Climate Change Working Party

Wednesday 25 November 2020 at 3:30pm

AGENDA

Northland REGIONAL COUNCIL

Te Kaunihera ā rohe o Te Taitokerau

Climate Change Working Party Agenda

Meeting to be held in the Ngunguru Room
36 Water Street, Whangārei
on Wednesday 25 November 2020, commencing at 3:30pm

Please note: working parties and working groups carry NO formal decision-making delegations from council. The purpose of the working party/group is to carry out preparatory work and discussions prior to taking matters to the full council for formal consideration and decision-making. Working party/group meetings are open to the public to attend (unless there are specific grounds under LGOIMA for the public to be excluded).

MEMBERSHIP OF THE CLIMATE CHANGE WORKING PARTY

Chairperson, Councillor Amy Macdonald

Councillor Joce Yeoman	Ex Officio Penny Smart	Councillor Jack Craw
Councillor Marty Robinson	Councillor Toa Faneva	Ngātiwai Trust Board Hadyn Edmonds
Councillor Thomas Hohaia	Te Whakapiko Hapū Rowan Tautari	

TITLE:	**Adaptation Strategy & Joint Committee updates**
ID:	A1379726
From:	Justin Murfitt, Strategic Policy Specialist
Authorised by Group Manager:	Jonathan Gibbard, Group Manager - Environmental Services, on date 09 November 2020

Executive summary/Whakarāpopototanga

1. This report provides an update on progress with the regional adaptation strategy and establishment of the Joint Climate Change Committee.

Recommended actions

1. That the report "Adaptation Strategy & Joint Committee Updates" be received.

Background/Tuhinga

Joint Climate Change Adaptation Committee The establishment of a Joint Standing Committee of councils and tangata whenua is progressing well and procedural steps should be complete by the end of 2020. It is therefore likely the first meeting of the committee will be early 2021 (likely February / March).

An update on appointments / nominations is provided below:

Northland Regional Council

Councillors Amy McDonald (primary) Jack Craw (back-up). Tangata whenua members Toa Faneva (as primary) and Thomas Hohaia (back-up).

Whangarei District Council

Councillors Anna Murphy (primary) and Greg Innes (back-up). Tangata whenua members Delaraine Armstrong (primary) and Rosie Wellington (back-up) subject to council endorsement in November.

Kaipara District Council

Mayor Jason Smith (primary) and Councillor Wilson-Collins (back-up). Tangata whenua members to be endorsed in December.

Far North District Council

Appointments to be confirmed December.

Regional Climate Change Adaptation Strategy

The Te Taitokerau Adaptation Strategy is now in early stages of development and will ultimately outline a ten-year work program to develop adaptation plans for key locations across the region. The strategy will pull together information from a series of four reports covering:

a) foundational principles,

b) a climate risk assessment in three parts,

c) adaptation options for local government, and

d) a 10-year adaptation plan.

An outline of the programme is provided below:

Title	Description	Indicative timing
Adaptation Accord	Accord/founding principles (if needed)	TBC
Climate Change Risk Assessment Part A Climate Risk Descriptions	Technical report - summary of climate risks in Northland (qualitative)	Dec-20
Climate Change Risk Assessment Part B Coastal risk analysis and risk profiles	Technical report, risk profiles + interactive maps	Mar-21
Climate Change Risk Assessment Part C Climate risk and Māori (scope)	Literature review / scoping for report on Climate Risk and Maori	Mar-21
Climate Change Risk Assessment Part C Climate risk and Māori (TBC)	TBD (dependant on scope outline above)	TBD
Adaptation tools for local government	Technical report - Statutory and non-statutory adaptation mechanisms / tools available to councils	Dec-20
Adaptive pathways scoping report	Dynamic adaptive pathway planning and program scoping	Jun-21
Regional Adaptation Strategy	Synthesis report	Aug-21
Regional Adaptation Plan	10-year Collaborative Adaptation Program (locations, methodology and timelines)	Dec-21

Attachments/Ngā tapirihanga

Nil

TITLE:	**Natural Hazard Maps**
ID:	A1379732
From:	Justin Murfitt, Strategic Policy Specialist
Authorised by Group Manager:	Jonathan Gibbard, Group Manager - Environmental Services, on date 10 November 2020

Executive summary/Whakarāpopototanga

Council is in the process of updating some of the natural hazard maps for Northland. The indicative timing and process for the public release of these maps is outlined below. It is recommended that the release of the maps be accompanied by a communications plan and briefing for elected members.

Recommended actions

1. That the report "Natural Hazard Maps" be received.

Background/Tuhinga

Council is in the process of updating natural hazard maps for Northland. These include river flood hazards and coastal erosion and flood hazards as follows:

- Priority river flood hazard zones (Awanui, Kerikeri and Waipu – 10yr, 50yr and 100yr with climate change)
- Region-wide flood hazard zones (non-regulatory layers 10yr, 50yr and 100yr with climate change)
- New (site specific) coastal erosion hazard zones:
- New coastal flood hazard zones for the entire coast

The coastal hazard maps include a range of events, sea level rise factors and timeframes – for example: CFHZ0 = 100yr event no SLR; CFHZ1 = 50yr event 0.6m SLR (RCP8.5M @2080); CFHZ2 = 100yr event 1.2m SLR (RCP8.5M @2130); CFHZ3 = 100yr event 1.5m SLR (RCP8.5H+ @2130).

NRC Natural hazards - map release programme overview

Hazard map	Hazard layers	Status	Approximate release date
Priority Rivers flood hazard zones	10yr,50yr,100yr+ CC	Complete	released
Region-wide flood hazard zones	10yr,50yr,100yr+ CC	In progress	Jun-21
Coastal flood hazard zones	CFHZ 0,1,2	In progress	Feb-21
	CFHZ3*	In progress	Feb-21
Coastal erosion hazard zones	CEHZ 0,1,2	Draft maps received	Feb-21
	CEHZ3*	Draft maps received	Feb-21

*it is likely that the CFHZ 3 and CEHZ3 layers will be non-statutory – that is will be for information purposes only given they reflect an 'extreme' scenario.

Next steps
It is recommended that the coastal hazard maps be released together in February 2021 (once they have been technically reviewed). In the past, council has released hazards maps in draft form and provided an opportunity for landowners / affected parties to provide feedback. This is important given the maps have implications for landowners in mapped areas as development / property rights are likely to be affected - the Regional Policy Statement for Northland directs that district councils are to include the relevant natural hazard maps in their district plans and to apply rules on land use and subdivision to manage the risk of natural hazards - district councils also reference the maps on Land Information and Property Information Memoranda (LIM's and PIM's).

It is recommended that the process / steps outlined below be used for the release of the coastal hazard maps in February 2021. An outline is provided below:

- internal technical review/QA process (December 2020)
- workshop with council (December 2020 / early 2021)
- communications plan (and FAQ's) developed in conjunction with district council staff (early 2021)
- workshop with elected members of district councils (early 2021)
- Advisory notices to affected landowners (form to TBC)
- Public release of draft coastal hazard maps (February 2021)
- Feedback period of 3 months (TBC).
- Revision of draft maps (as needed)
- Maps finalised.

Comment / feedback from the Working Party members would be appreciated.

Attachments/Ngā tapirihanga

Nil

TITLE:	**Research and Policy Updates**
ID:	A1379719
From:	Justin Murfitt, Strategic Policy Specialist and Matt De Boer, Natural Hazards Advisor
Authorised by Group Manager:	Jonathan Gibbard, Group Manager - Environmental Services, on date 09 November 2020

Executive summary/Whakarāpopototanga

Recommended actions

1. That the report be received.
2. That staff continue to provide updates to the Working Party on national initiatives and research related to climate change.

Background/Tuhinga

1. **NZ Institute for Economic Research (Department of Internal Affairs - Community Resilience Work Programme) Investment in Natural Hazards Mitigation** - a copy of the full report is here https://www.dia.govt.nz/diawebsite.nsf/Files/Central-Local-Government-Partnerships/$file/NZIER-Natural-hazards-mitigation-report-2020.pdf
    - Central government spending on recovering from natural disasters over the last decade
    - Likely recovery costs and economic losses that central government is likely to face over the next 30 years by hazard category
    - The scale of benefits that can be achieved in New Zealand from investment in hazard mitigation measures.

2. **Minister for Environment James Shaw – Mandatory disclosure of climate-related financial risks** https://www.beehive.govt.nz/release/new-zealand-first-world-require-climate-risk-reporting

3. **NIWA research** – a funding bid for large-scale climate adaptation research project in Northland. NRC staff (Matt de Boer, Richie Griffiths (science team) and others) met with NIWA researchers and discussed involvement in scoping and development of the program. Includes a focus on understanding impacts on natural systems including hydrology, hydro-geology/groundwater, tidal habitat (saltmarsh and mangrove), calculating blue carbon stocks, socio-ecological systems and adaptive pathways.

4. **Resilience to Nature's Challenges research** – NRC staff are involved in a research project with GNS and Victoria University on implementation of adaptive pathways programs in statutory plans.

5. **Sea level rise law** – Adaptation to Sea-Level Rise: Local Government Liability Issues

This report addresses the legal framework surrounding local government responsibilities to adapt to the coastal hazards associated with the sea-level rise from climate change. Significant work has already been done in this area, including a legal opinion from Simpson Grierson for LGNZ, and other academic work on individual elements of the legal framework. This paper tries to pull these together and summarise aspects that are relevant for the potential future actions necessary, including:

- general considerations in climate adaptation measures, including relevant values, the precautionary principle, and direction and guidance on coastal hazards from central government
- new developments - the prevention of them or placing conditions on development
- coastal protection works in hazardous coastal areas
- managed retreat, particularly the difficulties within the current legal rules and ways that it may be able to be undertaken
- existing residential use rights and how these might be modified under a Regional Plan
- the use of acquisition and information instruments
- liability in negligence for council consenting decisions.

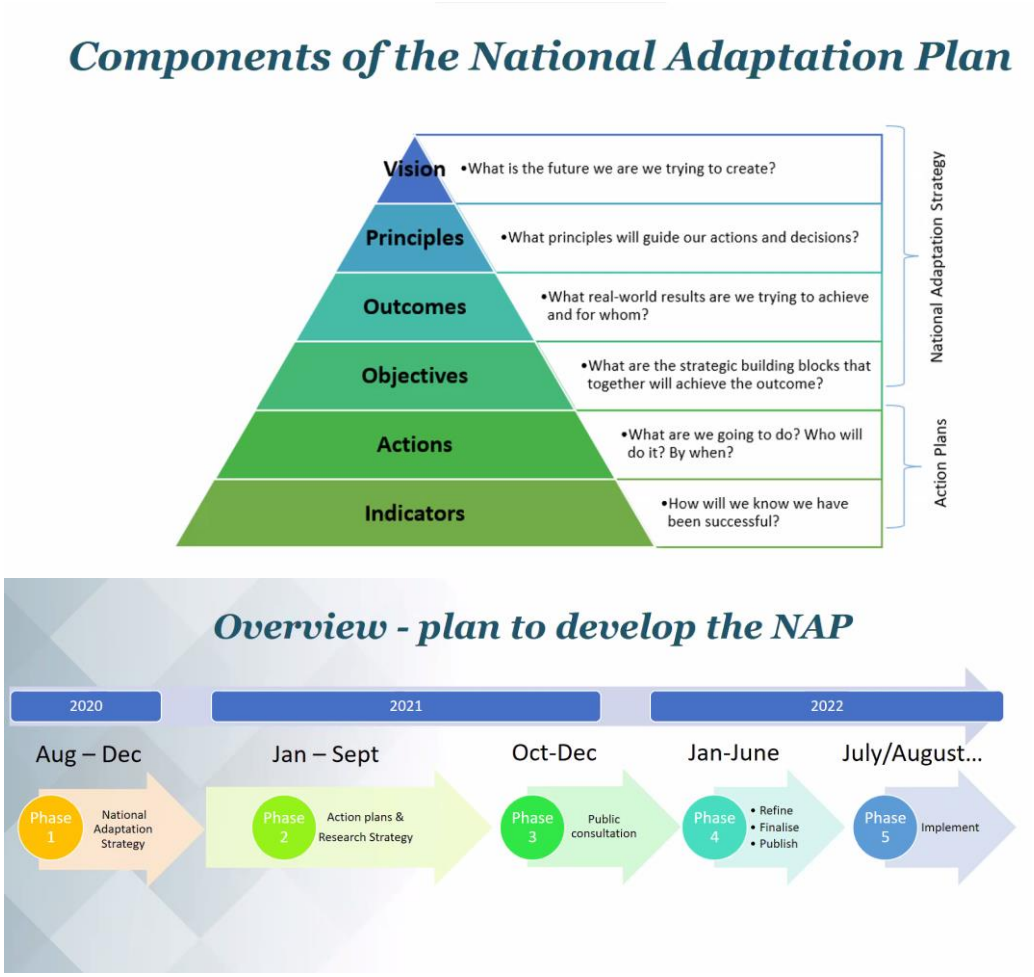
Catherine Iorns (VUW) reports are available through the Deep South Challenge.
https://www.deepsouthchallenge.co.nz/news-updates/sea-level-rise-and-law-who-liable

Other reports include:

- Case Studies on Insurance and Compensation after Natural Disasters
- Sea-level rise and local government: Policy gaps and opportunities
- The extent of EQC liability for damage from sea-level rise
- Treaty of Waitangi duties relevant to adaptation to coastal hazards from sea-level rise

6. MfE Climate change update

- Our atmosphere and climate 2020 – documents changes to our climate using data from 30 sites around NZ, how these changes are beginning to affect us and an overview of NZ's emissions profile: https://www.mfe.govt.nz/publications/environmental-reporting/our-atmosphere-and-climate-2020
- The Randerson report (MfE) signals that government will be working through the recommendations in the report (including new Adaptation and Managed Retreat Act) but no commitment as yet (awaiting ministerial direction)
- National adaptation strategy/National Adaptation work program (outline below)



- A regional council SIG working group has been set up to provide advice on better coordination across the sector
- MfE are keen to align climate change exposure reporting with development of the next national risk assessment (which is 6 years away) – NRC staff are involved in developing a methodology that considers regional context and application
- There will be an opportunity for NRC staff to provide input during National Adaptation Strategy / Adaptation Plan.

Attachments/Ngā tapirihanga

Nil

TITLE:	**Northland Regional Council Carbon Emission**
ID:	A1379721
From:	Obi Khanal, Resource Scientist - Air
Authorised by Group Manager:	Jonathan Gibbard, Group Manager - Environmental Services, on date 09 November 2020

Executive summary/Whakarāpopototanga

This paper acts as a placeholder for a staff presentation on Northland Regional Council carbon emissions which will cover the following;

- Background information – when and how reporting started
- Data quantity, quality and source. What is included and what is not
- Methodology of data collection and data processing using e-Bench software
- Most recent monthly CO2-e results
- Yearly comparison of CO2-e emission by source
- Access to e-Bench
- Limitations
- Opportunities to improve.
- Questions/answers and will play with the software.

Recommended actions

1. That the paper and presentation on NRC carbon emissions be received

Background/Tuhinga

N/A

Attachments/Ngā tapirihanga

Nil

TITLE:	**Carbon Sequestration**
ID:	A1379728
From:	Justin Murfitt, Strategic Policy Specialist and Matt De Boer, Natural Hazards Advisor
Authorised by Group Manager:	Jonathan Gibbard, Group Manager - Environmental Services, on date 09 November 2020

Executive summary/Whakarāpopototanga

Staff have been asked to comment on the potential for Northland landowners to underplant scrub with native trees and how this would be treated in the Emissions Trading Scheme and the potential to earn NZ Units for the carbon sequestered.

Recommended actions

1. That the report "Carbon Sequestration" be received

Background/Tuhinga

Staff have been asked to comment on the following:

The concept is looking into the large amount of scrubland in Northland and assessing the potential for inclusion into the ets scheme via establishing forests within the existing scrub i.e. underplanting the subcanopy with natives such as Puriri, Totara, Kahikatea etc. Pest control would need to be carried out obviously to ensure survival. Current Paris agreement describes human induced plantation as be a requirement for inclusion into carbon accounting systems. NRC would need to clarify with the appropriate government agency as to whether or not this concept has merit.

Staff will be available to discuss the concept at the meeting and seek feedback from the working party on next steps.

Some information is provided below to inform the discussion. It is essential that landowners understand the ongoing obligations that come with entering forests into the ETS, especially the limitations on subsequently changing land use (i.e. deforestation). The merits of and eligibility for entering a forest into the Emissions Trading Scheme (ETS) tend to be very site specific and depend upon whether the land / forest meets ETS entry criteria and if so, the likely return on investment / benefits and costs.

The eligibility criteria are:
Forest Land
Forest land is at least one hectare of forest species. It has, or is **likely to have**:

- Trees with the **potential** to reach over 5 metres in height (Manuka is eligible)
- Tree crown cover (potential) of more than 30 percent in each hectare
- An average width of tree crown cover of at least 30 metres
- Be at least 1 hectare in area

Post-1989 Forest Land
Post-1989 is forest land which meets the forest land criteria (above) and was not forest land on 31 December 1989 and has since (or will be) changed to forest land after 1 Jan 1990.

It can be difficult to demonstrate the eligibility of land in some cases (I.e. whether or not the land cover met the forest definition as at 31 December 1989) – for example, if the land was in scrub it would need to be shown (using aerial imagery or the like) that the vegetation did not meet the forest land definition at the time due to lack of cover / width or that the species would not reach 5m in height (E.g. gorse / non-tree weeds or scattered forest species unlikely to reach 30% crown cover). Essentially if the land cover met the definition of forest land on 31 December 1989 it is considered pre-1990 forest land and is unlikely to be eligible for entry into the ETS. Ultimately the decision rests with MPI / Te Uru Rakau.

Carbon sequestration rates/measurement
The ETS uses five different forest types to calculate carbon tables for allocation of NZUs shown in the Table below.

Table 1: NZUs accumulated in every 5-year period of growth per vegetation type per hectare (Auckland region).

Vegetation type | Age	1 to 5 years	6 to 10 years	11 to 15 years	16 to 20 years	21 to 25 years
Pinus.radiata	59	129	169	192	166
Accumulative total		*188*	*357*	*549*	***715***
Douglas Fir	2	48	115	121	123
		50	*165*	*286*	***409***
Other Exotic Softwood	26	69	68	86	81
		95	*163*	*249*	***330***
Exotic Hardwood	63	188	158	117	92
		251	*409*	*526*	***618***
Indigenous	8	32	55	63	57
		40	95	158	**215**

The ETS uses these default carbon tables to calculate carbon sequestration on forests less than 100 hectares in area. Forests greater than 100 hectares are measured using the Field Measurement Approach (FMA) method. FMA requires the physical measurement of trees at plot locations determined by MPI – this comes with additional costs.

Permanent post 1989 forest category
Government decisions indicate they will establish a 'permanent forest' activity under the ETS to replace the Permanent Forest Sink Initiative. Under this category, owners can earn NZU's and harvest limited amounts of timber but cannot clear fell the forest within a 50-year timeframe (penalties and the surrender of NZU's apply if clear-felling occurs). This seems (potentially) a good option for Northland.

Attachments/Ngā tapirihanga

Nil