenhouse Gas Inventory, which provides annual data on total emissions (net and gross), emissions by sector and emissions per capita. The modelled decarbonisation pathway in Te



Tāruke-ā-Tāwhiri identifies gross emissions reductions by sector to support a 50 per cent reduction in emissions by 2030:

*Table 1 Sector based emission reduction targets, for a 50% reduction in emissions by 2030.*

Sector	Gross emissions reduction 2016 –2030
Stationary energy	65%
Transport	64%
Waste	0% <sup>1</sup>
Industrial processes and product use	23%
Agriculture	15%

The development of climate adaptation targets is underway, which will enable us to track Auckland's progress towards becoming more resilient to climate-related impacts.

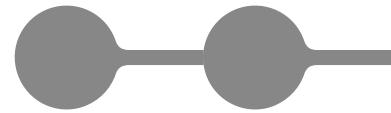
A series of progress indicators were detailed when the plan was developed. The baseline trend for each indicator is reported on in the plan and data for the headline indicators is reported against annually<sup>2</sup>. All indicators will be reported on every three years. The indicators will be reviewed each year to ensure they are fit-for-purpose.

Progress of actions contained within the plan will be reported on annually. This report provides highlights of progress, alongside the percentage of actions that are completed, on track, partially underway but require more work, or not in progress.

---

<sup>1</sup> Modelled emissions for the waste sector remain at around the same level from 2016 to 2030 while considering the population growth. Compared to the 'business as usual' projection for the waste sector this represents a 24% reduction in emissions.

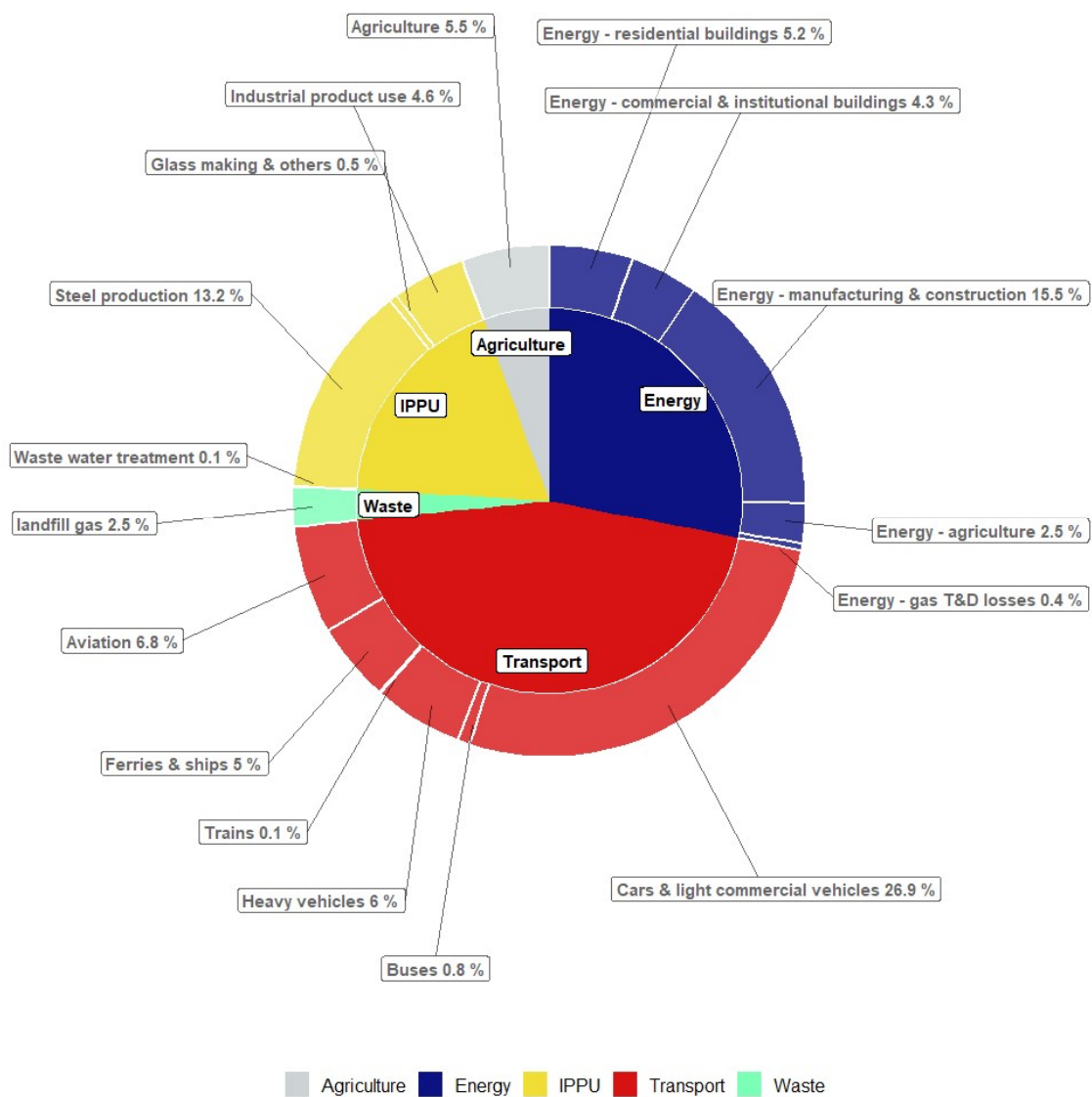
<sup>2</sup> Source for the Auckland Council baseline indicators report: <https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/topic-based-plans-strategies/environmental-plans-strategies/aucklands-climate-plan/implementation/Documents/auckland-climate-plan-baseline-indicators-report.pdf>



## Auckland's Greenhouse Gas Inventory

Auckland Council produces a Greenhouse Gas Inventory (GHG) for the Auckland region each year. The latest greenhouse gas inventory available is up to the year 2019<sup>3</sup>. There is approximately a two-to-three-year lag in publishing Auckland's greenhouse gas inventory due to the time it takes to receive data from external sources, analyse, verify the data and produce the inventory. Auckland Council is continually working on resolving these inefficiencies for a quicker turn around on inventory reporting. The 2021 inventory (including year ending 2020 and 2021) should be released in November - December 2023.

Figure 4 Auckland's greenhouse gas emission profile (2019). IPPU = Industrial process and product use.



<sup>3</sup> Xie, S (2022). Auckland's greenhouse gas inventory to 2019. Auckland Council technical report, TR2022/6

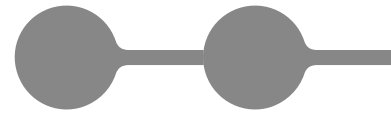
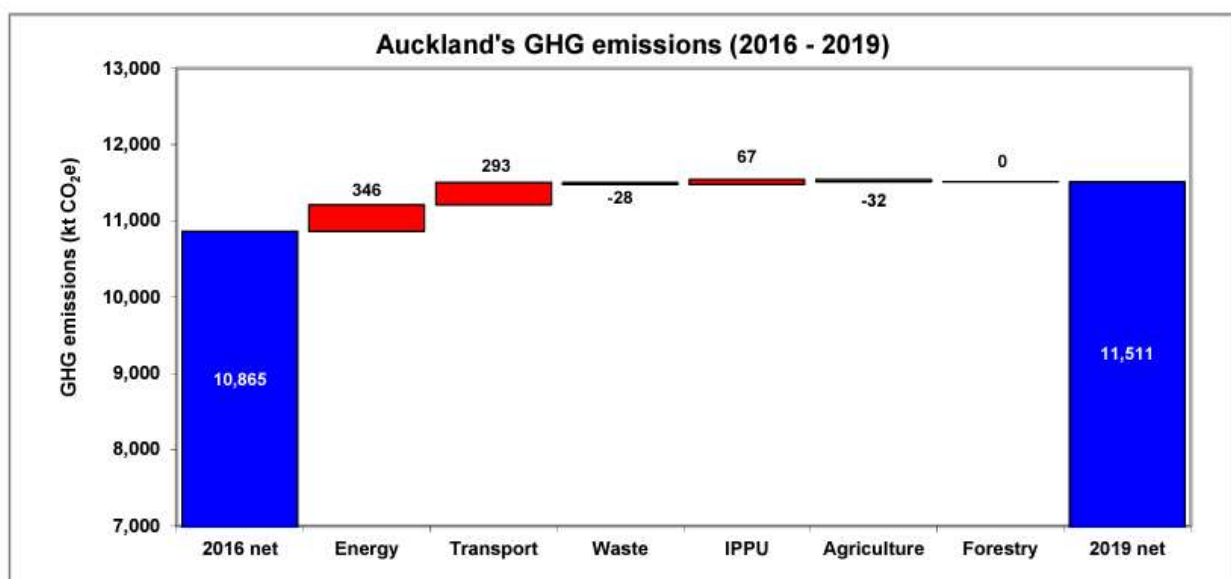


Table 2 Auckland's gross emissions by sector for 2019

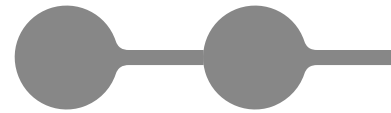
Sector	Total Emissions (kt of CO <sub>2</sub> -e)	Percentage of gross emissions
Agriculture	704	5.5%
Energy	3,574	27.9%
Industrial process and product use (IPPU)	2,350	18.4%
Transport	5,748	45.6%
Waste	333	2.6%
<b>Total</b>	<b>12,709</b>	

Figure 4 and Table 2 show the profile of greenhouse gas emissions observed in the Auckland region. In 2019, Auckland's gross emissions were 12,709 kilo-tonnes of carbon dioxide equivalent (kt CO<sub>2</sub>e). When carbon sequestration from forestry was included, net emissions were 11,511 kt CO<sub>2</sub>e. Transport and stationary energy are the dominant sectors, accounting for around 46% and 28% of gross emissions, respectively. Carbon dioxide (CO<sub>2</sub>) contributed 85.4%, methane (CH<sub>4</sub>) 8%, nitrous oxide (N<sub>2</sub>O) 2.4% and other GHGs 4.3%.

Figure 5 Auckland's GHG emissions (2016 - 2019)





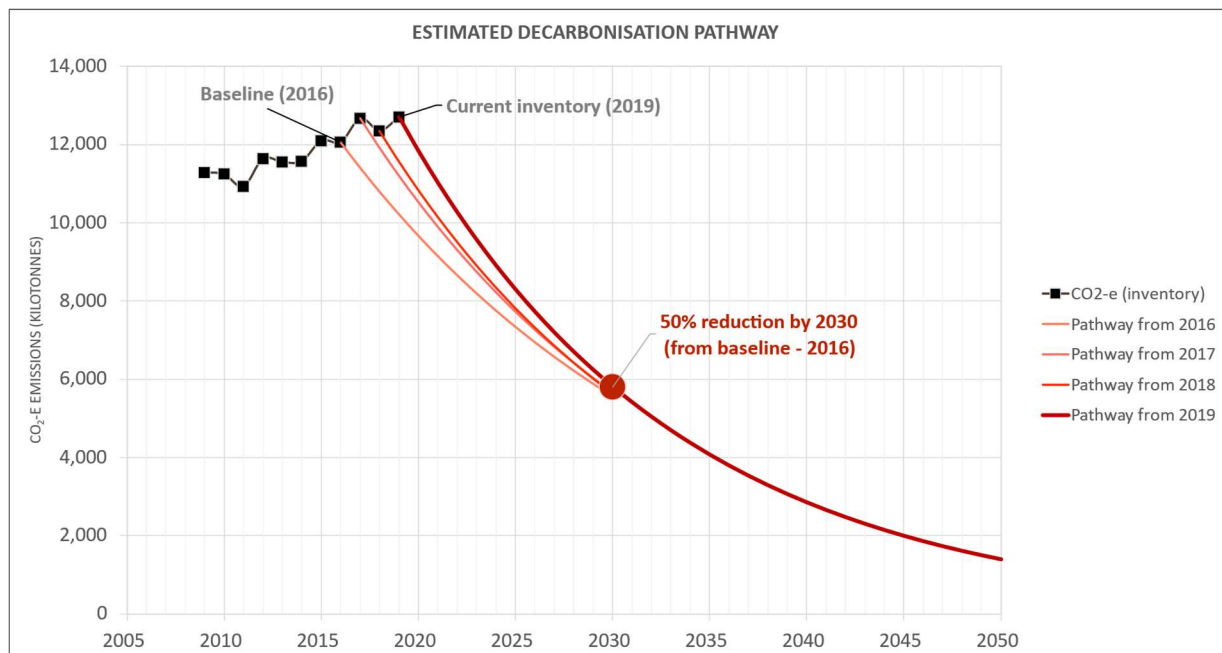


From 2016 to 2019, gross and net emissions have increased by 647 kt CO<sub>2</sub>e (or 5.4% for gross emissions, 6.0% for net emissions). As seen in Figure 5, emissions were higher from energy, transport, and industrial processes and process unit (IPPU) sectors, but lower from waste and agriculture sources. Changes in carbon sequestration from forestry (i.e., the LULUCF sector) from 2016 to 2019 were not estimated due to lack of data.

For the 2019 inventory, improvements were made in activities data, emission factors and practices around data compilation, in line with best practice. This led to an update of the 2016 baseline.

As seen in Figure 6, higher gross emissions in 2019 requires a deeper reduction to meet the halving reduction target by 2030, highlighting the urgent need to reduce our emissions.

*Figure 6 Estimated decarbonisation pathway to meet commitments*





# Global update

## International Panel on Climate Change (IPCC) report

In March 2023 the Synthesis Report for the Intergovernmental Panel on Climate Change's (IPCC) Sixth Assessment Report (AR6) was released. Drawing on the findings of 234 scientists on the physical science of climate change, 270 scientists on impacts, adaptation and vulnerability to climate change, and 278 scientists on climate change mitigation, the Synthesis Report provides the most comprehensive and best available scientific assessment of climate change.

Ten key findings from the Synthesis Report are summarised below:

1. Human-induced global warming of 1.1 degrees has spurred changes to the Earth's climate that are unprecedented in recent human history.
2. Climate impacts on people and ecosystems are more widespread and severe than expected, and future risks will escalate rapidly with every fraction of a degree of warming.
3. Adaptation measures can effectively build resilience, but more finance is needed to scale solutions.
4. Some climate impacts are already so severe they cannot be adapted to leading to losses and damages.
5. Global greenhouse gas emissions peak before 2025 in 1.5 degrees C-aligned pathways.
6. The world must rapidly shift away from burning fossil fuels the number one cause of the climate crisis.
7. We also need urgent systemwide transformations to secure a net-zero, and a climate-resilient future.
8. Carbon removal is now essential to limit global temperature rise to 1.5 degrees C.
9. Climate finance for both mitigation and adaptation must increase dramatically this decade.
10. Climate change, as well as our collective efforts to adapt to and mitigate it, will exacerbate inequity should we fail to ensure a just transition.

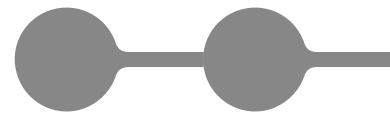
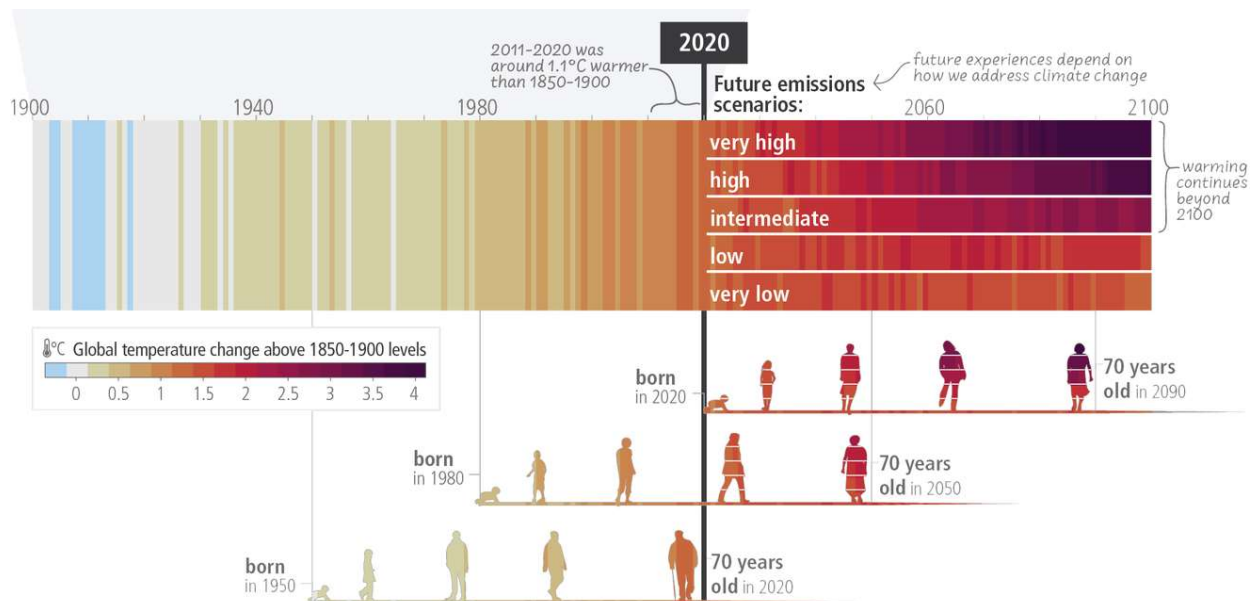


Figure 7 Shows children and young people today will never experience a world as cool as ours. The extent to which current and future generations will experience a hotter and different world depends on choices, now and in the near-term. Source: IPCC AR6 Synthesis Report.





# National update

## Resource Management Amendment Act 2020 (RMAA2020)

From 30 November 2022 the Resource Management Amendment Act 2020 (RMAA2020) amended the Resource Management Act 1991 (RMA), to enable local governments to consider the effects of discharges of greenhouse gas emissions on climate change. This is a requirement, under Sections 17, 18 and 21, of the Resource Management Amendment Act 2020 (RMAA)<sup>4</sup>.

The RMAA2020:

- Requires local governments to ‘*have regard to*’ the National Adaptation Plan and Emissions Reduction Plan when they prepare policy statements, and plans under the RMA; and
- Allows local government to consider greenhouse gas emissions when they make consent decisions.

This requirement was introduced to create a stronger link between the Climate Change Response Act 2002 (CCRA), and decision-making under the RMA.

The Auckland Unitary Plan (AUP) was drafted and made operative when councils were precluded for considering the effects of GHG emissions on climate change. Therefore, there are limited provisions in the current AUP to consider the control, mitigation or evaluation, of effects of GHG emissions as part of the consenting process. There is currently limited national guidance for how councils should approach this change. However, the Ministry for Environment’s (MfE) Guidance Note<sup>5</sup> suggests that the Emissions Reduction Plan could be considered under s104(1)(c):

*If a local government chooses to do so, it can consider under section 104(1)(c) of the RMA, which allows a consent authority to have regard to any other matter it considers relevant and reasonably necessary to determine the consent.*

To date, this aspect can only be considered as part of the rules from Chapter E14 – Air Quality<sup>6</sup> of the Auckland Unitary Plan, if a discharge to air does include greenhouse gases. The direct GHG emissions from a discharge to air only account for a small fraction of the overall GHG emissions of an activity or a project. The air quality rules are a starting point to better account for emissions, avoid and mitigate GHG and leverage the opportunity set in the RMAA2020.

Investigations are underway for a specific amendment to the Auckland Unitary Plan to better integrate climate mitigation and resilience across the various activities and projects.

---

<sup>4</sup> Sections 17, 18 and 21 are amendments of RMA sections 61(2)(d), 66(2)(f) and 74(2)(d), respectively.

<sup>5</sup> Ministry for the Environment 2022. National adaptation plan and emissions reduction plan: Resource Management Act 1991 guidance note. Wellington: Ministry for the Environment

<sup>6</sup> Chapter E14 – Air Quality manages discharges to air pursuant to section 15 RMA. This chapter applies to all discharges being over terrestrial land (discharge permits) or within the coastal marine area (coastal permits).



## Extreme weather events & response

Early 2023 saw multiple extreme weather events affect the North Island. Two of these events were particularly impactful for Auckland.

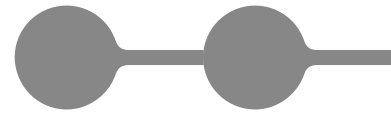
The Auckland Anniversary floods on January 27<sup>th</sup> were some of the most severe floods ever recorded in Auckland's history. Torrential rain falling on already saturated ground caused widespread flooding across much of urban Auckland during the afternoon and evening of 27 January. Over 200 mm of rainfall in 24 hours was recorded at sites across Auckland, from Warkworth to Waiuku, as well as the Waitākere and Hunua Ranges. A total of 49 sites exceeded the 24-hour total 100-year average recurrence interval of 165 mm (based on the longest historical records from Albert Park).

In mid-February cyclone Gabrielle caused widespread destruction across the North Island. It was particularly devastating for Hawke's Bay and Tairāwhiti, with widespread flooding, landslides and wind damage. Gabrielle also caused significant flooding and landslides in Auckland, with the west coast communities of Muriwai and Piha particularly affected.

Six Aucklanders tragically lost their lives during these two storms. Access to around 3000 homes was restricted or prohibited, and many are still being assessed. Roads, rail, electricity, telecommunications and three waters infrastructure was damaged in many parts of the Auckland region during these events. Treasury estimated the total damage cost from these two events was \$9.0-14.5 billion across the upper North Island.

The widespread nature of damage to property and infrastructure during these storms prompted government action on retreat from high-risk locations. As part of the recovery process government is working with affected regions to design a scheme to identify high-risk locations and compensate affected property owners. At the time of writing, councils (including Auckland Council) are working with property owners to determine whether their property may be eligible for buyout (due to the level of risk), with the costs to be shared between central and local government.

In August 2023, the Minister for Climate Change requested an inquiry by the Parliamentary Environment Committee into community-led retreat and adaptation funding. The announcement was accompanied by an issues and options paper from the Ministry for the Environment, which looks at the current system and what new powers, roles and responsibilities might be needed to support community-led retreat. It also address how the costs of adaptation may be provided for. It is anticipated that the legislative process for the proposed Climate Adaptation Bill will take place during 2024 following the inquiry. This work has implications for ongoing work on climate adaptation in Auckland.



# Auckland Council's update

Figure 8 Roadmap on climate action



## FY24 Annual Budget and FY23 Budget freeze impact on climate action

In the final quarter of FY23, Auckland Council implemented controls to reduce spend while the financial impact of flood and cyclone events were being determined. As a result, several projects and initiatives did not commence as planned.

These restrictions resulted in a stagnation of progress across the programme with some programmes impacted to a greater degree than others. The impact of the budget freeze included the inability to move forward with non-contracted spend, such as spending on professional services, and constraints in moving forward with specialist work.

On top of the pause in spending in FY23, the annual budget process was being finalised, which required savings from the LTP Climate Action Programme for the FY24 annual budget. This reduction in budget for FY24 exacerbated the impacts of the spending freeze, specifically across behaviour change climate initiatives, resulting in increased levels of staff turnover and slowing of progress.

Some impacts of the budget freeze and annual budget review are highlighted below:

- Approximately \$1 million reduction from the LTP Climate Action Programme, as part of the FY24 annual budget, with specific focus on behaviour change climate initiatives.



- The Enabling Aucklanders programme was delayed by the pause on spending and resulting uncertainty due to the proposed FY24 annual budget cuts. Specifically, a hold was placed on the four EnviroHubs, as part of the Climate Catalyst Network, with other resources paused for the communications and tools behaviour change work.
- Work to support Māori-led climate action, as part of the Kia Ora te Tātai programme, was temporarily paused, which impacted on the ability to progress marae funding agreements with iwi mana whenua and delivery of rangatahi Māori climate projects. This includes both the resilient marae project and Mātātahi Taiao.

## Climate Action Transport Targeted Rate

A Climate Action Transport Targeted Rate (CATTR, previously Climate Action Targeted Rate) over the next 10-years, was adopted as part of the Annual Budget 2022/23. The purpose of this targeted rate is to increase funding for climate action to reduce emissions, lay the foundation to enable further reductions in the future, and prepare for the impacts of climate change. The immediate focus being enhancing low carbon transport options and greening our neighbourhoods. The CATTR package was developed based on four principles: it needed to be high impact, address inequity, can be started fast and have wide regional benefits.

Since the last update in 2022, the CATTR has seen progress across its various programmes, with some programmes progressing faster than others. Overall, the CATTR FY23 actual spend was \$8m vs budget of \$19.6m, resulting in 40% of the budget being spent.

The rate underspend was attributed to a previously reported delay in initiation of the various programmes, as compared to the original spend estimation, which was established prior to the Annual Plan 2022/23 CATTR programme approval. However, more than \$20 million is contractually committed to capital projects in the next 2-3 years, and overall spend is anticipated to be aligned with the CATTR programme budget for FY24, as programme phases move from pre-implementation phase to delivery (e.g. low emission ferries and northwest bus enhancements). Further key programme highlights from FY23 are listed below:

- The **Cycling programme** progress resulted in design work proceeding for the Hobsonville cycleway and the Manurewa cycleway, and the emerging preferred option has now been confirmed for the New Lynn cycle focus area investment.
- The **Bus Programme** in FY23 delivered the creation of two new frequent routes, accelerated due to the Rail Network Rebuild on the Eastern Line. Route 76 (Britomart – Glen Innes) and route 74 (Glen Innes - Onehunga, via Sylvia Park) launched in March 2023. Patronage on these two routes combined is regularly exceeding 4,000 passenger boardings per day.
- The **Ferry programme** has ordered the first CATTR-funded low emission ferry which will be in operation in 2026. Concept designs for the required ferry charging and wharf infrastructure work are underway. The Half Moon Bay concept design is complete and the Downtown and Hobsonville concepts are being finalised.
- The **Walking programme** confirmed Auckland Transport investment approval for the planned budget for FY24. Designs for the connectivity improvement projects are now being



transferred to the walking programme delivery arm, with two projects expected to start construction in the first quarter of FY24.

- Lastly the **Ngahere** (urban forest) programme has focused on the procurement of tree planting services. Strategic plans for supplementary enhancement projects are currently being completed.

Along with the key highlights noted above by programme, several meetings with elected members as part of the CATTR Governance group overseeing the rate, have been held. These updates have focused attention of the overall programme deliverables, timing and focus areas by investment programme, along with potential changes and challenges to date.

As part of updates to elected members a full year report will be provided on the CATTR in October to the relevant committee. This report will seek to outline in more detail the progress to goals, targets, challenges and upcoming work programme.

## Storm Response

Following the Auckland Anniversary floods in January and Cyclone Gabrielle in February, multiple lines of work were initiated or accelerated to enable council to be prepared for future storms and lessen the ongoing impacts of climate change on our organisation and communities. These programmes are still in development or underway at the time of writing.

The Tāmaki Makaurau Recovery Office was established to coordinate recovery efforts and processes, in accordance with the Civil Defence and Emergency Management Act 2002, and to give support to our most impacted communities as they deal with the after-effects of the storms.

*To accelerate a Resilient Tāmaki Makaurau Auckland* the Chief Planning Office is leading an investigating into the recent flooding causes and impacts, as well as implications and improvements for policy and infrastructure settings. The objective of this work programme is to identify the lessons we can learn from the early 2023 weather events, and what we can do to build a region more resilient to water-related hazards.

*Making Space for Water* is led by Healthy Waters as part of Auckland Council's flood recovery programme. It proposes nine operational initiatives, ranging from increased stormwater maintenance and stream rehabilitation to blue-green projects and site-specific solutions for high-risk properties.

The *Storm Response Fund* is part of the annual budget FY24. It is an ongoing operational investment of \$20 million per annum, funded from rates. The fund is focused on actions that increase resilience for future storm events. Activities for the first year include:

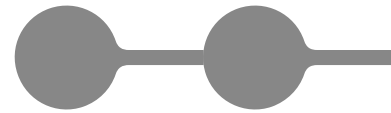
- Proactive maintenance and monitoring of stormwater, increased monitoring of road and park assets at-risk locations, will ensure that our networks are cleared of debris, blockages and less likely to cause problems.
- Strengthening Auckland Emergency Management so that they and Civil Defence Centres are better prepared, stocked and resourced, and more people are trained to respond in storm events.





- Provide people with better and targeted information about the risks they and their properties face. Provide information on what they can do to prepare for future storms.
- Coordination of capital works and land use planning so that we can make faster and financially sustainable decisions about assets that are vulnerable to damage from storm events.

Through the storm recovery work programme, there is a strong need to include climate mitigation as a focus, so co-benefits between mitigation and adaptation can be realised. This may include enabling, for example, low carbon climate resilient solutions (e.g., stormwater management using nature-based solutions).

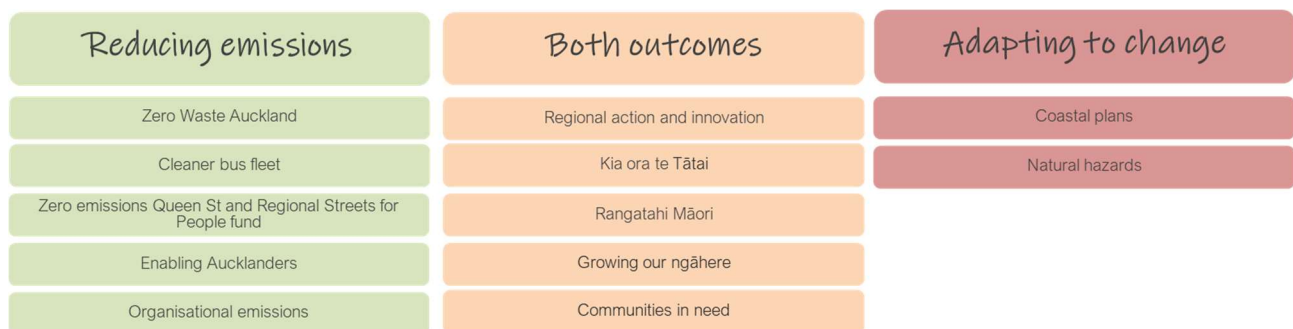


## 10-year Budget 2021-2031 (Long-Term Plan) Climate Programme

In 2020, climate action was identified as a priority area for investment through the 10-year Budget 2021-2031. Council for the first time included a dedicated climate action investment package of \$152 million of funding allocated over 10 years.

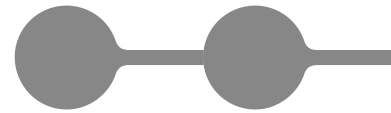
The climate action investment package consists of twelve prioritised programmes (Figure 9).

Figure 8 Climate action investment package



Over the last twelve months significant progress has been made in several areas, and key highlights of the delivery in FY23 include:

- There were 53 Zero Emission Buses (ZEB's) added to the overall fleet bringing the percentage of the fleet that is zero emissions to 7%, up from 2.7% last year. New ZEBs will continue to be added each year, however high transition numbers in the later years of the 10-year investment will likely result in lower-than-expected delivery to original targets in the next two financial years. Overall targets are expected to catch-up in the later years of the programme to meet the 50% zero emission fleet target by 2031.
- Queen Street zero emissions project essential vehicle area (EVA) was completed and is operational between Wellesley and Wakefield Streets. Construction of Zones 3, 4 and 5 (Queen Street to Mayoral Drive) was completed in December 2022, and the reconfiguration of Zone 1 (Customs Street to Shortland Street) is in final preparation stages.
- Mātātahi Taiao / Rangatahi Project: A Rangatahi Māori rōpu has been established to develop Māori-led climate action projects, based on four key priorities identified by Rangatahi Māori: wai, whenua, kai and whare with two climate projects developed in collaboration with iwi mana whenua, are now in the delivery phase. These include the Oneoneroa Repo (Wetland) Restoration Project is supporting climate mitigation and resilience, by reducing coastal erosion, protecting and restoring the habitat of taonga species and supporting carbon sequestration. The second project Taahuna Paa Mahinga Kai is being delivered by Ngaati Te Ata, one of Auckland's iwi mana whenua, and their rangatahi group. This project aims to restore and rebuild the traditional mahinga kai (food cultivation) practices of Ngaati Te Ata, providing food security and resilience, in the face of a changing climate.
- Project delivery within the corporate emissions programme began to accelerate. This includes the installation of solar photovoltaic array at aquatic centres, and solar installations at other



council properties, library and landfill sites. Other work is progressing to phase out gas boilers, and decarbonise existing hot water and heating systems, away from reticulated natural gas. Improvement in energy monitoring systems have started to be installed in various sites to provide data on electricity and gas use across council owned sites.

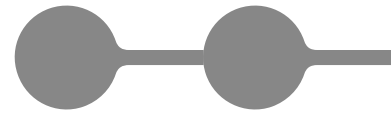
- As part of the 200 hectares of native forest planned for unproductive farmland on regional parks, 228,582 plants have been planted over the last financial year. This correlates to 22 hectares of new planting. To enable the 200 hectares of planting on regional parks, a five-year plan has been developed and signed off. Planting sites have been identified and planting lists and planting plans are being developed. Work is underway clearing and preparing sites for planting at Te Ārai, Waitawa, Anawhata and Mahurangi East regional parks.
- The Shoreline Adaptation Plans have delivered a further three plans covering a significant extent of the Auckland coastline. This spans from Beachlands to the extent of the Auckland Regional boundary on the east coast, and from Āwhitu peninsula and the southern extent of the Manukau Harbour on the west coast. In addition, the project has launched a CoastSnap station at Stanmore Bay to support regional monitoring of coastal change and implementation of the Whangaparaoa Pilot SAP. Implementation of the 6 current actions identified within the Te Waimanawa/ Little Shoal Bay mini-SAP are also underway including the hydrodynamic modelling and coastal renewals projects.
- The Reduce Energy Hardship project supported over 500 low-income households with home energy advice and installations to make their homes warmer, dryer and reduce energy bills. Through the project each household is estimated to save around \$600 per year on their energy bills.
- The Home Energy Advice Service met its target of engaging 500 households, with a partnership between Council, Ecobulb Ltd and co-funding from central government. This provided home energy advice to an additional 790 low-income households in West Auckland.
- The Auckland Climate Grant budget was fully committed with 45 community groups supported with grants totalling \$478,127. Approximately 20% of grant funding was provided to underserved communities, including Māori-led, Pasifika and Youth-led and Asian community projects, covering priority areas including transport, food and energy.
- Physical work continued at the Waitākere Transfer Station and the Auckland Botanic Gardens demonstration sites, which aimed at showing the public how to reduce emissions in their homes.
- The Grow our Ngahere Programme has taken shape with progress happening across a number of iwi and community plant nurseries. The first plants to be grown from a community nursery for the ngahere programme (15,500) were planted at Ātiu Creek Regional Park. Over the next 12 months there is an expectation that more plants will come online from iwi and community nurseries.
- The Cliff Light Detection and Ranging (LiDAR) project, as part of the Natural Hazards Programme, completed all data collection, with the data also being immediately used in the emergency storm response and recovery. The helicopter collected additional emergency data to accelerate the recovery in the hardest-hit areas.
- The Zero Waste Auckland programme awarded funding agreements to operate Community Recycling Centres at Warkworth, Waiuku, Wellsford, Wairau Valley and Point England.

The overall delivery of the climate action investment package has seen significant acceleration in delivery and deliverables over the last financial year. Previous delays from logistical and resource

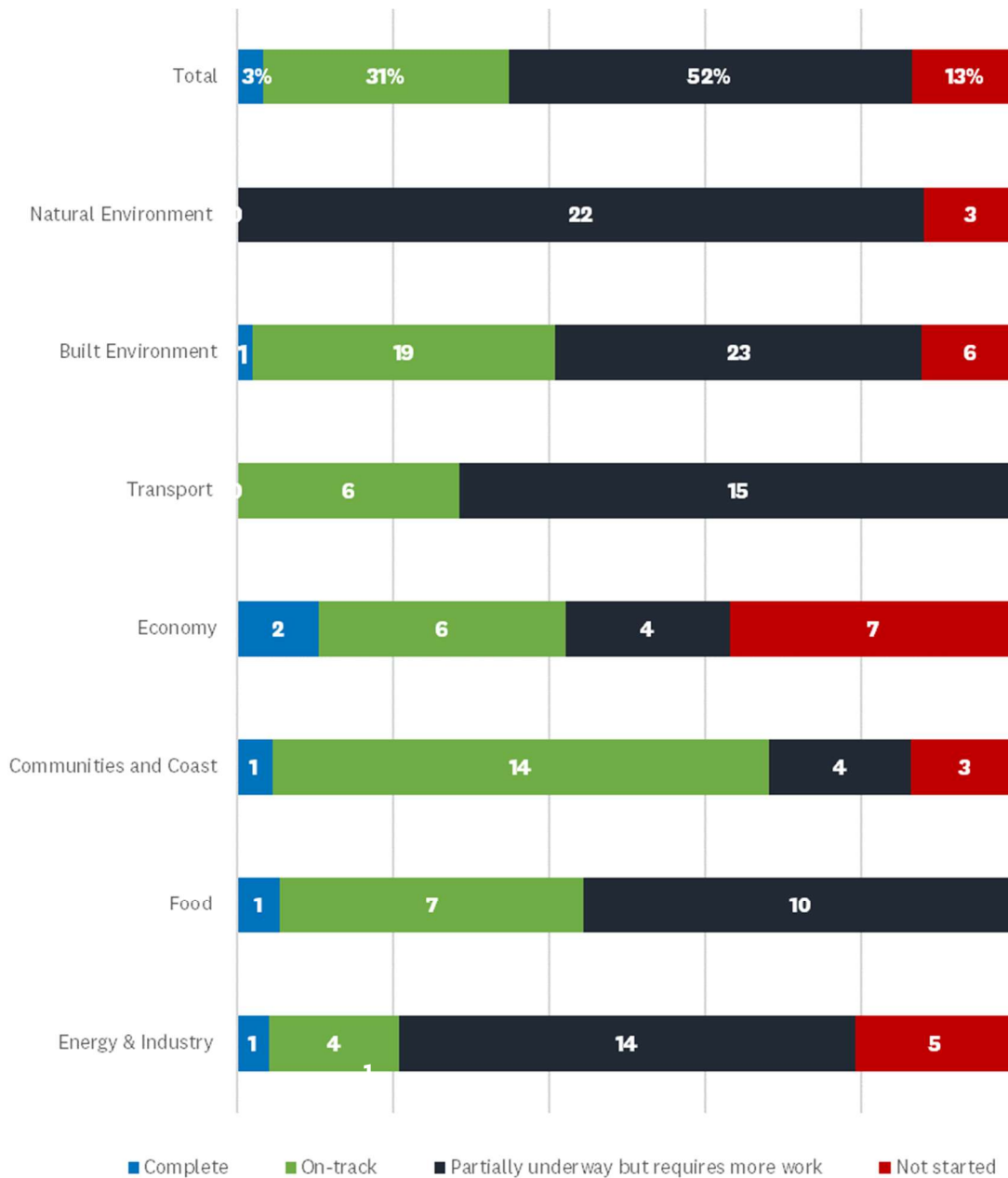


related factors, related to the COVID-19 pandemic have subsided, resulting in increased level of spend and activity.

The development of monitoring and control processes is progressing and will more closely monitor the performance and delivery of the climate action investment package going forwards.

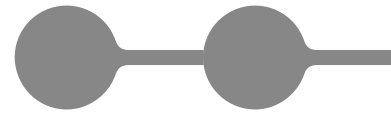


## Status of action areas and actions 2022/23 (FY23)



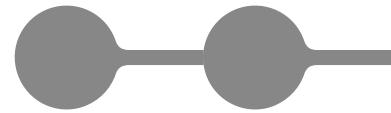
## Status of action areas and actions 2021/22 (FY22)





## Action highlights and challenges

Priority   Natural environment	
Goal	A healthy and connected natural environment supports healthy and connected Aucklanders. The mauri (life essence) of Tāmaki Makaurau is restored.
Actions	5 action areas (25 actions)
Highlights	<p>A total of 1,695,919 plants have been planted in FY23. This is a significant increase on previous years being over double the annual totals for 2020 and 2021 (761,451 plants and 782,500 plants respectively). Many of the planting programmes involve community groups, schools and mana whenua.</p> <p>In FY23, the Natural Environment Targeted Rate has invested in planting 89,301 plants through the Trees for Survival programme. In addition, the 200 hectare Carbon Sequestration tree planting programme (which started in 2021 with 13,000 plants) has increased to 87,000 plants planted in 2022. The Mayor’s Million Trees campaign planted 344,291 trees and the Healthy Waters work programmes have planted an addition 624,000 plants which is three times the number of plants in 2021.</p> <p>The Mahurangi Environment and Land Restoration programme is a Central Government funded initiative that mitigates erosion by stabilising hill country areas and riverbanks, through riparian planting and wetland restoration. Some of these plants have been given to Mahurangi College for their Living Classroom mahi to restore reserve areas and improve the Mahurangi River. Through the Trees for Survival programme, 106 schools across the region have grown and planted native trees on more than 8.5 hectares of land and over 5,500 metres of waterways in rural areas. Regional Parks have a large planting programme funded through both the Trees for Survival and the 200ha Carbon Sequestration programme. The Regional Parks and Community Parks planting programme accounted for 41% of all plants planted in FY22.</p> <p>There are ongoing partnerships in the Kaipara (Kaipara Moana Remediation), with mana whenua and Central Government’s commitment to invest \$205M over 10 years in green infrastructure solutions. This will address ongoing erosional risk, with benefits of improving resilience to future climate erosional risks for degraded water quality.</p> <p>To protect our new and existing indigenous plants there is an active pest management programme, and the Natural Environment Targeted Rate has allowed Auckland Council to increase management of key pests and weeds (many of which are expected to benefit from climate change). In FY23 there was a similar commitment to controlling pests and weeds but some programmes had budget restrictions and planned increases have been delayed. New biosecurity issues in the region have interrupted the hull inspection programme as resources are redirected to a new seaweed incursion in the Gulf. Other pest control projects include a new rat and cat control programme on Aotea, Great Barrier Island.</p>



## Priority | Natural environment

Local Board	Public open space	Publicly owned land	Roads	Private	Total
Kaipātiki	64%	34%	14%	25%	30%
Upper Harbour	52%	11%	13%	30%	28%
Hibiscus and Bays	29%	42%	14%	23%	24%
Albert-Eden	34%	18%	20%	18%	20%
Puketāpapa	50%	15%	12%	16%	20%
Ōrākei	25%	20%	16%	19%	19%
Waitematā	43%	10%	17%	15%	19%
Whau	34%	12%	13%	16%	17%
Devonport-Takapuna	27%	14%	13%	17%	16%
Howick	26%	12%	8%	17%	16%
Henderson-Massey	32%	12%	8%	14%	15%
Papakura	17%	9%	11%	15%	14%
Manurewa	26%	7%	9%	12%	13%
Maungakiekie-Tāmaki	23%	11%	12%	9%	12%
Ōtara-Papatoetoe	14%	10%	9%	8%	10%
Māngere-Ōtāhuhu	14%	8%	9%	7%	8%

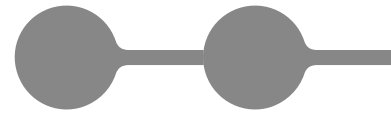
Council has a new i-Tree App which is a software model that is designed to estimate plant structure, ecosystems, values, and risks related to urban forests and street-trees, including the estimated carbon storage and sequestration value of trees as well as other environmental values (such as pollution removal, oxygen production and avoided stormwater runoff). This tool will support reporting in the short term and complement the long-term LiDAR assessments.

Council is also focusing on a cross-council blue-green network plan and enhancing the uptake of water-sensitive design to include raingardens, green roofs, wetlands etc. This blue green network plan will pull together evidence and data to support planning green-blue spaces that maximises natural hazard risk mitigation, equity of access to open space and ecological connectivity.

### Challenges

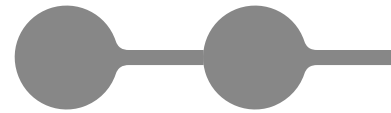
The Natural Environment Targeted Rate still only provides for a highly prioritised sub-set of threatened species and indigenous ecosystems to be actively managed. Some of these programmes are being impacted by recent financial restrictions, which are causing significant delays and delivery of work programmes, which cannot be scaled up. With current funding, by 2028 there will still be over 300 threatened species with no active management in the region.

Across Council there are many initiatives to re-green Auckland, but there are challenges with coordination for joined up outcomes. For example, nature-based solutions are being championed across council in different functions under different names (i.e., Water-sensitive design, blue-green planning, integrated stormwater management, regenerative infrastructure, mauri-enhancing infrastructure) and with different drivers. We will bring these initiatives together in the coming year.

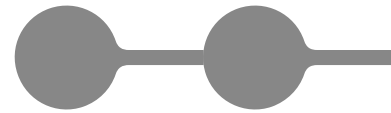


Priority   Built environment	
Goal	A low carbon, resilient built environment that promotes healthy, low impact lifestyles.
Actions	9 action areas (48 actions)
Highlights	<p><b>Future Development Strategy</b></p> <p>Four growth scenarios were developed and tested for the Future Development Strategy (FDS) in 2022 and 2023. All scenarios considered climate change mitigation and adaptation. A climate response scenario was specifically developed to identify growth patterns that would support better 'climate change mitigation and adaptation' outcomes. The future development strategy is based around a quality compact approach to growth and updated growth modelling follows this.</p> <p>The draft Future Development Strategy (public consultation in June &amp; July 2023) proposes removing four future urban areas (in whole or in part) due to hazard constraints, while aiming to manage the timing of development in other future urban areas linked to the availability of supporting infrastructure. This step, together with a greater focus on intensification in existing urban areas, aims to create well-functioning urban environments that would result in better climate outcomes. Significant challenges however remain to ensure the strategy is properly implemented (after public consultation and through ongoing consent and investment decisions), and that further measures are developed. In fact, the proposed scenario included in the Future Development Strategy does not align with the emission reduction targets set in Te Tāruke-ā-Tāwhiri or in the <i>Transport Emissions Reduction Pathway (TERP)</i>. Furthermore, work still needs to be done to ensure that growth does not occur in areas subject to climate risks.</p> <p><b>National Policy Statement on Urban Development and PC78</b></p> <p>The National Policy Statement on Urban Development 2020 (amended in 2022) lead to a proposed plan change (PC78) for Council to:</p> <ul style="list-style-type: none"> <li>• enable more development in the city centre, and at least six-storey buildings within walkable catchments from the edge of the City Centre, Metropolitan Centres and Rapid Transit Stops</li> <li>• enable development in and around neighbourhood, local and town centres</li> <li>• incorporate Medium Density Residential Standards that enable three storey housing in relevant residential zones in urban Auckland.</li> <li>• implement qualifying matters to reduce the height and density of development required by the RMA, to the extent necessary to accommodate a feature or value that means full intensification is not appropriate.</li> </ul> <p>The Proposed Plan Change was notified on 18 August 2022 and submissions closed on 29 September 2022. The summary of decisions requested was notified on 5 December 2022. Additional plan changes to the regional policy statement for transportation, and for the scheduling of historic heritage and notable trees, were also proposed (PC 79, 80, 81, 82, 83).</p> <p>Originally decisions on PC78 were required to be made by 31 March 2024. The Council sought a 12-month extension to this. We received advice on 13 April that the 12-month extension has been granted (until 31 March 2025) by the Minister for the Environment. This is to allow for the further investigations and consideration of the impact of this on land use planning shown in PC78. While this change provides more time to implement appropriate measures, it also delays the implementation of the urban densification much needed for climate mitigation and resilience, as well as to reduce cost of living and housing affordability.</p>



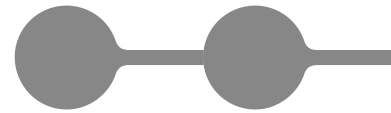


Priority   Built environment	
	<p><b>Watercare and Healthy Waters Climate actions</b></p> <p>Watercare are delivering 40:20:20 vision for infrastructure using the internationally recognised framework PAS2080. 40:20:20 aims to reduce embodied carbon by 40%, cost by 20% and improve health and safety performance by 20%, covering all capital works projects. A carbon baseline for embodied emissions for a significant tranche of Watercare projects has been established and it is now being evolved to review even more projects as well as whole of life carbon. Green House Gas (GHG) evaluation of various design options is also undertaken to ensure delivering low carbon goals.</p> <p>Significant carbon reductions in the last financial year have included:</p> <ul style="list-style-type: none"><li>• Waikato water treatment plant sludge treatment saved over 500 tCO<sub>2</sub>e, through operational optimisation. and avoiding the need to build additional sludge treatment.</li><li>• Takapuna relining and rehabilitation, instead of a replacement, project saved 780 tCO<sub>2</sub>e and significant community disruption.</li><li>• Mangere peak flow project reassessed and replaced with other projects on site to achieve the outcome which saved 1600 tCO<sub>2</sub>e.</li><li>• Redoubt Road reservoir utilising fly ash to replace approximately 25% of cement and saving 200 tCO<sub>2</sub>e.</li><li>• Introduction of three electric haulage trucks for the Central Interceptor project saving 300 tCO<sub>2</sub>e</li></ul> <p>Watercare and Healthy Waters assess assets against future climate change impacts such as flooding, sea level rise and temperature increase. This has led to infrastructure changes such as moving the location of the Snells-Algies wastewater treatment plant to accommodate future sea level rise.</p>
Challenges	<p>Auckland Council has limited opportunity to mandate the changes required in the building and construction sector to support our climate goals. The region is predicted to undergo significant growth, and it is essential that this growth supports a low carbon, resilient future. The current Building Code is underperforming in delivering healthy, efficient buildings and does not align with our climate goals.</p> <p>The Auckland Plan 2050 notes our current housing stock will make up approximately half of all dwellings in Auckland in 2050. The quality of these existing buildings needs to be improved significantly, in order to improve energy efficiency, health and wellbeing outcomes. While a significant energy efficient retrofit programme is required to support our climate goals, the interventions of Auckland Council were limited due to financial constraints and political direction.</p> <p>The Transport Emissions Reduction Pathway (TERP) identifies ‘Build up not out’ as one of 11 areas for transformation to support a reduction in transport emissions. Auckland needs most future growth to be accommodated through intensification in the existing urban area. In particular, locations with shorter average trip lengths and access to good quality transport options should be prioritised, rather than continued expansion into greenfield and rural areas. While the NPSUD and the Future Development Strategy contributed to these outcomes, further actions need to be implemented to give effect to the densification and the <i>well-functioning urban environments</i> provisions.</p> <p>While some projects are still planned with a car-enabled sprawling city approach (e.g., Waka Kotahi Waitematā Harbour Connections, Private Plan change in Beachlands South – PC88), the recent Auckland Anniversary floods, together with Cyclone Gabrielle improved awareness of decision-makers around urgent need for climate action (both mitigation and adaptation). The adoption of the Future Development Strategy (with the downzoning of specific areas), and the recent resolution to reject a private plan change on the basis of</p>



Priority   Built environment	
	climate hazards, non-alignment with public transport and spatial planning, are positive signs.

Priority   Transport	
Goal	A low carbon, safe transport system that delivers social, economic and health benefits for all
Actions	8 action areas (21 actions)
Highlights	<p>Auckland Council and Auckland Transport continue to make progress towards a low-carbon transport system, however, the scale and pace of this progress significantly misaligns with what is necessary to achieve the outcomes of Te Tāruke-ā-Tāwhiri. Transport is the largest source of Auckland’s GHG emissions, and continued population growth and urban expansion present a challenge for net emissions reduction from the sector.</p> <p>Te Tāruke-ā-Tāwhiri identifies the need for a 64% reduction in transport emissions as a critical element of Auckland’s target of halving regional emissions by 2030. In August 2022 Auckland Council approved the Transport Emissions Reduction Pathway (TERP) which demonstrates the scale of transformation required to achieve this.</p> <p>46% of new light vehicles registered in FY23 were low-emissions electric or hybrid vehicles. Fully electric vehicles constitute 1.9% of the total light vehicle fleet (July 2023) and most newly registered vehicles in the previous year were petrol or diesel powered.</p> <p>Several transport initiatives contribute towards emissions reductions in the Auckland region. Work towards completion of the City Rail Link (CRL) continues at pace, with the completion date pushed back by 18 months until 2026. Additional frequent bus routes (74 &amp; 76) have been implemented, and in November 2022 35 e-buses were added to the fleet, with 44 more due to come online in September 2023. Auckland Transport has also contracted the delivery of 2 electric ferries which are due for delivery in 2024, whilst work continues with the rail electrification to Pukekohe.</p> <p>Auckland’s active travel network continues to improve—with cycleway additions in Glen Innes, Orakei and Hillsborough—as well as minor cycling improvements across many locations in the network and a wide range of pedestrian safety improvements delivered alongside safe speeds projects. Community bike hubs have been supported in Mt Roskill and Waiheke, helping communities to engage, repair and recycle bikes. In June the AT board approved construction of Great North Road street improvements which include safety enhancements, street upgrades and cycle facilities.</p> <p>Auckland Transport has adopted ‘Room to Move’; a kerbside management strategy and developed a TERP implementation methodology. Work is underway on a vehicle kilometers travelled (VKT) reduction programme, developed in partnership with Auckland Transport, Auckland Council and Waka Kotahi, as part of central government’s emissions reduction plan (ERP). This work is expected to be completed in December 2023. The VKT reduction programme is targeted at reducing reliance on light vehicles (such as cars, utes and vans), and presents an opportunity to further investigate interventions necessary for reducing carbon emissions from transport.</p>
Challenges	In Auckland, historic transport planning and investment decisions prioritised private motor vehicle use and convenience over other transport outcomes, embedding a reliance on private motor vehicles use over other modes.



## Priority | Transport

Although this has started to change in recent years with increased investment in public and active transport, the impacts of Auckland's current transport system are significantly misaligned with the strategic direction of Te Tāruke-ā-Tāwhiri, and the level of emissions reduction required to effectively reduce risks to the wellbeing of people and the environment. Without rapid and substantial change in the management, prioritisation, resourcing and delivery of Auckland's transport investments and existing assets, emissions from transport present a critical risk to Auckland's climate objectives and commitments.

Severe weather events have placed additional demand on transport agency resources, requiring a redirection of funding and industry capacity towards repair of damaged infrastructure. Coupled with inflationary pressure, this has resulted in funding constraints which reduce Auckland's ability to deliver climate responsive transport interventions.

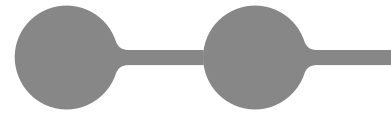
As of August 2023, public transport (PT) patronage sits at approximately 85% of pre-COVID levels. Over the last year, significant staffing issues have affected service reliability and frequency, however Auckland Transport is currently on-track to resolve these issues before the end of 2023. PT improvements have been accompanied with the release of the draft Regional Public Transport Plan 2023-2031 (RPTP), currently out for public consultation. The draft RPTP sets out short-, medium- and long-term focus objectives for PT in Auckland, including planned projects which are expected to achieve PT patronage of 150 million trips by 2031. This figure falls substantially short of the 550 million trips identified as necessary in the Transport Emissions Reduction Pathway, and significant work will need to be undertaken to close the forecast patronage gap.

Auckland's cycle counts remain below pre-COVID levels, and Auckland's cycle network remains critically underdeveloped and disconnected, comparing poorly to international peers, and trailing behind Christchurch and Wellington in terms of both network expansion and ridership growth. A strong focus on accelerated delivery and resourcing will be required to achieve the TERP target of an extensive, dense and connected cycle network of quality routes and appropriate destination infrastructure.

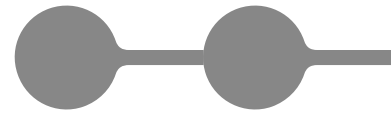
Continued ex-urban sprawl and greenfield development increases the size of both Auckland's population and road network, directly conflicting with transport emissions reduction aims. Restrictive land use policies, particularly within 5km of the city centre, preclude development of a compact city and create a housing environment which embeds longer commuting distances and car-dependency for Auckland households, resulting in increased transport emissions.

Central government legislative changes and support for accessible streets, congestion charging, vehicle scrappage and improved parking enforcement have not yet eventuated, presenting considerable challenges for local road controlling authorities to meet emission reduction targets.

At both a local and national level, government and agency responsiveness to transport sector emissions has been broadly inadequate to meet the scale and pace of change required for effective mitigation, and adaptation to the climate emergency.

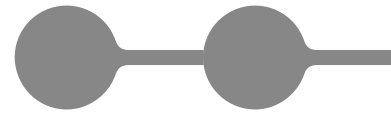


Priority   Economy	
Goal	A resilient, low carbon economy, guided by our kaitiaki values, that supports Aucklanders to thrive.
Actions	7 action areas (17 actions)
Highlights	<p><b>Climate disclosures</b></p> <p>The Financial Sector (Climate-related Disclosures and Other Matters) Amendment Act 2021 amended the Financial Markets Conduct Act 2013 (FMC Act) and the Financial Reporting Act 2013, requiring the Auckland Council Group to make annual climate-related disclosures based on standards published by the External Reporting Board (XRB) for the year ended 30 June 2024.</p> <p>The group has been working towards ensuring it is able to prepare a compliant disclosure. Climate disclosure governance, reference and working groups are in place to ensure oversight and delivery of the associated work programmes.</p> <p>The group has been working on a number of projects to progress its disclosure which include:</p> <ul style="list-style-type: none"> <li>• Identifying and rating the group climate risks</li> <li>• Developing three integrated scenarios based on two transition and two physical scenarios identified in 2022. The integrated scenarios also combine scenarios that were developed separately by AT, and comply with the requirements of the climate standards.</li> <li>• Testing the resilience of the group to climate change</li> <li>• Implementing recommendations from a climate governance review completed by Tonkin + Taylor / InformedCity, as part of the 2022 work programme</li> <li>• Work has begun to develop a group organisational strategy that incorporates transition plan aspects.</li> <li>• Consolidating group greenhouse gas emissions (GHG)</li> <li>• Developing metrics and targets that demonstrate our performance in addressing our top climate risks.</li> <li>• Transitioning the group’s climate statement from the Taskforce for Climate-related Financial Disclosures framework to the New Zealand Aotearoa Climate Standards</li> <li>• Transitioning the format of the disclosure from an entity-by-entity format to a group format.</li> </ul> <p><b>Sustainable finance programme</b></p> <p>Auckland Council’s sustainable finance programme includes use of proceeds products (green bonds and loans) and sustainability linked financing products.</p> <p>Auckland Council’s green bond programme has raised over \$2.3 billion through green bonds that have contributed to the financing and refinancing of a diverse range of assets from the City Rail Link, to the Rehabilitation of Puketutu Island. This year, council issued two Swiss Franc denominated bonds totalling CHF200 million and raised \$200 million through the Local Funding Government Funding Agency (LGFA) Climate Action Loan Lending Programme.</p> <p>In June 2022, we converted a further \$600 million of bank standby facilities over to sustainability-linked facilities increasing the total to \$800 million. The sustainable performance targets used for the sustainability-linked facilities and sustainability-linked derivative, which has a notional value of \$120 million, include:</p>



Priority   Economy	
	<ul style="list-style-type: none"> <li>Increasing annual proportion of procurement influenceable spend with Māori and/or Pasifika owned business or social enterprises by 5 per cent.</li> <li>Increasing the number of operational low emission buses within the Auckland Transport bus fleet</li> <li>Reducing the group's GHG emissions by 50 per cent by 2030 and reach net-zero emissions by 2050.</li> </ul> <p>As a signatory to the C40 Divest/Invest declaration, council is committed to 'issuing the majority of our debt through sustainable finance mechanisms such as green bonds'.</p> <p><b>Climate Connect Aotearoa (the climate innovation hub)</b></p> <p>Climate Connect Aotearoa, led by Tātaki Auckland Unlimited, is an innovation hub to support collaborative climate action. It delivers on the Economy Priority action to 'Accelerate the uptake of innovation that supports the delivery of a resilient, climate-proof and regenerative economy'. Since the hub launched in October 2022, it has commenced a community energy-sharing challenge in collaboration with Ara Ake and preparations are underway for a place-based food challenge. The hub's website now includes an interactive climate innovation ecosystem, a Knowledge Hub, He Kete Mātauranga (a mātauranga Māori climate platform) and a full te reo Māori translation. The team continue to grow the resources on these platforms through collaboration.</p> <p><b>Cost of Transition – Economic Modelling for Tāmaki Makaurau Auckland</b></p> <p>Climate Connect Aotearoa and Tātaki Auckland Unlimited have jointly commissioned research to model green jobs, tasks and skills for the region, as well as impacts associated with the cost of inaction vs. decisive action. This builds on the first round of research that assessed the regional-level consequences of climate mitigation initiatives and showed that Tāmaki Makaurau Auckland will be impacted differently from the rest of Aotearoa New Zealand due to our different economic makeup. The aim of building a robust research base is to understand how Auckland may be impacted by the transition, to then be able to support just transition plans.</p>
Challenges	<p>Due to high-demand, Climate Connect Aotearoa faced delays recruiting for specialist roles with an appropriate level of expertise and experience. Key roles are now filled within the hub, but budgetary impacts to Tātaki Auckland Unlimited and their implications for Climate Connect Aotearoa are still being worked through.</p> <p>People resource remains low across the relevant organisations due to funding constraints following Covid-19, as well as Covid-19 related work programme disruptions for staff. This has slowed progress against actions E1 and E4 in Te Tāruke-ā-Tāwhiri.</p> <p>Lack of capability and capacity in this space continues to be a challenge.</p>

Priority   Communities and coast	
Goal	Communities and individuals are prepared for our changing climate and coastline, and carbon footprints of Aucklanders have reduced.
Actions	5 action areas (21 actions)
Highlights	Auckland Council engaged 63,871 Aucklanders through events, local board projects, online tools, grants and community-led activities focused on climate action. These initiatives educated and supported Aucklanders to undertake individual or community-based climate action. Auckland Council also worked with 69% (386 out of 562) of Auckland school



## Priority | Communities and coast

communities, providing many with capacity building workshops and action orientated events on climate change. Youth-led action projects are delivering outcomes in several climate action priority areas.

Collectively through these community programmes over 5,000 tonnes of CO<sub>2</sub>e were reduced.

Significant community highlights include:

**The Auckland Climate Grant** supported 45 community-led climate projects with grants totalling \$478,127. Approximately 20% of grant funding was provided to historically underserved communities including Māori, Pasifika, Youth and Asian community projects in priority areas including transport, food and energy. A total of 15,924 Aucklanders were engaged through the grant in climate action projects.

A **consumption (or spend-based) emissions modelling report** has been published. The development of spend-based emission factors will contribute to a greater understanding of the biggest emissions areas such as housing, food and transport and how to best support community emission reduction efforts. This is a significant step to capturing direct and indirect impacts of consumers purchases on CO<sub>2</sub>e emissions. While developed to support climate initiatives in Tamaki Makaurau, due to its national relevance, the Ministry for the Environment (MfE) has referenced the report in their Measuring Emissions Guide (MEG).

Through the **Reduced Energy Hardship** and **Home Energy Advice Service** over 5,000 Aucklanders were supported to make their homes warmer, dryer and reduce energy bills. Eighty percent of households supported were low-income whānau, estimated to each save around \$600 per year on their energy bills. These projects are delivered in partnership with Habitat for Humanity, Vision West, Ecobulb Ltd and the Ministry of Business Innovation and Employment (MBIE).

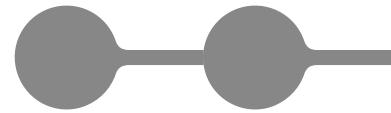
The **Mana Ora | Students Decarbonising Schools** project funded by the Westpac NZ Government Innovation Fund and the Ministry for the Environment (MfE) has engaged 14 schools and five Kura Kaupapa Māori, to implement projects to tackle climate change, reduce carbon emissions and build climate resilience. The youth-led projects cover priority areas for climate action such as transport, food, energy, and the natural environment.

Through **FutureFit** over 12,000 people calculated their carbon footprint. There are currently 6 large businesses using the 'FutureFit in Business' package which is designed to help staff reduce their personal emissions: Spark, ASB Bank, Chorus, Ventia, Downer and Eke Panuku. There is also a 'Futurefit Council' package available to other councils nationwide which has signed up 21 councils. Both packages generate revenue for Auckland Council.

Through the **Shoreline Adaptation Plan** work Plan programme, a series of five full plans and a further 'mini-plan' have been completed and approved by the Planning Environment Parks Committee to date. This covers approximately 35% of the Auckland regions coast, and an accelerated programme is underway to complete the remainder of the plans by mid-2025. The Plans have received the prestigious Terry Healy Award from the New Zealand Coastal Society, recognising how the plans significantly contribute to sustainable coastal management in partnership with iwi.

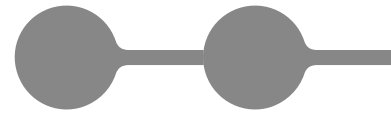
**Sustainability capability building** workshops were delivered to 700 teachers and community members to provide tools and advice on how to support young people to take sustainability action. Workshops increasingly had a focus on building resilience to the impacts of climate change including regeneration of biodiversity.

Capacity building activities empowered youth to address climate change concerns and make a positive impact in their community.



Priority   Communities and coast	
	Seven <b>Community Bike Hubs</b> are currently funded through Local Boards, providing affordable and accessible transport options to the community, reducing barriers to cycling and reliance on petrol vehicles. The bike hubs repaired 6,077 bikes and 15,764 bike hub visitors received advice. The operators of the Mangere Bike Hub played a crucial role in supporting their community during the flood events. They serviced over 30 donated bikes and distributed them to community members who lost vehicles in the floods, repaired bikes and supported volunteer efforts at civil defence centres.
Challenges	<p>Several community climate action projects with a multi-year focus were paused while the Annual Plan process was carried out. These programmes are being delivered in FY24.</p> <p>Increased investment is required to support community-led climate action to achieve climate action outcomes. Supporting underserved communities to build their capability and capacity to act, with the provision of tools and resources to reach more diverse audiences, will continue to be priority areas for resourcing.</p> <p>The severe weather events in January and February impacted on the momentum of several projects, particularly the Māori-led community projects, with staff redirected to the iwi Māori response function.</p> <p>Projects that rely on face-to-face interactions with community continued to be impacted by delivery delays, due to customer or contractor illness.</p> <p>Recruitment and retention of Māori- specialist staff to deliver Māori-led projects in Te Tāruke-ā-Tāwhiri continues to be a challenge due to a competitive job market and small talent pool with the specialist skillset required.</p>

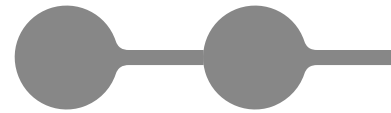
Priority   Food	
Goal	A low-carbon, resilient, local food system that provides all Aucklanders with access to fresh and healthy food.
Actions	5 action areas (18 actions)
Highlights	<p><b>Different Dinners:</b> A trial to test what interventions would support willing Aucklanders to make food choices with lower impact on carbon emissions was successfully delivered. The trial sort to encourage participants to choose vegetarian dinners one or more times per week. The trial demonstrated that many Aucklanders are willing to try eating less meat, resulting in an average increase from 1.4 to 2.8 vegetarian meals per week, and overall estimated emissions reduction of 176 tonnes of CO2e from 732 trial participants.</p> <p><b>Community WasteWise:</b> Twenty-four events were supported to divert 82% of their event waste from landfill through Auckland Council’s Zero Waste Event grant. Waste diverted included organic and recyclable waste. Further efforts were made to reduce emissions by piloting a waste separation gear loan delivery service from a Community Recycling Centre in Wellsford, to reduce travel emissions for events in northern areas of the Auckland Region.</p> <p><b>Cross-council Working Group:</b> A working model for collaboration was created to integrate, coordinate, and improve efficiency in delivery of food related outcomes across Auckland Council. Fifteen departments are involved- sharing knowledge and identifying barriers and potential levers for a regenerative food system in Auckland.</p> <p><b>Community Networking Group:</b> To amplify collaboration between Council and community, networking events were held to connect community organisations working on food outcomes. Named ‘Kai Innovators’, these events help to celebrate the successes of the community, share innovations and learnings, and give both Council and community</p>



Priority   Food	
	organisations working in the food system a chance to know and understand each other. An average of 40-50 people attended these events which are collaboratively planned and organised with key community partners.
Challenges	A lack of government mandate, decentralised responsibility for delivering action across the food system, and high numbers of stakeholders make coordinating and resourcing this Priority challenging.

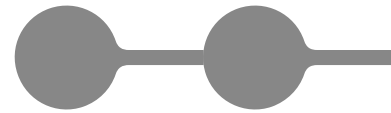
Priority   Te Puāwaitanga ō te Tātai	
Goal	intergenerational whakapapa relationships of taiao, whenua and tāngata are flourishing. The potential and value of Māori is fully realised. Māori communities are resilient, self-sustaining and prosperous.
Actions	<p>Te Puāwaitanga ō te Tātai does not outline specific actions but instead identifies seven te ao Māori principles that should be interwoven throughout the other Priorities and are fundamental to the delivery of Te Tāruke-ā-Tāwhiri. These principles are:</p> <ul style="list-style-type: none"> <li>• Kaitiakitanga</li> <li>• Mātauranga</li> <li>• Taurite</li> <li>• Whanaungatanga</li> <li>• Manaakitanga</li> <li>• Rangatiratanga</li> <li>• Tōnuitanga</li> </ul>
Highlights	<p>The projects below are highlighted as examples of projects that are working towards delivering and upholding the te ao Māori principles outlined in Te Puāwaitanga ō te Tātai:</p> <p><b>Mātātahi Taiao / Rangatahi Project</b></p> <p>A rangatahi Māori rōpu has been established to develop Māori-led climate action projects based on four key priorities identified by rangatahi Māori: wai, whenua, kai and whare.</p> <p>Two climate projects developed in collaboration with iwi mana whenua are now in the delivery phase. The Oneoneroa Repo (Wetland) Restoration Project is being delivered in partnership with the Bayswater/Takapuna community and local schools, Restoring Takarunga Hauraki and Uru Whakaaro, to restore the Oneoneroa/Philomel repo (wetland). This project will support climate mitigation and resilience by reducing coastal erosion, protecting and restoring the habitat of taonga species and supporting carbon sequestration.</p> <p>The second project Taahuna Paa Mahinga Kai Project is being delivered by Ngaati Te Ata, one of Auckland's iwi mana whenua, and their rangatahi group. This project aims to restore and rebuild the traditional mahinga kai (food cultivation) practices of Ngaati Te Ata, providing food security and resilience, in the face of a changing climate.</p> <p>This project is shaped by and demonstrates the principles of Manaakitanga, Kaitiakitanga, Whanaungatanga and Mātauranga.</p> <p><b>Resilient and sustainable marae project</b></p> <p>Two funding agreements have been signed with iwi mana whenua marae to participate in the project. The two marae will design a programme of wānanga and marae kaitiaki will be</p>





Priority   Te Puāwaitanga ō te Tātai	
	<p>recruited to support the roll out of each marae’s work programme. An additional two marae were engaged in FY23 who are expected to join the project in FY24.</p> <p>The project has also been successful in securing MOSG (Māori Outcomes Steering Group) funding of \$900,000 over three years to support additional marae to participate in the project. With the MOSG funding, one additional marae will be recruited with a total of five marae participating in the project next financial year.</p> <p>This project is shaped by and demonstrates the principles of Manaakitanga, Kaitiakitanga, Whanaungatanga and Mātauranga.</p> <p><b>Restore Hibiscus and Bays</b></p> <p>Restore Hibiscus and Bays is a community-led initiative that aims to restore native habitats and improve water quality across the Hibiscus &amp; Bays Local Board area.</p> <p>The initiative follows te ao Māori principles to foster guardianship, care, and respect for the local environment to restore it back to health.</p> <p>Auckland Council has had successful meetings with Ngāti Manuhiri and Ngā Maunga Whakahii o Kaipara to work through the updated approach to project objectives, while navigating iwi capacity. Four cultural inductions were delivered during June 2022, with Ngāti Manuhiri to support 42 community members. Planning has started, and an agreement has been made with Ngā Maunga Whakahii o Kaipara, to deliver cultural inductions next financial year. Funding has been put towards Ngā Maunga Whakahii o Kaipara for time to deliver this.</p> <p>Significant engagement occurred with both iwi during this financial year to develop successful collaborations, taking time to ensure good communication and to inform opportunities for community conservation groups to engage with their local iwi.</p> <p>This project is shaped by and demonstrates the principles of Whanaungatanga, Manaakitanga and Kaitiakitanga.</p>
Challenges	<p>It is currently a challenge for staff to successfully embed the principles of Te Puāwaitanga ō te Tātai across the other Priorities in a way that delivers on the goal of Te Puāwaitanga ō te Tātai in a meaningful way. A greater understanding is required and there is a need to work further with Māori specialist staff and partner with mana whenua to define an approach that ensures the principles of Te Puāwaitanga ō te Tātai shape the design and delivery of climate action in Tāmaki Makaurau.</p>

Priority   Energy and industry	
Goal	A clean energy system that supports and provides for a resilient, low carbon Auckland.
Actions	6 action areas (24 actions)
Highlights	<p><b>Project Gigawatt</b></p> <p>Project Gigawatt is an initiative to develop solar power and other renewable energy initiatives on properties owned and managed by Auckland Council. The project was approved as part of the 10-Year Budget climate action investment package and seeks to meet any growth in electricity demand through renewable energy.</p> <p>Two 206kW Photovoltaic Arrays (PV) were completed at Albany Pool in FY23. Manurewa Pool is currently having a 144kW PV array installed. Other works within the Gigawatt project include</p>



## Priority | Energy and industry

completion of 3kW solar at Claris Landfill site, and a 13.6kW solar array at the Highland Park Library.

Other works completed include the completion of the feasibility studies over a number of sites, including: Bruce Mason Centre, Art Gallery, NZ Maritime Museum, Aotea Centre and Civic Centre.

### **Council asset sustainability upgrades**

As part of the 10-Year Budget, and the wider investment into existing Council asset decarbonization, the Auckland Art Gallery, Albany and Mt Smart Stadiums are being converted from natural gas to heat pump for heating and hot water. Other smaller sites have been targeted for various upgrades to decarbonise operations.

*Auckland Art Gallery:* This year's progress has seen the project move from detailed design phase, through tender / procurement phases to now starting physical onsite works. Highlights include the heat pumps arriving from Italy with installation starting in August 2023. Other work has started within the boiler room itself with new water tanks in position.

*Albany and Mt Smart (Go Media) Stadium:* Progress on both of these projects has seen initial feasibility stages, 40% funded by EECA, being completed. The business case for Mt Smart stadium has been completed for the West Stand decarbonation.

*Auckland Wintergardens:* The Wintergardens wood pellet boiler has replaced the natural gas, saving over 100 tonnes per year of CO<sub>2</sub> avoided and \$50k per year cost saving.

Other progress updates include: Ellen Melville Centre Building Management System (BMS) upgrade; Laurie Gibbons heat pump for water heater, replacing gas boiler for changing rooms; Papakura Library LED lighting upgrade; Takapuna spa pool heat pump for hot water, replacing gas boiler.

### **Energy Monitoring**

This project as part of the Corporate Emissions Programme (10-year budget investment), this investment is into energy metering and monitoring equipment to implement active energy management practices, and quantify energy saved across a number of council sites.

Highlights this year include completion of the energy metering pilot study at the New Zealand Maritime Museum. Further progress was achieved with tenders and contract award and completion of wireless electricity meters at: Percy Vos building, Queens Wharf (Shed 10 & The Cloud) and the Bruce Mason Centre.

Gas metering was also tendered and works completed at North Harbour and Mt Smart (Go Media) Stadiums, with electrical sub-metering installed on Mt Smart Stadium West Stand.

### **Aquatic Centre Boiler Phase-Out Programme**

The Emergency Budget (Annual Plan 2020/2021) provided funding to phase out boilers for water heating at Auckland Council's aquatic centres. Physical works are underway at West Wave and Onehunga Pools. Overall, this programme is expected to reduce Auckland Council's operational GHG emissions by 19%.

### **Government Investment in Decarbonisation**

EECA's Government Investment in Decarbonising Industry Fund (GIDI) continues to invest in decarbonising industry in Auckland. Recent projects include investments in biomass boilers, energy efficiency and high temperature heat pumps. Two notable projects include Rainbow Park Nurseries – \$800,000 co-funding with CO<sub>2</sub> Reduction of 1,190 tonnes per annum. The other project is with New Zealand Steel, being the only one under a partnership agreement, with \$140m supported from the GIDI fund, and an overall \$300m investment to save 7.2m tonnes of CO<sub>2</sub>e by 2035.



## Priority | Energy and industry

### Challenges

Initial progress on project delivery was slower than usual due to financial and logistical lingering constraints associated with COVID-19.

Related issues include lack of resourcing due to a competitive job market, leaving key vacancies across the organisation, but specifically related to the corporate emissions reduction programme.

More broadly, with more direct messaging and policy statements from central government, local council's role is more indirect and advocacy in nature, in relation to energy and industry levers to decarbonise. EECA's GIDI fund is working directly with major gas and industry emitters.



# Case Study: Performance of the Blue-Green Networks During the Auckland Floods

## Introduction

A blue-green network is a system of interconnected green spaces and water bodies that work together to manage stormwater in urban areas. The streams and green spaces mitigate the impact of flooding by creating natural ponding areas and making space for water to flow through the landscape. In heavy storms, rainfall can be diverted into these areas with reduced risk to people and property.

## Extreme weather events

During the Auckland Anniversary weekend storms the city experienced record-breaking rainfall causing unprecedented levels of flooding, slips and damage across the region. Many existing blue-green networks, including Freeland Reserve in Mt Roskill (Figure 9 & 10) performed well in the floods with the watercourse and surrounding vegetation capturing rain and directing flows away from properties, allowing the water to drain away safely.

Without these blue green networks in place, the properties around them would have suffered much greater loss and damage. A conventional piped stormwater system could never have accommodated the sheer volume of rain that fell and would have been severely overwhelmed.

The transformation of the blue green network from a local park with a stream running through it, into a robust piece of stormwater conveyance infrastructure during a storm event, demonstrates its adaptive capacity. This crucial feature means that the system is uniquely equipped to mitigate the complex challenges posed by climate change.

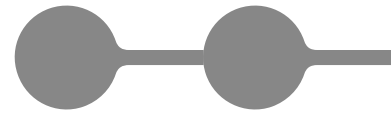
## Community benefits

Beyond their ability to manage stormwater, blue green networks also provide benefits to communities: When we create space for water, we also create space for people and nature, offering opportunities for walking tracks, cycleways, trees, and wildlife habitats. Other blue green networks in place around Tāmaki Makaurau include Te Auaunga/Oakley Creek (Mt Albert), Te Ara Awataha Greenway (Northcote) and Awakeri wetlands (Takanini).

## Future planning

Healthy Waters is working to develop and expand more of these blue-green networks across the city, and 12 potential new sites have been identified.

In mid-2023, Auckland Council approved Resilient Auckland, an initiative which identifies three main lines of action to make Tāmaki Makaurau Auckland more resilient. These main lines of action are:



1. Strengthening the Unitary Plan
2. Speeding up community action on adaptation, and
3. Making Space for Water

The Making Space for Water programme supports the development and expansion of blue-green networks across the city, with 12 sites identified as potential new blue-green spaces. This work is in line with the key action in Te Tāruke-ā-Tāwhiri to invest in nature-based solutions that work with and enhance the environment and help people adapt to climate change.

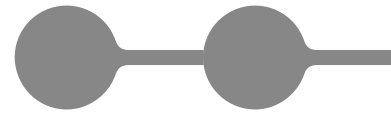
From an emissions perspective, the carbon associated with constructing a blue-green stormwater network has the opportunity to be significantly lower than a grey infrastructure solution involving pipes. This is due to the reduced need for high carbon intensity materials like concrete and through the utilisation of natural streams and vegetation which enhance carbon sequestration.

*Figure 9 Freeland Reserve Mt Roskill, 27 January 2023*



*Figure 10 Freeland Reserve Mt Roskill, 31 January 2023*





## Headline Progress indicators

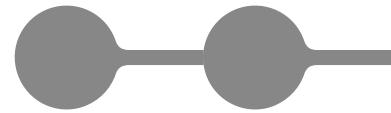
Te Tāruke-ā-Tāwhiri includes 71 progress indicators against the 8 priority areas. On an annual basis, the following headline indicators (by priority) are reported against in the progress report and all indicators will be reported against every three years (where data is available).

Priority   Natural Environment																										
Air quality	Tree canopy																									
Concentration of air pollutants (NO <sub>2</sub> µg/m <sup>3</sup> )* <table border="1" data-bbox="199 768 746 1043"> <thead> <tr> <th></th> <th>2023 Result (FY23)</th> <th>Baseline (FY21)</th> </tr> </thead> <tbody> <tr> <td>Glen Eden</td> <td>7</td> <td>4.0</td> </tr> <tr> <td>Henderson</td> <td>9</td> <td>7.4</td> </tr> <tr> <td>Patumahoe</td> <td>5</td> <td>2.3</td> </tr> <tr> <td>Penrose</td> <td>14</td> <td>15.2</td> </tr> <tr> <td>Queen Street</td> <td>19</td> <td>36.8</td> </tr> <tr> <td>Takapuna</td> <td>13</td> <td>12.4</td> </tr> </tbody> </table>		2023 Result (FY23)	Baseline (FY21)	Glen Eden	7	4.0	Henderson	9	7.4	Patumahoe	5	2.3	Penrose	14	15.2	Queen Street	19	36.8	Takapuna	13	12.4	Average percentage canopy cover of urban Ngahere (3m+ height) <table border="1" data-bbox="887 797 1348 907"> <thead> <tr> <th>2023 Result (Jan-Dec 22)</th> <th>Baseline (2018)</th> </tr> </thead> <tbody> <tr> <td>No Update<sup>7</sup></td> <td>18%</td> </tr> </tbody> </table>	2023 Result (Jan-Dec 22)	Baseline (2018)	No Update <sup>7</sup>	18%
	2023 Result (FY23)	Baseline (FY21)																								
Glen Eden	7	4.0																								
Henderson	9	7.4																								
Patumahoe	5	2.3																								
Penrose	14	15.2																								
Queen Street	19	36.8																								
Takapuna	13	12.4																								
2023 Result (Jan-Dec 22)	Baseline (2018)																									
No Update <sup>7</sup>	18%																									
*Source: Boamponsem, L. (2023). Auckland air quality – 2022 Annual Data Report. Auckland Council technical report, TR2023/8																										

Priority   Built environment					
Access to public transport	Sustainable buildings (to be established)				
Percent of annual dwellings consented within 1km of a train or busway station (rapid transit network stations) <sup>8</sup> . <table border="1" data-bbox="226 1559 721 1668"> <thead> <tr> <th>2023 Result (FY23)</th> <th>Baseline (FY21)</th> </tr> </thead> <tbody> <tr> <td>15%</td> <td>17%</td> </tr> </tbody> </table>	2023 Result (FY23)	Baseline (FY21)	15%	17%	Data not yet available.
2023 Result (FY23)	Baseline (FY21)				
15%	17%				
*Source: Auckland monthly housing data sheet published by RIMU					

<sup>7</sup> Next Lidar-derived canopy cover results will be available in 2025/26 for 2024-25.

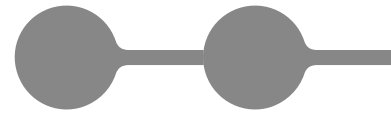
<sup>8</sup> 2020 report reported 26% however this should have been 17% for annual dwellings within 1km.



Priority   Economy											
Transition to low carbon economy (to be established)	Waste to landfill										
Data not yet available	<table border="1"> <thead> <tr> <th></th> <th>2023 Result (FY23)</th> <th>Baseline (FY21)</th> </tr> </thead> <tbody> <tr> <td>Tonnes of Solid waste per capita per year</td> <td>0.848 tonnes</td> <td>0.885 tonnes</td> </tr> <tr> <td>Kg of domestic waste per capita per year</td> <td>137kg</td> <td>147kg</td> </tr> </tbody> </table>			2023 Result (FY23)	Baseline (FY21)	Tonnes of Solid waste per capita per year	0.848 tonnes	0.885 tonnes	Kg of domestic waste per capita per year	137kg	147kg
	2023 Result (FY23)	Baseline (FY21)									
Tonnes of Solid waste per capita per year	0.848 tonnes	0.885 tonnes									
Kg of domestic waste per capita per year	137kg	147kg									
Source: Auckland Council Waste Solutions team											

Priority   Transport															
Use of public transport	Use of cars, light and heavy vehicles														
Public transport boardings per annum	Litres of petrol sales and litres of diesel sales														
<table border="1"> <thead> <tr> <th>2023 Result (FY23)</th> <th>Baseline (FY21)</th> </tr> </thead> <tbody> <tr> <td>71 million</td> <td>64 million</td> </tr> </tbody> </table>	2023 Result (FY23)	Baseline (FY21)	71 million	64 million	<table border="1"> <thead> <tr> <th></th> <th>2023 Result (FY23)</th> <th>Baseline (FY21)</th> </tr> </thead> <tbody> <tr> <td>litres of Petrol (Million Litres)</td> <td>990</td> <td>1015</td> </tr> <tr> <td>litres of Diesel (Million Litres)</td> <td>919</td> <td>945</td> </tr> </tbody> </table>			2023 Result (FY23)	Baseline (FY21)	litres of Petrol (Million Litres)	990	1015	litres of Diesel (Million Litres)	919	945
2023 Result (FY23)	Baseline (FY21)														
71 million	64 million														
	2023 Result (FY23)	Baseline (FY21)													
litres of Petrol (Million Litres)	990	1015													
litres of Diesel (Million Litres)	919	945													
Source: Auckland transport monthly patronage data	Source: Waka Kotahi Regional Fuel tax Q4 report <sup>9</sup>														

<sup>9</sup> The source data for the regional use of petrol and diesel has been updated to use Waka Kotahi reporting, due to Auckland Transport data being delayed. The baseline numbers have also been aligned to this source.



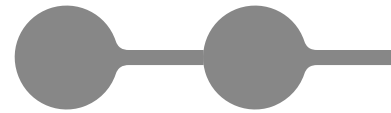
## Priority | Food

<p>Percentage of domestic food waste as a proportion of total domestic waste collected at kerbside</p>	<p>Tonnes of domestic food scraps diverted from landfill by the Auckland Council kerbside collection service *does not include private volumes of domestic and commercial food waste</p>								
<table border="1" data-bbox="226 580 721 663"> <thead> <tr> <th>2023 Result</th> <th>Baseline (2016)</th> </tr> </thead> <tbody> <tr> <td>41%</td> <td>45%</td> </tr> </tbody> </table> <p>Source: Auckland Council Waste Solutions team</p>	2023 Result	Baseline (2016)	41%	45%	<table border="1" data-bbox="869 580 1364 689"> <thead> <tr> <th>2023 Result (FY23)</th> <th>Baseline (FY21)</th> </tr> </thead> <tbody> <tr> <td>1872 tonnes</td> <td>1144 tonnes</td> </tr> </tbody> </table> <p>Source: Auckland Council Waste Solutions team</p>	2023 Result (FY23)	Baseline (FY21)	1872 tonnes	1144 tonnes
2023 Result	Baseline (2016)								
41%	45%								
2023 Result (FY23)	Baseline (FY21)								
1872 tonnes	1144 tonnes								

## Priority | Communities and coast

<p>Low carbon lifestyles</p>	<p>Education</p>								
<p>Number of Aucklanders engaged in living low carbon lifestyles</p> <table border="1" data-bbox="226 1070 721 1180"> <thead> <tr> <th>2023 Result (FY23)</th> <th>Baseline (FY21)</th> </tr> </thead> <tbody> <tr> <td>63,871</td> <td>48,816</td> </tr> </tbody> </table> <p>Source: Auckland Council Environmental Services department</p>	2023 Result (FY23)	Baseline (FY21)	63,871	48,816	<p>Percent of Auckland's schools engaged in sustainability education.</p> <table border="1" data-bbox="869 1070 1364 1180"> <thead> <tr> <th>2023 Result (FY23)</th> <th>Baseline (FY21)</th> </tr> </thead> <tbody> <tr> <td>62%</td> <td>60%</td> </tr> </tbody> </table> <p>Source: Auckland Council Environmental Services department</p>	2023 Result (FY23)	Baseline (FY21)	62%	60%
2023 Result (FY23)	Baseline (FY21)								
63,871	48,816								
2023 Result (FY23)	Baseline (FY21)								
62%	60%								





## Priority | Te Puāwaitanga ō te Tātai

The Priority includes the seven te ao Māori principles below:

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Kaitiakitanga</li> <li>• Mātauranga</li> <li>• Taurite</li> <li>• Whanaungatanga</li> </ul> | <ul style="list-style-type: none"> <li>• Manaakitanga</li> <li>• Rangatiratanga</li> <li>• Tōnuitanga</li> </ul> |
|--|--|

There are currently no specific progress indicators for measuring progress against the te ao Māori principles outlined in Te Puāwaitanga ō te Tātai. These principles need to be embedded throughout the other Priorities and are fundamental to the delivery of Te Tāruke-ā-Tāwhiri. More work is needed to understand how we can develop indicators for Te Puāwaitanga ō te Tātai and evaluate progress in a meaningful way.

## Priority | Energy and industry

Percentage change in emissions from electricity consumption (Scope 2 emissions is percent difference between 2016-2019)

2023 Result	Baseline (2016-18)
26% increase [% difference between 2016-2019 result]	1.0 % Increase <sup>10</sup>

Inventory report (RIMU) Source: Auckland Council Green House Gas

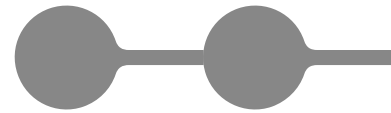
Percentage change in emissions from stationary fuel combustion (e.g., process heat) (Scope 1 emissions is percent difference between 2016-2019)

2023 Result	Baseline (2016-18)
-4% decrease [% difference between 2016-2019 result]	4% increase <sup>11</sup>

Inventory report (RIMU) Source: Auckland Council Green House Gas

<sup>10</sup> Change in baseline is due to emission factor modifications.

<sup>11</sup> Change in baseline is due to change in emission factors, from Green House Gas Inventory update.



## What's next?

There is a need to continue to accelerate the scale and delivery of climate action to meet our climate goals.

This report identifies there are a similar proportion of actions in progress compared to the previous progress report (September 2022). This represents modest progress, highlighting the need for immediate and significant additional action and commitment from a range of stakeholders. Engagement with key stakeholders to facilitate collaboration in the accelerated delivery of Te Tāruke-ā-Tāwhiri will be an important focus for the year ahead and beyond.

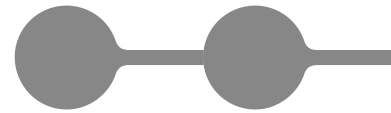
An ongoing priority will focus on continued engagement with mana whenua to ensure the partnership established in the development of Te Tāruke-ā-Tāwhiri is maintained in its delivery. There is a need to build Māori advisory capacity and staff capability within the Auckland Council Group, to enable and support delivery of the plan, while upholding Auckland Council's obligations to the treaty of Waitangi and the Te Tāruke-ā-Tāwhiri partnership.

Drawing on the partnership with mana whenua, a Regional Leadership Group is in the process of being established and will set out to accelerate the implementation of Te Tāruke-ā-Tāwhiri through cross-sectoral partnerships and climate action. The Regional Leadership Group is expected to include leaders from the Auckland Council Group, mana whenua, central government, business, community, health and youth.

Delivery of the \$152m climate investment package in the 10-year Budget 2021-2031 has accelerated the delivery of Te Tāruke-ā-Tāwhiri, with key deliverables achieved, as outlined earlier in this report. A number of programmes and projects have been established and have started delivering meaningful climate outcomes for Aucklanders. It's anticipated this programme will accelerate the plans delivery over the next few years as the lingering effects of COVID-19 subside. Further, improved monitoring and control processes have also provided more transparent monitoring, performance and accountability for the delivery of the package going forward.

The Climate Action Transport Targeted Rate programme schedule baseline has been updated with new timing and delivery plans are nearing finalisation. An annual update and forward looking report is due to be submitted in October 2023. Over the next financial year, the overall programme will ramp up delivery, with walking and cycling programmes moving from design to delivery phase on various projects. The bus programme will deliver three frequent new routes as part of the Western busway, whilst continuing upgrades to existing services, funded by the CATTR. The ferry programme will continue with its large-scale procurement of more zero emission ferries, and progress its infrastructure charging rollout, to support the charging of new ferries. Lastly, the Ngahere programme will start its tree planting rollout, and continue tree stock procurement for the planting in the FY25 season.

Adaptation and resilience work prompted by the early 2023 severe weather events is accelerating. Healthy Waters' *Making Space for Water* programme is currently being consulted. *Accelerating a Resilient Tāmaki Makaurau Auckland* will consider policy and planning work needed to make Aucklanders more resilient to climate-related hazards. Projects funded through the Storm Response Fund are starting to deliver on actions to increase Auckland's resilience to future storm events.



To achieve our climate goals, improvements need to be made with how we measure and monitor climate action progress to improve our understanding of what has been achieved. This will enable us to predict our forward looking “flight path” based on our current investment and works underway and better inform our planning, investment and decision making, by making use of quantifiable climate data to track progress towards our targets. A project is underway to assess gaps and produce an updated monitoring framework utilising a climate data dashboard, to be rolled out in FY24.

The Transport Emissions Reduction Pathway (TERP) has outlined the transformational change required to reduce transport emissions by 64 per cent by 2030. Auckland Council and Auckland Transport need to embed implementation of the TERP through all of their activities, including future updates to key transport planning and funding processes such as the Auckland Transport Alignment Project and the Regional Land Transport Plan, and land use policy such as the Future Development Strategy and the Auckland Unitary Plan.

Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan 2022 progress report 2023

© 2023 Auckland Council, New Zealand

September 2023

ISSN 3021-1077

ISBN 978-1-99-106079-2 (PDF)

Auckland Council disclaims any liability whatsoever in connection with any action taken in reliance of this document for any error, deficiency, flaw, or omission contained in it.

This document is licensed for re-use under the [Creative Commons Attribution 4.0 International licence](https://creativecommons.org/licenses/by/4.0/).

In summary, you are free to copy, distribute and adapt the material, as long as you attribute it to Auckland Council and abide by the other licence terms.

