

Notice of Meeting:

I hereby give notice that an ordinary Meeting of the Environment Committee will be held on:

Date: Tuesday 2 March 2021
Time: 9.30am
Meeting Room: Council Chamber and Audio Visual Link
Venue: Municipal Building, Garden Place, Hamilton

Richard Briggs
Chief Executive

Environment Committee

Komiti Taiao

OPEN AGENDA

Membership

Chairperson Cr M Forsyth
Heamana

Deputy Chairperson Cr S Thomson
Heamana Tuarua

Members Cr M Bunting
Cr A O'Leary
Cr K Naidoo-Rauf
Cr D Macpherson
Mayor P Southgate (Ex Officio)
Maangai Maaori – N Hill

Quorum: A majority of members (including vacancies)

Meeting Frequency: Six weekly

Becca Brooke
Governance Manager
Menetia Mana Whakahaere

22 February 2021

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Purpose

The Environment Committee is responsible for:

1. Governance of strategies, policies and plans relating to the wellbeing, protection, enhancement and sustainability of Hamilton's natural environment.

In addition to the common delegations, the Environment Committee is delegated the following Terms of Reference and powers:

Terms of Reference:

1. To develop policy, approve strategies and plans concerning Hamilton's contribution and response to climate change, and to monitor their implementation.
2. To develop policy, approve strategies and plans for the sustainable use of Hamilton's natural resources, and to monitor their implementation.
3. To develop policy, approve strategies and plans for efficient and sustainable waste management and recycling, and to monitor their implementation.
4. To develop policy, approve strategies and plans for Council's corporate environmental sustainability and to monitor their implementation.
5. To develop policy, approve strategies and plans for Council's biodiversity, and to monitor their implementation.
6. To develop policy, approve and monitor implementation of strategies in relation to the Climate Action Plan.

Special Notes:

- The Committee may request expert external advice through the Chief Executive as necessary.

The Committee is delegated the following powers to act:

- Approval of matters determined by the Committee within its Terms of Reference.

The Committee is delegated the following recommendatory powers:

- The Committee may make recommendations to Council.

The Committee may make recommendations to other Committees.

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1 Apologies – *Tono aroha*

2 Confirmation of Agenda – *Whakatau raarangi take*

The Committee to confirm the agenda.

3 Declaration of Interest – *Tauaakii whaipanga*

Members are reminded of the need to be vigilant to stand aside from decision making when a conflict arises between their role as an elected representative and any private or other external interest they might have.

4 Public Forum – *Aatea koorero*

As per Hamilton City Council's Standing Orders, a period of up to 30 minutes has been set aside for a public forum. Each speaker during the public forum section of this meeting may speak for five minutes or longer at the discretion of the Chair.

Please note that the public forum is to be confined to those items falling within the terms of the reference of this meeting.

Speakers will be put on a Public Forum speaking list on a first come first served basis in the Council Chamber prior to the start of the Meeting. A member of the Council Governance Team will be available to co-ordinate this. As many speakers as possible will be heard within the allocated time.

If you have any questions regarding Public Forum please contact Governance by telephoning 07 838 6727.

Council Report

Item 5

Committee: Environment Committee

Date: 02 March 2021

Author: Carmen Fortin

Authoriser: Becca Brooke

Position: Governance Advisor

Position: Governance Manager

Report Name: Confirmation of the Open Environment Committee Minutes - 1 December 2020

Report Status	<i>Open</i>
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Staff Recommendation - *Tuutohu-aa-kaimahi*

That the Environment Committee confirm the open Minutes of the Environment Committee meeting held on 1 December 2020 as a true and correct record.

Attachments - *Ngaa taapirihanga*

Attachment 1 - Environment Committee - Unconfirmed Open Minutes - 1 December 2020

Environment Committee

Komiti Taiao

OPEN MINUTES

Minutes of a meeting of the Environment Committee held in the Council Chamber and Audio-Visual Link?, Municipal Building, Garden Place, Hamilton on Tuesday 1 December 2020 at 1.05pm.

PRESENT

Chairperson <i>Heamana</i>	Cr M Forsyth
Deputy Chairperson <i>Heamana Tuarua</i>	Cr S Thomson
Members	Cr M Bunting Cr A O'Leary (Audio-visual Link) Cr D Macpherson Cr E Wilson (Audio-visual Link) Maangai N Hill Mayor P Southgate (Audio-visual Link)

In Attendance:

Cr Gallagher
 Sean Hickey – General Manager Strategy and Communication
 Lance Vervoort – General Manager Community
 Eeva-Liisa Wright – General Manager Infrastructure Operations
 Rebecca Whitehead – Unit Director Business and Planning
 Maria Barrie – Unit Director Parks and Recreation
 Michelle Hawthorne – Legal Services Manager
 Nick Chester – Social Development Advisor
 Laura Thomson – Consents and Monitoring Lead
 Jamie Sirl – Team Leader City Planning
 Grant Kettle – Planning Guidance Unit Manager
 Charlotte Catmur – Sustainability and Environment Advisor
 Martin Parkes – Transport and Urban Mobility Programme Delivery Lead
 Emily Botje – Facilities Unit Manager
 Frances Cox – Policy and Bylaw Lead
 Martin Parkes – Transport and Urban Mobility Programme Delivery Lead
 Amanda Banks – Policy and Strategy Advisor

Governance Staff:

Becca Brooke – Governance Manager
 Amy Viggers – Governance Team Leader
 Carmen Fortin and Narelle Waite – Governance Advisors

Maangai Hill opened the meeting with a Karakia.

1. **Apologies – *Tono aroha***
Resolved: (Cr Foryth / Maangai Hill)
That the apologies for absence from Cr Naidoo-Rauf, and for partial attendance from Mayor Southgate, Crs Pascoe, Wilson, and Bunting (Council business) be accepted.
2. **Confirmation of Agenda – *Whakatau raarangi take***
Resolved: (Cr Forsyth / Cr Thomson)
That the agenda is confirmed.
3. **Declarations of Interest – *Tauaakii whaipaaanga***
No members of the Council declared a Conflict of Interest.
4. **Public Forum – *Aatea koorero***

Maeroa School Students spoke to item 8 (Draft Nature in the City Strategy). They outlined actions that their school had undertaken in order to improve the gully around their school, including planning and pest control. They spoke in support of the Nature in the City Strategy and the impact that it could have on the areas around the city. They responded to questions from Members concerning the next stage of planned work in the gully and the naming of proposed pou.

Kiri Wallace spoke to item 8 (Draft Nature in the City Strategy). She noted her support of the proposed Nature in the City Strategy, as well as the incorporation of greenspace in the city, the positive impact that more greenspace can have on mental and physical space and reducing crime rates.

Hauauro Brown and Harvey Aughton (representing GoEco) spoke to item 8 (Draft Nature in the City Strategy) in support of the Draft Nature in the City programme. They noted Go Eco's support of the funding for this initiative through the annual plan and commented on the positive impact that the funding had on the gullies and encouraged further funding for nature initiatives within the Long Term Plan. They also noted that it was their desire to have further bat monitoring through the Nature in the City strategy. They responded to questions from Members concerning immediate benefits in work being done.

Martin Toop spoke to item 10 (Climate change programme update) noting his support for a focus on tree planting to help reduce the carbon emissions. He also noted that an increase of park staff and sequestration would help in a reduction of carbon emissions. He responded to questions from Members concerning the impact of a work force moving further out of the city which would then increase the amount of cars required.

Wiremu Puke (representing Ngati Wairere) spoke to item 8 (Nature in the City Strategy) in support of the work which Council had done in the Waiwhakareke area and noted that he would like to see more support with Kowhai events. He also noted his interest in making Lake Rotorua a freshwater sanctuary through water cleaning and reintroduction of natural fish.

Shepherd Issac spoke to item 8 (Nature in the City Strategy) and showed an animation video which highlighted some of the positive impacts of nature in the city. He responded to questions from Members concerning support that Council could offer, and what he would like to see in the future.

Roderick Aldridge spoke to item 8 (Nature in the City Strategy) in support of the nature in the city and planting of native trees, as well as the need to support community groups in native planting efforts. He noted that a fuller understanding of ecosystems needed to be considered, including waterway management and surface water permeability. He mentioned the need of Council to work with other local authorities, community groups, businesses, and other government organisations in order to ensure maximum benefit for the environment.

Environment Committee 1 DECEMBER 2020 - OPEN

Cr Macpherson joined the meeting (1.13pm) during the above item.

Mayor Southgate joined the meeting (1:54pm) during the above item.

Cr Bunting left the meeting (1:57) during the above item.

5. Confirmation of the Open Environment Committee Minutes - 10 September 2020

Resolved: (Cr Forsyth / Cr Thomson)

That the Committee confirm the open Minutes of the Environment Committee meeting held on 10 September 2020 as a true and correct record.

6. Chair's Report

The report was taken as read.

Resolved: (Cr Forsyth / Cr Thomson)

That the Environment Committee receives the report.

7. GM Report

The report was taken as read. Staff responded to questions from Members concerning the bat strategy, funding requirements, connection of the bat strategy to the Micro Spatial Plan, inclusion of the ongoing University of Waikato bat migration pattern data, and engagement with Waikato River Authority and Ministry of Environment.

Resolved: (Cr Wilson/Maangai Hill)

That the Environment Committee:

- a) receives the report; and
- b) appoints the Chair and Deputy Chair of the Environment Committee and Maangai Hill to form a working group to develop a set of Environmental Principles for the organisation.

8. Draft Nature in the City Strategy

The Policy and Strategy Advisor introduced the item and thanked everyone who had helped develop the strategy. Committee Members asked questions in regards to a cross boundary collaboration with neighbouring councils and working with other organisations, and biodiversity strategy from Department of Conservation.

Resolved: (Cr Thomson / Cr Forsyth)

That the Environment Committee:

- a) receives the report;
- b) approves the Draft Nature in the City Strategy 2020-2050; and
- c) approves the Strategic Implementation Plan.

The meeting adjourned from 2:37pm to 2:48pm.

Cr Wilson retired from the meeting during the above adjournment.

Cr Bunting re-joined the meeting during the above adjournment.

9. Waikato Local Authority Shared Services (WLASS) Energy and Carbon Management Programme

Kelvin French WLASS CEO and Martin Lynch (Energy Advisor) introduced the report, noting that the purpose of the report was to provide a view of local government greenhouse gas emissions in the Waikato, as well as monitoring energy use and energy efficiency. He described the change of energy use of ratepayers, cost changes in the past 8 years, and changes which had been implemented in order to reduce costs. They responded to questions from Members concerning individual moves within Council progress reporting of the changes implemented, Council's ability to become leaders in terms of electric vehicle fleet use, trial and use of electric buses, the change of focus of other organisations, capturing emissions data made by contractors, environmental or economic benefits through this programme, and ability of WLASS to make recommendations in addition to providing data.

Staff Action: *Staff undertook to provide a report to a future the Environment Committee in regards to hydrogen fuel use.*

Resolved: (Cr Forsyth / Maangai Hill)

That the Environment Committee:

- a) receives the report; and
- b) thanks Waikato Local Authority Shared Services for their verbal report.

Cr O'Leary retired from the meeting (3:27) during the above item. She was not present when the item was voted on.

10. Climate change programme update

The Sustainability and Environment Advisor took the report as read. Staff responded to questions from Members concerning ramifications of Central Government claiming a climate emergency, inclusion within the Long Term Plan and guidance for the programme.

Resolved: (Cr Forsyth/Cr Macpherson)

That the Environment Committee:

- a) approves that 'Climate Change' is classified as a strategic risk and is included on Council's Strategic Risk Register
- b) recommends that the Strategic Risk and Assurance Committee notes a) above; and
- c) notes that the Council will receive a future information report concerning progress on the Climate Change programme and with respect to climate change being classified as a strategic risk.

11. Resolution to Exclude the Public

Resolved: (Cr Forsyth/Cr Thomson)

Section 48, Local Government Official Information and Meetings Act 1987

The following motion is submitted for consideration:

That the public be excluded from the following parts of the proceedings of this meeting, namely consideration of the public excluded agenda.

The general subject of each matter to be considered while the public is excluded, the reason for passing this resolution in relation to each matter, and the specific grounds under section 48(1) of

the Local Government Official Information and Meetings Act 1987 for the passing of this resolution follows.

General subject of each matter to be considered	Reasons for passing this resolution in relation to each matter	Ground(s) under section 48(1) for the passing of this resolution
C1. Confirmation of the Public Excluded Environment Committee Minutes - 10 September 2020) Good reason to withhold information exists under Section 7 Local Government Official Information and Meetings Act 1987	Section 48(1)(a)

This resolution is made in reliance on section 48(1)(a) of the Local Government Official Information and Meetings Act 1987 and the particular interest or interests protected by Section 6 or Section 7 of that Act which would be prejudiced by the holding of the whole or relevant part of the proceedings of the meeting in public, as follows:

Item C1.	to maintain legal professional privilege	Section 7 (2) (g)
	to enable Council to carry out negotiations	Section 7 (2) (i)

The meeting moved into a Public Excluded session at 4.00pm.

The meeting was declared closed at 4.02pm.

Council Report

Item 6

Committee: Environment Committee **Date:** 02 March 2021
Author: Charlotte Catmur **Authoriser:** Sean Hickey
Position: Sustainability and Environment Advisor **Position:** General Manager Strategy and Communications
Report Name: Waikato-Tainui Climate Change Update

Report Status	<i>Open</i>
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Purpose - *Take*

1. To inform the Environment Committee of Waikato-Tainui's climate change and resilience programme.
2. Manaaki Nepia, Strategy and Relationships Manager, Waikato-Tainui will present a verbal report.

Staff Recommendation - *Tuutohu-aa-kaimahi*

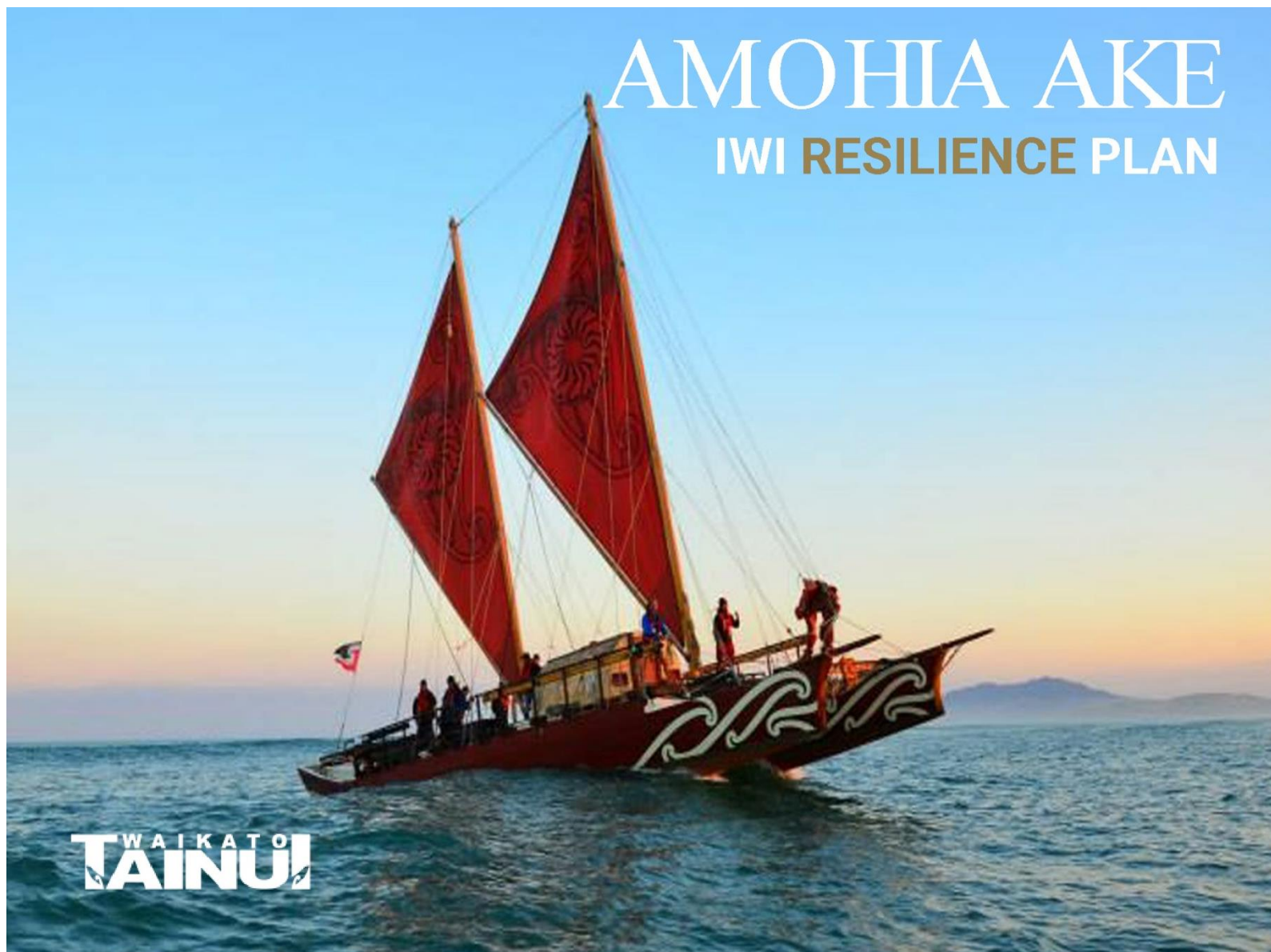
3. That the Environment Committee receives the verbal report.

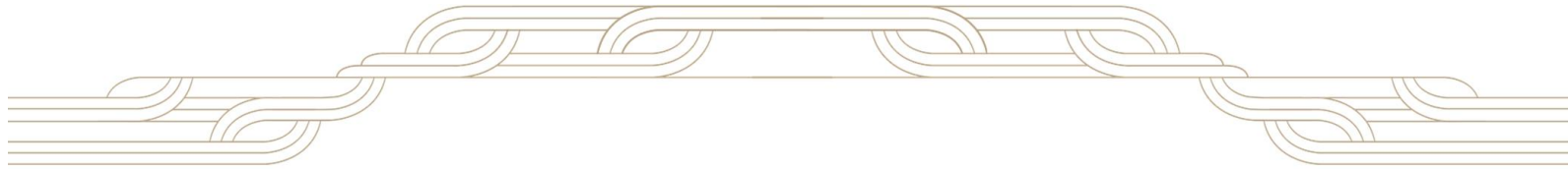
Background - *Koorero whaimaarama*

4. In October 2020 Waikato-Tainui released 'Amohia Ake - Iwi Resilience Plan' which responds to the immediate impacts of COVID-19 as well as building longer term resilience.
5. The Amohia Ake Iwi Resilience Plan is provided as **Attachment 1**.

Attachments - *Ngaa taapirihanga*

Attachment 1 - Amohia Ake Iwi Resilience Plan 2020





A legacy of leadership

Our vision

Maaku anoo e hanga tooku nei whare
Ko ngaa pou oo roto he maahoe, he patete
Ko te taahuuhuu he hiinau
Me whakatupu ki te hua o te rengarenga
Me whakapakari ki te hua o te kawariki

I shall build my house from the lesser known trees of the forest.

The support posts shall be maahoe and patete, and the ridge pole of hiinau.

My people will be nourished by the rengarenga and strengthened by the kawariki.

KIINGI TAAWHIAO



If I dream, I dream alone. If we
dream together, then together
we can make the dream come
true
PRINCESS TE PUEA



All of us must work together,
thereby bequeathing a worthy
legacy linking the past and
present to our future
generations

TE ARIKINUI TE ATAIRANGIKAAHU



The care of our people is
paramount, together we will get
through this.

KIINGI TUHEITIA
POOTATAU TE WHEROWHERO VII



RUKUMOANA SCHAAFHAUSEN
CHAIR - TE ARATAURA

AMOHIA AKE Our resilience plan

This plan sets out the pathways that Waikato-Tainui will take to build the resilience of our whaanau, marae and communities.

The broader social, economic and cultural impacts of COVID-19 are hitting our Maaori people the hardest. In the face of a pandemic, history has shown that they are the most susceptible. But these are not unprecedented times for Waikato-Tainui. The Kiingitanga has before buffered our people through the hardship of pandemics. The example of Te Puea and her efforts after the Influenza pandemic of 1918 guide us in our response today to COVID-19.

This plan details five key projects we are committed to driving to help our people, our communities, our region and our nation. We call these our Taniwha projects and through these we hope to build a tribal economy which supports increased employment opportunities, builds local enterprise, strengthens our marae, connects communities, improves wellbeing and health outcomes for all and protects our river, spaces and places.

We invite discussions on how we can collaborate to realise this plan. We know that it is only through partnering to design and deliver these projects of scale, through being bold, courageous and innovative that the impact of these initiatives can be broad reaching and meaningful.

Reflecting the words of our King... together we will get through this.

Paimaarire

Rukumoana and Donna



DONNA FLAVELL
CEO - WAIKATO-TAINUI



Our areas of focus

All of our activities over the next 12 months are focused on designing and driving our own model of self-sufficiency for our marae, whaanau and communities to thrive. The high level outcomes we seek are derived from the words of Princess Te Puea.

Kia tupu

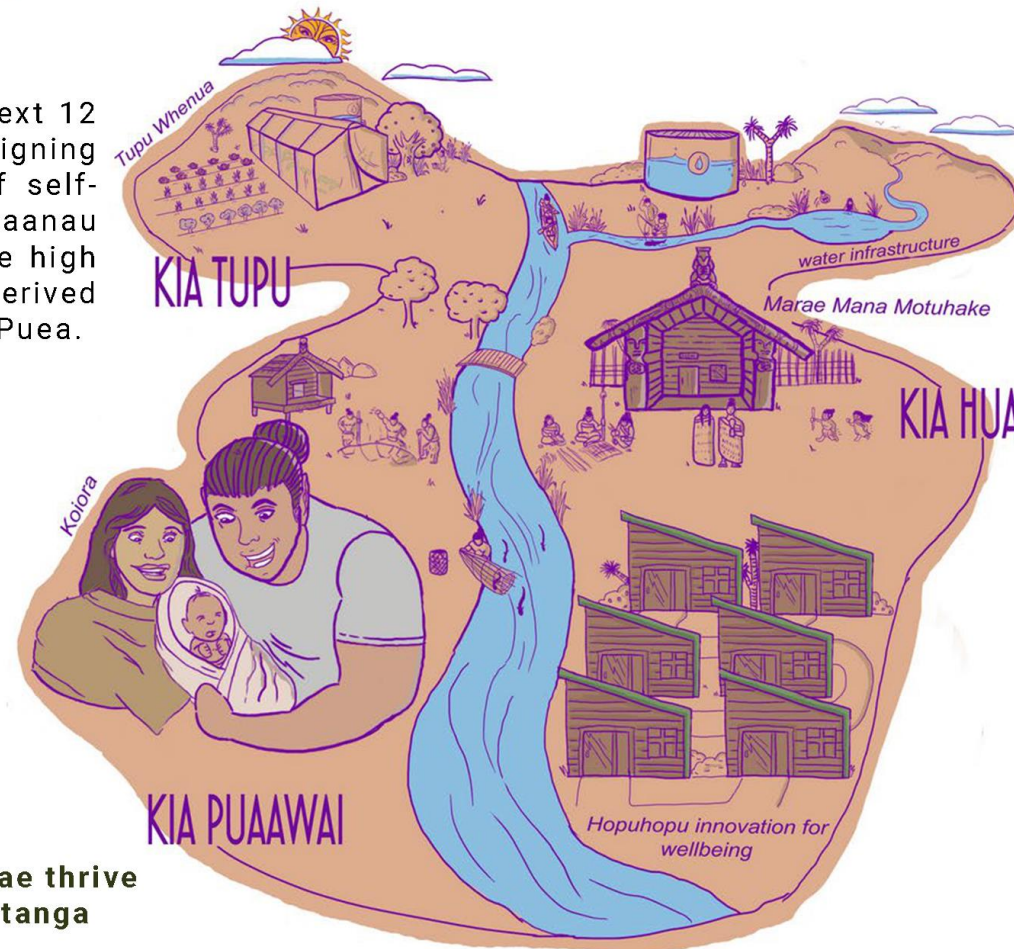
to grow our people
to grow our own kai
to grow our connectedness

Kia hua

to protect our whakapapa
to protect our wellbeing
to protect our environment

Kia puaawai

so that the people and our marae thrive
under the korowai of the Kiingitanga



TANIWHA PROJECTS

Building the resilience of our whaanau, marae and communities helps build the resilience of the Waikato Region and of New Zealand



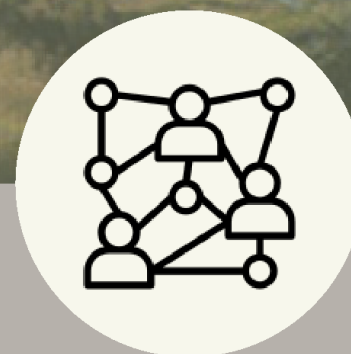
WATER SUPPLY & INFRASTRUCTURE

Ensuring the health and wellbeing of the Waikato river to support the environment, marae, whaanau and wider Waikato and Auckland regions



TUPU WHENUA

Supporting employment, enterprise and housing needs through better understanding and utilisation of our land assets



HOPUHOPU INNOVATION HUB

Creating a vibrant interconnected community at Hopuhopu which focuses on supporting innovation and holistic wellbeing.



<p>KOIORA HEALTH</p> <p>Working alongside the health sector, marae and whaanau to co-design and develop models of service for improved wellbeing outcomes for whaanau.</p>	<p>TE PAA WHAKAWAIRUA</p> <p>Supporting our 68 marae to design and drive their own sustainable models of growth to achieve mana motuhake.</p>
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NIHO TANIWHA

The niho or teeth of our taniwha are those key enablers that help to amplify wellbeing outcomes for whaanau, marae and communities.

Tribal Talent

Training, Employment

- Capturing/creating employment opportunities
- Supporting tribal members to re-skill
- Leveraging partnerships for employment creation

Relationships

Influence, advocacy

- Leveraging our accords and existing relationships
- Identifying partnership opportunities
- Advocating for increased support

Business

Social procurement

- Strategy supporting whaanau & marae enterprise
- Promote business & investment models fit for whaanau & marae
- Leverage partnerships

Fundraising

Partnerships

- Identifying funding sources
- Strategic approach to funding applications
- Coordinating organisational approach

Strategy

Cohesive, deliberate

- Building greater cohesion and collaboration
- Identifying synergies and areas for improved outcomes

Data


Information

- Building a high quality data system
- Capturing data to inform our decision-making
- Building capability to manage and use data well

Fundamental supports


Core functions and back-end operations

- Ensuring effective, efficient, coordinated and timely support



WATER SUPPLY & INFRASTRUCTURE

Our vision is that the Waikato River sustains abundant life and prosperous communities. There is continued need to restore and protect the health and wellbeing of the awa whilst looking at proactive solutions around securing future water supply for both the Waikato and Auckland regions.



OUR CONTEXT

The Waikato River is our tupuna awa - it is a core pillar in our tribal identity and essential to our wellbeing	Over 2/3rds of our marae lack access to safe and consistent water supply	There is growing demand & pressure on the over allocated Waikato River catchment	The current infrastructure is deficient and requires significant investment to ensure sustainability of supply	Water storage options and investment in North Waikato required
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OUR GOALS

- 25 jobs/pathways secured with partners in the water sector
- 68 Waikato marae water assessments completed
- 3 marae assets completed
- Feasibility study for water options (Linked to 2019 Kiingitanga Accord outstanding actions)

LINKS TO GOVERNMENT PRIORITIES

- Supporting Maaori and Pasifika aspirations
- Building a productive nation
- Transforming the economy



TUPU WHENUA

'Manaaki whenua, manaaki tangata, haere whakamua' - through better understanding, skills, relationships and use of our land assets our marae and organisation can better support employment, enterprise and housing needs of tribal members.

Waikato Tainui will invest \$10million in land development for the following purposes - growing food, solar farming, and the building of affordable homes.



OUR CONTEXT

The Waikato region is the fourth biggest in New Zealand

Collectively Waikato-Tainui are one of the biggest land holders in the Waikato region yet the potential of many of these land holdings is unrealised.

The Waikato region and Hamilton in particular is growing in economic significance and is a key gateway to Auckland

Lands in the Waikato region are diverse and rich in natural resources and feature prime agricultural lands.

Maaori homeownership, enterprise and income rates continue to lag behind average New Zealanders

OUR GOALS

- **68** Waikato marae have plans for the utilisation of their marae land holdings
- **10** marae land proposals progressed to feasibility study
- **50-100** employment opportunities created
- **50-100** whaanau progressing through tribal housing programme
- All tribal land assets identified and suite of supports for land utilisation developed

LINKS TO GOVERNMENT PRIORITIES

- Supporting Maaori and Pasifika aspirations
- Building a productive nation
- Transforming the economy



KOIORA HEALTH

Through the design and establishment of an iwi and whaanau centric governance and leadership model in health we want to drive improved wellbeing outcomes for whaanau. How we collaborate with key partners is essential and as part of the broader strategy supporting marae to be Koiora hubs for their communities will help improve reach and community leadership in health.



OUR CONTEXT

Māori life expectancy continues fall well below that of the average New Zealander

Māori needs are not being met by the New Zealand health system and Māori are underrepresented in the health profession

The WAI Health 2575 Report highlights the systemic challenges facing our current health system

COVID-19 offered the opportunity to showcase how iwi, Māori service providers and DHBs could work better together for improved outcomes for Māori

Data on Māori health and in particular tribal members would better enable iwi to take a leadership role

OUR GOALS

- **15-20** employment opportunities created within the health sector
- **20-50** workforce development opportunities linked to Māori Authority
- **10-15** training/employment opportunities linked to Hauora providers (Waikato and Counties Manukau DHB)

LINKS TO GOVERNMENT PRIORITIES

- Supporting Māori and Pasifika aspirations
- Improving child wellbeing
- Taking mental health seriously
- Building a productive nation



HOPUHOPU INNOVATION HUB

With the expansion of the Auckland to Hamilton corridor, Hopuhopu is ideally located to develop a new centre of innovation for the Waikato region. The Hopuhopu Innovation hub redevelopment plan includes community housing, a state of the art sports, recreation and events centre development, expansion of the existing nursery enterprise and the development of a hub for tribal and community businesses and activities including archives and heritage.



OUR CONTEXT


Hopuhopu is strategically placed - adjacent to the North Island main trunk line, the Hamilton to Auckland corridor and the Waikato River	The Hopuhopu redevelopment involves 170 hectares of land owned by Waikato-Tainui	Currently it houses the Tribal Endowment College, a small scale nursery, sporting grounds and 50 former military houses which are in need of repair/replacement.	Investment in essential infrastructure has been completed in recent years including potable water, stormwater, wastewater, electrical reticulation, and a fibre network.	Current zoning makes the site ideal for social housing, expansion of business and tribal activities, sports and recreation, events and food production.
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OUR GOALS

- **100** new homes built (social, private and tribal housing) over the next 2-5years
- **100-150** employment opportunities in housing/construction created
- **30-50** new employment opportunities created in sports and recreation
- Training hub for rangatahi in horticulture developed
- **20-25** employment opportunities linked to nursery expansion.


LINKS TO GOVERNMENT PRIORITIES

- Supporting Maaori and Pasifika aspirations
- Building a productive nation
- Transforming the economy



TE PAA WHAKAWAIRUA

Our Whakatupuranga 2050 vision is that our 68 marae are self-sufficient in all ways. Our focus is to support marae to identify their aspirations and provide resources which will allow them to map their own pathways forward to achieve their vision for mana motuhake. This must be led and directed by marae, and where required supported by Waikato-Tainui and external partners. Te Paa Whakawairua is our approach to this (previously Oranga Marae) and has been adopted to reflect our Waikato-Tainui centric approach and model.



OUR CONTEXT

Marae can and are vibrant hubs which serve to support the wellbeing of their wider communities	Examples of marae providing essential services and supports in times of crisis are well-known throughout New Zealand	There are 68 Marae that affiliate to Te Whakakitenga o Waikato	Empowering marae communities to determine, design and drive their way forward is a key aspiration of Waikato-Tainui	Supporting marae connectedness and access to broader supports will help support their success
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OUR GOALS

- 15 marae have completed strategic plans
- All marae supported with Health and Safety guidelines (COVID-19)
- 5 marae restoration projects are supported
- Key suite of resources/initiatives developed to support capability and capacity building
- Stocktake completed of key cultural talent/bastions

LINKS TO GOVERNMENT PRIORITIES

- Supporting Maaori and Pasifika aspirations
- Building a productive nation
- Transforming the economy



Ka hua ahau i te whatitiri e whakatupuru nei
Ki runga i te rangi
Ka ore ko te unuhanga o te taniwha i te rua

Ka ngaue, ka ngaue
Ka ruu te whenua, ka mate te marama
Ka taka ngaa whetuu o te rangi
ka ara te iwi i te rua

The thunderous rumbling from above
awakens the spirit of our taniwha deep within their hollows
A sense of grief, despair and disparate impact test our resilience
It is the impetus for the resurgence of our people

TWAIKATOI
TAINUI

Council Report

Committee: Environment Committee **Date:** 02 March 2021
Author: Charlotte Catmur **Authoriser:** Sean Hickey
Position: Sustainability and Environment Advisor **Position:** General Manager Strategy and Communications
Report Name: Waikato Region Council Climate Action Roadmap

Report Status	<i>Open</i>
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Purpose - *Take*

1. To inform the Environment Committee on the Climate Action Plan and associated climate change programme at Waikato Regional Council.
2. Blair Dickie, Principal Strategic Advisor from Waikato Regional Council will present a verbal report.

Staff Recommendation - *Tuutohu-aa-kaimahi*

3. That the Environment Committee receives the verbal report.

Background - *Koorero whaimaarama*

4. Waikato Regional Council approved their Climate Action Roadmap in late 2020. The Plan includes nine pathways for their response:
 - Coastal resilience
 - Agriculture and soils
 - Water is life
 - Habitat restoration and planting
 - Future of transport
 - Sustainable investment
 - Biodiversity and biosecurity
 - Drainage and flood management
 - Energy
5. The Climate Action Roadmap is **Attachment 1**.

Attachments - *Ngaa taapirihanga*

Attachment 1 - Waikato Regional Council Climate Action Roadmap



A discussion
Help us create a better tomorrow
Āwhinatia, hei āpōpō ka pūāwai ai

We're making a stand for a climate resilient Waikato

Te takatū o Waikato rohe



Here's why Koinei te take

The Waikato region is already experiencing the effects of our changing climate. The changes present risks to our economy, our people, our property and our environment.

Drought and extreme storm events are increasingly affecting the primary sector, upon which the Waikato economy depends.

Dairying and agricultural biotechnology are key drivers of our regional economy, with aquaculture, forestry and horticulture also important. The changes that affect primary production will impact on the city and towns that have grown around these industries. Town and country need each other. There is a clear interdependency between the primary sector and those working in manufacturing, retail, transport, research, and professional and trade services.

Many communities are already feeling the effect of water restrictions on their business and domestic use, and many will face increased fire risk. Low water flows

during times of drought impact the ability to generate power through our hydro schemes and the health of our river ecosystems.

More frequent and increasingly extreme storms, increased rainfall events and rising tides will test our coastal communities, infrastructure, roads, rail and communications networks. Our native animals and plants will become increasingly vulnerable, particularly if rates of change are faster than they can adapt.

Collectively, we need to adapt to these changes so we can continue to thrive economically and socially. But more importantly, we need to tackle the root cause of the problem – we need to reduce our greenhouse gas emissions.

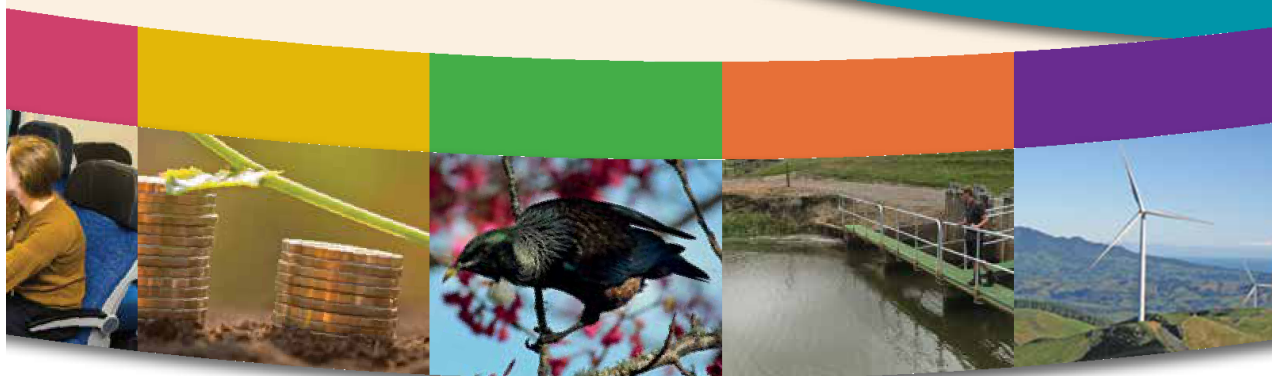
We're all in this together – he waka eke noa.

HOW WE'LL DO IT

Waikato Regional Council has identified nine pathways to reduce emissions and adapt to the changes we're already experiencing. All pathways are important and depend on the sustained engagement of all sectors of society working collaboratively toward mutually agreed targets.

THE NEXT STEPS

Our council is committed to working with iwi partners, businesses, industry sectors, infrastructure providers, local and central government and others to come up with agreed solutions for a more inclusive, productive and climate resilient economy.



Our roadmap at a glance

Tirohanga mahere

See page **6**

THE GLOBAL CONTEXT

- ▶ In 2018, the Intergovernmental Panel on Climate Change released a special report on the impacts of global warming to 1.5°C above pre-industrial levels. The aim was to strengthen the global response to the threat of climate change, sustainable development and efforts to eradicate poverty.
- ▶ Understanding of climate change has shifted from being an environmental problem to one that also threatens financial systems and economic security.

See page **8-9**

NEW ZEALAND'S POLICY RESPONSE

New Zealand has committed to the Paris Agreement to:

- ▶ help limit global warming to well below 2°C above pre-industrial levels
- ▶ pursue efforts to limit the temperature increase to no more than 1.5°C.

See page **11**

EMISSIONS IN THE WAIKATO REGION

- ▶ Our per capita net emissions are nearly 30 per cent higher than the national average (14.8 v 11.6 tonnes CO₂e per capita).
- ▶ Our high emissions economy means our region may be more exposed to the impacts of government policies to reduce emissions.

- ▶ **Agriculture – generates 69 per cent of our regional emissions.**
- ▶ **Transport – currently makes up 16 per cent of our emissions but is the fastest growing regional emissions source.**
- ▶ **Forestry – removes about 44 per cent of the Waikato's carbon by habitat restoration and tree planting.**

We need to reduce emissions to minimise the significant adaptation costs and risks our communities will experience, and we need to do it urgently.

See page **8-9**

OUR COUNCIL'S ROLE AND THE WAY WE WORK

- ▶ We are a signatory to the Local Government Leaders' Climate Change Declaration.
- ▶ We 'walk the talk'.
 - We achieved a 30 per cent reduction in our own corporate emissions in two years.
 - Our ambition is to have a 70 per cent reduction by 2030.
- ▶ We set up the Climate Action Committee to take a leadership role in facilitating collaborative action, community engagement and communication. This roadmap is a first step.
- ▶ Climate is a priority of our 10-year strategy.



This roadmap identifies nine clear pathways that represent both the biggest challenges and opportunities.



Roadmap pathways

Ngā ara o te mahere



- 1 Coastal resilience | He takutai mārohirohi**
To reduce the risk of climate-exacerbated natural hazards on the coastal environment and communities, and manage the impacts of sea level rise.
- 2 Agriculture and soils | Ahuwhenua me te whenua haumako**
To work with the agricultural sector to develop integrated approaches to reduce emissions, increase biodiversity and improve water quality.
- 3 Water is life | He oranga te wai**
To ensure fresh water is valued and communities understand how to make the most of every drop using smart ways to capture, store, use and recycle water.
- 4 Habitat restoration and planting | Whakaoranga kāinga, whakatupu rākau**
To proactively identify areas for restoration and planting that will deliver climate-related benefits, provide the best return for freshwater quality and habitat for native species, and support community resilience and safety.
- 5 Future of transport | Te aronga waka**
To reduce the exposure of the sector to the increasing costs of carbon emissions and enable the transition to low emission transport fuels in a changing climate.
- 6 Sustainable investment | He tauwhiro penapena pūtea**
To support investments that are underpinned by sustainability principles and reduce investments with high climate change risk exposure.
- 7 Biodiversity and biosecurity | Rerenga rauropi, tiakitanga taiao**
To apply strategies to improve biodiversity at risk from climate change, reduce pest incursion and expansion, and support inter-regional and central government commitment.
- 8 Drainage and flood management | Ngā awakeri me te whakahaere waipuke**
To determine the extent to which current infrastructure and flood protection schemes are fit for purpose and respond accordingly.
- 9 Energy | Pūngao**
To facilitate access, development and use of renewable energy sources within the region and displace the need for non-renewable energy resources.



ADAPTATION



Climate resilient communities

MITIGATION



25% emissions reduction by 2030

On the road to net-zero emissions by 2050

See page **19**

THE TOP FIVE EXPLAINED

Coastal resilience

Coastal inundation and erosion already occur in many places and impacts worsen under king tide and storm events. Coastal flooding is currently a risk to 8000 Waikato people, \$1.46 billion worth of buildings and 540 square kilometres of productive land. A rise in sea level of 1 metre is projected by the end of the century and considered appropriate for coastal hazard planning purposes. This rise in sea level will mean present day 1-in-100-year extreme sea level events will happen hundreds of times a year and impact on more than 11,000 residents, \$2.2 billion worth of buildings and 630 square kilometres of productive land.

Agriculture and soils

Farming generates 69 per cent of the region's emissions. The most significant contributor is methane, which makes up 56 per cent of the region's overall emissions. Most of the methane comes from ruminant farm animals, mainly due to natural digestive processes. While the answers to reducing agricultural methane are still being researched, the management of soils is important for maintaining carbon stocks. Soil is a carbon store. Soil erosion is a natural process but is greatly accelerated by the removal of vegetation and inappropriate land use. Removing stock from unproductive land and planting out those areas will help reduce erosion during high intensity rainfall events and offset emissions from farming.

Water is life

The frequency, location and intensity of rainfall will change, and this will be different across the region. Some areas will get less rainfall overall, but when the rain does come it will be a quick and intense storm event. This means waterbodies will spend more time in drought conditions, with implications for the availability of water and water quality. This presents challenges in the allocation of water into the future.

Habitat restoration and planting

Trees remove carbon dioxide from the air, store carbon and release oxygen. Native and production forestry in the Waikato sequesters more than 40 per cent of our region's gross emissions. Therefore, planting more trees and establishing new forests – the right tree in the right place – is our biggest opportunity in reducing our carbon footprint. It not only delivers the benefit of carbon sequestration, but it also gives diverse environmental and social benefits such as habitat for native biodiversity, erosion control, flood mitigation and improved water quality.

Future of transport

As our population increases, so too do our transport emissions. Technologies are available to reduce these emissions, such as electric or low-emissions vehicles, and we need to do more to influence the uptake of them by individuals and by passenger transport services. Replacing fossil-fuelled vehicles with electric vehicles will reduce emissions immediately. Also, we can do more to encourage walking and cycling. Extreme weather events and rising sea levels will subject our transport networks to more frequent road closures from flooding, landslides and coastal inundation.



5

Background

Tāhuhu kōrero

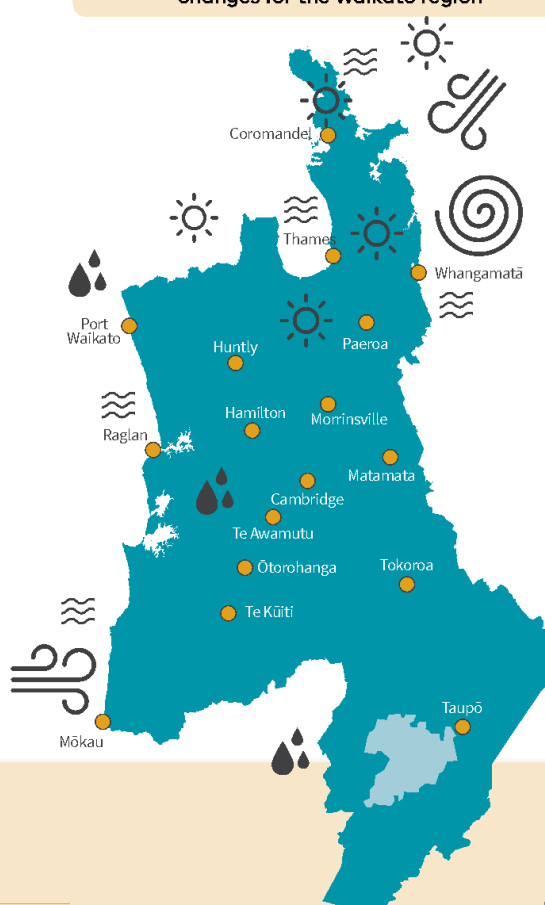
Globally, the understanding of climate change has shifted from a perception of an environmental problem to one that is recognised as a threat to financial systems, economic security, and national and international security. Projections for local climatic changes present significant implications for our environment, the economy and safety of our communities.

In 2018, the world's leading climate scientists released a report through the Intergovernmental Panel on Climate Change (IPCC). In it, they warned of a 12-year window for global warming to be kept to a maximum of 1.5°C, beyond which even half a degree would significantly worsen the risks of drought, floods, extreme heat, and poverty for hundreds of millions of people.¹

The report highlights a number of climate change impacts that could be avoided by limiting global warming to 1.5°C compared to 2°C, or more. For instance, by 2100, global sea level rise would be 10 centimetres lower and the likelihood of an Arctic Ocean free of sea ice in summer would be once per century compared with at least once per decade.

For New Zealand, future projections show a warmer, wetter and windier climate, with more extreme daily and seasonal variation and inconsistent geographic effects. Over the next century,² the Waikato region can expect rising sea levels, more extreme weather, warmer summers and milder winters with seasonal rainfall shifts.³ It is projected that the drought risk will increase in the north and east over spring and summer, and there may be seasonal changes in rainfall and wind in the west. These climatic changes have implications for local communities, many of which are located along the coast or in floodplains.

Summary of projected climate changes for the Waikato region



- Warmer. Increased drought.
- Increased rainfall intensity.
- Increasing sea levels.
Increased storm surge.
- Increased westerly winds (winter and spring).
Increased north easterly winds (late summer and autumn).
- Increased tropical cyclones.

¹ IPCC, 2018, Global Warming of 1.5°C, an IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty; Summary Report for Policymakers. Geneva, Switzerland: IPCC <https://www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/>

² Projections are nominally referred to as occurring over the next century, but some changes are recognised to occur beyond this due to time lags in natural systems. An example is the ongoing expectations of sea level rise over coming millennia.

³ Waikato Regional Council TR 2015/26 An assessment of the impacts of climate change in the Waikato region: Applying CMIP5 data link: <https://www.waikatoregion.govt.nz/services/publications/tr201526/>

Current policy response and targets

Ngā whakautu ā-mohoa nei ki ngā kaupapa here me ōna whāinga

PARIS AGREEMENT

In October 2016, the New Zealand Government ratified the Paris Agreement. The Paris Agreement is an international commitment to limit global warming to well below 2°C above pre-industrial levels, and to pursue efforts to limit the temperature increase to no more than 1.5°C.⁴

The Paris Agreement differs from previous international treaties and conventions in that it emphasises processes rather than defined outcomes. It requires signature countries to communicate their commitment. In addition, countries must make an effort towards progress and report on this every five years.⁵ They must also develop plans to address climate adaptation, as

well as mitigation, with the understanding that global emissions will need to peak as soon as possible to achieve the goal of net-zero emissions by mid-century. There are 196 countries which are party to the agreement. For global warming to remain below 2°C, emissions reductions of 60-80 per cent by 2050 must be achieved.

The Climate Change Response Act⁶ provides a framework for New Zealand to contribute to the global effort under the Paris Agreement. The Climate Change Response Act and associated regulations are the Government's principal response to managing climate change.

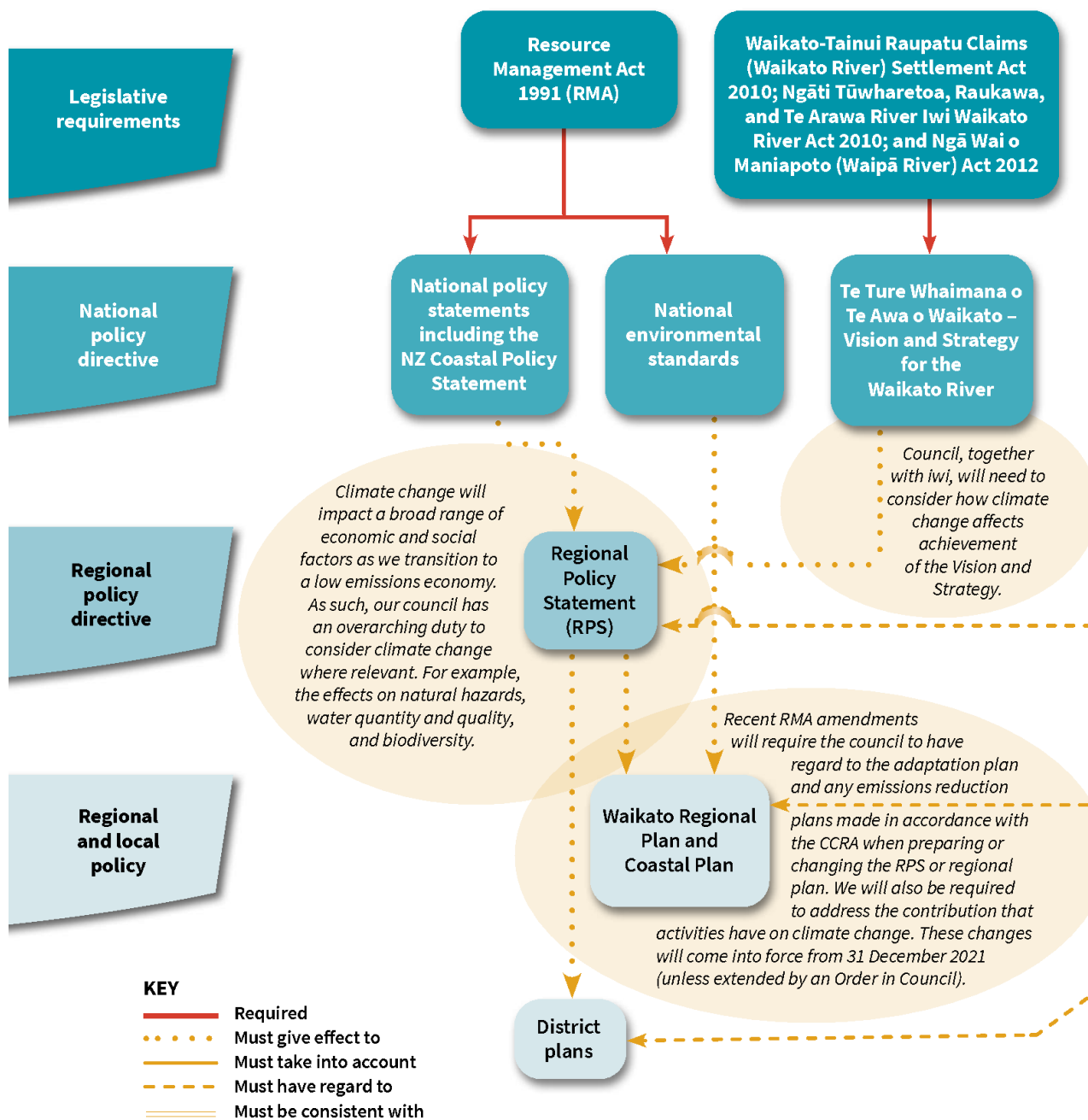
⁴ United Nations. 2015. Paris Agreement. Paris: United Nations <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

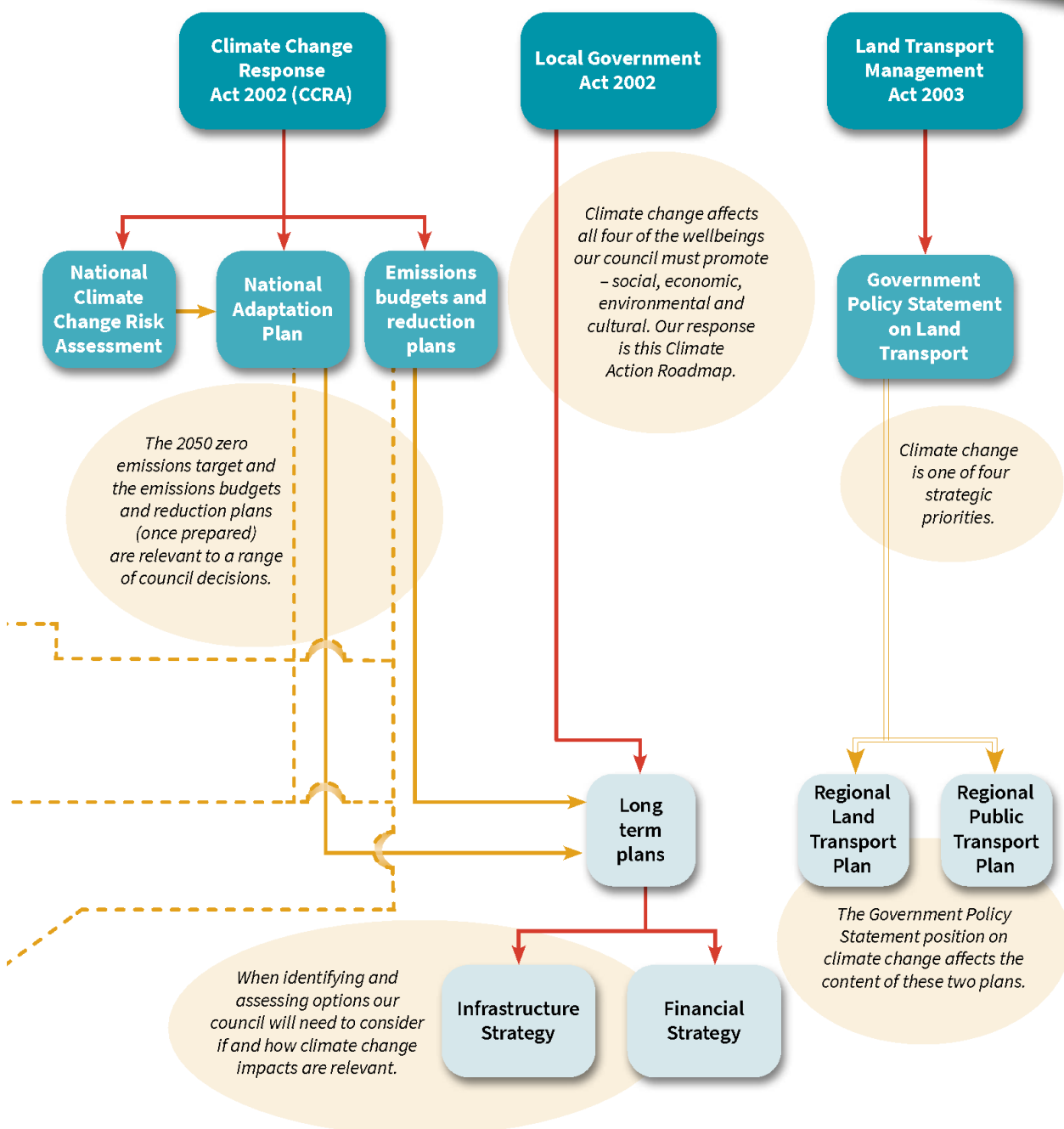
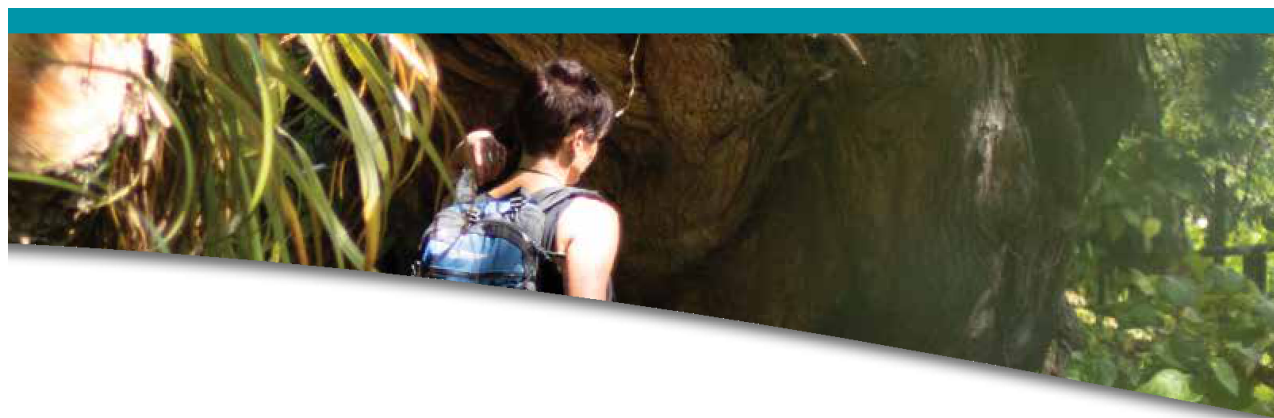
⁵ Harvey H. Orris R. Rissman J. 2018. Designing climate solutions: A policy guide for low carbon energy. Washington: Island Press <https://www.energypolicy.solutions/guide/>

⁶ New Zealand Government. 2002. Climate change response act. Wellington: Parliamentary Counsel Office <http://www.legislation.govt.nz/act/public/2002/0040/latest/DLM158584.html>



HOW LEGISLATION GUIDES OUR CLIMATE RESPONSE





Emissions in New Zealand

Ngā puha i Aotearoa

“When we look at the pathway to zero net emissions by 2050, there are two things that stand out ... firstly, we have a long way to go, but secondly, that the scale of what is required goes beyond what current policies will achieve.”

Honourable James Shaw, Minister for Climate Change, April 2020

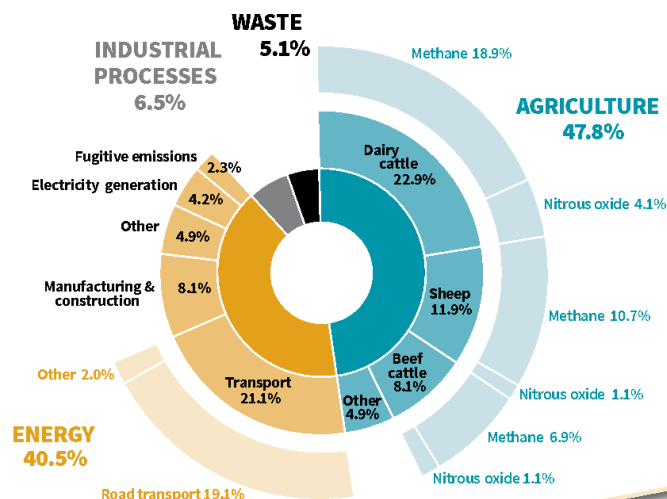
New Zealand's Greenhouse Gas Inventory is the official annual report of greenhouse gas emissions in New Zealand. The most recent inventory contains all major emissions trends from 1990 to 2018.⁷ Between 2017 and 2018, net emissions fell by 3 per cent. However, between 1990 and 2018, net emissions rose by 57.2 per cent. The main net emission sources were:

- ▶ enteric fermentation from dairy cattle (methane)
- ▶ fuel use in road transportation (carbon dioxide)
- ▶ harvest of forest
- ▶ land converted to forest.

In 2018, gross emissions decreased by 1 per cent compared to 2017 levels. However, since 1990, New Zealand's gross emissions increased by 24 per cent (15.3 million tonnes CO₂e), with an average

annual growth of 0.7 per cent. Energy, industrial and agricultural sectors increased by 34 per cent, 44 per cent and 17 per cent, respectively. Within the agricultural sector, livestock emissions increased 8 per cent and agricultural soil emissions increased 56.7 per cent. The five main gross emission sources were:

- ▶ enteric fermentation from dairy cattle (methane)
- ▶ fuel use in road transportation (carbon dioxide)
- ▶ agricultural soils from increased fertiliser use (nitrous oxide)
- ▶ industrial and household refrigeration and air-conditioning systems from increased use of hydrofluorocarbon-based refrigerants that replaced ozone depleting substances (fluorinated gases)
- ▶ manufacturing industries and construction (carbon dioxide).



**New Zealand's
greenhouse gas
inventory 1990-2018⁸**

⁷ Ministry for the Environment, 2020. New Zealand's Greenhouse Gas Inventory 1990-2018: Fulfilling reporting requirements under the United Nations Framework Convention on Climate Change and the Kyoto Protocol. Wellington: New Zealand Government. <https://www.mfe.govt.nz/sites/default/files/media/Climate%20Change/new-zealands-greenhouse-gas-inventory-1990-2018-vol-1.pdf>

⁸ Note, percentages in the graph may not add up to 100 due to rounding

Emissions in the Waikato region

Ngā puha i te rohe o Waikato

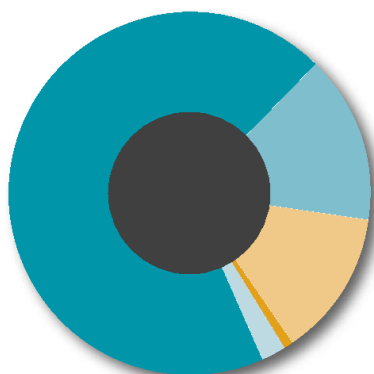
The emissions profile of the Waikato region identifies key opportunities to focus reduction efforts on agriculture and transport, and considers options for maintaining or increasing carbon removal potential through forestry.

On a per capita basis, the Waikato's gross emissions are significantly higher than the national average.⁹ This means that future government policy initiatives to reduce greenhouse gases will impact greatly on the Waikato as a whole.

The first baseline greenhouse gas emissions inventory for the Waikato region was prepared in 2017 and covered the 2015/16 financial year.¹⁰ It followed the methodology outlined by the World Resources Institute.¹¹ It was repeated in 2018/19. The most recent data indicates that activities within the region generated approximately 12.6 million tonnes CO₂e. When forestry is included, the total net emissions for the region was 7.1 million tonnes CO₂e.¹²

The emissions profile of the Waikato region identifies key opportunities to focus reduction efforts on agriculture, particularly methane emissions reduction as it composes about 70 per cent of agricultural emissions,¹⁴ and transport/energy use in the metro centre of Hamilton. Emissions from pastoral soils (unmeasured) could be a more significant focus in agriculture in the short term, and the region may also consider options for maintaining or increasing carbon removal potential (forestry).

Total gross emissions by source (excluding forestry) in the Waikato region for 2018/19¹³



- 69% Agriculture
- 16% Transportation
- 13% Stationary energy
- 1% Industry
- 2% Waste

QUICK FACTS

- ▶ Waikato region's per capita net emissions are approximately 30 per cent higher than the national average (14.8 v 11.6 million tonnes CO₂e per capita).
- ▶ Agricultural activities generate 69 per cent of all emissions.
- ▶ Waikato region's per capita agricultural emissions are more than twice the national average (18.2 v 7.9 million tonnes CO₂e per capita).
- ▶ The forestry sector removes about 44 per cent of the Waikato's total gross emissions, more than double the national per capita average (-11.7 v -4.9 million tonnes CO₂e per capita).
- ▶ Most carbon sequestration comes from exotic forest.

⁹ Stancu C, Marquart M. 2020. Waikato region greenhouse gas emissions inventory - For the period July 2018 to June 2019. Prepared by EnviroStrat Ltd and AECOM April 2020.

¹⁰ Stancu C, Marquart M. 2017. Waikato Region greenhouse gas inventory - July 2015 to June 2016. Auckland: Prepared for Waikato Regional Council by Envirostrat and AECOM. <https://www.waikatoregion.govt.nz/assets/WRC/WRC-2019/TR201731.pdf>

¹¹ World Resources Institute. 2014. Global protocol for community-scale greenhouse gas emission inventories: An accounting and reporting standard for cities, USA: World Resources Institute https://ghgprotocol.org/sites/default/files/standards/GHGP_GPC_0.pdf

¹² GHG Inventory Waikato Region: Emissions Summary - Detail 2018/19

¹³ Note, percentages in the graph may not add up to 100 due to rounding

¹⁴ The GHG Emissions Inventory follows the Global Protocol for Community Greenhouse Gas Emissions Inventory (GPC) that relates the Global Warming Potential of enteric methane to carbon dioxide over 100 years (GWP100) and does not differentiate between the warming effects of long and short-lived gases (GWP*)

Agriculture – a regional strength and an opportunity

The Waikato is one of the most productive agricultural regions in New Zealand. Dairy and meat products make up nearly 60 per cent of the Waikato's international exports. Most of the towns in the Waikato are highly dependent on agriculture for their economic sustainability. We all have an interest in the enduring success of our primary industries.

Dairy farming is dominant. It was recently estimated that the Waikato has 3249 dairy herds – about 26 per cent of the total herds in New Zealand – and, economically, dairying brings in \$2.95 billion each year to the region along with employing about 10,000 people.

Fonterra is the main processor for milk produced in the region and has factories in Waitoa, Morrinsville, Te Awamutu, Litchfield, Te Rapa, Hautapu and Tirau, and other processors include Open Country Dairy, Tatua, Synlait and Miraka.

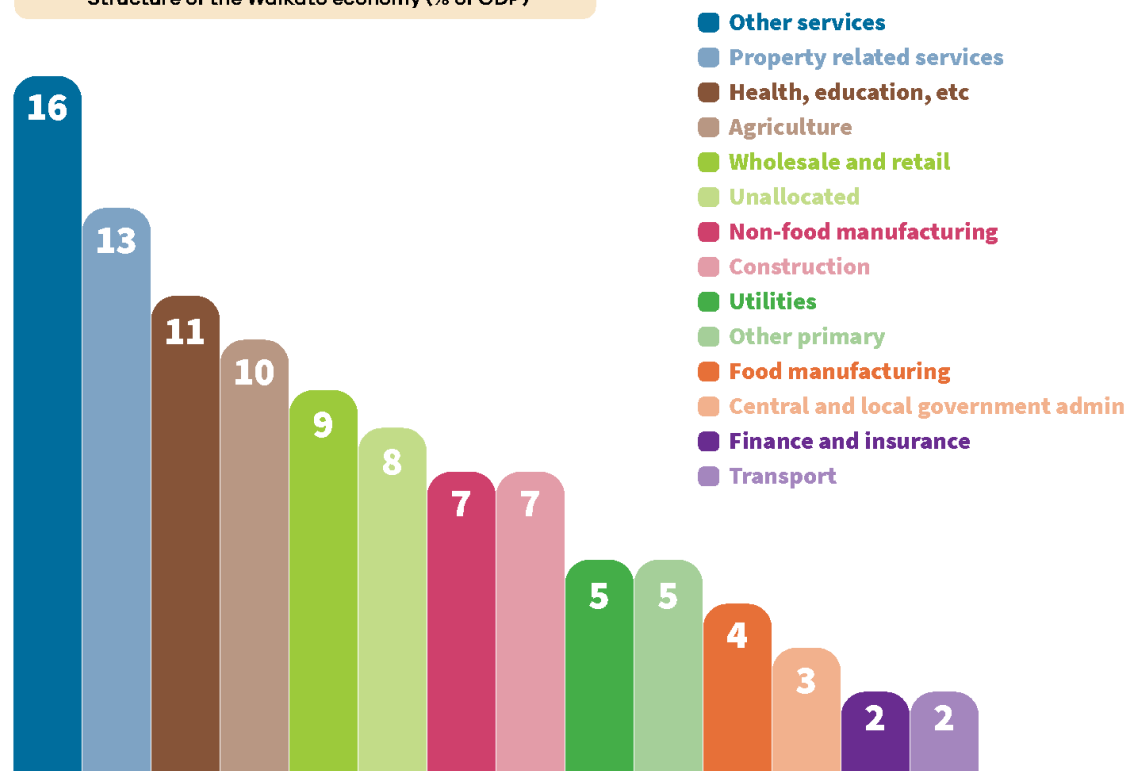
The agricultural sector also includes sheep, beef and goat farming, horse breeding and horticulture. Vegetable growing, which used to be centred around

Pukekohe, has expanded and shifted south to the Matamata area. Balle Bros, a dominant grower, alone grows and processes 3000 hectares of vegetables.

Those working in agriculture fully appreciate that weather patterns are changing, as this affects their livelihood. New technologies and improved genetics are being developed to reduce emissions. Farmers are already changing traditional management systems and learning to work with a changing climate. They are also planting a significant number of trees, protecting existing forest lots and creating and protecting wetlands. Many already have farm environment plans. Recent legislation has mandated all farmers to implement such plans.

Actions arising from the *Climate Action Roadmap* will be developed with those in the agriculture sector such as He Waka Eke Noa, the group leading the primary sector's response to climate change.

Structure of the Waikato economy (% of GDP)



The way we work

Te ahua o ā mātou mahi

Community-led action

We encourage communities to take action. It all starts with locally owned visions and goals.

Constructive leadership

We will create the right environment for our staff to be their best.

Effective partnerships

Collective effort through regional collaboration and strong partnerships helps us achieve more for our region's communities.

Embracing te ao Māori

Incorporating te ao Māori into the work we do strengthens our ability to work more meaningfully with Māori.

Financial responsibility

What we do needs to add value and be affordable for our communities.

Information led

Accessible and easy to understand data and information is key to good decision making – for us and you.

Managed change

Any change we make will be forward thinking, well considered and based on credible data.

Striking the balance

We need to balance economic prosperity with environmental and community standards and expectations.



Walk the Talk

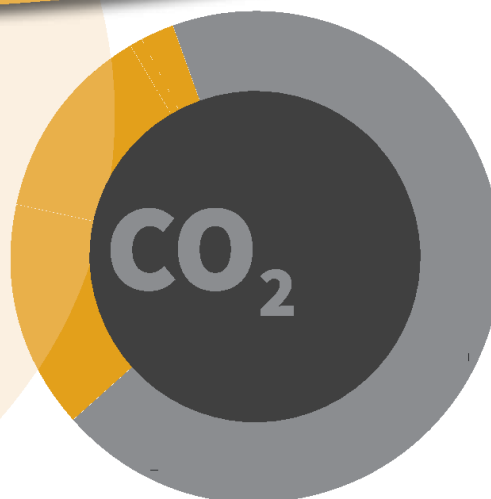
Our Toitū carbonreduce™ plan

We produced

30% LESS

2018/19 compared to 2016/17 (base year)

The weather has helped. Having less rainfall means our flood pumps haven't been working so much, thereby saving electricity.



Our Toitū carbonreduce™ plan

When we started our Toitū carbonreduce™ plan, the aim was to achieve a 45 per cent reduction in carbon dioxide by 2030 (from a base year of 2016/17) and be net-zero by 2050. However, in 2018/19, our CO₂ emissions were 30 per cent lower.¹⁵ Now, our council has endorsed a far more ambitious but achievable greenhouse gas emissions reduction plan for our in-house activities. The new intention is to achieve a 70 per cent reduction by 2030. As a priority, the council will engage sector experts to advise on setting 10-yearly science-based emissions reduction targets¹⁶ for its corporate emissions programme.

Corporate initiatives identified in our plan¹⁷ include but are not limited to:

- ▶ transitioning the corporate vehicle fleet to low and no carbon fuels
- ▶ flexible working arrangements to reduce commuting costs and emissions
- ▶ preference for virtual meetings – reducing travel time and associated emissions
- ▶ preference for attendance at virtual conferences
- ▶ continuous appraisal and refinement of procurements that favour low carbon options
- ▶ preference for low carbon emissions-conscious suppliers of services
- ▶ staff training in low emissions opportunities for behaviour.

¹⁵ Carty-Mellis C. 2019. Emissions management and reduction plan; Toitū carbonreduce and Toitū carbonzero programme 2018-19. Waikato Regional Council. https://www.waikatoregion.govt.nz/assets/WRC/WRC-2019/EMRP_1819_Waikato-Regional-Council_CM-CZ_Org_3.pdf

¹⁶ Science Based Targets: <https://sciencebasedtargets.org/#>

¹⁷ https://www.waikatoregion.govt.nz/assets/WRC/WRC-2019/EMRP_1819_Waikato-Regional-Council_CM-CZ_Org_3.pdf

Reducing emissions and adapting to a changing climate will rely on the sustained engagement of all sectors of society to work collaboratively to achieve mutually agreed targets.

We are committed to addressing climate change and taking action to help position the Waikato for the future. In July 2017, the regional council became a signatory to the Local Government Leaders' Climate Change Declaration.¹⁸ The declaration:

1. acknowledges the importance and urgent need to address climate change for the benefit of current and future generations
2. gives support to the New Zealand Government for developing and implementing, in collaboration with councils, communities and businesses, an ambitious transition plan toward a low carbon and resilient New Zealand
3. encourages the Government to be more ambitious with climate change mitigation measures
4. outlines key commitments our councils will take in responding to the opportunities and risks posed by climate change
5. recommends important guiding principles for responding to climate change.

Since then, Waikato Regional Council has reduced its corporate CO₂ emissions as part of the Toitū carbonreduce™ scheme, made climate a priority of its 10-year strategy 2020-2030¹⁹ and set up the new Climate Action Committee.

Councillors have agreed unanimously that an assessment of climate change implications must be included in all reports to council for decision making, so we are developing guidelines to help staff. This will include an online carbon emissions calculator.

The types of decisions include, but are not limited to:

- ▶ procurement
- ▶ the way infrastructure is designed and operated
- ▶ land use planning
- ▶ engagement and collaboration with the community
- ▶ partnerships with external organisations
- ▶ internal decision making processes, frameworks and strategies designed to promote organisation-wide behavioural change.

We are committed to the *Waikato Plan*, developed by the region's leaders to address the challenges of the Waikato, which recommends the development of "a comprehensive climate change response strategy".²⁰

The development of this roadmap is an important first step in formulating a regional response to climate change.

The *Climate Action Roadmap* identifies the pathways where the greatest gains can be made – by the regional council and in collaboration with other organisations and stakeholders.

¹⁸ Local Government New Zealand. 2017. Local Government Leaders' Climate Change Declaration. Wellington: LGNZ <https://www.lgnz.co.nz/assets/Uploads/0827d40e5d/Climate-Change-Declaration.pdf>

¹⁹ The Waikato Strategy, <https://www.waikatoregion.govt.nz/assets/WRC/WRC-2019/AboutUs/5048-WRC-10-Year-Brochure-WEB-2.pdf>

²⁰ The *Waikato Plan*. 2017. *Waikato Plan: Building champion communities, together*. pp.83 <https://www.waikatoplan.co.nz/assets/Waikato-Plan/About-the-plan-/Waikato-Plan-full.pdf>

COMMUNITY AND SECTOR ENGAGEMENT

Successfully adapting to climate change will require fundamental shifts in the way we think and where we live.

Community engagement is key as the effects of a changing climate will have a raft of implications for coastal, rural and urban communities and businesses. Across the region we can expect more frequent flooding, coastal inundation and drought. Climate change will affect our communities not only economically but also socially, with implications for physical health and mental wellbeing.

Adaptation and mitigation are key components to creating resilient communities. Put simply, climate mitigation is about reducing carbon emissions while adaptation is about water – too much, too little – and working to reduce the negative effects.

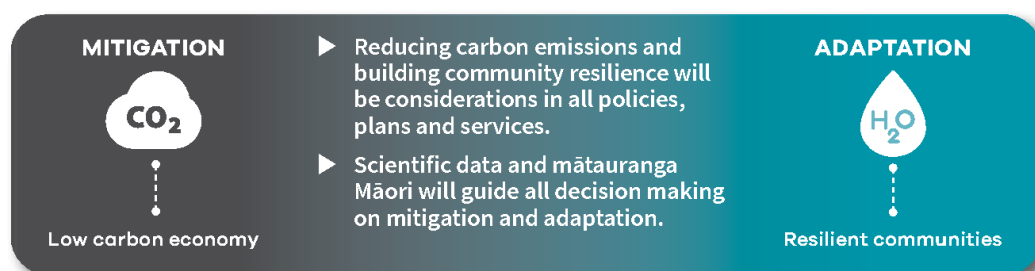
Often, mitigation is not difficult to explain or for people to adopt as it can demonstrably save money, for example, turning lights and computers off when not in use or having an electric vehicle rather than relying on fossil fuels. However, effective mitigation requires nationwide and multi-agency alignment, not just community-focused communications. We all need to be on the same page to make our actions become second nature.

Adaptation, on the other hand, challenges the status quo and constrains some current activities. It involves taking practical actions that may be hard to accept right now to manage future risks from climate impacts, protect communities and strengthen the resilience of the economy. It is often hard to explain to communities – especially if they have their own potential solutions for impacts – and often it involves regulation.

Adaptation focuses on local action and will require community engagement at a local level. Some communities and individuals will be affected by coastal inundation, some by flooding, some by the effects of drought, and some by a combination of all three – the perfect storm. Others may be affected by seemingly benign conditions that are below what could be considered hazardous but could create economic impacts, such as an increase in the population and range of pest species.

The regional council will concentrate on the following engagement principles to foster community climate adaptation:

- ▶ the building of shared values
- ▶ using people's experiences to understand need
- ▶ developing solutions with communities and stakeholders based on evidence and values
- ▶ strengthening society networks.



Community funds

The regional council has a variety of contestable funds for regional services and development, environmental restoration and protection, and education. There is an opportunity for the criteria of these funds to be reviewed to favour projects that have a demonstrated ability to increase resilience to climate change impacts. In environmental restoration, for instance, this could be accompanied by an evaluation tool to help assess the most climate-proofed projects and projects that contribute to positive carbon sequestration performance, for example, the creation of wetlands and planting of trees instead of shrubs.

Partnerships with Māori

Hononga ngātahi

Whatungarongaro te tangata toitū te whenua. (As people disappear from sight, the land remains.) It is beholden on us to work together towards a sustainable economic future for the generations to come.

Since arriving in Aotearoa some 700 years ago, Māori have acquired mātauranga (knowledge) of the environment and its habitats through lived experiences, observation, and a holistic system of orally passed knowledge, concepts, beliefs and practices.

This can be explained through whakapapa (genealogical links), manifesting itself in the belief that people, water and land are interdependent on one another and where effects are not considered in isolation but rather across the entire system.

Māori responses to climate change are therefore holistic and long term, and draw on mātauranga Māori perspectives to assess the problems and determine sustainable solutions. For the council, this understanding will guide our work with iwi and Māori organisations to frame climate change risks, adaptation and mitigation.

We already have co-management roles and partnerships with Māori that recognise and provide for this understanding. One example is the *Vision and Strategy for the Waikato River*²¹ – a multi-iwi and multi-agency partnership approach to restoring the health and wellbeing of the river.

The Climate Action Committee has committed to consider both Western science and mātauranga Māori perspectives when informing strategic leadership on climate change mitigation and adaptation in the Waikato region.²² The Regional Partnerships Committee also provides a forum with iwi partners to discuss climate change.

Climate change and the Māori economy

Economic wellbeing and environmental wellbeing are intertwined. The regional Māori asset base is over \$6 billion – approximately 15 per cent of the national collective Māori asset base. This asset base is mostly made up of primary industries (60 per cent), including property, energy, agriculture, forestry and fishing industries. As a result of the significant proportion of investment in the primary industries, a lot of research is being done on climate change impacts and opportunities for iwi, hapū, whānau and Māori business.



Over generations, Māori have built up lived experiences and an understanding of the natural environment which will influence how we prepare for, respond to, and recover from the impacts of climate change.

CLIMATE CHANGE RISKS AND THEIR SIGNIFICANCE TO MĀORI

It's about building resilience and readiness at whānau, marae, hapū and iwi levels.

The following risks associated with climate change have been identified by Māori as being of significance.²³

- ▶ Risks to Māori social, cultural, spiritual and economic wellbeing from loss and degradation of lands and waters, as well as cultural assets such as marae, due to ongoing sea level rise, changes in rainfall and drought.
- ▶ Risks to Māori social, cultural, spiritual and economic wellbeing from loss of species and biodiversity due to greater climate variability and ongoing sea level rise.
- ▶ Risks to Māori and European cultural heritage sites due to ongoing sea level rise, extreme weather events and increasing fire weather.

- ▶ Risk of a breach of Treaty obligations from a failure to engage adequately with and protect current and future generations of Māori from the impacts of climate change.
- ▶ Risks of exacerbating existing inequities and creating new and additional inequities due to differential distribution of climate change impacts (Māori are already disproportionately represented among vulnerable groups such as low-income families).

The council recognises how these risks could potentially affect Māori interests, kawa (protocols) and tikanga (cultural practices), as well as diverse expressions of mana (authority, dignity, influence, governance) and kaitiakitanga (inherited guardianship of resources for intergenerational sustainability).

For this reason, Māori contribution and input to the council's response to climate change is a critical component of a future-focused and resilient Waikato region. It provides for collective action and mutually developed solutions to protect our region's unique way of life.

IWI AND HAPŪ RESPONSE TO CLIMATE CHANGE

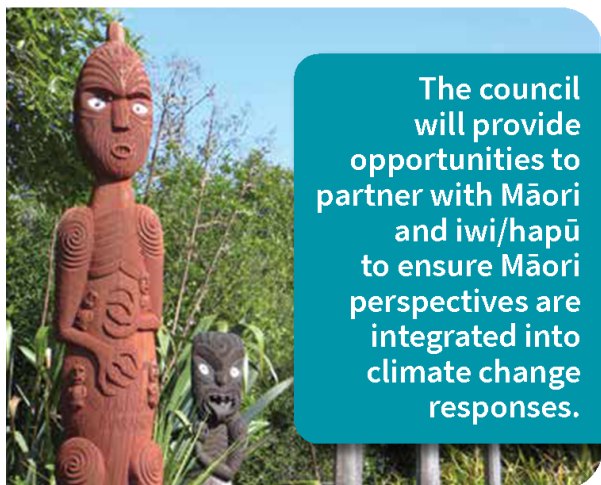
Many iwi/hapū already consider climate change in their environmental management plans or are developing their own climate change plans and strategies.

Waikato-Tainui want to be early adapters in the transition to a low emissions economy and to be in a position to influence climate legislation.²⁴

The iwi authority is preparing an iwi wide strategy which recognises climate change as a key factor. Also, the Waikato River Authority is pursuing the challenge of climate change and further leveraging the *Vision and Strategy for the Waikato River* for the wellbeing of future generations.

Te Urunga o Kea: Te Arawa Climate Change Working Group is co-developing a Te Arawa Climate Change Strategy with Scion using mātauranga as the dataset, along with other climate data to identify and address short, medium and long-term needs, and respond to the challenges and opportunities of climate change.

Raukawa, Maniapoto, Hauraki and Tūwharetoa iwi environmental management plans identify climate change as a significant issue. What is common in each of these planning documents is the need for iwi to be further informed about the cause and effect of climate change on the natural environment, so those effects are understood and managed. They have also signalled their desire to be involved in the review, development and implementation of strategies and policy related to climate change.



The council will provide opportunities to partner with Māori and iwi/hapū to ensure Māori perspectives are integrated into climate change responses.

²¹ The Vision and Strategy for the Waikato River and joint management agreements with Raukawa, Te Arawa river iwi, Ngāti Maniapoto and Waikato-Tainui.

²² Waikato Regional Council Climate Action Committee. 2020 Climate Action Committee: Open Agenda.

²³ National Climate Change Risk Assessment for New Zealand | Arotakenga Tūrarau mō te Huiinga Āhuarangi o Aotearoa, Ministry for the Environment, August 2020. <https://www.mfe.govt.nz/sites/default/files/media/Climate%20Change/national-climate-change-risk-assessment-main-report.pdf>

²⁴ Leveraging Te Ture Whaimana o Te Awa o Waikato, presentation by Waikato-Tainui, December 2019. <https://waikatoriver.org.nz/wp-content/uploads/2019/12/Updated-CC-Presentation-WRA.pdf>

Roadmap pathways

Ngā ara o te mahere



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Coastal resilience

He takutai mārohirohi

Coastal inundation occurs when low-lying coastal land that is normally dry is flooded by the sea. As base sea levels rise, and as severe storms happen on a more regular basis, inundation will occur more frequently and cover a larger area.



Coastal erosion is a natural and ongoing process that occurs when the sea wears away the land. Some shorelines undergo short term periods of erosion but then recover (in other words, build out again) while other shorelines may continuously erode with no cycle of recovery.

As sea levels rise, coastal inundation will severely impact on our communities, productive land and infrastructure.

Coastal inundation and erosion already occur in many places, and impacts worsen under king tide and storm events. Coastal flooding is currently a risk to 8000 Waikato people, \$1.46 billion worth of buildings and 540 square kilometres of productive land.²⁵

Based on what is known about greenhouse gas emissions already in the atmosphere, the Intergovernmental Panel on Climate Change has reported more certainty that global sea levels are projected to rise an additional 0.3 metres by 2050,²⁶ and, based on the same scenario, a 1 metre sea level rise is projected by 2100. Such a rise in sea level will mean present day 1-in-100-year extreme sea level events will happen hundreds of times in a year and impact on more than 11,000 residents, \$2.2 billion worth of buildings and 630 square kilometres if current stopbank heights are not increased.²⁷

A planned and considered spatial response is needed to allow the entire region to transition to more resilient places. In many situations, the only long term mitigation action that will eliminate risk from the effects of sea level rise is retreat from existing developed areas prone to inundation and to ensure that all new development and infrastructure address the effects of projected sea level rise. In intensively developed coastal areas or currently productive rural areas such as the Hauraki Plains and Lower Waikato, the socio-economic and cultural implications of retreat is a significant issue and will require careful consideration of transition pathways and timing.

Impact reduction measures such as engineered protection structures could be used to provide a short term respite from the effects of coastal inundation and associated erosion. However, these will only buy time until a long term strategy can be developed, agreed upon and implemented. In many cases the impact of seawalls and stopbanks may cause negative effects on the wider community and are therefore likely to be challenged. There is a need for the region to agree how to manage the cost of retreat, decommissioning and potentially abandoning land or assets due to the unaffordability of protection or maintenance.



Coastal erosion at Port Waikato is threatening the community and infrastructure. Photo: Waikato District Council

The primary land use controls for managing the location, development and expansion of coastal communities rest with the relevant district council under their district plan. However, the *Waikato Regional Policy Statement* provides the opportunity for the regional council to control the use of land for the purpose of decreasing risk from natural hazards (including climate change exacerbated hazards such as inundation by rising sea levels). To date, no primary hazard zones have been identified.

A rational response is to maintain flexibility as to when to act, but to be in a strong position to make changes when the time arrives.

There is real potential for the insurance industry to withdraw from selected parts of the many coastal and river settlements in the region, in the face of climate change risk.²⁸

²⁵ Coastal Flooding Exposure Under Future Sea-level Rise for New Zealand

https://www.deepsouthchallenge.co.nz/sites/default/files/2019-08/20191119WN_DEPSI18301_Coast_Flood_Exp_under_Fut_Sealevel_rise_FINAL%20%281%29_0.pdf

²⁶ IPCC. 2014. Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. Geneva, Switzerland: IPCC <https://www.ipcc.ch/report/ar5/syr/>

²⁷ Coastal Flooding Exposure Under Future Sea-level Rise for New Zealand

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²⁸ Field, A., Hirsch, L., Mills, R., Norgrove, K. (2019). Strategic trends and implications: Waikato Region. Political, economic, social, technological, legal, and environmental analysis. A report prepared for Waikato Regional Council by Dovetail and The Lever Room.



Effects of sea level rise

It's not just coastal inundation we need to worry about. Sea level rise also affects groundwater levels in coastal aquifers.²⁹ This has the effect of:

- ▶ increasing the water table, which may adversely affect the structure, usability and integrity of buried infrastructure, especially relevant to public three waters services and to private septic tanks
- ▶ potentially affecting the foundations of infrastructure such as highways, rail and flood management stopbanks
- ▶ potentially increasing liquefaction risk
- ▶ potentially shifting the position of the freshwater-saltwater interface of rivers, which could increase the area of saltwater inundation
- ▶ increasing the amount of groundwater that may need to be drained from low-lying coastal lands
- ▶ saltwater intrusion into groundwater bores.



Pastures died from coastal inundation following a severe cyclone at Kaiaua in 2018. Many properties and infrastructure were also damaged in the storm surge.

RESPONSE AND COMMITMENTS

The regional council recognises that a whole-of-government approach is essential to ensure an overarching response strategy can be developed which recognises the dynamic nature of risk and the increasing risk associated with our built environment legacy areas. Central government has not yet provided direction.

To reduce the risk of climate-exacerbated natural hazards on developments in the coastal environment, and to ensure alignment with planning controls available to the five coastal territorial authorities, the council is committed to:

- ▶ beginning conversations as soon as possible to develop a clear and actionable risk management policy framework for natural hazards that enables adaptation by stakeholders at all levels
- ▶ applying the central government approach of staged responses defined by clear and agreed trigger points under the Dynamic Adaptive Policy Pathways approach to local coastal issues³⁰
- ▶ engaging with affected communities to co-design opportunities that prevent increased risk (new developments) and reduce existing risk to people and the economy
- ▶ developing plans for locating lifeline services and distribution hubs (for example, food distribution, hospitals, transport, telecommunications, emergency services) and their connecting infrastructure in low hazard areas and towns
- ▶ preventing greenfield developments in areas known to be at high risk from current and future natural hazards
- ▶ monitoring sea level rise and impacts, ensuring the indicative coastal environment boundary is transferred to and mapped at the relevant scale into the five district plans with maps
- ▶ engaging with relevant territorial authorities, affected communities, tangata whenua and stakeholders to develop and agree upon regional natural hazard risk thresholds and responses
- ▶ engaging with central government climate change risk assessment and adaptation response development to ensure regional conditions and interests are included
- ▶ gathering appropriate and relevant hazard information by collating existing information, identifying gaps and agreeing with territorial authorities and communities on prioritised areas for further work.

In March 2016, Waikato Regional Council released the online Regional Coastal Inundation Tool.³¹ The tool allows exploration of inundation in a coastal area of choice by using water depth increments of 0.2 metres. The aim is to initiate community discussion on the implications of future sea level rise and to guide decision making.

29 Masterson J, Garabedian S. 2007. Effects of sea-level rise on ground water flow in a coastal aquifer system. *Groundwater*, 45(2): 209-217. doi: 10.1111/j.1745-6584.2006.00279.x <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.458.171&rep=rep1&type=pdf>

30 <https://www.mfe.govt.nz/sites/default/files/media/Climate%20Change/coastal-hazards-summary.pdf>

31 Waikato Regional Council. Coastal Inundation Tool. Available: <https://coastalinundation.waikatoregion.govt.nz/>

Agriculture and soils

Ahuwhenua me te whenua haumako

The current state of regional soils is a result of geology, climate, vegetation cover, topography, past land use practices and time. Soils can be considered a finite resource as they take thousands of years to develop.



Carbon takes a long time to build up in soils but can be depleted very rapidly through poor crop or pasture management, drought (particularly for peat soils) or erosion following a storm.³³ More work is needed to be able to estimate the emissions from soils as a result of land use, such as pastoral agriculture, horticulture, cropping and forestry.

The agricultural sector is the largest contributor to the region's carbon footprint.

Farming generated 8.6 million tonnes CO₂e in 2018-19, accounting for 69 per cent of the region's emissions. The significant contributor was methane (7.1 million tonnes CO₂e), with most of it coming from ruminant farm animals due to their natural digestive processes. Methane makes up 56 per cent of the region's overall emissions,³² which makes it a significant challenge for the region.

Soil is the second largest carbon store or sink after the ocean. Soils contain twice as much carbon as there is in the atmosphere and three times the content of vegetation.³³ Increasing the quantity of carbon stored in agricultural soils has the potential to offset emissions of greenhouse gases to the atmosphere, while soil carbon losses would further add to those emissions.³⁴

Land use is one of the greatest modifiers of soil condition and soil's ability to be resilient in the face of a changing climate. Erosion is a natural process, but people can greatly accelerate the rate of erosion by removing vegetation and using land management practices not best suited to the location. Forty-three per cent (more than 1 million hectares) of land in the Waikato has high potential for erosion. This can affect stored carbon.

One proven way of retaining soil carbon and improving soil's resilience to extreme rainfall events or drought is to fence off and revegetate wet areas, for example, streams, headwaters and wetlands. The potential impacts from a reduction in soil moisture during drought conditions can be significant and include:

- ▶ more frequent slips on natural and engineered slopes
- ▶ likely elevated stress on native forests, indigenous wetlands as well as other types of plant and animal life, potentially making them more susceptible to pathogens
- ▶ landscape scale degradation and increased erosion, particularly if the cover is shallow rooted trees
- ▶ accelerated loss of soil carbon from drained peat soils under pastoral agriculture.

A regionally relevant review of management practices for increasing soil carbon has been compiled as part of a collaboration between the NZ Agricultural Greenhouse Gas Research Centre and the University of Waikato.³⁵



Fencing off and planting streams and wetlands helps retain soil carbon and improves resilience to extreme rainfall events and drought.

³² The GHG Emissions Inventory follows the Global Protocol for Community Greenhouse Gas Emissions Inventory (GPC) that relates the Global Warming Potential of enteric methane to carbon dioxide over 100 years (GWP100) and does not differentiate between the warming effects of long and short-lived gases (GWP*)

³³ Batjes N, Sombroek W. 1997. Possibilities for carbon sequestration in tropical and subtropical soils. Global Change Biology 3(2): 161-173 <https://doi.org/10.1046/j.1365-2466.1997.00062.x>

³⁴ <https://www.nzagrc.org.nz/soil-carbon/listing/595/grassland-soils-have-potential-to-offset-ghg-emissions.html>

³⁵ Reducing New Zealand's Agricultural Greenhouse Gases: Soil carbon <https://www.nzagrc.org.nz/fact-sheets/listing/194/reducing-new-zealands-agricultural-emissions-soil-carbon.html>

RESPONSE AND COMMITMENTS

The regional council understands the importance of soil health, not only for its contribution to wider environmental improvements but also for primary industry and economic success. The council is committed to including soil management in resource management plans and farm management practices. For example:

- ▶ including soil carbon in the regional greenhouse gas emissions inventory to understand the location and relative performance of soil sinks and sources
- ▶ advising land managers on proven practices backed by science
- ▶ quantifying the carbon benefit of existing practices that work in a farm environment and using those cases as exemplars for farm environment plans
- ▶ developing mechanisms to identify suitable farmland for planting, and potentially reviewing funding arrangements with farmers
- ▶ initiating and supporting a regional Waikato agriculture forum to work with the agricultural sector to develop integrated approaches to reduce emissions, increase biodiversity and improve water quality
- ▶ preparing a regional scale land use strategic plan for projected future climate conditions that will inform the review of the *Waikato Plan*
- ▶ addressing peat management and the climate change component in the wider review of the *Waikato Regional Plan*
- ▶ designing and implementing a regional scale monitoring network for peat soils to better quantify soil carbon stocks and stock changes over time (gains and losses) under different land uses.

The Waikato region contains 94,000 hectares of farmed peat, representing approximately 50 per cent of New Zealand's peatland resource. Drainage and cultivation allow these peat soils to be farmed but this results in subsidence and oxidation of the peat and ultimately the loss of the peat resource. Subsidence can also draw down the water table on adjacent wetlands and contribute to greenhouse gas emissions through carbon loss. It can also adversely affect adjacent infrastructure, such as roads, and provision of services. In these situations, it is appropriate that planning provides for the mediation or mitigation of adverse effects.

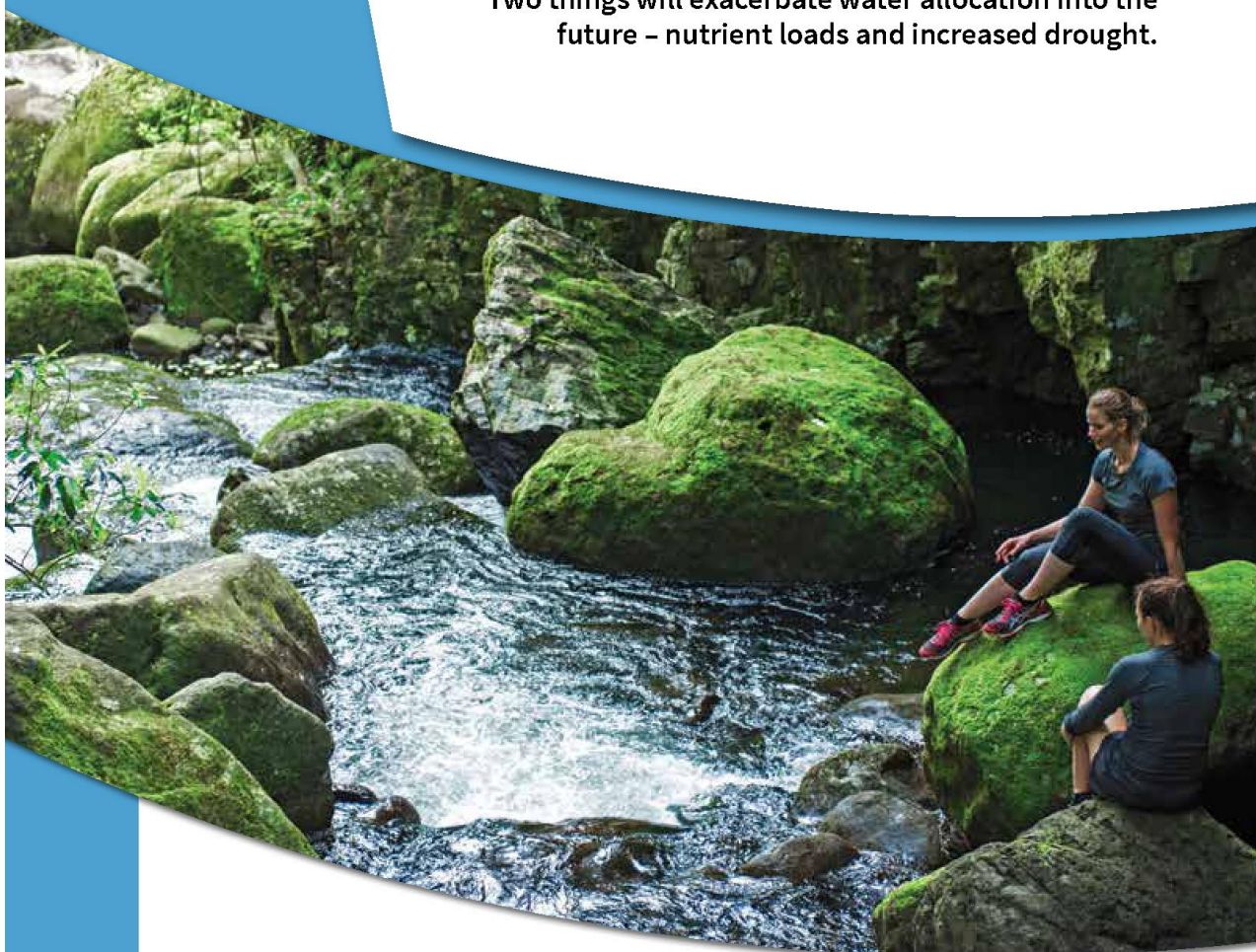
The advantages of farming land to maximise retention of soil carbon include:

- ▶ improving soil water retention
- ▶ increasing water percolation
- ▶ clean water runoff
- ▶ increasing the health, resilience and biodiversity of the ecosystem
- ▶ sequestering rather than emitting CO₂.

Water is life

He oranga te wai

Two things will exacerbate water allocation into the future – nutrient loads and increased drought.



Water allocation is solely a regional council activity and is actioned through Resource Management Act consent applications. Allocation is particularly critical during low flow or drought conditions. Takes from and discharges to waterbodies are managed through authorised use, checks for compliance and, if required, enforcement.

A changing climate will have implications for the availability of water.

With climate change, it is expected there will be less rainfall across the Waikato overall, but the rainfall we do get will arrive quickly as intense storm events in the south and west of the region and in the Coromandel Range. This means waterbodies will spend more time in drought conditions, with implications for the availability of water and water quality. This will present challenges in the allocation of water and change the viability (costs and potentially location) of water dependent activities.

The *Waikato Freshwater Strategy*³⁶ expressly considers the implications of a changing climate and specifically the projections for changed rainfall patterns on the availability of fresh water (both for takes and discharges). The strategy was prompted by a recognition that climate change will affect how we allocate water in the future.

The Lake Taupō catchment is predicted to experience more extreme heavy rain events and stronger westerly winds, increasing the risk of flooding and erosion.

Two things will exacerbate water allocation into the future – firstly, the nutrient load (a legacy of past land use intensification) and, secondly, the projections of increased drought as low flows will last longer and become more severe. The implications of low rainfall and/or increased temperatures and wind (droughts) on water allocation include:

- ▶ potential negative impacts on the natural animal and plant life instream
- ▶ a need to increase the resilience of township water supply and increase efficiency to allow for growth
- ▶ less ability for waterways to assimilate contaminants from point source discharges which will mean redesign of wastewater treatment plants to increase effluent quality or removing discharges from waterways for extended periods/permanently (this has considerable financing implications for territorial councils and for council-owned freshwater supply and wastewater treatment companies)
- ▶ potential land use changes from higher intensity water use, for example, pastoral agriculture to some types of horticulture and forestry.

Land use contributes to the impact of drought (and flood). Land in pasture is unable to slow down floodwaters or act like a sponge.

RESPONSE AND COMMITMENTS

It will be essential to follow up on the recommendations in the *Waikato Freshwater Strategy* and recognise that the management of freshwater quality and quantity cannot be separated. Both will be influenced by future climate conditions. Climate change projections should be included in all reviews of fresh water made under the Resource Management Act, and for new allocations.

The regional council is committed to the following.

- ▶ Helping our community understand possible sources of water and how to make the most of every drop using smart ways of capturing, storing, using and recycling water.
- ▶ Considering wide ranging water storage methods (for example, in wetlands, including protection and restoration/expansion) and the creation of reservoirs at a variety of scales.
- ▶ Recognising the overlap of the *Waikato Freshwater Strategy* and other climate change response pathways, particularly:
 - soils
 - habitat restoration and planting
 - biodiversity and biosecurity.
- ▶ Ensuring surface freshwater allocations (quality and volume) are modelled using 30-year distributions, creating a moving baseline.
- ▶ Recycling water from treatment plants to grow crops to limit nutrients and other chemical contaminants going into waterways from townships and industry during drought conditions.

³⁶ <https://www.waikatoregion.govt.nz/council/policy-and-plans/waikato-regional-freshwater-strategy/>

Habitat restoration and planting

Whakaoranga kāinga whakatupu rākau

**Right tree,
right place!**



The *Waikato Freshwater Strategy*³⁷ estimates there were 523,000 hectares of marginal land³⁸ in pasture in 2012. According to Land Use Capability classes,³⁹ 76,000 hectares of class VII and class VIII land would not be suitable for production forestry but rather regeneration of native forests. The remaining 447,000 hectares of erodible class VI land could be either protection or production forests depending on economic considerations (size, location, proximity to mills and roads).

Planting trees is one of the most effective ways to reduce carbon dioxide levels in the atmosphere.

Trees remove carbon dioxide from the air, store carbon and release oxygen. Forestry removed a net volume of 5,530,909 tonnes CO₂e or about 44 per cent of the region's total gross emissions in 2018-19. Two districts in the Waikato – Taupō and Thames-Coromandel – are carbon positive due to high levels of carbon sequestration from forestry.

Planting more trees and establishing new forests – ensuring the right tree in the right place – is our biggest opportunity for reducing our carbon footprint. It not only delivers the benefit of carbon sequestration, it also gives diverse environmental and social benefits such as habitat for native biodiversity, erosion control, flood mitigation and improved water quality.

We are currently losing forestry to farmland in New Zealand. Due to conversion of forests into farms, the volume of CO₂ removals by New Zealand forests reduced 27 per cent from about 30 million tonnes in 1990 to 22 million tonnes in 2017. Meanwhile, the expansion and intensification of pastoral agriculture drove a 13.5 per cent increase in agricultural emissions over the same period.⁴⁰ In the Waikato, carbon removal rates by forestry also decreased from 2015-16 to 2018-19 due to rates of replanting not keeping up with the pace of harvesting rates.

There are a range of current initiatives to promote planting of forest species to increase carbon stocks as living sinks. They include but are not limited to the New Zealand Emissions Trading Scheme, Trees That Count and the One Billion Trees Fund. The central government goal of planting 100 million trees per annum for 10 years (the One Billion Trees Fund) will have significant implications for regional development and employment. It will also, as a co-benefit, provide a significant carbon sink. Such commitments would see a million hectares planted out nationally in the next decade. Half of the proposed area represents existing replanting, but the other half is new planting.

For the Waikato region, exotic forest contributed 89 per cent of sequestration; 11 per cent was from native forest.



Cosseys Dam, Hūnua Ranges, was particularly hard hit during the Tasman Tempest weather event in March 2017. The sediment blocked the Ardmore water supply treatment plant for 10 days after hundreds of landslips dumped silt and sediment into the Hūnua reservoirs. The worst-affected dams were those that had recent commercial forestry activity. Photo: Watercare

Some afforestation will potentially be on land too erodible to ever harvest. Planting on erodible land with the right mix of trees (typically indigenous) has the co-benefit of increasing catchment resilience by reducing storm-driven runoff, sedimentation and adsorbed pollutants entering waterways. Trees also help absorb loads from pastoral sources (urine, dung and excess fertiliser) that have more of a significant impact when waterways are stressed at low flow/drought.

Currently, not all greenhouse gas discharges are covered by the Emissions Trading Scheme (for example, fugitive emissions from land use change

are not), but the scheme is starting to influence land use change with respect to afforestation. At the current price of around \$33/tonne,⁴¹ carbon farming has increased. However, the planting of pine to maximise these financial opportunities has the potential to create extensive monocultures of exotic forests, changing the face of our rural landscapes and communities. Such forests are susceptible to climate influenced biosecurity issues, potential climate driven increases in wildfires and may also place critical downstream infrastructure at risk. Landslips from recently harvested exotic forests also affect catchment resilience.

RESPONSE AND COMMITMENTS

Waikato Regional Council has opportunity to proactively identify areas for afforestation that will provide the best return for carbon sequestration, increased freshwater quality, positive biodiversity outcomes and community resilience and safety. These areas could be mapped in a spatial plan, with funding assistance available for planting regimes.

The regional council:

- ▶ acknowledges that the establishment of new forests not only delivers climate-related benefits through carbon sequestration and climate adaptation, but it also gives diverse environmental and social benefits such as habitat for native biodiversity, erosion control, avoided sedimentation, flood mitigation, improved water quality, green job opportunities and the exercise of kaitiakitanga
- ▶ is committed to ensuring the right trees are planted in the right place, including recognising future climate projections and the ability to harvest
- ▶ will collaborate with research agencies and other sector partners to investigate the use of unconventional carbon sinks, including blue carbon sinks (marine)
- ▶ will consider opportunities that exist in wetland creation and restoration, and paludiculture (wet agriculture)
- ▶ promote the Waikato carbon calculator to raise awareness of the carbon sequestration benefits of planting indigenous tree and shrub species.

37 Let's Talk Water Technical Support document page 93 <https://www.waikatoregion.govt.nz/assets/PageFiles/40487-lets-talk-water/Freshwater%20technical%20summary.pdf>

38 Land Use Capability (LUC) Classes VI, VII & VIII.

39 See section 2.9.2 of this report, Land Management Advice

40 Ministry for the Environment (MfE) and Statistics New Zealand (Stats NZ), 2019. Environment Aotearoa 2019. Wellington: NZ Government, p.224.

41 NZUs \$33.60, 30 July 2020, OMF finance <https://www.comtrade.co.nz/>

Care in planting will need to be exercised as an increase in wildfires is projected for the northern and eastern parts of the region. Good design of forests, including use of species and a combination of protection and production forests, will help minimise this risk.



Future of transport

Te aronga waka

Without active adaptive management, the long term effects of climate change will make the Waikato region's transport network less resilient and subject to more frequent road closures due to extreme weather events like flooding, landslides and coastal inundation.



The region's road transport network – one of New Zealand's busiest because of its strategic location in the upper North Island – is more than twice as exposed to sea level rise than anywhere else in the country. According to NIWA data, the Waikato has over 800 kilometres of local and arterial roads in areas of up to 1.5 metres above sea level.⁴² These roads are predominantly around the Lower Waikato River and Hauraki Plains, of which 22,148 hectares is below sea level.

As our population has increased, so too have our transport emissions.

On the back of strong population growth, New Zealand's greenhouse gas emissions from transport fuels have increased by nearly 70 per cent from 1990 levels and continue to increase. Overall, transport emissions make up 21 per cent of New Zealand's gross emissions profile, and 90 per cent of that is due to road transport. The increased use of single occupancy motor vehicles increases greenhouse gas and other harmful motor vehicle emissions.

Regionally, the Waikato's 2018/2019 transport emissions were 2.0 million tonnes CO₂e – an increase of 32 per cent from the 2015/2016 total of 1.5 million tonnes. It is the largest sectorial increase over the previous inventory period – attributable primarily to population increases. Replacing fossil-fuelled vehicles with electric vehicles would reduce emissions immediately. These technologies are available, and we need to do more to influence the uptake of them by individuals and passenger transport services. It will also be important to provide reliable rail connections for freight between Auckland, Hamilton, Tauranga and key freight hubs.

Replacing fossil-fuelled vehicles with electric vehicles would reduce emissions immediately.

The Regional Public Transport Plan is a tangible area where Waikato Regional Council can influence public behaviour, including patronage on public transport and fuel efficiency. We can also do more to encourage walking and cycling by advocating for safe and appealing infrastructure. Such services need to be convenient and compelling.

We also need to be able to demonstrate energy efficiency in public transport. Contracts for passenger transport services are negotiated and let following the policy guidance in the *Regional Passenger Transport Plan*. The current passenger transport contracts, which were awarded in 2017 for six years, do not currently contain any requirements to provide fuel usage and/or fuel efficiency performance information, or electric vehicles.



Te Huia passenger rail service will help create energy efficiency in transport. If you've got staff who commute between the Waikato and Auckland, please encourage them to ditch their cars in favour of this service.

RESPONSE AND COMMITMENTS

A regional transition to low emission transport is outside the direct control of local government, however, Waikato Regional Council is committed to the following.

- ▶ Fulfilling the objectives of the Regional Land Transport Plan to:
 - develop a coordinated plan for increasing electric vehicle use in the region
 - provide energy efficient lower emission transport options as an alternative to the car
 - remain on top of future technology trends so the region is ready to move on opportunities
 - identify and address route security and resilience issues, including climate change related mitigation.
- ▶ Requiring reporting of fuel use by public transport.
- ▶ Getting an estimate of the carbon implications of the current technology/fuel mix.

- ▶ Developing a strategy aimed at transitioning its entire passenger transport fleet to zero-emissions.
- ▶ Supporting and promoting the expansion of mass-transit options, such as the Te Huia Hamilton to Auckland passenger train.⁴³
- ▶ Working with the *Waikato Plan* Leadership Group and the Regional Land Transport Committee to advance the uptake of low-emission vehicles within the region.
- ▶ Helping create the right conditions for people to use less carbon intensive transport modes, such as walking, cycling and public transport, in urban areas, which will also help ease congestion.

Taken together, these actions will reduce exposure of the sector to the increasing costs of carbon emissions and enable the transition to low carbon transport fuels.

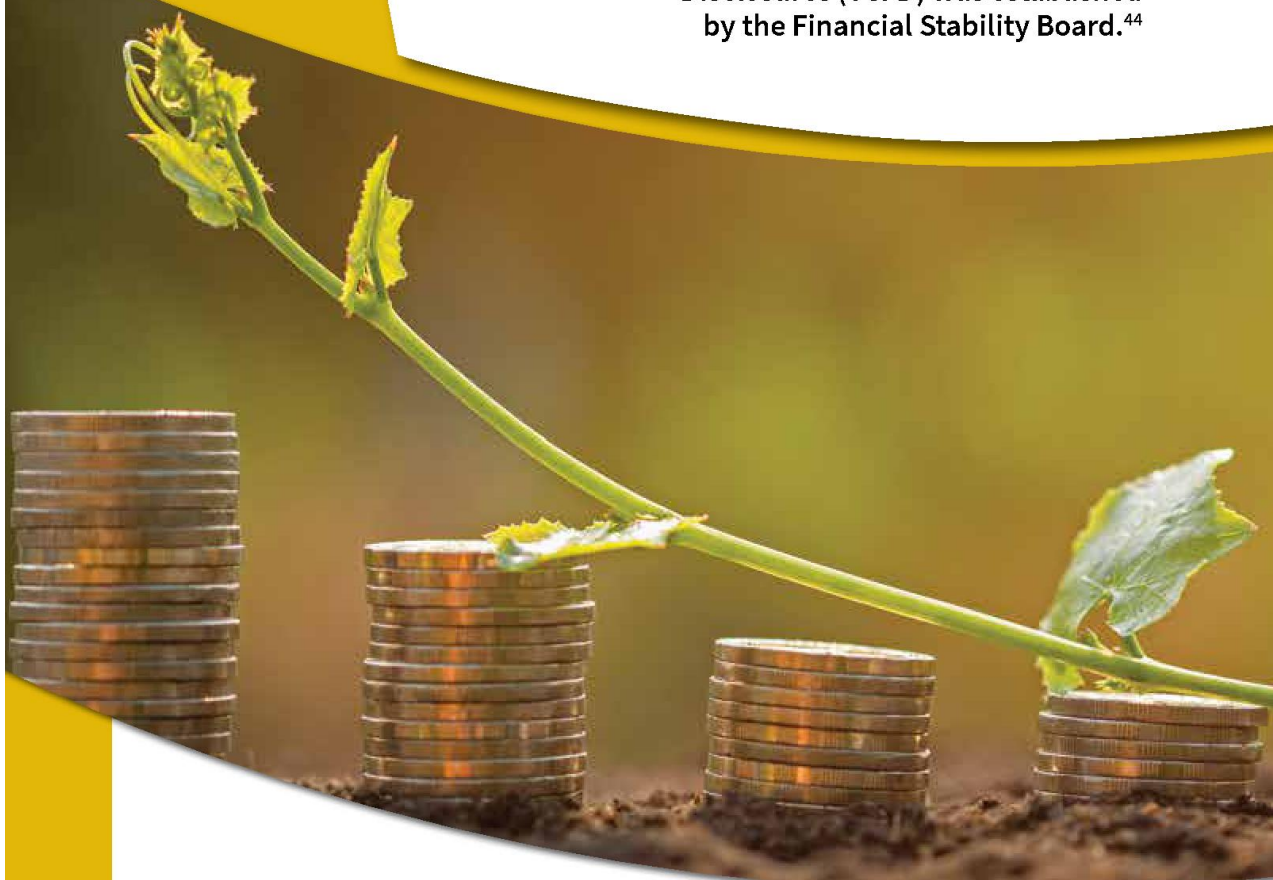
⁴² Bell R, Paulik R, Wadwha S. 2015. National and regional risk exposure in low-lying coastal areas: Area extent, population, buildings and infrastructure. Hamilton: Prepared for the Parliamentary Commissioner for the Environment by National Institute of Water & Atmospheric Research Ltd. pp109 <https://www.pce.parliament.nz/media/1384/national-and-regional-risk-exposure-in-low-lying-coastal-areas-niwa-2015.pdf>

⁴³ Te Huia Hamilton to Auckland <https://www.waikatoregion.govt.nz/services/regional-services/transport/rail/>

Sustainable investment

He tauwhiro penapena pūtea

In December 2015, the Task Force on Climate-related Financial Disclosures (TCFD) was established by the Financial Stability Board.⁴⁴



The role of the TCFD was to design climate-related financial disclosures for use by insurers, investors, lenders and other stakeholders that were consistent and voluntary.⁴⁵ The recommendations from TCFD are increasingly being used by organisations so that they can transparently identify the impacts of climate-related risks and opportunities.

Climate change is a threat to financial systems and economic security.

The understanding of climate change risks has changed. It is no longer just considered an environmental problem – it is also being recognised as a threat to financial systems, economic security, and national and international security.

The risks to businesses and hence a return from investments is well understood and consistent with prudent financial management. In recent years, the costs of extreme weather events have impacted business sectors, including the insurance industry, severely. It is now becoming imperative to reduce business risks to extreme weather through climate adaptation action.

The business case for mitigation of greenhouse gas emissions is compelling as it contributes to market positioning and reduction of energy related costs with an immediate benefit to the bottom line. The business case for climate adaptation comes not only from the primary effects of a changing climate and exposure to extreme weather events but also the liability of carbon intensive industries to regulatory costs. There are three ways that climate change can affect financial stability:⁴⁵

1. Physical risks: the impacts today on insurance liabilities and the value of financial assets that arise from climate and weather-related events, such as floods and storms that damage property or disrupt trade.
2. Liability risks: the impacts that could arise tomorrow if parties who have suffered loss or damage from the effects of climate change seek compensation from those they hold responsible.
3. Transition risks: the financial risks which could result from the process of adjustment towards a lower-carbon economy. Changes in policy, technology and physical risks could prompt a reassessment of the value of a large range of assets as costs and opportunities become apparent.

Waikato Regional Council has an investment fund which it set up after selling its shares in the Port of Tauranga and Port of Auckland in the 1990s. This fund is used to fund projects, finance internal borrowing and reduce the overall level of rates.⁴⁷ The Statement of Investment Policy and Objectives (2016) sets out a framework for the appropriate management of the fund. The investment goals and performance objective are as follows.⁴⁸

► Investment goals

- To ensure the assets of the fund are invested prudently and consistent with the council's mission, vision and rules.
- To provide a rates subsidy and set aside funds for regional and economic development.

► Performance objective (medium term 5-10 years)

- A real return of at least 4 per cent per annum over a 10-year period.

The Statement of Investment Policy and Objectives also contains a sustainable investment clause:

- Consistent with its policy commitment to "endeavour to develop its investment practices consistent with evolving thinking regarding the significance of environmental, social and governance factors within decision-making process", the council has elected to invest 50 per cent of its global equity exposure in a sustainable strategy and will assess the success of this step over time with a view to additional steps as appropriate.

The effect of climate change on the risk to corporate investments is not explicitly included in the statement or in the council's *Treasury Risk Management Policy*.⁴⁹ The need to do this will be included in the review of the Statement of Investment Policy and Objectives and the *Treasury Risk Management Policy* for inclusion in the *2021-2031 Long Term Plan*.

⁴⁴ Established in 2009 by the G20 nations, the Financial Stability Board has the key role of promoting reform of international financial regulation and supervision <https://www.fsb-tcf.org/>

⁴⁵ Task Force on Climate-related Financial Disclosures. 2017. Final report: Recommendations of the Task Force on Climate-related Financial Disclosures. Switzerland: Financial Stability Board. <https://www.fsb-tcf.org/wp-content/uploads/2017/06/FINAL-2017-TCFD-Report-11052018.pdf>

⁴⁶ Mark Carney: Breaking the Tragedy of the horizon-climate change and financial stability <https://www.bis.org/review/r151009a.pdf>

⁴⁷ Waikato Regional Council. 30 June 2015. Council Agenda <https://www.waikatoregion.govt.nz/assets/PageFiles/46250/Council-Agenda-30-June-2015.pdf>

⁴⁸ Waikato Regional Council. 2016. Statement of Investment Policy and Objectives – Waikato Regional Council. Accessed from Strategy and Policy Committee Agenda 29 March 2017 <https://www.waikatoregioncdemg.govt.nz/assets/WRC/Community/Council-Meetings-and-Agendas/Strategy-and-policy-committee/Agenda-Package-Strategy-Policy-Committee-29-March-2017.pdf>

⁴⁹ For the Treasury Risk Management Policy, see page 172-180: <https://www.waikatoregion.govt.nz/assets/PageFiles/11874/Appendix.pdf>





RESPONSE AND COMMITMENTS

In recent decades, sustainable investment⁵⁰ has evolved substantially. This trend is not accidental. It is, rather, an implicit acknowledgement that investment must evolve if it is to contend with the major challenges of the 21st century.

To further future proof its corporate investments, Waikato Regional Council is committed to:

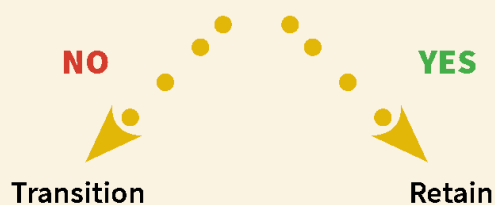
- ▶ reviewing the *Treasury Risk Management Policy* to include climate change risks in its general objectives
- ▶ reviewing the *Treasury Risk Management Policy* to specifically request an audit of fund managers and to review those who have an exposure to climate change (for example, location, activity or supply chain links, component manufacture in flood plains, dependency of increasing price of fossil fuels)
- ▶ transitioning investments from higher climate risk to lower climate risk products
- ▶ investigating a pathway to climate positive and – ultimately – regenerative investments.

50 The term "sustainable" investment is used here to capture the full range of approaches variously referred to as ESG Integration, stewardship, responsible investment, impact investment, negative or positive standards setting, and solutions, along with other variations on this vocabulary.

Decision tree for the allocation of capital from Waikato Regional Council's investment fund

Investment decisions

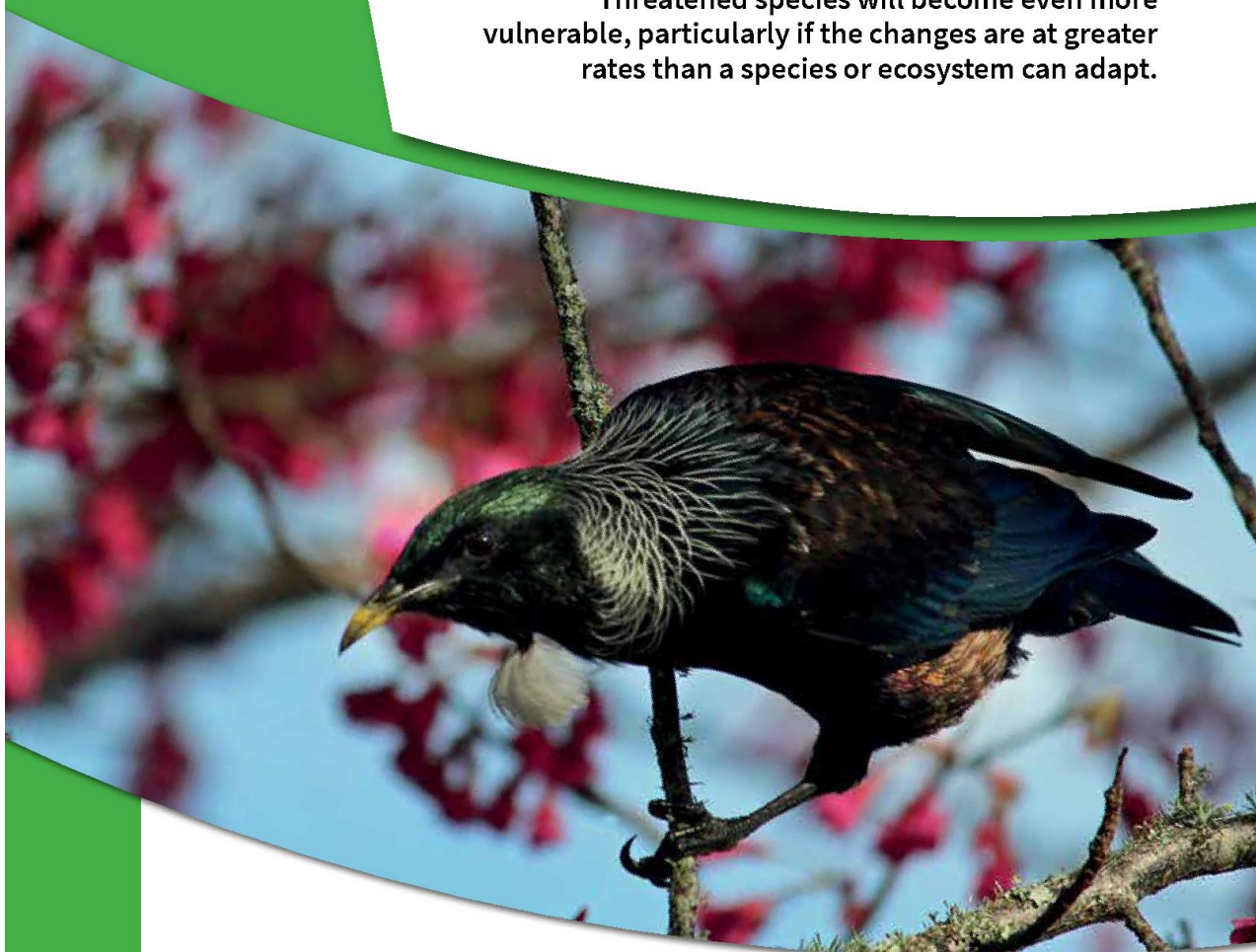
Are investments climate proofed? e.g. using criteria developed by the UNEP Finance initiative Task Force for Climate-related Financial Disclosures.



Biodiversity and biosecurity

Rerenga rauropi, tiakitanga taiao

Threatened species will become even more vulnerable, particularly if the changes are at greater rates than a species or ecosystem can adapt.



Some of our indigenous species are very specialised in their requirements, having evolved over generations in a relatively stable and predictable climate. Climate change is already affecting their distribution.⁵¹

Threatened species will become even more vulnerable, particularly if climate changes are at greater rates than adaptation.

New Zealand's biodiversity is unique. Here in the Waikato we have a wide variety of terrestrial, fresh water, coastal and marine ecosystems which support many native species, including species not found elsewhere in New Zealand such as Archey's frog and the Coromandel striped gecko.

Species that may need help are those which are highly specialised (for example, the tuatara), have reduced genetic variation because of limited breeding pairs and have limited distribution (for example, Archey's frog).

Species that are not too highly specialised or which can migrate or find refuge during extreme weather events are more resilient to climate change. Large populations that are not already stressed and that have a high level of genetic diversity will also be better able to respond physiologically or behaviourally to a changing climate.

The regional council is responsible for maintaining and enhancing indigenous biodiversity and the quality of the environment under the Resource Management Act. We do this by managing the habitats of native plants and animals. In particular, we provide for the protection of areas of significant indigenous vegetation and habitats of indigenous fauna.

Our biosecurity function is one way we help protect habitats. Plant and animal pest invasions are among the biggest threats to our region. The most important climate change driver for invasions and establishment by pest species is temperature, modified by rainfall, humidity and wind. This may create conditions that are more conducive to the establishment of invasive species, or the spread of those already here but with restricted distribution. For example, several freshwater pest species can be expected to increase their range and numbers in response to reduced flows and elevated water temperatures.



Milder winters means the management of alligator weed has become a year-round operation.

Biosecurity functions and roles are shared between the Ministry for Primary Industries (MPI) and regional councils. MPI works with others to manage established pests and to protect New Zealand from new biosecurity threats through border surveillance and controls. Regional councils assist MPI with the national programmes it leads. They also manage locally relevant pest species that are already established and identified in their regional pest management plans. The council's legislative mandate for managing pests is the Biosecurity Act, which does not include climate change as a driver for control.

Climate change impacts affecting biodiversity

- ▶ Habitat fragmentation has the potential to remove the ability of species to migrate.
- ▶ Sea level rise will affect the coastal-wetland-freshwater interface.
- ▶ Local runoff will exacerbate ocean acidification of marine waters (particularly around the Firth of Thames), which becomes difficult for shellfish.
- ▶ Coastal wetlands will be reduced, particularly if stopbanks are rebuilt and new structures prevent landward migration of intertidal transition zones.
- ▶ Drought conditions will reduce aquatic habitat.
- ▶ Warmer temperatures will speed up chemical reactions making aquatic habitat more toxic.
- ▶ Increased rainfall intensity increases sedimentation and contaminants entering waterways, impacting and modifying aquatic habitat.
- ▶ Climate driven success of pest animal and plant species.

Changing life cycles

The upstream migration of the whitebait species *Inanga* are typically initiated by large floods in spring, with spawning occurring on certain types of riparian vegetation near the extent of saline intrusion during very high tides in autumn.

Rising sea levels may mean that suitable habitat for spawning is steadily pushed further upstream. Ninety-two per cent of potential whitebait spawning habitat in the Waikato River delta has already been lost due to the construction of stopbanks – a further loss could have significant implications for the whitebait fishery.⁵²

RESPONSE AND COMMITMENTS

To enhance biodiversity and biosecurity responses in a changing climate, Waikato Regional Council is committed to the following.

- ▶ Researching and promoting the biodiversity benefits and carbon storage role of forests, wetlands and estuarine/marine habitats.
- ▶ Recognising the effects climate change has on target species and adapting management strategies accordingly, for example, seasonal shifts in life cycles and therefore effectiveness of control programmes.
- ▶ Promoting community and landowner actions that create resilience and enhance the viability of terrestrial biodiversity in a changing climate:
 - limit the clearance of existing indigenous vegetation
 - reduce threats, including from pest plants and animals, to existing habitats
 - restore and maintain existing natural ecosystems with indigenous species
 - reconnect areas of existing (and often underrepresented) indigenous habitat
 - create new habitats for indigenous species.
- ▶ Considering the following when setting conditions on land use and water allocation:
 - require shade on large urban impervious surface areas (for example, car parks) to reduce the heating of stormwater runoff
 - extend riparian planting along streams to create shade and reduce water temperatures
 - future-proofing spawning habitats where rising sea levels might alter the suitability of existing areas for key species such as whitebait
- manage and enhance connectivity between freshwater ecosystems to enable native species access to shelter
- protect resilient habitats such as springs, forested areas and existing riparian plantings
- increase surveillance and control of pest species spread
- enforce the reduction of non-climate stressors (for example, nutrient runoff, drainage, sedimentation) to offset the added effects of climate change on existing multiple cumulative stressors, particularly around sensitive wetlands and shallow lakes
- recognise the carbon sequestration potential of mangroves, saltmarsh and seagrass beds and investigate sequestration rates for these habitats in the Waikato region
- advocate to central government and other agencies as appropriate (for example, the New Zealand Climate Change Commission) for the inclusion of 'unconventional' carbon sinks into the Emissions Trading Scheme (coastal wetlands, saltmarsh, mangroves and eelgrass beds).
- ▶ Incorporating climate change considerations into reviews of the *Regional Pest Management Plan*, and identifying the preferred climate conditions of each pest species (plant or animal) to determine where it may be likely to expand its range and target responses.
- ▶ Supporting increased inter-regional and central government commitment, including funding to establish effective responses to climate change implications (for example, kauri dieback disease), potentially through the Upper North Island Strategic Alliance.

⁵¹ Adapting Management and policy for freshwater conservation K J Collier <https://www.doc.govt.nz/Documents/conservation/climate-change-proceedings.pdf>

⁵² <https://www.doc.govt.nz/our-work/climate-change-and-conservation/>

Drainage and flood management

Ngā awakeri me te whakahaere waipuke

Increasing development in drained or flood protected areas increases the residual risk from flooding.



Reduced intertidal habitats

Land drainage reduces intertidal habitats which protect the marine environment from land use. With rising sea levels, the intertidal zone will get squeezed between stopbanks and the rising tide levels, becoming permanently inundated by sea water.

River flooding is likely to increase with more frequent and more intense rainfall, and in some areas due to sea level rise. Groundwater tables will also be higher.

Waikato Regional Council manages flood management and land drainage assets across the region. These assets were developed over the last 80 years and primarily consist of stopbanks, pump stations and floodgates. When climate change projections are factored in, the probability of a flood event will increase. This will require a reassessment of the level of services provided by flood management infrastructure, or significant investment to maintain the existing levels. At the same time, we are also seeking ways to reduce the carbon emissions from our pump stations during operation.

In coastal areas, flooding may be exacerbated by high tides preventing flooded rivers from discharging to sea. In a report to the Parliamentary Commissioner for the Environment, NIWA said the liability the region faced from coastal inundation was disproportionately high in both the number of land parcels affected and the total

area extent.⁵³ Adding to this issue is the fact that 95 per cent of the region's natural wetlands (which slow water runoff and are typically carbon sinks) have been drained to allow a change of land use – usually pastoral and urban use.

The Hauraki Plains and Lower Waikato, much of which is peatland, are among the most intensively drained areas in New Zealand. Assuming current land use can be maintained, the cost of any drainage or flood management activities will increase and potentially become more than the land use can financially sustain.

Flood management and drainage is currently paid for by targeted rates, paid by those who directly benefit from them, and this may no longer be affordable for those communities.

RESPONSE AND COMMITMENTS

Waikato Regional Council is committed to:

- ▶ broadening the scope of flood protection and land drainage infrastructure investment and management to explicitly incorporate social, cultural, environmental and economic wellbeings
- ▶ making sure our schemes and networks are fit for purpose
- ▶ developing a Sustainable Infrastructure Decision-making Framework, including but not limited to emissions associated with the construction and operation of the infrastructure, which can be substantial
- ▶ better understanding the size and the variability of carbon emissions from peat so that it can be added to the annual corporate emissions inventory for the Waikato.

Drainage of peat soils changes greenhouse gas emission characteristics from a net carbon sink to a source.



The Hauraki Plains are protected by foreshore stopbanks, which will be at threat from increasing storm surges and rising sea levels.

53 Bell R, Paulik R, Wadwha S. 2015. National and regional risk exposure in low-lying coastal areas: Area extent, population, buildings and infrastructure. Hamilton: Prepared for the Parliamentary Commissioner for the Environment by National Institute of Water & Atmospheric Research Ltd. <https://www.pce.parliament.nz/media/1384/national-and-regional-risk-exposure-in-low-lying-coastal-areas-niwa-2015.pdf>

Energy

Pūngao

Increases in temperature will likely increase our energy demand, as well as change our ability to produce electricity and deliver it reliably.



Renewable energy has the benefit of reducing greenhouse gas emissions and increasing security of supply. It also reduces costs to communities and businesses by reducing exposure to the increasing price of New Zealand emissions units.

Renewable energy plays a part in mitigating climate change.

The Waikato region has an abundance of natural resources that contain energy (hydro, wind, geothermal, solar and wave). About one-third of New Zealand's current electricity generation capacity is in this region, including one large thermal power station, nine geothermal power stations and more than 10 large hydro power stations, along with wind turbines and many co-generation plants.

The use of renewable energy greatly assists the national emissions reduction target. Waikato Regional Council policy already acknowledges the positive climate attributes of the mature, large scale (>50 megawatts) hydro dams in the region,⁵⁴ and that this infrastructure will help with water availability in response to climate change.

The 2008 *Waikato Regional Energy Strategy*,⁵⁵ initiated by the regional council, was developed with stakeholders and other organisations to help future proof the Waikato economy by reducing reliance on fossil energy sources for energy services (heating, lighting and motive power). The strategy encourages energy conservation and efficiency and helps facilitate the development and use of renewable energy sources and innovative energy technologies. The fundamental principle underlying the strategy is to work on both supply and demand. It is a non-statutory document, and 11 of its 27 recommendations have been incorporated into the *Waikato Regional Policy Statement (RPS)*.

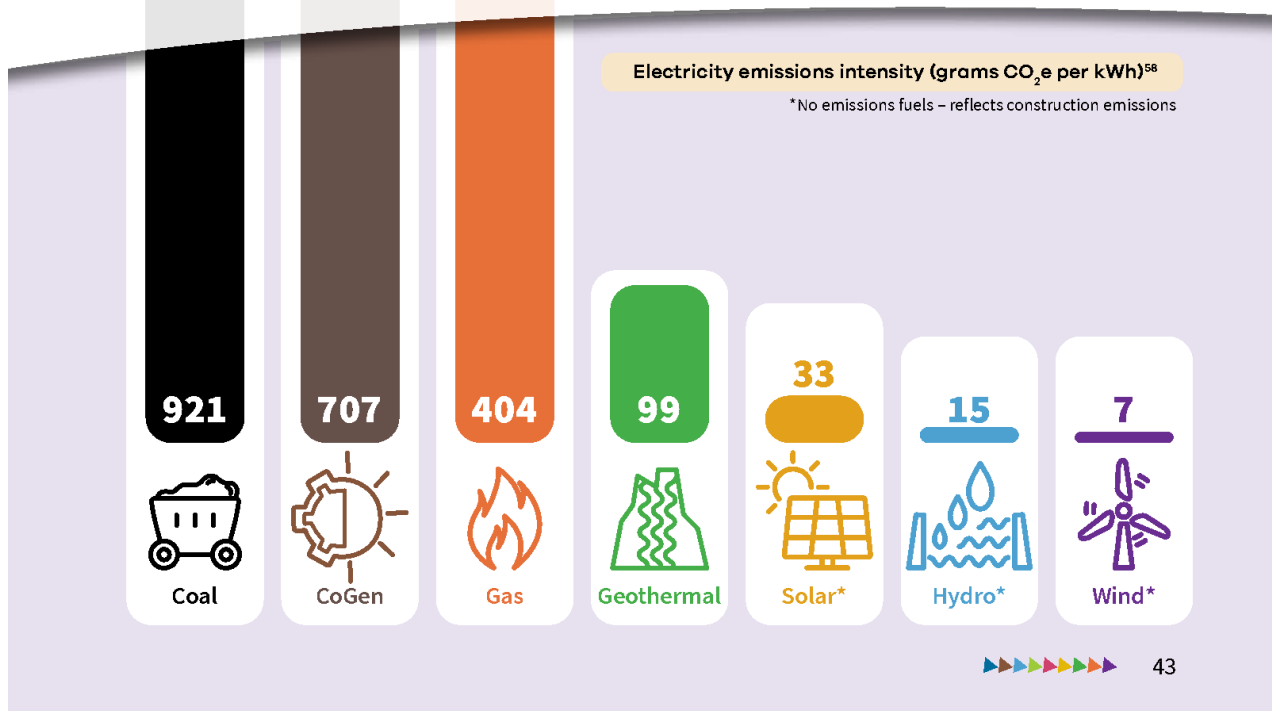
Providing for energy demand is one of the six significant issues already addressed in the current RPS.⁵⁶ The policy statement supports access to natural

resources for energy and has prioritised the direct use of energy where applicable to minimise conversion and transmission losses. The geothermal policy is the most advanced,⁵⁷ with clear regulatory directions favouring the use of renewable geothermal energy. The RPS also:

- ▶ recognises the climate response and adaptation benefits of the existing hydro power schemes in the Lake Taupō and Waikato river catchments
- ▶ ensures alignment between regional and territorial council plans to support applications for wind turbines by ensuring outstanding natural features and landscapes are not targeted
- ▶ recognises the opportunities for and co-benefits of landscape change through a transition from fossil fuel to plant-based biofuels (trees or purpose grown grasses) either by direct substitution for process heat, off-site heat (wood pellets) or for conversion into liquid transport fuels
- ▶ recognises the opportunities to leverage use of waste streams for biogas conversion to non-fossil fuels.

The Resource Management Act and Local Government Act have tools that can help individuals and communities live low-energy, low-emission lifestyles.

Central government has objectives and targets for renewable electricity generation recognising the need to focus on developing those sources.





RESPONSE AND COMMITMENTS

Waikato Regional Council is committed to reviewing policies and rules in regulatory plans to:

- ▶ include promotion of energy efficient developments and associated supporting infrastructure
- ▶ facilitate access to energy rich natural resources as a substitute for use of fossil fuels.

There are many opportunities for stakeholders to work together.

- ▶ The co-location of production forests and large geothermal development systems in the southern part of the region presents an opportunity to create synergies between two renewable energy sources. Currently, most geothermal energy is converted to electricity and used away from the resource and the point of generation. Direct use of the geothermal energy (heat) to dry timber – rather than burning waste wood – is a more efficient use as there are no conversion losses and low transmission losses. The waste wood could then be used for other purposes such as biofuel.

- ▶ Wave energy technology is a new and emerging field internationally and a potential area for further exploration in the region. To explore its application in the Waikato, potential wave resources could be mapped, and the feasibility of linking with existing land-based resources could be explored (such as transmission lines, port facilities, engineering repair workshops and marine support technicians). This is equally applicable to large scale marine wind installations.
- ▶ Biofuel could be specifically grown to reduce regional greenhouse gas emissions. These include energy crops for industrial process heat and potentially for electricity generation. To offset greenhouse gas emissions from current fossil fuel use, biofuel crops must:
 - have a high calorific value and be fast growing
 - be able to be harvested by mechanical means (easy terrain)
 - be able to be grown near the use so as not to negate the emissions advantage by long travel distances.

54 Re1,450Mw installed capacity from Tongariro Power Development and Waikato River

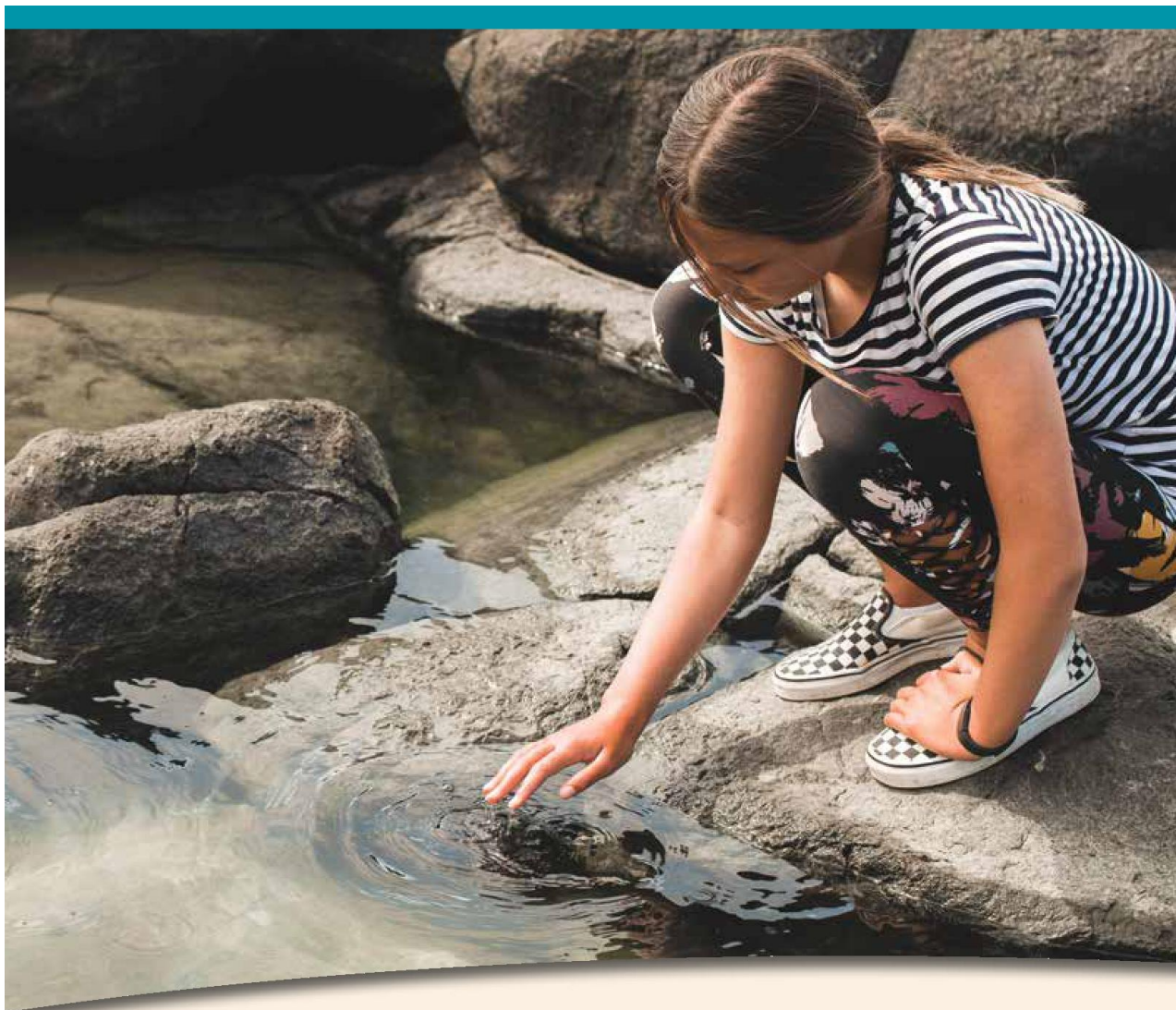
Waikato Regional Energy Forum, 2009. Waikato Regional Energy Strategy. <https://www.waikatoregion.govt.nz/assets/PageFiles/13327/Waikato%20regional%20energy%20strategy.pdf>

55 <https://www.waikatoregion.govt.nz/council/policy-and-plans/energy/regional-energy-strategy/>

56 Waikato Regional Council, 2018, Issue 1.3 Providing for Energy demand. The Waikato Regional Policy Statement - Te Tauāki Kaupapa here Te-Rohe O Waikato. Hamilton: Waikato Regional Council <https://www.waikatoregion.govt.nz/assets/WRC/Council/Policy-and-Plans/RPS-Regional-Policy-Statement/WaikatoRegionalPolicyStatement2016.pdf>

57 Regional Policy Statement Policy 9.1, Implementation method 9.1.5 Conserving geothermal energy and water.

58 <https://ecotricity.co.nz/news/carbon-knowledge/>



ACKNOWLEDGEMENTS

- ▶ Waikato Regional Council staff from all directorates for contributing their experience, expertise and expectations in the preparation of this roadmap.
- ▶ Stakeholders who have shared their perspectives and expertise.
- ▶ Rebecca Mills from The Lever Room for preparing a synthesis of staff and stakeholder contributions so that directions could be discussed and prioritised.
- ▶ Waikato regional councillors, particularly the members of the Climate Action Committee, for their time and valuable support in the development of this roadmap.

GET IN TOUCH

Our Climate Action Committee

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Councillor Russ Rimmington (Council Chair)
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Councillor Kataraina Hodge (Council Deputy Chair)
027 450 8905

He taiao mauriora

Healthy environment

He ōhanga pakari

Strong economy

He hapori hihiri

Vibrant communities



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ISSN : 2230-4339 (Print)
ISSN : 2230-4347 (Online)



Waikato Regional Council Policy Series 2020/19
Printed October 2020.

Council Report

Item 8

Committee: Environment Committee **Date:** 02 March 2021
Author: Charlotte Catmur **Authoriser:** Sean Hickey
Position: Sustainability and Environment Advisor **Position:** General Manager Strategy and Communications
Report Name: Submission to the Climate Change Commission on draft advice to Government

Report Status	<i>Open</i>
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Purpose - *Take*

1. To inform the Environment Committee that the Climate Change Commission draft advice to Central Government was released for consultation on 31 January 2021.
2. To seek delegation from the Environments Committee for the Chair of the Environment Committee, Chair of Infrastructure Operations and Chair of Strategic Growth to work with staff to develop the Hamilton City Council submission to the Climate Change Commission on their draft advice to Central Government.

Staff Recommendation - *Tuutohu-aa-kaimahi*

3. That the Environment Committee:
 - a) delegates the Chair of the Environment Committee, Chair of Infrastructure Operations and Chair of Strategic Growth to work with staff to develop the Climate Change Commission submission;
 - b) delegates final approval of the submission to the CE;
 - c) notes the approved submission will be sent to the Climate Change Commission by 14 March 2021; and
 - d) notes that the approved submission will be uploaded to the Hamilton City Council website.

Executive Summary - *Whakaraapopototanga matua*

4. The Climate Change Commission was established in 2019 and has a legislated role to provide independent advice to the Government.
5. On 31 January 2021 the Commission published their draft advice to Central Government and opened it for submissions from 1 February 2021 to 14 March 2021.
6. The advice from the Commission includes the first three emissions budgets, covering 2022 – 2035 and advice on how these can be achieved. It is based on the budgets being technically and economically achievable and that the negative impacts can be minimised.

7. The key sections of interest for the Council are on transport and urban form as well as the ongoing collaboration between Central and Local Government.
8. Staff consider the decision in this report to have medium significance and that the recommendations comply with the Council's legal requirements.

Discussion - *Matapaki*

9. In 2019 the Government made amendments to the Climate Change Response Act 2002. These changes outline the legislative framework for the Governments climate change response.
10. The Act establishes and outlines the role of the Climate Change Commission as well as the timing and mechanism for developing emissions budgets and emissions reduction plans.

Climate Change Commission draft advice

11. The first piece of advice from the Climate Change Commission is due to the Minister for Climate Change by 31 May 2021. As part of the process of developing the advice the Commission has published the draft advice for consultation. The draft advice and evidence report are available on the Commissions [website](#).
12. The draft advice covers:
 - First three proposed emissions budgets
 - Path to 2035 – achieving the first three budgets
 - Contributing to the global 1.5°C goal
 - Impacts of the emissions budgets on New Zealanders
 - Direction of policy for the emissions reduction plan
 - Rules for measuring progress
 - Nationally Determined Contribution for Aotearoa
 - Reductions in biogenic methane
13. The Commission's analysis states that the 2050 net zero target is achievable and that with the available technologies it can be achieved whilst improving the wellbeing of our current and future communities.
14. The draft advice from the Commission includes 17 critical actions the Commission believes the Government must take to reach its climate goals.
15. The economic modelling suggests that the overall costs of meeting these targets will be 1% of GDP, noting that there is significant uncertainty in the rate of technological change and also the impacts will not be uniform across sectors and regions. The Commission outlines that whilst forestry (carbon storage) is an important part of the response, the Government and New Zealand must focus on the decarbonisation of our economy whilst creating a fair and equitable transition.
16. The draft budgets in the advice are:
 - 2022-2025 – average reduction of 2% on 2018 levels
 - 2026-2030 – average reduction of 17% on 2018 levels
 - 2031-2035 – average reduction of 36% on 2018 levels
17. The draft advice provides recommended emissions reduction policies across the key sectors to meet these budgets. And whilst they all have a role to play in achieving the budgets and 2050 target, the Commission notes that reducing transport emissions is critical and that the technologies exist to start making these changes now. This is important for Hamilton given that 62% of our city's emissions are from road and off-road transport.

18. The draft advice also includes a brief section on the importance of urban form in supporting emissions reductions. This is also a key area for Council as we can unlock emissions reduction through our District Plan and strategic planning.
19. The relationship between local and central government is also noted as being important in the draft advice. Whilst central government may make the policies and plans, in many instances it is local government that will implement them.
20. Following the final advice from the Commission, the Government must deliver the first three emissions budgets and the Emissions Reduction Plan by 31 December 2021.

Key draft advice recommendations

21. In the draft advice there are different types of recommendations, including enabling recommendations and necessary and time critical actions. Staff consider the following recommendations to be of most relevance to council. The submission will provide Councils response to these recommendations/actions.
22. Enabling recommendation 4 - Central and local government working in partnership
 - We recommend that, in transitioning Aotearoa to a thriving, climate-resilient and low emissions future, central and local government work together to:
 - a. Align legislation and policy to enable local government to make effective decisions for climate change mitigation and adaptation, including aligning the Local Government Act, the Building Act and Code, national direction under the RMA, the proposed RMA reforms, implementation of the freshwater management framework and the 30-year infrastructure plan.
 - b. Implement funding and financing mechanisms to enable the emissions reduction plans to be implemented effectively and to address the distributional effects of policy change today and for future generations.
23. Necessary action 2 - Develop an integrated national transport network to reduce travel by private vehicles and increase walking, cycling, low emissions public and shared transport
 - We recommend that, in the first budget period the Government progress the following steps to meet emissions budgets:
 - a. Deliver specific and timebound targets to increase low emissions public and shared transport and walking and cycling, and supporting infrastructure through strengthening the direction of the Government Policy Statement on Land Transport.
 - b. Significantly increase the share of central government funding available for these types of transport investment, and link funding with achieving our emissions budgets.
 - c. Improve mobility outcomes through measures including supporting public transport uptake nationally and locally by reducing fares for targeted groups (such as for those under 25 years of age), and improving the quality and integration of services.
 - d. Encourage Councils to implement first and last kilometre travel solutions in their transport networks, such as increased on-demand and shared vehicle and bike services, secure park and ride solutions at public transport, and encouraging micro-mobility options.
 - e. Further government encouragement for working from home arrangements
24. Time-critical necessary action 2 - Accelerate light electric vehicle uptake. Light electric vehicle uptake needs to be accelerated as fast as possible. To meet our proposed emissions budgets and be on track for 2050, at least 50% of all light vehicle (cars, SUVs, vans and utes) and motorbike imports should be electric by 2027 (both battery EV and plug-in hybrid EV).

- To achieve this, we recommend in the first budget period the Government:
 - a. Place a time limit on light vehicles with internal combustion engines entering, being manufactured, or assembled in Aotearoa, other than in specified exceptional circumstances. The limit should be no later than 2035 and, if possible, as early as 2030.
 - b. Introduce a package of measures to ensure there are enough EVs entering Aotearoa, and to reduce the upfront cost of purchasing light electric vehicles until such time as they are cost competitive with the equivalent ICE vehicle.
 - c. Improve the efficiency of the light vehicle fleet and stop Aotearoa receiving inefficient vehicles by introducing an emissions target for light vehicles new to Aotearoa of 105 grams CO₂ per kilometre by 2028.
 - d. Develop a charging infrastructure plan for the rapid uptake of EVs to ensure greater coverage, multiple points of access and rapid charging, and continue to support the practical roll out of charging infrastructure.
25. Necessary action 3 - Accelerate light electric vehicle uptake
- We recommend that, in the first budget period the Government make progress on the following:
 - a. As part of a policy package introduce a fiscal incentive, such as a feebate or subsidy, to reduce the upfront cost of EVs until such time as there is price parity with ICEs.
 - b. As part of an equitable transition, evaluate and support interventions such as leasing, hire and sharing schemes to remove barriers and address some of the upfront capital costs of EVs.
 - c. Investigate ways to bulk procure and ensure the supply of EVs into Aotearoa and work with the private sector to do so.
 - d. Evaluate how to use the tax system to incentivise EV uptake and discourage the purchase and continued operation of ICE vehicles.
 - e. Work with the private sector to roll out EV battery refurbishment, collection and recycling systems to support sustainable electrification of light vehicle fleet.
 - f. Evaluate the role of other pricing mechanisms beyond the NZ ETS, such as road pricing, can play in supporting the change to a low emissions and equitable transport system.
 - g. In setting these policies the Government needs to mitigate impacts for low-income households and people with disabilities, regional and remote access, and with limited access to electricity.
26. Necessary action 10 - Reduce emissions from urban form
- We recommend that, in the first budget period the Government promote the evolution of urban form to enable low emissions transport and buildings through ongoing legislative reform:
 - a. Develop a consistent approach to estimate the long-term emissions impacts of urban development decisions and continually improve the way emissions consequences are integrated into decision making on land use, transport and infrastructure investments.
 - b. Ensure a coordinated approach to decision making is used across Government agencies and local councils to embed a strong relationship between urban planning, design, and transport so that communities are well designed, supported by integrated, accessible transport options, including safe cycleways between home, work and education.
27. Necessary action 13 - Reduce emissions from waste:

- We recommend that, in the first budget period the Government take steps to support the reduction of waste at source, increase the circularity of resources in Aotearoa and reduce waste emissions by:
 - a. Setting ambitious targets in the New Zealand Waste Strategy for waste reduction, resource recovery and landfill gas capture to reduce waste emissions in Aotearoa by at least 15% by 2035.
 - b. Investing the waste levy revenue in reducing waste emissions through resource recovery, promotion of reuse and recycling, and research and development on waste reduction.
 - c. Measuring and increasing the circularity of the economy by 2025.
 - d. Extending product stewardship schemes to a wider range of products, prioritising products with high emissions potential.
 - e. Legislating for and funding coordinated data collection across the waste industry before 31 December 2022.
28. Necessary action 17 - Require entities with large investments to disclose climate related risks
- We recommend that, in the first budget period the Government:
 - a. Implement the proposed mandatory financial disclosures regime and explore the creation of a similar regime that covers public entities at the national and local level.
 - b. Evaluate the potential benefits of mandatory disclosure by financial institutions of the emissions enabled by loans over a specified threshold.

Timing of submission development

29. The draft advice was published by the Commission on 31 January 2021. Staff from across the organisation have reviewed the advice and have provided input into a draft submission.
30. Due to the timing of the reports for the Environment Committee the first draft of the submission has been circulated to Committee Members for feedback separately.
31. Staff will incorporate feedback received on the first draft and then work with the nominated Members to finalise the submission.
32. The submission will be approved by the CE and submitted prior to the closing date of Sunday 14 March 2021.

Proposed key themes for Council's submission

33. The staff review of the draft advice has focused on areas where we have expertise and on recommendations that will have an impact on our activities.
34. The following key areas are discussed in the draft submission:
 - A greater focus is required on the role of mode shift in reducing transport emissions;
 - The importance of urban form and local governments role in unlocking emissions reductions needs to be explored further;
 - Local government will be critical in the effective implementation of many of the policies, the Commissions advice needs to provide more direction on the support local government requires, including appropriate funding, guidance and toolkits;
 - The strong focus on technological solutions means the draft advice doesn't adequately address the societal and economic changes that are underway and must continue.

Financial Considerations - *Whaiwhakaaro Puutea*

35. This is a regular operating activity funded through the Long Term Plan.

Legal and Policy Considerations - *Whaiwhakaaro-aa-ture*

36. Staff confirm that the staff recommendation complies with Council's legal and policy requirements.

Wellbeing Considerations - *Whaiwhakaaro-aa-oranga tonutanga*

37. The purpose of Local Government changed on the 14 May 2019 to include promotion of the social, economic, environmental and cultural wellbeing of communities in the present and for the future ('the 4 wellbeings').
38. The subject matter of this report has been evaluated in terms of the 4 wellbeings during the process of developing this report as outlined below.
39. The recommendations set out in this report are consistent with that purpose.

Social

40. Climate change will affect the social wellbeing of parts of our community. Through our submission to the Climate Change Commission we can articulate the need for a fair and equitable transition for all Hamiltonians.

Economic

41. Climate change will affect the economic wellbeing, including the types of jobs available. Through our submission to the Climate Change Commission we can articulate that local and central government need to work together to ensure a smooth economic transition and that there is access to affordable housing.

Environmental

42. Climate change is already impacting our natural environment and our environmental wellbeing. Through our submission to the Climate Change Commission we can articulate the need for the natural environment to be a central focus of the climate change response.

Cultural

43. Climate change is already impacting on some cultural traditions. By taking strong emissions reduction action can help to limit the extent of the impacts. Through our submission to the Climate Change Commission we can articulate that the climate change response must be considerate of cultural wellbeing.

Risks - *Tuuraru*

44. There are no known risks associated with the decisions required for this matter.

Significance & Engagement Policy - *Kaupapa here whakahira/anganui***Significance**

45. Staff have considered the key considerations under the Significance and Engagement Policy and have assessed that the recommendation(s) in this report has/have a medium level of significance.

Engagement

46. Community views and preferences are already known to the Council through recent consultation on the Vision, Nature in the City Strategy, climate change engagement workshops and many transport initiatives.
47. Given the medium level of significance determined, the engagement level is medium. No engagement is required.

Attachments - *Ngaa taapirihanga*

There are no attachments for this report.

Council Report

Committee: Environment Committee **Date:** 02 March 2021
Author: Sandra Murray **Authoriser:** Jen Baird
Position: Consultant **Position:** General Manager City Growth
Report Name: Hamilton Open Air Burning Bylaw Review

Report Status	<i>Open</i>
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Purpose - *Take*

1. To inform the Environment Committee on the review of the Hamilton Open Air Burning Bylaw 2015.
2. To seek a recommendation from the Environment Committee to the Council to consult on the Hamilton Open Air Burning Bylaw in compliance with the Local Government Act 2002 and Council's Significance and Engagement Policy.

Staff Recommendation - *Tuutohu-aa-kaimahi (Recommendation to the Council)*

3. That the Environment Committee:
 - a) receives the report;

EITHER

 - b) recommends that the Council:
 - i. determines a bylaw **is not** the most appropriate means of controlling the issue of open air burning in Hamilton; and
 - ii. approves consultation on the revocation of the Hamilton Open Air Burning Bylaw 2015 (**Option 3** of the staff report) and the Statement of Proposal (**Attachment 2** of the staff report);

OR

 - c) recommends that the Council:
 - i. determines a bylaw **is** the most appropriate means of controlling the issue of open air burning in Hamilton; and
 - ii. approves consultation on the Hamilton Open Air Burning Bylaw 2015 and the amended Hamilton Open Air Burning Bylaw (**Options 1 and 2** of the staff report) and the Statement of Proposal (**Attachment 3** of the staff report); and
 - d) notes that consultation will occur from 1 to 31 May 2020 and that public submissions on the Hamilton Open Air Burning Bylaw will be heard by the Hearings and Engagement Committee prior to being referred to the Environment Committee for deliberations.

Executive Summary - *Whakaraapopototanga matua*

4. Council has undertaken a review of the Open Air Burning Bylaw 2015 (the Bylaw) in accordance with section 158 of the Local Government Act 2002 (the LGA02), which requires local authorities to review a bylaw made by it under the Act no later than 5 years after the date on which it was made.
5. The Bylaw regulates the use of outdoor fires, including use of an outdoor fire device such as a barbeque or brazier. It also regulates use of incinerators and traditional food cooking such as haangi.
6. After a review of emissions levels and complaints received by Council as well as discussions with Waikato Regional Council (WRC), staff did not identify a substantive issue with open air burning.
7. Three viable and reasonable are provided for Elected members to consider:

Option	Detail
1 – status quo	Continue with existing bylaw (no changes)
2 – amended bylaw	Open air fires are allowed if they are in the Industrial or Future Residential Zone; or on private land and the open fire is in an outdoor fire device, traditional cooking or approved under permit
3 – revoke bylaw	Council determines that a Bylaw is not the most appropriate means of controlling the issue of open air burning in Hamilton and revokes the bylaw.

8. Consultation will be required, regardless of the options determined by Committee Members.
9. The Environment Committee is required, under the LGA02, to determine whether the Bylaw is the most appropriate means of controlling the issue of open air burning in Hamilton (or not).
10. Staff have identified valid arguments that legislative and bylaw changes since 2015 may have reduced the relevance of the bylaw, and recommend the bylaw is revoked. In particular, the introduction of the Hamilton Waste Management and Minimisation Bylaw 2019 which prohibits the burning of any waste except for organic materials.
11. If the Committee determines that a bylaw is **not** the most appropriate means of controlling the issue recommends to Council to revoke the bylaw, consultation will need to occur on **Option 1** (status quo) vs **Option 3** (revoke bylaw) (see paragraphs 38 - 42 of this report).
12. An alternative bylaw option has also been developed to address Elected Member concerns regarding open air burning in Hamilton. The amendments to the bylaw under Option 2 would restrict and prohibit open air burning unless the open fire is either in an outdoor fire device, as part of traditional cooking or approved under permit. This restriction would not apply in the Industrial Zone or the Future Urban Zones under the District Plan.
13. Fire and Emergency New Zealand (FENZ) does not support the proposed permit system set out in **Option 2**.
14. If **Option 2** is adopted, staff note that fees and charges will need to be included in the schedule of fees and charges during a future Annual Plan review. The permitting aspects of the amended bylaw could not be introduced until this had occurred.

15. In addition, if the proposed bylaw was adopted there would need to be a delay in introducing the permit system to allow systems to be established, including appropriate delegations and training for staff.
16. If a bylaw is to be retained, the staff view is that compliance monitoring of the existing bylaw coupled with effective enforcement is adequate to address levels of concern.
17. Staff consider the matters in this report to be of low significance and that the recommendations comply with the Council's legal requirements.

Background - *Koorero whaimaarama*

18. Council has undertaken a review of the Bylaw in accordance with section 158 of the LGA02, which requires local authorities to review a bylaw made by it under the Act no later than 5 years after the date on which it was made.
19. The Bylaw came into effect on 5 March 2015 and was amended in August 2018 to align it with the Fire and Emergency New Zealand Act 2017 (FENZ Act).
20. The Bylaw regulates the use of outdoor fires, including use of an outdoor fire device such as a barbeque or brazier. It also regulates use of incinerators and traditional food cooking such as haangi.
21. The policy intent behind the bylaw is to ensure outdoor fires do not become a public safety risk or a public nuisance.
22. At the Council meeting on [28 May 2020](#) (see Item 11, p 69), staff reported on the review of the bylaw and recommended that Council:
 - determines that the bylaw is the most appropriate means of controlling the issue of open air burning in Hamilton; and
 - approves the continuation of the bylaw unchanged.
23. Members raised concerns regarding burning rubbish/use of incinerators and discussed whether these activities should be banned. Staff were asked to consider these issues and provide a further report at a future Environment Committee meeting.
24. Lachlan Muldowney, Barrister, was engaged to provide legal advice to address these issues (see **Attachment 4** of this report).
25. The recommendations made by Lachlan Muldowney require a permitting system to be implemented for outdoor fires, with associated staff resourcing requirements and enforcement measures.
26. FENZ have provided feedback on the amended bylaw set out in **Option 2** and raised concern regarding the viability of this option. The full feedback received from FENZ is set out in paragraphs 57-61 of this report.

Discussion - *Matapaki*

27. Members requested information on whether the existing bylaw adequately restricts/prohibits the burning of rubbish and the use of incinerators on people's properties.
28. After a review of legislation, other bylaws, emissions levels and complaints received by Council and following discussions with FENZ and WRC, staff did not identify a substantive issue with open air burning.
29. The staff view is that compliance monitoring of existing bylaws coupled with effective enforcement is adequate to address levels of concern.
30. Further detail on information guiding the staff view is provided below.

Emissions in Hamilton

31. Information on the amount of emissions of air contaminants, in particular PM₁₀ and PM_{2.5}, was provided by WRC in the reports *Airshed Modelling for Hamilton City; Hamilton Air Emission Inventory-2018* and [Ambient air quality monitoring report for the Waikato Region – 2017](#) as well as email correspondence with WRC staff.
32. A summary of air quality monitoring information for 2020, provided by WRC indicates:
 - there is currently no evidence of either an improving or worsening trend in PM₁₀ emissions;
 - there was one day over the winter of 2020 (May 2019 to October 2020) when daily PM_{2.5} concentrations exceeded the World Health Organisation (WHO) daily guideline, although the annual average calculated over this period indicates the annual average WHO guideline was not exceeded. There is insufficient PM_{2.5} monitoring data at this stage to identify any trends.
33. Detailed information about monitored air contaminants are provided in **Attachment 5**.

Complaints received by Council

34. Information on complaints has been collected since the Bylaw was adopted in 2015, with approximately 180-220 calls per year (note that multiple complaints may be received about a single smoky fire).

Table 1 Complaints received Jan 2015 - June 2020

Year	2015-16	2016-17	2017-18	2018-19	2019-20
Total calls *	215	194	194	183	219
Not substantiated **	97	65	98	98	139
Resolved ***	81	83	90	69	56

* Multiple complaints may be received about a single smoky fire.

** Not substantiated means no contravention of the bylaw found at the time of the visit.

*** Resolved means an issue was detected and was resolved

35. Complaint data does not specifically record what type of fire or smoke prompted a complaint i.e. if it was an incinerator, an open pit fire, a brazier, a smoky chimney, a car doing burnouts, etc.
36. If available, such information is included in the text of the complaint. A key word search of the database gives an indication of the types of incidents officers responded to (note that these are based on complainant information and include unsubstantiated complaints).

Table 2 Key word search of complaints

Year	2015-16	2016-17	2017-18	2018-19	2019-20
Plastic	27	22	29	12	19
Rubbish	31	30	20	18	29
Toxic	5	9	6	4	6
Brazier	3	0	0	0	10

37. A review of the complaints received by Council did not identify a substantive issue with open air burning and suggests open air burning is being sufficiently managed through compliance monitoring and enforcement measures.

Is a bylaw the most effective, most appropriate means of controlling the issue of open air burning in Hamilton?

38. Some councils no longer have a specific open air burning bylaw and instead manage the issue under nuisance provisions in public safety bylaws.
39. The option of revoking the bylaw is a valid option given the introduction of the FENZ Act and the Hamilton Waste Management and Minimisation Bylaw 2019, and changes to other regulatory overlays such as the Waikato Regional Plan.
40. Feedback from FENZ on the amended bylaw suggests the FENZ Act may adequately cover many of the instances where the existing bylaw is used other than in relation to nuisance from smoky fires.
41. A summary of the regulatory framework related to open air burning is set out below (further detail on these regulations can be seen in **Appendix 2**):

Legislation / Regulation / Bylaw	Summary
Fire and Emergency New Zealand Act 2017 (FENZ Act)	<p><i>Primarily related to preventing or controlling fires in emergency situations.</i></p> <p>A person who has notice that the lighting of fires in open air in an area is prohibited must not light or allow another person to light a fire in open air in that area unless FENZ grants a permit under regulations made under section 190 of the FENZ Act.</p> <p>The LGA prevents the Council from making a bylaw that is inconsistent with the FENZ Act and its regulations etc. This means, for example, that the Council cannot create an alternative fire permit regime through a bylaw that conflicts with the FENZ permit scheme.</p>
Waikato Regional Plan (Regional Plan)	<p><i>Primarily related to preventing or controlling fires where there may be discharge of contaminants into air and any subsequent discharge of contaminants onto land.</i></p> <p>The Regional Plan prohibits the burning of a range of hazardous materials and states:</p> <ul style="list-style-type: none"> • There shall be no discharge of contaminants beyond the boundary of the subject property that has adverse effects on human health, or the health of flora and fauna. • The discharge shall not result in odour that is objectionable to the extent that it causes an adverse effect at or beyond the boundary of the subject property. • There shall be no discharge of particulate matter that is objectionable to the extent that it causes an adverse effect at or beyond the boundary of the subject property. • The discharge shall not significantly impair visibility beyond the boundary of the subject property. • The discharge shall not cause accelerated corrosion or accelerated deterioration to structures beyond the boundary of the subject property.
Hamilton Waste Management and Minimisation Bylaw 2019 (WMM Bylaw)	<p><i>Prohibits any person from burning or allowing to be burnt on any property they own, occupy or manage any waste except organic matter.</i></p>
Health Act	<p><i>Primarily related to preventing or controlling fires where there is a statutory nuisance i.e. there must be a public health significance.</i></p> <p>Under the Health Act, a nuisance is NOT deemed to occur where any adverse effect being experienced by a person or persons is of general annoyance or</p>

	inconvenience such as is common in an urban environment (for example smoke wafting from a neighbour's open air burning) or is a detraction from visual amenity (for example a section covered in car bodies, household appliances and general rubbish). Some of these situations may be offensive in a general sense, but this form of offensiveness is not the same as the form contemplated under the Health Act.
Hamilton Open Air Burning Bylaw 2015 (current bylaw)	<p><i>Primarily related to open air fires that do not fall under the regulations listed above i.e. nuisance fires that do not pose an emergency, health or environmental risk; and do not include the burning of waste or hazardous material.</i></p> <p><i>Braziers (including smokers), BBQs and traditional cooking methods such as haangi are excluded from most provisions.</i></p> <p>The existing Open Air Burning Bylaw sets out conditions under which outdoor fires <i>may not</i> be lit to ensure the fire does not become a safety hazard or a nuisance. Where the conditions are satisfied, a fire may be lit. Conditions set out in section 5 of the existing Bylaw states:</p> <p><i>A person must not light any fire at any time in the open air, or within a barbecue, brazier or incinerator, or burn a traditional cooking fire under the following conditions:</i></p> <p><i>a) Where the location, wind, or other conditions cause or are likely to cause the fire to become:</i></p> <p style="padding-left: 40px;"><i>I. A danger to any person or property; or</i></p> <p style="padding-left: 40px;"><i>II. Out of control or spread beyond the boundaries of the premises on which it is lit; or</i></p> <p style="padding-left: 40px;"><i>III. A nuisance beyond the boundaries of the premises on which it is lit; or to:-</i></p> <p style="padding-left: 40px;"><i>IV. Deposit ash or other debris beyond the boundaries of the premises on which it is lit.</i></p>
Amended Open Air Burning Bylaw	<p>As above (existing bylaw) with the introduction of a new requirement for a permit to be issued for open air fires <i>excluding</i>:</p> <ul style="list-style-type: none"> • Fires permitted under the FENZ Act • Fires that are prohibited under the FENZ Act, Regional Plan, Health Act or WMM Bylaw including the burning of waste or hazardous material. • Braziers (including smokers), BBQ's and traditional cooking

42. If the Committee determines that the Bylaw is **not** the most appropriate means of controlling the issue of open air burning in Hamilton, public consultation will be required with **Option 1** (status quo) and **Option 3** (revoke bylaw).

Imposing a permitting system for open air burning

43. Introducing a permitting or approvals system was considered during the development of the 2015 Bylaw and rejected as an option prior to consultation due to:
- the expectation that approvals would need to be monitored to ensure compliance with any conditions; and
 - the resultant administrative burden that would be imposed including any required inspection of land or incinerator.
44. Imposing a permit requirement on open air burning or the use of an incinerator would constitute a significant change to the Bylaw and impact people's right to undertake those activities on their properties. To ensure these limits are not unreasonable, more would be required than a simple amendment to clause 5 to include an express ban.

45. If the controls on open air burning are considered inadequate, and the Environment Committee recommends imposing a ban on open air burning and the use of incinerators, that outcome could be achieved by incorporating three new clauses as set out in the advice provided by Lachlan Muldowney including the following proposed clause, which would replace clause 5 in the existing Bylaw:
5. ***Lighting outdoor fires in any Zone except an Industrial Zone or Future Urban Zone***
 - 5.1 *Except in an Industrial Zone or Future Urban Zone, a person must not light, or allow to be lit, any outdoor fire in Hamilton City, unless that outdoor fire is on private land and is:*
 - (a) *contained within an outdoor fire device; or*
 - (b) *a traditional cooking fire; or*
 - (c) *any other outdoor fire that the council has approved under clause 7.*
 - 5.2 *Nothing in clause 5 derogates from any duty, power or responsibility arising from any other Act, Regulation, bylaw or rule.*
46. For clarification, the proposals from Lachlan Muldowney are to restrict and prohibit open air burning except for in the Industrial Zone or the Future Urban Zones under the District Plan, unless subject to an exemption (permit) issued by the Council.
47. In addition:
- A new clause 6 is proposed setting out general restrictions that must be complied with in any circumstances that outdoor fires are lit (see full report from Lachlan Muldowney in **Attachment 4** and the amended Bylaw).
 - For Option 2 (introduction of a permitting system) a new clause 7 is proposed introducing a system for the granting of approvals to the restrictions in new clauses 5 and 6 in appropriate circumstances would ensure those limits are not unreasonable.
 - New and amended definitions are inserted into clause 4 of the amended bylaw to align with the proposed new clauses.
48. The changes would lift the bar for people to comply and would increase the demand on compliance monitoring and enforcement (because open air burning, and the use of incinerators, will continue).
49. Compliance monitoring and enforcement would extend to all open air burning and use of incinerators regardless of whether these practices are an issue. This may impose an unnecessary burden on Council to regulate and enforce.
50. The response to calls for service is reliant on contracted security guards. Under the permit proposal in **Option 2**, staff predict an increase in service requests but are unable to accurately assess the likely impact. There will, however, be an increase in administration, assessments and permitting around requests for permits.
51. If **Option 2** is adopted, staff note fees and charges will need to be included in schedule of fees and charges during a future Annual Plan review. The permitting aspects of the amended bylaw could not be introduced until this had occurred.
52. In addition, there would need to be a delay in introducing the permit system to allow systems to be established, including appropriate delegations and training. The changes would need to be well communicated to the community.

Enforcement considerations

53. Currently, Council enforcement staff are not sufficiently trained to be able to extinguish a fire, raising concerns regarding the safety of officers and others; and potential liability attached to Council as a result of staff actions e.g. not putting out a fire correctly and property being damaged as a result.
54. If there is a real expectation that Council staff will enter property to put out fires, they would need to be well trained with regular refreshers.
55. Without adequate training, if FENZ did not respond, it would be up to enforcement staff to decide on whether to enforce the bylaw. While Council is the regulator, there is no specific obligation to take enforcement action. It may be acceptable to simply issue a warning.
56. The question then centres on the expectation created by the bylaw, how often enforcement might come up and any reputational risk to Council in not enforcing a bylaw.
57. Council does not have the power to issue an infringement under the bylaw; therefore, enforcement requires a successful prosecution to occur. Staff estimate a successful prosecution is likely to cost \$5,000 to \$10,000 (depending on whether the prosecution was defended or not) and would result in a fine of approximately \$500. The costs of prosecution would not be recouped.

Feedback from Fire and Emergency NZ (FENZ)

58. Staff note the function of extinguishing the fires under clause 6.2 is delegated to FENZ, who have provided feedback on the amended bylaw as follows:
59. *In order to be valid and resistant to challenge, the bylaw needs to comply with [s152B](#) of the Local Government Act 2002 (LGA02). That prevents the council from making a bylaw that is inconsistent with the Fire and Emergency New Zealand Act 2017 (FENZ Act) and its regulations etc. This means, for example, that the council cannot create an alternative fire permit regime through a bylaw that conflicts with the statutory fire permit regime that Fire and Emergency administers under the FENZ Act. This does not mean that a bylaw cannot create a fire permitting regime at all. Instead, it means that the bylaw needs to have a very carefully expressed purpose and scope, to avoid any inconsistent overlap with the FENZ Act. For example, a bylaw created for the purpose of limiting or controlling smoke nuisances (which are not 'emergencies' as defined in the FENZ Act) with a permitting regime that is intended to further that purpose may be legitimate. In contrast, a more general prohibition on certain types of fire in open air without that clearly expressed purpose will likely conflict with the FENZ Act's fire permitting regime. The amended bylaw arguably lean more towards the latter type of bylaw, as currently framed.*
60. *It is technically possible for the council to empower Fire and Emergency or its personnel to enforce a bylaw. This can happen, for example, by the council contracting out or delegating its bylaw-related enforcement functions to Fire and Emergency (LGA02, [s179](#) (power to contract out administration of enforcement) or [Schedule 7, cl 32\(5\)](#) (power to delegate enforcement related to bylaws and other regulatory matters)). In either case, this would necessarily involve instruments in addition to the bylaw itself: e.g. a contract between the council and Fire and Emergency, or formal delegation instruments if that is the mechanism used. Irrespective, there is a further issue to be addressed, which is that Fire and Emergency personnel would also need powers of entry and action for enforcement purposes. While we have powers of entry under our legislation (as the draft bylaws note), those would not be exercisable in the context of bylaw enforcement where we are not responding to an 'emergency' under the FENZ Act. In the context of the LGA02, that would likely need to be addressed by the council appointing selected Fire and Emergency personnel as 'enforcement officers', who could then exercise powers of entry etc under the LGA02. The difficulties arising from this are:*

- (a) *There are logistical/administrative challenges around the appointment and warranting of personnel as enforcement officers. That may make it challenging to ensure that each crew responding to a smoke nuisance call under the bylaw includes an 'enforcement officer'.*
 - (b) *Extinguishing nuisance fires is materially different from extinguishing fires that constitute an emergency and present a risk to life or property. While the activity potentially comes within the scope of Fire and Emergency's assist function in [s12\(3\)\(h\)](#) of the FENZ Act, the capacity/capability assessment required by [s12\(2\)](#) needs to happen first. Personnel may also be reluctant to extinguish fires in this enforcement context, as opposed to the emergency response context they are familiar with. There is also a possibility that they would not be protected by the usual statutory immunities that arise under the FENZ Act when doing so (the LGA02 has no equivalent protections). While the council would remain legally responsible for the manner in which the enforcement is carried out (see for example LGA02, [s179\(2\)](#)), that would not absolve our personnel from also sharing in that responsibility. This risk could be ameliorated by a contractual indemnity from the territorial authority concerned, but that is something that would need to be negotiated and part of a broader arrangement.*
 - (c) *Taking on an enforcement role would require our personnel to:*
 - (i) be familiar with the council's bylaw and its interpretation;*
 - (ii) have the capability to determine whether, and if so what sort of, enforcement action is permissible given conditions encountered on site; and*
 - (iii) be familiar and able to comply with requirements for powers of entry arising under the Search and Surveillance Act 2012 (see LGA02, [s172\(4\)](#)).**Simply put, attending a site to exercise enforcement functions is different – and frequently much more complex – than attending an incident in response to an alarm of fire or another emergency.*
61. *While there is room to argue the point, it is not certain that a council bylaw can legitimately require the direct extinguishment of fires that are lit in contravention of it (bearing in mind the bylaw must be for the purpose of abating nuisances, environmental harm, or the like). While a bylaw can authorise a council (or its delegate) to remove or alter a thing that has been 'constructed in breach of a bylaw' (LGA02, [s163\(1\)](#)) it is uncertain whether this extends to extinguishing a fire, or that a fire can be said to be a thing 'constructed' in breach of a bylaw. It is relevant that the council has other tools it can use when people fail to comply with bylaws, such as obtaining injunctive relief or taking prosecution action, or potentially taking action under [s186](#) of the LGA02 on the owner/occupier's default.*
62. *Two mechanisms the council could invoke that are more obviously applicable, but which are independent of bylaw-related powers, are:*
- (a) *Fire and Emergency can extinguish a fire at the request of a territorial authority's environmental health officer (EHO), where the EHO exercises their power to abate a nuisance under [s34](#) of the Health Act 1956. Fire and Emergency can act as the EHO's 'assistant' in these circumstances. This approach was tacitly endorsed by the High Court in *Parlane v Waipa District Council* CRI 2005-419-027, 20 June 2005, Rodney Hansen J. Note that this is distinct from a request to extinguish a fire because it breaches a bylaw: [s34](#) is a direct statutory power that is triggered when the EHO identifies a 'nuisance' (which can include a smoke discharge) for the purposes of the Health Act.*
 - (b) *Fire and Emergency can extinguish a fire at council's request, where the council exercises its power to take immediate preventative or remedial measures under [s330](#) of the Resource Management Act 1991. Fire and Emergency can arguably act as the council's 'agent' in these circumstances. Because of the thresholds associated with*

this council power, there is a high likelihood that we would be able to use our own emergency response powers in such a situation in any event.

Consultation requirements

63. The LGA02 is clear that consultation must occur when the Council undertakes a 5-yearly review of a bylaw, even when no amendments are made. Accordingly, the Council must put the bylaw out for consultation, even if it proposes to continue the existing bylaw unamended.

Options

64. Staff have assessed that there are three viable and reasonable options for the Environment Committee to consider:

Option	Detail
1 – continue with the existing bylaw	Continue with existing bylaw (no changes)
2 – amended bylaw	Open air fires are allowed if they are in the industrial or future residential zone; or on private land and the open fire is in an outdoor fire device, traditional cooking or approved under permit
3 – revoke bylaw	Council determines that the bylaw is not the most appropriate means of controlling the issue of open air burning in Hamilton and revokes the bylaw.

65. Staff have identified valid arguments that legislative and bylaw changes since 2015 may have reduced the relevance of the bylaw, and recommend the bylaw is revoked.
66. If a bylaw is to be retained, the staff view is that compliance monitoring of the existing bylaw, coupled with effective enforcement, is adequate to address levels of concern.
67. Consultation will be required, regardless of the options determined by Committee Members.
68. Staff consider the matters in this report to be of low significance and that the recommendations comply with the Council's legal requirements.

Financial Considerations - *Whaiwhakaaro Puutea*

69. The bylaw review is a regular operating activity funded through the Long-Term Plan.
70. The cost of reviewing the bylaw, including legal review and public consultation is estimated to be \$10,000 - \$15,000.
71. The impacts of **Option 2** are unable to be fully identified at this time. Staff predict an increase in service requests but are unable to accurately assess the likely impact. There will, however, be an increase in administration, assessments and permitting around requests for permits. Additional costs related to prosecutions may occur and cannot be estimated at this time.

Legal and Policy Considerations - *Whaiwhakaaro-aa-ture*

72. Staff confirm that the options set out in this report comply with the Council's legal and policy requirements.
73. Progressing with **Option 2** may carry additional risk if enforcement staff will be expected to put out fires. Currently, staff are not sufficiently trained to be able to carry out this work and this raises concerns regarding safety at work. The safety of others also becomes an issue, and there could be liability attached to Council as a result of staff actions, i.e. not putting out a fire correctly and property being damaged as a result.

74. The proposed permitting system may not be in alignment with the FENZ Act, leading to legal challenge.
75. Enforcement of the permitting system may result in an increase in prosecutions for breach of the bylaw.

Wellbeing Considerations - *Whaiwhakaaro-aa-oranga tonutanga*

76. The recommendations set out in this report are consistent with the purpose of the Local Government Act, which includes promotion of the social, economic, environmental and cultural wellbeing of communities in the present and for the future ('the 4 wellbeings').

Social

77. Although serious harm is unlikely if exposure is brief, smoke inhalation can cause problems for some people. It can particularly affect those with existing health problems, such as:
- asthma sufferers
 - bronchitis sufferers
 - people with heart conditions or some autoimmune conditions.
78. Open air burning also increases the risk of harm to others if the fire becomes uncontrolled or explosions occur:
- fire can spread to fences or buildings and scorch trees and plants
 - rubbish may contain bottles or cans that can explode when burnt
 - piles of garden waste are often used as a refuge by wildlife and sleeping pets.
79. Many people may also enjoy cooking outdoors (BBQs and pizza ovens), particularly in social settings. Some may find outdoor cooking is a low-cost way to cook. Both options will continue to allow outdoor cooking including traditional cooking methods.
80. Others may have had a lifetime of burning material, such as dried leaves, in an incinerator and consider the practice as 'normal' and 'not a problem'. The amendments in **Option 2** may be perceived as an unreasonable infringement of personal liberty on private property.

Economic

81. An uncontrolled fire started by open air burning may cause damage to fences, buildings or other property resulting in insurance claims and other costs for repair or replacement.
82. Any specifications related to incinerators, braziers or other open-air burning devices may impact the existing market for such products. For example, implementing a specification that incinerators must be a certain size or shape or function in a certain manner may make other devices un-saleable. If such a measure were to be introduced, further consultation with manufacturers and retailers would be recommended prior to introduction. Neither option proposes such specifications.

Environmental

83. Burning waste can be a nuisance to neighbours and can also pollute the air by releasing harmful chemicals. Many common household items contain toxic chemicals. Paper waste may contain synthetic materials, preservatives and even plastics. Disposable nappies contain gels, bleaches and plastics. Many wood products are treated with toxic chemicals to prevent rot.
84. Burning of such wastes in low-temperature uncontrolled fires creates toxic and dangerous by-products which are not destroyed by the fire but become airborne on soot particles. These can end up being inhaled or being washed out of the air and deposited onto surrounding soil and vegetation, where they can readily enter the food chain.

85. The Waste Management and Minimisation Bylaw 2019 prohibits the burning of waste materials.
86. The extent to which waste and recoverable materials are being incinerated in open air fires within the Hamilton area is unknown, but expected to be relatively low volume due to the availability of Council-provided services including a recently implemented food waste service and improved rates-funded recycling service.
87. Reducing use of open air burning may reduce air contaminants, particularly PM₁₀ and PM_{2.5}.
88. The provisions in the existing bylaw include a requirement to meet the Waikato Regional Plan, which includes the permitted activity rule 6.1.13.1:

Permitted Activity Rule – Open Burning and Incineration

The discharge of contaminants into air and any subsequent discharge of contaminants onto land from open burning and incineration* of:*

- *Untreated wood and vegetative matter*
- *Paper and cardboard*
- *Food waste*
- *Non halogenated plastics*
- *Animal carcasses on production land*

is a permitted activity.....

89. *The Waikato Regional Council – Air Quality Strategy* has a focus on the regulation of industrial and trade discharges of PM₁₀, with only a minor focus on backyard burning which has a low contribution to air quality issues.

Cultural

90. Open air burning can be a traditional way of cooking (e.g. haangi) and restricting or infringing on people's ability to cook according to traditional practice may be unfair or discriminatory.
91. The existing and amended bylaws continue to allow traditional cooking.

Risks - Tuuraru

92. There are no known risks associated with continuing the existing Bylaw.
93. The amended bylaw may carry additional risk if enforcement staff will be expected to put out fires. Currently, staff are not sufficiently trained to be able to carry out this work and this raises concerns regarding safety at work. The safety of others also becomes an issue, and there could be liability attached to Council as a result of staff actions, i.e. not putting out a fire correctly and property being damaged as a result.
94. The proposed permitting system may not be in alignment with the FENZ Act, leading to legal challenge.
95. Enforcement of the permitting system may result in an increase in prosecutions for breach of the bylaw.

Significance & Engagement Policy - *Kaupapa here whakahira/anganui*

Significance

96. Given the statutory requirement to consult, staff have not considered the key considerations under the Significance and Engagement Policy to assess the significance of recommendation(s) in this report.

Engagement

97. Waikato Regional Council and Fire and Emergency New Zealand have been consulted during this bylaw review.
98. Section 156 of the Local Government Act sets out the requirements for a Special Consultative Process:
- 156 Consultation requirements when making, amending, or revoking bylaws made under this Act*
- (1) When making a bylaw under this Act or amending or revoking a bylaw made under this Act, a local authority must—*
- (a) use the special consultative procedure (as modified by section 86) if—*
- (i) the bylaw concerns a matter identified in the local authority's policy under section 76AA as being of significant interest to the public; or*
 - (ii) the local authority considers that there is, or is likely to be, a significant impact on the public due to the proposed bylaw or changes to, or revocation of, the bylaw; and*
- (b) in any case in which paragraph (a) does not apply, consult in a manner that gives effect to the requirements of section 82.*
99. As the Bylaw review has been assessed as being of low significance, a Special Consultative Process is not required.
100. Staff therefore recommend public consultation in accordance with section 82 of the LGA.
101. There is a statutory requirement to consult as per legislation outlined below.

Attachments - *Ngaa taapirihanga*

- Attachment 1 - Open Air Burning Bylaw 2015 (Option 2_tracked)
- Attachment 2 - Statement of Proposal - Open Air Burning Bylaw - revoke
- Attachment 3 - Statement of Proposal - Open Air Burning Bylaw - Option 2 vs 3
- Attachment 4 - Legal Opinion - Open Air Burning Bylaw 2015
- Attachment 5 - Open Air Burning Bylaw Report - Contaminants
- Attachment 6 - Open Air Burning Bylaw Report - Regulations

Hamilton City Council BYLAWS

Approved By: Council	Date Adopted: 26 February 2015 Date in Force: 5 March 2015
Review Dates: 2 August 2018 (removing FENZ Act inconsistencies) <u>30 September 2021</u>	Review Date: 5-30 September 2021 <u>March 2020</u>

HAMILTON OPEN AIR BURNING BYLAW ~~2015~~2021

This Bylaw is made by the Hamilton City Council under the powers given to it by the Local Government Act 2002 and any amendments to that act.

1. PREAMBLE

1.1. This bylaw is made under the powers given to Hamilton City Council by the Local Government Act 2002. It applies to Hamilton City.

2. SHORT TITLE

2.1. This bylaw may be cited as the Hamilton Open Air Burning Bylaw.

3. PURPOSE

- 3.1. The purposes of this bylaw is to protect and maintain public health and safety by:
- a) Enabling Council to exercise control over the lighting of fires in the open air and to prevent fires in the open causing nuisance; and
 - b) Preventing the spread of fires in periods of extremely dry weather.

4. DEFINITIONS

4.1. In this bylaw except where inconsistent with the context:

Acceptable means of fire suppression Means a hose connected to a reticulated water supply or another effective means of fire suppression having regard to the type and size of fire.

Authorised officer Means any person authorised under the Local Government Act 2002 to exercise the powers in clause 6 of this bylaw. Includes the employees and officers of Fire and Emergency New Zealand and enforcement officers appointed by Waikato Regional Council under the Resource management Act 1991. Includes Enforcement Officer.

Barbecue Means any fixed or portable gas or solid fuel burning equipment or device designed or intended for the cooking of food in the open air.

Brazier ~~includes Any any~~ fixed or portable solid fuel or gas fired equipment or appliance designed for heating and used outdoors.

Combustible material Includes but is not limited to any materials, rubbish or any other matter which is flammable or capable of being burned or consumed by fire

Hamilton City Council BYLAWS

<u>Council</u>	Council <u>Means the governing body of Hamilton City Council or any person delegated or authorised to act on its behalf, including in relation to this bylaw.</u>
Enforcement officer	Means a person appointed by Council to exercise the powers of an enforcement officer in relation to offences against the Local Government Act 2002, including enforcement of Council's bylaws
<u>Fire ban</u>	Means the period of time, whether fixed or indefinite, during which the lighting of fires in the open air is prohibited in accordance with 6.1
<u>Future Urban zone</u>	<u>Any area of land within Hamilton City zoned 'Future Urban' under the Hamilton City Operative District Plan.</u>
Incinerator fire	Means a fire within an incinerator
Incinerator	Means a container used for burning of waste material, which is made of non-combustible materials and which has a grate and a lid or spark arrester
<u>Industrial zone</u>	<u>Any area of land within Hamilton City zoned 'Industrial' under the Hamilton City Operative District Plan.</u>
<u>Non-combustible receptacle</u>	Non-combustible receptacle <u>Means a receptacle made of fire resistant fire-resistant materials to contain combustion or the burning of fuel.</u>
Nuisance	Any smoke, odour, debris or fumes produced by fire in such quantity or of such nature as to cause unreasonable inconvenience or annoyance or harmful effects to any person <u>Nuisance</u> Means, in relation to an outdoor fire, smoke or ash that is causes unreasonable inconvenience or annoyance or harmful effects to any person <u>offensive or objectionable beyond the property boundary where the outdoor fire has been lit.</u>
Occupier	Means in relation to any premise, any owner, tenant, agent, manager, foreperson or other person who appears to the Authorised Officer to be acting in the general management or control of the premise.
Open air	Open air <u>Means in the open whether on or above ground level in any area of Hamilton.</u> Means in the open whether on or above ground level in any area of Hamilton. In relation to fires, means otherwise than:- a) Within a fireplace (including any enclosed fireproof place or incinerator) constructed and maintained in a dwelling or other structure to the approval of the public or local authority having jurisdiction to issue the relevant permit to build such dwelling or structure or to authorise the construction or installation of the fireplace; b) Within a barbeque, brazier, or incinerator; c) A traditional cooking fire.

Hamilton City Council BYLAWS

Item 9

Attachment 1

Outdoor fire ~~Outdoor fire~~ Means any activity that uses fire to ignite and burn fuel in the outdoors and includes any fire in the open air, fire contained within an outdoor fire device or incinerator.

Outdoor fire device ~~Outdoor fire device~~ Means any non-combustible receptacle, appliance or device designed or intended to be used in the outdoors for cooking, heating or amenity that contains combustion or the burning of fuel and may include barbeques, smokers, braziers, pizza ovens and other like devices. It does not include an incinerator.

Person ~~Person~~ Includes an individual, a corporation sole, a body corporate, and an unincorporated body and includes the Crown and any successor of a person.

Premises Means any private land that is occupied or unoccupied.

Traditional cooking fire Means any hangi, umu or similar outdoor fire for the sole purpose of food preparation using traditional cooking methods.

5. CONDITIONS FOR THE LIGHTING OF FIRES LIGHTING OUTDOOR FIRES IN ANY ZONE EXCEPT AN INDUSTRIAL ZONE OR FUTURE URBAN ZONE

~~4.2.5.1. A person must not light any fire at any time in the open air, or within a barbeque, brazier or incinerator, or burn a traditional cooking fire under the following conditions Except in an Industrial Zone or Future Urban Zone, a person must not light, or allow to be lit, any outdoor fire in Hamilton City, unless that outdoor fire is on private land and is:~~

- ~~a) contained within an outdoor fire device; or~~
- ~~b) a traditional cooking fire; or~~
- ~~c) any other outdoor fire that the Council has approved under clause 7.~~

~~5.2. Nothing in clause 5.1 derogates from any duty, power or responsibility arising from any other Act, Regulation, bylaw or rule.~~

- ~~a) Where the location, wind, or other conditions cause or are likely to cause the fire to become:~~
 - ~~I. A danger to any person or property; or~~
 - ~~II. Out of control or spread beyond the boundaries of the premises on which it is lit; or~~
 - ~~III. A nuisance beyond the boundaries of the premises on which it is lit; or to:-~~
 - ~~IV. Deposit ash or other debris beyond the boundaries of the premises on which it was lit;~~
- ~~b) Without continuous supervision being maintained at all times; or~~
- ~~c) Without an acceptable means of fire suppression being available at all times or~~
- ~~d) In breach of any Act or regulation (including any rule in a district or regional plan under the Resource Management Act 1991).~~

~~4.3. A person must not light any fire at any time in the open air, including a traditional cooking fire, within three metres of any part of a building, tree, hedge, fence or any other combustible material. This clause does not apply to barbeques, braziers or incinerators.~~

Hamilton City Council BYLAWS

6. Conditions for lighting outdoor fires in all areas at all times

6.1. A person must not light any outdoor fire in any of the following circumstances:

- a) Where the location, wind, or other conditions cause, or are likely to cause, the outdoor fire to become:
 - I. a danger to any person or property; or
 - II. out of control or spread beyond the boundaries of the premises on which the fire is lit; or
 - III. ~~(iii)~~ a nuisance beyond the boundaries of the premises on which it is lit; or
 - IV. ~~(iv)~~ a hazard to road traffic; or to
 - V. ~~(v)~~ Deposit ash or other debris beyond the boundaries of the premises on which it is lit;
- b) Without continuous supervision being maintained at all times; or
- c) Without an acceptable means of fire suppression being available at all times or
- d) In breach of any Act or regulation (including any rule in a district or regional plan under the Resource Management Act 1991).
- e) Within three metres of any combustible materials such as a building, fence or vegetation that may cause or be likely to cause a fire hazard, unless the fire is contained within an outdoor fire device that:
 - I. ~~(i)~~ is fuelled by gas; or
 - II. ~~(ii)~~ contains all embers and sparks.

6.2. Every person who lights an outdoor fire must ensure the outdoor fire is totally extinguished on completion of the activity.

7. Council approval to light an outdoor fire

7.1. The Council may make controls and set fees for the following matters with respect to any approval required under this bylaw:

- a) application for an approval, including forms and information;
- b) assessing an application;
- c) inspecting any land or incinerator or outdoor fire device;
- d) granting or declining an approval;
- e) the conditions that may be imposed on an approval;
- f) the duration of the approval;
- g) reviewing an approval or its conditions;
- h) extending or renewing an approval;
- i) suspending or cancelling an approval.

7.2. At the discretion of Council and having regard to any controls made under subclause 7.1, approvals may be declined, or granted subject to any conditions.

7.3. An approval is personal to the holder and property and is not transferable.

Hamilton City Council BYLAWS

Item 9

Attachment 1

5.8. AUTHORISED OFFICER MAY EXTINGUISH FIRES

5.1.8.1. Where an outdoor fire has been lit or allowed to burn in breach of clause 5, clause 6.1 or clause 7.5.2 an authorised officer may:

- a) direct the occupier or premises on which the fire is located, or the person who lit the fire, to immediately extinguish the fire; and
- b) obtain such assistance that may be reasonably necessary to ensure the safety of any person or to protect the property or any other property.

5.2.8.2. Where any occupier of premises upon which a fire in the open air is located, or person who lit such a fire, does not comply with an authorised officer's direction under clause 8.16.1a to extinguish the fire, the authorised officer may extinguish the fire and take other such steps as may be reasonably necessary to ensure the safety of any person or to protect the property, or any other property. The function of extinguishing the fires under clause 8.26.2 is delegated to Fire and Emergency New Zealand.

5.3. ~~An authorised officer exercising the power under clause 8.6.2 may obtain such assistance as is reasonably necessary.~~

5.4.8.3. Pursuant to section 187 of the Local Government Act 2002, where an authorised officer has extinguished a fire pursuant to clause 8.6.2, the Council may recover costs incurred by Council associated with extinguishing the fire from the person to whom the direction was made as a debt due to Council pursuant to section 252 of the Local Government Act 2002.

6.9. POWERS OF ENTRY

6.1.9.1. An enforcement officer may enter land under sections 171, 172 (1), 173 and 174 of the Local Government Act 2002, for the purposes of detecting a breach of the bylaw, if the officer has reasonable grounds for suspecting that a breach of the bylaw is occurring on the land. Before entering the land the officer must, if practicable, give reasonable notice to the occupier of the land of the intention to exercise the power, unless the giving of notice would defeat the purpose of entry.

An enforcement officer may enter land without notice for a purpose authorised by this bylaw if there is sudden emergency causing or likely to cause loss of life or injury to a person; or damage to property; or damage to the environment; or there is danger to any works or adjoining property.

Note: *This note does not form part of the bylaw:* Members of Fire and Emergency New Zealand have powers of entry under the Fire and Emergency New Zealand Act 2017.

7.10. PENALTIES AND OFFENCES

7.1.10.1. A person commits a breach of this bylaw who:

- a) Burns a fire in contravention of clause 5, clause 6.1 or clause 7.5.2; or
- b) Fails to comply with a direction given under clause 8.6.1a

7.2.10.2. Pursuant to section 239 and 242 of the Local Government Act 2002, any person who breaches this bylaw commits an offence and is liable on conviction to a fine not exceeding \$20,000.

7.3.10.3. Pursuant to section 229 of the Local Government Act 2002, any person who obstructs or hinders any authorised officer in the performance of any duty to be discharged by that officer under or in exercise of any power conferred by this bylaw commits an offence and is liable on conviction to a fine not exceeding \$5,000.

Hamilton City Council BYLAWS

7.4.10.4. Under section 162 of the Local Government Act 2002 the Council may apply to the District Court for the grant of an injunction restraining a person from committing a breach of this bylaw.

The COMMON SEAL of the HAMILTON CITY COUNCIL
was hereunto affixed in the presence of:

Councillor:

Councillor:

Chief Executive:



HAMILTON OPEN AIR BURNING BYLAW


STATEMENT OF PROPOSAL

May 2021

FURTHER INFORMATION

Hamilton City Council
Garden Place, Private Bag 3010, Hamilton

 haveyoursay@hamilton.govt.nz

 07 838 6699

 hamilton.govt.nz/haveyoursay

 [/hamiltoncitycouncil/](https://www.facebook.com/hamiltoncitycouncil/)



Hamilton City Council (the Council) is seeking feedback on the review of the *Open Air Burning Bylaw 2015*.

WHY ARE WE DOING THIS?

Hamilton City Council are proposing to revoke the Hamilton City Council *Open Air Burning Bylaw 2015*.

OPEN AIR BURNING BYLAW 2015

The Bylaw was first adopted in 2015 and, as per the Local Government Act 2002 requirements, the Council is required to review the Bylaw after 5 years. The Bylaw does not apply to indoor fires such as wood burners.

PROPOSED CHANGES

Hamilton City Council (the Council) is seeking feedback on the review of the *Open Air Burning Bylaw 2015* from 1 – 31 May 2021.

The Council proposes to revoke the bylaw due to changes in legislation and regulation which take precedence over the bylaw. These include:

Legislation / Regulation / Bylaw	Summary
Fire and Emergency New Zealand Act 2017 (FENZ Act)	<p><i>Primarily related to preventing or controlling fires in emergency situations.</i></p> <p>A person who has notice that the lighting of fires in open air in an area is prohibited must not light or allow another person to light a fire in open air in that area unless a permit is granted under regulations made under section 190 of the FENZ Act.</p>
Waikato Regional Plan	<p><i>Primarily related to preventing or controlling fires where there may be discharge of contaminants into air and any subsequent discharge of contaminants onto land.</i></p> <p>The Regional Plan prohibits the burning of a range of hazardous materials and states:</p> <ul style="list-style-type: none"> • There shall be no discharge of contaminants beyond the boundary of the subject property that has adverse effects on human health, or the health of flora and fauna. • The discharge shall not result in odour that is objectionable to the extent that it causes an adverse effect at or beyond the boundary of the subject property. • There shall be no discharge of particulate matter that is objectionable to the extent that it causes an adverse effect at or beyond the boundary of the subject property. • The discharge shall not significantly impair visibility beyond the boundary of the subject property. • The discharge shall not cause accelerated corrosion or accelerated deterioration to structures beyond the boundary of the subject property.
Hamilton Waste Management and Minimisation Bylaw 2019	<p><i>Prohibits any person from burning or allowing to be burnt on any property they own, occupy or manage any waste except organic matter.</i></p>
Health Act	<p><i>Primarily related to preventing or controlling fires where there is a statutory nuisance creating a public health issue.</i></p>
Open Air Burning Bylaw 2015 (current bylaw)	<p>The existing Open Air Burning Bylaw sets out conditions under which outdoor fires <i>may</i> not be lit. This is to ensure a fire does not become a safety hazard or a nuisance. Some of these conditions have been superseded by the FENZ Act and the Waste Management</p>

	<p>and Minimisation Bylaw 2019.</p> <p>Conditions set out in the existing Bylaw state:</p> <p><i>A person must not light any fire at any time in the open air, or within a barbecue, brazier or incinerator, or burn a traditional cooking fire under the following conditions:</i></p> <p><i>a) Where the location, wind, or other conditions cause or are likely to cause the fire to become:</i></p> <p><i>I. A danger to any person or property; or</i></p> <p><i>II. Out of control or spread beyond the boundaries of the premises on which it is lit; or</i></p> <p><i>III. A nuisance beyond the boundaries of the premises on which it is lit; or to:-</i></p> <p><i>IV. Deposit ash or other debris beyond the boundaries of the premises on which it is lit.</i></p>
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OPTIONS

The Council wants to consult on its intention to revoke the Bylaw. If you do not think the Bylaw should be revoked, then the Council would like to know why. Tell us your views either way in the feedback form attached.

There are two options to consider.

OPTION 1:

REVOKE THE OPEN AIR BURNING BYLAW (THIS WILL MEAN THERE IS NO BYLAW FOR OPEN AIR BURNING)

OPTION 2:

CONTINUE WITH THE CURRENT OPEN AIR BURNING BYLAW.

TELL US YOUR THOUGHTS ON THE BYLAW

Before making any final decisions, we'd like to have your input.

You can give us feedback from 1 – 31 May 2021 using the feedback form below.

HOW TO GIVE FEEDBACK:

- Fill out a feedback form online at hamilton.govt.nz/haveyoursay
- Fill out the feedback form included in this Statement of Proposal and send to: Hamilton City Council, Communication and Engagement team, Private Bag 3010, Hamilton, 3240.
- Fill out the feedback form and deliver to the Municipal Building Reception or any branch of Hamilton City Libraries.

Feedback forms are available from all Hamilton City Libraries, and from the Ground Floor reception of the Council's Municipal Building in Civic Square.

For any queries please ring 07 838 6699 or email haveyoursay@hcc.govt.nz

NEXT STEPS

Staff will collect and analyse all feedback at the close of the submission period.

The analysis of this feedback will be presented to the July 2021 meeting of the Hearings and Engagement Committee. At this meeting, submitters who want to speak to their written submission will be able to do so.

The Council will then consider all the views and make a decision on the Bylaw.

FEEDBACK FORM

HAMILTON OPEN AIR BURNING BYLAW – 1-31 MAY 2021

Hamilton City Council has reviewed the *Open Air Burning Bylaw 2015*.

There are two options to consider.

OPTION 1:

REVOKE THE OPEN AIR BURNING BYLAW (THIS WILL MEAN THERE IS NO BYLAW FOR OPEN AIR BURNING)

OPTION 2:

CONTINUE WITH THE CURRENT OPEN AIR BURNING BYLAW.

FEEDBACK FORMS CAN BE:

- Completed online at hamilton.govt.nz/haveyoursay
- Posted to: Freepost 172189, Hamilton City Council, Communication and Engagement team, Hamilton Safety in Public Places Bylaw, Private Bag 3010, Hamilton, 3240.
- Email the form to: haveyoursay@hcc.govt.nz

Privacy statement:

The Local Government Act 2002 requires submissions to be made available to the public. Your name and/or organisation will be published with your submission and made available in a report to elected members and to the public. Other personal information supplied will be used for administration and reporting purposes only. Please refer to Council's Privacy Statement at hamilton.govt.nz for further information.

YOUR FEEDBACK:

1. WHICH OPTION DO YOU PREFER?

☐ OPTION 1 ☐ OPTION 2

Reasons (Please print clearly):

Run out of room? Feel free to attach additional pages.

WOULD YOU LIKE THE OPPORTUNITY TO TALK TO US ABOUT YOUR SUBMISSION IN PERSON?

Yes ☐ No

Verbal submissions will take place in July 2021 and we will contact you to arrange a time.

ABOUT YOU: (Please print your details clearly)

This section tells us a bit more about you. By capturing this information, we will be able to better understand who is, and isn't, providing feedback. This information will not be used in a way which may identify you.

WHERE DO YOU LIVE?

I am a Hamilton city resident, my suburb is: _____

I live outside Hamilton city:

☐ Waipa ☐ Waikato ☐ Elsewhere in New Zealand ☐ Overseas

CONTACT DETAILS

We will use this to get in touch with you if you would like the opportunity to talk to us about your submission in person.

Name: _____

Organisation (if responding on behalf of an organisation) _____

Phone: _____

Email: _____

WHAT IS YOUR AGE GROUP? (at your last birthday)

☐ Under 16 ☐ 16-19 ☐ 20-24 ☐ 25-29 ☐ 30-34
☐ 35-39 ☐ 40-44 ☐ 45-49 ☐ 50-54 ☐ 55-59
☐ 60-64 ☐ 65-69 ☐ 70-74 ☐ 75-79 ☐ 80+

WHICH ETHNIC GROUP DO YOU IDENTIFY AS?

☐ NZ European ☐ Maaori ☐ Indian ☐ Chinese ☐ Samoan
☐ British ☐ Filipino ☐ Tongan ☐ South African ☐ Cook Island Maaori
☐ Other _____

WHICH OF THE FOLLOWING BEST DESCRIBES YOUR HOUSEHOLD SITUATION?

☐ Living alone
☐ Living with others that are not family)
☐ Household with no dependants (e.g. no children or no other family)
☐ Household with dependants (e.g. children or other family)

Please get your feedback to us by 31 MAY 2021.



HAMILTON OPEN AIR BURNING BYLAW


STATEMENT OF PROPOSAL

May 2021

FURTHER INFORMATION

Hamilton City Council
Garden Place, Private Bag 3010, Hamilton

 haveyoursay@hamilton.govt.nz

 07 838 6699

 hamilton.govt.nz/haveyoursay

 [/hamiltoncitycouncil/](https://www.facebook.com/hamiltoncitycouncil/)



Hamilton City Council (the Council) is seeking feedback on the review of the *Open Air Burning Bylaw 2015*.

WHY ARE WE DOING THIS?

Hamilton City Council are proposing changes to the Hamilton City Council *Open Air Burning Bylaw 2015* to better protect people, property and the environment from outdoor fires which may become out of control, release harmful emissions or cause an unreasonable nuisance to others.

OPEN AIR BURNING BYLAW 2015

The Bylaw was first adopted in 2015 and, as per the Local Government Act 2002 requirements, the Council is required to review the Bylaw after 5 years.

The Bylaw does not apply to indoor fires such as wood burners.

PROPOSED CHANGES

Hamilton City Council (the Council) is seeking feedback on the review of the *Open Air Burning Bylaw 2015* from 1 – 31 May 2021.

The Council proposes to restrict outdoor fires in Hamilton City, by requiring a permit to be issued before certain kinds of outdoor fire can be lit.

An 'outdoor fire' means any activity that uses fire to ignite and burn fuel in the outdoors; and the proposed restrictions and permit system specifically apply to outdoor burning such as incinerators or open piles of combustible material (leaf piles or rubbish for example).

The proposed requirement for a permit **does not** restrict traditional cooking methods such as haangi; or outdoor cooking in a device such as a barbeque, smoker, brazier, pizza oven or other like devices. The Bylaw also **does not** apply to indoor fires such as wood burners.

The proposed changes clearly set out conditions for all outdoor fires. These conditions are intended to protect people and property from being harmed by any outdoor fire. The proposed conditions are:

A person must not light any outdoor fire in any of the following circumstances:

- a) *Where the location, wind, or other conditions cause, or are likely to cause, the outdoor fire to become:*
 - i. *a danger to any person or property; or*
 - ii. *out of control or spread beyond the boundaries of the premises on which the fire is lit; or*
 - iii. *a nuisance beyond the boundaries of the premises on which it is lit; or*
 - iv. *a hazard to road traffic; or to*
 - v. *deposit ash or other debris beyond the boundaries of the premises on which it is lit;*
- b) *Without continuous supervision being maintained at all times; or*
- c) *Without an acceptable means of fire suppression being available at all times or*
- d) *In breach of any Act or regulation (including any rule in a district or regional plan under the Resource Management Act 1991).*
- e) *Within three metres of any combustible materials such as a building, fence or vegetation that may cause or be likely to cause a fire hazard, unless the fire is contained within an outdoor fire device that:*
 - i. *is fuelled by gas; or*
 - ii. *contains all embers and sparks.*

If a person breaches the Bylaw, there are a proposed range of measures council officers or Fire and Emergency NZ can take to enter the property to extinguish the fire.

OPTIONS

The Council wants to consult on its intention to change the Bylaw. If you do not think the Bylaw should be changed, then the Council would like to know why. Tell us your views either way in the feedback form attached.

There are two options to consider.

OPTION 1:

CONTINUE WITH THE CURRENT OPEN AIR BURNING BYLAW (NO CHANGES)

OPTION 2:

ADOPT THE PROPOSED BYLAW WITH A RESTRICTIONS ON OUTDOOR FIRES IN HAMILTON CITY, AND REQUIRING A PERMIT TO BE ISSUED BEFORE CERTAIN KINDS OF OUTDOOR FIRE CAN BE LIT.

TELL US YOUR THOUGHTS ON THE BYLAW

Before making any final decisions, we'd like to have your input.

You can give us feedback from 1 – 31 May 2021 using the feedback form below.

HOW TO GIVE FEEDBACK:

- Fill out a feedback form online at hamilton.govt.nz/haveyoursay
- Fill out the feedback form included in this Statement of Proposal and send to: Hamilton City Council, Communication and Engagement team, Private Bag 3010, Hamilton, 3240.
- Fill out the feedback form and deliver to the Municipal Building Reception or any branch of Hamilton City Libraries.

Feedback forms and the proposed Bylaw changes are available from all Hamilton City Libraries, and from the Ground Floor reception of the Council's Municipal Building in Civic Square.

For any queries please ring 07 838 6699 or email haveyoursay@hcc.govt.nz

NEXT STEPS

Staff will collect and analyse all feedback at the close of the submission period.

The analysis of this feedback will be presented to the July 2021 meeting of the Hearings and Engagement Committee. At this meeting, submitters who want to speak to their written submission will be able to do so.

The Council will then consider all the views and make a decision on the Bylaw.

FEEDBACK FORM

HAMILTON OPEN AIR BURNING BYLAW – 1-31 MAY 2021

Hamilton City Council has reviewed the *Open Air Burning Bylaw 2015*.

FEEDBACK FORMS CAN BE:

- Completed online at hamilton.govt.nz/haveyoursay
- Posted to: Freepost 172189, Hamilton City Council, Communication and Engagement team, Hamilton Safety in Public Places Bylaw, Private Bag 3010, Hamilton, 3240.
- Email the form to: haveyoursay@hcc.govt.nz

Privacy statement:

The Local Government Act 2002 requires submissions to be made available to the public. Your name and/or organisation will be published with your submission and made available in a report to elected members and to the public. Other personal information supplied will be used for administration and reporting purposes only. Please refer to Council's Privacy Statement at hamilton.govt.nz for further information.

YOUR FEEDBACK:

1. WHICH OPTION DO YOU PREFER?

☐ OPTION 1 ☐ OPTION 2

Reasons (Please print clearly):

Run out of room? Feel free to attach additional pages.

WOULD YOU LIKE THE OPPORTUNITY TO TALK TO US ABOUT YOUR SUBMISSION IN PERSON?

Yes ☐ No

Verbal submissions will take place in July 2021 and we will contact you to arrange a time.

ABOUT YOU: (Please print your details clearly)

This section tells us a bit more about you. By capturing this information, we will be able to better understand who is, and isn't, providing feedback. This information will not be used in a way which may identify you.

WHERE DO YOU LIVE?

I am a Hamilton city resident, my suburb is: _____

I live outside Hamilton city:

☐ Waipa ☐ Waikato ☐ Elsewhere in New Zealand ☐ Overseas

CONTACT DETAILS

We will use this to get in touch with you if you would like the opportunity to talk to us about your submission in person.

Name: _____

Organisation (if responding on behalf of an organisation) _____

Phone: _____

Email: _____

WHAT IS YOUR AGE GROUP? (at your last birthday)

☐ Under 16 ☐ 16-19 ☐ 20-24 ☐ 25-29 ☐ 30-34
☐ 35-39 ☐ 40-44 ☐ 45-49 ☐ 50-54 ☐ 55-59
☐ 60-64 ☐ 65-69 ☐ 70-74 ☐ 75-79 ☐ 80+

WHICH ETHNIC GROUP DO YOU IDENTIFY AS?

☐ NZ European ☐ Maaori ☐ Indian ☐ Chinese ☐ Samoan
☐ British ☐ Filipino ☐ Tongan ☐ South African ☐ Cook Island Maaori
☐ Other _____

WHICH OF THE FOLLOWING BEST DESCRIBES YOUR HOUSEHOLD SITUATION?

☐ Living alone
☐ Living with others that are not family)
☐ Household with no dependants (e.g. no children or no other family)
☐ Household with dependants (e.g. children or other family)

Please get your feedback to us by 31 MAY 2021.

LACHLAN MULDOWNNEY
BARRISTER

10 September 2020

Hamilton City Council
Private Bag 3010
Hamilton 3240

For: Sandra Murray and Jen Baird

By email: jen.baird@hcc.govt.nz; Sandra.Murray@hcc.govt.nz

INTRODUCTION

1. We have been asked by Hamilton City Council (**Council**) to provide advice concerning the Hamilton Open Air Burning Bylaw 2015 (**Bylaw**). In particular, we have been asked to address the following issues:¹
 - a) Does the current Bylaw adequately restrict/prohibit the burning of rubbish and the use of incinerators on peoples' properties? (**Issue 1**); and
 - b) If the Bylaw is amended to restrict/ban the burning of rubbish and the use of incinerators on peoples' properties, is there a requirement to undertake public consultation? (**Issue 2**).

SUMMARY OF ADVICE

2. The current Bylaw does not prohibit either the burning of rubbish or the use of incinerators. Rather, it sets out conditions under which outdoor fires may not be lit to ensure the fire does not become a safety hazard or a nuisance. Where the conditions are satisfied, a fire may be lit, including for the burning of rubbish and the use of incinerators.
3. To satisfy the concerns raised by some elected members at the Council meeting on 28 May 2020, a new clause 5 could be introduced that, in effect, bans these activities. However, in order to ensure the limits imposed are reasonable, there should be exceptions to the ban and provision for the granting of approvals by Council. We have proposed wording that achieves both objectives.
4. The Local Government Act 2002 (**LGA 2002**) is clear that consultation must occur when Council undertakes a 5-yearly review of a bylaw under s 158, even when no

¹ As articulated in email from Sandra Murray dated 15 June 2020.

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amendments are made. Accordingly, Council must put the Bylaw out for consultation, even if it determines to roll the existing Bylaw over unchanged.

BACKGROUND

5. Council is undertaking a review of the Bylaw in accordance with s 158 of the Act, which requires local authorities to review a bylaw made by it under the Act no later than 5 years after the date on which it was made.
6. The Bylaw was made under the Act and came into effect on 5 March 2015. The Bylaw was amended in August 2018 to bring it into alignment with the Fire and Emergency New Zealand Act 2017.
7. The Bylaw regulates the use of outdoor fires, including use of an outdoor fire device such as a barbeque or brazier. It also regulates use of incinerators and traditional food cooking such as hangi. The policy intent behind the Bylaw is to ensure outdoor fires do not become a public safety risk or a public nuisance.
8. At the Council meeting held on 28 May 2020, staff reported on the review of the Bylaw for the consideration of elected members. Staff recommended that Council:
 - a) Determines that the Bylaw is the most appropriate means of controlling the issue of open air burning in Hamilton; and
 - b) Approves the continuation of the Bylaw unchanged.
9. We are instructed that, when considering staff's recommendations at the meeting, elected members raised concerns about people burning rubbish or using incinerators on their properties and discussed whether these activities should be banned. Staff were asked to consider these issues and provide a further report at a future Council meeting.

ISSUE 1

10. Clause 5 of the Bylaw sets out specific conditions for when persons must not light fires, as follows:
 - 5.1 A person must not light any fire at any time in the open air, or within a barbecue, brazier or incinerator, or burn a traditional cooking fire under the following conditions:
 - a) Where the location, wind, or other conditions cause or are likely to cause the fire to become:
 - I. A danger to any person or property; or
 - II. Out of control or spread beyond the boundaries of the premises on which it is lit; or
 - III. A nuisance beyond the boundaries of the premises on which it is lit; or to:-
 - IV. Deposit ash or other debris beyond the boundaries of the premises on which it is lit;

- b) Without continuous supervision being maintained at all times; or
 - c) Without an acceptable means of fire suppression being available at all times or
 - d) In breach of any Act or regulation (including any rule in a district or regional plan under the Resource Management Act 1991).
- 5.2. A person must not light any fire at any time in the open air, including a traditional cooking fire, within three metres of any part of a building, tree, hedge, fence or any other combustible material. This clause does not apply to barbeques, braziers or incinerators.

11. The Bylaw clearly does not create an absolute ban on the lighting of fires, including for the purpose of burning rubbish in the open air or in incinerators. If the conditions in clause 5 are satisfied, the lighting of a fire is permissible under the Bylaw. In practical terms, a fire can be lit where the weather conditions are suitable, the fire is supervised and capable of being suppressed if necessary and is not lit within 3 metres of any combustible material.
12. Imposing a ban on the burning of rubbish or the use of an incinerator would constitute a significant change to the Bylaw and impact people's right to undertake those activities on their properties. To ensure these limits are not unreasonable, more than a simple amendment to clause 5 to include an express ban is required. If enacted, systems and resources for enforcing a ban must be put in place. Further, we consider it reasonable to provide for exceptions in areas or circumstances where it may be unreasonable or impractical to impose a ban, such as in Industrial Zones (where there are fewer people and there is a higher tolerance for such activities) or Future Urban Zones (which are primarily rural areas). In more densely populated areas, such as Residential or Business Zones, outdoor fires are more likely to pose a safety risk and/or be a nuisance, supporting the rationale to impose a ban in those areas. To further ensure that the limits imposed under the Bylaw are reasonable, there could also be a system for the granting of approvals. The amendments we propose to achieve those objectives are set out below.
13. If the current controls on lighting fires are considered inadequate, and the political will is to impose a ban on the burning of rubbish and the use of incinerators, that outcome can be achieved by incorporating the following proposed clause, which would replace clause 5 in the current Bylaw:

5. Lighting outdoor fires in any Zone except an Industrial Zone or Future Urban Zone

- 5.1 Except in an Industrial Zone or Future Urban Zone, a person must not light, or allow to be lit, any outdoor fire in Hamilton City, unless that outdoor fire is on private land and is:
 - (a) contained within an outdoor fire device; or
 - (b) a traditional cooking fire; or
 - (c) fireworks; or
 - (d) any other outdoor fire that the council has approved under clause 7.
- 5.2 Nothing in clause 5 derogates from any duty, power or responsibility arising from any other Act, Regulation, bylaw or rule.

14. Accompanying clause 5, we recommend inserting a clause setting out general restrictions that must be complied with in any circumstances that outdoor fires are lit, as follows:

6. Conditions for lighting outdoor fires in all areas at all times

6.1 A person must not light any outdoor fire in any of the following circumstances:

- (a) Where the location, wind, or other conditions cause, or are likely to cause, the outdoor fire to become:
 - (i) a danger to any person or property; or
 - (ii) out of control or spread beyond the boundaries of the premises on which the fire is lit; or
 - (iii) a nuisance beyond the boundaries of the premises on which it is lit; or
 - (iv) a hazard to road traffic; or to
 - (v) Deposit ash or other debris beyond the boundaries of the premises on which it is lit;
- (b) Without continuous supervision being maintained at all times; or
- (c) Without an acceptable means of fire suppression being available at all times or
- (d) In breach of any Act or regulation (including any rule in a district or regional plan under the Resource Management Act 1991).
- (e) Within three metres of any combustible materials such as a building, fence or vegetation that may cause or be likely to cause a fire hazard, unless the fire is contained within an outdoor fire device that:
 - (i) is fuelled by gas; or
 - (ii) contains all embers and sparks.

6.2 Every person who lights an outdoor fire must ensure the outdoor fire is totally extinguished on completion of the activity.

15. New clause 6 above mirrors clause 5 in the existing Bylaw, with a few minor drafting improvements to achieve the objective of mitigating any risk to public safety and nuisance.
16. As discussed above, introduction of a system for the granting of approvals to the restrictions in new clauses 5 and 6 in appropriate circumstances would ensure those limits are not unreasonable. Accordingly, we recommend a new clause 7 as follows:

7. Council approval to light an outdoor fire

7.1 The Council may make controls and set fees for the following matters with respect to any approval required under this bylaw:

- (a) application for an approval, including forms and information;
- (b) assessing an application;
- (c) inspecting any land or incinerator or outdoor fire device;
- (d) granting or declining an approval;
- (e) the conditions that may be imposed on an approval;
- (f) the duration of the approval;
- (g) reviewing an approval or its conditions;
- (h) extending or renewing an approval;
- (i) suspending or cancelling an approval.

7.2 At the discretion of the Council, and having regard to any controls made under subclause 7.1, approvals may be declined, or granted subject to any conditions.

7.3 An approval is personal to the holder and property and is not transferable.

17. A number of new definitions will need to be inserted into clause 4 of the Bylaw to align with the new clauses proposed above, as follows:

a) Insert the following new definition for 'outdoor fire':

Outdoor fire means any activity that uses fire to ignite and burn fuel in the outdoors and includes any fire in the open air, fire contained within an outdoor fire device, incinerator and fireworks.

b) Insert the following new definition for 'Outdoor fire device':

Outdoor fire device means any non-combustible receptacle, appliance or device designed or intended to be used in the outdoors for cooking, heating or amenity that contains combustion or the burning of fuel and may include barbeques, smokers, braziers, pizza ovens and other like devices. It does not include an incinerator.

c) Insert the following new definition for 'Non-combustible receptacle':

Non-combustible receptacle means a receptacle made of fire resistant materials to contain combustion or the burning of fuel.

d) Insert the following new definition for 'person':

Person includes an individual, a corporation sole, a body corporate, and an unincorporated body and includes the Crown and any successor of a person.

e) Insert the following new definition for 'firework':

Fireworks has the same meaning as the Hazardous Substances (Fireworks) Regulations 2001.

f) Insert the following new definition for 'nuisance':

Nuisance means, in relation to an outdoor fire, smoke or ash that is offensive or objectionable beyond the property boundary where the outdoor fire has been lit.

g) Insert the following new definition for 'Future Urban zone':

Any area of land within Hamilton City zoned 'Future Urban' under the Hamilton City Operative District Plan.

- h) Insert the following new definition for 'Industrial zone':

Any area of land within Hamilton City zoned 'Industrial' under the Hamilton City Operative District Plan.

- i) Insert the following new definition for 'Council':

Council means the governing body of Hamilton City Council or any person delegated or authorised to act on its behalf, including in relation to this bylaw.

18. In order to align the definition of 'open air' with the new definition of 'outdoor fire', we recommend it be amended as follows:

Open air means in the open whether on or above ground level in any area of Hamilton.

~~In relation to fires, means otherwise than:-~~

~~(a) within a fireplace (including any enclosed fireproof place or incinerator) constructed and maintained in a dwelling or other structure to the approval of the public or local authority having jurisdiction to issue the relevant permit to build such dwelling or structure or to authorise the construction or installation of the fireplace;~~

~~(b) Within a barbeque, brazier, or incinerator;~~

~~(c) A traditional cooking fire.~~

19. Further consequential amendments to clause numbers, including references to clause numbers, will be required if the new clauses above are introduced. There may also be some further consequential amendments required in relation to definitions.

ISSUE 2

20. Council must go out to public consultation whether it decides:

- a) To continue the Bylaw without amendment (s 160(3)(b) of the Act); or
- b) To amend the Bylaw, to revoke the Bylaw, or to revoke and replace the Bylaw (ss 160(3)(a) and 156(1) of the Act).

21. Section 160(3)(b) of the Act is clear, there is no course of action which allows Council to review a bylaw under s 158, and not consult on it.

22. Section 156(2) of the Act allows Council to make minor amendments to a bylaw without consultation in limited circumstances. This power may be used at any time, but it cannot be used to avoid consultation as part of a review under ss 158 or 160. The power under s 156(2) can only be used to correct errors or to make minor changes that do not affect an existing right or interest. I do not consider that this power can be used to effect the changes contemplated above.
23. I note that the special consultative procedure must be used if a bylaw concerns a matter which the Significance and Engagement Policy identifies as significant or where Council considers that the continuation of a bylaw is likely to have a significant impact on the public: ss 160(3)(b)(i) and 156(1)(a) of the Act. Otherwise ordinary consultation must be used: ss 160(3)(b)(ii) and 156(1)(b) of the Act.
24. The Council report on the Bylaw states that the Bylaw item has been assessed as having a low level of significance. This is based on a straight 'roll over' of the existing Bylaw. If Council wishes to amend the Bylaw by introducing greater restrictions on the lighting of fires, such as via the proposed new clauses 5, 6 and 7 above, we recommend staff reassess the significance level.

CONCLUSION

25. Should the political will be to impose a ban on the burning of rubbish and the use of incinerators, we have suggested amendments to the Bylaw which effectively achieve that outcome. However, to ensure the limits imposed under the Bylaw are reasonable, we have also recommended including amendments that provide for limited exceptions, approvals, and exemptions. The effect of the proposed amendments are that open air fires, subject to express Council approval, (including for the purpose of burning rubbish) and the use of incinerators is banned in all Zones except Industrial Zones and Future Urban Zones (which are largely rural areas), while the ability to prepare a hangi and use outdoor fire devices such as barbeques and braziers is not restricted.
26. There is no way to avoid the requirement to consult on the Bylaw. As part of the review under s 158 of the Act, Council must engage in public consultation. This must be undertaken, regardless of whether Council determines to continue the Bylaw without amendment, or to amend it, or to revoke it and make a new bylaw.

27. If you require any further advice in relation to the Bylaw review, including Council's consultation obligations, please do not hesitate to contact us.

Yours faithfully,



Lachlan Muldowney/Shaye Thomas
Barrister/Barrister

CC: Mothla Majeed
Mothla.majeed@hcc.govt.nz

Open Air Burning Bylaw – Environment Committee 2 March 2021

Attachment 5: Information on Monitored air contaminants

1. Monitored air contaminants include:

Contaminant	Description
Particulate matter (PM ₁₀ & PM _{2.5})	<p>Extremely small solid particles and liquid droplets suspended in air. Particulate matter can be made up of a variety of components including nitrates, sulfates, organic chemicals, metals, soil or dust particles, and allergens (such as fragments of pollen or mould spores). Particle pollution mainly comes from motor vehicles, wood burning heaters and industry. During bushfires or dust storms, particle pollution can reach extremely high concentrations</p> <p>The size of particles affects their potential to cause health problems:</p> <ul style="list-style-type: none"> • PM₁₀ (particles with a diameter of 10 micrometres or less): these particles are small enough to pass through the throat and nose and enter the lungs. Once inhaled, these particles can affect the heart and lungs and cause serious health effects. <p>The national and regional guideline for PM₁₀ is:</p> <ul style="list-style-type: none"> ○ 50 µg/m³ as a 24 hour average. <p>The National Environmental Standard PM₁₀ is:</p> <p>50 µg/m³ as a 24 hour average (one allowable exceedance per year).</p> <ul style="list-style-type: none"> • PM_{2.5} (particles with a diameter of 2.5 micrometres or less): these particles are so small they can get deep into the lungs and into the bloodstream. There is sufficient evidence that exposure to PM_{2.5} over long periods (years) can cause adverse health effects. Note that PM₁₀ includes PM_{2.5}.
Carbon monoxide (CO)	<p>Carbon monoxide is an odourless, colourless gas which forms when the carbon in fuels doesn't completely burn. It is usually generated by motor vehicles and industry but can also be formed during bushfires. Indoors, carbon monoxide is formed by unflued gas heaters, wood-burning heaters, and contained in cigarette smoke.</p> <p>Carbon monoxide levels are typically highest during cold weather, because cold temperatures make combustion less complete and traps pollutants close to the ground.</p> <p>Carbon monoxide can cause harmful health effects by reducing the amount of oxygen reaching the body's organs (like the heart and brain) and tissues. At extremely high levels, carbon monoxide can cause death (carbon monoxide poisoning).</p> <p>The national and regional guidelines for carbon monoxide are:</p> <ul style="list-style-type: none"> • 30 mg/m³ as a one hour average • 10 mg/m³ as an eight hour average.

	<p>The National Environmental Standard for carbon monoxide is:</p> <ul style="list-style-type: none"> • 10 mg/m³ as an eight hour running average (one allowable exceedance per year)
Carbon dioxide (CO ₂)	<p>CO₂ is a greenhouse gas that's colourless and odourless. Carbon dioxide is being constantly circulated in the environment. It's naturally released by:</p> <ul style="list-style-type: none"> • animal respiration • decomposition of plants and animals • volcanic eruptions. <p>However, people have caused the amount of CO₂ in the atmosphere to significantly increase by:</p> <ul style="list-style-type: none"> • burning carbon containing fuels such as oil, coal, natural gas and wood • clearing forests and draining peatlands. <p>Increases in CO₂ in the atmosphere are likely to be responsible for global warming which may cause climate change. There are no national guidelines.</p>
Nitrogen dioxide (NO _x)	<p>NO_x is a highly reactive gas formed by emissions from motor vehicles, industry, unflued gas-heaters and gas stove tops. High concentrations can be found especially near busy roads and indoors where unflued gas-heaters are in use.</p> <p>Other indoor sources can be from cigarette smoke or from cooking with gas. Outdoors, nitrogen dioxide contributes to the formation of ground-level ozone (O₃) as well as particulate matter pollution. Nitrogen dioxide is a respiratory irritant and has a variety of adverse health effects on the respiratory system.</p> <p>The national and regional guidelines for nitrogen dioxide are:</p> <ul style="list-style-type: none"> • 200 µg/m³ as a one hour average • 100 µg/m³ as a 24 hour average. <p>The National Environmental Standard for nitrogen dioxide is:</p> <ul style="list-style-type: none"> • 200 µg/m³ as a 1 hour average (nine allowable exceedances per year)
Sulphur dioxide (SO ₂)	<p>SO₂ is highly reactive gas with a pungent irritating smell. It is formed by fossil fuel combustion at power plants and other industrial facilities.</p> <p>Natural processes that release sulphur gases include decomposition and combustion of organic matter, spray from the sea, and volcanic eruptions. It contributes to the formation of particulate matter pollution. Sulphur dioxide irritates the lining of the nose, throat and lungs and may worsen existing respiratory illness especially asthma. It has also been found to exacerbate cardiovascular diseases.</p> <p>The national and regional guidelines for sulphur dioxide are:</p> <ul style="list-style-type: none"> • 350 µg/m³ as a one hour average • 120 µg/m³ as a 24 hour average <p>The National Environmental Standard for sulphur dioxide is:</p> <ul style="list-style-type: none"> • 350 µg/m³ as a 1 hour average (nine allowable exceedances per year)

	<ul style="list-style-type: none"> 570 µg/m³ as a 1 hour average (no allowable exceedances per year).
VOC	VOCs include a large range of organic materials that create fumes, for example, benzene. Depending on the type, VOCs can affect human health, reduce visibility, and smell bad. Sources of VOCs include industry, vehicles and some types of vegetation. There are no national guidelines.

2. Domestic heating is the main source of winter PM₁₀ emissions in Hamilton accounting for 77% of the daily winter PM₁₀, followed by industrial sources (15%) and transport (5%), with outdoor burning contributing approximately 3%. However, there is some seasonal variation as seen in Figure 8.1 and Table 6.2 below, from the *Hamilton Air Emission Inventory-2018*.

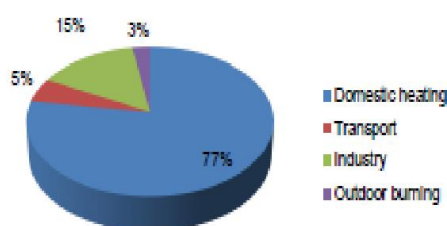


Figure 8.1: Relative contribution of sources to daily winter PM₁₀ emissions in Hamilton.

Table 6.2: Outdoor burning emission estimates for Hamilton.

	PM ₁₀ kg/ day	CO kg/ day	NOx kg/ day	SOx kg/ day	CO ₂ t/ day	PM _{2.5} kg/day	BaP kg/ day
Summer (Dec-Feb)	18	94	7	1	3	18	<1
Autumn (Mar-May)	18	93	7	1	3	18	<1
Winter (June-Aug)	30	160	11	2	6	30	<1
Spring (Sept-Nov)	20	107	8	1	4	20	<1

3. Domestic home heating is also the main source of daily winter PM_{2.5}, CO, SO₂ and VOCs.

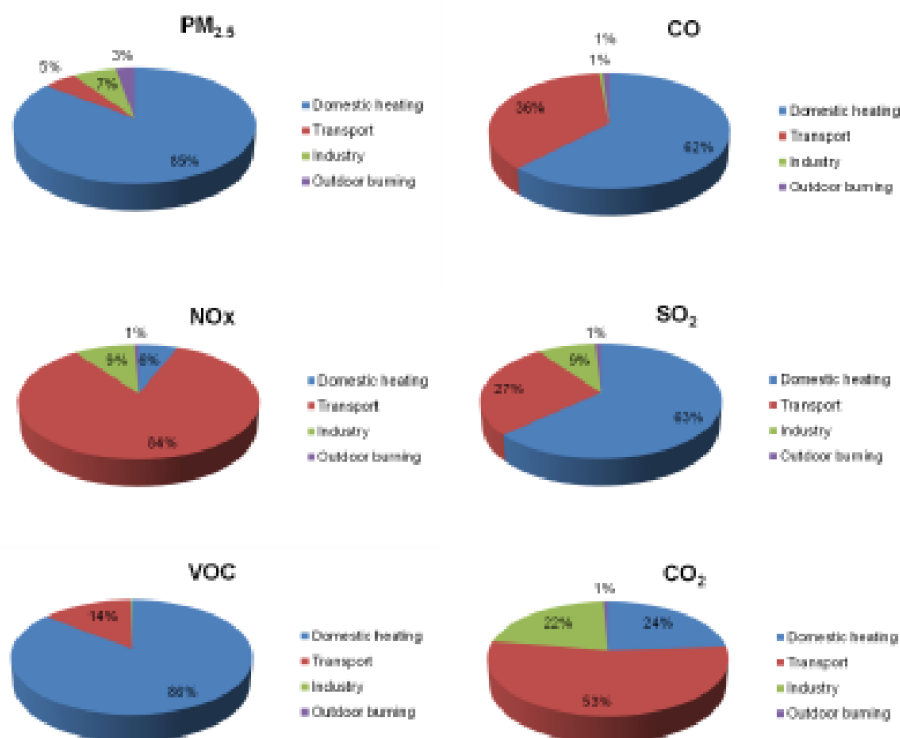


Figure 8.3: Relative contribution of sources to daily winter contaminant emissions in Hamilton

(Source: Hamilton Air Emission Inventory-2018).

4. There are several uncertainties relating to the airshed modelling calculations set out in the *Hamilton Air Emission Inventory-2018*. It is assumed burning is carried out evenly throughout the winter, whereas it is highly probable that a disproportionate amount of burning is carried out on days more suitable for burning i.e. on some days no PM₁₀ from outdoor burning may occur and on other days it might be many times the amount estimated.
5. In addition, outdoor burning emissions include a higher degree of uncertainty relative to domestic heating, motor vehicles and industry owing to uncertainties in the distribution of burning and potential variabilities in material type and density.
6. A summary of air quality monitoring information for 2020, provided by Waikato Regional Council indicates:
 - there is currently no evidence of either an improving or worsening trend in PM₁₀ emissions.
 - there was one day over the winter of 2020 (May 2019 to October 2020) when daily PM_{2.5} concentrations exceeded the World Health organisation (WHO) daily guideline, although the annual average calculated over this period indicates the annual average WHO guideline was not exceeded. There is insufficient PM_{2.5} monitoring data at this stage to identify any trends.

Open Air Burning Bylaw – Environment Committee 2 March 2021

Attachment 6: Regulations related to open air burning

1. The existing *Open Air Burning Bylaw 2015* does not prohibit either the burning of rubbish or the use of incinerators. Rather, it sets out conditions under which outdoor fires may not be lit to ensure the fire does not become a safety hazard or a nuisance. Where the conditions are satisfied, a fire may be lit, including for the burning of rubbish and the use of incinerators. Conditions set out in section 5 of the existing Bylaw state:

5.1 A person must not light any fire at any time in the open air, or within a barbecue, brazier or incinerator, or burn a traditional cooking fire under the following conditions:

- a) Where the location, wind, or other conditions cause or are likely to cause the fire to become:

 - I. A danger to any person or property; or*
 - II. Out of control or spread beyond the boundaries of the premises on which it is lit; or*
 - III. A nuisance beyond the boundaries of the premises on which it is lit; or to:-*
 - IV. Deposit ash or other debris beyond the boundaries of the premises on which it is lit;**
- b) Without continuous supervision being maintained at all times; or*
- c) Without an acceptable means of fire suppression being available at all times or*
- d) In breach of any Act or regulation (including any rule in a district or regional plan under the Resource Management Act 1991).*

5.2. A person must not light any fire at any time in the open air, including a traditional cooking fire, within three metres of any part of a building, tree, hedge, fence or any other combustible material. This clause does not apply to barbecues, braziers or incinerators.

2. However, the *Hamilton City Waste Management and Minimisation Bylaw 2019* includes additional provisions to restrict the burning of waste material.

NUISANCE AND LITTER

5.32. Except as provided for under any Council Bylaw, no person may:

- a. burn or allow to be burnt on any property they own, occupy or manage any waste except organic matter;*
- b. bury or allow to be buried on any property they own, occupy or manage any waste except:

 - i. organic material;*
 - ii. dead companion animals and nuisance pests; or*
 - iii. for the purposes of home composting.**
- c. dispose of any waste on any premises except at:

 - i. a class 1-4 landfill, or*
 - ii. any premises they own, occupy or manage, for the purposes of home composting.**

3. Staff note the existing Open Air Bylaw also requires compliance with the [Waikato Regional Plan](#). This plan permits outdoor burning of specified materials including untreated wood,

vegetative matter, paper and cardboard and other similar materials subject to a number of conditions as follows:

6.1.8 Standard Conditions for Permitted Activity Rules and Standards and Terms for Controlled and Restricted Discretionary Activity Rules

The following are the standard conditions for permitted activity rules and the standards and terms for controlled and restricted discretionary activity rules for discharges to air:

- a) There shall be no discharge of contaminants beyond the boundary of the subject property that has adverse effects on human health, or the health of flora and fauna.*
- b) The discharge shall not result in odour that is objectionable to the extent that it causes an adverse effect at or beyond the boundary of the subject property.*
- c) There shall be no discharge of particulate matter that is objectionable to the extent that it causes an adverse effect at or beyond the boundary of the subject property.*
- d) The discharge shall not significantly impair visibility beyond the boundary of the subject property.*
- e) The discharge shall not cause accelerated corrosion or accelerated deterioration to structures beyond the boundary of the subject property.*

4. The Waikato Regional Plan 6.1.13.4 Prohibited Activity Rule – Open Burning of Specified Material prohibits the discharge of contaminants into air and any subsequent discharge of contaminants onto land from the open burning of the following materials:

- Halogenated organic chemicals
- Materials containing heavy metals
- Pitch, paint and paint residues and surface coatings
- Asbestos
- Pathological waste (excluding animal carcasses on production land)
- Agrichemicals and agrichemical containers containing residues
- Polyvinylchloride (PVC) plastic and plastics containing halogenated material
- Copper-chrome-arsenic (CCA) treated timber or timber treated with organochlorine (PCP)
- Rubber and tyres
- Waste oil and other waste petroleum products including sludge
- Sludge from industrial processes
- Hazardous materials from contaminated sites and buildings
- Materials associated with the recovery of metals from cables
- Components of motor vehicles
- Tar and bitumen from 1 January 2006
- Any material within a landfill or a refuse transfer station;

Council Report

Item 10

Committee: Environment Committee **Date:** 02 March 2021
Author: Charlotte Catmur **Authoriser:** Sean Hickey
Position: Sustainability and Environment Advisor **Position:** General Manager Strategy and Communications
Report Name: Environment Principles

Report Status	Open
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Purpose - *Take*

1. To inform the Environment Committee on the proposal to develop an Environment Policy and to support the implementation of the principles.

Staff Recommendation - *Tuutohu-aa-kaimahi*

2. That the Environment Committee:
 - a) approves the six high level Environment Principles:
 - (i) Restoring and protecting the health and wellbeing of our waterways;
 - (ii) Protecting and enhancing our natural taonga, whenua and biodiversity;
 - (iii) Embracing the sustainable use of resources;
 - (iv) Promoting a circular economy;
 - (v) Transitioning to a low carbon future;
 - (vi) Build our resilience to climate change;
 - b) notes that an Environment Policy will be developed to further support the implementation of the principles; and
 - c) notes that these Environment Principles will replace the Sustainability Principles.

Executive Summary – *Whakaraapopototanga matua*

3. The Environment Committee requested staff develop a set of environment principles to guide decision making by Elected Members and staff. The draft principles were developed by staff in collaboration with the Chair and Deputy Chair of the Environment Committee and Maangai Hill.
4. There are six high level principles that are supported by subpoints that outline the key elements of each principle. These are outlined in **Attachment 1**.
5. Staff consider the decision in this report has medium significance and that the recommendations comply with the Council's legal requirements.

Background - *Koorero whaimaarama*

6. On 1 December 2020 the Environment Committee resolved that a set of Environment Principles be developed to ensure the natural environment is being considered appropriately.
7. The Chair and Deputy Chair of the Environment Committee and Maangai Hill were appointed to work with staff to develop a draft set of principles for presentation to the Committee.
8. A draft set of principles were provided to the working group. These were discussed at a meeting on 27 January 2021, feedback from the meeting and additional comments received via email were incorporated into the final draft principles outlined in this report.

Discussion - *Matapaki*

Purpose of the Environment Principles

9. The proposed Environment Principles can support Members decision making on how we can promote the environmental wellbeing of our community.
10. The diversity in our operational activities means that Hamilton City Council has both the potential to harm as well as improve the natural environment. By using these principles staff can consider how their project/activity is impacting on the natural environment.

Draft Environment Principles

11. The draft principles include six high level principles and then subpoints that provide the key elements of each principle.
12. The overarching approach is that *'We recognise that the natural environment is the foundation for our city and is integral to our current and future wellbeing.'*
13. The six high level principles are:
 - Restoring and protecting the health and wellbeing of our waterways
 - Protecting and enhancing our natural taonga, whenua and biodiversity
 - Embracing the sustainable use of resources
 - Promoting a circular economy
 - Transitioning to a low carbon future
 - Build our resilience to climate change
14. The full draft principles are outlined in **Attachment 1**.

Implementation of the Environment Principles

15. The Environment Principles need to be effectively implemented at the start of the project cycle. By considering the natural environment upfront we can identify better outcomes than if it is considered later in the project cycle.
16. Following the approval of the principles, staff will draft an Environment Policy, the policy will provide clearer direction on how the principles should be applied, including links to existing strategies and plans. The draft Environment Policy will be brought to the Environment Committee for approval for consultation.
17. If the recommendation is not approved staff will reconvene with the working group to develop the draft policy and update the principles.

Financial Considerations - *Whaiwhakaaro Puutea*

18. The implementation of the principles and the development of the Environment Policy is a regular operating activity funded through the Long Term Plan.

Legal and Policy Considerations - *Whaiwhakaaro-aa-ture*

19. Staff confirm that the staff recommendation complies with Council's legal and policy requirements.

Wellbeing Considerations - *Whaiwhakaaro-aa-oranga tonutanga*

20. The purpose of Local Government changed on the 14 May 2019 to include promotion of the social, economic, environmental and cultural wellbeing of communities in the present and for the future ('the 4 wellbeings').
21. The subject matter of this report has been evaluated in terms of the 4 wellbeings during the process of developing this report as outlined below.
22. The recommendations set out in this report are consistent with that purpose.

Social

23. The Environment Principles, while predominately focused on environment wellbeing, and support our communities social wellbeing. For example by building community resilience to climate change and supporting the low carbon transition will both promote social wellbeing of our community.

Cultural

24. A key part of cultural wellbeing is a strong connection to the natural environment, these environment principles will support the cultural value being considered in decision.

Economic

25. Our economic wellbeing is reliant on a healthy natural environment, these principles will support staff, Elected Members and Maangai Maori in considering the natural environment in all decisions.

Environmental

26. Staff, Elected Members and Maangai Maori can use the Environment Principles to consider how an activity or project is promoting the environmental wellbeing of our community.

Risks - *Tuuraru*

27. There are no known risks associated with the decisions required for this matter.

Significance & Engagement Policy - *Kaupapa here whakahira/anganui*

Significance

28. Staff have considered the key considerations under the Significance and Engagement Policy and have assessed that the recommendation(s) in this report has/have a medium level of significance.

Engagement

29. Given the medium level of significance determined, the engagement level is medium. No engagement is required on the Principles.
30. However, the community will be asked for their views on the draft Environment Policy.

Attachments - *Ngaa taapirihanga*

Attachment 1 - Draft Environment Principles

Draft Environment Principles

We recognise that the natural environment is the foundation for our city and is integral to our current and future wellbeing.

We value our environment and are:

- 1. Restoring and protecting the health and wellbeing of our waterways**
 - We will mitigate our impact on the health of our streams, the Waikato River and Lake Rotoroa
 - We will protect our unique gully networks
- 2. Protecting and enhancing our natural taonga, whenua and biodiversity**
 - We will minimise our impact on air and soil quality
 - We will promote natural spaces and green design
 - We will invest in our biodiversity
- 3. Embracing the sustainable use of resources**
 - We will encourage a best for environment approach in our procurement
 - We will increase our energy and resource efficiency
 - We will prioritise the efficient and sustainable use of water
- 4. Promoting a circular economy**
 - We will minimise our waste
 - We will support our community to increase their recycling and resource recovery
- 5. Transitioning to a low carbon future**
 - We will promote low carbon and active transport
 - We will reduce the greenhouse gas emissions of our operations
 - We will support our community to live low carbon lives through the creation of a 20-minute City
- 6. Build our resilience to climate change**
 - We will prepare our infrastructure for the impacts of climate change
 - We will support our community to build their resilience to the physical climate change impacts

Council Report

Item 11

Committee: Environment Committee **Date:** 02 March 2021
Author: Sean Hickey **Authoriser:** Sean Hickey
Position: General Manager Strategy and Communications **Position:** General Manager Strategy and Communications
Report Name: General Manager's Report

Report Status	Open
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Purpose - *Take*

1. To inform the Environment Committee on the status of the Climate Change Action Plan implementation.

Staff Recommendation - *Tuutohu-aa-kaimahi*

2. That the Environment Committee receives the report.

Executive Summary - *Whakaraapopototanga matua*

3. The 2020/2021 Climate Change Action Plan is being implemented by staff across the Council.
4. The Council's greenhouse gas emissions (excluding biogenic methane) reduced by 4% between 2018/19 and 2019/20. This is in line with achieving the 2030 emissions reduction target.
5. Staff consider the matters have low significance and that the recommendations comply with the Council's legal requirements.

Discussion - *Matapaki*

Climate Change Action Plan Update

6. In the Climate Change Action Plan Council set the target of a 50% reduction in the Council's greenhouse gas emissions (excluding biogenic methane) by 2030, from the 2018/2019 baseline. To monitor how Council is tracking towards the target we will calculate the operational emissions profile each year. In 2019/2020 Council generated 10,438 tonnes of greenhouse gas emissions (excluding biogenic methane), a reduction of 4.5%. The emissions factor data from the Ministry for the Environment was updated in 2020 and resulted in some emissions calculation changes. In addition, we saw emissions reductions in some areas due to actions Council has put in place and others are as a result of the COVID-19 response.
7. The Climate Change Action Plan included a number of actions under four focus areas, these are outlined in **Attachment 1**. Updates on specific actions:
 - The Staff travel planning project is underway, this project is focused on supporting staff to choose low carbon transport options. Further information on both staff travel and Council fleet improvements will be presented to the Committee at meetings later in the year. Further actions to meet the emissions reduction targets have been included in the draft 2021-2031 Long Term Plan. Following the adoption of the 2021-2031 Long Term Plan staff

will update the emissions reduction roadmap with the approved projects and present back to the Environment Committee in August 2021.

- Stage 1 of the climate modelling has been delivered. The modelling provides projections on key climatic variables for two future greenhouse gas emission scenarios to 2050 and 2100. Once stage 2 is completed the findings will be reported back to Elected Members.
 - In line with the focus area of collaboration and capacity building, staff met with Waipaa and Waikato District Councils, to share information on our climate change programmes and to identify opportunities for collaboration, including on climate change capacity building and climate modelling.
8. At the June 2021 Environment Committee meeting an update on all actions in the Plan will be provided.

Wellbeing Considerations - *Whaiwhakaaro-aa-oranga tonutanga*

9. The purpose of Local Government changed on the 14 May 2019 to include promotion of the social, economic, environmental and cultural wellbeing of communities in the present and for the future ('the 4 wellbeings').
10. The subject matter of this report has been evaluated in terms of the 4 wellbeings during the process of developing this report as outlined below.
11. The recommendations set out in this report are consistent with that purpose.

Social

12. Climate change has the potential to reduce our communities social wellbeing, especially our more vulnerable community members. The 2020/21 Climate Change Action Plan includes actions that will support Council to identify these potential risks and to take action to minimise the risks and to enhance social wellbeing. For example by understanding how the projected impacts of climate change and the transition to a low carbon future will affect different groups of our community we can build this into our longer term response.

Economic

13. The delivery of the 2020/21 Climate Change Action Plan is the start of supporting the transition to a low carbon economy in Hamilton. As we gain a better understanding of the potential economic risks and opportunities facing the City we can collaborate with others to address them.

Environmental

14. The delivery of the actions in the 2020/21 Climate Change Action Plan will reduce greenhouse gas emissions and build our resilience. This includes reducing the Councils operating emissions and enabling others to reduce emissions through actions like improved cycleways and public transport.

Cultural

15. The long term impacts of climate change may have impacts on the cultural wellbeing of our community, for example if values and customs are unable to be undertaken. Collaboration is required through the delivery of this Action Plan to understand these future risks and to build these considerations into long term decisions.

Risks - *Tuuraru*

16. There are no known risks associated with the decisions required for this matter.

Significance & Engagement Policy - *Kaupapa here whakahira/anganui***Significance**

17. Staff have considered the key considerations under the Significance and Engagement Policy and have assessed that the recommendation(s) in this report has/have a low level of significance.

Engagement

18. Community views and preferences are already known to the Council through the development of the Climate Change Action Plan.
19. Given the low level of significance determined, the engagement level is low. No engagement is required.

Attachments - *Ngaa taapirihanga*

Attachment 1 - Climate Change Action Plan - Overview of actions



Build our understanding

- Investigate the sources of our City's carbon footprint further.
- Commission a 2019/20 emissions inventory for the Council.
- Undertake climate modelling and scenario development for Hamilton
- Complete a Climate Readiness Assessment for Hamilton City Council



Deliver change

- Develop a 2050 Climate Change Strategy

Council emissions

- Deliver our emissions reduction roadmap actions for 2020/21
- Undertake workplace travel planning for Council staff

Waste

- Implement the Site Waste Management Plans requirements
- Deliver the Waste Minimisation Fund
- Delivery of the new rubbish and recycling service

Transport

- \$500,000 to finalise the delivery of the Rotokauri Transport Hub
- \$2.3 million in improvements to the bus transport network
- Implementation of the Biking Plan actions for 2020/21
- Development of a Biking and Micro-Mobility Business Case for Hamilton
- Implementation of transport optimisation projects for traffic flow efficiency
- Development of the School Link and University Link project business cases

Natural environment

- Nature in the City Strategy adopted by Council following engagement with our community
- \$100,000 funding for community gully restoration

Land use planning

- Hamilton-Waikato Metropolitan Spatial Plan approved by Future Proof Implementation Committee

Built environment

- Peacocke development assessed under the Green Star Communities tool.

Water

- All best available data on flooding is incorporated into a single web viewer for Hamilton
- Map the carbon emissions of supplying drinking water and identify opportunities for emissions reduction
- Continue leakage detection to minimise water demand
- Review of the water alert system to improve water demand management at peak times



Climate Accord

- Establish the Terms of Reference for the Climate Accord
- Identify key actions for delivery through the Accord



Collaboration and capacity building

- Build a platform for collaborating and sharing knowledge on climate change
- Establish a climate change group with Waikato and Waipaa District Councils