



Climate Change Action Plan: *Water Services*

Mahere Mahi Huringa Āhuarangi: *Ratonga Wai*

This is one of six action plans, which support
our Climate Change Strategy 2020-23.

To view the other documents, visit whakatane.govt.nz/climate-change



Why this area is important *He aha tēnei e whakahirahira ai?*

Water is a taonga, and we must all work to manage our water use responsibly and sustainably. The Council provides three essential water services to the community. These are water treatment and supply; wastewater (also known as sewage) collection, treatment and disposal; and stormwater management. This action plan covers water supply and wastewater. Stormwater is covered in the Land Use and Built Environment Action Plan.

The largest sources of greenhouse gas emissions for the Council are the treatment plants, which treat the wastewater from reticulated buildings in the Whakatāne District. Emissions also come from electricity used at our water treatment plants, which provide safe drinking water to the community.

Essential water services, for the community as a whole, contribute the majority of the Council's greenhouse emissions¹.



48%

The majority of Council's greenhouse gas emissions are produced by the wastewater treatment plants

Where we are now *Kei hea tātou ināianeī?*

The Council has undertaken various measures to enhance water conservation across the district, including installation of water meters as well as education campaigns. Salt-water infiltration into Whakatāne township's water supply during times of extreme drought has highlighted the need for water conservation. Unfortunately, the district has had its fair share of dealing with extreme weather events in the past couple of decades. As a result, stormwater infrastructure has been a priority for the Council for many years.

Over the next 5-10 years the Council will need to undertake significant upgrades of the reticulated sewerage networks across the district, as our existing resource consents are due to expire in 2026. This presents an opportunity to look at how the Council can reduce the emissions from the wastewater treatment plants. However, to achieve large emission reductions, upgrades to current technology would need to be made. These upgrades would require significant investments from both the Council and support from Central Government.

¹ https://www.whakatane.govt.nz/sites/www.whakatane.govt.nz/files/documents/climate_change_principles_-_final.pdf

What we want this action plan to achieve

Ngā paetae o tēnei mahere mahi

Outcomes

1. Reduce the adverse environmental impacts and greenhouse gas emissions from existing water and wastewater services.
2. Ensure the resilience of our water supply and wastewater (sewerage) infrastructure

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

This action plan primarily contributes to these climate change principles:



We will think and act long term

*Ka whakaaro pae tawhiti,
ka mahi pae tawhiti mātou*





We will build capacity to recover from difficulties


Ka whakakaha mātou i a tātou







SHORT TERM RESOURCE REQUIREMENT


 = Additional funding requirement


 = Incorporate into business-as-usual (BAU)


 = Additional staff time requirement






Goal	Actions	Short term (2020-22)	Short term resource requirement (\$/BAU/staff time)	Medium term (2022-24)	Long term (2024-31)	Key external stakeholders and partners
1. Manage water responsibly and sustainably	1.1 Increase Council and community understanding of water use	Water loss investigated Public education on water use Continue to install water meters		Continue to increase understanding and education around water use	Continue to increase understanding and education around water use	Community
	1.2. Increase understanding of water supply assets	Enhance asset management systems	 	Development of hydraulic models. Continue to enhance asset management systems	Continue to enhance asset management systems	To be determined
	1.3. Develop demand management strategy	Development of demand management initiatives Review water pricing structure		Implement demand management initiative Investigate policy response and/or education to increase awareness and encourage reduced community demand for water and increased resilience (i.e. rainwater collection tanks, greywater systems) Educate community regarding household sewerage services and the impact on the environment Consider and where practical implement water reduction initiatives at Council facilities (such as harvesting rainwater, grey water systems, low-flow-rate appliances)	Implement demand management initiatives	Community (water users)

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2. Reduce and manage greenhouse gas emissions from water supply and waste water services	2.1. Consider and optimise greenhouse gas reduction measures in any new projects	Provide organisational training		Apply carbon calculator options to new projects	Apply carbon calculator options to new projects Consider greenhouse gas reduction opportunities alongside wastewater upgrades required to achieve new discharge consents.	External contractors
	2.2. Embrace new technologies	Develop strategy for deployment and data management and trial Keep abreast of changing technology	 	Roll out new technology across systems as appropriate	Roll out new technology across systems as appropriate	To be determined
	2.3. Investigate high energy use infrastructure for potential emissions savings	Continue with Energy Management Programme		Energy Audit recommendations inform business case for renewals	Energy Audit recommendations inform business case for renewals	Emsol Energy Efficiency and Conservation Authority
3. Manage climate change risks to existing water supply and wastewater services (see also Action Plan: Land Use and Built Environment Goal 1 and 2)	3.1 Identify at risk and vulnerable water supply and wastewater infrastructure susceptible to various climate change models	Utilise local analysis, NIWA's climate change projections and the Bay of Plenty Regional Policy Statement to inform project options. Identify the likely local effects of climate change on three waters infrastructure within the District Identify the levels of risk to Council infrastructure arising from climate change		Update identified risks with latest knowledge / assumptions	Update identified risks with latest knowledge / assumptions	Bay of Plenty Regional Council Ministry for the Environment National Institute of Water and Atmospheric Research Local Government New Zealand

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	3.2 Develop adaptive design and planning pathways for ongoing operation and renewal of water supply and wastewater infrastructure	Develop adaptive planning methodologies with adopted procedures Determine Council DAPP approach		Provide training in the use of dynamic adaptive pathways planning (DAPP), as recommended by the Ministry for the Environment	Strategies for infrastructure types developed	Bay of Plenty Regional Council Central Government
4. Incorporate climate change considerations into future water supply and wastewater services	4.1 Apply climate change assumptions to new projects	Utilise NIWA's climate change projections and the Bay of Plenty Regional Policy Statement to inform project options		Update identified risks with latest knowledge / assumptions	Update identified risks with latest knowledge / assumptions	Bay of Plenty Regional Council Ministry for the Environment National Institute of Water and Atmospheric Research Local Government New Zealand
	4.2 Collaborate with other water service providers, in particular within the Bay of Plenty Region, to build on climate change resilience	Strengthen the network of water service providers and ensure climate change is regularly included as an agenda item		Participate in discussions with water service provider network	Participate in discussions with water service provider network	Other water service providers

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

This is one of six action plans which support our climate change strategy.

The other action plans are:

- [Leadership and collaboration](#)
- [Transport](#)
- [Energy](#)
- [Waste and circular economies](#)
- [Land use and the built environment](#)

