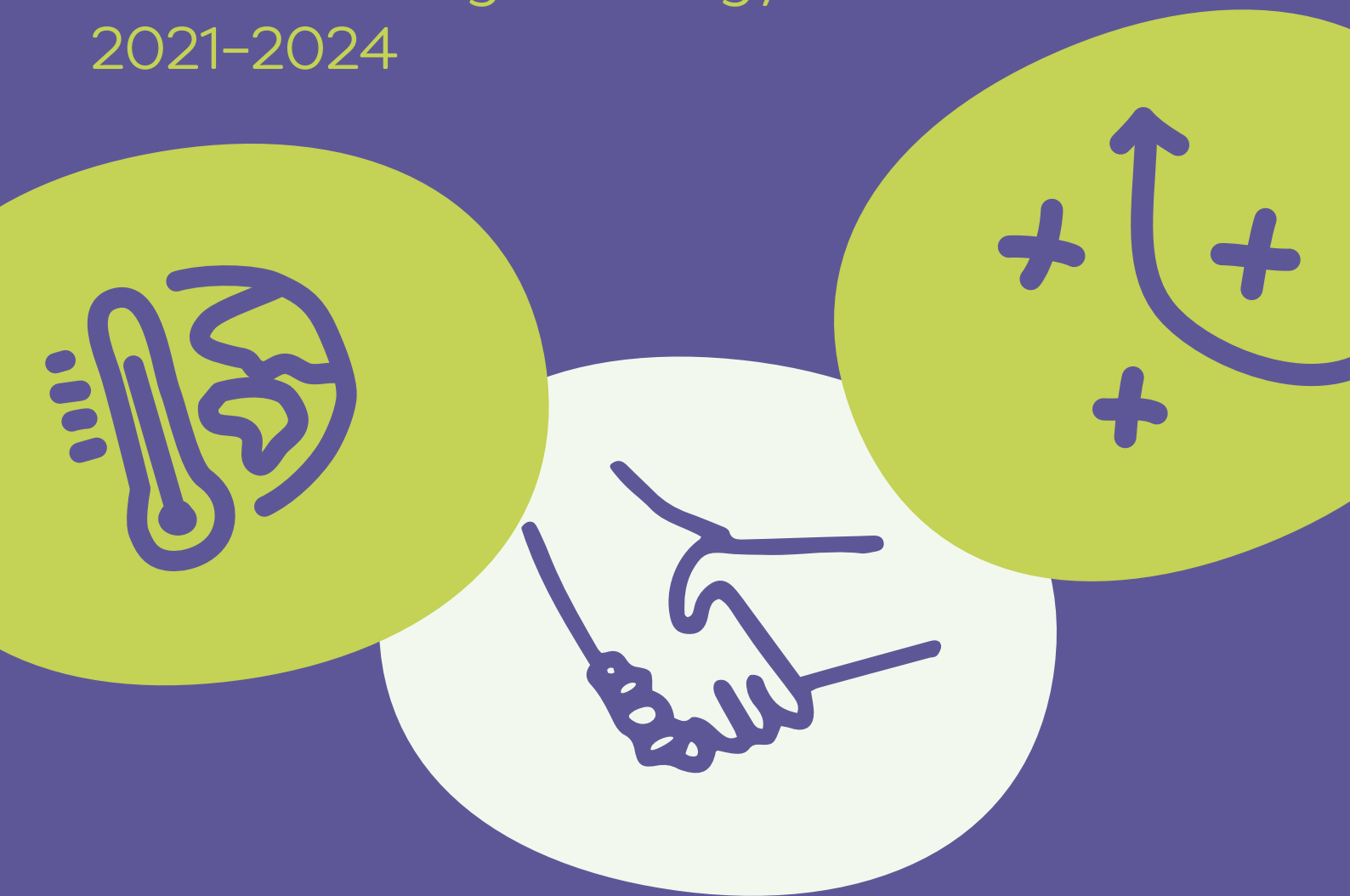


Rautaki o Te Ao Hurihuri

Porirua City Council's
Climate Change Strategy
2021-2024



poriruacity



The Splash Pad runs on 10,000 litres of recirculated water that comes from our town water supply. It is held in a large tank underground. It operates during the summer months, from 9am to dusk.



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Introduction

Climate change is one of the defining challenges of our time. Rising sea-levels, changing weather patterns, and more frequent, stronger, storms will impact our economy, our natural environment, and where and how we live.

It's important we act now to minimise the impact of climate change, and to prepare for changes that cannot be avoided. By acting now, we can reduce the effects of climate change, and minimise the costs of responding to climate change.

Responding to climate change is a global challenge. By working together we can all do our part to minimise the impacts, and prepare for the predicted changes. On 26 June 2019, Porirua City Council declared a climate change emergency, to signal our commitment to taking action on climate change.

In response, Porirua City Council has developed this climate change strategy to provide a clear, short-term approach to climate change over the

next three years. It will lay the foundation for longer-term thinking, planning, and action which will be developed as this strategy is implemented.

The strategy sets out what we know about climate change and how it will affect our community, the role of Porirua City Council in responding to climate change, our approach to developing our response (what we will consider, and why), and what we will do in the next three years.

The strategy will be delivered through **three focus areas**, to mitigate the effects of climate change by reducing greenhouse gas emissions, adapt to the inevitable changes that climate change will bring, and plan for the transition to a low-carbon economy. To summarise, our focus areas are:

- 1. Mitigation: A zero-carbon Council**
- 2. Adaptation: A resilient city**
- 3. Transition: A low-carbon future**

For each focus area, we have developed a three-year work programme that lists critical actions and tasks against specified timeframes.

This Strategy sets out the first steps that Porirua City Council will take to respond to climate change. It is the start of our journey together.



Background

What is climate change?

Our climate is changing because of human economic activity.

Since the industrial revolution, we have produced increasingly large amounts of greenhouse gases (GHGs), primarily carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). These gases trap heat in the atmosphere, resulting in increased average temperatures, rising sea level, and significant changes to weather patterns.

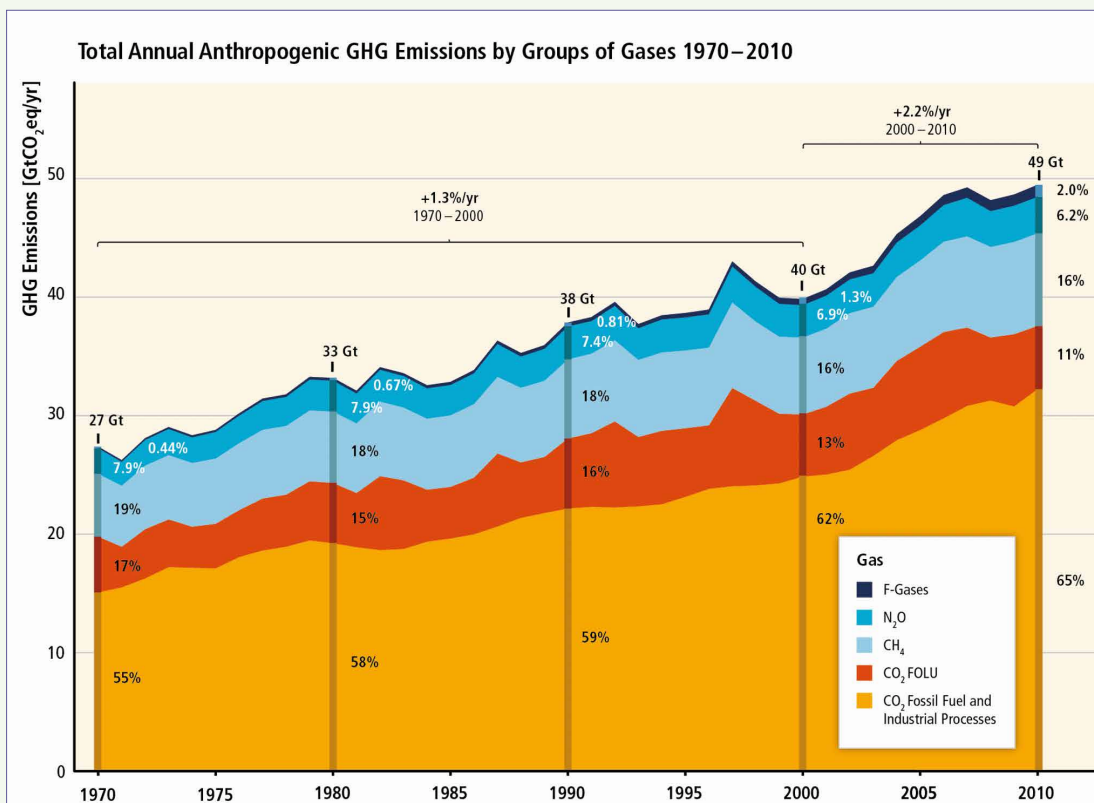
What is the IPCC?

The Intergovernmental Panel on Climate Change (IPCC) was established in 1988 to provide regular scientific assessments on climate change. The IPCC reports have consistently warned that failure to adequately respond to climate change will have significant impacts on our cultural, social, economic, and environmental wellbeing.

The more global temperatures increase, the greater the impacts will be. Current thinking is that, if we want to avoid the worst effects of climate change, we need to limit warming to 1.5°C above pre-industrial levels. However, we are expected to hit 1.5°C between 2030 and 2052. We can still avoid the worst impacts of climate change, but to achieve this we need to act now to massively reduce our GHG emissions. Even if we are successful in achieving this, we will still need to adapt to the inevitable effects of climate change. This Strategy is the first step in Porirua's mitigation and adaptation responses to climate change.

Figure 1: Global GHG emissions since 1970 have been increasing rapidly.

Source: IPCC, 2014: *Climate Change 2014: Synthesis Report*.



How will it affect us?

Increased temperatures mean that there is more water and more energy in the atmosphere. This is causing more frequent and bigger storms, with flooding, landslides, and severe winds, resulting in damage to property, infrastructure and productive land.

In some areas, changes to weather patterns are resulting in more and longer drought, putting pressure on agricultural systems and water supplies.

Sea level rise is causing significant coastal erosion, putting coastal developments at risk, and forcing salt water into sub-surface aquifers, putting additional strain on the supply of freshwater.

The impacts of climate change are now starting to be noticed. Average temperatures in Porirua have already risen by about 0.8°C, and sea levels have risen by approximately 26cm, since the early 1900s.

Although we can predict what the impacts of climate change will be, there is uncertainty about the rate and magnitude of those impacts. For example, we know that sea level is rising, and will continue to rise for several centuries, but exactly how far, and how fast, is uncertain. Current predictions for sea level rise in Porirua are 12–24cm above present levels by the middle of the century (2046–2065), and 68–175cm above present levels by the end of the century (2081 – 2100). It's important to note that if significant reductions in GHG emissions are made globally, most of the high-end projections for later in the century can be

Porirua in the mid-21st Century

The predicted effects of climate change for Porirua City are:

- Average temperature has increased 0.5–1°C. Autumn and winter are noticeably warmer.
- Sea level has risen by 12–24cm. Low lying coastal areas are experiencing more erosion and frequent flooding during storm surges and high tides.
- Average rainfall has increased, and there are more storm events. Despite this increase, summers may actually be drier, leading to increased stress on our water supply, and increased risk of wildfire.
- There will be fewer frosts.
- Rivers and streams will have lower average flows, but increased flood flows, due to increased storm events. This will reduce water quality and increase erosion.

These effects will impact our environment, our economy and our wellbeing.

avoided. But our window for taking this action is closing, so it is important to act at the local, national and international level now.

Sea level rise and flooding will impact existing coastal and low-lying communities and will dictate where development can occur in future. Most of our coastal communities will be affected and there will be significant impacts on council-owned infrastructure such as seawalls, roads, drinking and waste water pipes and sewage pump stations. In 2019, Council estimated a total replacement cost of \$72 million for infrastructure that would be lost under a 1m sea-level rise scenario.

Meanwhile, extreme weather events are likely to have a similar impact right across the city, including rural areas. Over the previous three years, unscheduled roading

maintenance due to extreme weather events has cost approximately \$10 million. As these weather events increase in frequency and severity, this cost is expected to increase also.

This increased risk to property and infrastructure is predicted to impact banking and insurance too. It will become more difficult to borrow money to purchase at risk properties, and insurance premiums will go up.

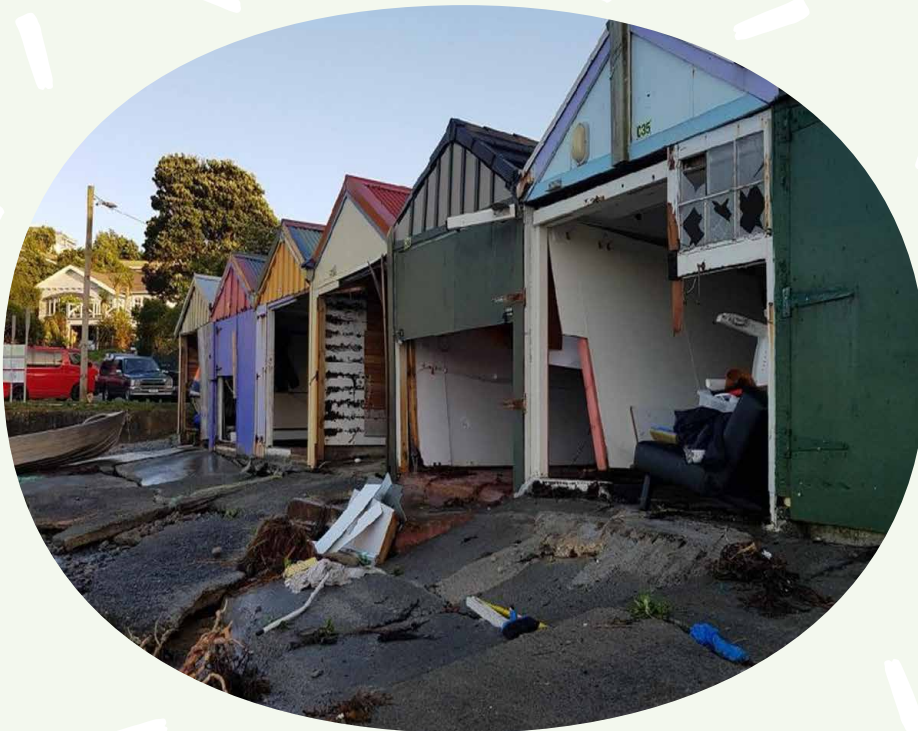
Droughts, heatwaves, wildfire, floods, and storms are all expected to increase in frequency and severity due to climate change. Sea level rise, storm damage, and water scarcity are expected to create widespread displacement of communities over the next few decades. Pacific island nations are expected to be some of the worst affected, and, as a city with a large Pasifika community, this will affect parts of our community directly.

Our native species and ecosystems are already under threat due to the combined pressures of over-exploitation, habitat loss and degradation, and invasive species. Climate change will be a compounding factor. Coastal ecosystems will be displaced due to sea level rise, invasive species may find it easier to establish due to altered conditions, and freshwater habitats will be stressed due to changing rainfall patterns.

Governments and financial and banking institutions are implementing regulations and policies that are designed to drive a transition towards a low-carbon, climate-resilient economy that replaces reliance on fossil fuels with renewable energy and changes the way land is used.

These impacts need to be considered alongside other environmental and economic pressures. In Porirua, our

predicted population growth will change our landscapes by replacing farm land with residential and commercial developments. Increased population will place greater demand on water, energy, and transport services, and will drive increases in waste and GHG emissions. The Porirua Growth Strategy sets out the challenges of managing this growth, to ensure new development is resilient to the changing climate.



The Titahi Bay boat sheds after Cyclone Gita 2016.

Responding to the climate crisis

Climate change presents a unique challenge.

We have known about climate change for some time, but so far we've failed to adequately act on this knowledge. We know that the sooner we act, the more we can limit the effects and impacts of climate change. There are two primary responses to climate change – reduce the amount of greenhouse gases in the atmosphere and prepare for the changes ahead. These are generally referred to as “mitigation” and “adaptation”.

Mitigation – reducing the impact

Mitigation aims to limit the overall impact of climate change by reducing the amount of greenhouse gases in the atmosphere. This is done by reducing emissions, and ‘capturing’ carbon dioxide.

While New Zealand is responsible for only a small portion of the global GHG emissions (0.17% of global gross emissions in 2014), our *per capita* emissions are among the highest in the world. We can reduce our GHG emissions by minimising the use of, or finding alternatives to fossil fuels, and reducing emissions from farming practices. The production of greenhouse gases is strongly linked to economic activity, so the challenge is to minimise GHG emissions without damaging the economy.

Carbon capture refers to removing CO₂ that is already in the atmosphere. Plants and marine algae capture atmospheric carbon and store it in their tissues during growth.

Therefore, our forests, wetlands, and other natural areas act as a sink for carbon dioxide. By protecting and restoring existing natural areas, and by planting new forests, we can further mitigate the effects of climate change.

Adaptation – preparing for change

Adaptation focusses on preparing for and responding to the unavoidable impacts of climate change. It includes planning for disruption to economic activities, damage to property and infrastructure, impacts on health, and changes to migration patterns.

This means that, as a community, we need to make some tough decisions on how we respond to rising sea levels and increased flood risk. This applies to existing communities, and for the location and design of new developments. Put simply, we need to decide if we protect, accommodate, or retreat from the effects of climate change. (see Figure 2, following page).

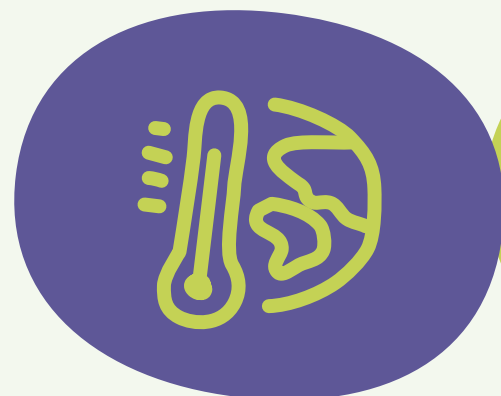


Figure 2: Adaptation in coastal and flood-prone areas: minimising future risk exposure

	Protect		Accomodate		Retreat	
Exisiting communities	Hard engineering solutions eg seawalls, flood protection	Natural defences eg wetlands, barrier islands	Household level eg flood protection	Via regulatory Instruments eg revised building codes, emergency managment planning	Relocate or abandon assets in high-risk areas	
Future development				Via regulatory Instruments The Proposed District Plan	Prevent new development through risk-informed planning	Allow development to take place on the condition it will be abandoned if necessary

Source: Content adapted from OECD (2016b).

Porirua City Council recognises that we have responsibilities to both minimise greenhouse gas emissions, and to adapt to, and help our community adapt to,

the effects of climate change. In setting community outcomes for Porirua’s Long-term Plan, the Council has climate change a priority for the next three

years (Figure 3, following page). This means we will make funds available to deliver meaningful action to mitigate and adapt to climate change challenges.



Figure 3: Porirua City Council Vision, Outcomes, and Priorities 2021-51



Why have a Climate Change Strategy?

Porirua City Council has made responding to the climate crisis a strategic priority for the city. Recognition that large-scale and meaningful action on climate change is urgent has also led to significant policy development at international and national levels. Our response has been shaped to align with that direction.

Declaration of Climate Change Emergency

Porirua City Council joined other cities and countries around the world in declaring a climate change emergency on 26 June 2019. By making this declaration, the Council committed to meaningful action to respond to the climate crisis. This Strategy is a key first step in this response.

Local Government Leaders' Climate Change Declaration

In 2017 the Mayor of Porirua City signed the Local Government Leaders' Climate Change Declaration. This declaration recognised the urgent need to address climate change for the benefit of current and future generations, and that Porirua City Council had a key role to play in addressing this challenge. It committed the Council to:

- 1. Develop and implement ambitious action plans that reduce greenhouse gas emissions and support resilience within our own councils and for our local communities.**
- 2. Work with our communities to understand, prepare for and respond to the physical impacts of climate change.**
- 3. Work with central government to deliver on national emission reduction targets and support resilience in our communities.**

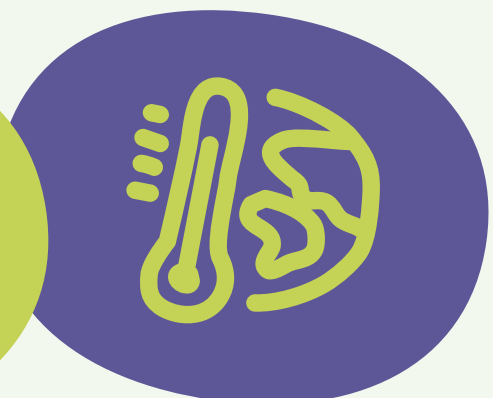
The declaration also set out guiding principles to assist day-to-day decision making.

Paris Agreement

The Paris Agreement was a landmark international agreement, signed by 195 countries in 2016. The New Zealand Government ratified the agreement on 17 August 2016. The purpose of the Paris Agreement is to:

- Keep the global average temperature well below 2°C above pre-industrial levels, while pursuing efforts to limit the temperature increase to 1.5°C,
- Strengthen the ability of countries to deal with the impacts of climate change,
- Support the development of low-carbon and climate-resilient economies.

Under this agreement, New Zealand is committed to reduce emissions by 30%, by 2030.



Climate Change Response Act 2002

The Climate Change Response Act 2002 is the primary legislation that guides the national response to climate change. It is intended to enable New Zealand to meet its international obligations for emissions reductions.

After signing the Paris Agreement, the New Zealand Government passed the Climate Change Response (Zero Carbon) Amendment Act 2019. This amendment is intended to provide a framework for New Zealand to develop and implement clear and stable climate change policies that contribute to global efforts to meet the Paris Agreement, and enable New Zealand to prepare for, and adapt to,

the effects of climate change. The amendment requires the Government to:

- reduce net emissions of all GHG's (except biogenic methane) to zero by 2050
- reduce emissions of biogenic methane to 10% below 2017 levels by 2030, and to 24-47% below 2017 levels by 2050
- set GHG emissions budgets, and develop a national emissions reduction plan to meet targets
- develop and implement a national adaptation plan
- establish an independent Climate Change Commission office to provide advice and oversight on climate change response.

Emissions Trading Scheme

The New Zealand Emissions Trading Scheme (ETS) is the Government's principle mitigation tool. It is intended to reduce GHG emissions to enable New Zealand to meet its' international commitments under the Paris Accord.

The ETS requires producers of GHGs to report on, and pay for, emissions of GHGs. This is achieved through the purchase and "surrender" of New Zealand Units (NZUs), representing one tonne of carbon dioxide. This is of particular relevance to Council because, as the owner-operator of a landfill, we are required to monitor and pay for methane emissions generated by the landfill.



Young climate change protesters in Porirua CBD, 2019.

Rautaki o Te Ao Hurihuri – Our Strategy for a Changing World

Toitū te Marae o Tane, Toitū te Marae o Tangaroa, Toitū te Iwi

Protect and strengthen the realms of the Land and Sea,
and they will protect and strengthen the People

Porirua City Council activities have a significant influence on the day-to-day lives, and wellbeing of our community and success of our businesses. The earlier we take action to prevent likely future impacts, the better off we'll all be.

This Strategy identifies the Council's priorities to help minimise the impacts of climate change on our city, our communities and our businesses. It's the first Strategy directing a climate change response developed by the Council, and as such, represents the first steps on our journey to becoming a low-carbon and resilient community.

The Strategy is structured around three Focus Areas that set the direction for the Council's response to climate change over the next three years. For each of the focus areas, we have identified critical actions that we commit to implementing before 2025. These are the actions that we believe are the highest priority in our response to climate change. The three key focus areas for this initial Strategy are:

1. Mitigation: A zero-carbon Council

2. Adaptation: A resilient city

3. Transition: A low-carbon future

These focus areas are described in the following sections. Additional planning to implement critical actions under each of these focus areas will be required. Some planning is already underway, and plans will be developed for all the actions over the next year.



Our approach

Rautaki o Te Ao Hurihuri, sets out the actions the Council intends to deliver over the next 3–4 years. Community support for these actions will be critical, as the community will be an important partner if we are to be successful. Therefore, our approach when implementing this strategy will be guided by seven principles listed here, in no particular order.

We will show leadership on climate action

Council recognises that there is an urgent need to respond to the climate crisis, and that this response needs to include action at the local level. We think it's part of our responsibility to Porirua residents that we're proactive in responding to climate change.

We will engage with our community

We all have a part to play in how we deal with the impacts of climate change. The impacts on individuals and communities will vary and as such makes working on solutions bespoke, complex and time consuming in some cases. The success of our strategic approach will depend on how well we work together to reach outcomes we can all live with. Ensuring voices are heard and understood is an important step in this process. We acknowledge that climate change will require us to think differently about how we work together.

We will think long-term

Long-term thinking is multi-generational. It requires us to consider the consequences of our actions 50 to 100 years or more in the future. We will apply long-term thinking because the impacts of climate change will occur over decades and centuries, and we have a responsibility to our children, and grandchildren.

We will focus on what we can control

Action is needed at all levels to address climate change. Governments, councils, companies, financial and insurance institutions, and individuals must all act to ensure a better future. It's important that the Council clearly understands its role in order to ensure that efforts are not wasted. Our actions prioritise what we can control directly. Where we do not have control, Council will continue to advocate for better outcomes.

We will take an evidence-based approach

The Council's decision making will be based on the latest scientific evidence. We will use the IPCC scenario RCP 8.5 as the basis for our planning.

We will partner with Ngāti Toa Rangatira

Council is committed to co-governing alongside Ngāti Toa. As we implement our response to climate change we seek to understand how mātauranga Māori can be incorporated into our actions.

We will act

Strong, early action is justified. We intend to act now to minimise the impact of climate change, and to prepare for the unavoidable changes that will affect Porirua.

Mitigation: A carbon-neutral Council

New Zealand has the seventh highest per capita emissions in the world, with each resident responsible on average for 17.2 tonnes of carbon dioxide each year. We all need to do our part to reduce greenhouse gas emissions.

New Zealand, by adopting the Climate Change Response (Zero Carbon) Amendment Act, has legally binding mitigation targets to:

- reduce net emissions of all greenhouse gases (except biogenic methane) to zero by 2050, and
- reduce emissions of biogenic methane to 24-47 per cent below 2017 levels by 2050, including to 10 per cent below 2017 levels by 2030.

The Act also requires the government to set a series of national emissions budgets, and emissions reductions plans, that are intended to progressively reduce GHG emissions.

To support the national effort on mitigation, Porirua City Council will set emissions reduction targets for Council activities. Porirua City Council's long-term goal is to be carbon neutral – this means that we will reduce our GHG emissions as much as possible and offset the remaining emissions through carbon capture. Before we can set a timeline to achieve this, we need to understand

Measuring greenhouse gases

Measuring and reporting on GHG emissions and removals (or carbon-capture) is critical to manage them. It allows us to see where our emissions are coming from (and therefore, where we should prioritise our mitigation efforts), and what progress we are making towards reducing our emissions. The measurement and reporting of greenhouse gases is now a highly refined science.

Greenhouse gas emissions are recorded and reported according to guidelines produced by the Intergovernmental Panel on Climate Change. Emissions are measured and reported on from five sectors of the economy:

- Agriculture
- Energy (often reported as “stationary energy” and “transport energy”)
- Industrial processes and Product Use (IPPU)
- Land-use, Land-use change and Forestry (LULUCF)
- Waste.

Greenhouse gas emissions are reported as **gross emissions** (the total amount of GHG produced), and **net emissions** (gross emissions minus the amount of carbon captured through photosynthesis and other natural processes).

what our emissions are, and where we need to make the most reductions. Therefore, our initial focus for mitigation will be to measure, report on, and minimise emissions derived directly from Council activities. The first step in this process is to carry out a GHG inventory for the organization. Using this baseline, we'll identify steps to reduce our GHG emissions, and set targets and a timeline for achieving net-zero emissions.

The essential steps to achieve zero emissions will be:

- 1. Carry out a GHG inventory of Council emissions**
- 2. Set targets for GHG reductions**
- 3. Implement reductions through Emissions Reduction Plans**
- 4. Monitor and report on emissions**
- 5. Offset residual carbon footprint.**

Figure 4 (following page) illustrates these steps.

Figure 4: The greenhouse gas monitoring cycle



Diverting Organic Waste from Spicer Landfill – Our number one priority

Porirua City Council owns and operates Spicer Landfill in partnership with Wellington City Council. We also provide and manage waste collection and processing services for the city. Therefore, this is an activity over which we have a large degree of control.

Organic matter dumped in the landfill (food waste, garden waste, and sludge from the sewage treatment plant) produces methane as it decomposes. Each year, the landfill generates between 1,500–2,500 tonnes of methane. In 2019, Council was required to pay \$1.2m for these emissions through the Emissions Trading Scheme (ETS). With the cost of emissions units forecast to rise significantly over the next three decades, there is a strong financial incentive to find alternatives that divert organic waste from the landfill.

We expect that the landfill will be the largest source of emissions from Council activities. Taking action to divert organic matter from the landfill will mean that emissions will significantly reduce, as the organic matter already in the landfill degrades. This will have financial benefits, as it reduces the costs to the Council and community from the ETS.

Work is already underway to identify options for organic waste collection and processing for Porirua City. It's probable that the solution to this issue will involve other councils in the region in a partnership. Work is also underway to engage with community-led initiatives to develop "composting hubs" at various locations around the city, where people will be able to dispose of food and garden waste.

Mitigation Work Programme

Objective	Action	Impact	21/22	22/23	23/24
Monitor and report on emissions	Implement GHG emissions monitoring and reporting framework for Porirua City	Monitoring and reporting on GHG emissions will be essential in order to track progress towards carbon zero and carbon negative targets. Monitoring will enable the council to accurately identify where efforts on mitigation should be made, in order to deliver the greatest reduction.	✓	✓	✓
Set emissions targets for the Council	Define timeline to meet zero and negative emissions targets	Setting a target will provide the Council with a clear objective to achieve and a baseline from which reductions must be made	✓		
Reduce emissions from waste	Investigate alternative options to manage organic waste	Spicer landfill currently emits approximately 1,500–2,000 tonnes of methane every year, as a result of anoxic breakdown of organic materials. Porirua City currently pays approximately \$1m/yr for landfill emissions under the ETS. This figure could increase by as much as 8 times over the next 30 years.	✓		
	Investigate alternative means of disposing of sludge from the waste water treatment plant	As above	✓		
Reduce emissions from use of fossil fuels	All new Porirua City Council vehicle purchases or leases to be low-emissions (hybrid or electric) vehicles where possible	Switching to low or zero emissions will reduce our overall GHG emissions	✓	✓	✓
	Investigate options to accelerate vehicle replacement programme in 2021-51 LTP	Accelerating the transition to a low-emissions vehicle fleet will help us to meet zero emissions targets sooner	✓		
Reduce emissions from property and buildings	Align and raise the profile of the existing monitoring and reporting of council's energy-use with GHG emissions monitoring and reporting	Energy use is reported in specific climate change update	✓	✓	✓
Offset Porirua City emissions through carbon capture	Pay to offset emissions for work-related air and vehicle travel by staff and Councillors	Offset residual emissions from council activities to achieve net-zero target	✓	✓	✓
	Investigate opportunities for carbon-capture on council-owned land	Cost saving initiative for offsets. Additional benefits for local biodiversity, recreational opportunities may be achieved	✓		

Adaptation: A resilient city

Reducing greenhouse gas emissions will help to minimise the impacts of climate change, but we now know that some impacts are inevitable, due to global warming that has already occurred. Sea level rise, flooding, and changes in weather patterns will all affect Porirua City. This focus area is intended to prepare the city for these changes, and to minimise any damage or disruption that would otherwise occur.

We want to design a future where the residents of Porirua are protected from the impacts of climate change. To do this we will plan for private property, public spaces, and infrastructure to be located away from areas at risk from erosion or flooding, or to ensure they're designed to accommodate these hazards. We want our water network to reliably provide sufficient water for our needs (accounting for the probable growth of the city), and our transport networks to be safe and reliable. Porirua City Council will proactively prepare for and respond to these impacts, to ensure that Porirua is a resilient city for the future. The development of the Natural Hazards chapter of the Proposed District Plan (PDP) was the Council's first step toward being a resilient city. In developing this chapter, the Council identified areas of the city that are at risk from sea level rise and flooding. New rules in the PDP will limit new development in these areas.

Risk assessment and adaptation planning at the national level

The Climate Change Response (Zero Carbon) Amendment Act 2019 mandates the recently formed Climate Change Commission to carry out regular National Climate Change Risk Assessments. The initial risk assessment has been completed. The Government will use this risk assessment to develop a National Adaptation Plan, which will set out the national approach to addressing the most significant risks identified through the risk assessment process.

Over the long-term, we will need to decide what to do with existing assets, infrastructure, and property that are threatened by climate change. By starting this conversation with our communities now, we hope we can better prepare and adapt for a more resilient future.

Local sea level rise will result in inundation and increased flooding of low-lying coastal areas, increased erosion along all coastal areas, increased incursion of saltwater in to rivers and groundwater aquifers, and cause water tables to rise in tidally influenced groundwater systems. This will affect coastal communities, roading, stormwater and wastewater infrastructure, beaches, reserves, and coastal ecosystems.

In addition to sea level rise, we are likely to experience more droughts and/or heatwaves, more severe storm events, and warmer temperatures overall. This is expected to lead to increased flooding, erosion and land-slides, water shortages, and increased risk of wildfire.

The direct impacts described above will lead to indirect impacts on our economy, our health, and the health of our environment. As a local authority, the Council owns and maintains assets, and provides services that are, or will be, at risk from sea level rise, extreme weather events, and changing climate patterns. These assets and services include:

- transport infrastructure, including roads, footpaths, cycleways and tracks,
- three-waters infrastructure,
- parks and reserves,
- community facilities
- commercial property and buildings.

To properly manage these assets, and give certainty to our residents, it is important we are able to quantify the risk to these assets, understand the costs and benefits of maintaining these assets in the long-term, and clearly articulate how adaptation decisions will be made.

Preparing our communities and businesses to adapt to the impacts of climate change means we need to understand and prepare for these impacts.

Council will lead the process to adapt to climate change impacts by:

1. Identifying risks and opportunities of climate change
2. Preparing coastal communities for sea level rise
3. Preparing the city for extreme weather.

Adaptation Work Programme

Objective	Action	Impact	21/22	22/23	23/24
Understand the risks and opportunities of a changing climate	Complete risk assessment to identify and prioritise risks to physical assets due to climate change	Quantify what the risks are and identify where to start	✓		
	Develop framework for risk disclosure reporting. Monitor and report on the financial costs of extreme weather events	Capturing and reporting on the costs of responding to extreme weather events will provide an evidence base for adapting to the impacts of extreme weather events. Allows better planning for “re-active/unbudgeted” works	✓		
Coastal communities are prepared for sea level rise	Engage with coastal communities to plan and prepare for sea level rise	Coastal communities are prepared for sea level rise and coastal change. Council assets are resilient to sea level rise.		✓	✓
We are resilient to extreme weather	Engage with communities at risk from flooding to plan and prepare for extreme weather impacts	Communities are prepared for extreme weather impacts. Council assets are resilient to extreme weather impacts		✓	✓

Transition: A low-carbon future

Current economic frameworks incentivise the continual extraction, use, and disposal of resources. This model is one of the leading causes of climate change, as it has driven ever-increasing emissions of greenhouse gases, and pollution or degradation of the environment.



It has also resulted in difficult decisions being deferred to save costs, or because they were politically difficult. This means that the costs, risks, and complexity of responding to climate change are compounded. If strong action against climate change had occurred earlier, the scale of the problem facing us would be smaller. If we continue to ‘kick the can down the road’ we will impose even greater costs on future generations. In declaring a climate change emergency, we have accepted responsibility to act now.

To effectively respond to climate change, we will need to transition to a “new normal”. This will require a change to the way we do “business as usual”. The Council has a role to play in shaping our future and managing the transition to a low-carbon future.

The Council’s aim is to contribute to the Government’s objective of a sustainable, productive and inclusive economy. The Council seeks to facilitate, where possible and practicable, a smooth transition to a low-carbon future, ensuring that this transition does not adversely impact individuals, communities and businesses. We also need to engage with communities from all backgrounds to ensure that they understand the issues and are alongside us on the journey towards a low-carbon future.

In undertaking this work, we need to recognise and plan for what is going on around us. Porirua has a large Pasifika population, with approximately 26% of residents being of Polynesian origin. Pacific Island nations are likely to be some of the most severely affected by climate change. As part of our long-term planning, we need to plan for, and accommodate, communities displaced by climate change.

The transition to a low-carbon and climate-resilient future presents systemic challenges, but also significant opportunities. Understanding what the challenges and opportunities are will be critical to mitigate significant disruption to our local economy.

Our role as Council will be to provide our community and businesses with the best possible platform for adapting to this change. To do this we will:

- 1. Engage with our communities to lead the transition to a low-carbon future,**
- 2. Identify and plan for financial and legal risks and opportunities of climate change,**
- 3. Identify and plan for the long-term implications for our city and community, and**
- 4. Identify and work with regional and national partners to drive the change.**

Transition Work Programme

Objective	Action	Impact	21/22	22/23	23/24
Porirua residents participate in developing our climate change response	Work with local educators to implement the Ministry of Education climate change curriculum and increase awareness and understanding of climate change	Our young people will inherit many of the problems arising from climate change. It is important that they are armed with the knowledge necessary to address these issues	✓		
	Convene a local climate change forum that includes representatives from local communities and businesses to discuss climate issues and provide recommendations and feedback on our climate change response	Community input and support for climate change actions is critical. Broad perspectives and input on climate change are expected to result in actions that are accepted by the community	✓		
Climate-friendly businesses and industries are based in Porirua	Work with local businesses and industries to support climate friendly initiatives	Greening our business community will result in reduced greenhouse gas emissions, and make Porirua City a more attractive city for climate conscious people	✓		
	Develop Climate Change Policy that supports the Strategy	Financial and legal risks will emerge, based on Council decisions. Being informed of risks will enable the Council to avoid or mitigate risk, and make better long-term decisions.		✓	
Understand and plan for the long-term implications of climate change	Work with Pasifika Community to identify and plan for future climate migration	Climate migration presents both risks and opportunities for Porirua City. Planning for future immigration will allow us to minimise risk, and maximise opportunity			✓
	Incorporate climate change impacts into financial planning processes	If it gets funded, it gets done		✓	
	Identify funding opportunities for climate change actions	Funding is always tight. Funding for climate actions from central government, or other agencies, will help us to implement the actions listed in this Strategy sooner		✓	

Implementing this Strategy

To implement an effective response to climate change collective effort will be required. We will need to ensure that climate thinking is embedded across all council operations, and that we are working with our iwi partners, our community, businesses, and our local and central government partners in a coordinated way.

This means we will need to adjust council processes, systems, and policies to include climate change related thinking, we will need to engage with our communities and regional partners, and we will need to remain agile as our understanding of climate change and its impacts develops over time.

To do this, we need to:

- 1. Embed the strategy in Council processes,**
- 2. Build capacity and capability within the Council**
- 3. Implement the priority actions**
- 4. Monitor and report on progress.**

Perhaps most importantly, we need to ensure that the response is adequately positioned and funded through Council's Long-term Plan (LTP). The LTP sets out what activities the council will do, and how they will be funded. Having specific actions in the LTP ensures that funding and resources will be made available to implement those actions. This Strategy has therefore been structured to align with the three-year LTP planning process. The 2021-51 LTP will include a new "Climate Change Response" activity group that will be focussed on implementing the actions included in this Strategy.

To support the Climate Change Response Activity Group, and to enable a true "all of Council" response, we will also set up an internal network of council officers to:

- Provide advice and support to Porirua City staff on climate change issues,
- Provide oversight on information provided to the public,
- Align and integrate Porirua City Council's climate change response with other work programmes,
- Develop a climate change response monitoring and reporting framework, and
- Report to Executive Leadership Team and Council on climate change issues, and Porirua City's response.

It's expected that this Strategy will be reviewed as actions are progressed, and as capacity is built within Council.



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