

# Introduction – Proposed Climate Change Strategy

Meeting: Council Briefing  
Date of meeting: 03 June 2020  
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## Purpose/Ngā whāinga

To introduce Council to a proposed Climate Change Strategy. To gain feedback on direction regarding the proposed Climate Change Strategy.

## Context/Horopaki

Earth's atmosphere and oceans are warming. Human, post-industrial systems have increased levels of greenhouse gases (GHG) emissions to the point where we are witnessing significant changes in weather patterns and weather events. Global emissions of carbon dioxide (CO<sub>2</sub>) have increased by almost 50% since 1990. Between 1990 and 2018, New Zealand's net GHG emissions increased by 57%. Over the last century New Zealand has lost 25% of its glaciers. Average air temperatures have increased by +1°C. Average sea temperatures have increased by + 0.7°C. Mean sea levels have risen 14-22 cm.

Scientists and decision-makers use the Intergovernmental Panel on Climate Change's (IPCC) Representative Concentration Pathways (RCPs) to model climate change scenarios and identify future impact. RCPs attempt to capture future trends in emissions based on global human activities. In short, they provide a framework for future climate projections. Figure 1 below is an example where RCPs are used to show projected increase in New Zealand's average air temperature through to 2120 (NIWA, 2016).

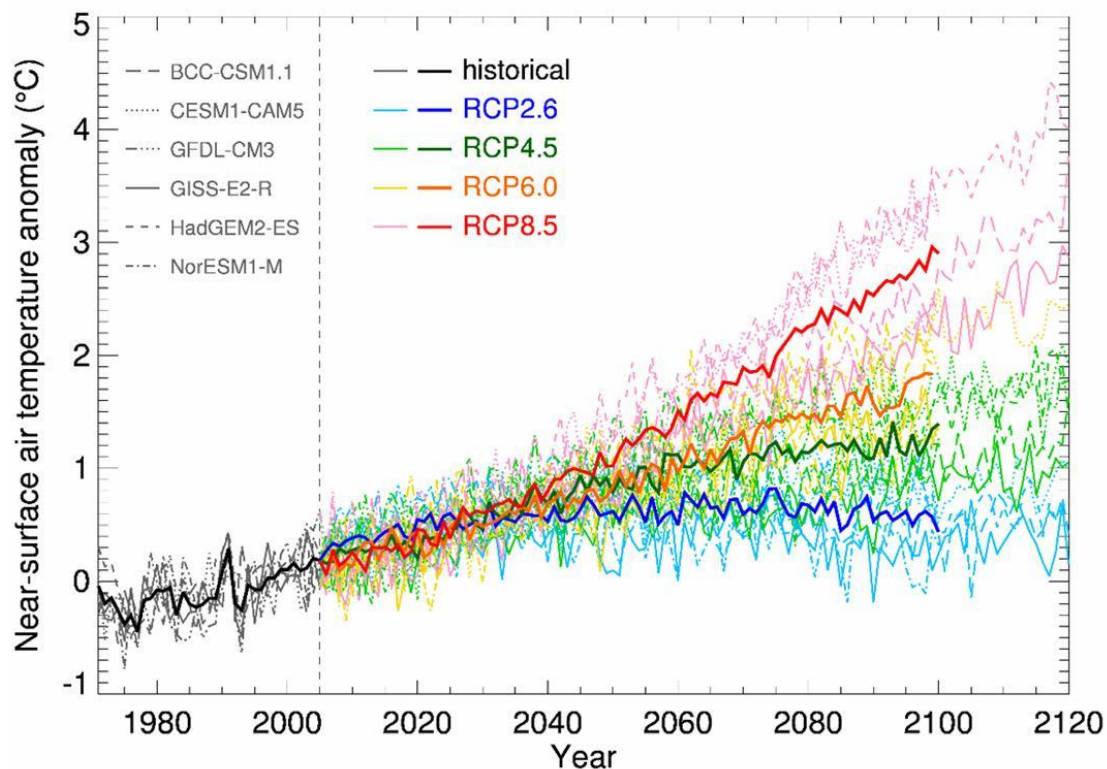


Figure 1 Projected New Zealand-average temperatures relative to 1986-2005

The kinds of change experience, the intensity of those changes, and the level of certainty to the change varies for each RCP and depends on global ability to cap emissions. The rest of this section will briefly identify what climate change “means” for Kaipara District. It will name projected changes, connected natural hazards, and the kinds of risk presented by those natural hazards. More detailed descriptions and modelling behind the projected changes is available as needed (or refer to Attachment A Reference List for additional references).

Projected changes for Kaipara include:

- sea level rise (due to thermal expansion and ice sheet collapse)
- increased average atmosphere and ocean surface-water temperatures
- changes to ocean nutrient cycles and pH levels
- increased extreme hot days and heatwave days
- increased growing degree days
- precipitation changes, including longer periods between rainfall events and higher intensity rainfall events
- overall annual decrease in the mean annual flow of the Wairoa River and its tributaries;
- increased cumulative PED (Potential evapotranspiration deficit) and soil moisture deficit
- increased “storminess”, including increased extreme wind speed and changes to waves and swell.

Projected changes will lead to increased frequency and/or severity of natural hazards. These natural hazards may include:

- increased drought
- increased bushfire;
- increased river and pluvial flooding
- increased coastal flooding and inundation (including risk of rising groundwater and risk of saline intrusion)
- increased coastal erosion
- increased landslides and soil erosion
- increased marine heatwaves
- ocean acidification.

The above natural hazards connect and can trigger on-going and/or cascading impacts (i.e. increased coastal flooding can intensify the impacts of drought from possible saline intrusion into low-lying bores).

Each of these natural hazards poses a series of risks regarding impact on the natural environment, social health and wellbeing, built assets and infrastructure, governance, and the economy. There are primary and secondary risks with each natural hazard, as well as transitional risks embedded into the process of becoming more adaptable and decreasing GHG emissions.

In summary, climate change represents one of the greatest risks to our communities, biodiversity, economy and the life-supporting capacity of our planet. The effects of climate change are being felt across the country and here in the Kaipara District our communities are already experiencing real changes.

As Council declared as a signatory of the 2017 Local Government Leaders Declaration, urgent climate change action is required at all levels of government to reduce risk of further harm. Firstly, by reducing emissions that cause climate change and secondly by building capacity within our communities to adapt to the effects of climate change. From a legislative perspective, Council has an obligation to reduce organisational greenhouse gas emissions and central government is responsible for measures to reduce emissions of all sectors, via the Climate Change Response Amendment Act 2019 (Zero Carbon Bill). Council also has an important role to play in climate change adaptation, including providing education and advice, as well as planning and implementing adaptation responses at a local level.

## Discussion/Ngā kōrerorero

This report discusses a comprehensive climate change strategy for Kaipara District Council. A unified strategy will help elected members and staff prioritise initiatives and see where functions and projects align and can support climate change action.

A strategy will integrate with regulatory and non-regulatory mechanisms. It aims to help guide Council's decisions and investments, planning and management instruments, business operations and service provisions. The strategy will develop and evolve in partnership with Mana Whenua and in collaboration with Northland Regional Council (NRC) and neighbouring Territorial Authorities.

With a comprehensive approach to climate change, Council will contribute to the national goal to reduce GHG emissions and demonstrate best practice for risk reporting and risk management. A strategy ensures that Council meets current and foreseen legislative duties on adaptation, mitigation and sustainability. A strategy also encourages Council to undertake courageous and innovative work with Mana Whenua partners and with community towards a future that ensures safety, food, housing and economic security within the District.

There are three main circles of climate change action in the proposed strategy: Kaipara Adaptation Action Plan (KAAP), Kaipara Mitigation Action Plan (KMAP) and Kaipara Sustainability Action Plan (KSAP). These three circles interlink and support one another but each has individualised documents and plans. They are separated in order to keep the scope manageable and specific initiatives targeted and focused.

### Legal obligations

Council has obligations and responsibilities to undertake climate change response under the following statutory requirements:

- Building Act 2004
- Civil Defence Emergency Management (CDEM) Act 2002
- Climate Change Response Amendment Act (Zero Carbon Bill [ZCB]) 2019
- Local Government Act (LGA) 2002 [Sec 11a]
- National Coastal Policy Statement (NCPS) 2010 (through RPS)
- Resource Management Act (RMA) 1991 [Sec 6h & Sec 7]

*RMA Amendment Bill (2020-2021):*

A bill has been introduced to change aspects of the RMA. Climate change related changes include amendments to sections 61, 66, 74. These changes include adding "emissions reductions plans" and "national adaptation plans" to the list of matters that local and regional authorities must consider when making and amending their regional policy statements, regional plans and district plans.

Changes also include removing the existing statutory barriers to considering the effects of activities on climate change in both the plan making and resource consent processes. This is achieved by repealing sections 70A and 104E. Currently, sections 70A and 104E bar councils from having regard to the effects of the discharge of greenhouse gases on climate change in the planning and consenting processes, respectively, except in relation to the use and development of renewable energy.

The Bill will now go to Parliament for its second reading. Amendments are in force 31 December 2021, to allow time for national direction and policy to develop around local government decision-making on climate change, and to align with the release of the first emissions reduction plan.

An additional recommendation is that the transitional period does not apply to decision-making by the Board of Inquiry and the Environment Court. These bodies would be granted the ability to take into account global environmental impacts (incl. mitigating & adapting to climate change) from the date of the Act's commencement.

### Council's current response to climate change

Kaipara District Council is a signatory on the Local Government Leaders Declaration in 2017, committing to "develop and implement ambitious action plans" for climate change mitigation and adaptation.

Through staff participation, Council is an active member of Climate Adaptation Te Tai Tokerau (CATT). CATT is a staff working group of the four local Northland Authorities charged with developing the Regional Climate Change Adaptation Accord (shared adaptation decision-making approach).

Additionally, climate change is identified as risk in the current 2018-2028 Long Term Plan, operative District Plan, and other core planning and strategic documents.

See Attachment C for a comparison of where Council sits alongside other Territorial Authorities regarding climate change action and response.

## Developing the strategy

The proposed Climate Change Strategy builds from Phase One of Climate Change Work Project and Council's Staff Climate Change Working Group (operational).

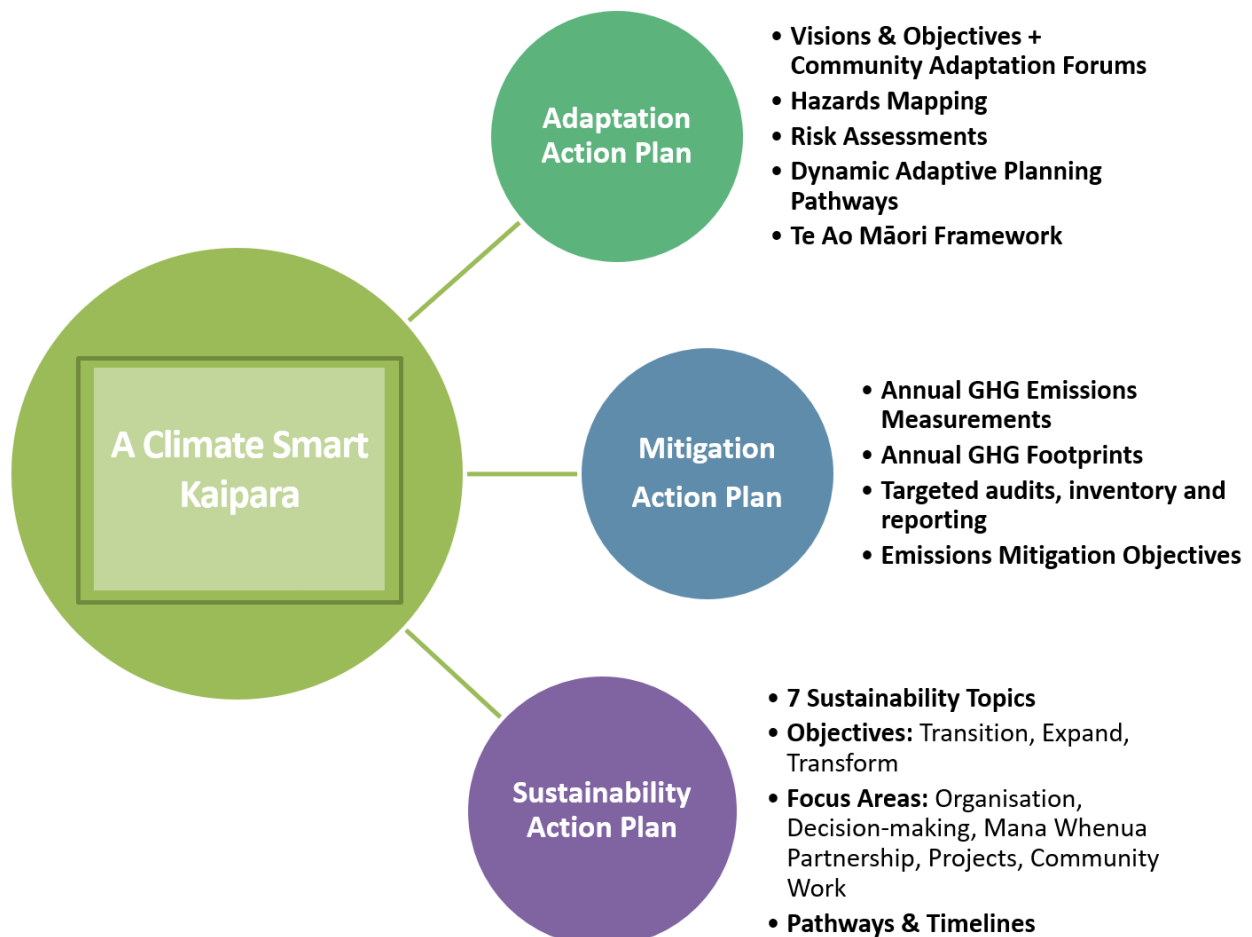
Additional development methods included:

- Meetings and discussions with ET, T3 Managers and additional relevant staff
- Input from Tangata Whenua across Te Taitokerau via CATT
- Research on government guidelines
- Research on other local authorities' examples;
- Attendance at relevant conferences/workshops
- Drafting of KDC Climate Change webpage, including educational links and materials
- Commissioning first annual carbon emissions inventory and footprint for Council.

The work completed so far sets the scope and main priorities of the proposed strategy. The proposed strategy will continue to develop with drafting and engagement on the three action plans.

## Climate Change Strategy Overview

The rest of the discussion will review key deliverables of the proposed climate change strategy (put into the three action plans as pictured below). Wording of the plans describes Council's commitment to action.



## Kaipara Adaptation Action Plan (KAAP)

A living document will guide KAAP and direct the key initiatives. The living document will discuss the context of adaptation in Aotearoa New Zealand and the effects of climate change to which Kaipara needs to adapt and build resilience. It will map out the hazards we face as a district and potential impacts of these hazards. The Action Plan will name a series of objectives or key statements on adaptation that cover Tangata Whenua and Mana Whenua aspirations, the natural environment, social equity, planning and development, economy and industry, and emergency preparedness and disaster risk management. These key statements will be decided upon through a series of workshops within council staff and in partnership with Iwi and Hapū. They will set a vision for how KDC facilitates adaptation with communities. The vision statements will also directly inform how we assess the main adaptation initiatives (initiatives are described below).

- a) Te Ao Māori Framework – Will be developed in partnership with Te Roroa and Te Uri o Hau and in collaboration with Climate Adaptation Te Taitokerau (CATT). This framework will be used to assess risk, plan adaptive pathways and monitor changes.
- b) Hazards mapping & Technical Reports– KDC will have ready, up-to-date modelling and reports. The modelling that predict and explain the probability, intensity and frequency of sea level rise (SLR), coastal flooding and inundation (including saltwater intrusion), coastal erosion, freshwater flooding, landslips, wildfire and drought. KDC will make this information easy to access and easy to understand. KDC will identify any gaps in hazard mapping and work in collaboration with NRC to ensure that gaps are addressed in a timely manner. KDC will also clearly communicate that while this information may change, there is enough information to act; a 'do nothing' approach is too costly.
- c) Risk Assessment (RA) – In collaboration with NRC and other Territorial Authorities (via CATT), KDC will undertake a district-wide analysis of the risks of the different hazards.<sup>1</sup> This risk assessment will be a report that evaluates the intersection of hazards, vulnerability and exposure across the human, economic, social/cultural, and environmental/ecological domains. Working from the regional risk assessment, Council will undertake a district risk assessment for areas deemed particularly at risk in the initial screening. Results of these Risk Assessments will inform (via CATT governance) where and when KDC facilitates adaptive pathways planning. It will also determine the zoning for Adaptive Pathways.
- d) Adaptive Pathways Planning - Through CATT's regional governance and staff working groups, and with Treaty Partners, KDC will facilitate a community-based decision-making process known as adaptive pathways planning. Adaptive pathways planning involves working with communities to identify desired outcomes for their built and natural environments, and the range of options to achieve this under changing circumstances. Adaptive pathways planning processes consists of ten steps that follow the Ministry for the Environment's (2017) guidance on coastal hazard decision-making for local government.

A core aspect of adaptive pathways approach is to retain the flexibility to adapt and change from one 'pathway' to another when certain triggers or thresholds are met (in other words avoid decisions that commit to a particular course of action in the long term). This approach is especially beneficial since values and development face current and future threats, with high consequences, but the timing is uncertain. The process engages with communities to decide on acceptable levels of risk (across domains) and to decide on what triggers or thresholds will signal a change in pathway (or response to the risk).

This process requires time, technical input, governance attention and other resources from local government and participants. The scale and number of processes that can be 'run' at any one time is limited. Application of the adaptive pathways planning process will need to be prioritised, determined by the above described risk assessments at regional and district scales. In Northland, it is likely that the process will be used (initially at least) in relation to coastal and/ or river hazards as this is where we have the best information of the location and magnitude of risk and potential change in risks. CATT staff working group is in the early stages

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<sup>1</sup> This is already underway via CATT & under NRC leadership. RA is based on the Ministry for the Environment's (2019) Arotakenga Huringa Āhuarangi: A Framework for the National Climate Change Risk Assessment for Aotearoa New Zealand

of determining a regional process and costings for carrying out adaptive pathways planning steps. Next steps involve establishing a regional governance group consisting of Elected Members and Treaty Partners.

### *Reporting and communication*

Reporting – Recommended internal reporting to occur quarterly. While KAAP is in development, staff will carry out consistent reporting to full Council and other relevant committees (with increased number as needed for Adaptive Pathways).

Communication – KDC will provide up-to-date communication to community while carrying out the Adaptation Action Plan. This should come in multiple forms (written, spoken, visual) and go through multiple channels of communication. At minimum, communication should occur in three phases as condensed accounts of hazards mapping, risk assessment and Adaptive Pathways. These summaries will include what occurred, how KDC did it, key findings and next steps. It will also include clear contact information should community members have questions or need more information. The purpose of communication here is to inform and keep interested community up to date. Communication is different from engagement and partnership.

### *Outreach, engagement and consultation*

In addition to community based Adaptive Pathways, KDC will engage with community to form KAAP vision statements, objectives, and other supporting action. This process will involve a series of public Kaipara Climate Adaptation Forums with key stakeholders and marae hui with Mana Whenua partners.

### *Timeframe (more detail to come in June 10 LTP Briefing)*

- Climate Adaptation Te Taitokerau Accord and Governance – 20/21 to 21/22
- Strategy development (including KAAP document/community forums/objectives) + Adaptive Pathways process – 21/22 to 24/25
- Adaptive Pathways implementation - 24/25 to 31/25.

## **Kaipara Mitigation Action Plan (KMAP)**

KMAP is a commitment to undertake measurements and produce a series of annual reports that will lead to a district wide 'Emissions Mitigations Objectives' / Emissions Reduction Targets + Pathways. The main actions are described below.

- a) Greenhouse Gas Emissions (GHG) Measurement and Reporting – Using eBench services, KDC will first undertake an emissions inventory, measurement of our corporate GHG emissions. Either 2018-2019 or 2019-2020 business year will act as baseline. In the current 2020-2021 business year, KDC will publish its first annual GHG Corporate Footprint. This is focussed on the GHG emissions of Council as a corporation. Inventory reports will be reported to EMs, both at Council meetings and at any relevant committee meetings. They will also be made available to staff and the public via KDC's new climate change webpage. Inventory reports will enable KDC to identify 'target' areas. It will also identify inventory gaps where better data collection processes are needed. If inventory gaps are deemed significant, the next step will be to improve data collection and conduct any follow-up audits or inventory as needed.
- b) If emissions inventory is deemed robust, Council will adopt emissions targets. Council will decide on whether to adopt a single target, such as net zero by 2050<sup>2</sup>, or whether it would like to adopt a series of targets for the identified highest emitting activities. For each target, Council will approve a reduction pathway. The reduction pathways will include a series of smaller objectives that will act as stepping-stones across Council activities to achieve net zero [or otherwise identified targets].
- c) Reduction pathways will identify areas where KDC is already modelling leadership in emissions reduction. It will also outline opportunities to continue to pursue low emissions actions (i.e. purchasing and procurement, energy efficiency, waste reduction, transport and travel, staff leading cultural shift, etc). It will identify opportunities to reduce and offset emissions within Kaipara (i.e. forestry, additional greenspaces, reforestation programmes, etc). If significant

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<sup>2</sup> Recommended approach as it aligns with CCRAA 2019 national target, with FNDC, and with other best practice Territorial Authority examples.

changes to Council business are identified, business case studies will be developed to demonstrate costs and benefits. Annual emissions inventories will be used to review the emissions targets and assess the effectiveness of decided mitigation actions in each reduction pathway. Relevance of the objectives will undergo review (as decided by EM, or as outlined by Climate Change Commission via CCRAA 2019).

- d) In addition to organisation's emissions targets, there is opportunity for Council to support and encourage low emissions strategies and changes for agriculture, businesses, and households, including possible community sustainability funding streams [i.e. community grants, workshops, online resources, etc.].

#### *Timeframe*

- GHG emissions inventory & reporting, annually, 20/21 and ongoing
- Target area identification & further investigation, 21/22 and as needed to sync with Emissions Targets and Reduction Pathways
- Emissions Targets and Reduction Pathways, 22/23 – 49/50 (per CCRAA 2019 national emissions targets).

### **Kaipara Sustainability Action Plan (KSAP)**

Like, KAAP, a living document will guide KSAP. This living document will outline seven topics, (or otherwise determined by staff and Elected Members), where KDC can pursue more sustainable practices and support business and community to develop and meet their own sustainability goals.

Taking a longer-term focus, the Sustainability Strategy will derive from and incorporate the Mitigation Action Plan (chiefly the Emissions Targets and Reduction Pathways). The plan will be broken down into a series of topics where KDC can model sustainability and support businesses and community to pursue more sustainable practices. These topics are waste, energy, water, food, transportation, material sources, and indigenous biodiversity. Topics are identified based on KDC's legislative responsibilities and jurisdiction, and on Council functions and services. They are also based on existing areas of focus for sustainability across Aotearoa New Zealand.<sup>3</sup> Together, they create a comprehensive and holistic vision towards a sustainable Kaipara.

Like KAAP, KSAP will identify specific objectives, supporting actions, steps and timelines for each stream. Where appropriate, it will integrate the GHG emissions data from the inventory reporting and use this as an indicator for review and monitoring. The objectives for each stream are categorised into four 'focus areas' based on regulatory requirements, scope of influence and specific role of KDC.

The five focus areas are: 1. Organisation 2. Decision-making; 3. Projects; 4. Mana Whenua Partnerships; 5. Working with Communities. Each of the objectives will be further broken down by phase. The three phases are transition, expand, and transform. These phases recognise that KDC is embarking on a longer, systemic transition to sustainability. These phases also recognise that KDC and the wider Kaipara community need to be pragmatic and genuine about our starting places so that we can set achievable objectives and make real change [see following page for visual template].

A more complete template, including key statements / overarching vision statements, will first go through KDC review for cross-department input (starting 22/23). It will also go to our Mana Whenua partners for drafting and input. Once a working draft is finalised, KDC will begin a community consultation process (starting 23/24). This consultation process will include workshops with key focus groups, as well as opportunities for feedback from individual community members.

### **Additional supporting work**

Integration and alignment are critical to success of this proposed strategy, and to climate change response work more generally. Discussion of needed areas of alignment and integration and progress already made in this area are included in a future LTP Briefing Report.

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<sup>3</sup> Per Ministry for the Environment National Policy Statements, Department of Conservation vision and outcomes, and other Territorial Authority 'best practice' examples.

## Next steps/E whaiake nei

Council provides feedback on vision and direction for the proposed Climate Change Strategy.

A more detailed work programme, including alignment and collaboration, timeframes, and budgetary needs will be presented June 10th LTP Briefing.

After Council Briefing, feedback and directional guidance will be taken into consideration on the proposed Climate Change Strategy. Regular updates on climate change work will be provided to Council in the upcoming months, with the final aim to endorse the proposed strategy.

The following table outlines Council leadership trajectory.

<b>Action</b>	Proposed Climate Change Strategy: Introduction and Overview	Proposed Climate Change Strategy: LTP integration Work Programme CATT	Work Update: Coastal Hazards mapping lines Emissions inventory reporting & footprint CATT	Adopt CATT Adaptation Governance Structure	Work Programme Business Case: Detailed costs, benefits, implementation requirements	Final Review Endorse Strategy
<b>Date</b>	June Council Briefing	June LTP Briefing	August Council Briefing	August Council Meeting	Future Council Briefing [Oct?]	Future Council Meeting [Oct/Nov?]

## Attachments/Ngā tapiritanga

	Title
A	Reference List
B	Relevant Legislation Table
C	"How We Compare" Chart