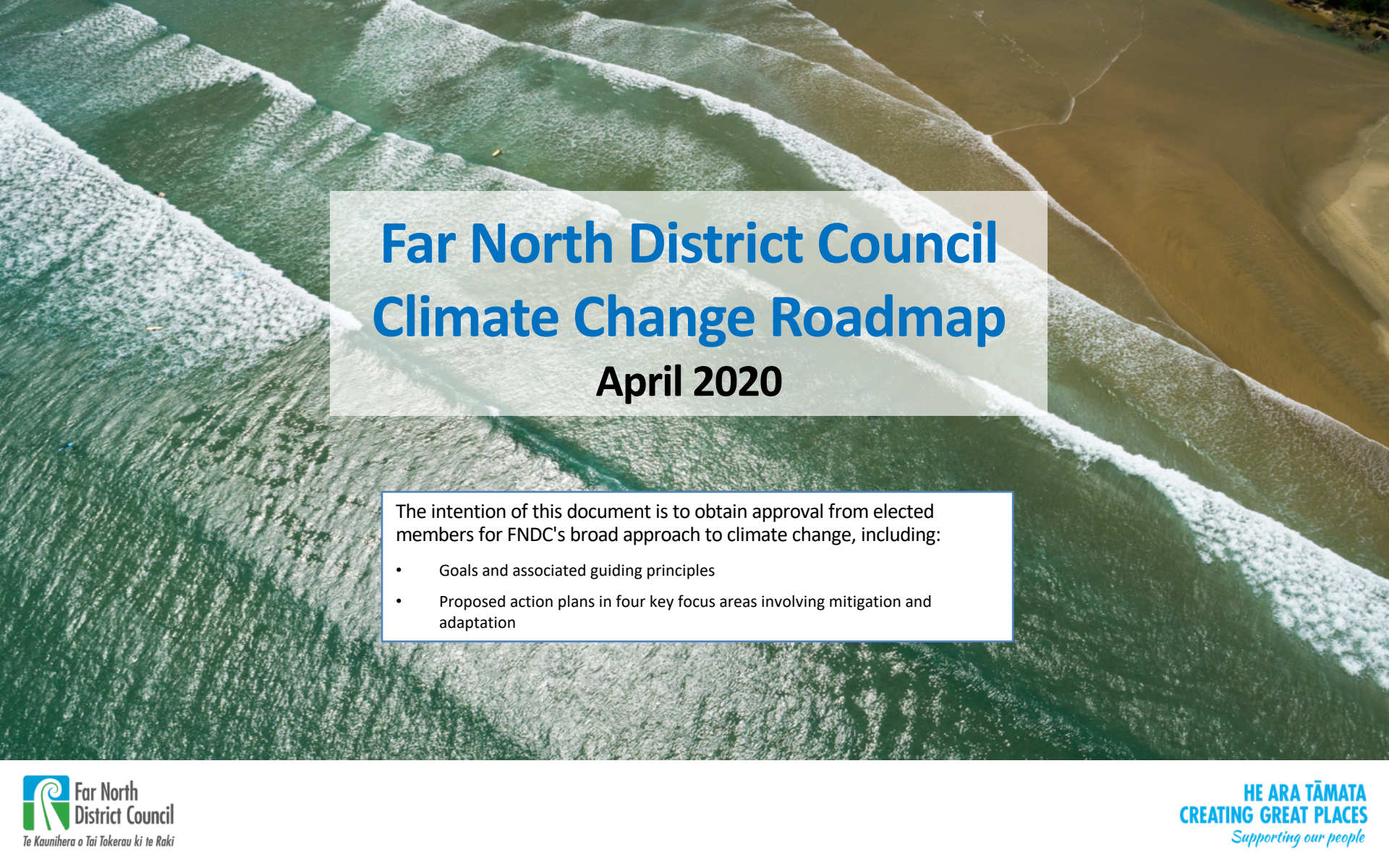




# Far North District Council Climate Change Roadmap

## April 2020

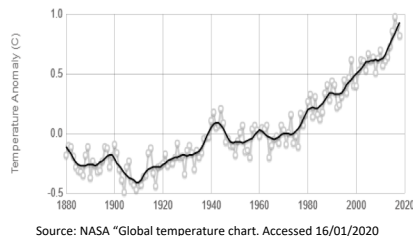
The intention of this document is to obtain approval from elected members for FNDC's broad approach to climate change, including:

- Goals and associated guiding principles
- Proposed action plans in four key focus areas involving mitigation and adaptation

# CLIMATE CHANGE CONTEXT AND COUNCIL'S RESPONSE

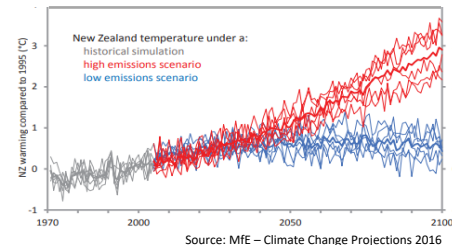
## GLOBAL CONTEXT

- 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).



## NATIONAL CONTEXT

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



## FAR NORTH CONTEXT

### Climate change effects

A range of impacts of climate change have been projected 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/drought
- Increased estuarine sedimentation
- Contamination of soil
- Salination of water sources/aquifers
- Slips and floods
- Damage to the transport and infrastructure networks
- Threat of vector diseases
- Threat of new agricultural pests.

## Significant risks to the community

- 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
- Agriculture/horticulture will be different, and the economy will change
- 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
- 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
- FNDC signed the Local Government Leaders Declaration in 2017, committing to “develop and implement **ambitious action plans**” for climate change mitigation and adaptation
- We are an active member of Climate Adaptation Te Tai Tokerau (CATT) 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 GOALS

- 1** Council reduces its own greenhouse gas emissions in line with the Government's national emission reduction targets or better.
- 2** Council supports the businesses and communities of the Far North towards a Carbon Zero 2050.
- 3** Council future-proofs its resources, assets and services from the risks of climate change.
- 4** Council works with the communities of the Far North to prepare for and adapt to the impacts of climate change.

*Council will engage in dialogue with the community on the goals 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 and will engage with tangata whenua regarding climate change issues.
- 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 and data on climate change becomes available.
- 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 FNDCC

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

United Nations

# TWO KEY RESPONSES TO CLIMATE CHANGE - MITIGATION & ADAPTATION

## Mitigation

### *Reducing or preventing the emission of greenhouse gases*

The 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 net 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.

## Adaptation

### *Adapting to climate change*

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

We will operationalise climate change adaptation so it becomes ‘business as usual’ through our strategies and plans including the Long Term Plan, the District Plan, our Infrastructure Strategy, Asset Plans and the Financial Plan. This will result in ‘on the ground’ infrastructure projects in the coming years that have climate change objectives and decision making in Council that is informed by climate change policy, standards and science.

## 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

### FOUR FOCUS AREAS

#### RESPONDING TO CLIMATE CHANGE

##### MITIGATION

##### ADAPTATION

#### COUNCIL

#### FOCUS AREAS

#### THE COMMUNITY

|                                                                                                            |                                                                                                                                           |
|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1<br>“Walking the talk”<br>Council reduces its carbon emissions                                            | 3<br>“Prudent future proofing”<br>Managing council’s services, resources and assets to future-proof them from the risks of climate change |
| 2<br>“Reducing our carbon emissions together”<br>Supporting our communities to achieve zero carbon by 2050 | 4<br>“Developing resilience”<br>Help our communities prepare for and adapt to the impacts of climate change                               |

“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                                                          |  |
| COUNCIL       | “walking the talk”<br>Council reduces its carbon emissions |  |
| FOCUS AREAS   |                                                            |  |
| THE COMMUNITY |                                                            |  |

**Goal of Focus Area 1: Council reduces its 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”

Allison 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
- To enable progress reporting as required by 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

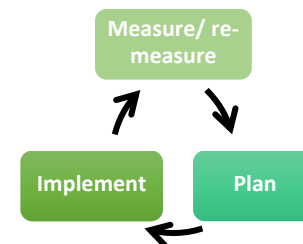
## BEING TRANSPARENT

- We will openly communicate the results of our emissions inventory and our improvement targets
- 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 where face to face meetings are required. 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

### 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

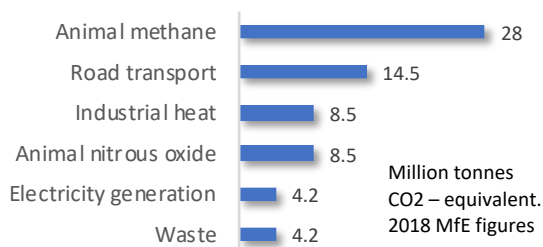
“Do an audit of the current state, set goals, then another audit in 12-24 months to compare improvements. Be open and accountable about our targets and progress towards them. Report to the public how we’re tracking”

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 ways that people can reduce their carbon footprint e.g. via links on the website
- Our plans will incorporate carbon emission reduction policies, in line with the government's GHG reduction plan
- We will support community projects that have carbon emission reduction objectives, as in the case study below.

## CASE STUDY:

### CRIMSON COAST ELECTRIC VEHICLE HIGHWAY

Since 2017 Council helped expand the EV charging station network in the Far North from one to eight stations. This was done by;

- Facilitating funding through ChargeNet NZ and the Energy Efficiency & Conservation Authority
- Making available Council land for the charging sites
- Collaborating 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:

- Infrastructure plans that, for example, extend the electric vehicle charging station network, foster multi-modal transport networks across the District and result in zero emission water and wastewater services.
- Development rules, local policies and regulation that, for example, might encourage commercial planting of trees to sequester carbon or support renewable energy use and production.

## ACKNOWLEDGING GOVERNMENT'S KEY ROLE IN SETTING NATIONAL POLICIES

Many of the broader 'levers' to reduce carbon emissions relate to government planning and policies that will be implemented at the Council in the future. For example

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

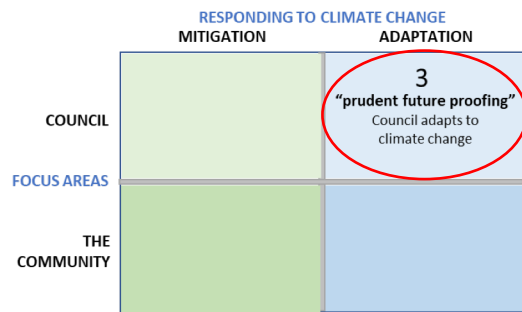
## COMMUNICATION & ADVOCACY

**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) – MANAGING COUNCIL’S SERVICES, RESOURCES AND ASSETS TO FUTURE-PROOF THEM FROM THE RISKS OF CLIMATE CHANGE



**Goal of Focus Area 3: Council future-proofs it's services, resources and assets from the risks of climate change**

## ADAPTATION ANTICIPATES CHANGE AND FOCUSES ON BEING PROACTIVE RATHER THAN REACTIVE

Identifying the risks of climate change and taking timely mitigating actions to reduce and prevent future damage is fundamental to effective adaptation.

This can be achieved using:

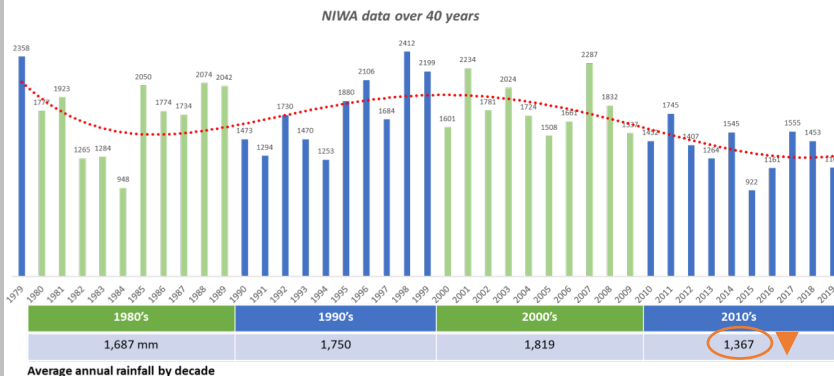
- predictive methods (where uncertainty is low)
- scenarios (where uncertainties are high)
- adaptive planning (where a trend exists such as rising sea level but the rate of change in the future is uncertain. Points on the trend-line will trigger particular responses)

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.

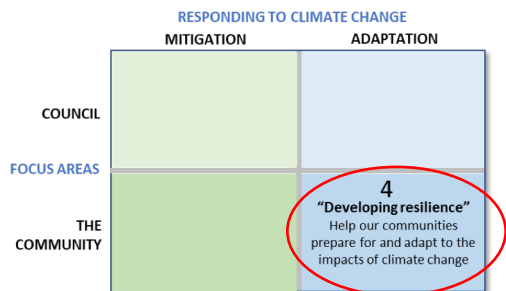
### RECOMMENDED APPROACH

1. Conduct evidence-based and location-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 adaption 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

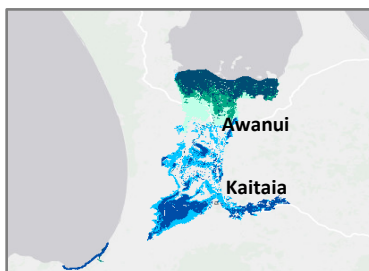


**Goal of Focus Area 4: Council works with the communities of the Far North to prepare for and adapt to the impacts of climate change**

## 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. 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 including the funding of the response to climate change, 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 GOALS

## 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:<br>Valuing the outstanding beauty of our District            | ✓                                                     |                                                     |                                                                                            |                                                                             |
| He waka hourua:<br>Fit-for-purpose infrastructure underpinning success        |                                                       |                                                     | ✓                                                                                          |                                                                             |
| Kokiri tahi:<br>Empowered communities working collaboratively                 |                                                       | ✓                                                   |                                                                                            | ✓                                                                           |
| Oranga taiao, oranga tangata:<br>Nurturing the environment so it nourishes us | ✓                                                     | ✓                                                   | ✓                                                                                          | ✓                                                                           |
| Oranga kainga:<br>A thriving, sustainable local economy                       |                                                       | ✓                                                   |                                                                                            | ✓                                                                           |
| Mana i te whenua:<br>The role of tangata whenua is valued and respected       |                                                       | ✓                                                   |                                                                                            | ✓                                                                           |
| Te ira tangata:<br>Rich heritage and diversity respected and celebrated       |                                                       | ✓                                                   |                                                                                            | ✓                                                                           |
| Tangata whai ora:<br>Happy, healthy, safe and purposeful people               |                                                       | ✓                                                   |                                                                                            | ✓                                                                           |
| Whanau:<br>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 (refer to Reference # 14 at the end of this document which contains the consultation paper 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, existing private assets, or the management of public 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

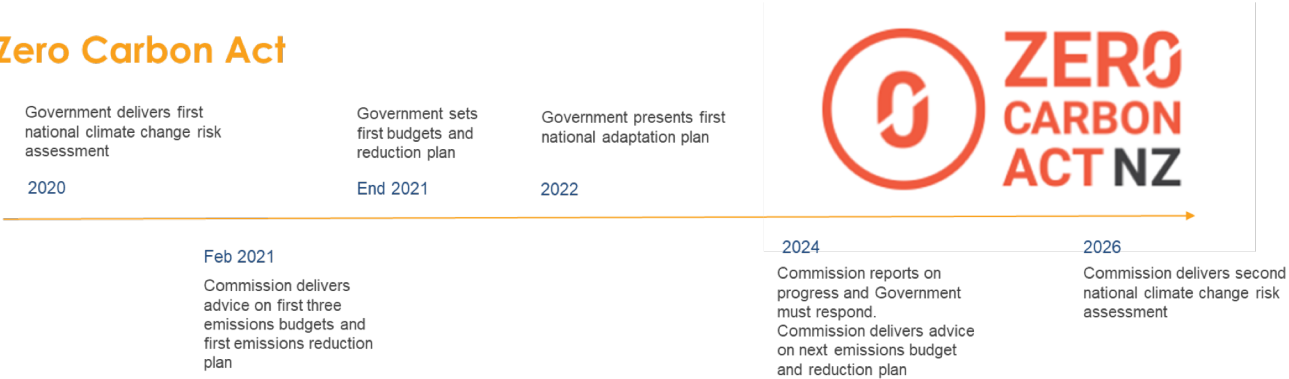
“When it comes to climate change we are in the beautiful position of knowing what our choices are. We can feel a real sense of opportunity about the future - what role our science can play, and how people can contribute”

Dr Sam Dean, Principal Scientist, NIWA

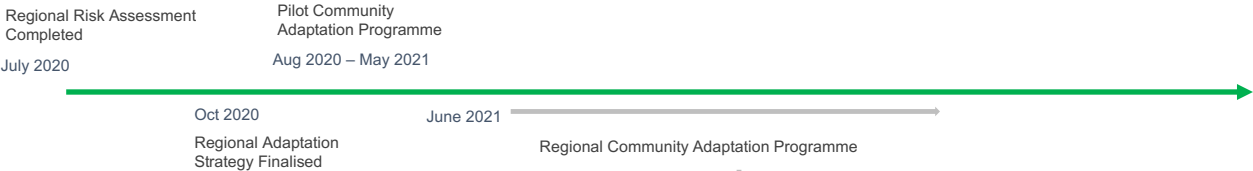
“Sometimes the riskiest decision you can make is to do nothing”

Richard Branson

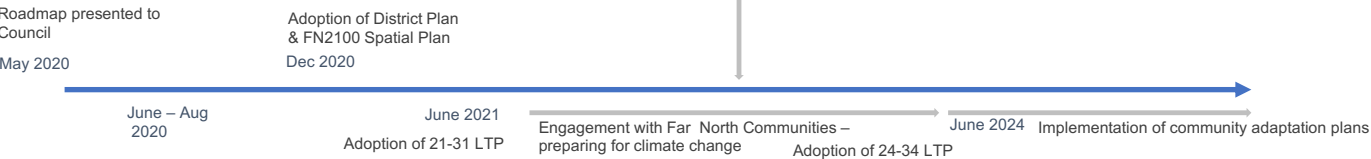
## The Zero Carbon Act

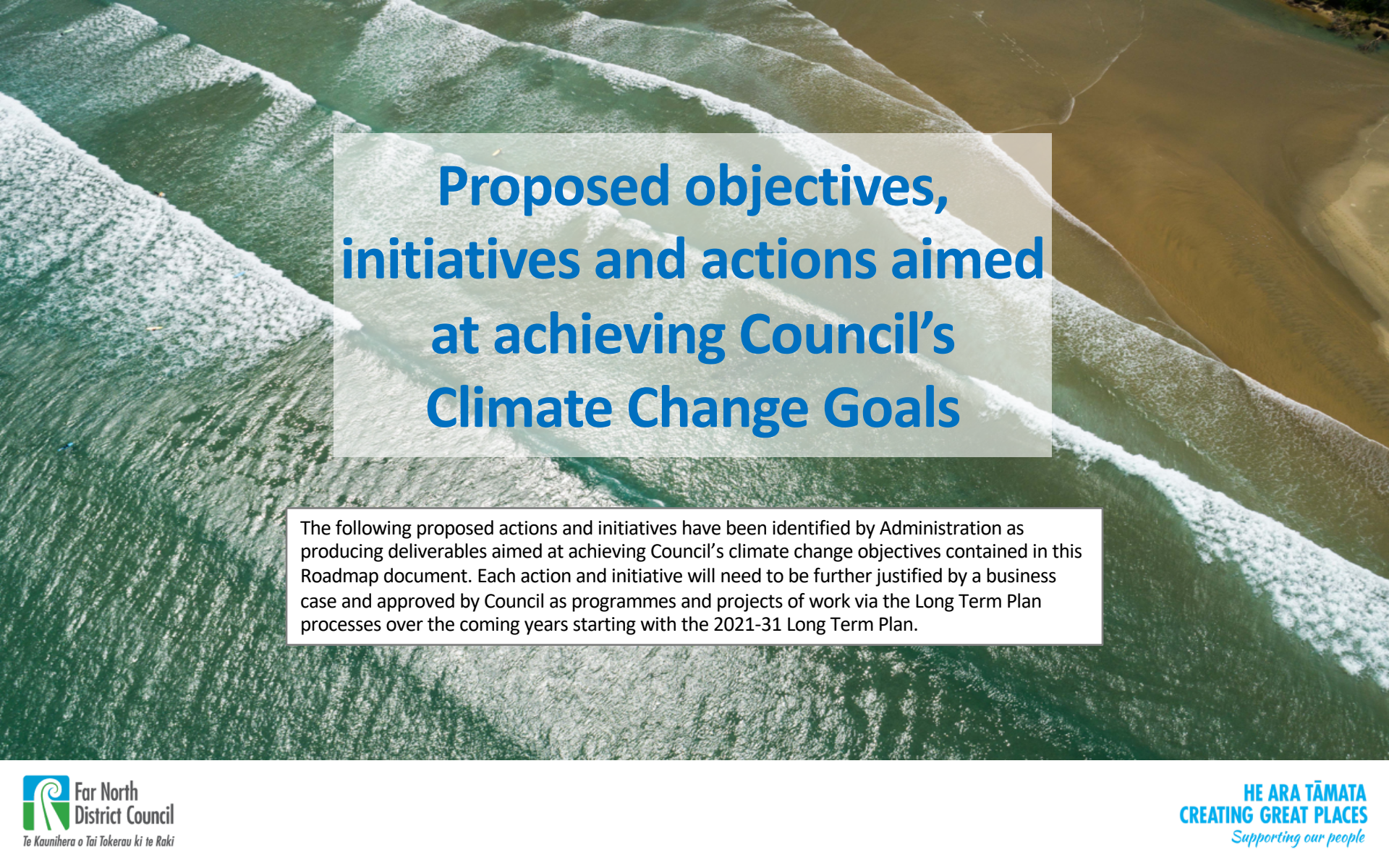


## Climate Adaptation Te Tai Tokerau (CATT)



## FNDC





# Proposed objectives, initiatives and actions aimed at achieving Council's Climate Change Goals

The following proposed actions and initiatives have been identified by Administration as producing deliverables aimed at achieving Council's climate change objectives contained in this Roadmap document. Each action and initiative will need to be further justified by a business case and approved by Council as programmes and projects of work via the Long Term Plan processes over the coming years starting with the 2021-31 Long Term Plan.

# 1. COUNCIL TO REDUCE ITS CARBON EMISSIONS

| Goal                                                                                                                         | Objectives                                                                                                                                                                                      | Initiative                                                                                                                                                                   | Actions - Outputs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Accountability                | Indicative cost                                                                                                      | Now 20-21 | Short term 21-24 LTP | Medium term 2024 to 2050 | Long term After 2050 |
|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------|-----------|----------------------|--------------------------|----------------------|
| Council reduces its own greenhouse gas emissions in line with the government's national emission reduction targets or better | <p>Council's emissions of methane reduced by 10% below 2017 levels by 2030 and 47% by 2050 or earlier.</p> <p>Council's net emissions of all other greenhouse gases reduce to zero by 2050.</p> | <p>Initial Carbon footprint reduction programme</p> <p><i>(must do in preparation for the implementation of the Climate Change Response (Zero Carbon) Amendment Act)</i></p> | Baseline Carbon Footprint produced                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Strategic Planning and Policy | \$40,000                                                                                                             | ✓         |                      |                          |                      |
|                                                                                                                              |                                                                                                                                                                                                 |                                                                                                                                                                              | Develop initial carbon footprint reduction programme for 21-31 LTP developed from baseline carbon footprint                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Strategic Planning and Policy | \$25,000                                                                                                             | ✓         |                      |                          |                      |
|                                                                                                                              |                                                                                                                                                                                                 |                                                                                                                                                                              | <p>Implementation of initial carbon footprint reduction programme for 21-24 LTP:</p> <p>Possible projects aimed at reducing carbon footprint (LTP 21-24):</p> <ol style="list-style-type: none"> <li>1. Appoint sustainability programme manager - responsible for implementing the carbon footprint reduction programme</li> <li>2. Investigation into carbon credits as long term sustainable source of income for Council with the aim of becoming cost neutral as well as carbon neutral realised through the Council land and reserves estate.</li> <li>3. Implement triple bottom line reporting</li> <li>4. Implement a carbon footprint monitoring system with carbon footprint dashboard.</li> <li>5. Reduction of electricity usage from fossil fuels</li> <li>6. Minimise waste, maximise recycling</li> <li>7. Transition vehicle fleet to low and zero emission vehicles</li> <li>8. Incentivise employees who take action to reduce their individual carbon footprints (i.e. reward and recognition for not flying, using technology, using low emission forms of transport etc.)</li> </ol> | Strategic Planning and Policy | <p>\$750,000 spread across the following LTP years</p> <p>2021-22<br/>2022-23<br/>2023-24</p> <p>Future LTPs TBD</p> |           | ✓                    | ✓                        |                      |

# 1. COUNCIL TO REDUCE ITS CARBON EMISSIONS CONT'D

| Goal                                                                                                                         | Objectives                                                                                                                                                                              | initiatives                                                                                                       | Actions - Outputs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Account ability               | Indicative Cost                                                                                  | Now 20-21 | Short term 21-24 LTP | Medium term 2024 to 2050 | Long term After 2050 |
|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------------------------------------------------------------------------------------------------|-----------|----------------------|--------------------------|----------------------|
| Council reduces its own greenhouse gas emissions in line with the government's national emission reduction targets or better | Council's emissions of methane reduce by 10% below 2017 levels by 2030 and 47% by 2050 or earlier.<br><br>Council's net emissions of all other greenhouse gases reduce to zero by 2050. | Further Carbon Footprint reduction programmes – planned into each LTP                                             | Complete Carbon Footprint – preparation for 2024-34 LTP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Strategic Planning and Policy | \$50,000                                                                                         |           | ✓                    |                          |                      |
|                                                                                                                              |                                                                                                                                                                                         | <i>(must do in preparation for the implementation of the Climate Change Response (Zero Carbon) Amendment Act)</i> | Implementation of carbon footprint reduction programme for 24-27 LTP:<br><br>Possible projects aimed at reducing carbon footprint (LTP 21-24):<br>1. Realisation of financial benefits from carbon credits from Council land and reserves estate<br>2. Investment in the purchase and development of further land as carbon credits<br>3. Green Council building initiatives initiated<br>4. Continue to incentivise employees who take action to reduce their individual carbon footprints (i.e. – reward and recognition for not flying, using technology, using low emission or no emission forms of transport etc.) | Strategic Planning and Policy | Cost neutral – cost of projects offset by carbon credits vested in the Emissions Trading Scheme. |           |                      | ✓                        | ✓                    |
|                                                                                                                              |                                                                                                                                                                                         | Further Carbon Footprint reduction programmes in LTPs out to 2050                                                 | Council continues to measure, plan and implement Carbon Footprint minimisation programmes out to 2050 – achieving carbon zero carbon and realising the benefits from its investment in carbon credits                                                                                                                                                                                                                                                                                                                                                                                                                   | Strategic Planning and Policy | Cost neutral                                                                                     |           |                      | ✓                        | ✓                    |

## 2. SUPPORTING OUR COMMUNITIES TOWARDS A CARBON ZERO 2050

| Goal                                                                                               | Objectives                                                                                                                                                                                     | Initiatives                                                                                                                                                                                                                                               | Actions - Outputs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Account-ability               | Indicative Cost                                        | Now 20-21 | Short term 21-24 LTP | Medium Term 2024-2050 | Long Term After 2050 |
|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------------------------------------------------------|-----------|----------------------|-----------------------|----------------------|
| <b>Council supports the businesses and communities of the Far North towards a carbon zero 2050</b> | <p>The community's emissions of methane reduce by 10% below 2017 levels by 2030 and 47% by 2050 or earlier.</p> <p>The net emissions of all other greenhouse gases reduce to zero by 2050.</p> | <p>Community Zero Carbon initiatives</p> <p><i>(Should do based on supporting the businesses and communities of the Far North District in achieving their own emission targets under the the Climate Change Response (Zero Carbon) Amendment Act)</i></p> | <p>Review of all current strategies and plans to determine what initiatives that are being put forward will result in a reduction of the District's Carbon Footprint via changing investments and behaviours on the part of households and businesses. This will include:</p> <ol style="list-style-type: none"> <li>1. District Plan – land use changes</li> <li>2. Transport Strategy and Plans – NZTA is favourable towards more low emission forms of transportation (multi-modal forms of transportation)</li> <li>3. Infrastructure strategies including reserves and open spaces</li> <li>4. Waste minimisation plans</li> </ol>                                                                      | Strategic Planning and Policy | \$25,000                                               | ✓         |                      |                       |                      |
|                                                                                                    |                                                                                                                                                                                                |                                                                                                                                                                                                                                                           | <p>Develop and Implement an online District Environmental Dashboard that is publicly available in service centres, online, can be taken on tablets to community meetings and to schools. This will contain</p> <ol style="list-style-type: none"> <li>1. Carbon output and sinks. The District Carbon Footprint</li> <li>2. Water usage, Waste produced etc.</li> </ol>                                                                                                                                                                                                                                                                                                                                      | Strategic Planning and Policy | \$150,000                                              |           | ✓                    |                       |                      |
|                                                                                                    |                                                                                                                                                                                                |                                                                                                                                                                                                                                                           | <p>Collaborate with project managers of each project coming out of the above strategies to develop:</p> <ol style="list-style-type: none"> <li>1. Communications and community engagement plans that inform how the outcome of the project will reduce the District's carbon footprint</li> <li>2. Update District Carbon Footprint with each successfully implemented project via the District Environmental Dashboard</li> <li>3. Update and inform the community regarding the future initiatives of Council that will reduce the District's Carbon Footprint (ongoing)</li> </ol> <p>Success measured via successful projects resulting in positive measures on the District Environmental Dashboard</p> | Strategic Planning and Policy | \$150,000 for 2021-24 LTP years<br><br>Future LTPs TBD |           | ✓                    | ✓                     | ✓                    |

### 3. MANAGING COUNCIL'S SERVICES, RESOURCES AND ASSETS TO FUTURE-PROOF THEM FROM THE RISKS OF CLIMATE CHANGE

| Goal                                                                                             | Objectives                                                                                                                                                     | Initiatives                                                                                                                                                                     | Actions - Outputs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Account-ability                                                                                          | Indicative cost                                                                          | No w 20-21 | Short term 21-24 LTP | Medi um Term 2024-2050 | Long Term After 2050 |
|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|------------|----------------------|------------------------|----------------------|
| <b>Council future proofs its services, resources and assets from the risks of climate change</b> | Council develops it's climate change toolkit in preparation for Community Engagement and Infrastructure Planning for the three year period starting July 2021. | Climate Change Policies and Strategies adopted by Council.<br><i>(must do in preparation for the implementation of the Climate Change Response (Zero Carbon) Amendment Act)</i> | <ol style="list-style-type: none"> <li>1. Policy on the source of truth for the Science behind climate change (sea level rise, temperature increase, weather</li> <li>2. Policy on Dynamic Adaptive Planning Pathway (DAPP) as the tool that will inform Infrastructure Planning and community engagement on climate change. This will include benefit cost analysis and scenario requirements</li> <li>3. Legal liability and financial risk assessment completed on the impacts of climate change policy on Council</li> <li>4. Te Takakura Climate Change Adaptation Strategy (combined with NRC, WDC, KDC)</li> <li>5. Climate change policies and strategies embedded and referenced in the District Plan review, the 2021-31 Long Term Plan including the Infrastructure Strategy and Financial Strategy.</li> </ol>                                                                                                                              | Strategic Planning and Policy                                                                            | \$50,000                                                                                 | ✓          |                      |                        |                      |
|                                                                                                  |                                                                                                                                                                | Climate Change Policies and Strategies implemented into Council decision making processes (Governance and Management).<br><i>(must do in – as above)</i>                        | <ol style="list-style-type: none"> <li>1. Education and training (change management) of Council Staff on Climate Change Policies (DAPP) and what it means for each group, department and team (change management support)</li> <li>2. Stock take of Council Assets (Waters, Transport Networks, Social Infrastructure – including open spaces, parks and reserve) that will be impacted by Climate Change. Details captured on Asset Management System (spatial data and non-spatial data) - co-requisite project – project Darwin</li> <li>3. Financial models developed to inform scenarios and benefit cost analysis – aligned with revenue review and risk assessment.</li> <li>4. Implementation of Climate Change Policies into Council reporting and decision making (compliance schedule, education of elected members, financial disclosure and risk reporting)</li> <li>5. Specific metrics and KPIs developed for climate change.</li> </ol> | Lead: Strategic Planning and Policy<br><br>Infrastructure and Asset Management<br><br>Corporate Services | \$150,000 for following years<br><br>2021-22                                             |            | ✓                    |                        |                      |
|                                                                                                  | 4. HELPING OUR COMMUNITIES PREPARE FOR AND ADAPT TO THE IMPACTS OF CLIMATE CHANGE (detail on the next page)                                                    |                                                                                                                                                                                 | Action and Outputs from working with our communities that will inform how Council, via future LTPs, will future proofs its services, resources and assets from the risks of climate change: <ol style="list-style-type: none"> <li>1. Community aspirations for climate change captured by Administration by applying DAPP and Financial Models as part of community engagement</li> <li>2. Asset management, finance and corporate planning systems updated based on outcome of applying DAPP and Financial Models as part of community engagement and consultation.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                        | Strategic Planning and Policy > Community Engagement<br><br>Infrastructure and Asset Management          | \$100,000 spread across the following years<br>2022-23<br>2023-24<br><br>Future LTPS TBD |            | ✓                    | ✓                      | ✓                    |

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

| Goal                                                                                                                 | Objectives                                                                                                                                                                                                                                       | Initiatives                                                                                                                                                  | Actions - Outputs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Account-ability                                                            | Indicative cost                                                                | Now 20-21 | Short term 21-24 LTP | Medium Term 2024-2050 | Long Term After 2050 |
|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|--------------------------------------------------------------------------------|-----------|----------------------|-----------------------|----------------------|
| <b>Council works with the communities of the Far North to prepare for and adapt to the impacts of climate change</b> | Council engages and consults with the community using its adopted Climate Change Toolkit over the period of 2021-2024 and then into future years so as to inform future Long Term Plans including future Financial and infrastructure Strategies | Community Engagement Plans adopted<br><br><i>(must do in preparation for the implementation of the Climate Change Response (Zero Carbon) Amendment Act)</i>  | <ol style="list-style-type: none"> <li>Broad communications to the public on policy and intent of Council to consult and engage with communities is delivered</li> <li>Plan for community consultation is adopted by Council. This will outline over the coming years the order in which communities will be consulted on with using DAPP and the financial models adopted by Council This is aligned with NRC's implementation of the Te Taikōkerāu Climate Change Adaptation Strategy</li> <li>Administration develop Community engagement collateral and individual plans based on local community knowledge</li> <li>Council communicates the adopted plans to the public via website and other communication channels.</li> </ol> | Strategic Planning and Policy                                              | \$25,000                                                                       | ✓         |                      |                       |                      |
|                                                                                                                      |                                                                                                                                                                                                                                                  | Community Engagement Plans executed<br><br><i>(must do in preparation for the implementation of the Climate Change Response (Zero Carbon) Amendment Act)</i> | <ol style="list-style-type: none"> <li>Each individual communities engagement and consultation plan on climate change is executed.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Strategic Planning and Policy with support from Northland Regional Council | \$210,000 for each of:<br>2021-22<br>2022-23<br>2023-24<br><br>Future LTPs TDB |           | ✓                    | ✓                     |                      |
|                                                                                                                      | The 2024-34 Long Term Plan includes specific projects resulting from community engagement                                                                                                                                                        | The 2024-24 Infrastructure Strategy and resulting projects have specific climate change adaptation outcomes for Far North Communities                        | <ol style="list-style-type: none"> <li>Infrastructure projects for transport, waters, parks, playgrounds will have clearly defined, community informed Climate Climate change adaptation outcomes.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Infrastructure and Asset Management                                        | \$250,000                                                                      |           |                      | ✓                     |                      |

## 6.INDICATIVE COST BREAKDOWN – THREE YEARS OF THE 2021-31 LONG TERM PLAN

|                                                                                        | Focus Area                                                                                               | Initiative                                                                                                                                                                                                           | Indicative Cost<br>2021-22 | Indicative Cost<br>2022-23 | Indicative Cost<br>2023-24 | Total Indicative<br>Cost  |
|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|----------------------------|----------------------------|---------------------------|
| <b>Cost<br/>Breakdown<br/>for each<br/>initiative –<br/>Long Term<br/>Plan 2021-31</b> | Council to reduce its carbon emissions                                                                   | Carbon Footprint Reduction Programme (including the employment of a Sustainability Programme Manager)                                                                                                                | \$250,000                  | \$250,000                  | \$250,000                  | <b>\$750,000</b>          |
|                                                                                        |                                                                                                          | Carbon footprint for 2024-34 LTP                                                                                                                                                                                     |                            |                            | \$50,000                   | <b>\$50,000</b>           |
|                                                                                        | Supporting our communities towards a carbon zero 2050                                                    | Community zero carbon initiatives –implementation of environmental dashboard                                                                                                                                         | \$50,000                   | \$100,000                  |                            | <b>\$150,000</b>          |
|                                                                                        |                                                                                                          | Updating of community environmental dashboard                                                                                                                                                                        | \$30,000                   | \$60,000                   | \$60,000                   | <b>\$150,000</b>          |
|                                                                                        | Managing council's, services, resources and assets to future-proof them from the risks of climate change | Council develops it's climate change toolkit in preparation for Community Engagement and Infrastructure Planning for the three year period starting July 2021                                                        | \$150,000                  |                            |                            | <b>\$150,000</b>          |
|                                                                                        |                                                                                                          | Asset management, finance and corporate planning systems updated based on the outcome of applying the Dynamic Adaptive Planning Pathway (DAPP) and Financial Models as part of community engagement and consultation |                            | \$50,000                   | \$50,000                   | <b>\$100,000</b>          |
|                                                                                        | Helping our communities prepare for and adapt to the impacts of climate change                           | Community Engagement Plans executed in alignment with Northland Regional Council                                                                                                                                     | \$210,000                  | \$210,000                  | \$210,000                  | <b>\$630,000</b>          |
| <b>Totals</b>                                                                          |                                                                                                          |                                                                                                                                                                                                                      | <b>\$690,000</b>           | <b>\$670,000</b>           | <b>\$620,000</b>           | <b><u>\$1,980,000</u></b> |



# References

# References

1. FNDC *Staff Climate Change Survey Report* (Nov 2019)
2. FNDC Climate Change Working Group, *SWOT Analysis* (Nov 2019)
3. Long-Term Climate Statistics sourced from NIWA – Temperature and Rainfall charts for Kerikeri and Kaitaia
4. NIWA Northland climate change projections and impacts [LINK](#)
5. Northland Regional Council, flood and coastal hazard maps [LINK](#)
6. LGNZ, *Local Government Leaders' Climate Change Declaration* (2017) [LINK](#)
7. MfE, *Preparing for climate change – A guide for local government in New Zealand* (2008) [LINK](#)
8. Joel MacManus, *Climate Change: Everything New Zealand needs to do to get to zero carbon* (Nov, 2019) [LINK](#)
9. TTCCAWG, *Northland adaptation update report – CE Forum* (Feb 2020)
10. Whakatane District Council, *Draft Climate Change Principles* (2019) [LINK](#)
11. Bay of Plenty Regional Council, *Climate Change Action Plan* (July 2019) [LINK](#)
12. Tasman District Council, *Tasman Climate Action Plan* (2019) [LINK](#)
13. The Deep South National Science Challenge – Catherine Iorns and Jesse Watts, *Adaptation to Sea-Level Rise: Local Government Liability Issues* (2019) [LINK](#)
14. MfE and MBIE, *Climate-related financial disclosures – Understanding your business risks and opportunities related to climate change: Discussion Paper* (2019) [LINK](#)
15. Motu Economic & Public Policy Research, *Climate Change & Stormwater Systems* [LINK](#)