



**Remember
submissions
close at 5pm,
Friday 21
October 2022**

Proposed District Plan submission form

Clause 6 of Schedule 1, Resource Management Act 1991

Feel free to add more pages to your submission to provide a fuller response.

Form 5: Submission on Proposed Far North District Plan

TO: Far North District Council

This is a submission on the Proposed District Plan for the Far North District.

1. Submitter details:

Full Name:	Vision Kerikeri (Vision for Kerikeri and Environs, VKK)		
Company / Organisation Name: (if applicable)	Vision Kerikeri (Vision for Kerikeri and Environs, VKK)		
Contact person (if different):	Jo Lumkong (Chair)		
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Email (please print):	visionkerikeri@gmail.com		
2. (Please select one of the two options below)			
<input checked="" type="checkbox"/> I could not gain an advantage in trade competition through this submission <input type="checkbox"/> I could gain an advantage in trade competition through this submission			
<i>If you could gain an advantage in trade competition through this submission, please complete point 3 below</i>			
3. <input type="checkbox"/> I am directly affected by an effect of the subject matter of the submission that: (A) Adversely affects the environment; and (B) Does not relate to trade competition or the effect of trade competition <input type="checkbox"/> I am not directly affected by an effect of the subject matter of the submission that: (A) Adversely affects the environment; and (B) Does not relate to trade competition or the effect of trade competition			
<i>Note: if you are a person who could gain advantage in trade competition through the submission, your right to make a submission may be limited by clause 6(4) of Part 1 of Schedule 1 of the Resource Management Act 1991</i>			
The specific provisions of the Plan that my submission relates to are:			
<ul style="list-style-type: none"> • Strategic Direction • Renewable electricity generation • Transport • Natural hazards • Subdivision • Coastal environment • Zones • Other sections of the PDP 			
Confirm your position: The submitter opposes, supports or seeks amendment to various areas of the PDP identified in this submission. The reasons are provided below			

My submission is:

PDP provisions to address the climate emergency

Reducing greenhouse gas emissions by 2030 and beyond

Scientists have warned that, in order to limit global warming to 1.5°C, CO₂ emissions from human activities need to be cut by about 45% (from 2010 levels) by 2030.¹

The pressing deadline of 2030 means that the Council and all of us must do our part to change course substantially now, to reduce greenhouse gases in the atmosphere and avoid much larger costly impacts in future.

Wherever feasible, it's important that the PDP should include policies/rules that will reduce greenhouse gas emissions related to activities that may be covered by a DP. This issue cannot be set aside until the next district plan in ten years' time.

A recent Climate Change Commission report (June 2021) points out the key role of local government in achieving essential emission reduction targets.²

s7(i) of the RMA requires councils to have particular regard to the effects of climate change, and related issues such as energy efficiency, when exercising functions in relation to managing the use and development of natural/physical resources, and the protection of natural/physical resources –

'In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to' -

(a) kaitiakitanga

(aa) the ethic of stewardship

(ba) the efficiency of the end use of energy

(f) maintenance and enhancement of the quality of the environment

(i) the effects of climate change

(j) the benefits to be derived from the use and development of renewable energy.

FNDC's Long Term Plan consultation document noted the importance of coordinating activities 'to reduce our carbon footprint and find ways to ensure climate change is addressed in all strategy, planning, policy and decision-making.' (p.5)

FNDC's Climate Change Road Map³ (attached as Appendix 1) sets out guiding principles and recognises the need to act now. It states that 'We will make climate change risks a key consideration in all our planning ...' -

GUIDING PRINCIPLES

1. We acknowledge the reality of climate change and will act now in response to the risks this poses

There is clear evidence of the need to act now on climate change to reduce future risks and costs for our District. We will make climate change risks a key consideration in all our planning and decisions

The proposed District Plan presents an opportunity for the Council and communities to be proactive and to do significantly more to reduce emissions and protect and safeguard our communities and places against the effects of climate change.

PDP Strategic Direction / Natural Environment

¹ Intergovernmental Panel on Climate Change (2019) *Special Report on Global Warming of 1.5°C: Summary for Policymakers*, page 12, section C.1, <https://www.ipcc.ch/sr15/>

² Climate Change Commission (June 2021) *Low Emissions Future for Aotearoa*, p.230-231, <https://ccc-production-media.s3.ap-southeast-2.amazonaws.com/public/Inaia-tonu-nei-a-low-emissions-future-for-Aotearoa/Inaia-tonu-nei-a-low-emissions-future-for-Aotearoa.pdf>

³ FNDC Climate Change Road Map (2020), <https://www.fndc.govt.nz/Your-district/Climate-change-in-the-Far-North>

The PDP Strategic Direction objectives for the natural environment include SD-EP-O4: 'Land use practices reverse climate change by enabling carbon storage and reducing carbon emissions'. We support this objective. However the current PDP provisions mainly pursue a business-as-usual approach and contain very little to support the objective of reducing carbon emissions.

Transport

A report by the Climate Change Commission estimated that transport accounted for more than 33% of long-lived greenhouse gas emissions in Aotearoa in 2019.⁴

PDP provisions should take account of transport-related guidelines on connectivity in Appendix 2 of the Regional Policy Statement, such as the following points on *Connections* and urban design -

- '(a) Creates safe, attractive and secure pathways and links between neighbourhoods and centres;...*
- (c) Places a high priority on walking, cycling and where relevant, public transport; and*
- (d) Improves accessibility to public services and facilities.'*⁵

We seek PDP provisions that will support active modes of transport, including pedestrians, cyclists, disability scooters etc. The PDP needs revised/additional policies and rules to ensure that active transport modes will be supported in practice when consents are assessed/granted. For example, the PDP should require subdivisions and developments to provide cycleways and pedestrian walkways that will be ready to connect into future networks of cycleways and walkways (networks to be identified in plans such as spatial plans, structure plans or community transport planning for townships).

Please refer to our separate submission on cycling and multi-modal transport for further comments.

Management of Natural Hazards due to climate change

As a matter of national importance, s6(h) of the RMA requires councils to provide for the management of significant risks from natural hazards (e.g. flooding, coastal erosion) in relation to managing the use, development and the protection of natural/physical resources –

'In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance: ... the management of significant risks from natural hazards.'

FNDC's recent Long Term Plan consultation document states that:

'We have identified climate change as the number one risk facing the Far North' (p.5).

Flood risks due to climate change

Inland flooding: Climate change is expected to make Northland drier overall, however heavy downpours are likely to become more extreme.⁶ This will increase the risk of inland flooding in areas near rivers/waterways. Flooding and rising groundwater are likely to affect houses, domestic wastewater tanks and disposal fields, roads and access ways to houses, and other structures built on former flood plains or land that has been drained.

Coastal inundation: The average global sea level is expected to continue rising for several centuries in future as a result of long-lived emissions from past decades alone (irrespective of sea level rise due to future emissions). A report by the Parliamentary Commissioner for the Environment in 2015 estimated that 1 in 100-year high water level events would occur very frequently in future - for example, every 4 years at the port of Auckland and once a year at Wellington and Christchurch ports.⁷ Furthermore, storm surges can add several tens of centimetres to high tides.⁸

⁴ Climate Change commission (2021) as above, p.88, Figure 6.1.

⁵ NRC, *Regional Policy Statement*, p.165, Appendix 2, Part B Regional urban design guidelines

⁶ Parliamentary Commissioner for the Environment, PCE (2015), *Preparing NZ for Rising Seas*, p.22, <https://www.pce.parliament.nz/media/1390/preparing-nz-for-rising-seas-web-small.pdf>

⁷ PCE (2015) *Preparing NZ for Rising Seas*, p.28.

⁸ PCE (2015) *Preparing NZ for Rising Seas*

The NZ SeaRise mapping project (funded by MBIE, supported by NIWA and other scientific bodies⁹) has identified specific coastal locations in the Far North that are particularly vulnerable to sea level rise due to climate change (taking account of land rising or falling due to tectonic movement etc.). SeaRise has published maps specifically for the use of planners.¹⁰

Low-lying coastal homes will become increasingly impacted by storm surges, erosion etc. as time progresses. A report by the Parliamentary Commissioner for the Environment in 2015 stated that:

- *'Sea level rise is inexorable but gradual, so there is time to develop a better approach, but we do need to start now.'*¹¹ (Note: this statement was made in 2015)
- *'councils are responsible for planning for the impacts of sea level rise under the RMA'*.¹²
- *'Both the New Zealand Coastal Policy Statement and the MfE Guidance Manual require councils to take a **'precautionary approach'** to planning for coastal hazards.'*¹³

We support the principle of PDP Policy NH-P3 which aims to *'take a precautionary approach'* to the management of natural hazard risk associated with land use and subdivision. And we support PDP Policy NH-01 which aims to manage risks from natural hazards taking into account the *'likely long-term effects of climate change'*.

However, the PDP contains insufficient provisions to implement these policies. Overall, the PDP fails to address the urgent need to reduce greenhouse gas emissions wherever possible now, and fails to adequately avoid or mitigate the anticipated effects.

Adverse effects of consenting new buildings/infrastructure in at-risk areas

Giving consent for a new house or building to be constructed in a location gives people the expectation that buildings can remain there in perpetuity. However, the government has indicated that a retreat from affected coastal areas will be needed in future due to climate change.¹⁴ The retreat from climate hazard areas will be complex and very challenging for the Council and for affected communities.

If the Council continues to allow new buildings and infrastructure in future climate-risk areas, it would be irresponsible, because it would generate an unnecessarily large social disruption and economic cost for the retreat – a financial burden that taxpayers and ratepayers will be forced to pay.

We note that the New Zealand Coastal Policy Statement (NZCPS) of 2010 emphasises placing coastal subdivision and greenfield developments away from areas prone to coastal hazard risks (including climate change) and the need to avoid these risks.

The *Regional development guidelines* in the Regional Policy Statement (Appendix 2) state that:

'New subdivision, use and development should ... be directed away from 10-year and 100-year flood areas and high risk coastal hazard areas.'

FNDC's Climate Change Road Map (p.8) also acknowledged that *'Under the NRC Regional Policy Statement future development of land will need to be located away from coastal and low-lying areas vulnerable to sea-level rise, coastal erosion and flooding'*.

The PDP is required to give effect to the NZCPS and Regional Policy Statement (under the RMA), and may adopt stricter requirements. Although the PDP rules on natural hazards (e.g. NH-R3, CE-R12) indicate that new buildings constructed in locations mapped as '1 in 100 year river flood hazard areas' or 'coastal hazard area' would often be regarded as restricted discretionary activities, these provisions should be strengthened. The PDP does not implement the *precautionary approach* indicated above.

Already, some locations mapped as 1 in 100 year river flood areas experience severe flooding at much more frequent time intervals. In order to apply the precautionary approach and take account of

⁹ NZ SeaRise project, <https://www.searise.nz/about>

¹⁰ NZ SeaRise maps for planners, <https://www.searise.nz/>

¹¹ Parliamentary Commissioner for the Environment (2015) FAQ, <https://www.pce.parliament.nz/media/1388/preparing-nz-for-rising-seas-faq-final.pdf>

¹² Parliamentary Commissioner for the Environment (2015) FAQ.

¹³ Parliamentary Commissioner for the Environment (2015) *Preparing NZ for Rising Seas*, p.66.

¹⁴ For example, https://resiliencechallenge.nz/wp-content/uploads/2018/08/Owen-et-al-2018_planning-quarterly.pdf

longer-term changes due to climate change, it would be necessary to apply additional large safety margins in areas at risk of flood/inundation.

We note that NRC Natural Hazard maps provide data on 1 in 100 year + cc (climate change) river flood extent (hazard zone) for priority rivers as well as data on coastal flood 100 years + rapid sea level rise scenario (hazard zone 3).¹⁵ It appears that, at minimum, the available '+ CC' climate flood estimates could be referenced in the district plan. We notice that some applications for subdivision in this District already refer to +CC flood estimates.

We recognise that it is feasible to build properties on stilts, however related issues would need to be addressed, such as requiring raised accessways (above the high flood level) so that people are able to leave a flooded property, and ensuring that domestic wastewater tanks and disposal fields are well above any flood level, to avoid risks to public health from sewage-contaminated water inside flooded houses and the receiving environment.

Taking a precautionary approach means it's necessary to focus primarily on avoiding new residential or sensitive structures/infrastructure in hazard areas, rather than just managing or mitigating the impacts and paying the costs of retreat.

We consider that new buildings and infrastructure should not normally be permitted in hazard areas, with the exception of essential/unavoidable infrastructure. In principle, PDP policies/rules should ideally be strengthened to apply 'no build' areas to prevent new buildings, residential wastewater tanks and disposal fields, accessways and infrastructure in areas that are likely to be flooded or inundated, taking into account the *precautionary approach* and *likely long-term effects*.

Failing this, council should, at the very least, place LIM notices on property files. Future liabilities should also be addressed. We note there are existing cases where Council exempts itself from financial liability in relation to subdivision - FNDC has imposed a number of legally-binding fencing covenants that exempt FNDC from all financial liability for fencing on boundaries adjacent to FNDC land. In a similar manner, Council could specify in new subdivision/development consent notices (and building consents) that if a building/infrastructure is constructed in a climate hazard area it is done entirely at the landowner's own risk, and local authorities bear no financial responsibility. Without these types of measures, the council would impose an untenable cost burden on ratepayers and taxpayers in future years.

Using updated flood hazard maps

A pop-out window in the PDP map, entitled *News Feed – How to use the Eplan*, points out that the coastal and flooding hazard maps in the draft plan are out of date, and asks users to check the updated NRC Natural Hazards Maps on NRC website¹⁶ -

Hazard Mapping

The coastal and flooding hazard maps in the draft district plan, no longer reflects the most updated hazard information created and published by the Northland Regional Council (NRC). This is due to the draft district plan being created in March 2020, and Northland Regional Council releasing new hazard information in April and December 2021. To confirm if a property is affected by a coastal or flood hazard please refer to the [NRC Natural Hazards Maps](#) or for background information please refer to the [Northland Regional Council](#) as the draft district plan hazard maps may be not showing a hazard on a property or incorrectly identifying a property as being affected by a hazard.

However, the sections of the PDP that refer to flooding and natural hazards do not provide the above warning to users. As a result, people may use out-of-date mapping information. The PDP section should

¹⁵ NRC Natural Hazard map, River Flood Hazard Zone 100 year CC extent - priority rivers, <https://nrcgis.maps.arcgis.com/apps/webappviewer/index.html?id=81b958563a2c40ec89f2f60efc99b13b>

¹⁶ <https://nrcgis.maps.arcgis.com/apps/webappviewer/index.html?id=81b958563a2c40ec89f2f60efc99b13b>

refer specifically to the most recent NRC Natural Hazards maps, and PDP maps should be updated regularly, as soon as possible.

Permeable surface area and water sensitive designs

Heavy downpours are expected to become more extreme due to climate change. Our group strongly supports intensification in urban areas while also noting that the PDP should address the fact that intensification can result in much larger impermeable surfaces covering a very high percentage of the urban land with houses, garages, other buildings, driveways, paving, tarmac, concrete etc.

We support the principle of PDP provisions controlling the area of impermeable surface per site, and consider it is probably also necessary to monitor and limit the total **cumulative** impermeable area in residential/urban zones.

The intensification of urban zones needs to be carefully managed, as discussed in our submission on multi-unit development. It should be encouraged in the form of well-designed two or three storey buildings, for example, with requirements for permeable open areas including garden/landscaped ground. Developments should use permeable materials wherever feasible for surfaces such as driveways, paths.

PDP provisions should require best practice water-sensitive designs and measures to prevent problems associated with more extreme rainfall events in future:

- Flood risk: If the majority of land in residential/urban areas becomes covered by impermeable surfaces, it would eliminate much of the existing soakaway area for stormwater and increase the risk of flooding in residential/urban areas during high rainfall events.
- Water quality: Large impermeable surface area would increase urban runoff to waterways during heavy rain. The latest government guidance on the NPS for Freshwater Management (Guidance on the National Objectives Framework of the NPS-FM, 2022, p.8¹⁷) states that *district plans* must be reviewed to give effect to the NPS-FM:

'District plans must be reviewed and, if necessary, amended to give effect to the NPS-FM "as soon as reasonably practicable".'

'To give effect to Te Mana o te Wai, councils must consider matters such as how urban growth and increases in impervious surfaces will impact on stormwater flows, how stormwater affects the water bodies it is discharged to, and methods to manage urban growth and stormwater discharge. The identification and control of urban growth areas must prioritise the health and well-being of water bodies.'

Drought, rainwater harvesting and efficient use of water

During drought, water supplies in parts of the District become over-stretched. Climate change is expected to make the situation significantly worse in future decades.

The *Regional development guidelines* in the Regional Policy Statement (Appendix 2, Part A) state that:

*'New subdivision, use and development should: ... Adopt, where appropriate, sustainable design technologies such as the incorporation of ... rain gardens, ... rainwater storage and grey water recycling techniques ...'*¹⁸

The PDP should require all new buildings to store/use roof water wherever possible, to avoid the need for expensive reticulation systems and reduce the need for water top-ups via water tankers.

New buildings connected to a public water supply should be required to collect roof water in storage vessels to use for gardens and flushing toilets (at minimum) and contribute to other household water uses such as laundry connections. Water storage vessels do not need to be a traditional round tank – other useful shapes exist, such as rectangular upright vessels that are easy to install against the side of a house or garage, or short flat vessels designed to be completely buried underground or placed under the foundations of new builds.

¹⁷ <https://environment.govt.nz/assets/publications/NOF-Guidance-ME1658-Final-28.7.pdf>

¹⁸ NRC, *Regional Policy Statement*, p.163, Appendix 2, Part A, clause (p).

Greywater harvesting and re-use should also be required for new buildings.¹⁹ These types of water-saving measures would also reduce future Council infrastructure costs for additional water supplies and wastewater.

Renewable energy & energy efficiency

A recent Climate Change Commission report stated that:

*'Replacing fossil fuels with low-emissions electricity is an essential part of the transition and will require major expansion in the electricity system that needs to start now.'*²⁰

The District Council is required to give effect to the Regional Policy Statement (under s75(3) of the RMA). The RPS *Regional development guidelines* (in Appendix 2) state that:

*'New subdivision, use and development should: ... Adopt, where appropriate, sustainable design technologies such as the incorporation of energy-efficient (including passive solar) design, low-energy street lighting, ... renewable energy technologies ...'*²¹

Given the climate crisis, it is necessary to give active support and incentivise energy efficient designs and renewable energy generation, especially in cases where it is cost-neutral or there are cost benefits to the developer or house occupier.

Traditionally, district plans include rules/standards for a range of items such as water supply, stormwater management, wastewater system, etc. We note that resource consent conditions may also include diverse additional requirements - such as recessive paint colours, non-reflective windows, specific provisions for ancillary buildings, landscaping plans, controls on dogs, etc. Those consent conditions aim to address adverse effects on natural character, landscapes, biodiversity, etc., in order to meet the RMA provisions. Given that 'the effects of climate change' has been added into the RMA, it is logical and appropriate that the district plan and consent conditions should now require items to help mitigate climate change.

It is time to bring the PDP into the 21st century by updating rules/standards in the light of climate change and developments in social/environmental issues and improved technologies and designs.

For example, standards should preferably require, or at minimum actively encourage, the adoption of *'sustainable design technologies such as the incorporation of energy-efficient (including passive solar) design, low-energy street lighting, ... renewable energy technologies'*, as stated in the RPS.

Passive heating and cooling designs, for example, reduce energy consumption and the on-going costs of heating/cooling. Solar panels with batteries, for example, can be purchased on lease-to-buy schemes so that the owner/occupier only pays the amount that they would have paid anyway for grid electricity. Additional electricity generation by households will be essential for powering EVs in future because current national generation capacity is not sufficient.

The measures mentioned above would also benefit the community and support Council objectives beyond the DP – such as generating jobs and increasing the number of healthy homes in the Far North. The Climate Change Commission notes that energy efficiency requirements can generate jobs.²²

We seek the following decisions from the Council:

- The PDP objectives, policies and rules needs to be updated in order to implement Council statements on the need to address climate change in all planning and policy – to reduce climate emissions and help reduce the adverse effects of climate change:

S521.001

¹⁹ Auckland Watercare, <https://www.watercare.co.nz/Help-and-advice/Be-Waterwise/Recycling-grey-water>

²⁰ Climate Change Commission (June 2021) *Low Emissions Future for Aotearoa*, p.86, <https://ccc-production-media.s3.ap-southeast-2.amazonaws.com/public/Inaia-tonu-nei-a-low-emissions-future-for-Aotearoa/Chapter-15-inaia-tonu-nei.pdf>

²¹ NRC, *Regional Policy Statement*, p.163, Appendix 2, Part A, clause (p).

²² Climate Change Commission (June 2021) *Low Emissions Future for Aotearoa*, p.294, Recommendation 22.

- FNDC’s Long Term Plan consultation (p.5) recognised the importance of coordinating activities *‘to reduce our carbon footprint and find ways to ensure climate change is addressed in all strategy, planning, policy and decision-making’.*
- FNDC’s Climate Change Road Map 2020 stated that: ‘We will operationalise climate change adaptation so it becomes ‘business as usual’ through our plans and strategies including the Long Term Plan, the District Plan, our Infrastructure Strategy, ...’

- We ask the council to acknowledge that the climate emergency requires a new approach in the district plan right now. The Council’s Climate Change Road Map recognised the need to ‘act now’. This matter cannot be set aside until the next district plan in ten years’ time. **S521.002**
- Wherever feasible, the PDP should include policies/rules/standards that will reduce greenhouse gas emissions related to the activities covered by district plans. **S521.003**
- PDP should promote and support active transport and multi modal integrated transport – please refer to our separate submission on this topic. **S521.004**
- FNDC’s Climate Change Road Map (p.8) recognises that ‘Under the NRC Regional Policy Statement future development of land will need to be located away from coastal and low-lying areas vulnerable to sea-level rise, coastal erosion and flooding’. To implement this change, the PDP needs stronger rules, including ‘no build’ areas, to prevent new buildings, wastewater systems, accessways, roads and other infrastructure in areas that are likely to be impacted by sea level rise, storm surges, flooding etc. New construction in hazard areas makes little or no sense; it will generate high costs of remediation and retreat which will have to be paid by future rate payers and tax payers, or will generate increased insurance premiums for everyone. **S521.005**
- The PDP should apply *the precautionary approach* with regard to mapped inland flood and coastal hazard areas, to take account of longer-term changes expected from climate change, as well as the limitations in mapping. **S521.006**
- The PDP should require best practice water-sensitive, low-impact designs and measures for all stormwater and wastewater engineering, infrastructure and related development, to prevent problems associated with more extreme rainfall events in future, including provisions to implement relevant parts of NPS-FM – refer to details in our detailed Submission text above. **S521.007, S521.010 to S521.012**
- We support greater limits on impermeable areas (and/or requirements for minimum permeable areas) for subdivision, use and development. In urban/residential zones, it will also be necessary to adopt measures to limit the cumulative total impermeable surface and/or protect a specified cumulative total permeable area. **S521.008, S521.013 S521.014**
- The PDP should include objectives, policies and rules/standards that require best practice environmentally sustainable techniques for new developments, including -
 - Permeable materials wherever feasible for surfaces such as driveways, paths etc.
 - Best practice for lowest environmental impact and water sensitive designs, requiring grey water recycling techniques and other technologies to ensure efficient use of water, rain storage tanks for properties connected to a public water supply, additional water storage for buildings that rely solely on roof water (to cope with drought), and other measures **S521.009**
 - Renewable energy technologies and energy-efficient technologies, and similar requirements that foster improved environmental design/technologies and lower lifecycle climate impacts **S521.015 to S521.029**
 - Specified area (percentage) of tree canopy cover and green corridors should be required within new subdivisions. These will be increasingly important for shade/cooling for buildings and pedestrians in future.
- Please refer to additional changes we seek in our detailed Submission text above.

I wish to be heard in support of my submission
 I do not wish to be heard in support of my submission
 (Please tick relevant box)

If others make a similar submission, I will consider presenting a joint case with them at a hearing

Yes No

Do you wish to present your submission via Microsoft Teams?

Yes No

Signature of submitter: Jo Lumkong, chair, Vision Kerikeri (Vision for Kerikeri and Environs)

Date: 20 October 2022

SUBMISSION NUMBER



Far North District Council Climate Change Roadmap

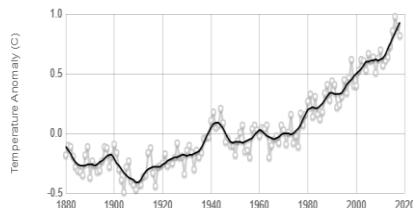
April 2020

The intention of this document is to obtain approval from elected members for Council's broad approach to climate change, including:

- key objectives and associated guiding principles
- work on four key focus areas involving mitigation and adaptation

GLOBAL CONTEXT

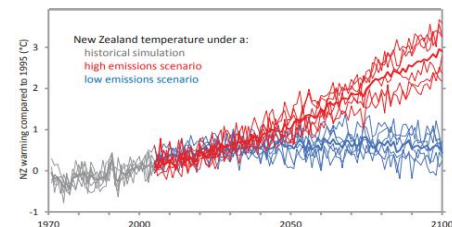
- Due largely to increasing levels of greenhouse gases in the atmosphere, the planet is experiencing a warming trend that is happening faster than has been seen in recent history (Source: Intergovernmental Panel on Climate Change, IPCC - 2013)
- Eighteen of the 19 warmest years since 1951 have all occurred since 2001.(NASA).



Source: NASA "Global temperature chart. Accessed 16/01/2020

NATIONAL CONTEXT

- The extent of warming in New Zealand will depend on the level of global carbon emissions, which has been forecast by MfE using a range of scenarios
- Even under a low emissions scenario, the temperature will increase in New Zealand and the sea level will rise.



Source: MfE – Climate Change Projections 2016

FAR NORTH CONTEXT

Climate change effects

A range of impacts of climate change have been predicted for Northland by NIWA:

- Sea level rise
- More warmer days
- Frosts becoming very rare
- More droughts
- More extreme weather events

Summary NIWA Northland predictions: [LINK](#)

Detailed report: [LINK](#)

Potential impacts

- Severe storms
- Coastal erosion & inundation
- Water shortages
- Increased sedimentation
- Contamination of soil
- Salination of water sources
- Slips and floods
- Damage to the transport network
- Agriculture/horticulture will be different
- Threat of vector diseases e.g. dengue fever
- Threat of new agricultural pests.

Significant risks to the community

- Communities at risk through coastal retreat and displacement of people
- Public health risks
- Burden of rates for the District as whole and especially for deprived communities
- Increasing risk of forest fires
- Risks to the economy
- More civil defence emergencies.

“We need to think and plan ahead now”

Quote from survey of managers at FNDC

Significant risks for Council

- Vulnerable infrastructure
- Vulnerable parks and reserves
- Large/long term financial risks
- Cost to protect/shift/future-proof infrastructure and assets
- Increasing insurance costs and potential inability to insure some areas
- Affordability of adapting to climate change
- Reputational risks
- Our ability to borrow money will be at risk if we have inadequate climate-related financial disclosure.

FNDC'S STATUTORY OBLIGATIONS

- Council has obligations and responsibilities under the Resource Management Act, the Local Government Act, the Civil Defence Act and particularly the Zero Carbon Amendment Act 2019
- Our policies must be consistent with Northland Regional Council's Regional Policy Statements relating to hazards and biodiversity, water quantity and quality.

FNDC'S RESPONSE TO DATE

- Council has acknowledged that climate change is the number one risk it faces
- We signed the Local Government Leaders Declaration in 2017 with a commitment to “*develop and implement ambitious action plans*” for climate change mitigation and adaptation
- We are an active member of Climate Adaptation TeTaitokerau (CATT) a Group of the four local authorities in Northland charged with developing the Regional Climate Change Adaptation Framework
- In August 2019 Council resolved that a KPI for the Chief Executive was to develop a Climate Change Roadmap.

DEVELOPING THIS ROADMAP

Work to date includes:

- A survey of all senior managers at FNDC
- Forming an internal Climate Change Working group
- Preparing website and education materials/links
- Study of government guidelines, what other local authorities are doing and attendance at relevant conferences
- Commissioning a carbon footprint assessment for Council itself.

CLIMATE CHANGE OBJECTIVES

- 1 To reduce council's own greenhouse gas emissions in line with the government's national emission reduction targets or better
- 2 To support our communities towards carbon zero 2050
- 3 To manage council's resources and assets to best future-proof them from the risks of climate change
- 4 To help our communities prepare for and adapt to the impacts of climate change

We will engage in dialogue with the community on the objectives and guiding principles before they are formally adopted

GUIDING PRINCIPLES

1. **We acknowledge the reality of climate change and will act now in response to the risks this poses**
There is clear evidence of the need to act now on climate change to reduce future risks and costs for our District. We will make climate change risks a key consideration in all our planning and decisions
2. **We recognise the importance of kaitiakitanga**
We recognise the role of tangata whenua as kaitiaki in relation to natural and physical resources in their rohe.
3. **We will be thoughtful and considered in our planning for climate change**
Long-term thinking, policies and actions will ensure the needs of current and future generations are met. The risks of climate change are complex, so we will be careful and considered in our approach. Our plans will evolve over time as new information on climate change becomes apparent.
4. **We will learn with and support our communities to address the risks and potential opportunities of climate change**
Enhancing the resilience and readiness of our communities and businesses will help us adapt to climate change. We will engage with our communities and also advocate on their behalf to central government
5. **We will work cooperatively with others**
The nature and scale of climate change means that we cannot go it alone in our approach to climate change. We will work together with central government and other agencies as well as community groups, iwi and hapū to co-ordinate our response.

"This is not centuries away, it's happening now ... it is an urgent problem"

Professor James Renwick – Professor of Physical Geography at Victoria University, member of the Climate Commission

"Make sure climate change is the centre of all planning moving forward"

Quote from survey of managers at FNDC

"Climate change is the defining issue of our time and we are at a defining moment"

United Nations

TWO TYPES OF RESPONSE TO CLIMATE CHANGE

Mitigation

Reducing or preventing the emission of greenhouse gases

The target Paris Agreement target is to limit global temperature increase this century to between 1.5 - 2°C above pre-industrial levels. Global temperatures are already between 0.8-1.0°C above this level, so the window to respond is narrowing rapidly.

In line with the Paris agreement, the Climate Change Response (Zero Carbon) Amendment Act 2019 (ZCA) sets targets for New Zealand:

- To reduce emissions of greenhouse gases (except biogenic methane) to zero by 2050 and to reduce emissions of biogenic methane to 24–47 per cent below 2017 levels by 2050, including to 10 per cent below 2017 levels by 2030 (ten years' time)

Under this legislation, Council will be required to reduce its own carbon emissions and report on progress to government.

Mitigation activity is an immediate and pressing need with targets set by government. Some actions have taken place such as replacing incandescent street lighting with LED lights and developing a Procurement Policy in line with MBIE's guidelines etc. However, much more is required to meet the ZCA targets.

Adaptation

Adapting to climate change

Climate change poses many adverse threats but there will also be positive opportunities. Our challenge is to adapt to these changes

We will operationalise climate change adaptation so it becomes 'business as usual' through our plans and strategies including the Long Term Plan, the District Plan, our Infrastructure Strategy, Asset Plans and the Financial Plan etc.

Adaptation and Mitigation Activity can be Linked

Our actions to adapt to climate change can be linked to climate change mitigation. For example, planting trees on marginal land to help reduce erosion will also assist mitigation through increased carbon sequestration. Conversely, some major adaptation projects may mean an increase in council's carbon footprint, so this will need to be considered in our decision making in a new regime where we will be expected to reduce this footprint.

FOUR FOCUS AREAS

RESPONDING TO CLIMATE CHANGE

MITIGATION

ADAPTATION

COUNCIL	1 "Walking the talk" Council reduces its carbon emissions	3 "Prudent future proofing" Council adapts to climate change
	2 "Reducing our carbon emissions together" Supporting our communities to achieve zero carbon by 2050	4 "Developing resilience" Help our communities prepare for and adapt to the impacts of climate change
FOCUS AREAS	THE COMMUNITY	

"We have a mandate from central government to look after the wellbeing of the people of the Far North"

Quote from survey of managers at FNDC

"Council can be the heroes in the climate change area"

Mary-Jane Ardley – Coastal Restoration Trust

FOCUS AREA 1 (MITIGATION) – ‘WALKING THE TALK’ COUNCIL REDUCES ITS CARBON EMISSIONS

RESPONDING TO CLIMATE CHANGE
MITIGATION ADAPTATION

	1 "walking the talk" Council reduces its carbon emissions	
COUNCIL		
FOCUS AREAS		
THE COMMUNITY		

Meets Objective 1 to reduce council's own greenhouse gas emissions in line with the government's national emission reduction targets or better

“We’ve moved and renovated offices so they are all now of 5-star standard, we’re electrifying our vehicle fleet, and we’ve invested in quality video conferencing and calling, which cuts down how much we fly between our offices. Measuring our carbon has highlighted all sorts of opportunities to reduce our emissions, and to influence our suppliers to do the same”

Alison Howard, Head of Sustainability, Meridian Energy

WHY MEASURE AND REDUCE OUR EMISSIONS

- To contribute to New Zealand’s collective effort to reduce its emissions. New Zealand is the fourth highest per capita producer of greenhouse gas in the world, beaten only by the United States, Canada and Australia
- To identify operating efficiencies and cost savings
- We will need to meet our reporting requirements under ZCA
- The Emissions Trading Scheme (ETS) will be tightened and the price of carbon credits will increase so we will need to pay more for our carbon emissions
- To demonstrate social and environmental responsibility
- To play our part in the Far North and “walk the talk”
- To identify business opportunities

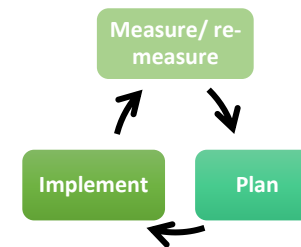
BEING TRANSPARENT

- We will openly communicate the results of our emissions inventory and our improvement targets on our website
- We will also report on progress to reduce our emissions
- We will recognise where trade-offs have been made e.g. while reducing air travel will reduce our carbon emissions reductions, this would have an impact on our ability to do business and engage nationally. In these cases, we will look to offset these emissions

“Get started – you can always build on that foundation and increase sophistication of measurement over time. The key is to have some information to start working with. Reporting and communication is really important, making data visible and relatable to managers, staff and stakeholders”

Grant Heather — Senior Strategy Manager, NZ Rail

IMPROVEMENT PROCESS



STEPS IN THE PROCESS

1. MEASURE OUR EMISSIONS

- An emissions inventory is underway focusing on FY 2018/19
- Conducted by WSP (formerly Opus Consulting)

2. PLANNING

- We will identify and prioritise opportunities to improve, setting targets for mitigation activity

3. IMPLEMENTATION

- We will put in place plans to reduce our emissions

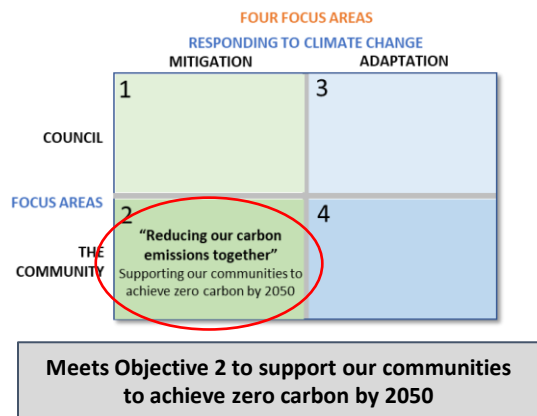
4. RE-MEASURE EVERY TWO YEARS

- With the goal to reach zero carbon by 2050 or earlier

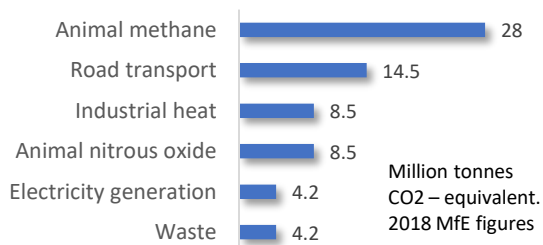
“Do an audit of the current state, set goals, then another audit in 12-24 months to compare improvements. Be open and accountable about our targets and progress towards them. Report on our website how we’re tracking”

Internal survey of managers at FNDC

FOCUS AREA 2 (MITIGATION) – ‘EDUCATION & GUIDANCE’ SUPPORTING OUR COMMUNITIES TO ACHIEVE ZERO CARBON BY 2050



SIX MAIN SOURCES OF GHG EMISSIONS IN NZ



MITIGATION ACTIVITIES THAT WILL HAVE THE GREATEST EFFECT NATIONALLY

- Plant trees to sequester carbon
- Convert the national vehicle fleet to electric
- Eliminate fossil fuels from industrial processes up to 300°C
- Develop new solutions to reduce emissions from agriculture
- Better management of landfill sites including capture of methane
- Move to 100% renewable electricity generation

WHY SUPPORT THE COMMUNITY?

- To contribute to New Zealand’s collective effort to reduce its emissions
- To demonstrate social and environmental responsibility
- To play our part in the Far North
- To become a leader in this area

HOW WE WILL SUPPORT OUR COMMUNITIES

- We will provide information on the many ways that people can reduce their carbon footprint
- Our plans will incorporate carbon emission reduction policies, in line with the government’s GHG reduction plan
- We will support community projects in this area as we have with the Crimson Coast Electric Vehicle Highway

CRIMSON COAST ELECTRIC VEHICLE HIGHWAY

Since 2017 we have helped expand the EV charging station network in the Far North from one to eight stations. We:

- arranged funding through ChargeNet NZ and the Energy Efficiency & Conservation Authority
- offered Council land for the charging sites
- collaborated with Top Energy, Northland Regional Council and local EV user group RevUp to install these stations.

“Clean air and water, and a liveable climate are inalienable human rights. And solving this crisis is not a question of politics. It is our moral obligation”

Leonardo DiCaprio

WORKING WITH THE BUSINESS SECTOR

Where possible we will work with the business sector, to reduce GHG emissions. Areas we can help address include:

- Road transport – extending the electric vehicle charging station network
- Supporting the rail network
- Electricity generation using renewable sources including solar, wind energy and geothermal sources such as Ngawha
- Encouraging commercial planting of trees to sequester carbon

ACKNOWLEDGING GOVERNMENT’S KEY ROLE IN SETTING NATIONAL POLICIES

Many of the broader ‘levers’ to reduce carbon emissions relate to government planning and policies e.g.

- Government Investment in renewable energy projects
- Managing the Emissions Trading Scheme etc
- National policy to meet the emissions targets etc.

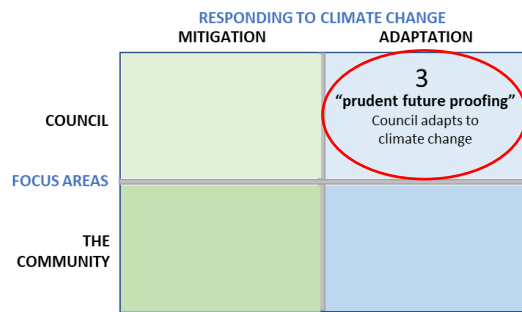
COMMUNICATION & ADVOCACY

We will regularly communicate with the community on climate change topics, encouraging two-way dialogue. We will also advocate on behalf of our communities to central government

“This is not centuries away, it’s happening now ... it is an urgent problem”

Professor James Renwick – Professor of Physical Geography at Victoria University, member of the Climate Commission

FOCUS AREA 3 (ADAPTATION) – ‘PRUDENT FUTURE PROOFING’ COUNCIL ADAPTS TO CLIMATE CHANGE



Meets Objective 3 to manage council's resources and assets to best future-proof them from the risks of climate change

ADAPTATION ANTICIPATES CHANGE AND FOCUSES ON BEING PROACTIVE RATHER THAN REACTIVE

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:

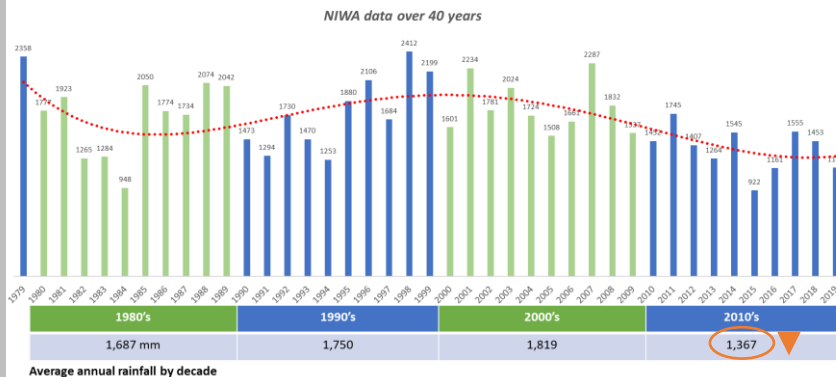
- predictive methods (where uncertainty is low)
- scenarios (where uncertainties are high)
- adaptive planning (where a trend exists such as rising sea level but the rate of change in the future is uncertain. Points on the trend-line will trigger particular responses)

Shifting from a reactive approach where we respond to climate events after they occur to a more proactive approach will enhance resilience and reduce our financial and social exposure to climate change impacts across the Far North District.

“Active and adaptive management is required in response to climate change”

Sir Peter Gluckman

KERIKERI MEAN ANNUAL RAINFALL TREND – REDUCED RAINFALL



While the mean annual rainfall in Kerikeri varies from year to year, it has decreased in the last decade compared with previous decades

Only one year in the last decade has annual rainfall been above the average over the last 40 years.

CASE STUDY – NORTH SHORE CITY WASTEWATER MANAGEMENT

In 1997 North Shore City experienced a significant number of beach pollution events linked to overflows from its wastewater system.

Community concern led to analysis of what would be needed to rectify the problem. Two scenarios were developed – the first costing \$260 million did not account for climate change effects while in the second scenario, an extra \$150 million was required to respond to climate change.

The community chose the lower cost option with reduced levels of protection compared with the higher cost option which factored in climate change. However, reviews of the system were required every three to five years to assess if further spending was necessary, thus putting in place an adaptive response.

Example included in the MfE document *Preparing for climate change – a guide for local government in New Zealand*. See Link in the Appendix

PROPOSED ADAPTATION PROCESS

We recognise that while adaptation may involve extra costs, carrying on ‘as normal’ may be more costly in the long-run.

RECOMMENDED APPROACH

1. Conduct evidence-based and site-specific planning
2. Evaluate the long-term costs and benefits of different adaptive solutions
2. Use the Dynamic Adaptive Planning Protocol (DAPP) process recommended by MfE where climate change risks are uncertain
4. For significant projects, seek guidance from the community and elected members regarding preferred options before proceeding (see the North Shore City case study).

REGIONAL INTEGRATION

We will align our adaptation approach with the Regional Adaptation Strategy being developed by the Northland local authorities regional group (CATT).

FOCUS AREA 4 (ADAPTATION) – ‘DEVELOPING RESILIENCE’

HELPING OUR COMMUNITIES PREPARE FOR AND ADAPT TO THE IMPACTS OF CLIMATE CHANGE

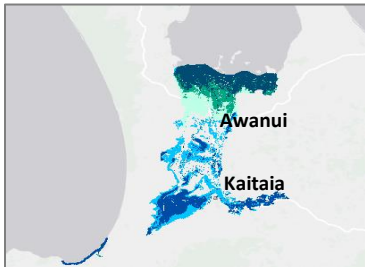
		RESPONDING TO CLIMATE CHANGE	
		MITIGATION	ADAPTATION
COUNCIL	1 "Walking the talk" Council reduces its carbon emissions	3 "Prudent future proofing" Council adapts to climate change	
FOCUS AREAS	2 "Education and guidance" Supporting our communities to reduce their carbon emissions	4 "Developing resilience" Helping our communities prepare for and adapt to the impacts of climate change	
THE COMMUNITY			

Meets Objective 4 To help our communities prepare for and adapt to the impacts of climate change

HAZARD MAPPING

Mapping of coastal and flood hazards by NRC will help us identify vulnerable communities

The Kaitiaki flood plain stands out as the largest geographical area at risk in the Far North.



NRC Hazard mapping

DEVELOPMENT IN HAZARD ZONES

Under the NRC Regional Policy Statement future development of land will need to be located away from coastal and low-lying areas vulnerable to sea-level rise, coastal erosion and flooding. This will be incorporated in the District Plan as risk area overlays showing potential hazard risk areas with associated policies and rules for land use and subdivision.

“If everyone focused their love, care, and commitment to protecting and regenerating their local places, ... then a side effect would be the resolution of the climate crisis”

Charles Eisenstein, Climate: A New Story

ENGAGING WITH THE COMMUNITY

We will take part in conversations with communities to identify how vulnerable areas are best addressed.

FACING TOUGH DECISIONS

Those in vulnerable areas e.g. where sea level rise is likely to cause coastal inundation, will face tough decisions regarding the viability of where they live. They are likely to feel pressure from increasing insurance premiums as well as rising sea levels. And if private insurers retreat from a coastal area because of increased risk from rising seas, cover from EQC will also disappear, because the two insurances are bundled.

COUNCIL’S POWERS RE EXISTING HOMES

The Resource Management Act gives Council the power to zone land for varying levels of development. But there is no clear power for councils to require people in existing homes, that were lawfully built, to move somewhere less dangerous.

NEED FOR GOVERNMENT SUPPORT/GUIDANCE

Currently the legal situation is unclear regarding how Council should respond to potential loss and damage to existing homes from climate change effects such as sea level rise. Council needs to request guidance from central government in this area.

“You cannot get through a single day without having an impact on the world around you. What you do makes a difference and you have to decide what kind of difference you want to make”

Jane Goodall

HELPING BUILD RESILIENCE

Adopting a precautionary approach, Council will engage with at-risk communities early, before they begin to experience severe impacts of climate change. We will:

- help communities understand the upcoming challenges
- give them the ability to ‘have a voice’ in decisions that will affect them including lobbying government
- work to ensure the community has sufficient trust and confidence in Council to allow frank discussion.

A COMMUNITY DEVELOPMENT APPROACH TO ENGAGEMENT

Our engagement with the community will be:

- **Responsive to the needs of our Māori treaty partners**
- **Long-term** – i.e. committing to ongoing engagement on a regular basis over many years
- **Supportive** – i.e. supporting community members to come together to share their concerns and aspirations, to provide information about climate impacts and options and to help build collective understanding
- **Inclusive** – i.e. engaging with as wide a range of affected people as possible
- **Delivery-focused** – i.e. involving community members in identifying possible options for the future, keeping the community regularly updated and delivering on agreed solutions

“...the effects of climate change will not be felt equally. It will affect the poor, the marginalised, those on coastal lands the most”

Rev. Mathew Newton, St Paul’s Church, Auckland

OUR VISION

He Whenua Rangatira - A District of Sustainable Prosperity and Well-Being

CLIMATE CHANGE OBJECTIVES

OUR EXPECTATIONS	Reduce council's greenhouse gas emissions to net zero	Support our communities towards carbon zero by 2050	Manage our resources and assets to best future-proof them from the risks of climate change	Help our communities prepare for and adapt to the impacts of climate change
He wahi ataahua: Valuing the outstanding beauty of our District	✓			
He waka hourua: Fit-for-purpose infrastructure underpinning success			✓	
Kokiri tahi: Empowered communities working collaboratively				✓
Oranga taiao, oranga tangata: Nurturing the environment so it nourishes us	✓	✓	✓	✓
Oranga kainga: A thriving, sustainable local economy		✓		✓
Mana i te whenua: The role of tangata whenua is valued and respected		✓		✓
Te ira tangata: Rich heritage and diversity respected and celebrated		✓		✓
Tangata whai ora: Happy, healthy, safe and purposeful people		✓		✓
Whanau: A great place for our families to flourish		✓		✓

WE MUST ACT FOR LEGAL REASONS!



LENDERS & INSURERS ARE MAKING FINANCIAL DECISIONS BASED ON CLIMATE-RELATED FINANCIAL DISCLOSURE

- Climate-related financial disclosure rules recommended by the international Task Force on Climate-Related Financial Disclosures (TCFD) in 2017 are being adopted globally
- In New Zealand the government will make climate-related financial disclosure mandatory. See the consultation paper in the Appendix circulated by MfE and MBIE in late 2019. Consultation closed December 2019 and new regulations are expected in 2020
- This information is being used by financial institutions such as banks and insurance companies to inform their decisions. For instance, the Queensland government has struggled to borrow money as it has large climate-related risks to its economy and a poor documented response to these risks to date
- These requirements will affect local authorities as well as the Local Government Funding Agency (LGFA)
- Our ability to borrow funds and the interest rates we pay will depend on us disclosing detailed information in our financial reporting about the impact that climate change is having and will have on our business and what we are doing about this
- **We must treat our response to climate change as a major programme of work with solid financial disclosure around our governance, the risks we identify, our related processes and our performance against targets.**

OUR REPORTING OBLIGATIONS

In-depth reporting of our actions will be required by the Climate Change Response (Zero Carbon) Amendment Act 2019 (ZCA) in line with TCFD guidelines:

- 1) Our **governance** in relation to the risks of and opportunities regarding climate change
- 2) The **actual and potential impacts** of climate-related risks and opportunities on our business, strategy, and financial planning:
- 3) Our **processes** to identify, assess, and manage the risks
- 4) Our **metrics and targets** used to assess and manage the risks and opportunities, including timeframes and progress.

“Disclosures should be defined, collected, recorded, and analysed in such a way that the information reported is verifiable to ensure it is high quality. For future-oriented information, this means assumptions used can be traced back to their sources”

TCFD Recommendations 2017

WHAT WE DO MUST STAND UP IN COURT

- Potentially we will face legal challenges through our response to climate change – for example, challenges relating to the zoning of land or management of our assets
- Informal advice from Simpson Grierson at a local government workshop in February 2020 is to thoroughly research and document the reasons for our climate-related policies and decisions
- We must be rigorous in identifying and documenting the climate change assumptions that we adopt as well as the actual and potential impacts we identify as this may need to stand up in court.

“The NZ Coastal Policy Statement directive is that councils must identify coastal hazards. In response, local authorities have commissioned research, created hazard maps and noted hazard areas within LIMs. This has often been undertaken without consultation with affected communities, resulting in significant friction between councils and landowners and multiple court cases”

NZ Planning Institute, *Planning Quarterly Dec 2019*

“When it comes to climate change we are in the beautiful position of knowing what our choices are. We can feel a real sense of opportunity about the future - what role our science can play, and how people can contribute”

Dr Sam Dean, Principal Scientist, NIWA

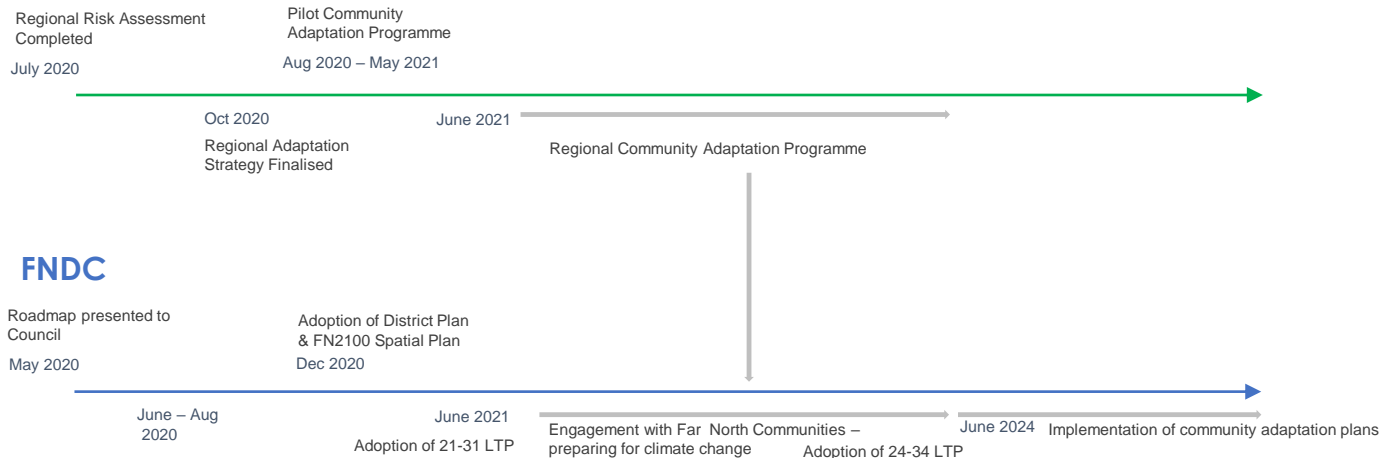
“Sometimes the riskiest decision you can make is to do nothing”

Richard Branson

The Zero Carbon Act



Regional Local Government Group (TCCAAG)





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