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MEMBERSHIP: Her Worship the Mayor Rehette Stoltz (Chair), Josh Wharehinga (Deputy Chair), Meredith Akuhata-Brown, Bill Burdett, Andy Cranston, Shannon Dowsing, Sandra Faulkner, Larry Foster, Debbie Gregory, Isaac Hughes, Tony Robinson, Pat Seymour, Terry Sheldrake and Kerry Worsnop

# SUSTAINABLE TAIRAWHITI Committee

DATE: Thursday 10 March 2022

TIME: 9:00AM

AT: Te Ruma Kaunihera (Council Chambers), Awarua, Fitzherbert Street, Gisborne

# **AGENDA –** OPEN SECTION

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	11.2. <b>22-42</b> Climate Change Update



# Sustainable Tairāwhiti

Reports to:	Council
Chairperson:	Mayor Stoltz
Deputy Chairperson:	Cr Wharehinga
Membership:	Mayor and Councillors
Quorum:	Half of the members when the number is even and a majority when the membership is uneven.
Meeting frequency:	Six weekly (or as required).

# Purpose

To develop, approve, review and recommend to Council (where applicable) statutory and non-statutory policy, plans, bylaws and strategies to:

- Develop a vision and a pathway for the future of the district.
- Sustainably manage resources in the region.
- Identify and promote community aspirations.
- Define and deliver on Council's roles.
- Integrate an all-of-wellbeing approach to strategy, plan and policy development.
- Have effective statutory plans and bylaws to protect community and environmental needs.

# **Terms of Reference**

- To develop and review Resource Management Act 1991 and Local Government Act 2002 strategies, plans and policies across the Council relating to community, environment, and infrastructure.
- Make recommendations to Council to ensure the effective implementation of plans, processes, research, monitoring and enforcement to satisfy the requirements of the Resource Management Act 1991, National Policy Statements, National Environmental Standards and associated legislation.
- To lead the development of Council's draft Long Term Plan and Annual Plan and all other policies required to be included in the Long Term Plan as specified in the Local Government Act 2002 (including but not limited to the Infrastructure Strategy and Financial Strategy) for recommendation to Council.
- Hear submissions to Council's Long Term Plan or amendments.
- Oversee the development and review of Council's Resource Management Act 1991 plans.

- Oversee any development of unitary/spatial plan, integrated plans or major catchment plans.
- Consider and recommend to Council strategies, policies, rules and other methods for inclusion into the Tairāwhiti Resource Management Plan and other associated plans.
- Monitor and report on environmental performance trends and the effectiveness of and compliance with Council's resource management responsibilities and activities associated with policy implementation.
- Review State of the Environment reports to assist in future activity planning and policy development.
- Develop, review and recommend bylaws to Council for consultation and adoption.
- Receive reporting from state of the environment monitoring.
- Establish, implement and review the operational policy and planning framework for decision making that will assist in achieving the strategic priorities and outcomes
- Monitor, review and develop Council responses, strategies, plans and policy in relation to lwi and Maori commitments.
- Prepare submissions on any matter that is within its rationale and terms of reference for Council.

# Power to Act

To make all decisions necessary to fulfil the role and scope of the Committee subject to the limitations imposed.

To establish subcommittees, working parties and forums as required.

To appoint non-voting Tangata Whenua representatives and/or advisory members to assist the Committee.

# Power to Recommend

To Council and/or any standing committee as it deems appropriate.

#### 3.1. Confirmation of non-confidential Minutes 27 January 2022

# MINUTES Draft & Unconfirmed



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# MINUTES of the SUSTAINABLE TAIRAWHITI Committee

#### Held via Audio Visual Link on Thursday 27 January 2022 at 11.20AM

PRESENT:

Her Worship the Mayor Rehette Stoltz, Deputy Mayor Josh Wharehinga, Meredith Akuhata-Brown, Bill Burdett, Andy Cranston, Shannon Dowsing, Sandra Faulkner, Larry Foster, Debbie Gregory, Isaac Hughes, Tony Robinson, Pat Seymour, Terry Sheldrake and Kerry Worsnop.

Secretarial Note: Councillors Burdett and Sheldrake attended the meeting in the Council Chambers.

#### IN ATTENDANCE:

Chief Executive Nedine Thatcher Swann, Director Lifelines David Wilson, Director Internal Partnerships James Baty, Acting Director Liveable Communities De-Arne Sutherland, Director Environmental Services & Protection Helen Montgomery, Chief Financial Officer Pauline Foreman, Chief of Strategy & Science Joanna Noble, Principal Policy Advisor Janic Slupski, Senior Policy Advisor Chris Gilmore, Democracy & Support Services Manager Heather Kohn and Committee Secretary Jill Simpson.

#### 1. Apologies

There were no apologies.

#### 2. Declarations of Interest

There were no interests declared.

3. Confirmation of non-confidential Minutes

#### 3.1 Confirmation of non-confidential Minutes 28 October 2021

MOVED by Cr Seymour, seconded by Cr Faulkner That the Minutes of 28 October 2021 be accepted.

CARRIED

Response to questions:

#### Report 21-198 FAR Reserves Released for Emergency Flood Work Delivery:

- Details regarding how much of the \$1m was used for rates relief along with the remaining balance will be provided at the Finance & Performance Committee on 16 February.
- A report to the Operations Committee on 17 February will be provided on the actual spend relating to the \$15.1m emergency roading reinstatement work.

#### 4. Leave of Absence

There were no leaves of absence.

#### 5. Acknowledgements and Tributes

There were no acknowledgements or tributes.

#### 6. Public Input and Petitions

There were no public input or petitions.

#### 7. Extraordinary Business

There was no extraordinary business.

#### 8. Notices of Motion

There were no notices of motion.

#### 9. Adjourned Business

There was no adjourned business.

#### 10. Reports of the Chief Executive and Staff for DECISION

#### 10.1 22-23 Gambling Venue Approval to Consult Report

Senior Policy Advisor Chris Gilmore attended, and discussion included:

Points raised by Councillor Robinson included powers under Section 101, limiting the maximum number of pokie machines, impact and demographics on Tairāwhiti, impacts on Maori and Pacifica people, Sinking Lid Policy and suggesting that a Policy be introduced that limits the maximum number of machines to one per venue and take this out to public consultation. Limiting to one per venue will effectively remove pokie machines from our community.

- The maximum number of pokie machines per venue is a power that Council can exercise at the point of establishment of a venue. Outside of the Relocation Policy Council does not have control over the established venues.
- The DIA is the governing body and Council has limited control over addressing the number of machines.
- The mechanisms available to Council are no longer fit for purpose and lives are being harmed and change is important.
- Online gambling is also a huge problem.

- Conversations have been held with Government officials regarding the rules and expecting Councils to control the problem in their communities without the appropriate tools.
- It is now our opportunity to do something.

Chief of Strategy & Science Jo Noble told the Committee there is no mechanism for Council to limit venues to one machine.

- The DIA consents are reviewed however Council is a one-off process.
- The way the Act is designed, the Council has very limited powers. It is the DIA that holds the real licensing power.
- Noises should be made to the DIA to change their mindset and if public consultation is strong that is evidence to take to the DIA.
- Need to advocate for a person to be in Gisborne to help people with addiction problems be it gambling, drug or alcohol.

Councillors agreed on the following Options to be adopted and included in the final Statement of Proposal:

Proposal (1):	Adopt Option One		
Proposal (2):	Retain the Club Merger	Adopt Option Two	
Proposal (3):	Further Restrict Relocation of Gambling Venues	Adopt Option Two	
Proposal (4):	Retain the Sinking Lid Approach for TABs	Adopt Option One	
Proposal (5):	Introduce an Ethics Policy	Adopt Option Two	
Proposal (6):	Non-Policy Options	Adopt Options Two and Three and Five	

Further discussions requested Council's In-House Legal Team to get clarification of Section 101.

- We are hampered by the current rules however we have a role to lobby and push this issue. We need to make a public stand and have community consultation.
- Leading with an Ethics Policy may give us a stronger position of intent.

Jo Noble advised the Committee that it was intended to include the non-policy options in the Statement of Proposal as part of this process on the sentiments around a pokie free Tairāwhiti and changing the overall legislation and framework.

MOVED by Cr Seymour, seconded by Cr Gregory

That the Sustainable Tairāwhiti Committee:

- 1. Adopts the statement of proposal (Attachment 2).
- 2. Adopts the draft Gambling Venue Policy (Attachment 3).

CARRIED

#### 11. Reports of the Chief Executive and Staff for INFORMATION

#### 11.1 22-3 Overview of Freshwater Allocation for Poverty Bay Flats

Discussions included:

- Iwi and Mana Whenua have been under-allocated far too long and it is up to us to solve this for them.
- Reference was made to the use of the wording "Wicked Problem" within the report.
- Hierarchy of obligations are:
  - priority to the waterways themselves
  - social health and wellbeing
  - commercial and business needs
- Most 'takes' are telemetered now and we are starting to get through good data. As a Council we are trying to manage all the data coming in so that information can be provided to staff, councillors and other users in a timely fashion.
- Look to the future and make it equitable for everyone. Telemetery reading each year is important. All major users need to be on board.
- Need to start utilising the renewable water. All horticultural crops that are trees are more than capable of being irrigated from the water currently being sent out to sea. The solution is already on the flats currently it is just feeding the ocean.
- Should we be pushing for new urban builds to have tank supply.
- A formula is important for future allocations and equally there needs to be a strategy of relieving people of the water they do not need.

Further discussion included context around fairer allocation, allocating a percentage per hectare and allowing water to be traded, allocation based on land area and choosing to retain or sell, water take being a determinant quantity and working with tangata whenua to determine water take. There is no way to address this in its current format.

Lifelines Director David Wilson advised the Committee that average water useage at this time of the year is between 17k cubic metres per day and could be up to 24k cubic metres on a busy day. The lakes at the moment are about 84% full. This is the high production season when it comes to water useage and production runs through to March. With the La Nina system on the horizon we are ensuring that people conserve water. Waipaoa water supply is being used first this year with Waingake being the reserve.

Principal Policy Advisor Janic Slupski advised that he was mindful of the broad and highly complex nature of water allocation and water quantity when he was preparing the report. It is vitally important that we structure korero carefully, so we end up in a place where we intended. A good place to start was to talk about the issues, problems and dimensions associated with water allocations. We can structure the conversations moving forward and start to look at where we want to be regarding the quantum of water available, who gets it and how we decide the allocations. Most importantly once we know where we want to go, we can start to build pathways.

In terms of how we prepare ouselves for what is essentially a wide ranging and complex subject, conversations are the place to build our collective understanding. There will be trade-offs and we need to navigate that well. The bigger picture is around water security for the region for the future and where our vulnerabilities are. Health and wellbeing also play a part along with an economic and environmental aspect. Alternate use and disposal can be investigated from the supply side so that demand and supply can be addressed.

MOVED by Cr Wharehinga, seconded by Cr Faulkner

That the Sustainable Tairawhiti Committee:

1. Notes the contents of this report.

#### CARRIED

#### 11.2 22-8 Tairāwhiti Resource Management Plan Review Programme Update

Chief of Strategy & Science Jo Noble updated the Committee. One of the key things coming up is the development of the Future Development Strategy. This Strategy will set the urban growth for the next 30 years. A consultancy firm, Barker Associates, have been engaged to assist with the work. A Workshop will be held with Councillors to go over some of the issues associated with urban development and a large part concentrating on housing supply. A Housing & Business Capacity Assessment should be finalised by the end of February. One was completed for the Spatial Plan which has been updated with current growth projections and this will confirm if there is enough land to accommodate the projected growth and will feed into the Future Development Strategy. The Regional Policy Statement workstream focus has been on sorting out some of the technical works that will inform the worksteam. A team of consultants are available to give us planning advice and support as it is not possible to do all the work in-house.

Work is underway on the Waiapu Catchment Plan with ongoing meetings with Ngati Porou. A draft plan has been developed for the Motu Catchment and the plan will be further refined following one further meeting with stakeholders. This Plan will then be workshopped with Councillors. A Consultant is helping with the Waimata Catchment Plan and includes the neighbouring catchments so covers a wide area.

Discussions included:

- The Future Development Strategy is where we will have the conversations around future population projections versus land availability. Suggested this could be referenced along the lines of what does population density per land unit look like.
- The Future Development Strategy will form the zoning for the new plan. We will also be looking at draft plan provisions.
- Programming a piece of work on natural hazards, and seismic risk will be addressed.

The Chief Executive advised that funding put forward in the Long Term Plan for resourcing the Tairāwhiti Resource Management Plan is appropriate for what is required. The issue is about the hands required to do the mahi and it is a fine balancing act between dealing with rules and rewriting the rules and delivering essential services.

- Planning changes evolve because the landscape of resource management and resource use changes. When the Plan was written in 2014-2015 it was fit-for-purpose and was one of the first Freshwater Plans that responded to the National Policy Statement. There will always be matters that need addressing and these are observed over time and monitored. We are moving towards a paradigm where the demand for water is escalating, and a response is required for that demand. Staff are comfortable that they will meet this challenge head on and deal with is appropriately.
- Landuse and the way it is managed will be through the Regional Policy Statement.

MOVED by Cr Faulkner, seconded by Cr Stoltz

That the Sustainable Tairāwhiti Committee:

1. Notes the contents of this report.

CARRIED

#### 12. Close of Meeting

There being no further business, the meeting concluded at 1.10pm.

Rehette Stoltz MAYOR

## 3.2. Action Sheet

Meeting Date	ltem No.	Item	Status	Action Required	Assignee/s	Action Taken	Due Date
27/01/22	10.1	22-23 Gambling Venue Approval to Consult Report	In Progress	Staff to seek clarification from Council's in-house Legal Team of Section 101 of the Gambling Act.	Chris Gilmore		05/04/22

# 10. Reports of the Chief Executive and Staff for DECISION



# Report to SUSTAINABLE TAIRAWHITI Committee for decision

#### PURPOSE

The purpose of this report is to present Council with additional information to inform the adoption of emissions reduction targets.

#### SUMMARY

At the Council workshop on 4 November 2021, Council discussed what the road to a net-zero future looks like. This session was facilitated by MyImprint — a local consultancy engaged by Strategic Planning staff for technical support in our climate change mitigation journey. Council requested additional information on the implications of setting carbon neutrality targets for anytime between 2025 and 2040. Staff have worked with MyImprint to provide the additional information (Attachments 1 and 2) to help Council decide on targets and for us to further develop our organisational Emissions Reduction Plan (ERP).

Our preliminary investigations suggest we need to focus greater attention on reducing waste emissions, which account for 88% of our organisational emissions profile. Landfill gas capture, kerbside waste separation and composting will play a key role in how and when we get to net-zero. However, there are uncertainties regarding the costs and feasibility of some of the options, and there may be additional actions not considered in the MyImprint report. Council does not need to wait for all the answers before acting.

Adopting a net-zero target now will inform further work by staff to resolve the uncertainties and costs of our options. Council will also be in a good position to show climate change leadership by adopting the preferred net-zero target option proposed by staff.

The decisions or matters in this report are of **Low** significance in accordance with the Council's Significance and Engagement Policy.

#### RECOMMENDATIONS

That the Sustainable Tairawhiti Committee:

- 1. Adopts one of the following options for emissions reduction targets to guide our organisational Emissions Reduction Plan:
  - a) An ambitious 2025 net-zero target.
  - b) A 2040 net-zero target (this being the preferred option).
  - c) A 2050 net-zero target.

#### OR

2. Defers to set target(s) pending more evidence (feasibility study).

Authorised by:

#### Joanna Noble - Chief of Strategy & Science

Keywords: Climate Change Response, Emissions Reduction Plan, Road to Net-Zero

## BACKGROUND

#### Overview of international and national contexts

- Climate change remains one of the greatest challenges the world currently faces. The recent Intergovernmental Panel on Climate Change (IPCC)<sup>1</sup> <u>Report on the Physical Science Basis of Climate Change</u> projects that the average temperature of our planet would reach 1.5 degrees above pre-industrial levels around the year 2030.
- 2. If the earth system continues to warm up till the end of the century, this will impact virtually all continents of the planet. Figure 1 shows various levels of severity for the continents of the world, with Australia and New Zealand within the moderate impact range.



Figure 1: Global distribution of vulnerability to climate change

<sup>&</sup>lt;sup>1</sup> The IPCC is the United Nations body of experts with the primary objective of providing independent scientific evidence for understanding the state of climate change, its implications, risks, and potential response actions.

3. The <u>Global Risk Report 2022</u><sup>2</sup> by the World Economic Forum identifies climate action failure as one of the top 10 risks for the next decade: 2022–2032 (Figure 2).



Figure 2: Top 10 global risks by severity (World Economic Forum 2022)

- 4. This is a clear and present challenge to climate action at the international, national, and local scenes, and a need to reduce greenhouse gas (GHG) emissions globally.
- 5. The <u>Paris Agreement<sup>3</sup></u> aims to limit global warming to below 2°C, preferably to 1.5°C, compared to pre-industrial levels.
- 6. Almost 140 countries have set net-zero targets mostly for 2050<sup>4</sup>. Countries are also rolling out various policy and investment packages to achieve their set climate targets and the target set by the Paris Agreement.
- 7. Through the Zero Carbon Act, New Zealand has committed to the following targets:
  - Net-zero GHG emissions, except for biogenic methane, by 2050.
  - 10 percent biogenic methane reduction below 2017 levels by 2030.
  - A further 24–47 percent biogenic methane reduction below 2017 levels by 2050.
- 8. Central Government will release the country's first national emissions reduction plan by May 2022, which will set out how to achieve these targets.

<sup>&</sup>lt;sup>2</sup> This is an annual report series to track global risks perceptions among risk experts and world leaders in different sectors. It examines risks across five domains: economic, environmental, geopolitical, societal, and technological. This year's version is the 17<sup>th</sup> in the series.

<sup>&</sup>lt;sup>3</sup> This is the international binding agreement on climate change. It was adopted by 196 Parties at the 21st Conference of Parties (COP 21) to the United Nations Framework Convention on Climate Change (UNFCCC) in Paris, on 12 December 2015 and entered into force on 4 November 2016.

<sup>&</sup>lt;sup>4</sup> See a summary of countries' net-zero targets <u>here</u>.

#### Where are we in the scheme of things?

- At the regional level, climate change response is one of the central focus areas of the <u>Tairāwhiti Regional Spatial Plan</u> (The Spatial Plan). Outcome 2: Resilient Communities and Outcome 5: We Take Sustainability Seriously relate directly to climate change. The other outcomes also have indirect connections to climate change.
- 10. The urgency and importance of a strong response to the threats posed by climate change will need serious policy and strategic interventions. These are already reflected in our 2021–2031 Long Term Plan (LTP), which Council adopted at its meeting on 30 June 2021 (**Report 21–120**).
- 11. We have already begun our climate change journey and recorded modest progress. It is now time to take a more practical and serious approach to our climate change response.
- 12. Adopting emissions reduction targets and designing an Emissions Reduction Plan (ERP) are key to how we mitigate climate change as an organisation. The ERP will contain measures and strategies to reduce our emissions to meet whatever targets we set for the future. It will also help us incorporate environmental sustainability in our operations and organisational culture.
- 13. Strategic Planning staff are leading the development of our organisational ERP and are working with MyImprint a local consultancy to develop this piece of work.
- 14. In November 2021, Council had an emissions reduction workshop to discuss the transition to a net-zero future and what this means in terms of developing an ERP.
- 15. The two key issues for consideration and decision at the workshop included:
  - Decision 1: Net-zero target options and scenarios.
  - Decision 2: Boundaries of emissions reduction profile.

#### Table 1: Summary of Emissions Reduction Workshop Outcomes

Issues	Options/Discussions	Outcomes
<b>Decision 1:</b> Net- zero target options and scenarios	<ul> <li>Option 1: (CNGP) To be carbon neutral by 2025 = 25% reduction every year.</li> <li>Option 2: (Lead) To be carbon neutral by 2040 = 50% reduction by 2030.</li> <li>Option 3: To be carbon neutral by 2050 = 30% reduction by 2030.</li> <li>Option 4: (Status quo) Do nothing additional pending mandatory legislative requirement.</li> </ul>	<ul> <li>To adopt an ambitious but feasible target.</li> <li>Not Option 1 and certainly not Option 4.</li> <li>Request for more information to decide a middle point between Options 2 and 3.</li> </ul>
<b>Decision 2:</b> Boundaries of emissions reduction profile	Option 1: To include GHL emissions in Council's targets and ERP. Option 2: To exclude GHL emissions from Council's targets and ERP but set strategic objectives for GHL emissions through Statement of Intent (SOI) and annual Letters of Expectation.	<ul> <li>To exclude GHL from Council's targets and ERP but to include strategic objectives in the SOI for GHL.</li> </ul>

- 16. Council requested additional information on the implications of setting carbon neutrality targets for anytime between 2025 and 2040.
- Our consultants MyImprint have now provided the additional information (Attachments 1 and 2) to help Council reach a decision on emissions reduction/carbon neutrality targets.

#### **DISCUSSION and OPTIONS**

#### Why target-setting?



18. Target setting is one of the fundamental steps to net-zero:

Figure 3: Steps to net-zero simplified (Adapted from Visual Capitalist)

- 19. Council has a climate change portfolio plan (**Report 22-42**), which includes strategic objectives to guide the pieces of work that staff will deliver in our climate change response journey. These objectives are shown in Table 2 and are consistent with direction already provided by Council through Tairāwhiti 2050 and the 2021 Long Term Plan.
- 20. One of the deliverables of the climate change work programme is to define an overall roadmap for our climate change response. Staff are planning to deliver this piece of work this year. There may be some amendments to the objectives during this process, but we expect the general intent to remain the same.

Table 2:	Climate	Chanae	Strategic	Objectives	and Outr	outs
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Ob	jectives	Ou	tputs
a)	To be a regional climate change leader – partnering and working with other entities and our communities across the region to effectively respond to climate change.	•	Design and implement an emissions reduction plan (ERP) for Council as a leading example of effective climate response in Tairāwhiti. Work with all regional leaders and stakeholders to co- design and implement a regional emissions reduction plan alongside our regional partners using evidence and risk-based approaches for the benefit of present and future generations.
b)	To ensure a just/equitable transition that minimises the impact of a low emissions lifestyle on our whānau.	•	Work with all regional leaders and stakeholders to co- design and implement a plan to support our region to transition to a low-carbon future.
c)	To reduce the impacts of climate change on our natural and built environment though adaptation measures.	•	Work with all regional leaders to co-design and implement adaptation solutions using evidence and risk-based approaches that reflect our need for regional resilience from the effects of climate change for the benefit of present and future generations.

- 21. We are in a good position in reference to Step 1 in the road to net-zero (Figure 3).
- 22. The target-setting step of the journey is now before us. The targets we set will inform the types and quality of policy measures we will implement (Step 3 of Figure 3) to mitigate our organisational emissions and track progress (Step 4 of Figure 3) in our road to net-zero.

# Key messages from GHG Emissions Reduction Strategy Preliminary Report (Attachment 1)

23. Waste emissions account for most of our organisational emissions (47% including GHL and 88% excluding GHL) based on our emissions inventory completed by AECOM in 2018/19 (Figure 4).



Figure 4: Summary of organisational emissions



24. Most waste emissions (67%) come from the Paokahu closed landfill (Figure 5).

Figure 5: Waste emissions breakdown





Figure 6: Carbon management hierarchy (Piper and Longhurst 2021)

26. In our carbon management hierarchy, we should focus first on reducing our gross emissions as much as possible and then choose to offset hard-to-abate emissions through "carbon offsetting". This means purchasing high quality carbon credits from credible organisations.

#### What are the options for reducing carbon emissions?

- 27. Due to our emissions profile, the main areas of focus for reducing emissions are waste, transport, and stationary energy. Changes to waste management will be key to meeting any net-zero targets we set, while also increasing our uptake of electric vehicles and greening our energy supply.
- 28. For reducing waste-related emissions, Attachment 1 suggests the following options:
  - Landfill gas capture (LGC): This will be key to any emissions reduction targets we set, especially LGC at the Paokahu closed landfill. However, there are some uncertainties regarding the practicability of this measure. We will need to do a feasibility study on our existing and closed landfills to inform the suitability of exploring LGC to achieve our targets.
  - Separating our waste streams at the kerbside: This will enable waste streams currently generating higher emissions (food waste and green waste) to be treated in a way that reduces emissions. Moving to a 3–4 bin collection system has a potential capital cost implication of about \$1.5m and some ongoing operational costs.
  - Anaerobic digestion: Organic food wastes could be disposed through anaerobic digestion. The MyImprint report mentions options available for anaerobic digestion, and there may be others. Further research is needed before identifying the best approach, but the examples indicate what is possible:
    - Ecogas is building an anaerobic digester in Reporoa.<sup>5</sup> On completion, there will be a gate fee of \$110–160 per ton including transport for our general waste. Our initial research indicates that this may not be a viable option due to costs (gate fee and transportation).
    - Eastland Group took over a feasibility study completed a few years ago on anaerobic digestion. Council may use this study to determine the feasibility of anaerobic digestion in achieving emissions reduction.
  - **Composting**: There is potential to compost a significant volume of our wastes locally. Siteworx Civil is currently building a composting facility that can receive up to 50,000 tons of organic waste per year, more than what the region currently produces. It should be ready by the end of 2022. This could be a viable option, but a key first step is for us to start separating our waste streams at the kerbside as discussed above.

<sup>&</sup>lt;sup>5</sup> This is a joint venture between two New Zealand-based companies — Pioneer Energy Limited and EcoStock Supplies Limited — to build an anaerobic digestion facility to convert waste to renewable energy. Construction currently under way on New Zealand's first large-scale food waste-to-bioenergy facility at Reporoa in the central North Island. When completed, it is estimated that the facility will recover approximately 75,000 tonnes of organic waste from businesses and kerbside food scrap collections throughout the North Island and turn it into sustainable renewable clean energy. More information can be found <u>here</u>.

#### What happens after reducing our emissions?

- 29. Under the carbon management hierarchy, we can reduce our emissions and offset our remaining emissions to reach 'net zero' or engage in carbon insetting. Our gross emissions are our total emissions without any mitigation, while our net emissions are our remaining emissions after reducing the total volume.
- 30. The two options after reducing our gross emissions include:
  - **Carbon offsetting:** This means we buy carbon credits nationally or internationally to offset our net emissions.
  - **Carbon insetting:** This means we fund carbon reduction projects, verified by an offset standard, within our organisation. The Waingake Restoration Project at Pamoa is a good example of *carbon insetting*. However, the Pamoa trees planted between 2020 and 2024 will not produce any offset until 2026, after which they could yield an estimated carbon credit of 1,000–2,000 tCO2 per year for the first 5 years, 3,000 tCO2 per year after 2033 and 4,000 tCO2 per year after 2039.

#### How do we stand?

- 31. There are some uncertainties regarding the feasibility of the options to reduce emissions, especially landfill gas capture.
- 32. A feasibility study will provide certainty about the viability and cost implications of various options. This is a crucial next step in our net-zero journey.
- 33. We do not have all the answers, but we may never progress the emissions reduction work if we wait until we have perfect conditions. Therefore, we need to set a target to hold ourselves accountable and progress the work needed to test feasibility and develop detailed costings.
- 34. Council has four options for consideration. These are set out in Table 4.

Options	What this means	Benefits	Consequences
Adopt an ambitious 2025 net-zero target	<ul> <li>We show a strong regional climate leadership.</li> <li>We spend hugely on ambitious initiatives to achieve the ambitious 2025 net-zero target.</li> <li>We need to be ready to increase our climate change budget significantly in the next and future LTPs.</li> </ul>	<ul> <li>Aligns with Council's climate leadership commitment and Central Government's Carbon Neutral Programme (for 2025).</li> <li>Provides a speedy path to a low-carbon future for Council.</li> </ul>	<ul> <li>Potentially huge financial implications that remain unascertained.</li> <li>Likely to put pressure on Council's budgets for several LTPs.</li> </ul>
Adopt a 2040 net-zero target	<ul> <li>We work further to define the best approaches and costs to achieve a realistic net-zero target.</li> <li>We increase our climate change budget</li> </ul>	<ul> <li>Affords a more realistic timeframe and path to a low-carbon future.</li> <li>Allows time for more proper planning and project(s) optimisation</li> </ul>	<ul> <li>Likely to appear less ambitious compared to a 2025 timeframe.</li> <li>Still some uncertainties around financial implication.</li> </ul>

#### Table 4: Summary of Options for Council

Options	What this means	Benefits	Consequences
	<ul><li>considerably in the next and future LTPs.</li><li>We redefine climate change as a major project.</li></ul>	<ul> <li>compared to Option 1.</li> <li>Helps to ease funding needs and allocations across multiple LTPs.</li> </ul>	<ul> <li>Creates room to continue carbon- intensive practices longer than it would be in an ambitious scenario.</li> </ul>
Adopt a 2050 net-zero target	<ul> <li>We allow waste emissions to decay overtime for Paokahu landfill.</li> <li>We ensure that new capital projects will have to maintain an annual electricity consumption like the existing facilities.</li> </ul>	<ul> <li>Could be a financially less costly option due to emissions decay and gradual reduction.</li> <li>Allows room to profit from external interventions.</li> <li>Creates more time for more planning and project(s) optimisation compared to Option 1 and slightly more time compared to Option 2.</li> <li>Helps to ease funding needs and allocations across multiple LTPs.</li> </ul>	<ul> <li>Could be a more carbon costly option.</li> <li>The cost implication could be higher or lesser than options 1 and 2 depending on market forces and future carbon prices.</li> <li>Creates a longer carbon cycle.</li> <li>Falls short of the expectation of urgent and early action in line with increasingly emerging evidence on climatic changes.</li> <li>Increasing carbon prices may impact the cost implication, depending on the volume of carbon offsets.</li> </ul>
Defer to set target pending more evidence	• We set no target anytime soon but wait until we undertake a comprehensive feasibility study and gas capture trial runs at the closed landfill.	<ul> <li>Affords more time to gather more evidence and conduct detailed feasibility studies on mitigation options.</li> <li>Allows us to wait for tested and better solutions or technologies to reduce emissions.</li> </ul>	<ul> <li>Presents Council as a climate laggard and not aligning with the aspiration of climate leadership.</li> <li>Likely to cause a reputational damage and present Council as an environmentally irresponsible organisation.</li> <li>Missed opportunity to drive climate action and be a regional leader in this space.</li> <li>Without a target, Council has nothing to hold itself accountable. There may be less focus on undertaking the requires feasibility studies and further research.</li> </ul>

#### What is the Preferred Option for Council?

- 35. Option 1 is not preferred due to the associated financial implications and the lack of information about its feasibility. It is ambitious and with less likelihood to succeed. Failure to achieve any ambitious target will dent our reputation and impact the trust of our community.
- 36. A 2050 net-zero target (Option 3) does not align with our climate leadership commitment. A similar comment applies to Option 4, and we will also lose an important opportunity to advance our climate response journey by deferring to set net-zero targets.
- 37. Therefore, in line with Council's desire to adopt a mid-point target,<sup>6</sup> Option 2 is the preferred option, which is to set a net-zero 2040 target and allow room for between 30–40% emissions reduction by 2030 compared to 2018/19 levels.
- 38. Option 2 looks more realistic considering the information at our disposal (Attachments 1 and 2), the current uncertainties and our financial/budgetary constraints. It also affords us some time to undertake further work to inform the measures we need to implement to reduce our emissions and develop a more comprehensive action plan.
- 39. Attachment 2 is a high-level summary of two net-zero options (2025 and 2040) and their estimated cost implications.

#### **ASSESSMENT of SIGNIFICANCE**

Consideration of consistency with and impact on the Regional Land Transport Plan and its implementation **Overall Process: Low Significance** This Report: Low Significance Impacts on Council's delivery of its Financial Strategy and Long Term Plan **Overall Process: Low** Significance This Report: Low Significance Inconsistency with Council's current strategy and policy **Overall Process: Low** Significance This Report: Low Significance The effects on all or a large part of the Gisborne district **Overall Process: Low Significance** This Report: Low Significance The effects on individuals or specific communities **Overall Process: Low Significance** This Report: Low Significance The level or history of public interest in the matter or issue **Overall Process: Low Significance** This Report: Low Significance

40. The decisions or matters in this report are of **Low** significance in accordance with Council's Significance and Engagement Policy.

<sup>&</sup>lt;sup>6</sup> Based on the proceedings of the emissions reduction workshop.

#### TANGATA WHENUA/MĀORI ENGAGEMENT

41. There has been no engagement with tangata whenua in the preparation of this report. However, we will need to work closely with the Māori owners and trustees of the Paokahu landfill site in deciding any long-term plan to manage emissions from the Paokahu landfill.

#### **COMMUNITY ENGAGEMENT**

42. There has been no engagement with the community in the preparation of this report.

#### **CLIMATE CHANGE – Impacts / Implications**

- 43. We have not done a comprehensive assessment to show the full climate change impact of this decision. However, our preliminary evidence suggests that setting net-zero targets will help to reduce our organisational emissions in the long-term horizon.
- 44. However, the volume of emissions reduction will largely depend on the ambitiousness of Council's net-zero targets and the level and quality of supportive measures to achieve any targets.
- 45. Later, staff can present a realistic climate impact assessment of any decision Council reaches concerning emissions reduction targets.

#### CONSIDERATIONS

#### Financial/Budget

- 46. The road to net-zero emissions will have financial implications for Council.
- 47. Due to the uncertainties surrounding the feasibility of landfill gas capture, we are currently unable to present a definite cost implication of any net-zero targets.
- 48. However, **Attachment 2** suggests we can look towards spending between \$5–50m to reach net-zero by 2025 and between \$3–40m to reach net-zero by 2040. We can get better or near-accurate cost estimates when we conduct a trial/feasibility study of landfill gas capture.

#### Legal

- 49. Council's positive climate response journey aligns with the requirements of the Local Government Act 2002 concerning sound business practices and prudent management of resources.
- 50. Our evolving climate policy direction also aligns with our legal obligations under the Resource Management Act to consider climate change implications in decision-making.
- 51. The eventual target(s) we set for emissions reduction and our organisational ERP will support the national climate change targets set under the Zero Carbon Act and keep our organisation in harmony with national climate policy direction.

#### POLICY and PLANNING IMPLICATIONS

- 52. This decision is consistent with Council's aspiration to be a regional climate leader and contribute to the achievement of our strategic direction concerning climate change. It also aligns with our climate change aspirations in the Spatial Plan (Tairāwhiti 2050) to have resilient communities and to take environmental sustainability seriously.
- 53. Our future Annual Plans, Long-Term Plans and other policy planning processes will need to align with best practices and needed changes to achieve net-zero emissions by whatever date is decided.

#### RISKS

#### Climate governance and aspiration drive

54. The risks posed by climate change are evident globally, nationally, and regionally. We have already begun our response journey. Well-articulated emissions reduction targets are key to sustaining our momentum and climate leadership aspiration drive at both strategic and operational levels.

#### **Financial exposure**

55. There could be a risk of higher financial exposure to Council's operations if we adopt either very ambitious targets or delay taking reasonable climate change mitigation action.

#### **Reputational risk**

56. There could potentially be a reputational risk to Council if we set ambitious targets which we do not achieve within the promised timeframe(s) or when we defer setting any targets and be seen as an environmentally irresponsible organisation. Therefore, we need to carefully set ambitious but feasible targets and ensure the delivery of appropriate measures for achieving them.

#### Potential legal risk

57. If we do not take the opportunity to set net-zero targets now, we could be caught unprepared in the event of any mandatory public sector carbon neutrality obligation. The <u>Carbon Neutral Government Programme (CNGP</u>) was launched in December 2020 and aims to make the public sector carbon-neutral by 2025. Councils are part of the broader public sector. They are encouraged to participate in the CNGP programme but are not currently required to do so.

#### NEXT STEPS

Date	Action/Milestone	Comments
November 2022	Report to Council on actions needed to reach the target, along with costs and any other implications.	The timing of this report may be impacted by Local Government elections this year.

#### ATTACHMENTS

- 1. Attachment 1 Preliminary Report on GDC Emissions Reduction Strategy [22-30.1 14 pages]
- Attachment 2 Addendum GDC Emissions Reduction Strategy Summary Report [22-30.2 - 4 pages]





# **GISBORNE DISTRICT COUNCIL**

# GHG EMISSIONS REDUCTION STRATEGY PRELIMINARY REPORT



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# GHG EMISSIONS REDUCTION STRATEGY (GISBORNE DISTRICT COUNCIL)

Prepared by: Mauro Negri, Energy Engineer Reviewed by: Anna Byers, Environmental Accountant Approved by: Andrew Lawton, Managing Director

Date:

Signed:

25/01/2022

Ane

# **Record of Amendment**

Amendment number	Description of change	Effective date	Updated by
1	Financial Implications	18/01/22	MN
2	Comments and review	23/01/22	MN
3	Further comments	25/01/22	MN

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## Introduction

GDC proposes to reduce its carbon footprint over time to become a carbon neutral organisation. Before setting a target and timeframe they have requested to understand what the roadmap to carbon zero might look like. Based on the carbon assessment completed by AECOM for the year ended 30 June 2019, it is evident that waste emissions account for the majority (88%) of the total emissions - 20,937 tCO<sub>2</sub>e. In particular, emissions from the closed Paokahu landfill were 12,250 tCO<sub>2</sub>e, emissions from the open Waiapu landfill were 1,044 tCO<sub>2</sub>e and emissions related to the collection of community general waste were 4,329 tCO<sub>2</sub>e. Addressing these emissions is critical to achieving the goal of carbon neutrality.

## Landfill Gas Recovery

Following investigations carried out after the initial workshop, there is more information on the options, but not enough to firm up any scenarios on the future. The focus has been on Paokahu landfill, a 20ha landfill that operated between 1974 and 2002. According to the IPCC first order decay model, the landfill peaked its emissions in 2002. Emissions have been progressively decreasing, with an estimated trend as per the graph below.



#### Figure 1: Emissions modelling from Paokahu landfill

According to professor Dr Jeff Seadon of the Auckland University of Technology, and as referenced in the US ATSDR <u>publication</u>, peak gas production usually happens 5-7 years after the last organic waste is dumped in the landfill. Most emissions stop after approximately 20 years. Mounting a landfill gas capture operation at this stage may not be productive.

However, the Australian company LMS Energy Pty Ltd, who have experience in recovery of closed landfill gases, are now expanding their presence in New Zealand. They believe they can recover a gas flow of the order of 150 m3/hr from Paokahu and can convert this into electricity. This is a high-level number based on the area, depth and age of the landfill (unlined). Pumping trials or data from drill wells for leachate (if in place) will help to confirm any prediction. It is difficult to predict the feasibility of the project and give any preliminary budget ranges at this stage. LMS Energy Pty Ltd will be in NZ in mid-June 2022 to carry out other landfill pumping tests around the country; this could be a great opportunity to do trials at Paokahu. Waiapu landfill could be added to the same trial schedule. Testing

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data from these sites will provide more clarity on what is possible regarding emissions reduction directly from these landfills.

Additionally, leachate is often a problem with this type of landfill. One way to lessen the water ingress is to put an impervious cap onto the landfill. Alternatively, recycling the toxic leachate back onto the landfill is thought to increase decomposition processes and the landfill is likely to become "inert" sooner. GHG emissions from the treatment of aged landfill leachate, as opposed to young landfill, are very low<sup>1</sup>. The treatment of leachate for Paokahu does not have a significant impact on emission reduction. While leachate treatment is not within the scope of this investigation, it is mentioned as a recommendation for additional positive environmental outcomes.

## **Waste Emissions**

Another challenge related to emissions coming from waste is from current waste disposal. Currently general waste includes food and organic waste which is estimated to be 30% of the total waste stream (according to the Waste Minimisation Plan 2018-24). It is all sent to Tirohia (Waikato), a very efficient landfill with gas recovery, although it is located 364km (one way) from Gisborne. It follows that transport emissions are a high component of the emissions profile.

The first immediate recommendation is to separate **organic** food waste and dispose of it in a different way. The two alternatives are anaerobic digestion and aerobic composting. Below you can see a snapshot of the emissions for 1 ton of food waste, depending on the type of disposal solution.



#### Figure 2: Emissions from different food waste disposal methods

<sup>1</sup> Wang, Xiaojun & Jia, Mingsheng & Chen, Xiaohai & Xu, Ying & Lin, Xiangyu & Kao, C.M. & Chen, Shaohua. (2014). Greenhouse gas emissions from landfill leachate treatment plants: A comparison of young and aged landfill. Waste Management. 34. 10.1016/j.wasman.2014.02.004.

Fortunately, a few possible options should be available by the end of 2022 to manage this waste.

#### 1. Ecogas - Anaerobic Digester

Ecogas is building an Anaerobic Digester in Reporoa that will receive **organic** food from all over the country, from Auckland south. On completion, this will be the first large-scale commercial digester in the country that can capture 99% of gases from waste. It will create enough energy to annually power the equivalent of around 2,500 households, produce clean bio-fertilizer for approximately 2,000 hectares (ha) of local farmland, and provide carbon dioxide and heat to enhance the growth of tomatoes in T&G Fresh's local glasshouse. They have estimated a gate fee of \$110-160 per ton including transport for Gisborne waste. The distance is similar to Tirohia, but at a lower cost and with a better gas capture system.

#### 2. Siteworx Civil - Composting

Another option, which is also local to Gisborne, is under development by Siteworx Civil, that now owns Judds which is a composting facility. They are building an in-vessel composting system that can receive up to 50,000 tons of **organic** waste per year, more than what the region currently produces. It should be ready by the end of 2022. In terms of emissions, aerobic composting produces more greenhouse gases than anaerobic digestion, however it is a local solution, that will also reduce all the emissions related to transport and freight and therefore should be carefully considered.

#### 3. Eastland Group Feasibility Study on Anaerobic Digestion

For the medium term, Eastland Group has inherited a feasibility study on Anaerobic Digestion which was completed for Cedenco several years ago. The Group has extended the potential volume of **organic** waste receivable by including other businesses in town and access to community food waste was also considered. We strongly recommended having the conversation with Eastland Group (and other organic waste stakeholders) to validate the feasibility of the project, which would be the ultimate solution for Gisborne's food waste disposal.

Regarding the disposal of **general waste**, there are some local options, worth pursuing. The quarry owned by Rock Products in Patutahi is approaching the end of its resource consent and can't continue excavating in some areas. They have contacted MyImprint about their interest in dedicating their site as a landfill. As per the national waste strategy consultation document, any new landfill in New Zealand will have to be equipped with a gas recovery system. We believe this is an opportune time for Gisborne to develop a new local landfill site and explore what sites are the best options for this. This will significantly reduce transport emissions, include gas recovery and energy generation, and facilitate a 'best for region' approach.

#### Notes on Other Scope 3 emissions

The AECOM report has outlined a series of emissions under scope 3. They are detailed in the appendix of this report. Most were calculated with some major assumptions using emission factors based on a dollar value (Motu, 2014). MyImprint is currently assessing the emissions of road maintenance activities, under the Reseals & Rehabs program. This is likely to be included into the *Capital Goods* section, under *Maintenance cost* or *Construction services*. This program alone has more than 1,000 tCO<sub>2</sub>e associated with it when including emissions from manufacturing of materials, operation of machinery and transport of goods and people.

The equivalent emission factor is 2,000 times larger than what is used under the current assumptions. This would have a significant impact on GDC's overall emissions. However, emission targets and

further assessments refer to the base year and must be consistent with the same assumptions, to perform a proper comparison. This note highlights the existing emissions profile has likely underestimated the real impact of emissions related to the supply chain, and in particular to contractors and sub-contractors involved, especially in construction works. Thus, we recommend further analysis of the base year to establish a robust starting point.

# Offsetting

Offsetting should be considered only after reasonable efforts have been implemented to reduce gross emissions. To offset the remaining unavoidable emissions, carbon credits and tree planting will play an important role. Carbon credits have a wide and increasing price range depending on the source and type. Some international credits, for example, based on wind projects in China cost approximately \$10 per ton of  $CO_2$  to offset. NZ credits related to native plantings in reserves cost around \$60 a ton. It is forecasted that the NZ spot carbon price will increase to more than \$250 a ton in the next 30 years. Without entering into the issues of carbon credits, direct tree planting offers a positive option to offset emissions and incorporates local biodiversity enhancement also. GDC have already committed to the Waingake restoration project at Pamoa. Those native trees planted between 2020 and 2024 will not produce any offsets up until 2026. After that, it is estimated that carbon credits of 1,000-2,000 tCO<sub>2</sub> per year for the first 5 years will be achieved, 3,000 tCO<sub>2</sub> per year after 2033 and 4,000 tCO<sub>2</sub> per year after 2039.

## Insetting

Beyond carbon offsetting actions, developing "insetting projects" is a meaningful option by which GDC can reduce its carbon footprint. Insetting refers to a process whereby an organisation reduces its emissions through a carbon reduction project within its own value chain. In contrast to a typical carbon offset project, emissions are avoided (or reduced) within the organisations own value chain. This could be also a mechanism to build a carbon budget that can be invested within the organisation in order to reduce emissions. Based on emissions in the previous period and given the broad range of prices of carbon credits, an amount is dedicated to projects that have the goal to reduce emissions within the organisation. This budget, for example, could be used to fund the transition of Council's fleet into electric vehicles. While transport emissions do not have a significant impact on GDC's corporate emissions, this initiative is a step in the right direction as it demonstrates the Council's environmentally conscious focus and provides a 'lead' for others to follow. To clarify, it is reiterated that insetting is not offsetting and cannot be used to claim a "zero" status. It is rather an internal financial mechanism to provide a budget for low emission delivery of services.

## Scenarios

In the two tables in Figure 4 and Figure 5, we have forecasted GDC's emissions up until 2040 with two options:

- 1. Base scenario: Do-nothing more that is currently occurring, in terms of reducing emissions
- 2. Reduce emissions: in particular regarding landfill gas and waste

The first scenario considers the decay of emissions overtime for Paokahu landfill. It also assumes that new capital projects and infrastructure (e.g., swimming pool, WWTP) will have a similar annual electricity consumption in comparison to the existing facilities. A budget for emissions reduction is

kept to include future GHG assessments and some minor projects (about \$30,000 every year). Furthermore, Pamoa planting is taken into consideration and used to offset emissions.

In the second scenario, in addition to the assumptions of the base case, it is considered that food waste is separated by 2023 and landfill gas is captured by 2024 in Paokahu and by 2025 in Waiapu. Regardless of the future of Waiapu, the assumption here is to act promptly on Paokahu, followed by Waiapu. It is also recommended an energy audit is performed within the next two years and further energy savings are achieved in the existing buildings. Other actions in waste minimisation will be required in the future to further reduce waste emissions. With this scenario, only 1,000 tCO2 (5% of 2019) will be left to offset in 2040.

It is also worth noting the estimates and projections for the Gisborne District population as shown in the graph below. GDC is considering the forecast between the Stats NZ mid to high projections, a change of between +10% and +30% over the next 30 years. This will indirectly impact GHG emissions, especially in terms of waste emissions and construction services. Given the uncertainty over the rate of variation, this has not been incorporated in the scenario, but it is something to keep in mind when considering a target to achieve.



#### Figure 3: Gisborne population growth estimates [GDC]

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Attachment 22-30.1 Emissions Reduction Strategy 2022 Gisborne District Council



Figure 4: Base scenario: GHG emissions expressed as 000 t CO2e per year

Figure 5: Reduce emissions: GHG emissions expressed as 000 t CO2e per year



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# **Financial Implications**

The economic impact of the emission reduction strategy and the target set is difficult to predict accurately. The feasibility and effectiveness of the gas recovery system for the landfill will be a critical cost component.

Moreover, there are potentially some external funding sources that can reduce the cost of waste reduction capital projects. The Ministry of the Environment previously introduced a Waste Minimisation Fund to support projects, such as infrastructure, feasibility studies and data gathering. The fund covered 60% of the total cost of a project up to \$3,000,000. Last year, the first round for expression of interests opened in April 2021, with the application deadline in August 2021. Applications are currently closed and there is no evidence of another round in 2022 at this point. However, Government has proposed a new Waste Strategy and Legislation with consultation that closed on 10 December 2021<sup>2</sup>. The strategy sets out a course to a circular economy by 2050. The first stage to 2030 includes proposed priority areas in bringing resource recovery systems up to global standards and reducing emissions from waste. The final version of the waste strategy is expected to be released in mid-2022. If the Government decides to go ahead with new waste legislation, a Bill will be introduced to Parliament later in 2022. If the Bill is passed by Parliament, it will likely come into force in mid-2023.

Since the extent of access to external resources is not known, all the costs are considered to be without any funding contribution. The two graphs below are a forecast of the costs involved, depending on the two scenarios detailed in the previous paragraph and the decision to become a zero-carbon organisation by 2025 - 2040 and offset the remaining unavoidable emissions. These numbers are provided before an actual investigation of the landfill, therefore are only an estimate of the capital projects and the emission reductions. For offsetting, two options of carbon credits are given, depending on if they are sourced in NZ or internationally. The vertical bars are the costs incurred in each period of the 3 years. The lines are the cumulative costs.



#### Figure 6: Base Scenario Financial Forecast

<sup>2</sup> Link: <u>https://consult.environment.govt.nz/waste/taking-responsibility-for-our-waste/</u>

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Without investing significantly on reducing waste and landfill emissions, the offsetting fee will sit at about \$1.5 million per year, starting from 2025, 2040, or which-ever year is chosen as a target year. Although emissions will naturally decrease (because of landfill emissions decay), the carbon price will most likely increase, therefore they will counter-balance each other. Starting from late 2040, this will increase to \$2 million every year. It is also important to consider if it is chosen and allowed, to rely on international carbon credits. In this case, if international credits follow the voluntary market scenario (BloombergNEF), the annual offsetting fee will be less than \$200,000 per year at least until 2045. It could double after that.



#### **Figure 7: Reduce Emissions Financial Forecast**

Under the reduce emissions scenario, an estimated investment of \$10M is considered to upgrade Paokahu, and further investment is required to reduce emissions in waste and other areas. Consequently, the offsetting fees should drastically reduce in each period. Considering the forecasts up to 2050, the savings compared to the zero 2025 target could be more than \$10M (\$42M in the base scenario, \$18M in the reduce emissions scenario). If the choice is to become carbon zero in 2040, the difference is less than a million (\$18.5M vs \$17.5M). With international credits, the impact of capex costs is much higher than offsetting fees.

For mandatory emission offsetting, the NZ Emission Trading Scheme (ETS) was established in 2008 and closed its borders in 2015. It is not ascertained if international credits will be allowed in the future. The International Carbon Action Partnership (ICAP) has released an update on the 17 November 2021 addressing NZ ETS (<u>link</u>). According to their report, "Access to high-integrity international carbon markets is likely to form part of New Zealand's strategy for meeting its 2030 target". Given the uncertainty on the access to international credits, we have presented it as an option, in terms of minimum price as opposed to a maximum price for NZ credits.

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#### Summary

GDC is exploring the possibilities of transitioning to become a low-emissions organisation. Its emission profile is and will be highly influenced by waste emissions, in particular those of a closed landfill. If the emissions from Paokahu landfill cannot be captured, they will become unavoidable and can only be offset by the purchase of carbon credits. This is at least until 2040, when the Pamoa planted trees would offset these emissions. Paying solely for the burden of these emissions is probably not the best choice for the community. Our advice is rather to invest this money within the organisation to reduce other emissions, i.e. insetting, as opposed to using this money externally. Hence, to claim the status of carbon neutrality for 2030 can only be possible by paying a significant amount for carbon credits. Anything between \$50,000 and \$1,000,000 per year depending on the origin of the credits (NZ or overseas) and the trend of carbon price. The scenario and timeframe would change if the capture of gas is a suitable option for Paokahu. This will not be known before mid-2022 and therefore it is recommended GDC perform the pumping trials presented in this report in order to better understand the options and their impacts.

This is as much information as we have available today and without feasibility studies, the full outcome of actions will not be known. However, a target sets the aspirational goals to where Council wants to go. GDC is ambitious with the direction they want to head in, and the information available today is not a complete picture of the impact of the targets. In the future, any targets set by GDC can be reviewed as more information on actions and options become available.

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# Appendix

Details of 2019 AECOM emissions table

Source	kg CO2e	
Scope 1	33,514,333	84%
Diesel Generators	38,053	0%
Refrigerants	27,288	0%
Natural (reticulated) Gas	1,820	0%
Biofuel (non biogenic emissions)	8,976	0%
Firelighting fuel-Diesel	57	0%
Small plant fuel-Petrol	3,260	0%
Fleet Fuel	312,639	1%
Landfill-Paokahu (closed landfill)	12,249,976	31%
Landfill-Waiapu	1,043,931	3%
Waste Water Treatment Plant		
(WWTP)	790,348	2%
Rental car	144	0%
Scope 2	899,170	2%
Electricity	856,980	2%
Scope 3	5,606,762	14%
Business Travel	97,593	0%
Employee Commuting	443,708	1%
T&D Loss Electricity & Gas	64,657	0%
Operational Waste to landfill-		
General waste	1,924	0%
Operational Paper recycling	10,968	0%
Operational Cardboard recycling	1,255	0%
Operational Mixed recycling	1,366	0%
Operational Water Supply	5,472	0%
	,	
Operational Water Supply CCTO	63	0%
Operational Water Supply CCTO Capital Goods	63 3,577	0% 0%
Operational Water Supply CCTO Capital Goods Purchased Goods & Services	63 3,577 4,420,298	0% 0% 11%
Operational Water Supply CCTO Capital Goods Purchased Goods & Services Downstream transportation and	63 3,577 4,420,298	0% 0% 11%
Operational Water Supply CCTO Capital Goods Purchased Goods & Services Downstream transportation and distribution	63 3,577 4,420,298 552,684	0% 0% 11% 1%

	Consultancy services	152	0%
1	Other services	385	0%
	Material & consumables	73	0%
	PC and other hardware	7	0%
	Maintenance cost	198	0%
	Construction services	2,739	0%
	Residential property		
	operation	12	0%
	Library and other		
	information services	5	0%
	Computer licencing fees	5	0%

Office paper	5,415	0%
Contractor	169	0%
120 pensioner flats	82,070	0%
Tirohia Landfill	4,328,623	11%
Landfill Gas combustion -		1977
Tirohia Landfill	4,021	0%

Go bus		
	138,467	0%
Waste (Kebside Collection		
rubbish & recycling)- Fuel		
within the region	398,119	19
Waste (Kerbside		
Collection rubbish &		
recycling)- Fuel from WM		
site in Gisborne to		
Paeroa, Auckland, Napier		
and Tauranga	12,094	02
Total mobility scheme		
(central govt funded) to		
help people with		
disabilities get to school		
and hospital etc	4,005	09

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Attachment 22-30.1

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istamable ranawhiti Committee 10 March 2022





#### Attachment 22-30.2 Te Kaunihera o Te Tairāwhiti

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**GHG EMISSIONS REDUCTION DECISION SUMMARY** 

Option 1 – Carbon Neutral Year 2025					
Option 1 Strategy		Current C02e Emissions	Remaining C02e Emissions	Financial implications	
Invest in capturing methane emissions from landfill	Poakahu Landfill gas recovery (closed landfill) If unfeasible following the study: do nothing on Poakahu Landfill and allow emissions to decay over time	12,250 tCO2e Poakahu¹	0-6125 tCO2e (50%-100% capture) <sup>2</sup> ,decreasing over time 7,500 tCO2e per annum from 2025 <sup>3</sup> , decreasing over time	Pumping trial required \$10,000 - \$50,000 If feasible to capture gas, approx. cost. \$1M - \$5M <sup>5</sup> or Flare \$0.5M - \$2M <sup>5</sup> \$ Nil (Offset cost = \$70k -\$800k per year) <sup>4</sup>	
	Waiapu Landfill gas recovery (active landfill)	1,044 tCO2e Waiapu¹	0-500 tCO2e (50%-100% capture)², decreasing over time	Pumping trial required \$10,000 - \$20,000 If feasible to capture gas, approx. cost. \$1M - \$2M <sup>5</sup> or Flare \$0.5M – \$1M <sup>5</sup>	
	If unfeasible following the study: do nothing on Waiapu Landfill and allow emissions to decay over time		1,150t CO2 per annum from 2025³	\$ Nil (Offset cost = \$10k -\$100k per year) <sup>4</sup>	
Separate organic waste from main city waste (25%).	Siteworx Civil – Composting	690 tCO2e <sup>6</sup>	510 tCO2e <sup>6</sup> (Composting) Local site so transport emissions minimal	Waste separation (curb side) estimated: \$1.5M Gate fee unknown per tonne of waste	
	Ecogas Reporoa – Anaerobic Digestion	690 tCO2e <sup>6</sup>	60 tCO2e <sup>6</sup> (Anaerobic Digestion) Plus 20% transport emissions	Waste separation (curb side) estimated: \$1.5M Gate fee \$110-160 per tonne of waste (incl. transport)	

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Establish local landfill and reduce waste going to landfill	<ul> <li>Reduce the amount of waste generated per household</li> <li>Improve recycling</li> <li>Implement Resource Recovery Centres, pending Civil Assist feasibility study</li> <li>Reduce Transport emissions with a local landfill</li> </ul>	General waste disposal 4,329 tCO2e <sup>1</sup>	3,000 tCO2e (If the suggested strategies are implemented).	To be confirmed
Electrification,	Continue with electric car fleet	1,900 tCO2e <sup>1</sup>	1,000 tCO2e	\$ 100k – 10M
low carbon	public transport, walkway,	electricity)		
transport	cycleway			
Remaining	Adhere to and further develop	< 1,000		\$ Funded within existing budgets
emissions to be	departmental commitments	tCO2e <sup>1</sup>		
progressively	made in the Long-Term Plan.			
reduced utilising	Utilise already committed			
existing budgets.	funding.			
Offset Cost			1,000 – 18,000 tCO2e per year (2025 – 2050)	\$ 1.5M - \$ 30M (\$60k – \$1.2M per year)⁵
Total			CO2e neutral 2025	\$ 5M - \$ 50M (\$200k – \$2M per year)

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Option 2 – Carbon Balance Year 2040					
Option 2 Strategy		Current C02e Emissions	Remaining C02e Emissions	Financial implications	
Invest in capturing methane emissions from landfill	Poakahu Landfill gas recovery (closed landfill)	12,250 tCO2e Poakahu¹	0-6,125 tCO2e (50%-100% capture)², decreasing over time	Pumping trial required \$10,000 - \$50,000 If feasible to capture gas, approx. cost. \$1-\$5M <sup>5</sup> or Flare \$0.5 – \$2M <sup>5</sup>	
	If unfeasible following the study: do nothing on Poakahu Landfill and allow emissions to decay over time		4,000 t CO2 per annum from 2040³, decreasing over time	\$ Nil (Offset cost = \$50k - \$600k per year) <sup>4</sup>	
	Waiapu Landfill gas recovery (active landfill)	1,044 tCO2e Waiapu¹	0-500 tCO2e (50%-100% capture)², decreasing over time	Pumping trial required \$10,000 - \$20,000 If feasible to capture gas, approx. cost. \$1-2M⁵ or Flare \$0.5 - \$1M⁵	
	If unfeasible following the study: do nothing on Waiapu Landfill and allow emissions to decay over time		400 t CO2 per annum from 2040 <sup>3</sup>	\$ Nil (Offset cost = \$6K - \$80k per year) <sup>4</sup>	
Separate organic waste from main city waste (25%)	Siteworx Civil – Composting	690 tCO2e <sup>6</sup>	510 t CO2e <sup>6</sup> (Composting) Local site so transport emissions minimal	Waste separation (curbside) estimated: \$1.5M Gate fee unknown per tonne of waste	
	Ecogas Reporoa – Anaerobic Digestion	690 tCO2e <sup>6</sup>	60 t CO2e <sup>6</sup> (Anaerobic Digestion) Plus 20% transport emissions	Waste separation (curbside) estimated: \$1.5M Gate fee \$110- \$160 per tonne of waste (incl. transport)	
	Anaerobic Digestion Eastland Group Feasibility Study <sup>7</sup>	690 tCO2e <sup>6</sup>	60 t C02e <sup>6</sup> (Anaerobic Digestion) Local site so transport emissions minimal	Waste separation (curbside) estimated: \$1.5M Gate fee unknown per tonne of waste	
Establish local landfill and reduce waste going to landfill	<ul> <li>Reduce the amount of waste generated per household</li> <li>Improve recycling</li> <li>Implement Resource Recovery Centres, pending Civil Assist feasibility study</li> </ul>	General waste disposal 4,329 tCO2e <sup>1</sup>	3,000 tCO2e (If the suggested strategies are implemented).	To be confirmed	

	• Reduce Transport emissions with a local landfill			
Electrification, energy efficiency, low carbon transport	Continue with electric car fleet conversion, sustainable buildings, public transport, walkway, cycleway	1,900 tCO2e (transport and electricity)	1,.000 tCO2e	\$ 100k – \$10M
Remaining emissions to be progressively reduced utilising existing budgets.	Adhere to and further develop departmental commitments made in the Long-Term Plan. Utilise already committed funding.	< 1,000 tCO2e		\$ Nil
Offset Cost			1,000 – 10,000 tCO2e per year (2040-2050)	\$ 0.5M - \$ 20M (\$20k – \$400k per year)⁴
Total			CO2e neutral 2040	\$ 3M - \$ 40M (\$120k - \$1.6M per year)

1. Refer to AECOM Report pages 13-14

- 2. Plus gas conversion to electricity which would reduce electricity and Co2 from another source.
- 3. According to IPCC first order decay model
- 4. Based on both NZ and overseas certified carbon price with estimated predicted increase
- 5. Pending further information from LMS
- 6. Based on 3,000 t organic waste per year as per Waste Management & Minimisation Plan 2018 2024
- 7. Eastland Group holds a feasibility study for an Anaerobic Digester that has the potential to receive regional organic waste to be confirmed

#### 11. Reports of the Chief Executive and Staff for INFORMATION



# Report to SUSTAINABLE TAIRAWHITI Committee for information

#### PURPOSE

The purpose of this report is to provide Council with an overview of expected submissions to Government in 2022.

#### SUMMARY

Central government has been consulting and engaging with local government on a variety of different topics. The scale and intensity of change has increased significantly since the last national elections. In the current climate, we cannot respond effectively to everything coming out of central government on top of our own work programmes.

Council has identified external change as a risk that could impact Council's ability to deliver on its strategic direction.

**Attachment** 1 sets out a list of prioritised engagements in 2022 that Council will respond to. Programme updates will be presented to elected members as required or annually.

The decisions or matters in this report are considered to be of **Low** significance in accordance with the Council's Significance and Engagement Policy.

#### RECOMMENDATIONS

That the Sustainable Tairawhiti Committee:

1. Notes the contents of this report.

Authorised by:

Joanna Noble - Chief of Strategy & Science

Keywords: Council submissions, Government consultation, work programme

#### BACKGROUND

#### Role of Strategic Planning team

- 1. The Strategic Planning team is responsible for:
  - a) Ensuring that Council's strategies, policies and bylaws are prepared consistent with statutory obligations and underpinned by a robust evidence base and community, iwi/hapū and stakeholder engagement
  - b) Providing guidance and advice to the wider organisation on the implementation of strategies, policies, plans and bylaws.
- 2. One of the team's roles is to ensure the organisation anticipates and adapts to major shifts in Government legislation. This includes assessing the implications of proposed changes and working with other teams to provide feedback to Government.

#### Formalisation of a submissions work programme

- 3. The impact of external change (with a focus on political change) has been identified by Council as one of the key risks that could impact its ability to deliver on its strategic direction. Keeping abreast of changes, national direction and legislation is crucial to understanding the impact of change on Council's strategic priorities. There is also an opportunity to shape the outcome of change through feedback, submissions and other advocacy options.
- 4. To ensure we respond to key engagements a work programme for 2022 (Attachment 1) has been developed with due dates (where known) or approximate timeframes. This work programme does not include all consultations that may be relevant to local government.
- 5. Council does not have the resources to respond effectively to everything coming out of central government on top of our own work programmes. The list has been prioritised based on:
  - a) Number of national policy direction and legislation engagement across the year
  - b) Council's 2021 Long Term Plan strategic priorities and community outcomes
  - c) Known community interest
  - d) Level of impact proposed changes or potential changes could have on the community and our region.

#### Updates to the programme

- 6. The <u>attached</u> indicative programme of submissions to Government provides staff and leadership with the current view of upcoming submission commitments, supports linkages across Council and assists with workload prioritisation discussions.
- 7. The programme is updated throughout the year when additional Government consultation processes are expected. Staff intend to present an updated programme to elected members at the beginning of each year unless major updates are made to the work programme.

#### **DISCUSSION and OPTIONS**

#### Council submissions

- 8. A Council submission is developed with elected member direction on the response and points of feedback.
- 9. It is recommended that the following submissions are developed with elected member input and feedback:
  - a) Any submissions on the review into the future of local government
  - b) National Adaptation Plan
  - c) Strategic Planning Act
  - d) Water Services Entities Bill
  - e) Natural and Built Environment Act
  - f) Climate Change Adaptation Act.
- 10. Council submissions will be signed off by Council prior to submission and usually the Mayor and Chief Executive are the point of contact. Where possible a draft submission will be presented at a Council or Committee meeting. Given the timeframes of meetings versus submission cut-off dates this is not always possible so feedback and signoff will be sought outside of a formal meeting.

#### Staff submissions

- 11. A staff submission is developed without elected member input. This is appropriate if staff are already clear of elected members' direction on a topic, and/or the consultation is more technical in nature rather than strategic. Staff often have the opportunity to contribute to submissions made on behalf of the local government sector – for example by Taituarā, LGNZ (Local Government New Zealand) – or regional special interest groups.
- 12. It is recommended that the following submissions (if required) are developed by staff:
  - a) NES for Drinking Water (NES-DW)
  - b) Trifecta review targeted engagement with local government (closed on 11 February)
  - c) Environmental Reporting Act 2015
  - d) Future Pathways Green Paper 2021
  - e) Self Contained Vehicles Bill
  - f) Local Electoral Amendment Bill
  - g) Waste Minimisation Act Plastics phase out regulations
  - h) Transformation Discussion Paper.
- 13. Staff submissions will be signed off by COR prior to submission and will clearly state that they are a staff submission and not a submission by Council.

#### **ASSESSMENT of SIGNIFICANCE**

Consideration of consistency with and impact on the Regional Land Transport Plan and its implementation **Overall Process: Low** Significance **This Report: Low** Significance

Impacts on Council's delivery of its Financial Strategy and Long Term Plan **Overall Process: Low** Significance **This Report: Low** Significance

Inconsistency with Council's current strategy and policy Overall Process: Low Significance This Report: Low Significance

The effects on all or a large part of the Gisborne district Overall Process: Low Significance This Report: Low Significance

The effects on individuals or specific communities Overall Process: Low Significance This Report: Low Significance

The level or history of public interest in the matter or issue Overall Process: Low Significance This Report: Low Significance

14. The decisions or matters in this report are considered to be of **Low** significance in accordance with Council's Significance and Engagement Policy.

#### TANGATA WHENUA/MĀORI ENGAGEMENT

15. There has been no engagement with tangata whenua on compiling this list of priorities.

#### **COMMUNITY ENGAGEMENT**

16. There has been no engagement with the community on compiling this list of priorities.

#### **CLIMATE CHANGE – Impacts / Implications**

17. There are no climate change implications for this list of priorities. Climate change implications related to submission content will be highlighted at the time of development.

#### CONSIDERATIONS

#### Financial/Budget

18. There are no financial implications.

#### Legal

19. There are no legal implications.

#### POLICY and PLANNING IMPLICATIONS

- 20. There are no policy or planning implications associated with the recommendation in this report.
- 21. Any policy and/or planning implications due to changes proposed in the engagements listed in **Attachment 1** will be considered and presented at the time of submission.

#### RISKS

22. There is a risk we do not have sufficient capacity to prepare submissions to all the matters outline in this report. In these circumstances, staff will provide input to submissions made by other organisations on behalf of the local government sector.

#### **NEXT STEPS**

Date	Action/Milestone	Comments
Early 2023	2023 Government submissions schedule	If required, an updated schedule will be presented in 2022

#### ATTACHMENTS

1. Attachment 1 - 2022 Government Submissions Schedule [22-38.1 - 2 pages]

DATE 2022	PRIORITY	PORTFOLIO	ACT/BILL/DOCUMENT	TOPIC/EVENT	SUBMIT	SUB TYPE	LEAD AGENCY	END DATE
Q1	MEDIUM	Resource Management	NES for Drinking Water (NES- DW)	Consultation	TBD	Staff Submission	MfE	6/03/2022
Q1	MEDIUM	CDEM	Trifecta review	Local govt engagement	TBD	Staff Submission	NEMA	11/02/2022
Q1	LOW	Future of LG	Review into the Future of Local Government	Roadshow	N	Council Submission	Future for Local Government	Workshop scheduled 7 March
Q1	MEDIUM	Environmental Select Committee	Environmental Reporting Act 2015	Consultation	TBD	Staff Submission	Ministry for the Environment	18/03/2022
Q1	MEDIUM	Research Science & Innovation	Future Pathways Green Paper 2021	Consultation	Y	Staff Submission	MBIE	2/03/2022
Q1	LOW	Regulatory	Self Contained Vehicles Bill	Consultation (Bill into house early 2022)	TBD	Staff Submission	MBIE	ТВС
Q1	LOW	Justice Committee	Local Electoral Amendment Bill	Consultation (Bill into house early 2022)	TBD	Staff Submission	DIA	ТВС
Q1	MEDIUM	Infrastructure	Waste Minimisation Act - Plastics phase out regulations	Consultation	TBD	Staff Submission	MfE	ТВС
Q2	HIGH	Climate Change	National Adaption Plan	Consultation	Y	Council Submission	MfE	ТВС
Q1	HIGH	Resource Management Reform	Strategic Planning Act	Select Committee Process	Y	Council Submission	MfE	ТВС
Q1	HIGH	Three Waters	Water Services Entities Bill	Consultation (Bill into house early 2022)	Y	Council Submission	DIA	твс

Q1	HIGH	Three Waters	Transformation Discussion Paper	Consultation	Y	Staff Submission	TWNTU	ТВС
Q3	HIGH	Environment Select Committee	Natural and Built Environment Act	Consultation (Bill into house 3rd quarter 2022)	Y	Council Submission	MfE	твс
Q3	HIGH	Environment Select Committee	Strategic Planning Bill	Consultation (Bill into house 3rd quarter 2022)	Y	Council Submission	MfE	твс
Q3	HIGH	Governance	Future for Local Government Review	Draft report and reccommendations to Govt	Y	Council Submission	DIA	твс
твс	HIGH	Resource Management Reform	Climate Change Adaption Act	ТВС	Y	Council Submission	MfE	твс
твс	MEDIUM	Conservation Reform	Conservation Law Reform Act	Public consultation	TBD		DOC	твс



Title:	22-42 Climate Change Update		
Section:	Strategy		
Prepared by:	Magnus Abraham-Dukuma - Senior Policy Advisor - Climate Change Focus		
Meeting Date:	Thursday 10 March 2022		
Legal: No	Financial: No	Significance: Low	

## **Report to SUSTAINABLE TAIRAWHITI Committee for information**

#### PURPOSE

The purpose of this report is to provide an update on climate change covering key national, regional, and organisational developments.

#### SUMMARY

Climate change is influencing the direction of the global system across various value domains — the economy, the environment, society, politics, finance, culture and technology. There are therefore national, regional and organisational-level developments relating to climate change response. This report provides a general update on these developments in the following order:

- a) **National level climate change update** covering key updates on the state of the national Emissions Reduction Plan (ERP), the National Adaptation Plan (NAP), and the **He Waka Eke Noa** Discussion Document to price agricultural sector emissions.
- b) Regional and organisational climate change update covering various pieces of work such as Council's current climate change portfolio and work programme, the status of our organisational ERP development, planning into developing Council's overall climate change roadmap, and planning for our regional climate risk assessment project, key updates on the regional just transition (and emissions reduction) scoping process, and the commencement of research into the implications of permanent carbon farming for Tairāwhiti and the future of work kaupapa.
- c) **Developments across councils** summarise key climate change-related events/ actions by some councils, covering mitigation and adaptation planning.

This report also highlights the potential organisational and regional implications of some of these developments to inform Council's discussion and planning.

The decisions or matters in this report are of **Low** significance in accordance with the Council's Significance and Engagement Policy.

### RECOMMENDATIONS

#### That the Sustainable Tairawhiti Committee:

1. Notes the contents of this report.

Authorised by:

Joanna Noble - Chief of Strategy & Science

Keywords: Climate change; Climate change response; Climate change updates.

#### BACKGROUND

#### The climate is changing and needs urgent action

- 1. Anthropogenic (human-induced) activities continue to contribute to climate change and intensify some natural events such as storms, floods and droughts.
- A recent <u>study</u><sup>7</sup> published in Nature Geoscience Journal shows that there are 20% fewer glaciers<sup>8</sup> available than thought globally. Melting glaciers due to climate change is one of the key causes of sea-level rise. This <u>study</u> suggests that the world could experience a sea-level rise of up to 7.6 centimetres in the short-term and a 2 metres sea-level rise by 2100.
- 3. This is what melting glaciers look like:



Figure 1: Ice calving from Margerie glaciers in Glacier Bay, Alaska, USA (Source: World Atlas).

- 4. Melting glaciers will impact the world in numerous ways freshwater shortages, disruptions in energy and food production and the submerging of coastal communities around the globe.
- 5. The sobering <u>study</u> points to the need for more urgent action to reduce greenhouse gas emissions and adapt to climate change.
- The earth system is heating up. <u>Scientific data mapping</u> by the United States National Oceanic and Atmospheric Administration (US. NOAA, 2022) shows that **2021 was the** world's 6<sup>th</sup> warmest year on record, with various countries experiencing disruptions in average temperatures (Figure 2).

<sup>&</sup>lt;sup>7</sup> The study — <u>Ice velocity and thickness of the world's glaciers</u> — was co-authored by scientific researchers from Université Grenoble Alpes, France; University of Copenhagen, Denmark; University of California USA; and Dartmouth College, USA. This represents the most current evidence on the state of global glaciers/ice sheets.

<sup>&</sup>lt;sup>8</sup> Glaciers are large masses of ice, snow, crystal rock and often frozen water that usually form where snow piles up each year. The snow compresses after falling and become tightly packed and become dense. They function as water reservoirs and sources of drinking water, irrigation for crops during summer or dry months, and help to generate hydroelectric power.



Figure 2: Land and ocean temperature percentiles January – December 2019 (U.S. NOAA, 2022)

7. 2021 was also New Zealand's warmest year, with a record temperature of 39.4 degrees Celsius in Ashburton (Figure 3).



Figure 3: Annual climate summary 2021 (NIWA 2022)

8. For our region (Tairāwhiti), <u>NIWA's Climate Change Projections</u> show that our physical and built environments will suffer from the impacts of a changing climate.



Figure 4: Summary of key messages from NIWA's Climate Change Projections for Tairāwhiti

- The recent Intergovernmental Panel on Climate Change (IPCC) <u>Report on the Physical</u> <u>Science Basis of Climate Change</u> projects that the average temperature of our planet would reach 1.5 degrees above pre-industrial levels around the year 2030.
- 10. The current climate evidence suggests the need for urgent action at international, national and local levels. It is also vital to keep pace with climate-related developments at the national level and across regions/councils to learn from best practices.

#### **DISCUSSION and OPTIONS**

#### National Level Climate Change Update

#### State of the National Emissions Reduction Plan (ERP)

- 11. Central Government through the Ministry for the Environment (MfE) completed consultation on the national ERP in November 2021.
- 12. MfE officials are currently analysing submissions from local authorities and other stakeholders to provide advice to the Government on the strategies and policies to be included in the final ERP expected to be published in May 2022.
- 13. We envisage that the final national ERP will have implications for the Local Government sector and our region due to our carbon-intensive production profile.
- 14. Staff will continue to monitor developments in this space to inform strategic alignments and policy actions in our organisational and regional transition process.

#### The National Adaptation Plan (NAP)

- 15. Central Government is still working to publish the National Adaptation Plan (NAP) by August 2022.
- 16. The forthcoming NAP is in response to the country's first <u>National Climate Change Risk</u> <u>Assessment (NCCRA)</u> which identified 43 risks across five value domains — governance, economy, human, built environment and natural environment.
- 17. The NAP is a key component of Central Government's role in setting the direction for New Zealand's environment, national infrastructure, economy, and people are more resilient to the impacts of climate change.
- 18. The NAP will also inform how we collaborate with other stakeholders and treaty partners to co-design a regional adaptation plan for Tairāwhiti. This is a key piece of work identified in our climate change portfolio.
- 19. Staff will keep monitoring this project for information relevant to our planning and Council.

#### The He Waka Eke Noa Discussion Document

- 20. In November 2021, the *He Waka Eke Noa* the Primary Sector Climate Action Partnership<sup>9</sup> released a *Discussion Document* to inform targeted engagement with selected groups (farmers and growers) in November and December 2021.
- 21. The Partnership is currently conducting a wider public consultation that will conclude by the end of March 2022.
- 22. The background to **He Waka Eke Noa** goes back to October 2019 when Central Government agreed to a proposal from the primary sector to work together and with iwi/Māori to develop a system for measuring, managing and reducing agricultural greenhouse gas emissions, rather than simply putting farm products in the Emissions Trading Scheme (ETS)
- 23. The <u>He Waka Eke Noa Discussion Document</u> is a key milestone in the **He Waka Eke Noa** process. It proposes two options to price agricultural sector emissions.

Options	Simple summary of how it will work
	<b>Step 1:</b> Farms/farmers to calculate farm-specific emissions data, and not use national average of emissions data.
<b>Option 1:</b> Farm-Level Levy	<b>Step 2:</b> Farms/farmers to minus farm-level carbon removal/sequestration from gross farm-specific emissions. This is a way to recognise and reward on-farm efficiency and mitigation measures.
	<b>Step 3:</b> Farms/farmers to pay agreed levy for their net emissions. There would be a split- gas approach to pricing. This means that different levy rates would apply to short-lived gases (such as methane) and long-lived gas (such as carbon and nitrous oxide).
	There will be reporting obligations on farmers.

#### Table 1: He Waka Eke Noa Options

<sup>&</sup>lt;sup>9</sup> He Waka Eke Noa is made up of 13 partners, led by a steering group and supported by a small programme office. Partners include Beef and Lamb New Zealand, Federated Farmers of New Zealand, DairyNZ, Apiculture New Zealand, Deer Industry New Zealand, Horticulture New Zealand, Irrigation New Zealand, Meat Industry Association (MIA), Dairy Companies Association of New Zealand, Foundation for Arable Research (FAR), Federation of Māori Authorities (FoMA), Ministry for Primary Industries (MPI) and Ministry for the Environment (MfE).

Options	Simple summary of how it will work
<b>Option 2:</b> Processor- Level Hybrid Levy	No farm-level pricing. Processors bear the direct pricing of emissions for agricultural products.
	<b>Step 1:</b> Processors (meat and dairy) and fertiliser manufacturers and importers would be responsible for calculating and paying for emissions, based on the emissions charge applied to products supplied or bought by farmers or growers.
	<b>Step 2:</b> Processors add the costs of their short-lived and long-lived gases to get the total value of their emissions levy. The split-gas pricing also applies.
	<b>Step 3:</b> Farms/farmers can individually or collectively enter an emissions management contract (EMC) and receive payment for reducing emissions through efficiency measures.
	There will also be reporting obligations on processors.

- 24. Initial modelling by *He Waka Eke Noa* suggests that any of the pricing options could yield a revenue of approximately \$137m per annum from 2025. This is on the assumption of the following prices:
  - \$0.11/kg of short-lived gas (methane).
  - \$85/tonne CO<sub>2</sub>e long lived gas (carbon) with 95% discount as under the emissions trading system.
- 25. The Partnership plans to recycle the revenue by investing it into initiatives such as:
  - Research and development into mitigation technologies and practices.
  - Action to reduce emissions, eg. payments for use of methane inhibitors, vaccine, and low emissions genetics.
  - Administrative costs.
- 26. Attachment 1 presents a high-level overview of the potential implications of the He Waka Eke Noa options for the Tairāwhiti region.
- 27. The key point in **Attachment 1** is that the proposed options can encourage overall reductions to agricultural sector emissions but could also impact our farmers and processors because of our primary production profile and carbon-intensity.
- 28. The major impact will occur from the cost of investing in efficiency/sequestration measures and payments for short- and long-lived emissions at either farm-level or process-level.
- 29. Feedback and outcome of the engagement will form a significant part of the Partnership's recommendations to the Ministers of Agriculture and Climate Change later this year.
- 30. The next key milestones for the *He Waka Eke Noa* process are summarised below:



Figure 5: He Waka Eke Noa timeline.

#### **REGIONAL AND ORGANISATIONAL CLIMATE CHANGE UPDATE**

#### **Regional Climate Change Response**

#### Updated Climate Change Portfolio and Work Programme

- 31. Staff have developed a climate change portfolio to implement a well-coordinated climate change response for Council.
- 32. A work programme has been developed to guide staff in delivering Council's climate change response. **Attachment 2** is the current climate change portfolio plan and a 3-year work programme.
- 33. The key pieces of climate change work that staff will deliver over the next three years cover climate change mitigation, adaptation and equitable (just) transition.
- 34. Our mitigation work will focus on reducing greenhouse gas emissions at an organisational level and collaborating with other regional leaders to co-design a regional emissions reduction plan.
- 35. Our adaptation work will focus on cooperating with other regional leaders to co-design an adaptation plan to reduce the impacts of climate change on our natural and built environment through suitable measures.
- 36. Our equitable (just) transition work will focus on collaborating with other regional leaders to co-design a just/equitable transition plan that minimises the impact of a low emissions lifestyle on our whanau.
- 37. There is already work under way across these key areas.

#### Council's Climate Change Roadmap Project

- 38. Developing a climate change roadmap is another important piece of work identified in our climate change portfolio and work programme [Attachment 2].
- 39. The roadmap will be a high-level definition of Council's overall approach to responding to climate change and build upon the foundation established by the climate change portfolio.
- 40. This has been included in our integrated strategy work programme for the current fiscal year. Staff are developing a project plan to deliver this piece of work and will update Council as we progress.

#### **Regional Climate Risk Assessment Project**

- 41. A regional climate risk assessment (CRA) is a key piece of work identified in our climate change portfolio [Attachment 2] and a crucial step in our adaptation planning.
- 42. Staff are currently planning how to deliver this piece of work and consulting widely with staff across other councils that have recently completed a similar assessment for their regions. We are investing a good amount of time in the planning process and learning from similar assessments to deliver a CRA that will yield the best value for money. This will be a 12–18 month research project.
- 43. Staff are following MfE's <u>Guide to Local Climate Change Risk Assessments</u> released on 13 October 2021 to complete this piece of work. Council will be kept informed as the plan to deliver this piece of work progresses, especially as Council will play a key governance role.

#### State of the Equitable (just) transition Scoping Process

- 44. Staff from Council and Trust Tairāwhiti are scoping the work needed to develop a regional equitable (just) transition plan, which is a key action in the <u>Tairāwhiti Economic</u> <u>Action Plan (TEAP)</u>.<sup>10</sup>
- 45. Equitable (just) transition means a fair or equitable process by which societies move from a carbon-intensive economy to a low-carbon economy. Energy transition and climate action will generally affect communities, workers and businesses that rely on carbon-emitting activities. In our climate change response, we need to consider how to manage impacts on our people and how these impacts are distributed.

#### The Regional Impacts of Permanent Carbon Farming Group

- 46. Some regional leaders have raised concerns about the potential rapid change in land use from sheep and beef farming to carbon farming in Tairāwhiti. This forthcoming change is in line with Central Government's policy to convert a large portion of our region to a carbon sink. This could have negative impacts for our region across the four wellbeings.
- 47. This has started an important conversation amongst a group of stakeholders interested in sustainable land use in the region. This group is called the "**the Regional Impacts of Permanent Carbon Farming Group**." The group includes representatives from groups such as Federated Farmers, Eastland Wood Council, Trust Tairawhiti., Mangatu Blocks (Integrated Food Holdings), Tairāwhiti Whenua Maori collective and Council. A key focus of the group is to work collectively to ensure that all regional leaders/stakeholders speak with one voice to protect the interest of our region as Central Government plans to change land use settings. A draft regional position statement is being drafted.
- 48. Staff are leading the following workstream: Shared goals for the future of land use in the region and planning for the transition; and catchment assessment and management and to identify and understand eligible land.
- 49. Staff will provide further updates on the activities of the group as it makes progress.

#### Research into the Implications of Permanent Carbon Farming for Tairāwhiti

- 50. Hikurangi Enterprises Ltd<sup>11</sup> has recently secured funding of \$250k from the Ministry of Business, Innovation & Enterprise (MBIE) to research the implications of permanent carbon farming for Tairāwhiti.
- 51. The project will identify the risks and opportunities for tangata whenua in Tairāwhiti (and beyond) who rely on the forestry and farming sectors and are likely to have livelihoods impacted by higher prices for carbon units.

<sup>&</sup>lt;sup>10</sup> The <u>Tairāwhiti Economic Action Plan (TEAP)</u> sets out the strategic priorities and actions for delivering economic transformation for the region. Task 9.1 is *"Develop a Tairāwhiti Equitable (just) transition Plan which sets out the actions the region will take to transition to a zero emissions economy."* Council and the Trust are co-leads for this task.

<sup>&</sup>lt;sup>11</sup> Hikurangi Enterprises Ltd is a charitable company established to support social and environmental wellbeing on the East Coast through commercial ventures.

- 52. The key questions which the research sets out to answer include:
  - a) How well do whānau Māori understand the likely job creation and job loss impacts as more marginal land moves from farming and harvested forestry to permanent forest cover?
  - b) What, if anything, are we doing to prepare for these changes? How are these changes affecting decisions about education and training, land use and connections to whenua, marae and wider community relationships?
  - c) How can whānau Māori ensure we have a strong and consistent voice in public policy settings for climate policy, land use, the ETS and related kaupapa like indigenous afforestation, pest control and agroforestry?
- 53. These questions/issues have crossovers with Central Government's <u>Future of Work</u> <u>Tripartite Forum</u> and the equitable (just) transition scoping work that is currently ongoing. This is an area where we need to ensure good strategic coordination to avoid unnecessary duplication of programmes/activities. The research has a project duration of 13 months (1 February 2022 – 31 March 2023).
- 54. Staff will monitor developments in this space for purposes of planning, updates and strategic alignments.

#### Organisational climate change response

#### Organisational Emissions Reduction Plan (ERP) Development

- 55. Staff are progressing work on the development of our organisational ERP. A separate update is provided in **Report 22-30** to the Sustainable Tairāwhiti Committee.
- 56. On 4 November 2021, staff organised a workshop with Council to discuss what the road to a net-zero future looks like (**Report 21-254**). Council requested more information to inform its decision on emissions reduction targets. Our consultants MyImprint have provided the additional information.
- 57. Following Council's direction, staff will continue to work with MyImprint to develop our organisational ERP and have it ready for adoption before the end of the current financial year.

#### Emissions Calculation Functionality for Staff travels for Training

- 58. Our staff travel request form has been amended to include an emissions calculation function. This is an effective way to harvest transport-related emissions data to inform our future emission reduction plans.
- 59. The lack of quality transport-related data was one of the problems identified by our consultants (AECOM) when completing our organisational emissions inventory for 2018/19.
- 60. The recent inclusion of a carbon measurement function in our staff travel request form will help us avoid this problem in the future. This will also help to gradually socialise the culture of environmentally friendly transport-related decision making as staff are likely to make an informed decision when they realise how they contribute to climate change through carbon-intensive travel options.

#### Climate Change Impact Assessment and Statement in Council Reports

- 61. Council is taking an integrated approach in responding to climate change. As part of this process, we are streamlining climate change considerations and seeking opportunities for mitigation and adaptation in our internal work culture.
- 62. Guidelines have been prepared to assist staff writing a climate impact statement in Council reports and other internal documents. The guidelines and training sessions are being rolled out to staff during February and March 2022.

#### NOTEABLE CLIMATE CHANGE DEVELOPMENTS ACROSS COUNCILS

#### Auckland's climate action package

- 63. On 1 December 2021, Auckland Council released an ambitious 10-year \$1 billion climate action package. This was contained in its <u>Annual Budget 2022/23</u>.
- 64. Auckland Council plans to raise over half of the \$1 billion (\$574 million) through a Climate Action Targeted Rate (CATR) that will see Auckland homeowners with a median-value home worth \$1.18 million, paying a climate tax/contribution of approximately \$1.10 a week for the next 10 years.
- 65. Auckland plans to raise about \$471 million under the climate action package through Central Government co-funding and other sources. The package focuses majorly on decarbonising the Auckland transport sector.
- 66. In a <u>news release</u>, Auckland Council stated that the Climate Action Targeted Rate would deliver the following specific outcomes:
  - 170,000 more Aucklanders living within 500m of a frequent bus route.
  - \$122 million to accelerate decarbonisation of the ferry fleet, which accounts for 21% of Auckland's emissions from public transport.
  - \$228 million for walking and cycling.
  - \$13.3 million for urban ngahere, māra kai (food gardens) and tiny forests.
  - New frequent bus services in Manukau, Manurewa-Papakura, Maungakiekie-Tāmaki, Waitākere, Whau, Albert-Eden-Puketāpapa, Rodney, Albany, Ōrākei, and Franklin wards and service level improvements throughout Auckland.
  - An additional 66 low-emissions buses for Tāmaki Makaurau.
  - An additional 18km of safe cycle facilities.
  - Up to 35km of walking connectivity improvements.
  - 14,800 native mature trees with a focus on areas with the most heat vulnerability and lowest canopy cover (in South Auckland).

#### Nelson's climate action plan

- 67. Nelson City Council adopted a <u>Climate Action Plan</u> in November 2021. The plan focuses on climate change mitigation and adaptation at council and community levels.
- 68. For mitigation, the plan adopts Central Government's targets, which include:
  - Net zero emissions of all greenhouse gases (GHGs) (other than biogenic methane) by 2050.
  - A reduction of 10% of the 2017 biogenic methane measurement by 2030, and a 24-47% reduction of the 2017 biogenic methane measurement by 2050.



#### Figure 6: Summary of Nelson's emissions reduction targets

- 69. These targets are in reference to the baseline of the 2017/18 organisational and community emissions inventory for the Nelson City Council and the 2019 baseline for the Nelson community.
- 70. In Nelson, waste accounts for most of their organisational emissions (Figure 7) while transport accounts for most of their community emissions (Figure 8).









71. For adaptation, Nelson City Council plans to follow the 10-step decision making steps advised by MfE (Figure 9).



Figure 9: The 10-step decision cycle, grouped around 5 questions (MfE, 2017)

72. A key component of the adaptation planning process in Nelson is to complete a climate risk assessment. We are also taking a similar approach.

#### Whakatane's energy management programme

- 73. Late in 2021 Whakatāne District Council launched a new <u>interactive platform</u> to highlight the results of their ongoing <u>energy management programme</u>.
- 74. The energy management programme was introduced in 2018 after they conducted an audit and discovered that about 26% of their emissions were resulted from electricity and natural gas use.
- 75. The programme is run in collaboration with the Energy Efficiency and Conservation Authority (EECA) and their energy management contractor, EMSOL.

#### **ASSESSMENT of SIGNIFICANCE**

Consideration of consistency with and impact on the Regional Land Transport Plan and its implementation

Overall Process: Low Significance This Report: Low Significance

Impacts on Council's delivery of its Financial Strategy and Long-Term Plan Overall Process: Low Significance This Report: Low Significance

Inconsistency with Council's current strategy and policy Overall Process: Low Significance This Report: Low Significance

The effects on all or a large part of the Gisborne district Overall Process: Low Significance This Report: Low Significance

The effects on individuals or specific communities Overall Process: Low Significance This Report: Low Significance

The level or history of public interest in the matter or issue Overall Process: Low Significance This Report: Low Significance

76. The decisions or matters in this report are of Low significance in accordance with Council's Significance and Engagement Policy.

#### TANGATA WHENUA/MĀORI ENGAGEMENT

77. There has been no engagement with Tangata Whenua in the preparation of this report.

#### COMMUNITY ENGAGEMENT

78. There has been no engagement with the community in the preparation of this report.

#### **CLIMATE CHANGE – Impacts / Implications**

79. This report has no climate change implications

#### CONSIDERATIONS

#### Financial/Budget

80. This report has no financial implications. Staff will present the financial implications of various pieces of work as we continue our climate response journey.

#### Legal

81. We have a legal obligation under the Resource Management Act (RMA) to plan for the effects of climate change. There are no legal obligations identified in this report, but staff will ensure that various pieces of climate change-related work align with Council's legal obligations under the law.

#### POLICY and PLANNING IMPLICATIONS

- 82. The current state of the global climate (as summarised above) suggests the need to plan for mitigation and adaptation as required by the RMA. Staff are currently planning to deliver various pieces of work under the climate change portfolio.
- 83. Our future Annual Plans, Long-Term Plans and other policy planning processes will need to align with best practices and needed changes to achieve net-zero emissions at an agreed date.

#### RISKS

- 84. *Financial exposure:* There is a risk of financial exposure to Council's operations if we delay taking reasonable climate action to future-proof our organisation.
- 85. **Insurability**: Climate events can render our assets uninsurable if we have no robust plans for mitigation and adaptation. We may also have to pay higher premiums for insuring high-profile assets vulnerable to climate change impacts.
- 86. **Reputational risk:** We are in the public eye and need to show environmental responsibility and strong climate leadership as a local authority. Failure to do this may define us as an environmentally irresponsible organisation and a climate laggard.
- 87. **Potential legal breach:** There is a risk of legal breach when we fail to plan for the effects of climate change as required by legislation. Fortunately we are on track to deliver various pieces of work in our climate change response.

Date	Action/Milestone	Comments
May/June 2022	Staff will monitor international, national and regional climate change developments for the purposes of planning and presenting the next update/information report to Council.	This aligns with the reporting system detailed in the climate change portfolio plan.
Ongoing	Staff will continue planning and delivering the various pieces of work identified in the climate change work programme.	<b>Attachment 2</b> details the timings for the various pieces of climate change work.

#### NEXT STEPS

#### ATTACHMENTS

- Attachment 1 High Level Overview of Potential Regional Implications of the He Waka Eke [22-42.1 - 1 page]
- Attachment 2 Updated Climate Change Portfolio Plan and Work Programme [22-42.2 - 23 pages]

Options	Potential benefits	Potential impacts	Reason	What we can do
<b>Option 1:</b> Farm-level levy pricing system	<ul> <li>Encourages overall agricultural sector emissions reduction at the farm-level.</li> <li>Offers a gradual path to agricultural sector emissions reduction at the farm-level.</li> <li>Provides legitimacy and secures greater buy-in due to strong sector partnership and co-development.</li> </ul>	<ul> <li>Financial burden on farmers and growers for efficiency and mitigation measures.</li> <li>Risk of externalising costs to consumers (increased cost of agricultural goods and services).</li> <li>Risk of inflation due to externalised costs.</li> <li>Additional layer of administration for farmers and growers.</li> </ul>	Our high primary production and emissions profile. <sup>1</sup>	<ul> <li>Continue to monitor developments in this space.</li> <li>Conduct/commission a detailed impact assessment of any pricing option adopted by He Waka Eke Noa or Central Government.</li> </ul>
<b>Option 2:</b> Processor- level hybrid levy	<ul> <li>Encourages overall agricultural sector emissions reduction at the processor-level.</li> <li>Offers a gradual path to agricultural sector emissions reduction at the processor-level.</li> <li>Also provides legitimacy and secures greater buy-in due to strong sector partnership and co-development.</li> </ul>	<ul> <li>Financial burden on processors and fertiliser manufacturers due to emission charges and investments into efficiency and mitigation measures.</li> <li>Risk of externalising costs to farmers and consumers.</li> <li>Risk of inflation due to externalised costs.</li> <li>Additional layer of administration for processors and fertiliser manufacturers.</li> </ul>	Our high primary production and emissions profile.	<ul> <li>Plan to complement any He Waka Eke Noa or Central Government support package by suitable programmes to further assist farmers and treaty partners in Tairāwhiti to reduce their agricultural emissions.</li> </ul>

Attachment 1: High-Level Overview of Potential Regional Implications of the He Waka Eke Noa Options

<sup>&</sup>lt;sup>1</sup> <u>Stats NZ data</u> show that forestry, fishing, mining, and agriculture are our most prominent industries, and account for 21.5% of our gross domestic product (GDP); while our emissions inventory completed by AECOM in 2018/19 reveal that agriculture alone accounts for over 80% of our regional emissions profile.

Te Kaunihera o Te Tairāwhiti Gisborne District Council

# **DOCUMENT TITLE A TE REO** Climate Change Portfolio Plan

# STRATEGY AND SCIENCE | STRATEGIC PLANNING

December 2021



iustainable Tairawhiti Committee 10 March 2022

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# Climate change as a portfolio

Climate change is the biggest challenge of our time. It is already affecting our weather, health and wellbeing, natural environment, taonga species, mahinga kai, food production, biosecurity, infrastructure, and the economy. The last decade was the hottest in human history and, without decisive action, temperatures will continue to rise, bringing more extreme weather and climate-related events.

Climate change is more than a 'project' or a programme of projects. Climate change is the 'nuclear free' issue of our age and local government is at the leading edge of responding to climate change. A focussed and coordinated approach to be adaptive, responsive, and flexible to our response is needed and this cannot be achieved under a project-by-project basis. This portfolio will be enduring over decades with numerous and varied projects and business-as-usual activities into the future. Aggregate reporting and focus are needed to embed a 'culture' of climate change into the organisation and community.

#### Context

The Intergovernmental Panel on Climate Change (IPCC) produces an Assessment Report (AR) periodically to assess the global status of the climate crisis and provide scientific evidence for policymakers<sup>1</sup>. Each AR is prepared by three working groups that consider and analyse specific aspects of climate change to contribute to the overall report. Working Group One (WGI) focuses on the physical science. Working Group Two (WGII) focuses on impacts of climatic changes on the planet, and what we need to do to live in a changed climate. Working Group Three (WGIII) addresses approaches to reduce the causes of climate change, such as cutting greenhouse gas (GHG) emissions from all economic sectors.

To date they have produced five reports 1990 (AR1), 1995 (AR2), 2001 (AR3), 2007 (AR4) and 2013 (AR5). Work on the next AR (AR6) has started and is due in October 2022. WG1 released their section in August 2021.

The average temperature of our planet has been projected to reach 1.5 degrees above preindustrial levels around the year 2030. This is a decade earlier than the IPCC earlier predicted in its Special Report on a global warming of 1.5 degrees, a summary of which can be found <u>here</u>. It will then further increase before falling to approximately 1.4 degrees above preindustrial levels by 2100.<sup>2</sup>

On our current emissions path all parts of the world would witness different proportions of the effects of climate change. These effects include rising sea levels, hotter temperatures, loss of human and animal life, compromised ecosystems, harsher droughts, and several other extreme weather events and adverse environmental consequences.

New Zealand is part of a global system of warming. It's total contribution to global emissions is less than 0.18% but it is amongst the highest carbon emitters within the Organization for Economic Cooperation and Development (OECD).

There are country-specific effects of climate change for New Zealand and region-specific effects in Tairāwhiti. The August 2021 WG1 report shows that New Zealand warmed by 1.1 degrees between 1910 and 2020. New Zealand will suffer from adverse effects, these effects are higher than the predictions for some other coastal countries. There would be increased

<sup>&</sup>lt;sup>1</sup> The IPCC is the United Nations body of experts with the primary objective of providing independent scientific evidence for understanding the state of climate change, its implications, risks and potential response actions.

<sup>&</sup>lt;sup>2</sup> The eventual fall in emissions is on the primary assumption of unprecedented global action in terms of implementing ambitious policies.

flooding, predominantly in the South Island, and drought and wildfires in different parts of the country, but predominantly in the North Island. The current climate science highlights the necessity and urgency of swift unprecedented climate response policies at global, national and local levels.

#### Purpose

The purpose of establishing climate change as a portfolio is to:

- Demonstrate the importance of the issue for Council and our community
- Set an overall strategic direction and outcomes for the climate change work needed in the absence of a strategy
- Drive a 'culture' of climate change across the organisation
- Provide an integrated and coordinated approach to action and resourcing
- Capture business as usual as well as existing and to be established projects
- Design appropriate ongoing governance arrangements
- Ensure appropriate ongoing management oversight and performance reporting
- Recognise the significance of climate change in our operational structure

#### Legal context

The legal framework for climate change is rapidly developing nationally and internationally. This context picks some key pieces but is not an extensive overview of the legal context of climate change. There is poor integration across the relevant legislative instruments – notably the Resource Management Act and Climate Change Response Act. These are two key pieces of the puzzle currently. Further work needs to be done to better understand our current legal obligations and the changing legal environment nationally and internationally, so we are in a good standing for when the future requirements are enacted.

#### **The Paris Agreement**

The Paris Agreement is a legally binding international treaty on climate change.<sup>3</sup> Its goal is to limit global warming to well below 2, preferably to 1.5 degrees Celsius, compared to preindustrial levels. Countries aim to reach global peaking of GHG emissions as soon as possible to achieve a carbon-neutral world by 2050.

Implementation of the Paris Agreement requires economic and social transformation, based on the best available science. The Paris Agreement works on a 5-year cycle of increasing ambitious climate action carried out by countries. By 2020, countries submitted their plans for climate action known as nationally determined contributions (NDCs).

In their NDCs, countries communicate actions they will take to reduce their GHG emissions to reach the goals of the Paris Agreement. Countries also communicate, in the NDCs, actions they will take to build resilience to adapt to the impacts of rising temperatures.

The Paris Agreement is a landmark in the multilateral climate change process because, for the first time, a binding agreement brings all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects. It is the international mechanism that is one of the drivers for the national emissions reduction work.

<sup>&</sup>lt;sup>3</sup> It was adopted by 196 Parties at the 21<sup>st</sup> Conference of Parties (COP 21) to the United Nations Framework Convention on Climate Change (UNFCCC) in Paris, on 12 December 2015 and entered into force on 4 November 2016.

The 26<sup>th</sup> Conference of Parties (COP26) to the Paris Agreement under the UNFCCC process held recently in Glasgow, United Kingdom concluded with a unanimous support for more ambitious measures to address the threats posed by climate change. COP26 produced the <u>Glasgow Climate Pact</u> which addresses eight pivotal climate action issues:

- Science and urgency recognising the need to urgently addressing climate change in line with the best available scientific evidence and measures.
- Adaptation noting the necessity of urgent adaptation measures by countries.
- Adaptation finance recognising the need for adequate, predictable, and consistent finance for climate change adaptation.
- Mitigation reaffirming the Paris Agreement target on temperature stabilisation and emissions reduction and noting the ned for urgent action by countries.
- Finance, technology transfer and capacity-building for mitigation and adaptation.
- Loss and damage acknowledging the need to address the adverse environmental, social, and economic impacts of climate change, especially on the most vulnerable regions of the world.
- Implementation resolving to swiftly implement the Paris Agreement and urging all parties to urgently prepare for ensuring timely reporting to the UNFCCC Secretariat.
- Collaboration recognising the necessity of maintaining the multilateral collaborative approach to global climate action.

These will impact New Zealand's approach to climate change and can complement the inform our climate response both as an organisation and as a regional stakeholder.

#### Te Tiriti o Waitangi

How Te Tiriti interacts with climate change is a fast-moving area of practice and research. A recent research report by Catherine lorns looked at the lessons from the grounding of the MV Rena for coastal adaptation planning and decisions (Wai 2511, 2391, 2393). The importance of engagement, identifying taonga, and resourcing Māori to participate are key themes of the Tribunal decision on the matter.

There are already Waitangi Tribunal claims relating to climate change regarding mitigation of emissions. One aspect of a district claim has been delayed so it could be processed as a Kaupapa issue because of the need to act to prevent harm to Māori coastal property around the whole country not just the affected area (Wai 898). Wai 2607 is a claim against the Government's response to the threat of global climate change, based on the obligation of active protection to Māori in the use of their land and resources (taonga).

Deep South Challenge have an adaptation planning programme called Vision Mātauranga. Projects under this programme are investigating climate change impacts and opportunities for iwi, hapū, whānau and Māori business. Together they represent the largest ever Māori-led research effort into the implications of changing climate conditions for Māori society. In addition to this they have two new funding initiatives, Te Aho and Te Taura (totalling \$1.45M). Our goal is to support organic, creative, innovative and Māori responses to the impacts of climate change. These initiatives have been developed in recognition of the diversity of experience, knowledge, and responses to climate change across and within ngā iwi and hāpori Māori.

Mātauranga Māori contains and embodies climate solutions. To change successfully with our changing climate, we need to understand, honour and integrate mātauranga Māori into projects. Māori values also help us make decisions based on care for each other and our environment.

#### Climate Change Response Act 2002

This Act puts in place a legal framework to enable New Zealand to meet its international obligations under the United Nations Framework Convention on Climate Change, the Kyoto Protocol, and the Paris Agreement.

It includes powers for the Minister of Finance to manage New Zealand's holdings of units that represent New Zealand's target allocation for greenhouse gas emissions under the Protocol. It enables the Minister to trade those units on the international market. It establishes a registry to record holdings and transfers of units. The Act also establishes a national inventory agency to record and report information relating to greenhouse gas emissions in accordance with international requirements.

In 2019, the Act was amended by the Climate Change Response (Zero Carbon) Amendment Act (often referred to as Zero Carbon Act). These amendments provide a framework by which New Zealand can develop and implement clear and stable climate change policies that:

- contribute to the global effort under the Paris Agreement to limit the global average temperature increase to 1.5 degrees Celsius above pre-industrial levels
- allow New Zealand to prepare for, and adapt to, the effects of climate change.

The Act introduces some significant features to the climate change regulatory regime:

- setting of emissions reduction targets<sup>4</sup>.
- a system of emissions budgeting to achieve long-term climate goals<sup>5</sup>.
- establishment of the Climate Change Commission, which provides independent expert advice to the government on climate change mitigation and adaptation, and monitors progress towards achieving set goals.

#### Resource Management Act 1991

In 2020 the Resource Management Act (RMA) was amended for better alignment with the Zero Carbon Act. These amendments allow local authorities to consider greenhouse gas emissions in their plan-making and consenting decisions once national direction on climate change mitigation is promulgated under the Zero Carbon Act<sup>6</sup>.

#### Climate Change Commission Advice

New Zealand has committed to reaching net-zero emissions of long-lived greenhouse gases by 2050 and reducing biogenic methane emissions between 24-47% by 2050. The Climate Change Commission's role is to provide independent, evidence-based advice to reach those targets. In June 2021 the Commission's final advice for the first three emissions budgets and direction for the 2022-2025 emissions reduction plan was tabled in Parliament. Summaries of the chapters in the advice can be found <u>here</u>.

<sup>&</sup>lt;sup>4</sup> Including net zero target for GHGs except for biogenic methane by 2050; 10 percent biogenic methane reduction below 2017 levels by 2030; and further 24-47 percent biogenic methane reduction below 2017 levels by 2050.

<sup>&</sup>lt;sup>5</sup> Minister for the Environment sets the emissions budget for 5-year periods from 2022 to 2050, except the period 2022-2025 that is three years.

<sup>&</sup>lt;sup>6</sup> More information in the Adderley Head <u>article</u>.
Historically Government has had a short-term focus on planting trees and purchasing offshore mitigation, rather than doing what was necessary to achieve actual emissions reductions at source. These policies do not put Aotearoa on track to meet the Commission's recommended emissions budgets or the 2050 targets. Achieving the emissions reductions needed to get to 2050 will require our elected officials (central and local) to move fast to implement a comprehensive plan<sup>7</sup>.

It is now over to Government to respond to the Commission's advice. If they choose not to accept the budgets and recommendations, then a public explanation is required for doing so. It is expected that there will be further work required by local government as a result of the advice, the details of which are still to be decided on.

The Commission's role is to monitor the progress to 2050 as well as giving advice to Government. They are now focused on their monitoring framework. There is no indication yet as to whether this may require local authority data and input.

#### Upcoming reform

The RMA is being replaced with three new pieces of legislation:

- Natural and Built Environments Act
- Strategic Planning Act; and
- Managed Retreat and Climate Change Adaptation Act.

It is anticipated that the reform of the RMA will bring better integration and consideration of climate change into the national and local resource management framework.

The Managed Retreat and Climate Change Adaptation Act would establish an adaptation fund to enable central and local government to support necessary steps to address the effects of climate change and would also deal with the many complex legal and technical issues involved in the process of managed retreat.

The three waters reform programme will also have implications for climate change planning and responsiveness. Alongside this, the future of local government inquiry should also address climate change and the role of local government into the future.

### Financial Sector (Climate-related Disclosures and Other Matters) Amendment Bill

This omnibus bill will amend the Financial Markets Conduct Act 2013, the Financial Reporting Act 2013, and the Public Audit Act 2001 by implementing a single broad policy to broaden non-financial reporting by requiring and supporting the making of climate-related disclosures by certain FMC reporting entities and supporting related matters<sup>8</sup>. This is the start of a new approach to financial reporting in New Zealand that incorporates climate change considerations. Although local authorities are not directly required to report, it is likely that reporting requirements will eventuate for local government.

<sup>&</sup>lt;sup>7</sup> The Commission has also included a role for local government in councillors in its advice <sup>8</sup> <u>https://legislation.govt.nz/bill/government/2021/0030/latest/LMS479633.html?src=qs</u>

# Strategic objectives

Council's strategic priorities for the 2021 LTP are:

Te Taiao	Te Hanganga	Ngā Tikanga Āwhina		
		Tāngata		
We will protect and	We will invest in existing and	We will efficiently deliver		
enhance our environment	future core infrastructure needs,	quality services that		
and biodiversity.	with a focus on adaptive, cost	enable our communities		
	efficient and effective designs			
	that enhance our sense of place			
	and lifestyle.			

The strategic setting for a climate change portfolio can be derived from relevant outcomes, opportunities, and aspirations from Tairāwhiti 2050.

Outcome	Opportunities	Aspirations (2050)		
Resilient communities	<ul> <li>We can limit the effects of climate change by moving toward a zero emissions economy and fast-tracking climate change mitigation actions so Tairāwhiti is carbon neutral before the national 2050 target.</li> <li>The changing climate could provide opportunities that we can use to our advantage.</li> <li>If we better understand the natural hazards facing our communities, and how these will be affected by climate change, we can take a proactive and risk-based approach to planning for natural hazards. This includes deciding what level of risk we are prepared to accept and what is not acceptable.</li> </ul>	<ul> <li>We are a carbon neutral region.</li> <li>We use a risk based approach to manage natural hazards and climate change adaptation.</li> <li>We have a network of natural defences that provide protection against natural hazards and climate change.</li> <li>Infrastructure and other significant resources vulnerable to natural hazards and climate change have been moved, protected or there is a plan for the future.</li> </ul>		
We take sustainability seriously	<ul> <li>Explore more efficient commercial and domestic water use, transitioning to more dry cropping and surface water storage opportunities.</li> <li>Council and other organisations and businesses within the region can lead by</li> </ul>	<ul> <li>Land uses across the region are optimised to suit their physical and cultural setting, and have adapted to changing climate patterns.</li> <li>We have transitioned to a circular economy that focusses on restoration and regeneration by</li> </ul>		

	<ul> <li>example and become net zero carbon emitters.</li> <li>Support the uptake of solar and other sustainable energy solutions for our homes and businesses.</li> <li>Better management of the waste streams created in the region.</li> </ul>	<ul> <li>design. We capture the highest value from products, components and materials at all times and create opportunities to reduce all aspects of our waste stream.</li> <li>100% of vehicles are powered by renewable energy. Our communities are encouraged to transition to a more sustainable fleet.</li> <li>Our businesses have product stewardship accreditation (responsible for environmental impact of their products and services).</li> </ul>
A diverse economy	<ul> <li>Support Tairāwhiti businesses and industry in the use of renewable energy for producing local goods and services.</li> <li>Create employment that helps improve energy efficiency, limit greenhouse gas emissions, minimise waste and pollution and protect ecosystems.</li> <li>Explore opportunities for diversifying the farming sector including agri- tourism and developing higher value products from natural farming systems. Low water use, low nutrient inputs and a low carbon footprint also represent opportunities to extract value from pastoral farming in a balanced and sustainable way</li> </ul>	<ul> <li>Our diverse economy is climate-resilient. Our network of businesses and industries are able to withstand or recover quickly from short and long-term climate impacts.</li> <li>Our regional economy has transitioned away from a reliance on fossil fuels and is now built around a strong renewable energy network.</li> </ul>

#### Draft Climate change strategic direction

The following will form part of the discussion and development of the overall roadmap for Council's consideration.

Council's strategic goals are:

- 1. To be a regional climate change leader partnering and working with other entities and our communities across the region to effectively respond to climate change.
- 2. To ensure a just/equitable transition that minimizes the impact of a low emissions lifestyle on our whānau.
- 3. To reduce the impacts of climate change on our natural and built environment though adaptation measures.

Council will deliver the following strategic outputs:

1. Design and implement an emissions reduction plan for Council as a leading example of effective climate response in Tairāwhiti.

2. Work with all regional leaders and stakeholders to co-design and implement a regional emissions reduction plan alongside our regional partners using evidence- and risk-based approaches for the benefit of present and future generations.

3. Work with all regional leaders and stakeholders to co-design and implement a plan to support our region to transition to a low-carbon future.

4. Work with all regional leaders to co-design and implement adaptation solutions using evidence- and risk-based approaches that reflect our need for regional resilience from the effects of climate change for the benefit of present and future generations.

#### Working with others

To deliver on our strategic goals and outputs we will need to work with other entities in Tairāwhiti for the benefit of present and future generations.

Council will need to partner and work with tangata whenua on climate change issues to meet their needs and aspirations.

#### Strategic value criteria

For assessing the 'value' of projects a simple cost-benefit analysis is not going to give a clear or accurate picture of the contribution to mitigation, adaptation or transition efforts needed. Depending on whether a project is focussed on mitigation, adaptation or transition may also vary how it should be measured and interpreted in terms of assigned 'value'.

It is recommended that the development of criteria be split by the three focus areas of the climate change portfolio – mitigation, adaptation, and transition.

# Operating the portfolio

This section of the plan looks at the day-to-day aspects of how to run climate change as a portfolio.

### Decision-making for the portfolio

As with other portfolios across Council, there are three key layers to decision-making.

#### Governance

Climate change matters currently are primarily reported to the Sustainable Tairāwhiti Committee. Matters are sometimes referred to other committees and/or Council as is appropriate by the terms of reference.

It is important to note that climate change implications are meant to be reported on in all Council reports. Guidance and training on climate change reporting is still to be implemented to ensure good quality assessments are taking place and there is consistency in application across report writers.

Other local authorities are introducing new committees, advisory groups and other types of governance bodies as part of their response to climate change. This is something that Council need to consider when they review the committee structure for the 2022 triennium.

#### Management

Management decision-making is carried out by Central Organising Roopu (COR), Major Projects Committee and the Health and Safety Committee. Climate change matters are typically referred to COR. There are some current projects that are classed as 'major projects' for Council that have a climate change driver (even if it is not the primary driver) for example, Waingake Transformation Programme. It is not expected that the Climate Change Portfolio will be classed as a Major Project, but a regular reporting mechanism will be needed.

It is important to note that climate change implications should be a part of all decision-making similar to how we consider risk, engagement and Māori responsiveness. Guidance and training on this is still to be implemented for the Council reporting to ensure good quality assessments are taking place and there is consistency in application across report writers. For management committees and decision-making requirements including climate change implications will be an important part of ensuring it is embedded into our organisation's way of working. There may be some difference to the level of information reported but further work needs to be done to investigate how this works in other organisations and local authorities.

#### Operational

Operational decision-making is undertaken by the relevant department. The process for this varies across departments in Council. Not all operational decisions have climate change as a primary driver currently and it is not necessarily embedded into our way of working.

Currently operational consideration in decision-making is sporadic in practice and was an area where managers have indicated that they need more guidance, evidence and support as part of the 2021 LTP activity and asset management planning process.

Bringing structure to this layer of decision-making is needed. Alignment to requirements of governance and management decision-making will be important. There may also need to be considered of a cross-Council working group or decision-making panel to support consistency and integration in decisions related to climate change.

### Resourcing

Currently there is 1 FTE focussed on climate change matters. Additional indirect resourcing is based on priority of projects and BAU work in other departments who lend their expertise to the portfolio. This is not a sustainable resourcing position into the future and Council will not be able to drive the portfolio effectively without increased direct and indirect resourcing.

A conservative estimate of the number of FTEs and skillsets needed was advised in February 2021 (Internal Memo Climate Change Resourcing A2139650). This needs to be considered and additional resourcing budgeted for in the 2024-2034 LTP process.

A scaling up of resourcing will be needed over the next 5 years. It is already a competitive market for climate change expertise, and this will only become more so in the coming years. Working with EIT to ensure these skillsets are available locally into the future would be prudent for not just Council but local businesses.

Collaborating with other organisations and building a regional team is something to consider going forward as part of resourcing discussions. For example, climate change is a key are for Trust Tairāwhiti and there are several crossovers in projects and options being explored. A regional climate change unit could be an outcome of progressing this work. If a team like this was to exist, then governance and management processes would look different to a Council team.

#### Projects and BAU under the portfolio

In the absence of a well-defined scope and strategy for the portfolio what projects and business as usual activities are likely to be negotiated on a case-by-case basis that may also be dependent on resourcing for the portfolio. For existing projects that are to become part of the portfolio a transition plan will be required to ensure a smooth handover of any functions and information requirements.

Projects will be executed and managed using the Council's project management methodology and templates.

Given the breadth of the focus areas under the portfolio (mitigation, adaptation, and transition) the number and type of projects and BAU activities will build over time. Sub-focus areas are likely to develop as part of giving structure to increased volume, Council may wish to look at this structure from the beginning to support growth in the portfolio.

#### Change management

Embedding climate change into the organisation as a new 'culture' and portfolio will require some dedicated change management focus. A change management plan will need to be developed to inform responsibilities and roles across the organisation, as the 1 FTE cannot reasonably deliver this on top of the day-to-day work required.

The change needs to be lead from the top (COR) to be successful. Reinforcing and evolution of the portfolio requires active involvement and championing from COR to make the transition to a climate change responsive culture.

A cross-Council working group could be established to support this transition and inform planning and delivery of changing how we work. If this is established a broad range of perspectives and professional disciplines will be needed for it to be successful and members will need time to effectively participate and carry out the work of the group. Engaging already busy staff members will not see this group be successful in its role, either freeing up their time through work reallocation or choosing alternatives will be key to the success of the group.

### Monitoring, reporting and evaluation

To demonstrate to interested parties and to hold ourselves accountable, a monitoring, reporting and evaluation framework for the portfolio is needed. This may include integration into existing structures, a new structure, or a combination of both. This is something that should be in place at the start to be able to demonstrate progress from now going forward, even if the progress is only small to start. This can be informed by climate change frameworks (e.g., carbon management cycle) as well as the type of reporting local governments are familiar with producing.

Data and showing trends in the 'right' direction will also be important in our conversations with the community, evaluating our success in strategic objectives, and celebrating our successes as an organisation.

# Three-year work programme

The three-year work programme (2021/2022 to 2023/2024), incorporates multiple pieces of work that align with Council's priorities and strategic objectives.

## Key pieces of work

#### Overall roadmap/strategy

This will frame our response to climate change to provide direction and set targets for our approach to mitigation, adaptation and fairly transitioning to a low emissions lifestyle.

#### Climate risk assessment

Evidence of what our region's climate risks are is needed to underpin our adaptation policy response. A regular assessment of our risks will inform future policy measures and complement policy measures in the Tairāwhiti CDEM Group Plan and TRMP which are both currently being reviewed.

#### Adaptation planning

A plan based on our risks is needed to improve the resilience of our communities and reduce the vulnerability of Tairāwhiti to the effects of climate change. This is aligned with national plans with a focus on regional risks and responses needed.

#### Organisational emissions reduction planning

A plan to guide our internal effort to reduce our GHG emissions. This includes working with our council-controlled organisations (CCOs) to reduce their emissions as well, and being clear about our expectations through letters of expectations and other mechanisms.

#### **Regional emissions reduction planning**

It is important to have a plan that sets regional pathways based on the national emissions redcution plan, and support mechanisms for delivery. This plan will be co-developed and co-implemented with regional partners through an appropriate forum.

#### Corporate responsibility initiatives

We have a corporate responsibility to action innovative initiatives concerning climate change based on our emissions reduction plan. The scale and timing of the initiatives will be factored into our budgets for the 2024 LTP and will seek external funding opportunities.

#### Emissions measurement, monitoring, and reporting

Emissions measurement, monitoring, and reporting shall constitute part of the strategic tools for progressing the emissions reduction work and assessing success. We will work to improve our accuracy and ability to capture our emissions data.

#### Carbon credit ownership and trading

There is a good chance to own and trade carbon credits in the national emissions trading scheme using our Waingake transformation programme. This is something we shall explore.

### **TEAP Action – Just Transition Plan**

The transition to a low-carbon future will have disproportionate effects on different sections of the country and in Tairāwhiti we are in a unique position. We will partner with Trust Tairāwhiti, lwi, regional business organisations, and relevant government agencies to develop a Regional Just Transition Plan that enhances our people's well-being and minimises the impacts of transitions needed for a low emissions lifestyle.

#### Governance committee for 2022 triennium

We will have a governance committee for the 2022 triennium that are responsible for progressing our climate change work. This may require creating a new committee or incorporating the responsibility into an existing committee such as Sustainable Tairāwhiti.

#### Internal working group for staff

This group will provide operational direction on Council's climate change response.

# Table 1: The three-year work programme

Focus Areas	Milestones/Deliverables	Timeline	Resourcing		
Cross-cutting activities	a) Scoping and ascertaining our overall roadmap/strategy.	Due May 2022 after some preliminary work around the different components of climate change.	Internal Portfolio ETE staff		
	<ul> <li>b) Facilitating a consistent and improved understanding of the climate risks particular to Tairāwhiti through regular assessments.</li> </ul>	First climate risk assessment to potentially commence March/April 2022; a draft project plan to be ready by end of January 2022.	<ul> <li>Strategic Planning Team pool.</li> <li>Inter-Team and intra-GDC cooperation and coordination.</li> </ul>		
	c) Facilitating corporate responsibility initiatives.	To be ongoing/BAU.			
	d) Developing the terms of reference for the governance committee for the 2022 triennium.	October 2022, bearing in mind that this is when elections are due.			
	e) Establishing a regional working group and developing its terms of reference.	To be determined.	<u>External</u>		
	<li>f) Engaging in tailored training, upskilling and relevant networking, partnership-building, and synergies for an efficient functioning of the portfolio.</li>	To be ongoing/BAU.	Any necessary consultancies.		
GHG Mitigation (Corporate)	<ul> <li>g) Developing and implementing an organisational emissions reduction plan with short- and long-term targets.</li> </ul>	Draft emissions reduction plan ready by April 2022 with specific timeframes around short- and long- term corporate emissions reduction targets.	<ul> <li>Internal</li> <li>Portfolio FTE staff.</li> <li>Strategic Planning Team pool.</li> <li>Inter-Team and intra-GDC</li> </ul>		
	<ul> <li>Mapping and executing corporate-specific projects to incentivise emissions reduction in GDC. This will go alongside our corporate social responsibility initiatives.</li> </ul>	To be ongoing/BAU.	cooperation and coordination.		

	i)	Creating innovative avenues and approaches for instilling and mainstreaming sustainable and affirmative action by GDC staff.	To be ongoing/BAU.	<u>External</u> Any necessary consultancies.	
	j)	Interfacing with Council- and Council-controlled organisations to identify and implement optimal solutions for mitigating emissions.	To be ongoing/BAU.		
GHG Mitigation (Regional)	k)	Supporting the process for developing and implementing a region-wide emissions reduction plan that is co-designed with regional leaders and stakeholders.	To be discussed with Trust Tairāwhiti.	<ul> <li>Internal</li> <li>Portfolio FTE staff.</li> <li>Strategic Planning Team pool.</li> <li>Inter-Team and intra-GDC cooperation and coordination.</li> </ul>	
	<ol> <li>Mapping and executing regional projects for achieving short- and long- term emissions reduction targets in Tairāwhiti.</li> </ol>				
	m)	Creating innovative avenues and approaches for inspiring region-wide result-driven action by all stakeholders and Tangata Whenua in Tairāwhiti.	To be discussed with Trust Tairāwhiti.	<ul> <li>External</li> <li>Any necessary consultancies.</li> <li>Any regional working group established, and according to developed terms of reference.</li> </ul>	
	n)	Interfacing, engaging, and consulting with regional stakeholders to form synergies and collectively identifying Tairāwhiti-context solutions for mitigating emissions.	To be discussed with Trust Tairāwhiti.		
Just Transition (Regional)	0)	Supporting the co-design of a regional just transition plan under TEAP.	Scoping work by Council and Trust Tairāwhiti already commenced in September 2021. Specific timeframes on how the work unfolds to be determined.	<ul> <li>Internal</li> <li>Portfolio FTE staff.</li> <li>Strategic Planning Team pool.</li> </ul>	

p)	Research, assessment and identification of Tairāwhiti-context areas for transition work through region-wide engagement of stakeholders and Tangata Whenua.	Incorporated into the scoping work.	<ul> <li>Inter-Team and intra-GDC cooperation and coordination.</li> </ul>		
<ul> <li>q) Scoping transition work as the product of an inclusive engagement process while projecting ascertainable policy and strategic options.</li> </ul>		Incorporated into the scoping work.	<ul> <li>External</li> <li>Any necessary consultancies.</li> <li>Any regional working group established, and according to</li> </ul>		
r)	Interfacing, engaging, and consulting with regional stakeholders to form synergies and collectively identifying a Tairāwhiti approach to just transition.	Incorporated into the scoping work.	developed terms of reference		
s)	Supporting the co-design of a regional adaptation plan.	To be confirmed after completing the regional climate risk assessment.	<ul> <li>Internal</li> <li>Portfolio FTE staff.</li> <li>Strategic Planning Team pool.</li> <li>Inter-Team and intra-GDC</li> </ul>		
†)	Facilitating a consistent and improved understanding of the climate risks particular to Tairāwhiti as necessary.	Ongoing tracking of evidence to complement scheduled risk assessments.	<ul> <li>Any necessary consultancies.</li> <li>Any recipred working group</li> </ul>		
U)	Interfacing, engaging, and consulting with regional stakeholders to form synergies and collectively identifying Tairāwhiti-context solutions for climate change adaptation.	To schedule around mid-2022 to harmonise with timing for the release of national adaptation plan and any consequential templates.	established, and according to developed terms of reference.		
	p)         q)         r)         s)         t)         u)	<ul> <li>p) Research, assessment and identification of Tairāwhiti-context areas for transition work through region-wide engagement of stakeholders and Tangata Whenua.</li> <li>q) Scoping transition work as the product of an inclusive engagement process while projecting ascertainable policy and strategic options.</li> <li>r) Interfacing, engaging, and consulting with regional stakeholders to form synergies and collectively identifying a Tairāwhiti approach to just transition.</li> <li>s) Supporting the co-design of a regional adaptation plan.</li> <li>t) Facilitating a consistent and improved understanding of the climate risks particular to Tairāwhiti as necessary.</li> <li>u) Interfacing, engaging, and consulting with regional stakeholders to form synergies and collectively identifying Tairāwhiti-context solutions for climate change adaptation.</li> </ul>	p)Research, assessment and identification of Tairāwhiti-context areas for transition work through region-wide engagement of stakeholders and Tangata Whenua.Incorporated into the scoping work.q)Scoping transition work as the product of an inclusive engagement process while projecting ascertainable policy and strategic options.Incorporated into the scoping work.r)Interfacing, engaging, and consulting with regional stakeholders to form synergies and collectively identifying a Tairāwhiti approach to just transition.Incorporated into the scoping work.s)Supporting the co-design of a regional adaptation plan.To be confirmed after completing the regional collectively identifying a Tairāwhiti approach to collectively identifying a consistent and improved understanding of the climate risks particular to Tairāwhiti as necessary.Ongoing tracking of evidence to complement scheduled risk assessments.u)Interfacing, engaging, and consulting with regional stakeholders to form synergies and collectively identifying Tairāwhiti-context solutions for climate change adaptation.To schedule around mid-2022 to harmonise with timing for the release of national adaptation plan and any consequential templates.		

# Engagement

As a portfolio there will need to be two strands of engagement focus:

- 1. Ongoing conversation, like any of our services, about what we are doing and the impact; and,
- 2. Project specific engagement and feedback needed.

A communications plan for both strands needs to be worked through still. Below are some initial ideas on what could be part of the plan to give an idea of the potential focus and content needed.

Tools to use:

- Engagement plan for ongoing conversation
- Template for climate change projects engagement needed under this broader umbrella
- Dedicated climate change website page
- Social media
- Advertorials
- Presentations to community groups, schools
- Information at community events

#### Objectives

- Show the community that we are taking action in this space an area of interest and concern for many, kick starting profiling it and having an ongoing conversation like we do with our other services e.g., roading
- Highlight our climate change work in a coordinated way with its own dedicated space instead of smooshed or mentioned in other things
- Profiles our organisation's efforts to prospective employees, in particular younger demographic
- Build knowledge and encourage individual action e.g. futurefit, livelightly

Items we need to think about and deliver this year

• Series of info bites about the NIWA report aimed at different audiences e.g. Joe Bloggs, farmers, agri business (not a lecture series)

Ideas

- Monthly live korero/clip/story about something we are doing under a brand without creating a new newsletter/publication to keep it easy to produce e.g 'The nitty gritty on climate change in Tairāwhiti' (but cooler!).
- There is a potential to partner with Trust Tairāwhiti and leverage their resources and networks
- Graphic stories e.g. Eastland Wood Council book
- Sharing infographics showing climate change phenomenon and the role of different mitigation and adaptation methods e.g. 'what happens when...'

S/N	Name	Focus <sup>10</sup>	Type <sup>11</sup>	Duration	Budget	Status	Risk	Dependencies	Priority <sup>12</sup>	Owner
01	Waipaoa River Flood Control Climate Change Resilience project	Adaptation	Research and Innovation	2019-2031	\$32m	Ongoing	Additional funding	Likely, but TBD.	TBD	Joss Ruifrok
02	Waingake Transformation Programme	Adaptation	Research and Innovation	2021-2031 and 2032- 2052 <sup>13</sup>	\$27.4m	Ongoing	Additional external funding required. Lower than anticipated income due to log market fluctuations.	JNL Maraetaha Inc Funders (DOC, MPI, OTP)	TBD	Amy England
03	Organisational Emissions Reduction Planning	Mitigation	Research and Innovation	2021-2022	\$30k	Ongoing	None identified yet	Consultancy (MyImprint)	TBD	Dr MAD

# Appendix One: Project inventory<sup>9</sup>

<sup>&</sup>lt;sup>9</sup> This is what we have currently. We will update the inventory as we progress various pieces of work in our climate change response, especially when we confirm the co-design approach with other regional leader and stakeholders.

<sup>&</sup>lt;sup>10</sup> Transition, or Adaptation, or Mitigation.

<sup>&</sup>lt;sup>11</sup> Mandatory, or Regulatory, or Innovation, or Research.

<sup>&</sup>lt;sup>12</sup> Staff will develop a matrix for COR to endorse to use for projects under the plan early into 2022.

<sup>&</sup>lt;sup>13</sup> Based on the plan to spend \$18m on the project for the 2021-2031 LTP and another \$9.4m from 2032-2052.

04	Regional Emissions Reduction Planning	Mitigation	Innovation	TBD <sup>14</sup>	TBD	Not initiated	None identified yet	Trust Tairāwhiti and other identifiable stakeholders	TBD	Dr MAD and co- owner TBD
05	Regional Climate Risk Assessment	Mitigation and Adaptation	Research	TBD – project scoping underway	TBD	Planning	Delays	Dr Murry Cave	TBD	Dr MAD
06	Regional Adaptation Planning	Adaptation	Research and Innovation	TBD	TBD	Not initiated	None identified yet	Trust Tairāwhiti and other identifiable stakeholders	TBD	Dr MAD and co- owner TBD
07	Taruheru River walking and cycling project	Mitigation and Transition	Innovation	TBD	\$7.4m	Pending	Funding uncertainty	67% external funding from Waka Kotahi. Synergies with transportation planning.	TBD	Tina Middlemiss
08	Waste Management Minimisation plan (assessment and review)	Mitigation	Research and Innovation	2023-2024	TBD	Due for review 2024. Assessment work to start 2022	None identified yet	TBD.	TBD	Phil Nickerson
09	Regional Just Transition Planning	Transition	Research and Innovation	TBD	TBD	Conception and initiation	None identified yet	Trust Tairāwhiti and other identifiable stakeholders	TBD	Dr MAD and co- owner TBD

<sup>&</sup>lt;sup>14</sup> To be determined (TBD) as we clarify the extent of work needed, and contributions of Council staff and other regional leaders/stakeholders for pieces of work having regional coverage.

# Appendix Two: Types of Skillsets

The following will be updated as the portfolio takes place and specific resourcing is assigned to progressing the portfolio.

The following is an indicative list of the types of skillsets and roles/responsibilities there will be going forward for the portfolio.

#### Skillset areas

- Measuring: calculating the emissions profile and where the emissions are coming from (known as a carbon footprint as well).
- Strategising: determining any compliance liability that needs to be met, or desire to reduce or report on the Council's or region's emissions profile. Developing a set of objectives/emissions reduction targets and setting performance targets for these.
- Managing: these are the actions taken under the objectives and ensuring that they are carried out and achieve the results anticipated. This may involve buying ETS allowances or offsets and internal abatement measures. Critical skills of identifying, analysing, ranking and implementing these internal abatement options, to lower the region's and/or Council's carbon footprint.
- Reporting: Includes any mandatory reporting under specific government policies, and voluntary communication to internal and external stakeholders.
- Reviewing: this step connects reporting back to measuring. Where effectiveness of the strategy is evaluated, ready to strategise next steps again once a new base measurement is developed.

## Types of roles/responsibilities

- Council Sustainability Officer: focus on actioning and monitoring implementation of projects and options that reduce Council's own emissions.
- Regional Sustainability Building Advisor: focus on advising the community and businesses on low-emission options for their building and renovations.
- Regional Zero Carbon Advisor: focus on regional mitigation efforts and would work with a variety of different communities and businesses.
- Scientist Climate Change: work on both mitigation and adaptation projects, including leading the regional risk assessment development and review.
- Council Climate Change Adaptation Advisor: support other teams to develop options and implement them for their activities and projects that respond to the projected impacts.
- Council Zero Carbon Advisor: focus on mitigation efforts across Council's operations. Could also include working with GHL and ensuring they are reducing their own emissions reduction targets etc.
- Carbon accountant: focus on collecting, analysing and reporting on emission and carbon credit data across the organisation in line with international and national standards.