



Whakataukī Proverb

Whatungarongaro te tangata, toitū te whenua As man disappears from sight, the land remains

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Message from the Mayor Kupu whakataki o te Tumuaki

E huri ana te ao – he āheinga kei mua i a tātou.

I te tau 2019, i tū ai ngā rangatahi i te tautohe "School Strike for Climate". I te whakautu o te ao ki te mate urutā o COVID-19, i whakaatu mai te kaupapa o ngā take āhuarangi; i mua i ngā mate mōrearea, me huri te kei o tō tātou waka.

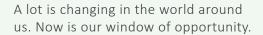
He raru nui te Huringa Āhuarangi i tō tātou ao. I te rohe o Whakatāne, kua whakahoki kōrero mai ngā hapori ki te whakamanawanui ki ngā take āhuarangi. Ahakoa kāore anō tātou kia mōhio ki ngā raru katoa o te huringa āhuarangi, kua pā kē mai tēnei take ki a tātou.

Kua hīkina te mānuka e tō tātou rohe i ngā tau kua tata ake nei, kua whakaohooho au i te hononga tahi o te hapori. He mea whakahirahira ki te hono tahi i a tātou e anga ana ki te huringa āhuarangi.

I te tau 2019, i riro i te Kaunihera o Whakatāne ngā Mātāpono Huringa Āhuarangi kia whakaaro ai te kaunihera ki te taiao i ngā whakataunga katoa. E arahina atu ana tō tātou hohenga ki ngā wero me ngā āheinga e te Rautaki Huringa Āhuarangi me ngā mātāpono.

He āheinga tēnei kia tiaki, kia tau ai te taiao. Me whakarite tātou mō ngā huringa e haere ake nei i tēnei ao hurihuri.

Kua tae te wā – me mahi tahi tātou.



In 2019, millions of youth worldwide called for climate action as part of the 'School Strike for Climate' movement. Then, the global response to COVID-19 demonstrated what the climate movement has been advocating for years; that when faced with a crisis, we must act by making changes to the way we live our lives.

Climate change is one of the most significant issues facing the world today. Across the Whakatāne District, communities have voiced the urgency of taking real and early climate action. The implications of climate change are significant, and while there are many things we do not yet know, we do know that impacts of climate change are already felt.

Our district has faced its fair share of challenges over the years, and I've been inspired by the way the community comes together in response. This is more important than ever in the face of climate change, and we all have a role to play.

In 2019, Whakatāne District Council adopted a set of climate change principles to ensure that climate change is considered in all our decisions. This climate change strategy, guided by a set of specific principles, sets the direction for our response to the challenges and opportunities presented by climate change. We want to take this window of opportunity to build a greener, cleaner, more equal future. To do that we must acknowledge and plan for the changes that are coming, reimagining the future of our district in a changing climate.

Now is our opportunity – let's do it together.

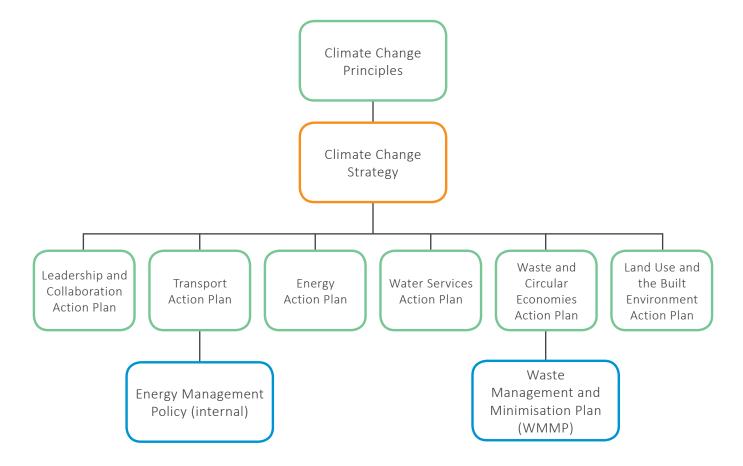
Naku noa, nā

Judy Turner – Mayor, Whakatāne District

Our Climate Change Framework Te pou tarāwaho Huringa Āhuarangi

At Whakatane District Council, we acknowledge the role we need to take to respond to climate change.

In 2019, the Council adopted a set of climate change principles, which provide the foundation for our climate change response. This strategy, guided by our principles, is our roadmap for reaching our climate change targets. The action plans show the specific steps we will take to get there.



Our climate change framework focuses on both mitigation of and adaptation to climate change.

Mitigation is about reducing the amount of change to our climate that we will experience in the future, through minimising or preventing the emission of greenhouse gases. Although a certain level of climate change is "locked in" due to greenhouse gases that have already been emitted, we can reduce emissions now so that future impacts from climate change are reduced. The Government has set national targets for reducing greenhouse gas emissions. See page 9 for information about the targets.

Adaptation is modifying the way we live and do things as a result of the changes we will experience, to reduce the impacts of climate change. While there is uncertainty about exactly how the effects of climate change will play out, it is certain that things will change and that change has already begun. How we are able to plan, respond, adapt and change will affect the level to which climate change poses a risk or an opportunity for our communities.



Whakatāne District Council will actively lead and support the Whakatāne District to mitigate and adapt to the effects of climate change to be great ancestors for future generations.

Te Huapae

Ka arahi, ka tautoko hoki te Kaunihera o Whakatāne i te rohe o Whakatāne ki te whakaiti me te urutau ki te pā mai o ngā huringa āhuarangi mō ngā reanga anamata.

Strategy purpose Te take mō te rautaki

The purpose of this strategy is to align the work already underway throughout Whakatāne District Council activities in relation to climate change. This strategy also seeks to provide a framework for collaboration across the Whakatāne District and beyond, amongst neighbouring Councils, iwi partners, local and central government, private industry, NGOs, education, our communities and people.

Strategy objectives Ngā whāinga o te rautaki

- Integrate and coordinate climate changerelated work throughout different areas of Council.
- Raise awareness of climate change and its impacts in the community.
- Show leadership on the issue of climate change.
- Provide a starting-point for community conversations.
- Provide a framework for the prioritisation and commencement of action.

What is climate change?

Carbon dioxide and other gases in the atmosphere trap heat from the sun, which is necessary to keep earth warm. However, as the level of gases in the atmosphere increases, more heat is trapped, warming the earth at an unprecedented rate. This process is known as climate change.

For more information about climate change see our project page: whakatane.govt.nz/climate-change

The international context Horopaki o te ao



Saving our planet, lifting people out of poverty, advancing economic growth... these are one and the same fight. We must connect the dots between climate change, water scarcity, energy shortages, global health, food security, and women's empowerment. Solutions to one problem must be solutions for all.

— Ban Ki-moon (United Nation's eighth Secretary-General)



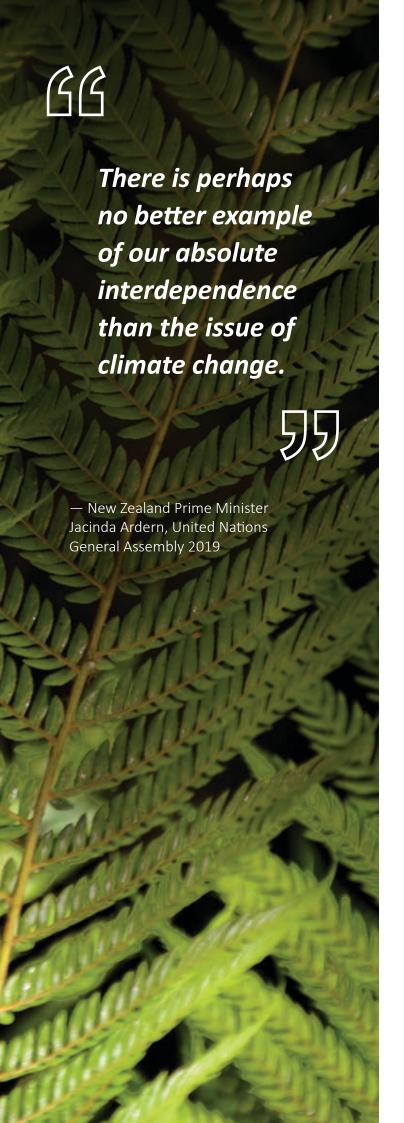
There are three main international policies that guide our climate change adaptation and mitigation work.

- 1. The <u>United Nations Framework Convention</u>
 <u>on Climate Change</u> (UNFCCC): an international
 environmental treaty with the objective to:
 - "Stabilise greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic¹ interference with the climate system"
 - The UNFCCC was adopted by over 185 countries, including New Zealand, at the Rio Earth Summit in 1992.
- 2. The <u>Kyoto Protocol</u>: an international treaty in 1997 that extends the 1992 UNFCCC and commits state parties to reduce greenhouse gas emissions, based on the scientific consensus that:
 - Global warming is occurring
 - It's extremely likely that human emitted CO₂ emissions have predominantly caused it.

- 3. The <u>Paris Agreement</u>: an agreement within the UNFCCC signed in Paris in 2016. The central aim of the Paris agreement is to:
 - "Strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius."



¹⁻Anthropogenic = Resulting from or produced by human activities, as defined by the Intergovernmental Panel on Climate Change (IPCC)



The national context Horopaki taiwhenua

Our climate is already changing Kei te panoni te āhuarangi

In New Zealand, changes in climate – such as temperature and rainfall – are already occurring. These changes will occur to different extents across the country throughout this century and beyond. This will impact our economy, environment and way of life. While we can't be certain about the timeframes and the scale of the changes we will see, we do know that planning for the future means planning for a different climate. Based on the latest projections, by the end of this century we are likely to experience²:

- Higher temperatures
 - Greater increases in the North Island, particularly in the northeast
 - The amount of warming in New Zealand is likely to be lower than the global average
- Rising sea levels
- More frequent extreme weather events
 - Droughts (especially in the east of New Zealand)
 - Floods
- A change in rainfall patterns
 - Increased summer rainfall in the north and east of the North Island
 - Increased winter rainfall in many parts of the South Island.

² Ministry for the Environment, <u>Likely climate change impacts in New Zealand</u>.



Current New Zealand legislation

Te ture o Aotearoa

New Zealand has a piece of legislation called the <u>Climate Change Response Act 2002</u>. In 2019, this was updated through the <u>Climate Change Response (Zero Carbon) Amendment Act 2019</u>.

The updates:

- Set a new domestic greenhouse gas emissions reduction target for New Zealand to:
 - Reduce net emissions of all greenhouse gases (except biogenic methane) to zero by 2050.
 - 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.
- Establish a system of emissions budgets to act as stepping stones towards the long-term target.
- Require the government to develop and implement policies for climate change adaptation and mitigation.

 Establish a new, independent Climate Change Commission to provide expert advice and monitoring to help keep successive governments on track to meeting long-term goals.

The Resource Management Act 1991 (RMA) is another piece of key legislation in New Zealand. Under the RMA, local government is required to consider the effects of a changing climate on communities, and to incorporate climate change into existing frameworks, plans, projects and standard decision-making procedures. The RMA is a key guiding document for how the Council considers climate change.

The local context Horopaki ā-rohe



Council should work collaboratively with farmers to support positive environmental impacts.

— Whakatāne District resident

By taking action now, we can reduce risks for future communities, maximise opportunities, build climate resilience and work towards a new, low carbon economy. Tackling the climate crisis needs local action. This will require leadership, courage and 'good old kiwi ingenuity'. As a community we can show the country and the world that it's possible to adapt to a changing climate, a changing economy and a changing lifestyle, and this needs to be done with fairness and equity in mind.

Throughout the COVID-19 crisis, with the country operating under various alert levels, we have clearly seen what our district and the country is capable of achieving if we all work together towards a common goal. Many of the lifestyle and business changes we have put in place in response to the COVID-19 crisis would put us in good stead to reduce our emissions and be a more resilient and adaptive community.

The Whakatāne District is already vulnerable to natural hazards including slips, flooding and coastal erosion. Climate change is likely to make the consequences of these hazards worse. Locally and globally, community awareness and concern for this issue is growing. Whakatāne Ki Mua³ feedback, protests and public movements, alongside political prioritisation, is showing us that people across our district are concerned about climate change and its impacts on the place we call home, and people want to see action. A recent study⁴ lead by LGNZ and Tonkin and Taylor found that in the Whakatāne District alone, almost \$130 million of Council-owned assets (including things like water and transport infrastructure) are exposed to risks from sealevel rise by the end of this century.

While we know things are going to change, our biggest risks exist from not taking action fast enough. However, our ability to change and respond to the challenges ahead present some real opportunities.





³ Whakatāne Ki Mua is a Community Visioning project that, in 2017, heard the views of nearly 3,000 people, raising 18,000 comments about the

⁴ Tom Simonson and Grace Hall, LGNZ. Vulnerable: the quantum of local government infrastructure exposed to sea level rise.

Likely impacts of climate change for the Bay of Plenty⁵ Ngā putanga o ngā take Huringa Āhuarangi i te Waiariki



UP TO 1.0°C INCREASE BY 2040s⁵

1.0°C to 3.5°C warmer by 2090s depending on the level of greenhouse gas concentration in the atmosphere



MORE HOT DAYS (>25°C) AND EXTREME HOT DAYS (> 30°C)

Depending on greenhouse gas emissions, up to 70-80 more hot days and 10-14 more extreme hot days per year by 2090



FROSTS RARE BY 2090s

Decrease of 10-25 frost days can affect the winter chilling of some crops like Hayward kiwifruit, affecting fruit production



CHANGING CROP DIVERSITY

Opportunities to diversify crop types grown in the region due to the change in climate conditions. It might be difficult to continue to grow some crop types



RAINFALL WILL VARY LOCALLY WITHIN THE REGION

Little change in mean annual rainfall, but change in season pattern. Ex-tropical cyclones will likely be stronger and bring heavy rainfall



MORE DROUGHT CONDITIONS

Experience more drought conditions in the future, with implications for pasture growth and crops



INCREASED FLOODING RISKS

The depth currently projected for a 1-in-100-year rainfall event is projected to become a 1-in-34-year event by 2090.



INCREASED COASTAL EROSION / FLOODING

Storms originating from the subtropics in the summer may have more intense circulation, likely leading to stronger winds, greater storm surge, saltwater incursion and higher rainfall accumulations



HIGHER BIOSECURITY RISKS FROM PESTS

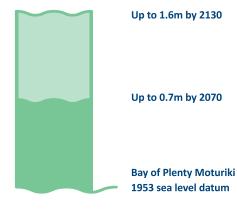
Increasing temperatures are likely to result in higher biosecurity risks in the Bay of Plenty, through pest incursions (both animal and plant pests)



IMPACT ON HUMAN HEALTH

Direct impacts include injury from floods, extreme heat and storms. Indirect effects include microbial contamination, mosquito-borne diseases, algal blooms, mental health and air quality

PLANNING FOR SEA LEVEL RISE⁶



⁵ Bay of Plenty Regional Council. 'Climate Change projections and impacts for the Bay of Plenty Region', October 2019

⁶ Projection based on the 'potential' sea-level in the 2017 NIWA report "Tauranga Harbour extreme sea level analysis"

Carbon emissions from the Whakatāne District Tukunga Waro o te rohe o Whakatāne

In 2015/16, the Whakatāne District emitted 1,000,227 tonnes of CO2e7 gross emissions. This is approximately 24.5% of the Bay of Plenty's gross emissions8. This footprint shows the largest sources of greenhouse emissions for the Whakatāne District. By far, the largest emitter in our district is the agricultural sector (63%). These emissions are generated mainly by dairy and beef farming.

Another large segment of emissions is made up of natural gas (12%), diesel (9%) and petrol (6%). The majority of natural gas emissions are generated by commercial and industrial processes9, whereas the diesel and petrol are primarily used by road transportation (including both private and industry)¹⁰. These figures reflect the rural nature of our district, highlighting the travel distances between urban centres.

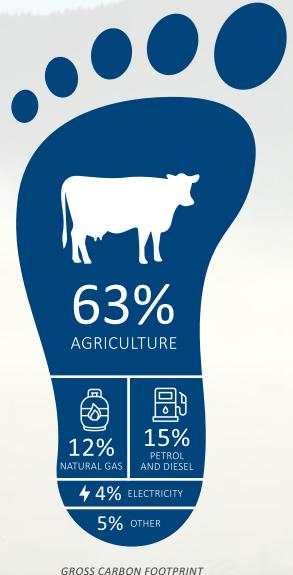
We need to work together to address our district's carbon emissions. In our climate change action plans, we outline what we will do to reduce the Council's emissions, and how we will work with our communities to reduce our district's overall footprint. More information about the action plans is available on page 14 of this strategy.



I think we have got to work together more, start thinking about climate change and how it will affect us.

Local Whakatāne resident





1,000,227 TCO2e

WHAKATĀNE DISTRICT COMMUNITY **CARBON FOOTPRINT 2015/16**

⁷CO2_a, or carbon dioxide equivalent, is a measure for how much global warming a given type and amount of greenhouse gas causes, using the equivalent amount of carbon dioxide as the reference.

⁸ AECOM Consulting Services, <u>Bay of Plenty Carbon Footprint 2015/16</u>, page 43.

⁹ Ibid, page 45

¹⁰ Ibid, page 47

Carbon emissions from the Whakatāne District Council Tukunga Waro o te Kaunihera o Whakatāne

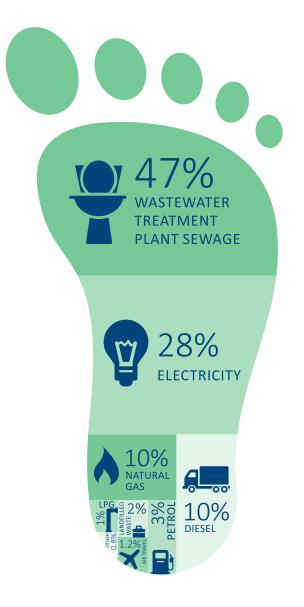
In preparation for the development of this strategy, the Council undertook a carbon footprint. This showed that in 2017/18, Whakatāne District Council was responsible for 3,292 tonnes of CO2e¹¹ gross emissions.

The large majority of the Council's emissions come from wastewater treatment plants. This is because the Council is accounting for the emissions from all wastewater-connected households in the district. Council's wastewater consents expire in 2026, and work is underway to understand upgrades that will be required as part of this process. Sustainability and carbon emissions will be a consideration as part of these projects.

Energy consumption through electricity and natural gas makes up almost 40% of the Council's emissions. Energy is required for administrative functions and a large range of public facilities and services. The Council now has a large focus on energy management, and is starting to see some savings emerge.

Diesel accounts for 10% of the Council's footprint. The Council owns about 90 vehicles, including large machinery for mowing and vegetation control across the district. The Council is considering options for converting some of the corporate fleet to electric vehicles where possible.

We have identified many opportunities to reduce our emissions going forward. These are included in our climate change action plans.



GROSS CARBON FOOTPRINT 3,292.37 tCO₂e

WHAKATĀNE DISTRICT COUNCIL CARBON FOOTPRINT 2017/18

 $^{^{11}}$ CO₂e, or carbon dioxide equivalent, is a measure for how much global warming a given type and amount of greenhouse gas causes, using the equivalent amount of carbon dioxide as the reference.

Whakatāne District Council's role

Te mahi a te Kaunihera o Whakatāne

We have been considering climate change and its impacts for some time, including through our Infrastructure Strategy, District Plan, and a range of specific projects. As a Council, we have specific responsibilities to consider the impacts of climate change and to promote social, economic, environmental and cultural well-being. These responsibilities help to outline our role in responding to this complex issue.

In 2017, we signed the New Zealand Local Government Leaders' Climate Change Declaration. This committed us to develop and implement ambitious action plans that reduce greenhouse gas emissions and support resilience within Council and for our local communities. It also committed us to work with our communities to understand, prepare for and respond to the physical impacts of climate change, and with Central Government to deliver on national emission reduction targets and support resilience in our communities.

After signing the declaration, we started a specific climate change project, and have adopted a set of climate change principles to guide our work. The principles are summarised on the next page. More information about our climate change project is available at whakatane.govt.nz/climate-change.

We have heard very clearly from the community that climate change is an important issue to residents across our district. When we talked to the community about our draft climate change principles in August and September 2019, about 800 people were directly involved. The community provided over 1,100 pieces of feedback about climate change, which has helped to guide the development of this strategy.



Our Climate Change Principles Ngā Mātāpono Huringa Āhuarangi

The Local Government New Zealand Leaders' Climate Change Declaration sets out seven principles to provide guidance for decision-making on climate change. We have adopted a version of these principles, along with some additional guiding statements, to ensure that climate change is considered in all of our decision-making. This page provides an overview of the seven principles. You can view the full climate change principles document on our website: whakatane.govt.nz/climate-change



1. We will act now Ka mahi mātou ināianei



5. We will learn Ka ako mātou



2. We will care for and protect the environment Ka manaaki, ka tiaki mātou i te taiao



6. We will be part of the solution Ka āwhina mātou ki te whakatika i ngā raru



3. We will acknowledge those most affected Ka mihi mātou ki a rātou kua pā mārika i ngā take Huringa Āhuarangi



7. We will build capacity to recover from difficulties Ka whakakaha mātou i a tātou



4. We will think and act long term

Ka whakaaro pae tawhiti, ka mahi pae tawhiti mātou

Our Climate Change Targets Ngā whāinga tiritiringa Huringa Āhuarangi

We have set the below targets to achieve through our climate change project. Some of the targets are specifically for us as an organisation. Other targets are for the district, or show how we will work with the community. The actions we will take to reach these targets are set out in our climate change action plans. There is more information about these on the next page.

Targets		Adaptation	Mitigation
Short/medium term (2020-24)	Organisation	Will make sound planning decisions in consideration of the likely effects of climate change.	Will reduce its carbon footprint by 15% by 2022, excluding biogenic methane ¹² and nitrous oxide. ¹³
	District	Will develop a matrix to identify the communities most at risk from climate-related natural hazards by 2022.	* Progress towards long-term district target
Long term (2025-50)	Organisation	Will ensure infrastructure is resilient to the effects of climate change.	Will be a net carbon zero organisation by 2030 , excluding biogenic methane and nitrous oxide.
		Will realise our climate change vision by delivering on our climate change principles.	
	District	Will develop community- led adaptation plans for the communities most at risk from climate change by 2025 .	Net carbon zero district by 2030, excluding biogenic methane and nitrous oxide.
			District biogenic methane emissions reduction of;
			(i) 10% by 2030; and (ii) 24% to 47% by 2050.
		Will actively prepare for a changing climate.	

For more information on these targets, see our targets fact sheet on our climate change project page whakatane.govt.nz/climate-change

¹² Biogenic methane is produced from biological (plant and animal) sources. Biogenic methane is emitted by livestock, waste treatment and wetlands, for example. mfe.govt.nz/climate-change/climate-change-guidance/about-methane-and-other-major-greenhouse-gases (accessed 9 July, 2020)

¹³ Nitrous oxide is emitted from breakdown of animal dung and urine in soil. toitu.co.nz/tools-and-resources/fags-and-glossary/glossary (accessed 9 July, 2020)

Climate Change Action Plans Ngā Mahere Mahi Huringa Āhuarangi



I want you to act like you would in a crisis. I want you to act like your house is on fire, because it is.

Greta Thunberg



We have developed a set of action plans to list the steps we will take to reach the targets in this strategy. Our actions have been identified through the Council's climate change project, energy management programme, Toitū carbon reduce certification and feedback from the community. This includes feedback received during conversations about our climate change principles, through an online climate change survey in 2019, at the Youth Strikes for Climate, and at Envirohub's Sustainable Backyards months in 2019 and 2020.

There are separate action plans for six key focus areas, and each has specific goals, as shown below. Our action plans are 'living documents' which will be continuously updated over time.

For the complete action plans, visit whakatane.govt.nz/climate-change.



Leadership and collaboration Hautūtanga me te mahi tahi

Goals:

- 1. Align organisation culture, key documents and decisions with our climate change principles
- 2. Build organisational knowledge about climate change and mitigation and adaptation
- 3. Collaborate with stakeholders, partners and the community, for a unified approach to the climate crisis
- 4. Inform the community about matters relating to climate change, including the Council's response



Transport Waka

Goals:

- 1. Promote travel efficiency
- 2. Enable and encourage active transport
- 3. Increase low carbon transport options
- 4. Manage climate change risks to existing transport infrastructure
- 5. Build future transport infrastructure for a changing climate



Energy Pūngao

Goals:

- 1. Promote energy efficiency
- 2. Encourage low carbon energy options
- 3. Encourage the development of resilient low carbon energy options



Water services Ratonga wai

Goals:

- 1. Manage water responsibly and sustainably
- 2. Reduce and manage greenhouse gas emissions from water supply and wastewater services
- 3. Manage climate change risks to existing water supply and wastewater services
- 4. Incorporate climate change considerations into future water supply and wastewater services



Waste and circular economies para me te ōhanga āmiomio

Goals:

- 1. Reduce the amount of waste generated by the Council
- 2. Move community waste up the waste hierarchy
- 3. Reduce waste transportation emissions
- 4. Manage climate change risks to existing and future waste services



Land use and the built environment Whenua me te tajao waihanga

Goals:

- 1. Identify, understand and reduce climate change risk to existing building and infrastructure
- 2. Enhance resilience though land use decisions
- 3. Recognise cultural heritage and values in land use decisions
- 4. Promote a built environment that is resilient to climate change impacts
- 5. Enhance biodiversity and ecology, and protect it from the impacts of climate change
- 6. Promote low-emission and sustainable land use, building practises and day-to-day operations

Measuring the success of this strategy

E arotake ana i te angitūtanga o tēnei rautaki

This strategy applies to all Whakatāne District Council activities and operations, as part of applying a climate change lens to all levels of decision-making. Internal promotion of the strategy will be undertaken to ensure consideration of climate change is embedded throughout all Council business and day-to-day activities.

The six action plans that support this strategy include specific short, medium and long-term actions. We will monitor progress against these and celebrate our steps in the right direction as we move towards our targets.

The Council's Strategy and Policy Committee will receive quarterly updates on actions completed, and annual updates on progress towards the targets set out in this strategy. A report on the climate change project will also be included in the annual report following each financial year.

Strategy review Te arotake rautaki

Due to the broad nature of this strategy and the impact it has across all of Council's operations and activities, this strategy will be reviewed every three years (or earlier if required). The quickly evolving information about climate change and its global impacts requires targets to be continually reviewed. All reviews will be in line with Central Government's carbon budgets and New Zealand's national targets under the Paris Agreement.

















Kōrero Mai Let's Talk

Tell us what you think about our draft climate change strategy and action plans by 5pm Friday, 4 September 2020.

If you want to learn more about the climate change project visit whakatane.govt.nz/climate-change

How to korerō mai:

Online: koreromai.whakatane.govt.nz

Email: submissions@whakatane.govt.nz

Post: Whakatāne District Council, Private Bag 1002, Whakatāne 3158

Contact your elected members:

whakatane.govt.nz/elected-members

WE WILL KEEP YOU IN THE LOOP

Whether or not you choose to make a submission, we will keep you posted on progress on our climate change strategy and action plans. Our website will continue to be updated with new information and we will also keep you up-to-date through social media and other local media channels.



WHAKATĀNE DISTRICT COUNCIL

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