

# Tasman Climate Action Plan



*Video conference between Golden Bay High School Students and Council staff, 24 May 2019 (Photo: C Webster)*

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## Introduction

Climate change is happening now and the impacts on the environment and people will worsen over time. Across Tasman District, we are already experiencing extreme weather events, such as cyclones, intense rain events and severe droughts, with increasing frequency. These events cause damage to properties and infrastructure from flooding, landslips, erosion or fire.

There may also be opportunities that emerge to benefit from climate change. While we are uncertain about the timing and exact nature of the changes, we are expecting climate change to bring broad environmental, social, cultural and economic impacts. Urgent action is required to address climate change in our District. It is widely accepted internationally that the costs of inaction or delayed action outweighs the cost of acting now.

As a Council, we are committed to doing what we can (within our financial and legal limits) as set out in this Action Plan. We also know that ongoing, sustained action will be required – climate change will continue to affect life in our District for many generations.

We have set a series of actions in this plan, covering the short, medium and long term. We know that these actions will need to be reviewed and updated regularly.

One of our medium-term aims is to work collaboratively together with iwi and communities across the Tasman and Nelson regions to develop a broader strategy for responding to climate change. We expect this to occur via our participation in the proposed Nelson Tasman Climate Forum initiative.

In the short-term, we want to get our own house in order and to prioritise work programmes that will help us achieve our goals in this plan. We've worked together with Enviroleaders from local secondary schools and the Zero Carbon Nelson Tasman group to identify and prioritise actions we can undertake as a Council, to begin our journey on this path.

Our 'Tasman Climate Action Plan' (Action Plan) sets out goals, targets and actions relating to three key themes:

- mitigation – how we can reduce greenhouse gas emissions from Council's activities;
- adaptation – ways we can respond to our changing environment, including positive opportunities; and
- leadership – how we can lead by example, advocate and encourage others to take action.

We've focused on the things that Council can influence or control now. Initially these include:

1. Direct control over our own assets, activities and functions (e.g. heating in Council buildings, Council vehicles etc.).
2. Ability to directly influence the behaviour and actions of others via:
  - a. regulatory methods (e.g. rules in District and Regional Plans, building regulations).
  - b. non-regulatory tools such as education and partnership programmes (e.g. campaigns to encourage people to compost green waste).
3. Indirect influence via advocacy for actions at national and local levels (e.g. to reduce net greenhouse gas emissions).

The Action Plan is Council's initial response to the urgent need to take action on climate change, to build climate resilience and reduce greenhouse gas emissions. We are committing to change and urge others to join us.

## Background Context

Disclaimer: Most of the information in this section was sourced from the Ministry for the Environment.

### Our changing climate

Greenhouse gas emissions are causing significant changes to Earth's oceans, atmosphere and climate. On average, the world is now 1°C warmer than it was pre-industrialisation. We are already seeing changes in our climate due to this warming, and these are expected to become more severe. These changes will be very long lasting – some will be irreversible.

### Why climate change matters

Climate change is the biggest environmental challenge of our time. It is already affecting our climate, agriculture, native ecosystems, infrastructure, health, biosecurity and economic prosperity. Many of these changes pose challenges to the way we live and risks to human life and property. Exposure to extreme drought, heat, rainfall and coastal inundation are projected to worsen in many parts of New Zealand and around the world.

We're experiencing more intense weather events more often. In 2018, Central Government reported that climate change has already increased flood risk by up to 40%, and drought risk by up to 20% in New Zealand<sup>1</sup>. Climate change related floods and droughts has cost the New Zealand economy at least \$120M for privately-insured damages from floods and \$720M for economic losses from droughts over the last 10 years.

Fires, floods and storm surges have caused many Tasman District residents to be evacuated from their homes in recent years. Key transportation networks continue to be impacted, with the highway over the Takaka Hill still under repair 18 months after ex-Cyclone Gita. Freshwater is becoming a scarce resource, as evidenced during the 2019 drought.

Climate change is likely to bring warmer temperatures, more extreme weather patterns and rising sea levels - all of which will have widespread environmental, social, economic and cultural impacts. Issues such as drought, water security and flooding are expected to become more severe, and existing challenges around coastal erosion may be exacerbated. Industries such as agriculture and horticulture may need to adapt to remain profitable in the new climate. Local Government New Zealand estimates that councils in New Zealand are facing an estimated cost of \$5-8 billion to replace vital infrastructure lost to climate change over the next half century<sup>2</sup>.

Challenges also bring opportunities. Investment in changes for horticulture, services, management and technology will be required and may drive innovation from our region.

### Climate change impacts in New Zealand

The latest national report from the Ministry for the Environment and Statistics NZ about the state of the atmosphere and climate shows that New Zealand is seeing impacts of excess greenhouse gas emissions in our climate and oceans.

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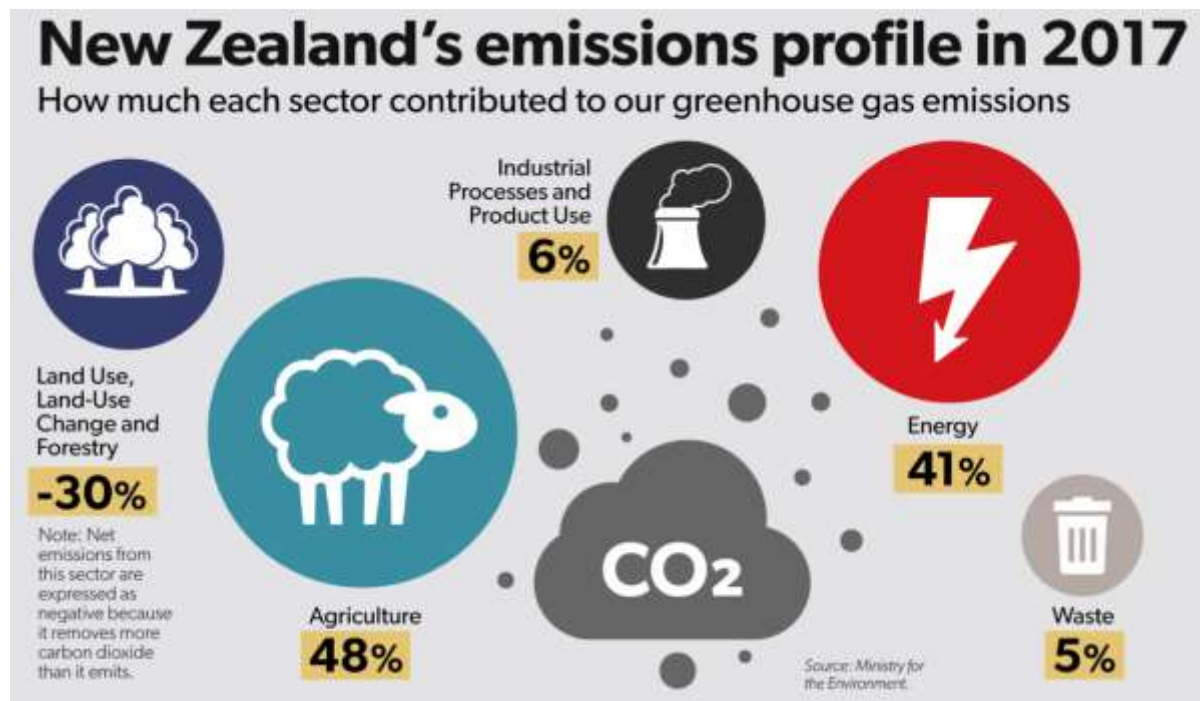
<sup>1</sup> National Institute of Water and Atmospheric Research Limited and New Zealand Climate Change Research Institute (2018). *Estimating financial costs of climate change in New Zealand – An estimate of climate change-related weather event costs.*

<sup>2</sup> Local Government New Zealand (2019). *Vulnerable: the quantum of local government infrastructure exposed to sea level rise.* The report estimates the total replacement value of all exposed infrastructure managed by local councils in New Zealand (three waters, roading, buildings/facilities, green space and landfills) under four sea level rise (slr) scenarios. The estimated costs are: \$2.7 billion at 0.5m slr; \$5.3 billion at 1m slr; \$7.8 billion at 1.5m slr; and \$13.4 billion at 3m slr.

The report 'Our atmosphere and climate 2017' documents changes in global and domestic greenhouse gas emissions and how these are affecting our environment; provides projections for New Zealand's climate; and the factors that influence our high summertime ultraviolet light levels.

### National inventory of greenhouse gas emissions

In April 2019, the Ministry for the Environment published an inventory of New Zealand's gross greenhouse gas emissions from 1990-2017.



*Credit: Stuff.co.nz (used with permission)*

Note that almost half of the total energy emissions (i.e. 20%/41%) were derived from transport.

### Climate change projections for the Nelson-Tasman region

The Ministry for the Environment (MfE)<sup>3</sup> has provided an overview of how the climate in the Nelson-Tasman region is likely to change into the future and what implications this has for our region.

Projections of climate change depend on future greenhouse gas emissions, which are uncertain. There are four main global emissions scenarios ranging from low to high greenhouse gas concentrations. The information provided by MfE presents regional projections as a range of values from a low emissions to a high emissions future.

NIWA has predicted the effects of climate change in the Tasman District for the years 2040 and 2090 (Climate Change and Variability Tasman District, NIWA, August 2015). The anticipated effects from climate change in Tasman District include:

- Increasing temperatures (up to 1.0°C warmer by 2040 and 0.6°C to 3.0°C warmer by 2090).
- More hot days above 25°C.
- Fewer frosts and less snow.
- Rainfall will vary locally within the District. The largest changes will be for particular seasons and intensities rather than annually. Most rainfall is expected during summer, autumn and winter.
- Extreme rainy days are likely to become more frequent.

<sup>3</sup> <https://www.mfe.govt.nz/climate-change/likely-impacts-of-climate-change/how-could-climate-change-affect-my-region/nelson-and>

- An increase in drought frequency is projected for the plains adjacent to Tasman Bay.
- Rising sea levels, increased wave height and storm surges.
- Some increase in storm intensity, local wind extremes and thunderstorms.
- Floods, landslides, droughts and storm surges are likely to become more frequent and intense.

#### What could this mean for Nelson-Tasman?

One of the assumptions included in Council's Long Term Plan 2018-2028 is that natural disasters will occur with increasing frequency, as a consequence of climate change. This has been the experience of recent years and is consistent with predictions of climate change impacts. It is also assumed that for low-lying land there will be an increasing risk of inundation from sea level rise and storm surge.

Council relies on the guidance provided by the Ministry for the Environment on coastal hazards and climate change, including recommendations for sea level rise - see 'Preparing for coastal change: A summary of coastal hazards and climate change guidance for local government (2017)'<sup>4</sup>.

*Coastal hazards* – There may be increased risk to coastal roads and infrastructure<sup>5</sup> and private property from coastal erosion and inundation, increased storminess and sea-level rise.

*Heavy rain* – The capacity of stormwater systems may be exceeded more frequently due to heavy rainfall events which could lead to surface flooding. River flooding, hill country erosion and landslip events may also become more frequent.

*Drought* – By 2090, the duration of droughts could more than double. More frequent droughts are likely to lead to water shortages, increased demand for irrigation and increased risk of wild fires.

*Disease* - There may be an increase in the occurrence of summer water-borne and food-borne diseases such as Salmonella. There may also be an increase in tropical diseases.

*Biosecurity* – Climate change could increase the spread of pests and weeds. Warmer temperatures may make pests such as mosquitoes, blowflies, ants, wasps and jellyfish more prevalent in the region. Similarly, crop diseases such as fungi and viruses may penetrate into the region where currently they are excluded by lower temperatures. There may also be a loss of habitat for native species.

*Agriculture and horticulture* – Warmer temperatures, a longer growing season and fewer frosts could provide opportunities to grow new crops. Farmers might benefit from faster growth of pasture and better crop growing conditions. Horticultural crops such as kiwifruit and wine grapes, are likely to show the greatest gains from higher average temperatures. However, these benefits may be limited by negative effects of climate change such as prolonged drought or greater frequency and intensity of storms. Other crops such as hops and berry fruit may be more difficult to grow in our region.

#### Legislative change

On 8 May 2019, Central Government proposed the Climate Change Response (Zero Carbon) Amendment Bill. The Bill proposed:

- i. an independent Climate Change Commission be created.
- ii. national targets for the decrease of carbon dioxide to net zero by 2050 and to decrease methane emissions by 10% by 2030 and 24–47% by 2050.
- iii. national greenhouse gas emissions budgets are created as stepping stones to reach these targets.

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<sup>4</sup> <http://www.mfe.govt.nz/publications/climate-change/preparing-coastal-change-summary-of-coastal-hazards-and-climate-change>

<sup>5</sup> The total replacement value of exposed infrastructure for Tasman District at MHWS +0.5m is estimated at \$90 million (for MHWS +1.5M is \$200 million). Local Government New Zealand (2019) *Vulnerable: The quantum of local government infrastructure exposed to sea level rise*.

- iv. a government requirement to implement policies for mitigation and adaptation.

The extent to which this Bill will affect Council is not yet clear. This Action Plan may need to be reviewed following the adoption of the Carbon Zero Act. At a minimum, we expect to report to the Climate Change Commission on adaptation efforts and emissions, and may be required to contribute to development of the National Adaptation Plan.

### Council commitments

Council is a signatory to the Local Government Leaders' Climate Declaration. This commits Council to:

- develop and implement ambitious action plans that reduce greenhouse gas emissions and support resilience within Council and local communities.
- promote low carbon transport options such as walking, cycling and public transport.
- work to improve the resource efficiency and health of homes, businesses and infrastructure in Tasman District.
- support the use of renewable energy and uptake of electric vehicles (EV).
- work with our communities to understand, prepare for and respond to the physical impacts of climate change.
- work with Central Government to deliver on national emission reduction targets.

## Implementation Principles

The following principles aim to guide effective implementation of this Action Plan. They also provide guidance for Council decision-making<sup>6</sup>.

### Principles to guide the action Council takes

Adaptation anticipates change and focuses on proactive action rather than response

Anticipating the ongoing risks of climate change and taking timely action to reduce and prevent future damage is fundamental to effective adaptation. This can be achieved using:

- predictive methods (where uncertainty is low)
- scenarios (where uncertainties are high)
- adaptive planning, including monitoring whether actions achieve the desired outcome and reporting how successful the implementation plan is in reducing the risk, exposure and vulnerability of communities to climate change.

Shifting from a reactive approach, where we respond to climate events after they have occurred, to more proactive actions will enhance resilience and reduce the financial and social exposure to climate change impacts across Tasman District.

### Action takes a long-term perspective

Long-term thinking, policies and actions are needed to ensure the reasonably foreseeable needs of current and future generations are met. A clear and consistent pathway toward a low carbon and resilient future needs to provide certainty for successive Councils, businesses and communities to enable transformative decisions and investments to be made over time.

Adaptation and mitigation actions must be ongoing and consistent. This requires a long-term commitment to continuing action that spans political, planning and financial cycles. It is also important that decisions made now on how to adapt do not restrict Council's ability to make future decisions about how to act.

Certainty in Council's approach to climate change action will give decision-makers confidence to make long-term investment decisions; for example, where to live, what infrastructure to invest in, or what crops to grow.

### Adaptation action maximises co-benefits and minimises maladaptation

Climate change impacts will create losses and damages in Tasman District. Taking action needs to:

- reduce losses and damages
- create benefits and maximise co-benefits
- avoid maladaptation, such as locking in unsustainable practices and reducing the ability to respond to future changes.

As an example, actions to adapt to climate change can also be linked with actions to mitigate climate change by reducing emissions. For example, planting trees on marginal land to increase resilience to erosion (and improve water quality) will also have mitigation co-benefits through increased carbon sequestration (increased removal and storage of emissions). However, increased exposure to pests, wildfire and water stress as a result of planting may also cause maladaptation.

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<sup>6</sup> Note that the Local Government Leaders' Climate Change Declaration 2017 also includes a set of additional, but complementary principles that also guide Council's decision-making.

## Principles for how actions are implemented

### We take action together and work cooperatively with others

The nature and scale of climate change requires a global response and human solidarity. We have a shared responsibility and cannot effectively respond alone. Building strong relationships between countries, with iwi and across communities, organisations and scientific disciplines will be vital to share knowledge, drive innovation, and support social and economic progress in addressing climate change.

### We engage with at-risk communities early

Council should start to engage with at-risk communities early, before they begin to experience severe impacts of climate change, by helping:

- communities to understand the upcoming challenges;
- to strengthen people's ability to 'have a voice' in decisions that will affect them, particularly those who are less powerful or more susceptible to harm;
- to build community resilience to deal with current and future stresses;
- to ensure the community has sufficient trust, confidence and capacity to fully engage with Council for key decisions on our climate change response journey.

### We take a community development approach to engagement<sup>7</sup>

Council-community engagement for a climate-impacted future means being:

- Holistic – i.e. committing to ongoing engagement on a regular basis over many years, building a strong community voice and considering all the needs and issues faced by the community as a whole.
- Supportive – i.e. supporting community members to come together to share their concerns, visions and aspirations, providing information about climate impacts and options, helping build collective understanding and enabling the community to share their knowledge and experiences with each other and Council.
- Inclusive – i.e. engaging with as wide a range of affected people as possible, in a wide variety of ways and places to suit their preferences.
- Delivery-focused – i.e. involving community members in identifying possible options for the future and in key decision-points in any adaptation pathway, keeping the community regularly updated and delivering on agreed solutions.

### Climate change is integrated into decision-making

Integrating the risks and opportunities from climate change into decisions and actions will be a critical element of Council's response. To achieve our adaptation, mitigation and leadership goals, short-, medium-, and long-term decision-making needs to consider current and ongoing climate risks and their scale.

Factoring in climate risk means decisions will be informed by an understanding of the current and future costs and benefits, as well as consideration of equity within and between generations. This applies to both policy and long-term investment decisions across all levels of government, the economy, and society.

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<sup>7</sup> This implementation principle is based on research findings from the Climate-Adaptive Communities project of New Zealand's Deep South National Science Challenge. For more information see: <https://www.deepsouthchallenge.co.nz/projects/climate-adaptation-vulnerability-and-community-well-being>



Decision-making uses the best available evidence, including science, data, local knowledge, and Mātauranga Māori

Decisions will be evidence-based and make full use of the latest research, data and practical experience relevant to climate change adaptation and mitigation. The knowledge and experience of iwi and local communities are of significant value and need to be central to decision-making. Continued investment in research and innovation, as well as the accessible communication of the resulting information, will help us manage climate risks and explore opportunities.

Action is flexible to climate changes and reflects local circumstances including values and culture

While change itself is certain, some uncertainty will always exist (e.g. in the speed and scale of changes to the climate that New Zealand can expect over the longer term).

Decisions on adaptation and mitigation need to be flexible and readily adjusted so they can respond to evolving information and knowledge.

Different areas within Tasman District are likely to have different priorities for adaptation and mitigation based on their local circumstances and unique risk profiles and as such, different options need to be considered and modified accordingly over time.

All action prioritises the most vulnerable sectors and communities

Understanding which sectors and communities are most vulnerable to climate change impacts is essential for prioritising and building local adaptive capacity and capability. For example, some communities may be less able to adapt due to socio-economic circumstances; and older infrastructure may be unable to cope with future climate conditions. Understanding vulnerability also informs mitigation options.

## Goals

The following goals are the long-term aspirations of Council. They represent the first step towards a cohesive package of activities that address climate change issues.

1. Council contributes to New Zealand's efforts to reduce greenhouse gas emissions (including net carbon emissions).
2. Tasman District becomes more resilient to the impacts of climate change.
3. The Tasman Community is informed of climate change actions and options for response.
4. Council shows clear leadership on climate change issues.

Goals will be measured via the targets and achieved by implementing the actions set out in the following Action Plan.

The goals, targets and actions seek to balance the need for change with the interests of current and future residents of Tasman District, the environment and the economy.

## Action Plan

Goals	Targets	Actions (short-term) 2019 - 2021	Resourcing requirements	Actions (medium-term) 2021 - 2024	Actions (long-term) 2024+
<b>1. Council contributes to New Zealand's efforts to reduce greenhouse gas emissions (including net carbon emissions).</b>	<b>1(a) Council's emissions* of methane reduce by 10% below 2017 levels by 2030 and 47% by 2050 or earlier. Council's net emissions* of all other greenhouse gases reduce to zero by 2050.</b>  <b>*from Council's own activities.</b>  <b>Targets are based on Zero Carbon Bill. If necessary, revise targets once enacted.</b>	(i) <b>Undertake a baseline inventory</b> by end of 2020; and then annual monitoring of Council's greenhouse gas emissions.	\$	Annual monitoring of Council's GHG emissions; and review targets.	Annual monitoring of Council's GHG emissions; and review targets.
		(ii) <b>Identify and prioritise activities</b> to reduce emissions from Council offices (e.g. refrigeration emissions from air-conditioning, reduce travel by holding virtual meetings, working from home etc), Council operations (e.g. methane from Eves Valley landfill) and Council vehicle fleets.	Staff time	Implement emissions reduction programme.	Implement emissions reduction programme.
		(iii) <b>Facilitate and support</b> a higher number of strategically located EV charging stations across the District. Continue to increase the number of plug-in hybrid vehicles in Council's fleet and investigate use of electric vehicles.	Staff time  \$	Facilitate and support a higher number of strategically located EV charging stations and electric bike docks/charging stations across the District. Continue to transition the Council's vehicle fleet away from fossil fuels (i.e., replace with hybrid and electric vehicles).	Transition the majority of Council's vehicle fleet away from fossil fuels (i.e. replace with plug-in hybrid and electric vehicles).
		(iv) <b>Develop a Procurement Policy</b> for Council, which considers the treatment of emissions.	Staff time	Implement Procurement Policy.	Review and implement Procurement Policy.
		(v) <b>Continue to invest</b> in forest plantations and participate in the ETS programme. Explore opportunities to plant carbon forests on Council land (e.g. river berm land).	BAU	Continue to invest in forest plantations and carbon forests, and participate in the ETS programme	Continue to invest in forest plantations and carbon forests, and participate in the ETS programme
		(vi) Continue to work with communities to <b>plant trees</b> (e.g. riparian margin restoration, habitat enhancement, land stability, planting in Council parks and reserves and within some roading corridors, expand Council nursery production), to sequester carbon.	BAU	Continue to work with communities to plant trees, to increase carbon sequestration.	Continue to work with communities to plant trees, to increase carbon sequestration.
		(vii) Continue to support and facilitate landowner applications to Central Government's <b>Billion Tree Fund</b> (and other relevant funds).	BAU	Continue to support and facilitate landowner applications to Central Government's Billion Tree Fund (and other relevant funds).	Continue to support and facilitate landowner applications to Central Government's Billion Tree Fund (and other relevant funds).
		(viii) <b>Investigate energy efficient design</b> and renewable energy options for Council buildings and activities.	\$	Implement energy efficiency and renewable energy generation actions (e.g. hydropower generation for Waimea Community Dam, solar panel installation on Council buildings etc).	Monitor technology for improvements to energy efficiency and implement these where feasible.
		(vix) <b>Implement the Joint Waste Management and Minimisation Plan</b> , to reduce total waste to landfill. This plan includes new options for achieving overall reduction (e.g. promotion of circular economy, education, service changes etc).	\$	Implement programmes to support waste reduction.	Implement programmes to support waste reduction.

Goals	Targets	Actions (short-term) 2019 - 2021	Resourcing requirements	Actions (medium-term) 2021 - 2024	Actions (long-term) 2024+
		(x) <b>Investigate options</b> for reducing green waste to landfills.	Staff time	Implement programmes to support green waste reduction and composting.	Implement programmes to support green waste reduction and composting.
	<b>1(b) Council decisions for planning and infrastructure design supports private individuals and businesses to reduce their emissions by 80% by 2050.</b>  <i>Targets are based on Zero Carbon Bill. If necessary, revise targets once enacted.</i>	(i) <b>Investigate options to encourage</b> low carbon footprint buildings, highly energy-efficient buildings, renewable energy use in buildings, reductions in refrigeration emissions from air conditioning and disposal of refrigerants, enhanced urban/subdivision design.	Staff time	Implement preferred options.	Implement preferred options.
		(ii) <b>Implement the Nelson Tasman Future Development Strategy (NTFDS)</b> , including the housing intensification component, to reduce the need for car-travel.	\$	Review and implement the NTFDS.	Review and implement the NTFDS.
		(iii) <b>Investigate options</b> for supporting the local Warmer Homes programme.	Staff time	Support local Warmer Homes programme.	Support local Warmer Homes programme.
		(iv) Review renewable energy generation provisions through the Tasman Environment Plan project.	BAU	Planning documents enable renewable energy generation.	Planning documents enable renewable energy generation.
	<b>1(c) Year on year, use of alternative transport modes increases, whereas use of single-occupancy internal combustion-engine vehicle on roads in Tasman District declines.</b>	(i) In conjunction with NZTA and NCC, <b>investigate options</b> for increasing use of public transport (where this will provide the best outcome) and prepare action plan to increase public transport use.	BAU	Implement resulting action plan to increase public transport.	Implement resulting action plan to increase public transport.
		(ii) Investigate ways to <b>incentivise use of alternative transport modes</b> , such as ride sharing and EVs.	Staff time	Promote, encourage and implement incentives to increase use of alternative transport modes (e.g. ride sharing and EV use).	Continue to promote, encourage and implement incentives to increase use of alternative transport modes (e.g. ride sharing and EV use).
	<b>1(d) Use of active transport (e.g. walking, cycling etc) as a form of transportation increases year on year.</b>	(i) <b>Continued investment</b> in new and (maintenance of) existing active transport networks.	BAU	Increased investment in new and maintenance of active transport networks. Impediments to use of network are steadily removed.	Increased investment in new and maintenance of active transport networks.
		(ii) <b>Implement requirements</b> on new developments to provide for active transport through the TRMP and Nelson Tasman Land Development Manual.	BAU	Effectiveness of provisions are monitored and reviewed as necessary.	Effectiveness of provisions are monitored and reviewed as necessary.
		(iii) In conjunction with Central Government and local agencies, <b>fund infrastructure programmes and activities</b> that support increased use of active transport network.	\$	Fund active transport infrastructure programmes and activities.	Fund active transport infrastructure programmes and activities.
		(iv) Continue to <b>seek and obtain co-funding</b> for active transport network development and maintenance.	BAU	Continue to seek co-funding for active transport network development and maintenance.	Continue to seek co-funding for active transport network development and maintenance.

Goals	Targets	Actions (short-term) 2019 - 2021	Resourcing requirements	Actions (medium-term) 2021 - 2024	Actions (long-term) 2024+
<b>2. Tasman District becomes more resilient to the impacts of climate change.</b>	<b>2(a) Progressively improve network infrastructure resilience to climate change risks across all Council networks.</b>	(i) <b>Complete an asset criticality and resilience study</b> for the three waters. This includes developing an Infrastructure Resilience Strategy, identifying critical three waters infrastructure and their vulnerability to natural hazards and climate change.	BAU	Activity Management Plans (AMPs) account for climate change risks, uncertainty and resilience for the entire life of current and future infrastructure (i.e. future proof design). All assets should be assessed for climate change risks at their proposed location, before decisions on siting of a new asset/replacement of existing assets are made.  <b>Funding</b> for repair or replacement of network infrastructure incorporates accounting for climate change risks and resilience.	Implementation of AMPs through network development projects.  Funding maintained through future plans.
		(ii) <b>Review Council's policy on emergency funds</b> , to ensure it anticipates repair/replacement and relocation costs that factor in climate change risks ("build back better"). Investigate the potential <b>funding requirements</b> of implementing this policy.	Staff time	The <b>Long Term Plan 2021 - 2031 incorporates 'Emergency funds'</b> that anticipate repair/replacement/relocation costs that factor in climate change risks ("build back better").	Funding maintained or increased as risks increase.
	<b>2(b) New coastal development and infrastructure accounts for climate change risks, including sea level rise.</b>	(i) The <b>Coastal Hazard mapping and plan change</b> programme continues to completion; including consideration of the extent of the risks, options and regulatory responses for adaptation, relocation, coastal structures etc.	BAU	Implementation via the Tasman Resource Management Plan and Infrastructure Strategy/ Activity Management Plans.	Implementation via the Tasman Resource Management Plan and Infrastructure Strategy/ Activity Management Plans.
		(ii) <b>Regulatory activities</b> (resource and building consenting) continue to account for sea level rise based on the MfE Guidance 2017 and apply the TDC/NCC 'Coastal and Freshwater Inundation' guideline (2019) for setting ground and floor levels for new development.	BAU	Continue implementation. Review Guideline when new information is available.	Continue implementation. Review Guideline when new information is available.
	<b>2(c) Ecological adaptation to climate change is taken into account when making decisions.</b>	(i) Continue to <b>assess ecological vulnerability under climate change</b> (Habitat zone classification prioritisation programme with NCC and MDC) and work with other agencies to identify opportunities for ecological retreat from sea level rise; including recommendations for a prioritised programme for action.	BAU	Implement prioritised programme.	Implement prioritised programme.
		(ii) <b>Investigate options</b> for how Council can be more agile and responsive to increased biosecurity risks (including shipping biosecurity risks) and pest management requirements, in response to the rapidly changing climate.	Staff time	Implement new options for biosecurity and pest management.	Implement new options for biosecurity and pest management.

Goals	Targets	Actions (short-term) 2019 - 2021	Resourcing requirements	Actions (medium-term) 2021 - 2024	Actions (long-term) 2024+
<b>3. The Tasman Community is informed of climate change actions and options for response.</b>	<b>3(a) Council is represented on the Nelson Tasman Climate Forum.</b>	(i) Community <b>collaboration and active involvement</b> with the proposed Nelson Tasman Climate Forum. The forum will assist with engaging and informing Tasman residents across a broad spectrum of interests.	Staff time	Continue active involvement with Nelson Tasman Climate Forum.	Continue active involvement with Nelson Tasman Climate Forum.
	<b>3(b) Encourage private adaptation and business adaptation to climate change to occur in Tasman District, by providing clear and applicable information.</b>	(i) <b>Obtain updated information</b> from NIWA on local climate impacts for Tasman District; and collate relevant information from other sources. Publicise this information widely.	BAU	Ongoing information gathering and publication.	Ongoing information gathering and publication.
		(ii) <b>Update Council's website</b> to host a 'climate change information hub'. This hub will have relevant and up-to-date information on the local impacts of climate change; options for Council and private mitigation; and information on Council's own responses to the climate change issue.	Staff time	Website maintenance and updates.	Website maintenance and updates.
<b>4. Council shows clear leadership on climate change issues.</b>	<b>4(a) Council's elected representatives demonstrate regional leadership.</b>	(i) <b>Promotion</b> of innovations, changes and initiatives that individuals and businesses can take to reduce emissions, benefit from climate changes and improve resilience.	\$	Promotion of innovations, changes and initiatives that individuals and businesses can take to reduce emissions, benefit from climate changes and improve resilience.	Promotion of innovations, changes and initiatives that individuals and businesses can take to reduce emissions, benefit from climate changes and improve resilience.
		(ii) <b>Liaison and collaboration</b> with Nelson City Council, iwi, government agencies, youth councils and others to provide clear and consistent messaging and directions for change.	Staff time	Liaison and collaboration with Nelson City Council, iwi, government agencies, youth councils and others to provide clear and consistent messaging and directions for change.	Liaison and collaboration with Nelson City Council, iwi, government agencies, youth councils and others to provide clear and consistent messaging and directions for change.
	<b>4(b) Council's staff work collaboratively to implement this climate action plan.</b>	(i) Formation of a <b>climate change team</b> comprising of staff from each Department, to champion implementation of this action plan.	Staff time	Inter-departmental climate change team is supported to progress implementation of this action plan.	Inter-departmental climate change team is supported to progress implementation of this action plan.
	<b>4(c) Decisions of Council consider the implications of climate change for current and future generations.</b>	(i) <b>Include assumptions</b> for climate change in the Long Term Plan, including provisions for uncertainty, based on the latest IPCC reports.	Staff time	Include assumptions for climate change in the Long Term Plan, including provisions for uncertainty, based on the latest IPCC reports.	Review and include assumptions for climate change in the Long Term Plan, including provisions for uncertainty, based on the latest IPCC reports.
		(ii) The Long Term Plan <b>incorporates funding</b> to give effect to this climate action plan.	BAU	Implement this climate action plan via on-going funding decisions	Implement this climate action plan via on-going funding decisions.
		(iii) Develop an <b>internal staff policy</b> for guiding and informing decision-making reports, projects etc.	BAU	Review and monitor implementation of policy.	Review and monitor implementation of policy.
	<b>4(d) Council reports on its progressive implementation of this climate action plan.</b>	(i) <b>Reporting on progress</b> towards targets of this action plan is included in Council's Annual Report.	BAU	Annual reporting.	Annual reporting.

