HAURAKI
DISTRICT COUNCIL

ZERO CARBON PROMISE

Me taurangi ki te whakaiti o te tapuwae waro

Mayor's message

Kōrero nā te Koromatua

You told us during the development of the 2021-31 Long Term Plan that you want to live in a district where we reduce our carbon footprint, we look after our ecosystems and waterways, and we focus on recycling and waste management. You also want us to proactively plan for the effects of climate change.

We live in a beautiful district with many opportunities to explore nature in our own backyard. Our natural environment sustains life and it is integral to our identity and culture as Kiwis.

Unfortunately, around the globe humanity hasn't looked after our planet as well as we should have. It is a proven fact that if we don't reduce the amount of greenhouse gases in the atmosphere the climate will keep changing and we'll face huge local and global challenges in the future.

You told us reducing our carbon footprint is important and we listened. This document sets out what greenhouse gas emissions we are producing through our Council operations. It also sets out the greenhouse gases produced in the Hauraki District and the Waikato Region.

Even though the operation of Council as a business is carbon positive, this document outlines how we'll do more as an organisation to reduce or off-set our corporate emissions.

The Hauraki District, Waikato Region and New Zealand are not zero carbon. This means we, and the rest of the country, need to do more to reduce and off-set our greenhouse gas emissions. We're committed to partnering with iwi, community groups and others to work toward a zero carbon future. We'll be discussing partnership opportunities with our communities in the second half of 2021.

Toby Adams
MAYOR
Hauraki District

It's everyone's job to be kaitiaki, or guardians, of the environment and we need to do our bit.

In this document when we refer to being zero carbon, we mean having 'zero net carbon emissions'. This is when the amount of greenhouse gas released into the atmosphere is balanced with activities that remove carbon from the atmosphere. It is also sometimes referred to as being carbon neutral. Being carbon positive means we off-set more carbon than we produce.

A global movement that needs a grassroots movement to succeed

Mēnā kei te kori te nekehanga a ao, me whai ora te angitūtanga o ngā pā harakeke

New Zealand has committed to the Paris Agreement and joined the global movement to reduce greenhouse gas emissions so the world will stay in the 'climate safe zone'. To stay in the safe zone we need to limit the global average temperature warming to no more than 1.5° Celsius above pre-industrial levels. If the globe warms even half a degree more, this will significantly worsen the risks of drought, floods, and poverty for hundreds of millions of people.[1]

New Zealand has set targets of zero net carbon emissions[2] by 2050 and a reduction of between 24 and 47 per cent of methane emissions. The Climate Change Commission has produced its first Advice to the Government on how to transition New Zealand into a low carbon future.

Having zero carbon emissions requires balancing the activities that produce greenhouse gas emissions against the activities that capture carbon. Activities such as driving petrol or diesel vehicles produce emissions (carbon dioxide), while planting trees captures carbon. The more emissions we produce, the more balancing work we have to do – so the best thing to do is to start by reducing the amount of carbon emissions we produce in the first place.

If action is not taken around the globe to reduce humanities' carbon footprint the effects of climate change will get more extreme. Our time spent in drought will likely increase leading to water shortages, increased risk of wild fire and road damage. When it does rain, we will get more of it in a single event, increasing the risk of inland flooding. The impacts of sea level rise and storm surges alone could see millions of dollars of property affected in our district. Climate change is a threat to financial systems and economic security. This will have flow on effects to the wellbeing of our communities.

We want to reduce our corporate emissions. We also need to reduce and off-set the district emissions in order to reduce the significant adaptation costs and risks that our communities will experience.

1 IPPC, 2018. Global Warming of 1.5 degrees, an IPPC special report, *https://www.ipcc.ch/sr15/*

2 Climate Change Response Act 2002, zero net carbon emissions is calculated including forestry sequestration (absorbing carbon).

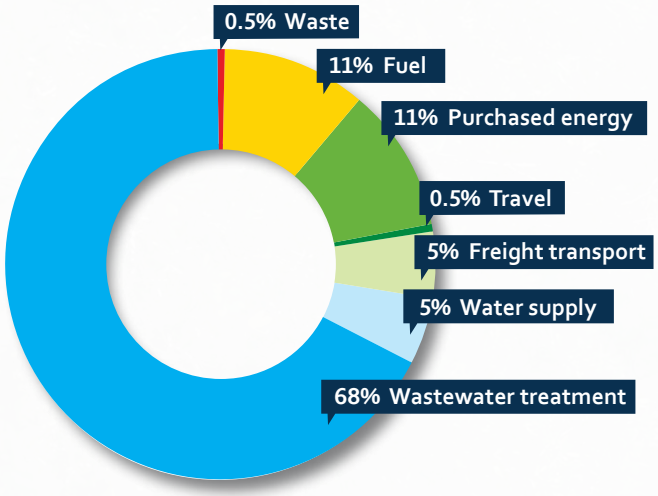
Our Corporate Emissions

Ngā puha Rangitōpū

We've measured the corporate emissions produced by our Council operations so that we can identify where we can do better.

The biggest source of corporate emissions is from our wastewater treatment. The second largest emissions sources are from our purchased energy (mainly electricity) and fuel used for Council owned vehicles and equipment. This is followed by the emissions from our water supply treatment and freight transport. Aeroplane travel and the use of hire vehicles accounts for less than 0.5 per cent of our emissions, as does our corporate waste. This doesn't include emissions from residential waste collection as this is covered in the district inventory.

Hauraki District Council Emissions (CO_2e)



The total emissions generated by our Council operations in 2018/19 was approximately 3,750 tonnes CO_2e. However, we also own 97 hectares of radiata pine forest, which are at varying stages of maturity ranging from 4 to 27 years. Our corporate emissions are entirely offset by our forestry, which absorbs approximately 3,910 tonnes CO_2e per year.

In 2018/19 the Council operations were carbon positive because our forestry absorbed more carbon than our operations produced.

CO_2e means carbon dioxide equivalent. It is a term for describing different greenhouse gases in a common unit. It expresses the impact of each different greenhouse gas in terms of the amount of CO_2 that would create the same amount of warming. That way, a carbon footprint consisting of lots of different greenhouse gases can be expressed as a single number.

In 2018/19 the Waikato Region net emissions (when you include forestry) were 7,116,073 tonnes CO_2e . The majority of carbon absorption comes from exotic forest (89%) as opposed to native forest.

Emissions in the Waikato Region

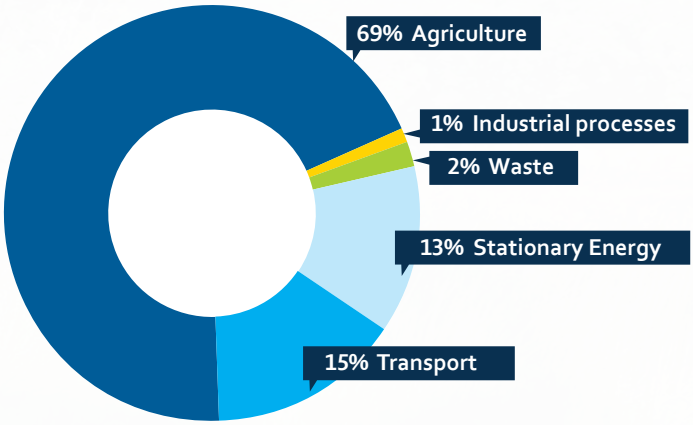
Ngā puha o te Puka o te Ika

We jointly funded emissions inventories[3] for the Waikato Region and Hauraki District.

Activities within the Waikato Region boundaries generated approximately 12,646,982 tonnes CO_2e between July 2018 and June 2019. Agriculture generated the largest amount of regional emissions, followed by transport and stationary energy, such as heating our homes. Transport is the fastest growing regional emissions source. Waste and industry processes generated the least emissions.

Forestry removed about 44 per cent of the Waikato's total gross emissions in 2018/19, more than double the national per capita average. But this is less than in previous years due to the rates of planting not keeping up with the rates of harvesting.[4]

Waikato Region Emissions (CO_2e)



In 2018/19 regional net emissions increased by 349,291 tonnes CO_2e compared to 2015/16. In that time agricultural sector emissions decreased by 4% due to stocking rate reductions. However, transportation emissions increased by 32% and stationary energy emissions increased by 7%. Both increases are driven in part by an increase in population, though transportation emissions also increased because of better emissions monitoring practices.

3 An inventory covers seven greenhouse gases: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF6) and nitrogen trifluoride (NF3).

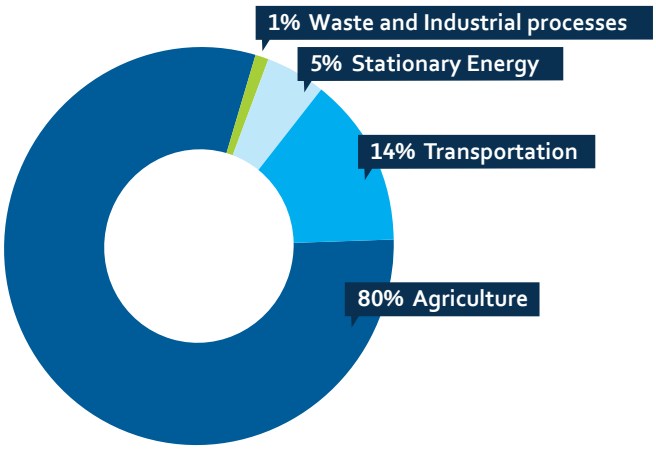
4 Waikato Regional Council, 2020, Climate Action Roadmap.

Emissions in the Hauraki District

Ngā puha o te rohe o Hauraki

Our district emissions profile is similar to the regions, however we have a higher percentage of emissions generated from agriculture. Livestock living within the district boundary is the primary source of agricultural emissions. This isn't surprising given there is a lot of dairy and dry stock farming. The second largest emission source is transportation. On-road transport such as cars and trucks account for 90 percent of transport emissions, while off-road transport such as farm tractors accounts for 10 percent. Our percentage of stationary emissions is less than the regional percentage, mainly because we have less buildings. Waste, which includes solid waste and wastewater treatment, accounts for 0.5 percent of the district's emissions as does other industrial processes.

Hauraki District Emissions (CO_2e)



Each district or city has a different emission profile and this will determine how much direct control a council has over reducing emissions. In rural areas where agriculture and transport largely contribute to the district emissions profile, there is an advocacy role for a council to play rather than directly affecting activities that produce emissions.

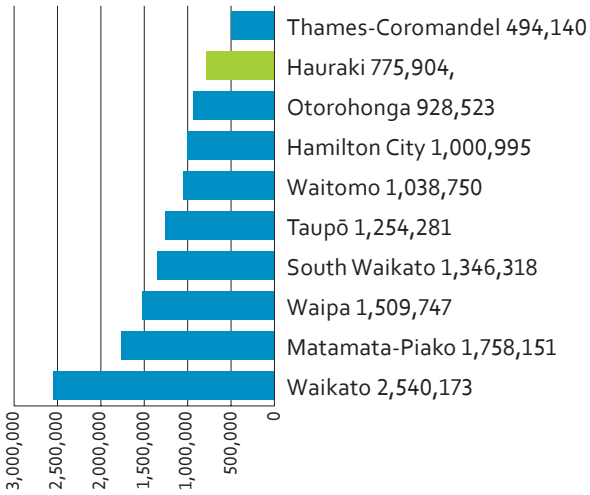
Forested areas in our district are mainly exotic and absorbed 42,449 tonnes CO2e. This means the Hauraki District net emissions in 2018/19 were 733,455 t CO2e.

You can view the full the Waikato Region and Hauraki District emissions inventories on our website https://www.hauraki-dc.govt.nz/our-district/climate-change/

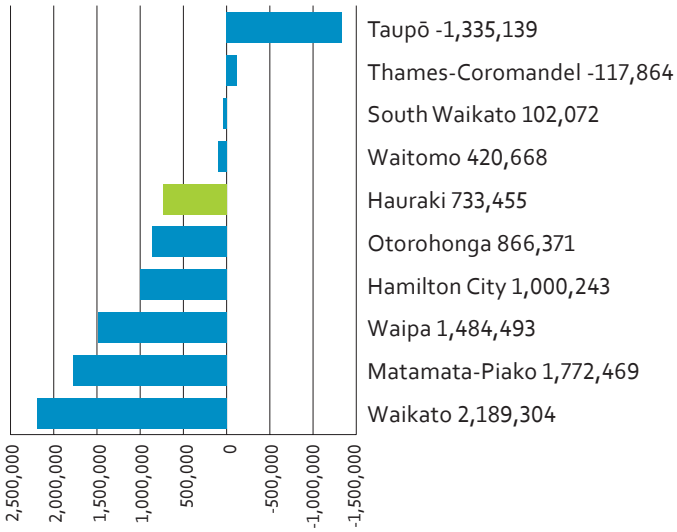
In 2018/19 the Hauraki district produced 6 per cent of the Waikato Region's total gross emissions (when you exclude forestry) and 10 per cent of net emissions (including forestry). This means several other districts in the Waikato offset more carbon from forestry than the Hauraki District. That is not surprising as we have a lot of farmland and less forestry than other districts such as Thames-Coromandel and Taupō, which are carbon positive due to their forestry.

There is an opportunity to offset district emissions via tree planting projects. Planting trees is one of the most effective ways to reduce carbon dioxide levels in the atmosphere as they store carbon and release oxygen.

2018/19 District CO_2e gross emissions



2018/19 District CO_2e net emissions



In New Zealand, half of our emissions come from agriculture, and nearly a quarter come from dairy biological emissions (nitrous oxide and methane). However, there are some great initiatives happening to enhance biodiversity and reduce on-farm emissions around the country. In fact, New Zealand has the lowest carbon footprint for milk production in the world.[5]

5 https://www.dairynz.co.nz/environment/climate-change/climate-change-and-the-dairy-sector/

We've made some improvements, but we can do more

Āe, Kia whakapai ake tātou ētahi atu mea, Heoi anō, me whaia atu tātou ki ngā iti Kahurangi

We've made some small changes already to reduce our operational carbon footprint. We participated in an energy audit with the Energy Efficiency Conservation Authority (EECA) and as a result reviewed lighting in our buildings and our street lighting. We replaced existing HID (high intensity discharge) streetlight fittings with LED (light emitting diode) fittings. We also purchased an electric vehicle for our fleet.

We've changed the way we work to enable more remote and flexible working by our staff, taking more vehicles off the road and reducing emissions. We have a preference now for virtual meetings and conferences, reducing work–related travel and we will provide staff with training in low emissions behaviour.

We also support community initiatives such as the Paeroa Repair and Reuse Centre and the work of the Sustainable Living Trust.

Our Zero Carbon Promise

Me taurangi ki te whakaiti o te tapuwae waro

Our Council operations are carbon positive because our forestry absorbs more carbon than we emit. But we can do more. We want to reduce our carbon footprint further and contribute to creating a zero carbon district.

Here's how we'll start on the pathway to achieve that goal

Policy and Procurement

- Update our decision-making documents to include carbon reduction or carbon off-setting considerations.
- Review our procurement processes to put a higher priority on carbon zero. The Climate Change Commission recommends procurement policies include climate change considerations, in order to leverage purchasing power to support low emissions products and practices.
- Investigate purchasing a data management system that will help us keep track of our emissions

Stormwater, Wastewater and Drinking Water

- Include carbon mitigation (reducing and/or off-setting carbon) as a key consideration in our wastewater strategy. This means we'll investigate new technologies for reducing sewage sludge emissions. The cost of this technology will be weighed against off-setting emissions by planting native trees.
- Introduce greener stormwater infrastructure, such as planting our drains. These are known in the industry as bio-retention swales.

Roading

- Continue to investigate ways to encourage more walking and cycling in our district.
- Support initiatives to increase or improve public transport to get people out of their cars.
- Investigate partnerships and/or external funding for Electric Vehicle (EV) infrastructure.
- Investigate planting more urban trees in our road reserves.

The Climate Change Commission wants to see the majority of the vehicles coming into New Zealand for everyday use electric by 2035. Also an increase in the use of low carbon fuels, such as biofuels and hydrogen, in heavy trucks, trains, planes, and ships.

Our Vehicle Fleet and Travel

- Transition the corporate vehicle fleet to low or no carbon fuels.
- Offset air travel through the Air New Zealand carbon off-set scheme.
- Continue to have a preference for virtual meetings and conferences to reduce work–related travel.

Parks, Reserves, Open Spaces and Tree Planting

- Identify Council owned land that would be suitable for native tree planting and investigate potential external funding such as the Billion Trees Fund and Trees That Count.
- Work with our community to identify tree planting projects we can undertake together.
- When we design our parks in the future we will consider zero carbon practices in our design.

Establishing new native forests on less productive land offers a way to build up an enduring carbon sink (absorbs and stores carbon) while delivering wider benefits for erosion, soil health, water quality and biodiversity. It also provides social and economic benefits in the form of green job opportunities and the beautification of our district.

Solid Waste

- Investigate options for reducing organic waste at the source (homes within our communities).
- Research new technology trialled overseas such as new electrical rubbish trucks.
- Focus on campaigns and projects that promote reducing waste so there is less waste disposed of to landfill.

Our Buildings and Facilities

- Investigate green building options for our buildings during upgrades.
- Investigate green building options for the Ngatea library and service centre project and new pensioner housing builds.
- Advance local renewable energy generation for our community assets like our swimming pools and libraries, e.g. solar panels or wind turbines.

We don't use coal or other fossil fuels on-site in the day to day running of our buildings or swimming pools.

Making it happen
Mahia te mahi

We'll introduce Climate Champions, who are members of staff with a strong interest in, and enthusiasm for, carbon reduction outcomes. They'll promote this work at team meetings and support the undertaking of these actions.

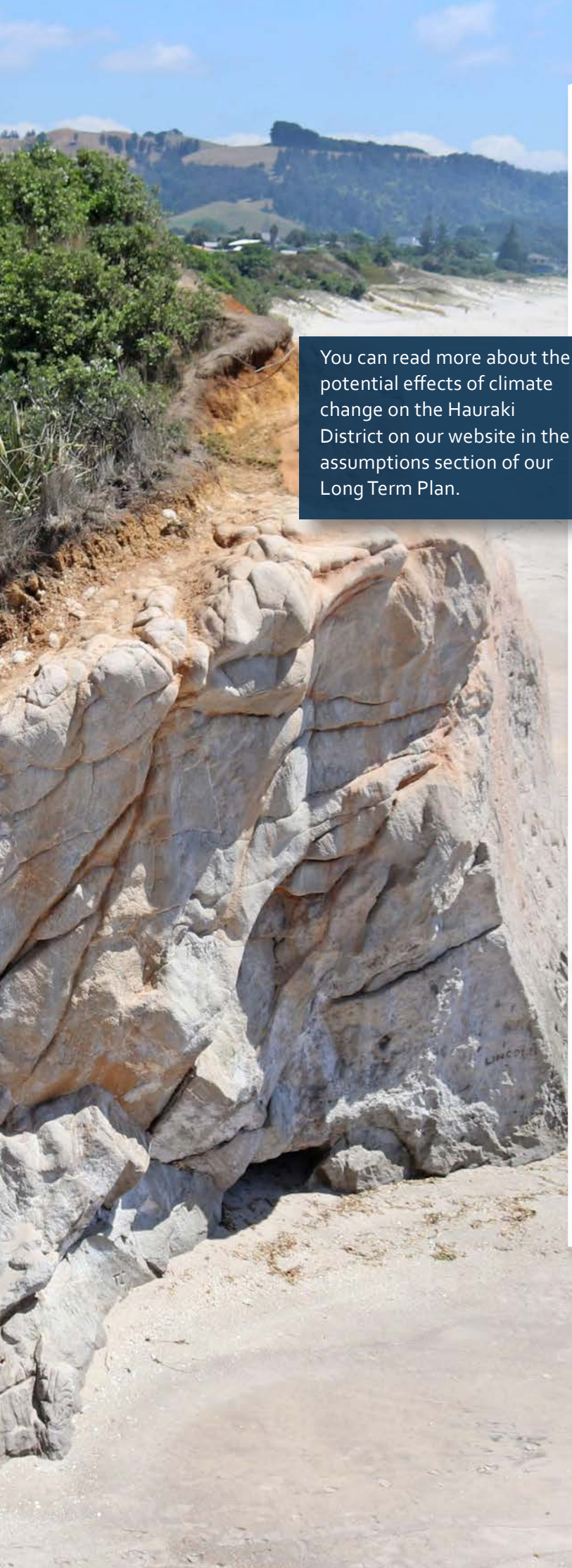
If actions and projects within this document involve significant scale in terms of cost and/or implementation, we'll talk to the community before proceeding. This normally happens through an annual plan or long term plan process.

Using our voice on behalf of the District
Te Reo karanga o te Rohe

We're signatories to the Local Government Leaders' Climate Change Declaration.

We'll continue to support initiatives that promote carbon reduction. We have an opportunity to support strong action by others – other levels of government, the community or even with industry to better achieve shared goals.

We'll also start conversations with our community later in 2021 to see if there are any projects we can work together on to reduce or offset the carbon emissions of our district.



You can read more about the potential effects of climate change on the Hauraki District on our website in the assumptions section of our Long Term Plan.

Preparing for the effects of climate change (adaptation)

Me whakarite tātou ngā ahuatanga o te panoni o te āhuarangi

We're hopeful the world can reduce enough carbon in the atmosphere to avoid extreme climate change. At the same time, it is prudent to also start planning for the effects of climate change.

We're working with some of our more at risk communities to start planning for the effects of climate change. A joint council, iwi and community-led plan called the Wharekawa Coast 2120 is being developed. This plan will detail how we'll respond to sea-level rise and natural hazard risks on the Wharekawa Coast in the future, recognising what we know about these risks may change 10, 20 and 100 years down the track. We're planning to start work on a similar plan for the Hauraki Plains in 2024.

We're also taking into account the potential effects of climate change on our assets when we make decisions, as well as considering what effect our decisions will have on the Council's, and the community's, ability to adapt to climate change.

There is more about the impacts of climate change on our infrastructure in our Infrastructure Strategy section in our Long Term Plan.

Ko te manu e kai ana te miro, nōnā te ngahere.

Ko te manu e kai ana i te matāuranga, nōnā te ao.

The bird who feasts on the miro berry, theirs is the forest.

The bird that feasts on knowledge, theirs is the world.

HAURAKI
DISTRICT COUNCIL

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