Kāpiti Coast
DISTRICT COUNCIL
Me Huri Whakamuri, Ka Titiro Whakamua

Climate emergency action

Delivering on our climate change commitments

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"We need to think of the legacy we are leaving for our children and accept we have a responsibility to make things better for them and show more respect to the planet we spend our time on."

Submitter

Draft Climate Emergency Action Framework

Introduction

Since we declared a climate change emergency in 2019 and adopted a Climate Emergency Action Framework in 2021, we have done a significant amount of work to ensure climate change action is embedded into our activities.

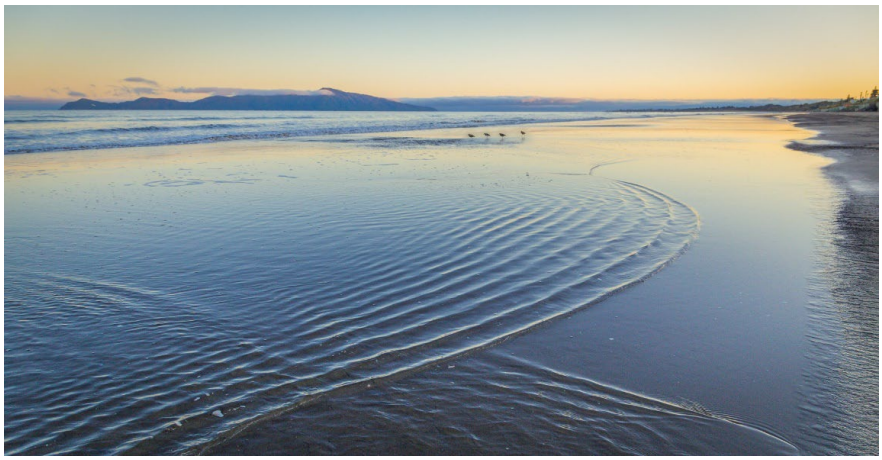
We have received many awards for our climate change leadership, including most recently being declared the top carbon reducer in Toitū Envirocare's 2020 rankings.

Acting on climate change was a key strategic driver in our Long-term Plan 2021–41.[1] Community feedback on the Long-term Plan confirmed ongoing support for a range of climate change actions. These included reducing corporate and districtwide emissions and programmes to minimise waste as well as a range of improvements to support the sustainability and resilience of the Kāpiti Coast District's environment, assets, and communities.

About this document

With the adoption of the Long-term Plan in June 2021, it is a good point to complete a stocktake of our climate change activities. This report:

- summarises the climate actions agreed for the first three years of the Long-term Plan
- highlights special projects that are either currently underway or planned within the next three years
- reports on recently completed climate actions.



One special project we are particularly excited about is **Takutai Kāpiti: Our coastal adaptation project**. See page 38 for more information.

[1] Kāpiti Coast District Council. *Long-term Plan 2021—41*, p29.

Climate Emergency Action Framework

On 23 May 2019, we:

- declared a climate change emergency
- committed to becoming a carbon neutral organisation by 2025
- resolved that climate crisis issues in general, and achieving carbon neutrality by 2025 in particular, be considered as part of all future decision-making, reports and recommendations to Council.

On 29 July 2021, we adopted the Climate Emergency Action Framework, after completing a public consultation process as part of the Long-term Plan.

The vision at the heart of the framework is a thriving, vibrant and strong Kāpiti that:

- has reduced its carbon footprint significantly
- transitioned to a low-carbon future
- is prepared for challenges and opportunities that come from responding to the climate crisis.[2]

These three goals of the framework vision have become the structure for our Climate Emergency Action Plan, with actions categorised into climate change mitigation, adaptation and transition.

Mitigation — reducing our carbon footprint

Adaptation — preparing for challenges and opportunities

Transition — learning to live in our low-carbon future

[2] More information on the framework's objectives and principles can be found online at https://www.kapiticoast.govt.nz/media/u3hlqij0/climate-emergency-action-framework.pdf.

Honouring Te Tiriti o Waitangi

Waitangi Day 2020 at Campbell Park, Paekākāriki

A key principle of the Climate Emergency Action Framework is that we honour Te Tiriti o Waitangi and our partnership with mana whenua. Climate change is a priority for mana whenua, particularly due to the predicted impacts on the wellbeing of people and the natural environment.

The three iwi of the Kāpiti Coast District – Ngāti Raukawa ki te Tonga, Ātiawa ki Whakarongotai, and Ngāti Toa Rangatira – are involved as partners in our climate change response to ensure a mana-enhancing partnership is nurtured throughout.

Mana whenua knowledge on climate change impacts is vitally important. We seek to draw on mana whenua's depth of climate change knowledge during our decision-making processes and take into account the value of māramatanga (lessons learned through centuries of kaitiakitanga, manaakitanga, and whanaungatanga).

In practice, mana whenua involvement is generally at the project and/or activity level. Mana whenua representatives are appointed to governance steering groups and project teams. Examples include the Stormwater Management Framework Steering Group, the water and wastewater iwi partnership groups, and the project to incorporate a cultural monitoring framework into our environmental monitoring programme.

Ensuring that we partner with mana whenua on this mahi is important as we wish to support and promote actions that will allow mana whenua to act as kaitiaki, supporting them to create sustainable practices they can implement within their rohe.

Stormwater Management Framework Steering Group

This group is a great example of how we work in partnership with iwi. It has been meeting almost monthly since late 2020, and includes representatives from:

- Ngā Hapū o Ōtaki
- Ātiawa ki Whakarongotai
- Ngāti Toa Rangatira
- Greater Wellington Regional Council
- the Kāpiti Coast District Council.

The group's vision for Kāpiti is a stormwater management system where:

- water is given space to flow from the hills to the sea
- the health of our water bodies is enhanced and restored
- communities are thoughtfully planned to be protected from flooding and resilient to anticipated climate change impacts
- the Kāpiti Coast District Council works in partnership with tāngata whenua to give expression to Te Mana o te Wai.


"I need Council to take actions that support our whole district moving towards carbon neutrality."
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Electric Vehicles
Drive the Future
electricvehicles.govt.nz
New Zealand Government
FOUR SQUARE
RAUMATI BEACH 4 SQUARE
ChargeNow
Electra
Kāpiti Coast
DISTRICT COUNCIL
ChargeNet.nz
KONA
NZ

SECTION 1

Mitigation

Climate change is already impacting our communities, and these impacts are expected to increase in size and scale over time.

Emissions of greenhouse gases contribute to climate change because they act like a blanket around the earth, trapping warmth from the sun and causing global warming. Global warming leads to imbalances in our natural environment, in turn causing our climate to change.

Mitigation refers to the actions we take to reduce the amount of greenhouse gases in our atmosphere. These actions are crucial to slow or reverse the effects of climate change.

As a key aspect of the Climate Emergency Action Framework's vision is to **reduce our carbon footprint significantly**, we must work towards our own corporate emissions reduction while also working with the community to promote and enable districtwide emissions reduction.

Corporate emissions

We have recognised for a long time the importance of reducing our own corporate emissions, both to contribute to national and international mitigation efforts and to demonstrate community leadership.

We have a Carbon and Energy Management Plan and have been CarbonReduce certified (formerly known as CEMARS) since 2012. Administered by Toitū Envirocare, the CarbonReduce programme[3] tracks how we measure, manage and reduce our greenhouse gas emissions. To date, we have reduced our corporate emissions through a wide range of actions in these broad categories:

- conserving energy
- installing renewable energy
- switching from using fossil fuels to renewable energy
- changing how we dispose of waste
- improving the fuel efficiency of machinery and vehicles
- changing maintenance schedules and contracts.

[3] For more information, see Carbon Management | Toitū Envirocare (toitu.co.nz)

Annual carbon emissions audit

Under the CarbonReduce scheme, we carry out an annual emissions inventory (carbon footprint). This is independently audited to gain accreditation to the ISO-14064 standard.

Our 2019/20 audit verified a 78 per cent reduction in emissions compared to the 2009/10 baseline. However, this comparison did not include emissions from the wastewater treatment process as the Intergovernmental Panel on Climate Change (IPCC) only advised that these emissions should be included in 2019.

Our most recent audit in 2020/21 – which does include emissions from wastewater treatment – showed our emissions in 2020/21 were 4736 tonnes of carbon dioxide equivalent (tCO_2e). In 2009/10, our emissions were 12,498 tCO_2e (excluding wastewater treatment).

New research commissioned

We have included a range of actions to further reduce emissions in the Long-term Plan, but we will need more actions to address the newly included emissions from wastewater treatment to give effect to our May 2019 resolution on carbon neutrality. For this reason, we have recently commissioned new research to identify new ways to reduce, inset or offset our emissions.[4]

Once we have completed these investigations and identified our preferred options, we will prepare a new Carbon and Energy Management Plan with a review of the current emissions reduction targets and publish this in the 2022/23 financial year.

Table 1 below summarises the actions we have currently planned for the next three years to keep reducing our corporate emissions.

The Ōtaki Wastewater Treatment Plant is powered by solar generated at Rau Kūmara Solar Farm and operated by Energise Ōtaki on land we provide.

[4] There are two main paths for an organisation to acquire carbon credits: offsetting and insetting. Offsetting involves acquiring carbon benefits from outside the business boundary, whereas insetting involves acquiring carbon credits within an organisation's business boundary or supply chain. The combination of emissions reductions with either offsetting or insetting creates a path towards carbon neutrality. Source: Carbon insetting: Move up the carbon investment ladder (thinkstep-anz.com)

Table 1: Mitigation of corporate emissions

Objective	Action	Impact	21/22	22/23	23/24
Reduce emissions from our activities, as agreed in the Long-term Plan	Undertake building and pool heating improvements to make the Ōtaki Pool more energy efficient.	Estimated to reduce annual emissions up to 263 tCO_2e. The improvements will prevent building heat loss, add a heat recovery system, consider a switch from gas heaters to heat pumps for the pool water, and explore solar power for the building's heating.			√
	Upgrade the aeration blowers at the Paraparaumu Wastewater Treatment Plant.	These energy-efficient blowers will reduce emissions, although the exact amount is to be determined.	√		
	Convert our fleet to electric vehicles and hybrids.	Estimated to reduce annual emissions, but the exact amount is to be determined.	√	√	√
	Develop a business case for an electric rubbish truck for litter bin collections.	If the business case is approved, we will buy the truck during the 2023/24 financial year.			√
	Seek to achieve further reductions in business operations (for example, procurement, water conservation, waste minimisation and energy efficiency).	Estimated to reduce annual emissions up to 68 tCO_2e.	√	√	√

Objective	Action	Impact	21/22	22/23	23/24
	Reduce emissions from LED streetlights.	Converting the district's street lamps to LED lights has resulted in considerable emissions reductions to date. Streetlight conversions will continue in new developments and parking areas.	√	√	√
Sequester [5] carbon, per current contracts	Plant 11 more hectares of trees at the Waikanae Dam.	The tree planting programme protects land and water quality, while also reducing net emissions through sequestration. *(See table 10 for more information on other planting programmes.)*	√	√	√
Identify opportunities for further emissions reductions across Council	Investigate opportunities for further reductions, particularly via solar power.	We commissioned two reports with options for reduction and offsetting. Based on advice from those reports, we will now undertake two solar feasibility studies.	√	√	

5 Sequestration is the act of capturing and storing carbon dioxide to reduce the amount in the atmosphere and, thereby, reduce the speed and impact of global warming. Carbon sequestration through trees, grasses and other plants is when carbon dioxide is absorbed during photosynthesis and stored as carbon in the biomass.

Objective	Action	Impact	21/22	22/23	23/24
Identify opportunities for further emissions reduction across Council (continued)	Investigate options to reduce emissions from wastewater treatment.	As emissions from wastewater treatment have only recently been included in our audits, we will investigate options to reduce emissions from this activity.		√	
	Research energy usage and emissions from infrastructure construction.	We wish to provide guidance to staff and develop a policy to reduce embodied carbon from capital projects.	√	√	
Identify opportunities for further insetting or offsetting	Investigate opportunities for further sequestration through tree planting on Council-owned land.	As our activities will always have some level of greenhouse gas emissions, insetting or offsetting of carbon credits is the only way to achieve carbon neutrality. While some sequestration already occurs through existing plans, these investigations will look to identify more opportunities.		√	√
Develop and implement a Carbon and Energy Plan	Update our Carbon and Energy Management Plan.	Our Carbon and Energy Management Plan calls for an update in 2022.		√	

Objective	Action	Impact	21/22	22/23	23/24
Fund and implement the Carbon and Energy Management Plan	Agree funding and timeframes through the 2024 Long-term Plan process.	Any new projects that we agree in the updated Carbon and Energy Management Plan will require funding through our long-term planning processes.			√
Monitor and report on corporate emissions	Undertake annual carbon emissions inventories with independent audits by Toitū Envirocare.	Monitoring and reporting on corporate emissions is important to ensure the development and implementation of the Carbon and Energy Management Plans.	√	√	√

Districtwide emissions

In 2018/19, gross emissions for the Kāpiti Coast District were estimated to be 351,245 tCO_2e.[6] This was 8 per cent of the gross emissions for the Wellington Region. The per capita gross emissions were approximately 6.3 tCO_2e per person, slightly lower than the Wellington Region average of 7.9 tCO_2e per person.

Transport (road, rail and air travel) was the biggest source of emissions, accounting for 57 per cent of total gross emissions. Stationary energy (electricity or gas consumption) was the second largest, accounting for 17 per cent of total gross emissions (figure 1).

This data about Kāpiti's districtwide emissions helps to identify the greatest opportunities for reducing emissions and to guide discussions about what we can do to support community-wide emissions reduction.

While efforts to enable and support reducing emissions across the district are embedded in all our activities, three priority areas are:

1. access and transport
2. land-use planning
3. waste minimisation.

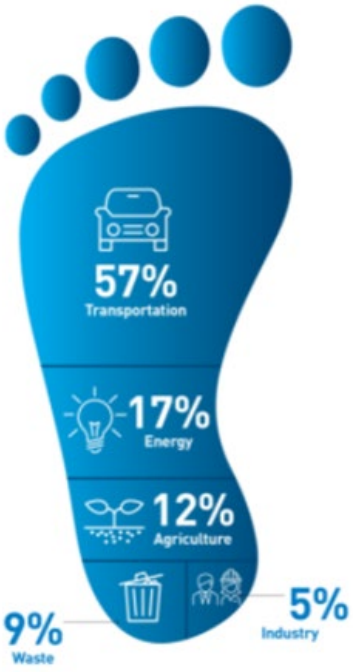

Figure 1: Kāpiti Coast District Emissions, 2018–19

Access and transport

Transport is the largest source of greenhouse gas emissions in the Kāpiti Coast District (57 per cent), with most being from light vehicles.[7]

The vision of our Sustainable Transport Strategy 2021 is that by 2035, we will have a transport system that is safe, decarbonised, healthy, well connected and accessible to all.

One of the main outcomes of the strategy is that the transport network and our investment decision-making will actively address and seek to avoid, remedy or mitigate the causes and effects of climate change.[8]

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6 AECOM, 15 May 2020, Kāpiti Coast District Greenhouse Gas Inventory; and AECOM, 18 May 2020, Wellington Region Greenhouse Gas Inventory.

7 From 2001 to 2019, transport emissions increased 40 per cent in the district. Population growth alone was not sufficient to explain this increase as per capita emissions from transport were 3.3 tCO_2e in 2001 compared to 3.6 tCO_2e in 2019. Source: AECOM, 15 May 2020, Kāpiti Coast District Greenhouse Gas Inventory.

8 More information on the Sustainable Transport Strategy 2021 can be found online at https://www.kapiticoast.govt.nz/media/mfjfaj2e/sustainable-transport-strategy.pdf.

The access and transport team recognises the importance of its role in this area, and supports the following three targets of the Wellington Region Land Transport Plan 2021:

1. 40 per cent increase in active travel and public transport mode share by 2030
2. 35 per cent reduction in transport-generated carbon emissions by 2030
3. 40 per cent reduction in deaths and serious injuries on roads by 2030.

As a large amount of funding for our access and transport team comes from the Waka Kotahi NZ Transport Agency, changes in Waka Kotahi's investments can have considerable impacts on the team's work. Unfortunately, because Waka Kotahi funding was reduced in the lead up to the Long-term Plan, we have had to delay or postpone indefinitely some of the actions we had planned for footpaths, cycleways and road works.

Table 2 overleaf provides a summary of the access and transport actions that have been funded and are planned for the first three years of the Long-term Plan.

It is also important to note that having an effective and affordable public transport system is fundamental to any low-carbon transport system, but we do not deliver public transport. Instead, as is mentioned in Table 2, we advocate to central and regional government for improved public transport services as this is their responsibility.

Land-use planning

Another way we can support and enable districtwide emissions reductions is land-use planning. People's transport choices are influenced by:

- where they live in relation to public transport
- access to cycleways, walkways and bridleways
- how far they must travel to work
- where they do their shopping for goods and services.

Metlink commuter train at Paekākāriki train station.

Te tupu pai – our strategy for enabling sustainable growth in Kāpiti[9] – identifies low-carbon living as one of its six specific growth principles. This is important for transitioning the Kāpiti Coast to a low-carbon district through, for example, actively planning for the intensification of our urban areas as proposed in our current urban development plan change.

A key aspect of low-carbon living will involve "improving access and public transport and active transport options, making our communities and communal spaces more welcoming, walkable and connected, and supporting low-carbon living" (*Te tupu pai*, page 8).

Although a number of legislative mandates give direction to urban development and residential standards, our goal is to develop sensible land-use rules which meet central and regional requirements, while also encouraging our low-carbon aspirations.

This is also an objective for the Wellington Regional Growth Framework, which is a 30+ year plan currently under development by the region's local and regional councils.

Waste minimisation

Approximately 9 per cent of districtwide emissions are from waste. In many districts this figure is higher because those districts include operating landfills, whereas Kāpiti does not.[10]

Organic matter – particularly from food and garden waste – produces methane as it decomposes in landfills. Methane is an especially bad greenhouse gas because it has more warming power than more common gases, like carbon dioxide.

We adopted the Wellington Region Waste Management and Minimisation Plan in 2017. This set a regional target of reducing waste to class 1 landfills by one-third by 2026.[11]

Our waste minimisation and reduction activity is focused at the start of the product lifecycle, encouraging people to reduce (buy less) and reuse products to divert waste from landfills. These activities are mainly carried out through waste minimisation education and by providing programmes and infrastructure to make it easier for people to 'reduce and reuse'.[12]

Over the past year, local businesses, who have been working with our economic development team, have expressed an interest in waste management. We discuss this further in the transitions section.

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9 More information on *Te tupu pai* can be found online at https://www.kapiticoast.govt.nz/media/42mmy4nr/growth-strategy-2022.pdf.

10 The Kāpiti Coast's general waste is sent to landfills outside of the Wellington Region: Hokio Landfill in Levin, Bonny Glen in Fielding and Spicer Landfill in the Porirua District. Dried biosolids are sent to Silverstream Landfill in Lower Hutt. All these landfills use gas-capture systems, as waste was brought under the Emissions Trading Scheme in 2013. Kāpiti does have older landfills that are no longer operating and improvements in landfill gas capture have helped to reduce the emissions from these closed landfills.

11 More information on the Wellington Region Waste Management and Minimisation Plan can be found online at Waste Management and Minimisation Plan - Kāpiti Coast District Council (kapiticoast.govt.nz).

12 More information on the Wellington Region Waste Minimisation Education Strategy can be found online at https://www.kapiticoast.govt.nz/media/cuca0bz0/waste-minimisation-education-strategy.pdf.

Table 2 below summarises our actions under the three priorities of transport, land-use planning and waste minimisation over the next three years to support and enable districtwide emissions reduction.

Table 2: Enabling districtwide emissions reduction

Activity	Objective	Impact	21/22	22/23	23/24
Transport	Encourage active transport (for example, bike riding or walking) through infrastructure renewals and safety improvements.	Active transport is made easier by developing footpaths, shared paths, on-road cycle lanes, and off-road cycleways that are safe and connected. We have allocated $4.6 million over three years.	√	√	√
	Active transport users feel safe and confident on the transport network.	We continue to deliver our transport safety education programme so network users are confident and safe. We have allocated $200,000 over three years.	√	√	√
	Develop an accessibility strategy.	An accessibility strategy will inform what we must do to ensure our transport system is accessible to all abilities.		√	
	Encourage and enable uptake of lower emissions electric vehicles (EVs).	The transition to lower-emissions vehicles is supported by a growing network of charging stations.		√	√
	Central government provides a legislative and funding framework that supports our development of a low-carbon transport system.	We take every opportunity to advocate to Waka Kotahi, the Ministry of Transport and KiwiRail, and participate in advisory groups (for example, Waka Kotahi's Roading Efficiency Group).	√	√	√

Activity	Objective	Impact	21/22	22/23	23/24
	Greater Wellington Regional Council (GWRC) provides an improved public transport system.	We take every opportunity to advocate to GWRC, and participate in regional fora (for example, the Regional Transport Committee and Technical Advisory Group).	√	√	√
Land-use Planning	Urban development plan change – intensification focus.	This plan change will enable greater density closer to services and rapid transport hubs in urban and other areas.	√	√	√
	Update urban design guidelines and Land Development Minimum Requirements (LDMR).	These guidelines are important for influencing the nature of development, providing other ways we can promote and encourage low-carbon development. One example of where we have done this is our requirements for new developments to link into our cycleway, walkway, and bridleway networks wherever possible.	√	√	√
	Low-carbon town centres are developed, in conjunction with community and iwi partners.	We will work with communities to develop town centre intensification plans that include a low-carbon focus.	√	√	√
	Develop a monitoring framework	We want to measure how we are delivering on the principles of *Te tupu pai*.		√	√
	Participate in the development of the Wellington Regional Growth Framework: Regional Emissions Reduction Plan.	This regional plan will identify specific actions to reduce emissions across the region and transition to a regional economy that is net-zero carbon and regenerative.		√	√

Activity	Objective	Impact	21/22	22/23	23/24
Waste minimisation	Zero Waste Education is delivered for schools, communities and businesses.	Educating people on the importance of sustainable waste practices and providing tools to enable behaviour change will encourage waste reduction and diversion from landfills.	√	√	√
	Support community-led waste minimisation projects and seed funding for business waste reduction.	The Waste Levy Fund supports a range of community-led waste reduction initiatives, provides seed funding to businesses, and supports business waste reduction.	√	√	√
	Require and support zero waste events.	We provide resources, guidance and support for zero waste events to reduce waste from events being sent to landfills.	√	√	√
	Maintain and renew existing infrastructure for waste minimisation and disposal services.	The Otaihanga Resource Recovery Facility and the Ōtaki Resource Recovery Centre provide recovery, recycling, and disposal services through lease to operate agreements.	√	√	√
	Establish new initiatives and infrastructure for waste disposal alternatives.	A new community-led resource recovery centre is being established to increase the diversion of waste from landfill, with an initial focus on construction and demolition as these are large sources of waste.	√	√	√
	Implement the new requirements of the Waste Management and Minimisation Bylaw 2021.	New bylaw requirements are in force, requiring waste minimisation for multi-unit developments and large events.		√	√

"We need something fundamentally transformational. We need decision-makers to make hard, sometimes unpopular decisions."

Submitter

Draft Climate Emergency Action Framework

SECTION 2

Adaptation

While mitigating greenhouse gas emissions is important to minimise climate change, it is now widely accepted that some climate changes are inevitable due to emissions that have already occurred.

Although the full extent of these changes and their impacts is still undergoing debate, they are likely to be significant and costly. Therefore, any uncertainty should not stop us from acting in the meantime.

Using the best research currently available, local governments are required to:

- consider the effects of the changing climate on communities
- act to minimise disruptions from climate change to council activities and services
- support communities and businesses to improve their resilience and sustainability.

Although the proposed Three Waters Reform Programme[13] is likely to result in changes to the ownership and management of water-related assets and infrastructure, councils must continue planning and implementing adaptation initiatives.

We believe it's important to keep doing this, rather than postpone our responses to a later date. In some cases where the impacts of climate change are already being experienced, postponing action could create even bigger problems.

Another key aspect of the Climate Emergency Action Framework's vision is to **prepare for challenges and opportunities that** come from responding to the climate crisis.

We rebuilt the retaining wall at the Wharemauku Stream mouth in Raumati Beach to manage stormwater and sea-level rise.

[13] More information on Three Waters Reform can be found at: https://www.dia.govt.nz/Three-Waters-Reform-Programme.

Predicted climate change impacts

The predicted climate changes for the Kāpiti Coast District include:

- rising sea levels
- increases in average annual temperatures, annual rainfall and rainfall intensity
- increases in wind intensity and the number of windy days.[14]

While the district is also predicted to experience warmer days that will be favourable to crop growing, it will also experience drought-like conditions at certain times of the year (see figure 2).

Figure 2: Climate change predictions for the Kāpiti Coast District

These predicted climate changes put the district at increased risk from natural hazard events such as floods, landslides, storm surges, coastal erosion and inundation (see figure 3).

Without proper management plans, these changes will contribute to biodiversity losses, environmental harm, and threats to social, cultural and economic wellbeing – often within communities that are already at risk.

[14] Source: GWRC. December 2020. Whaitua Catchments Climate Change parameters.

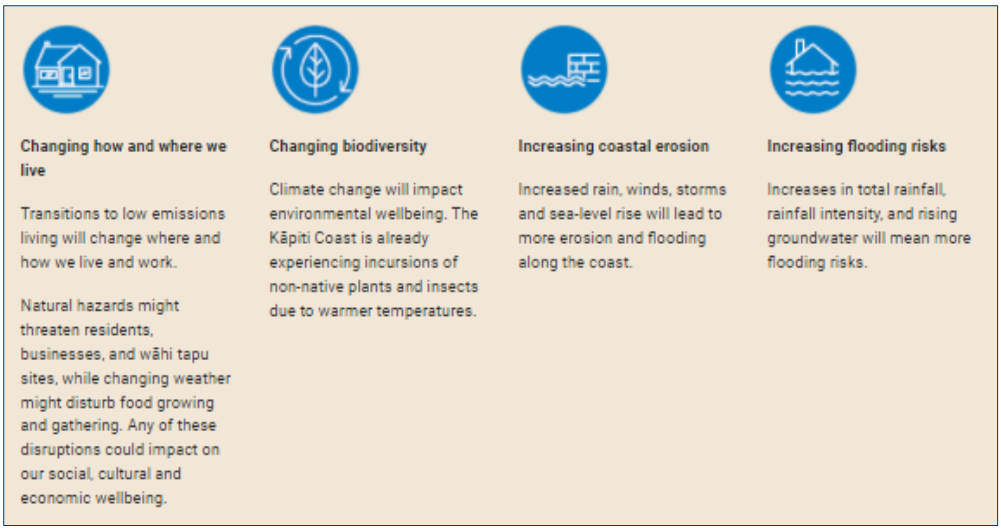


Figure 3: Climate change impacts for the Kāpiti Coast District

These predicted climate change impacts will pose new challenges to our essential services. For example:

- Rises in sea levels could not only lead to coastal erosion and greater storm surges, but also saltwater intrusion into the bore fields. This could affect potable water supplies or hasten the degradation of underground assets.
- Increases in groundwater levels will lead to more incidents of flooding and ponding, as it will take longer for stormwater to soak through.
- Increases in average annual temperatures, combined with periods of drought and low river flows, can lead to more demand for water when water is scarce. These climate conditions can also cause more algal blooms on the surface of water supplies, and more odours from wastewater treatment plants and waste collection sites.
- Increased temperatures and periods of drought increase fire risks, while also reducing the water supply available for firefighting.
- Heavy rain events can reduce water quality because it makes the water murkier and siltier, which can reduce the efficiency and output of the water supply treatment plants. Increased rainfall can also increase the likelihood of water entering the wastewater reticulation network.
- Temperature extremes coupled with more water (from storm events, rising groundwater levels, and storm surges) can result in increased road maintenance costs.

Adapting services and activities

Local governments deliver a range of services, many of which must continue to operate even in civil defence emergencies. We are acutely aware of our obligations to maintain and protect assets that are critical for the delivery of essential public services, so we have already begun to incorporate climate change predictions for the district into our long-term planning processes.[15]

How are climate change predictions incorporated?

Risk assessments and project plans incorporate climate change assumptions, with the nature and location of the asset dictating the assumptions that are used. For example, coastal assets might incorporate assumptions for sea-level rise. Critical assets might use a 'worst case scenario' (RCP 8.5*), while non-critical assets might use a low or intermediate scenario (RCP 4.5 or 6.0).

As specialist experts, our asset managers and design engineers decide which assumptions to use. However, if proposed changes to any assets might impact private property or people's ability to use public infrastructure, a community engagement process would determine the preferred assumptions and solutions.

* RCP stands for Representative Concentration Pathway. Each RCP makes predictions for climate change based on greenhouse gas concentrations in the atmosphere, ranging from very high concentrations (RCP 8.5) to very low (RCP 2.6).

As our main approach to adaptation is to prioritise essential services, our greatest focus is on critical services like water supply, wastewater, stormwater and coastal assets.

Taking local school children on a tour of the Waikanae Water Treatment Plant.

[15] Kapiti Coast District Council. *Infrastructure Strategy 2021*.

Water supply

According to New Zealand's first National Climate Change Risk Assessment[16], the most urgent risk in the country is the "risk to potable water supplies (availability and quality) due to changes in rainfall, temperature, drought, extreme weather events and ongoing sea-level rise" (2020, page 41).

Since 2002, when we adopted a 50-year Sustainable Water Management Strategy, our water supply team has acknowledged the need to maintain a continuous supply of compliant and safe drinking water, while managing demand and avoiding adverse effects on the environment. To meet this need, our water supply team delivers on a range of actions to:

- understand the potential impacts of climate change
- build strong and resilient water supply networks and monitor their ongoing performance
- educate and encourage water conservation through, for example, water meters, volumetric charges and low water design
- improve water storage on public and private properties, and at treatment sites
- protect water sources (for example, rivers and aquifers).

The introduction of water meters in 2012–13 has had an extremely positive impact on the water supply activity. By encouraging water conservation, water meters help to reduce greenhouse gas emissions through energy reduction, reduce wear and tear on the network, and help to protect our environment through reduced water use.

Table 3 summarises the actions we have currently planned for the next three years to adapt our water supply activity to climate change. With the introduction of the new Water Services Act 2021, we will continue to improve our resilience and response plans in line with the new legislative requirements.

Table 3: Adapting the water supply activity

Objective	Action	Impact	21/22	22/23	23/24
Water education (conservation and storage)	Support water conservation and storage.	A key aspect of the long-term strategy to ensure sufficient water supplies, now and in the future, is to manage demand and promote water storage. New homes are required to have rainwater tanks.		√	√

[16] For more information, go to First national climate change risk assessment for New Zealand | Ministry for the Environment.

Objective	Action	Impact	21/22	22/23	23/24
Leak detection	Undertake our ongoing leak detection programme, targeting areas with trends of increasing water usage.	We have several ways to identify leaks in public and private networks so they can be repaired.	√	√	√
Network monitoring and assessments	Assess the condition and performance of water networks and specific sites and procure expert planning advice.	Real-time data and regular assessments of condition, performance and risk inform our activity plans.	√	√	√
Water safety upgrades, tailored to each water supply scheme	Implement a range of planned actions at each site to improve water treatment, storage, and structural integrity.	These actions will improve water safety, quality and reliability.	√	√	√
Undertake renewals of existing infrastructure, as agreed in the Long-term Plan	Undertake a range of planned renewals across the district, mainly to pipes, pump stations and storage facilities.	Renewals will strengthen the network, increase its lifespan and build greater resilience.	√	√	√
Upgrades, as agreed in the Long-term Plan, to improve capacity, reliability, and resilience	We have several major projects planned. Examples include the new clarifier at the Waikanae Water Treatment Plant, searching for new bores in Ōtaki, and investigating new reservoir sites in Ōtaki.	A benefit of these new projects is they provide backup options in case other infrastructure should fail.	√	√	√

Objective	Action	Impact	21/22	22/23	23/24
Protect water sources	Plant 11 more hectares of trees at the Waikanae Dam.	Planting trees at the Waikanae Dam protects land and water quality while also reducing net emissions through sequestration.	√	√	√
	Remove gravel at the Waikanae water supply intake.	Gravel removal will reduce blockages in the network, particularly during large storm events.	√	√	√
Advising on new developments	Advise on new developments at the consenting stage.	Advising on new developments ensures new infrastructure aligns with national, regional and local standards.	√	√	√

Wastewater

Our wastewater team aims to deliver the effective collection, treatment and disposal of wastewater and biosolids to protect public health and the natural environment.

The actions needed to prepare our wastewater networks for the projected impacts of climate change are very similar to those required for our water supply networks:

- understand the potential impacts of climate change
- build strong and resilient wastewater networks and monitor their ongoing performance
- reduce demand on the networks.

One of the main concerns of our wastewater team is that climate change predictions for more rainfall will increase the likelihood of rain water getting into the network. This infiltration can occur through leaking pipes, illegal cross-connections and surface flooding through gully traps or manhole lids. While all underground wastewater networks are subject to some level of inflow and infiltration, any additional influx can greatly increase the volume of wastewater within the network. This reduces the available capacity to carry sewage, increases the risk of overflows (which can be harmful to the receiving environment and non-compliant with resource consents) and increases pumping and treatment costs.

To better understand this risk, the wastewater activity team contracted specialist providers to model the inflow and overflow frequencies for the Waikanae-Paraparaumu and Ōtaki wastewater networks.

The modellers used 20 years of rainfall data to model inflow and overflow frequencies at different points in time: present-day, in 2043 without incorporating climate change predictions, and in 2043 with climate change predictions. They concluded that wet weather overflows were the main threat to the wastewater networks and predicted that 'by the end of this century, overflow frequency will approximately double [in Kāpiti] due to climate change'.[17]

From this modelling exercise, we incorporated recommendations for network upgrades based on the most extreme scenario (that is, 2043 with climate change) into the Long-term Plan with the aim of ensuring the wastewater network is durable enough to withstand the projected climate change impacts. In addition, the wastewater activity team is currently exploring conversion to a low-pressure sewer system to build resilience. These are already used successfully in other jurisdictions and would be well suited for the Kāpiti environment.

Table 4 summarises the actions we have currently planned for the next three years to adapt our wastewater activity to climate change. As a number of environmental protection and restoration programmes are also associated with the wastewater activity and its resource consents, these are discussed further in the transitions section.

Table 4: Adapting the wastewater activity

Objective	Action	Impact	21/22	22/23	23/24
Regular condition and performance assessments	We have allocated approximately $1.2M for a variety of assessments from 2021 to 2024.	Capacity studies, condition assessments and performance assessments identify urgent issues and inform activity plans.	√	√	√
Promote demand management in communities and businesses	Educate people on wastewater conservation (for example, dual flush toilets).	Water conservation will help to minimise demands on the wastewater network, making it easier to accommodate new demands from climate change and growth.	√	√	√

[17] Source: Morphum Environmental. 2021. Kapiti Coast Wastewater Network Planning, page i.

Objective	Action	Impact	21/22	22/23	23/24
Promote demand management (continued)	Monitor existing septic tank maintenance and minimise illegal connections.	Another important aspect of demand management is to minimise infiltration to the wastewater network from illegal connections and/or stormwater runoff. *(See table 5 for more information on other stormwater activities.)*	√	√	√
	Continue to identify and address instances of stormwater infiltration into the wastewater network on private properties.		√	√	√
Undertake renewals of existing infrastructure and build new, as agreed in the Long-term Plan	We have planned a range of renewals and builds across the district. For example, we have allocated $6.5 million for upgrades at both of our wastewater treatment plants and $3.6 million for other upgrades to the network.	The range of projects (for example, increasing the size of the storm pond at the Paraparaumu wastewater treatment plant and desludging the Ōtaki wastewater treatment plant oxidation ponds) will improve storage and treatment processes in wet weather and minimise inflows and overflows across the network.	√	√	√

Stormwater

As the impacts of climate change become more visible in the district, our stormwater team is increasingly experiencing these impacts firsthand.

The main goal of our stormwater activity is to provide stormwater systems that manage surface water runoff from the district's urban catchments, while protecting the receiving environments, ensuring water quality and reducing risks to human health and property from flooding.

One of the biggest climate change concerns is whether the stormwater network will be able to cope with the increased rainfall predicted for the district. The district has been subjected to several significant rain events in recent years. Two events – one in May 2015 with 143 mm of rain in 24 hours, and a second in November 2016 with 50 mm of rain in 24 hours – prompted us to thoroughly review our stormwater system. The review made several interesting findings, such as:

- 30 per cent of urban properties that contribute to stormwater rates have a flood designation registered on the property in the District Plan for a 1:100-year event. This has created a significant issue as affected residents put increasing pressure on the Council to address stormwater issues
- we received over 600 flooding complaints per year at the time of the review, although this number has started to decrease as we carry out improvements to our stormwater network
- nearly 50 per cent of the stormwater infrastructure is under capacity for a 1:10 year event and upgrading the infrastructure to the required standard requires a significant investment.

To address these issues, we developed an intensive Stormwater Management Programme and approved a 37-year Project Plan with projects prioritised according to property type – habitable floors are the priority, followed by commercial buildings and then other property types.

Table 5 below summarises the actions that we agreed to in the Long-term Plan for the next three years to adapt our stormwater activity to climate change.

Digger clearing the Mazengarb Stream in Paraparaumu to minimise flood risk.

Table 5: Adapting the stormwater activity

Objective	Action	Impact	21/22	22/23	23/24
Build resilience in the receiving environment	Undertake regular drain inspections and maintenance (at a cost of about $700,000 per year). This requires resource consents under GWRC's[18] proposed Natural Resources Plan.	The district has 110 km of open waterways — 41 km of these we manage, with the rest managed by GWRC. Regular maintenance and/or special projects can help these channels cope with heavy rainfall, but this work must be done without undue harm to the natural environment.	√	√	√
	Advocate to GWRC for improved flood protection in the rivers and streams under their jurisdiction under the Kāpiti Coast Watercourses Agreement.		√	√	√
Manage stormwater entering the network from private properties	Inspect assets on private properties and educate landowners about how to maintain retention ponds and soak pits on their properties.	Efforts to manage stormwater more effectively will reduce demand on the wider network and reduce the likelihood of flooding.	√	√	√
	Explore developing a new bylaw to mandate certain practices on private properties.			√	√
Undertake major and minor renewals, as agreed in the Long-term Plan	We have allocated approximately $2.9 million for the three years, 2021 to 2024.	The proposed combination of major and minor renewals will increase the network's ability to manage surface water runoff.	√	√	√

[18] GWRC — Greater Wellington Regional Council

Objective	Action	Impact	21/22	22/23	23/24
Undertake major and minor new assets and upgrades, as agreed in the Long-term Plan	We have allocated $18 million for the three years, 2021 to 2024.	The proposed combination of new assets and upgrades will increase the network's ability to manage surface water runoff.	√	√	√
Advise on the maintenance of access and transport stormwater infrastructure	We have allocated approximately $2.9 million for the three years from 2021 to 2024, mostly for sump cleaning and replacement.	Roads act as secondary flow paths and are important for the stormwater network. Sump cleaning and replacement will increase the network's ability to manage surface water runoff.	√	√	√
Inspect and maintain pipes and manholes to promote resilience for the wastewater activity	Manage stormwater inflow and infiltration through down pipes, manholes and pipe networks to ensure the district's wastewater activity continues to be resilient.	Investigations to identify inflow and infiltration sources, coupled with maintenance of pipes and manholes, will minimise infiltration into the wastewater network.	√	√	√
Update flood models	We are updating our flood models and these will include the most recent climate change predictions and rising groundwater levels.	Access to accurate information that is based on the most recent technical guidance is essential for planning our stormwater activities.	√	√	
Update the Stormwater Management Strategy	We are working with our iwi partners and technical experts to develop a new Stormwater Management Framework.	We will need to incorporate new central and regional government guidance into the Stormwater Management Framework.	√	√	

Coastal asset management

Our coastal assets are also experiencing the impacts of rising sea levels, storm surges and coastal erosion.

We maintain a number of assets along the coast – including public roads, beach accessways and reserves, and stormwater and wastewater assets. Some of these assets are protected by 40 km of coastal defence structures, which we must maintain.

Examples of both major and minor activities we have undertaken in recent years to protect these assets include:

- Installing the Wharemauku block wall to protect public wastewater and stormwater infrastructure along Marine Parade in Paraparaumu Beach, after a significant storm event in 2016
- Replacing the retaining wall at the Wharemauku Stream mouth in Raumati Beach to reduce flooding along the Wharemauku Stream, as the retaining wall had passed its design life
- Planting over 10,000 native, sand-binding species on the foredunes from Paraparaumu to Ōtaki to protect against coastal erosion.

We are also investigating reshaping every beach accessway in the district to improve alignment with natural coastal processes with the aim of reducing long-term maintenance costs. This work is being carried out by the parks and open spaces team.

In 2016, we also assessed the condition of all our coastal infrastructure assets to enable a long-term programme of works to be prioritised. Three of the most significant projects are included in the current Long-term Plan and described in table 6 below.

Table 6: Coastal asset projects

Action	Impact	21/22	22/23	23/24
Raumati seawall	The 3.1 km Raumati seawall has exceeded its design life. This project is currently in the design and consenting stages with construction to begin in the coming financial years.	√	√	√
Wharemauku block wall	We installed the Wharemauku block wall to protect public wastewater and stormwater infrastructure along Marine Parade in Paraparaumu Beach, after a significant storm event in 2016. The design life of this wall was seven years from the time of the build, and therefore we have commenced designing a more permanent defence structure as a long-term solution.		√	√
Paekākāriki seawall	The Paekākāriki seawall protects The Parade in Paekākāriki, along with other coastal assets.	√	√	√

Paekākāriki seawall

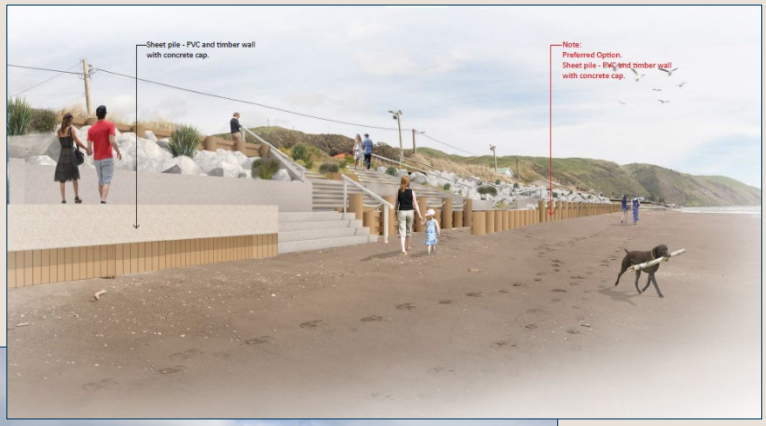
The 900-metre-long timber seawall in Paekākāriki has been in place for about 40 years. It has long been recognised it needs replacing due to concerns it might fail to protect The Parade in a significant storm event.

For nearly 10 years, we have worked with a special Paekākāriki residents' group to plan its replacement. Due to rising construction costs, the design has changed on a number of occasions, with the most recent design being agreed following a districtwide consultation as part of the Long-term Plan.

We are currently in the process of tendering for a contractor to replace the seawall. The total amount allocated for the entire project is $17.1 million, with $8.8 million of that to be spent in the first three years of the Long-term Plan.

While the process to agree on a solution for the seawall has been challenging and time consuming, it provides an example of working with a local community to ensure that public assets meet their level of service requirements.

Right: An artist impression of the proposed new Paekākāriki seawall.



Below: The current seawall at Paekākāriki beach has been in place for about 40 years.

Other infrastructure adaptation activities

While the impacts of climate change will be particularly challenging for the water, wastewater, and stormwater activities, we have many other activities and workstreams that also need to incorporate climate change predictions into their long-term plans.

Table 7 below provides a brief summary of other adaptation activities planned for the first three years of the Long-term Plan.

Table 7: Other infrastructure adaptation

Activity	Objective	Impact	21/22	22/23	23/24
Transport	Research the durability of construction methods and materials, particularly in relation to more extreme rainfall events and rising groundwater.	Incorporating best practice guidance into project designs will increase the resilience of the transport network.	√	√	
	Construction and maintenance projects provide opportunities for climate change adaptation.	We have planned a range of improvements to increase the transport network's resilience. Some of these, such as converting low-volume sumps and culverts to higher capacity, will help manage surface water runoff.	√	√	√
	Look for opportunities to build resilience.	As the expressways are built through the district, we are working alongside Waka Kotahi to increase resilience, for example by strengthening bridges and building secondary access routes.	√	√	√

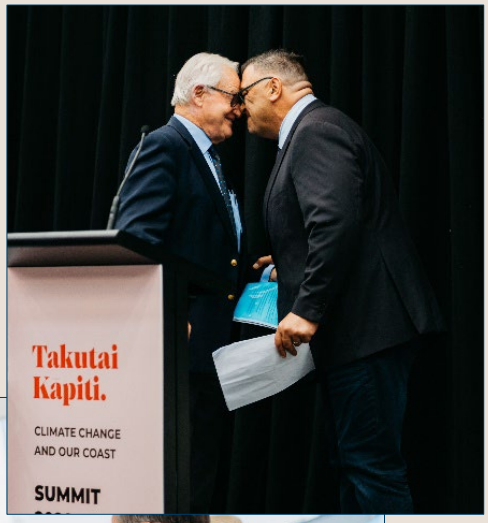
Activity	Objective	Impact	21/22	22/23	23/24
Solid waste	Maintain and renew existing infrastructure for waste minimisation and disposal services.	The Otaihanga Resource Recovery Facility and the Ōtaki Resource Recovery Centre are owned and maintained to enable delivery of services at these sites through lease to operate agreements. Asset management planning considers projected climate change impacts, particularly high winds and site flooding.	√	√	√
	Undertake community liaison and work with operators to manage impacts from green waste diversion.	We work with operators to support operational innovations to manage off-site odour issues due to increased temperatures and high winds.	√	√	√
Parks and Open Spaces	Parks and open spaces are used as secondary overflow storage for stormwater.	During significant rainfall events, parks and open spaces provide storage for stormwater until the stormwater network can manage the runoff.	√	√	√
Regional	Participate in the development of the Wellington Regional Growth Framework: Wellington Region Climate Change Impact Assessment (WRCCIA).	The WRCCIA will identify a wide range of (direct and cascading) impacts across the Region and Districts, which will help to develop the Regional Adaptation Plan and provide valuable data for Council's climate change planning.	√	√	

Takutai Kāpiti: Our coastal adaptation project

To ensure our coastal communities are prepared for sea-level rise and coastal changes, we are currently undertaking a special project called, *Takutai Kāpiti: Our coastal adaptation project*.

Based on best practice guidance from the Ministry for the Environment, Council's Takutai Kāpiti project team is working alongside a coastal advisory panel of iwi partners, community representatives, key community and agency stakeholders, and a range of technical advisors to engage our community in discussions about adapting to the coastal hazard risks of sea-level rise and climate change.

We released a Kāpiti Coast Coastal Hazards Susceptibility and Vulnerability Assessment in February 2022. Council and the Coastal Advisory Panel are now seeking community views on how we should adapt. As different parts of our coast will be affected differently, we need to think about a number of factors such as: our social and cultural values, important natural landscapes, significant flora and fauna, and public assets at risk, as well as relevant planning and legislative requirements, costs and benefits.



Right: Rt Hon James Bolger ONZ and Kahu Ropata, the Council's Iwi Partnerships Manager, at the Takutai Kāpiti: Climate Change and our Coast Summit on 8 March 2020.

Below: Councillor Sophie Handford speaking to volunteers from the Kāpiti Coast Youth Council at the Takutai Kāpiti: Climate Change and our Coast Summit.

Adapting with the community

While we are acting to minimise disruptions from climate change to our activities and services, we are also obligated to support communities and businesses to improve their resilience and sustainability.

In cases where adaptation of our assets might directly impact communities and levels of service, we will work with local communities to identify and evaluate a range of feasible options for the long-term management of those assets. The replacement of the Paekākāriki Seawall is one example.

At other times, our consideration of climate change will have a direct effect in terms of land-use rules and regulations. When this happens, we will also work with local communities to develop recommendations for proposed changes to the District Plan. We currently have two engagement projects underway. See table 8 for more information.

Our communities benefit from the many cycleways and pathways throughout our district.

Table 8: Community-led adaptation projects

Objective	Action	Impact	21/22	22/23	23/24
Update the Stormwater Management Strategy	We are working with our iwi partners and technical experts to develop a new Stormwater Management Framework.	The new Stormwater Management Framework will guide how we build our sustainability and resilience to increasingly severe and frequent storm events.	√	√	
Update flood models	Flood model updates are currently in progress, incorporating the most recent climate change predictions and rising groundwater levels.	Any proposed plans, guidelines and recommendations must be based on the best science available.	√	√	
Flood risk plan change	We will be talking to the community about a flood risk plan change based on the Stormwater Management Framework and updated flood models.	Proposed District Plan changes will promote resilience in relation to our changing climate.	The timing of this plan change depends on completing the updated Stormwater Management Framework and flood models.		
Takutai Kāpiti	The Takutai Kāpiti project team and technical advisory group, alongside the Coastal Advisory Panel (made up of iwi, community, and key stakeholders) will develop coastal adaptation recommendations.	The Coastal Advisory Panel's output will guide how we build our sustainability and resilience to rising sea levels and coastal erosion.	√	√	√
Coastal hazard assessment	We will carry out a coastal hazard assessment, incorporating the most recent climate change predictions and coastal science.	Any proposed plans, guidelines, and recommendations must be based on the best science available.	√		
Coastal plan change	We will be talking to the community about a coastal plan change based on recommendations from Takutai Kāpiti.	Proposed District Plan changes will promote resilience in relation to our changing climate.	The timing of this plan change will depend on completing the Takutai Kāpiti project.		


“Climate change is an intergenerational threat. We would encourage investment in a suite of actions that include mitigation, adaptation, resilience, leadership and innovation.”
Submitter
Draft Climate Emergency Action Framework

SECTION 3

Transition

Ultimately, an effective and long-lasting response to climate change requires a transition to a ‘new normal’ where a low-carbon Kāpiti Coast District is well prepared for the impacts of a changing climate.

As a key aspect of the Climate Emergency Action Framework’s vision is to **transition to a low-carbon future**, we must support the community’s transition while shaping how we as a Council transition at the same time.

Paecycle is a local service in Paekākāriki that collects household food scraps and turns them into compost for the community garden.

A just community transition

A just transition is one where the social, cultural, economic and environmental impacts of the transition are managed in a way that minimises harm to humans (individuals, communities, businesses) and the environment.

While everyone has a role to play in shaping our new future and managing this just transition, there are a number of activities we can deliver to support this.

Table 9 below provides a brief overview of the work we currently have planned to support individuals, communities, and businesses to transition to a low-carbon Kāpiti.

Table 9: Supporting individuals, communities, and businesses

Target	Objective	Description	21/22	22/23	23/24
Individuals and communities	Providing resources and support to enable emissions reductions, low-carbon living and climate change adaptation.	We provide an extensive waste minimisation education programme.	√	√	√
		We are working with the Wairarapa councils to provide a Home Health Kit through our local libraries.	√	√	√
		We are currently promoting the FutureFit[19] tool to our staff and will start a wider public campaign in year 2 of the Long-term Plan.	√	√	√
		Our annual No 8 Wire programme offers free and affordable events to encourage community resilience, DIY resourcefulness and environmental responsibility through fun, hands-on events and workshops.	√	√	√
		We support Neighbours Day, an annual event designed to strengthen our communities and make them healthier, safer and more resilient.	√	√	√
		To design programmes that meet the needs of our communities, we regularly meet with a range of advisory groups (for example, the Youth Council, Older Persons' Council and Accessibility Advisory Committee).	√	√	√
		We offer a range of grants to support initiatives aimed at building local community and not-for-profit social service agencies.	√	√	√

[19] For more information on FutureFit, see Discover your Impact on the Climate Change | FutureFit

Target	Objective	Description	21/22	22/23	23/24
Individuals and communities (continued)	Educating people in our district about emissions reductions and the projected impacts of climate change	Information about the impacts of climate change on our district and the importance of emissions reductions is available on our website, and a new educator will be hired in the 22/23 financial year.	√	√	√
Businesses	Educating businesses about emissions reductions and the projected impacts of climate change	Currently we offer waste audits to businesses and promote other tools for businesses, such as the Climate Action Toolbox[20]. A new educator will be hired in the 22/23 financial year.	√	√	√
	Pakihi Toitū o Kāpiti, the Sustainable Business Network	In response to demand from local businesses, we are currently facilitating the development of a local network and online resource to support businesses on their sustainability journey.	√	√	√
	Sustainable Economic Development	Our economic development team is developing a strategy to capitalise on the district's highly productive land and opportunities for sustainable food production.	√	√	√
Mana whenua	Provide mana whenua with resources and infrastructure to enable and support emissions reductions, low-carbon living and climate change adaptation.	We partner with mana whenua to design and implement key projects (for example, the Stormwater Steering Group and Takutai Kāpiti).	√	√	√
		We offer marae maintenance and development grants, which are often used to undertake sustainability and resilience initiatives.			

[20] For more information, see Climate Action Toolbox | Business.govt.nz Tools

Protecting and restoring the environment

While a just transition ensures no humans are left behind as we shift to a new normal, it is equally important we care for the environment at the same time.

While looking after our environment is the right thing to do, it is also mandated through the National Policy Statement on Freshwater Management and the upcoming National Policy Statement on Indigenous Biodiversity. These government policy statements mandate local government to care for Te Mana o te Wai and Te Mana o te Taiao.

Te Mana o te Wai refers to the vital importance of water, ensuring the health and wellbeing of water is protected, and human health needs are provided for, before enabling other uses of water.

Similarly, **Te Mana o te Taiao** sets a strategic direction for the protection, restoration and sustainable use of biodiversity, particularly indigenous biodiversity, in Aotearoa New Zealand.

While climate change mitigation is mainly focused on reducing greenhouse gas emissions, it also provides an opportunity to mitigate negative impacts on the environment. Similarly, carbon sequestration provides opportunities for environmental restoration.

Table 10 provides a brief overview of the work we currently have planned to protect and restore the natural environment.

Table 10: Protecting and restoring the environment

Target	Objective	Description	21/22	22/23	23/24
Environmental protection from Council and commercial activities	Environmental monitoring	Our environmental monitoring programme (which includes a large cultural monitoring component designed with our iwi partners) measures environmental health and informs activity plans.	√	√	√
	Optimise the amount of water abstracted[21] from our rivers and aquifers.	Continue with our water conservation programmes and look to minimise leaks in any of our Three Waters networks.	√	√	√
		Continue the ongoing monitoring, maintenance, and promotion of water meters.			

[21] What Is Water Abstraction? See Envirotech Online (envirotech-online.com)

Target	Objective	Description	21/22	22/23	23/24
Environmental protection from Council and commercial activities (continued)	Ensure compliance with our Three Waters resource consents.	We have ongoing mitigation plans guiding the delivery of the River Recharge Scheme until 2030.	√	√	√
		We are currently renewing some of our water supply consents, such as the one for water abstraction.			
		We are renewing our discharge consents for the Paraparaumu Wastewater Treatment Plant as they expired in March 2022. The application is accompanied by an assessment of environmental effects and improvement plans.			
		The new 20-year resource consent for the Ōtaki Wastewater Treatment Plant was issued by GWRC in October 2016. In accordance with the consent, we worked with iwi to prepare and implement an environmental protection and restoration plan.			
	Participate in the development of Integrated Catchment Management Plans through Greater Wellington Regional Council's Whaitua process.	The Kāpiti Whaitua Committee is currently being established by Greater Wellington Regional Council. The Committee will determine how the people of the Kāpiti Coast District want to manage their freshwater, now and for future generations.		√	√
	Enforce the Trade Waste Bylaw.	The 2019 Trade Waste Bylaw is the main instrument to manage commercial and industrial wastewater discharges to minimise risks to humans and the environment.	√	√	√

Target	Objective	Description	21/22	22/23	23/24
Environmental restoration	Ongoing planting of native trees and other plants.	There are a range of planting projects in the Three Waters activities. These projects benefit carbon sequestration and environmental restoration.	√	√	√
		Our Parks and Open Spaces team has an extensive programme working with Greater Wellington Regional Council and volunteer groups to carry out planting across the district.	√	√	√
	Educational awareness programmes	The Parks and Open Spaces team delivers a range of educational programmes to promote biodiversity, environmental protection, and environmental restoration in the district.	√	√	√
	Pest control	The Parks and Open Spaces team works with Greater Wellington Regional Council to support pest control in the district.	√	√	√

Our corporate transition

While we seek to support and enable a just transition that minimises harm to humans (individuals, communities and businesses) and the environment, we must also plan how our organisation will transition to a low-carbon future.

We have been developing and implementing Carbon and Energy Management Plans since 2012. These have already contributed to important behaviour changes across our organisation, particularly in relation to common business practices like conserving energy and water, in-house waste minimisation and converting our transport fleet to electric and hybrid vehicles.

More recently, we have updated our procurement guidance, encouraging our staff to consider the social, economic and environmental impacts of supply arrangements, and how we can make a difference when we decide what to buy, how to buy it, and whom to buy it from.

Over the next few years, we will continue to focus on integrating climate change considerations into other parts of the organisation. For example, while climate change already features in the cross-Council risk assessment register, we might choose to expand on this as climate change brings a range of risks and will impact different parts of our organisation in different ways.

Similarly, while our template for reporting to Elected Members already includes a ‘climate change considerations’ section, we will continue to develop our capacity for climate change reporting. While local government is not currently required to report on climate-related financial disclosures, for example, it is possible this will become a requirement in the not-so-distant future. Some councils are already completing this type of reporting in a voluntary capacity.

"Response to climate change is a given, not a choice. Let's have a strong focus on our backyard and try to set a culture in the community that supports the right activity."

Submitter

Draft Climate Emergency Action Framework

SECTION 4

Delivering on our commitments

We recognise the need to deliver on our climate change commitments and understand that updates on our planned and completed actions should be readily available.

While we usually report completed actions through our quarterly and annual reports, these are often reported by activity rather than being collated into a cohesive climate change report.

This section provides an overview of many of the climate change actions we completed during the first three years of the last Long-term Plan, and the first year of the current Long-term Plan.

Delivering on the last Long-term Plan (2018–2021)

Figure 4 on the next page provides a snapshot of actions completed over the first three years of the last Long-term Plan, 1 July 2018 to 30 June 2021.

A snapshot of climate emergency action (2018—2021)

Over 3,200 people learned practical skills on reducing emissions, living a low-carbon lifestyle and caring for our environment through our No 8 Wire workshops and neighbourhood events to build stronger communities.

We built 10 kilometres of new cycleways and renewed 21,377 square metres of footpaths.

We made 17 submissions to central and regional government on public transport, waste minimisation and emissions reduction, and 11 submissions on resource management reform and infrastructure resilience.

We carried out a number of stormwater renewal and upgrade projects in the district to minimise habitable floor, street and section flooding

We installed more energy-efficient aeration blowers at the Paraparaumu Wastewater Treatment Plant.

We worked with NIWA and Greater Wellington Regional Council to update our climate change assumptions for the Kāpiti Coast District.

We have cleaned over 37.5 kilometres of open waterways to protect against stormwater overflows.

The Ōtaki Wastewater Treatment Plant is powered by solar generated at Rau Kūmara Solar Farm.

We started de-sludging the Ōtaki Wastewater Treatment Plant ponds to improve treatment, particularly during big storm events.

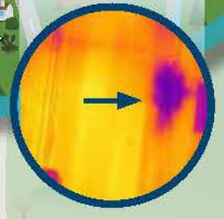
We held the Takutai Kāpiti: Climate Change and our Coast Summit in March 2020 to launch our coastal adaptation project.

Working with volunteers, our staff have planted over 14,000 native, sand-binding species along our coast and 65,000 eco-sourced native seedlings across our district.

Most of our streetlights are now LED, significantly reducing power.

We have awarded over $150,000 in Waste Levy Grant funding to community waste reduction initiatives.

We are now using state-of-the-art, infrared drone technology to find and fix water network leaks.



We are converting our transport fleet to electric and hybrid vehicles. Fast EV chargers are now in every main town centre.

Delivering on the first year of the Long-term Plan (1 July 2021 to present)

Of those actions that have been delivered so far on climate change mitigation, adaptation and transition, the highlights are itemised below.

Information and advocacy

- We adopted the Climate Emergency Action Framework on 29 July 2021.
- Under the Wellington Regional Growth Framework, we are participating in the following two projects that started this year:
    - Wellington Region Climate Change Impact Assessment (project plan developed, contract awarded and assessment underway)
    - Wellington Regional Emissions Reduction Plan (project plan currently under development)
- We commissioned two reports to explore further options for corporate emissions reductions, and we are now in the process of investigating solar options.
- As central and regional government policy can heavily influence our ability to deliver our climate emergency actions, it is important that we input into the policy making process. We made 10 submissions (to date) to central government on resource management and/or land-use planning reform, infrastructure adaptation and resilience, emissions reductions, changes to our waste management and recycling systems, and national adaptation. In many instances, central government has been slow to provide the best plans and frameworks to support local government.

Reducing emissions and minimising waste to landfill

- On 21 October 2021, we approved a proposal to set up a new community-led Resource Recovery Centre at a site adjoining the Otaihanga closed landfill.
- We are developing regional guidance for multi-unit developments and a waste calculator to align with new requirements in the Solid Waste Management and Minimisation Bylaw 2021. The multi-unit development requirements take effect on 1 July 2022.
- E-waste containers are now open to the public at the Otaihanga and Ōtaki transfer stations and have diverted over 18 tonnes of e-waste so far.
- We awarded $19,847.78 through the Waste Levy Funding Grants to community waste reduction initiatives, and $16,889.07 to existing Kāpiti businesses making waste reduction improvements.
- The Love your Compost programme continues to support residents to divert organic waste from landfill with vouchers, incentives and resources. In 2021/22 we hosted 18 Love your Compost workshops with 149 attendees, attended 4 community markets where we engaged with an estimated 71 residents and have issued 287 vouchers.
- We purchased pool covers for the Waikanae Pool to reduce heat losses overnight. In addition, we agreed a plan for a first round of energy improvements at the Ōtaki Pool and commissioned a feasibility report for further changes.

- We hosted a forum to bring together local businesses and non-profits to discuss how we can promote and develop environmentally sustainable business practices on the Kāpiti Coast. This resulted in the establishment of Pakihi Toitū o Kāpiti, a network to provide guidance for innovation and growth in sustainable business practices for social and economic good.

Supporting and encouraging a transport mode shift

- We renewed, and where possible also widened, approximately 4 km of footpaths to accommodate active transport.
- We advocated to Waka Kotahi to install new footpaths and a bike lane along Raumati Straights as part of Waka Kotahi's works to improve this roadway before its revocation,[22] which is scheduled for the next financial year.
- We provided a range of safety programmes — Pedal Ready, Push Scooter and School Patroller Training (focus on youth), as well as workshops on bike, bus and bike, motorcycle, and mobility scooter safety.
- We will continue to advocate for ongoing improvements to Transmission Gully to benefit the district (for example, connectors to the cycleway, walkway and bridleway (CWB) spine).

Building stronger, more resilient, and more effective infrastructure

- We spent $965,000 on upgrades to stormwater drainage and bridges to improve resilience on the transport network.
- We spent $6 million on major and minor stormwater projects which were aimed at designing and constructing major drainage systems for 1 in 50-year and 1 in 100-year storm events to prevent habitable floor, street and section flooding.
- We started upgrading our aeration blower at the Paraparaumu Wastewater Treatment Plant to more energy efficient blowers.
- We continued the desludging project for our Ōtaki Wastewater Treatment Plant oxidation ponds to improve treatment performance and wet weather storage.
- We started a range of upgrades at the Ōtaki and Waikanae Water Treatment Plants, which will continue for the next several years.
- We are implementing an inflow and infiltration reduction programme to minimise wet weather wastewater overflows to the environment.

[22] Revocation is a legal process by which Waka Kotahi removes a road's state highway status and transfers it back to local government control as a local road.

Promoting a low-carbon Kāpiti ready for our changing climate

- On 24 February 2022, we adopted the district's new growth strategy, *Te tupu pai*, which has 'encouraging low-carbon living' as one of its six growth principles. In May 2022, we adopted the Kāpiti Coast District Council Housing Strategy.
- The Stormwater Steering Group met every six weeks during the year to draft the Stormwater Management Framework, which will go out for public consultation later in 2022.
- The Coastal Adaptation Panel (CAP) was established, with The Rt Hon James Bolger ONZ PC appointed as Chair. The CAP's first meeting was in September 2021.
- We released the Coastal Hazard Susceptibility and Vulnerability Assessment for the Kāpiti Coast District coastline in February 2022.
- We awarded $320,000 in social impact grants and $50,000 in Ōtaki social impact grants to back our not-for-profit, community support sector.

Promoting environmental restoration and protection

- We completed a wetlands reconstruction and replanting project at the closed Otaihanga landfill.
- We planted more than 22,000 eco-sourced, native plants at 16 sites across the district.

Glossary

Adaptation	Adaptation means anticipating and proactively responding to climate change impacts that are already happening, or are expected to happen. The aim of adaptation is to reduce risk via minimising exposure or vulnerability to projected climate change impacts. It is one of the ways to respond to climate change, along with mitigation.
Just Transition	Just Transition is a framework for a fair and sustainable shift to a low-carbon economy. A shift to a low-carbon economy is vital to avoid dangerous climate change. This means tough targets to cut CO_2 emissions will transform economies over the next decade and this shift will have major implications for working people – particularly those working in energy supply, industry and transport – and for all consumers. There is a concern that workers, families and communities will bear the brunt of the transition without conscious efforts to provide support to them through this shift.
Kaitiakitanga	Kaitiakitanga means guardianship and protection. It is a way of managing the environment, based on the Māori world view. A kaitiaki is a guardian. Local mana whenua generally serve as the kaitiaki in their rohe, although a kaitiaki can be any person or group that cares for an area (such as a lake or forest) if they have been given that role by the local iwi.
Manaakitanga	Manaakitanga means the process of showing respect, generosity and care for people, whānau and communities. Mana is the essential lifeforce within a person, place or object. In this context, caring for people results in empowering them and enhancing their mana.
Māramatanga	Māramatanga means knowledge, enlightenment or insights held by mana whenua. In respect of climate change, it means lessons learned through centuries of kaitiakitanga, manaakitanga and whanaungatanga.
Mitigation	Mitigation refers to the things we can do to limit the magnitude or rate of global warming, and its related effects, by helping to reduce the amount of greenhouse gases (GHGs) in the atmosphere.

Mitigation (continued)	Emissions of greenhouse gases contribute to climate change because they act like a blanket around the earth, trapping warmth from the sun and causing the Earth's temperatures to rise. Increased global warming leads to imbalances in our natural environment, which in turn changes our climate. There are two ways to reduce the amount of greenhouse gases in the atmosphere: the first is to stop emitting greenhouse gases (known as emissions reduction), and the second is to find ways to remove greenhouse gases from the atmosphere (for example by planting trees that absorb carbon dioxide from the air, known as sequestration). Mitigation is important because the only way to slow climate change and/or reduce the severity of its impacts is by limiting global warming. An additional benefit is that mitigation can also help improve the health and wellbeing of local communities and environments.
Resilience	Climate resilience is the ability to anticipate, prepare for, and respond to hazardous events, trends or disturbances related to climate change. Improving climate resilience involves assessing how climate change will create new, or alter current, climate-related risks and taking steps to better manage these risks.
Restoration	Ecological restoration is the process of helping the recovery of an ecosystem that has been degraded, damaged or destroyed. Strong ecological systems are an important aspect of climate change resilience.
Sustainability	Sustainability means "meeting the needs of the present without compromising the ability of future generations to meet their own needs" (United Nations Brundtland Commission, 1987).
Whanaungatanga	Whanaungatanga is about relationships, kinship and a sense of family connection. It is created through shared experiences and working together and provides people with a sense of belonging.

Kāpiti Coast
DISTRICT COUNCIL
Me Huri Whakamuri, Ka Titiro Whakamua

kapiticoast.govt.nz

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