Climate Change Working Party Wednesday 31 August 2022 at 9.30am





Climate Change Working Party Agenda

Meeting to be held in the Council Chamber 36 Water Street, Whangārei on Wednesday 31 August 2022, commencing at 9.30am

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	Councillor Jack Craw	Councillor Marty Robinson					
Councillor Penny Smart	TTMAC representative Mira Norris	TTMAC representative Rowan Tautari					
TTMAC representative Lynette Wharerau	Te Rūnanga o Whāingaroa Rihari Dargaville						

KARAKIA

RĪMITI (ITEM)

1.0 NGĀ MAHI WHAKAPAI/HOUSEKEEPING

2.0 NGĀ WHAKAPAHĀ/APOLOGIES

3.0 NGĀ WHAKAPUAKANGA/DECLARATIONS OF CONFLICTS OF INTEREST

4.0 REPORTS

4.1	Record of Actions – 25 May 2022	4
4.2	Receipt of Action Sheet	7
4.3	Climate Change Commisssion Update - Presentation	
	Matt de Boer - Senior Analyst from the Climate Change Commission He Pou a Rangi will be presenting an overview of the work the Commission has undertaken and will be undertaking.	
4.4	Government Reforms Progress Update	9
4.5	Progress of Ngā Taumata o Te Moana Implementation Plan	12
4.6	Climate Change Governance Review	25

Page

Opening Karakia

Whakataka te hau ki te uru, Whakataka te hau ki te tonga. Kia mākinakina ki uta, Kia mātaratara ki tai. E hī ake ana te atākura he tio, he huka, he hauhunga. Tuturu whakamaua kia Tina (Tina) Haumi e! Hui e! Tāiki e!

Closing Karakia

Unuhia, unuhia Unuhia ki te uru tapu nui Kia wātea, kia māmā, te ngākau, te tinana, te wairua i te ara tangata Koia rā e Rongo, whakairia ake ki runga Kia tina! TINA! Hui e! TĀIKI E!



TITLE: Record of Actions – 25 May 2022

From: Nicky Hansen, PA to GM Community Resilience

Authorised byVictoria Harwood, Pou Tiaki Hapori - GM Community Resilience, on 22Group Manager/s:August 2022

Whakarāpopototanga / Executive summary

The purpose of this report is to present the Record of Actions of the last meeting (attached) held on 25 May 2022 for review by the meeting.

Attachments/Ngā tapirihanga

Attachment 1: CCWP_20220525_MINUTES 🖞 🛣

Climate Change Working Party 25 May 2022

Climate Change Working Party Record of Actions

Meeting held online via zoom link on Wednesday 25 May 2022, commencing at 9.30am

Tuhinga/Present:

Chairperson, Councillor Amy Macdonald Councillor Jocelyn Yeoman Councillor Jack Craw Councillor Marty Robinson Councillor Penny Smart TTMAC representative Rowan Tautari

I Tae Mai/In Attendance:

Full Meeting

NRC Pou Tiaki Hapori - GM Community Resilience, Victoria Harwood NRC Climate Change Manager, Tom Fitzgerald NRC Zero Carbon Transition Advisor, Natalie Child NRC Working Party Secretariat, Nicky Hansen

Part Meeting

NRC CEO, Malcolm Nicholson joined at 9.44am

The meeting commenced at 9.32am.

Ngā Mahi Whakapai/Housekeeping (Item 1.0)

Ngā Whakapahā/Apologies (Item 2.0)

TTMAC representative Nora Rameka.

Record of Actions – 23 February 2022 (Item 4.1)

Presented by: Cr. Amy Macdonald

Agreed action points:

No actions required

Receipt of Action Sheet (Item 4.2)

Presented by: GM. Victoria Harwood

Agreed action points:

• No actions required

1

Climate Change Working Party 25 May 2022

Emissions Reduction Work Programme Update (Item 4.3)

Presented by: Natalie Child

Agreed action points:

No actions required

Progress of Ngā Taumata o Te Moana Implementation Plan (Item 4.4)

Presented by: Tom FitzGerald

Agreed action points:

• No actions required

Tracking Progress on Ngā Taumata o Te Moana (Item 4.5)

Presented by: Tom FitzGerald

Agreed action points:

• No actions required

Climate Change Governance Review (Item 4.6)

Presented by: Tom FitzGerald

Agreed action points:

• No actions required

Whakamutunga (Conclusion)

The meeting concluded at 11.17am.

TITLE: Receipt of Action Sheet

From: Nicky Hansen, PA to GM Community Resilience

Authorised byVictoria Harwood, Pou Tiaki Hapori - GM Community Resilience, on 22Group Manager/s:August 2022

Whakarāpopototanga / Executive summary

The purpose of this report is to enable the meeting to receive the current action sheet.

Nga mahi tutohutia / Recommendation

That the action sheet be received.

Attachments/Ngā tapirihanga

Attachment 1: Climate Change Working Party Schedule of Actions 🗓 🛣

tion #	Meeting date	Agenda Item	Action	Responsible staff	Status	Notes
2	17-Jun-20	NRC CARBON FOOTPRINT (Item 9.0)	Investigate online area to store meeting documents to enable access for Councillors and TTMAC members.	Group Manager - Community Resilience	In Progress	23/02/2022 - IT have updated that no new Enterprise is in place - sometime 2023 onwa 23/02/2022 - Victoria has raised a service ti Microsoft Teams working space for councill 17/06/2020 - Raised again re access of doct
						01/08/2022 - Awaiting NIWA commitment
23	Sep-21	Intergovernmental Panel on Climate Change (IPCC) AR6 report update (Item 4.6)	IPCC report update to be presented to council workshop and to TTMAC.	Natural Hazards Advisor Monitoring Manager	Not Started	02/11/2021 - NRC staff are applying for Env latest IPCC figures.
32	Nov-21	2022 Meetings Dates (Item 4.6)	Working Party Secretariat to confirm that the proposed date swap suits the TTMAC members on all Working Parties affected.	Working Party Secretariat	completed	23/02/2022 - Victoria currently in conversa members not able to attend working party is schedule of action sheet until resolved 21/12/2021 - Ben Lee, Policy & Planning Mi ensure TTMAC members will be able to atte
31	Feb-22	Receipt of Action Sheet (Item 4.2)	Cr. Jack Craw to feedback to the Climate Change Working Party what projects in the Biodiversity and Biosecurity implementaion plan can be included in the work plan for year 2.	Cr. Jack Craw	Completed	25/05/2022 - Jack Craw updated on track fo
32a	Feb-22	Receipt of Action Sheet (Item 4.2)	Victoria Harwood currently in conversation with Auriole, NRC Pou Manawhakahaere, regarding TTMAC members not able to attend working party meetings. Long term solution required. This action is to stay on schedule of action sheet until resolved	GM Community Resilience	Completed	 14/07/2022 - Endoresement that Mira Norr 14/07/2022 - Endoresement that Rowant T 12/05/2022 - Discussion with Auriole, and r planned to go to TTMAC requesting an alter to work commitments Rihari requires som
33	Feb-22	Progress Year 1 of Ngā Taumata o Te Moana (Item 4.4)	Website link to 'He Waka Eke Noa' to be distributed to the working group	GM Community Resilience	Completed	12/05/2022 - GM Community Resilience en
34	Feb-22	Progress Year 1 of Ngā Taumata o Te Moana (Item 4.4)	Year 2 project #38: There is potentially an opportunity for NRC to work with DOC in this space. Amy to send Jono and Victoria the contact details for the lead worker at DOC.	Cr Amy MacDonald	Completed	25/05/2022 - Amy sent to Jono and Victoria
35	Feb-22	Electric Vehicle Survey Report Summary (Item 4.5)	Future plans for our EV network needs to be embedded with our Northland council transport teams, working groups and agencies	Rivers and Natural Hazards Manager / Zero carbon Transition Advisor	Completed	22/08/2022 - Dawn Spence from the Northi initiatives and plans regarding emissions re- strategies and forward work plans for the N primarily being driven by respective Council reached a reporting stage at this time. 12/05/2022 - Northland Transportation Alli- through Emission Reduction work programm
36	Feb-22	EV - Bus update (Item 4.8)	Calvin Thomas, General Manager Northland Transportation alliance (NTA) to be invited to next working party to give further information regarding the strategic advances that the NTA are working towards for carbon reductions, more broadly in the transport sector.	GM Community Resilience	Completed	22/08/2022 - Dawn Spence from the North initiatives and plans regarding emissions rec strategies and forward work plans for the N primarily being driven by respective Council reached a reporting stage at this time. 12/05/2022 - GM Northland Transportation

ITEM: 4.2 Attachment 1

as at 22/08/2022
ew Teams groups will be made for external parties access until after onwards ce ticket with the IT department as there may be an opportunity to have a ncillors and TTMAC members.
documents for councillors and TTMAC
ent to commence report (2+ yrs)
Environ Link funding to organise NIWA to update the report using the
ersation with Auriole, NRC Pou Manawhakahaere, regarding TTMAC rty meetings. Long term solution required. This action is to stay on
g Manager, delegated Rachael King, Planning and Policy Administrator, to attend despite these working parties despite the change of date.
ck for yr2.
Norris to replace Thomas Hohaia on the CCWP. nt Tautari is appointed as the alternate for Rihari Dargaville on the JCCAC.
nd met with Rihari Dargaville and Thomas Hohaia - an agenda item alternate representative for Thomas Hohaia as he is unble to attend due some eupport with dates and agendas.
e emailed out link
toria
orthland Transportation Alliance (NTA) is supporting the respective Council s reduction, and how this is incorporated into the development of ne NTA. The NTA support rather than lead these initiatives which are uncil policy's, priorities and approved programmes which have not
Alliance is aware of the need for EV planning, plan to raise awareness amme.
orthland Transportation Alliance (NTA) is supporting the respective Council s reduction, and how this is incorporated into the development of ne NTA. The NTA support rather than lead these initiatives which are uncil policy's, priorities and approved programmes which have not
tion Alliance to be invited to the 31 August 2022 meeting

TITLE:	Government Reforms Progress Update
From:	Victoria Harwood, Pou Tiaki Hapori - GM Community Resilience; Tom Fitzgerald, Climate Change Manager and Jan van der Vliet, Natural Hazards Advisor
Authorised by Group Manager/s:	Victoria Harwood, Pou Tiaki Hapori - GM Community Resilience, on 22 August 2022

Whakarāpopototanga / Executive summary

Central government is undertaking large legislative, policy and national plan reforms, reviews and development over the next few years and these changes will have an impact upon our climate change response actions into the future.

This agenda item will provide an update on legislative change progress and impacts for the council climate change work programme.

Staff will give a verbal update on aspects of the reforms.

Ngā mahi tūtohutia / Recommended actions

Updates will be brought to future Climate Change Working party meetings as reforms progress.

Background/Tuhinga

Central government legislative, policy and national plan reforms, reviews and development are underway concurrently. **Attachment 1** outlines the timing and progress of these reforms and updates in comparison to each other while impacting on local government. These include:

- o Local Government Statutory Planning and reporting
- Future for LG Review
- o Three Waters Reform
- o Resource Management Act Amendments and Reform
- Climate Change Reform and ETS updates
- Emergency Management modernisation
- Waste minimisation strategy
- o Health and Disability Reforms

Modernising the Emergency Management Framework

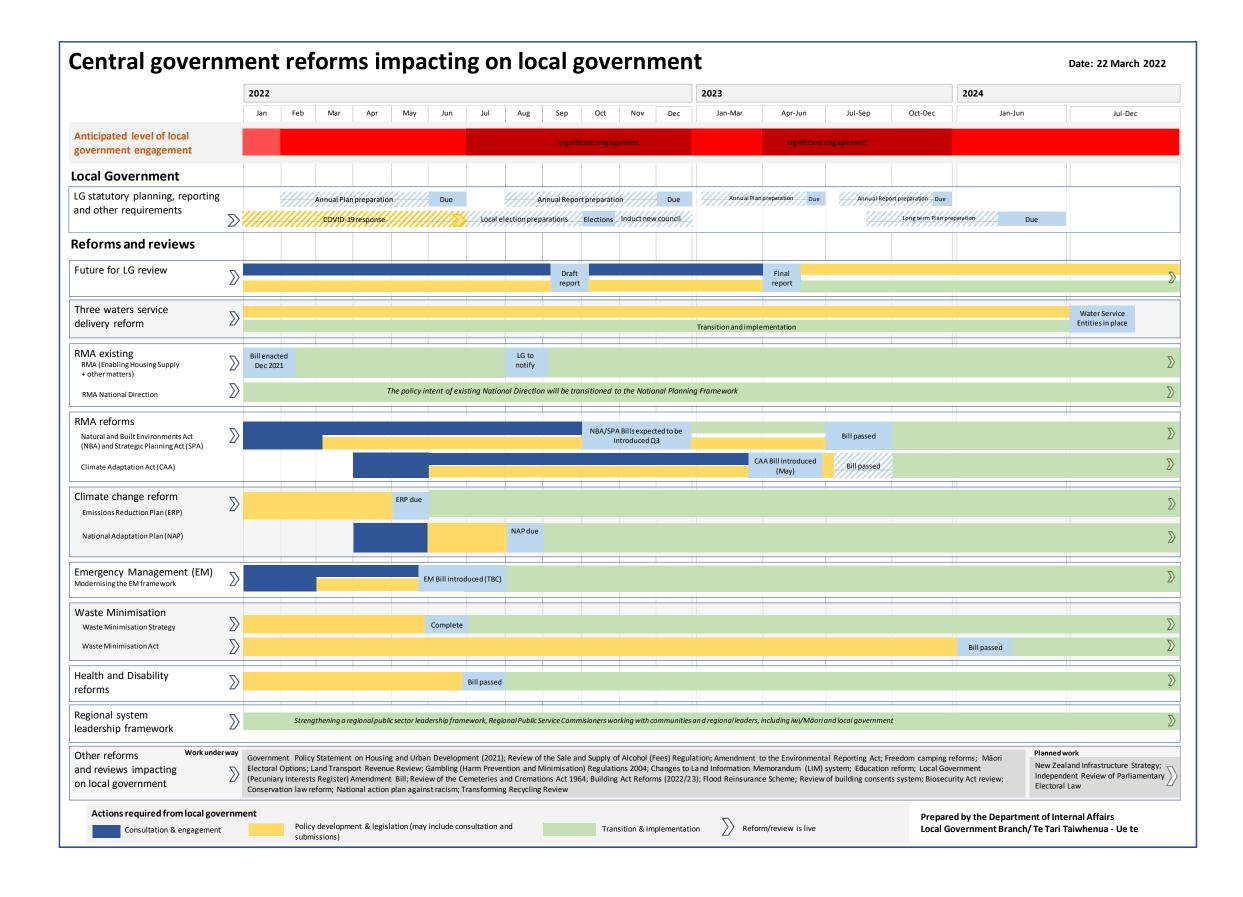
The Civil Defence Emergency Management Act (CDEM) 2002 has been in place for the last 20 years. Through learning from several emergency responses in New Zealand over the last five years and recommendations from an independent Technical Advisory Group regarding reforms of the wider emergency management sector, the National Emergency Management Agency (NEMA) are undertaking a review of the CDEM Act 2002, National CDEM Plan and the National Disaster Resilience Strategy under the trifecta programme. The timing of the trifecta review has been extended beyond the timeframe outlined in Attachment 1 due to feedback from the wider emergency management sector. Additional time to adequately contribute to the consultation is required as workloads are still high under current emergency responses especially the long response to COVID, floods and wildfires. The Minister of Emergency Management has delayed the draft Emergency Management (EM) Bill introduction to the House until late 2022. Key changes indicated are to the participation of Tangata whenua in the EM sector, and clarity of EM roles and responsibilities, managing risk and enabling and empowering and supporting community resilience.

There are implications for critical infrastructure, Māori engagement and hazard reduction programmes from these reforms into the climate change work programmes.

Other legislation and national policy is moving at a fast pace, hence Tom FitzGerald, Manager Climate Change will provide verbal update at the meeting to avoid a written update being inaccurate.

Ngā tapirihanga / Attachments

Attachment 1: Central Government Reforms and Impacting on Local Government 🗓 🖾



TITLE: Progress of Ngā Taumata o Te Moana Implementation Plan

From: Tom FitzGerald, Climate Change Manager

Authorised byVictoria Harwood, Pou Tiaki Hapori - GM Community Resilience, on 22Group Manager/s:August 2022

Whakarāpopototanga / Executive summary

With Nga Taumata o Te Moana now over one year old, we have the opportunity to report on progress made against the actions in the Strategy. The Background section provides a snippet of the broader climate change context and identifies some of the achievements over the last year. Much of this is also set out in the Annual Report.

Operationally, Attachment 1 gives current progress updates of actions within the Implementation Plan of Ngā Taumata o Te Moana: our strategy for tackling climate change.

Ngā mahi tūtohutia / Recommended actions

1. Note the progress report.

Background/Tuhinga

The climate crisis is our generation's biggest challenge, and it's already an issue in Te Taitokerau. We must respond by transforming how our society and economy operate.

Northland Regional Council acknowledges the urgent need to respond to the climate change crisis. We are living in te ao hurihuri, the ever-changing world, where the historic and ongoing release of greenhouse gases is already altering the environment that supports us, threatening to cause severe social and environmental disruption. In the interests of unborn generations, our communities and our precious taonga, we must act now.

Northland Regional Councils Ngā Taumata o te Moana

Here at council, we've developed Ngā Taumata o te Moana: our strategy for tackling climate change, which was adopted in July 2021 along with the implementation plan for this strategy. Both documents guide councils work in this area and we've divided our work programme up into the three pou of the climate change crisis: adaptation, emissions reduction, and carbon removal. During the recent process of developing the Long-Term Plan 2021-2031, while climate change was identified as one of the key issues driving our work programme, we were explicit about the need for community values to drive place-based adaptation actions.

The Te Tai Tokerau Climate Adaptation Strategy

Te Taitokerau councils celebrated a unique milestone in April 2022 after the adoption of New Zealand's first region-wide climate adaptation strategy, one that is at the heart of our efforts to increase Northland's resilience and works alongside our own climate change strategy above.

The Te Tai Tokerau Climate Adaptation Strategy was developed by Climate Adaptation Te Tai Tokerau (CATT), a joint council working group under the governance of the Joint Climate Change Adaptation Committee. The strategy was formally adopted in April 2022 by the Northland Regional Council, Whangarei District Council, Kaipara District Council and Far North District Council, in a move that will allow the alignment of climate adaptation work across Northland. It will also drive the delivery of place-based community adaptation plans.

The strategy is the culmination of four years of collaborative mahi with iwi and hapū representatives, elected members and council staff from across Northland.

Looking ahead

Northland communities are particularly exposed to climate change with many of our settlements, town centres, and roads sitting on coastal floodplains, exposed to sea level rise, and increased flooding. With coastal erosion and inundation becoming more prevalent along our region's coastline, difficult but important discussions about how to deal with those challenges are needed. Those discussions will need to canvas all options to manage risk, from holding the line through to moving away from hazardous areas.

We are working with communities, whanau and partner organisations to undertake adaptive planning processes that recognise and allow for the uncertainty inherent in our shared climate future.

Councils newly formed Climate Change team has recently begun work on project planning and tracking the progress of Ngā Taumata o te Moana and Te Tai Tokerau Climate Adaptation Strategy and determining exactly how we're going to achieve what we've set out to so that we can start to see our progress, and importantly, report on this.

Over the past year, we've also worked on a range of projects including:

- Partnering with Kaipara District Council on the region's first community adaptation planning project in Raupō and Ruawai, where work has commenced, and the first community events have been undertaken.
- Engaging Toitū to measure and verify our climate impact. This will provide us with a verified emissions baseline and drive emissions reduction action across council and its operations with a focus on priority areas.
- Funding two community housing projects under the Water Resilience Grant Fund Programme. Following on from the 2020 drought, this programme allows vulnerable communities to apply for funding to install new drinking water infrastructure to ensure greater resilience during times of need.
- Completing a climate risk assessment for our lifeline utilities. This work identifies current and future threats to the critical pieces of infrastructure that provide water, power, and transport connectivity. Council have also contributed to a risk assessment and adaptation planning work with the Northland District Health Board.
- Sending submissions on several key policy changes, including proposed changes to the Emissions Trading Scheme, the National Policy Statement on Indigenous Biodiversity, the Emissions Reduction Plan, and the National Adaptation Plan. Staff also wrote a submission in support of Renewable Energy Zones for Northland.
- Continuing work on the CoastCare programme with our coastal communities to encourage greater coastal resilience.

ITEM: 4.5

- Releasing updated coastal and riverine flood hazard maps, which are beginning to be incorporated into district council planning regimes.
- Continuing to invest in low or zero emissions technology to support our operations, including additional solar panels on the Water St office and an increase in the number of electric vehicles for operations.
- Changing our procurement policy, council reports, and business case planning to encourage alignment with climate goals.
- Providing funding to Whangārei, Kaipara, and Far North district councils towards planning for adaptation pilot projects.

Ngā tapirihanga / Attachments

Attachment 1: Climate Change Strategy Implementation - August 2022 🗓 🛣

Ongoing programmes

*All actions current as of August 2022.

Project #	Area	Project	Brief project description	Timeframe	Responsible	Funding source	Status notes
1	Internal climate change planning	Governance support	Support and provide technical advice to NRC and regional governance, including Joint Climate Change Adaptation Committee and Climate Change Working Party. Includes preparing agendas, presentations, reports, workshops etc.	Ongoing programme	Climate Change Manager (CCM)	Existing funding allocations	 Ongoing. Governance project underv current arrangements and requirements, but also to n future fit for additional rep requirements under the Cli Response (Zero Carbon) Ac external expertise to be pro and refine these structures Given broad reach of climat NRC, staff considering need internal steering group.
2	Internal climate change planning	Climate change communications	Support ongoing public engagement on climate change, outlined in a rolling 12-month communications plan, highlighting the work we are doing around climate change, publicising milestones, and supporting engagement with various projects that arise from the implementation plan. Also supporting the development of community initiatives to reduce emissions through providing website information, environmental awards and promoting successes.	Ongoing programme	CCM + Comms Manager	Existing resourcing	 New climate change comm Brief communications plan Engagement and outreach currently opportunistic e.g. Whangarei growers market school engagement alongsi Media activity currently rea underway to be proactive in communications and extern channels e.g., through CEO news articles. New NRC award established Action on Climate Change' awarded in 2022 No wider public engagemen stage.
3	Internal climate change planning	Review of external- facing RMA policies and plans	Review of key NRC external plans and policies such as the Regional Plan and Regional Policy Statement, to ensure alignment with legislative requirements and updates, and any new information on climate risks and emissions reduction requirements. Also to test alignment with NRC's climate change strategy, find areas for improvement and identify areas of potential inconsistency. Potential to embed rules and policies enabling better adaptation, emissions reduction and carbon removal across the region.	Ongoing programme	Policy + CCM	Existing funding allocations	 RPS Review initiated. Staff with NRC Policy team on brefficiency and effectiveness RPS to also include a review 'climate change' relevant p view to identifying potentia RPS. CCM team to provide addit support to Policy team to e
4	Adaptation	River flood management infrastructure	Continue to deliver flood-risk reduction programme across the region, using a prioritised approach. Continue working with WDC on aligning projects in the Whangārei Blue-Green Network programme.	Ongoing programme	Rivers Team	Existing resourcing	New work underway to scope ou risk management framework/str identified that while there is a nu projects underway, there is no co that speaks to risk, prioritisation for why some works are underta others. This project is a joint effo Rivers Team with the support of

ITEM: 4.5 Attachment 1

s

erway to streamline nd reporting meet and be eporting Climate Change Act. This will require procured to support res. mate change within eed to re-establish nms staff in place. an drafted. ch activities e.g., EV expo at ket 20th August, gside EnviroSchools. reactive but work e in both internal ernal media EO's messages, and hed 'Environmental e' but was not ment planned at this aff are collaborating broadening out the ess review of the iew of best practice t policy in NZ with a ntial changes to the ditional funding enable this review. out a regional flood strategy. It's been number of discrete o coherent narrative on and justification rtaken and not ffort led by the of the Climate

							Change Team (now including the I role)
5	Adaptation	Water resilience project	Water-tank assistance programme delivered to support communities to catch, store and treat water for domestic use, to improve water resilience during drought. Potential to align with projects being delivered by the new hapū- focused climate change programme.	Ongoing programme	ССМ	FY21-24 LTP funding	 Applications shortlisted for 2 2023/24. Based on existing need and capability, consideration bei increasing the size of the fur \$1M from 2023/24 (includin partners). To be discussed a Water Resilience Working G
6	Adaptation	CoastCare programme	Improved alignment of the CoastCare programme with regional adaptation planning programme. Identify areas of high erosion risk and develop natural solutions as interim measures during adaptive pathways planning process.	Ongoing programme	CoastCare Coordinator	FY21-24 LTP funding	Work is ongoing

Project #	Area	Project	Brief project description	Timeframe	Responsible	Funding source	Status notes
7	Adaptation	Community resilience coordination	Coordinating and engaging with a range of community resilience-building programmes including multiple agencies, e.g. CDEM, FENZ, water resilience group, marae resilience (DIA, TPK), remote rural communities resilience (MPI), also funding partners and NGOs.	Ongoing programme	All agencies	Existing resourcing	Ongoing.
8	Adaptation	Adaptation community engagement - technical support	Coordination and technical support for the regional adaptation programme, delivered with district councils as proposed in the Te Taitokerau Joint Adaptation Strategy. May include development of engagement methodology and materials/resources, support for technical hazards investigations where required, and assistance with adaptation community engagement, options development and analysis, and adaptation plan drafting.	Ongoing programme	ССМ	FY21-24 LTP funding	 Ongoing. Ruawai/Raupo community a planning pilot initiated by KE (and others around the regic supported by new Climate R at NRC (currently interviewir)
9	Adaptation	Hapū-focused climate resilience programme	Development of the hapū-led adaptation planning facilitation programme. Will likely include identification of community needs, partnership with hapū, development of engagement methodology, facilitation of adaptation/resilience plans, and identification of potential funding opportunities.	Ongoing programme	CCM + Māori Engagement	FY21-24 LTP funding	Currently interviewing for Climate Advisor. Dedicated summer student to invidesign) grant fund programme to mahi. Scope below: Provide support to help the establ tangata whenua-focused grant fu community climate adaptation ac include undertaking a literature re researching best practice and curr identifying key stakeholders (inter external), liaising internally with o managers, identifying potential fu uses, identifying funding sources of potential methodology for how su could work. The output of this prop produce a report that identifies be pros and cons of such a fund and s key findings. If justified, the report contribute to the production of a b establish the Fund.

he Natural Hazards	
or 2022/23 and	
nd delivery	
•	
being given to	
fund from \$500K to	
ding funding from	
d at Te Taitokerau	
g Group.	
es	
hu a da atatian	
ty adaptation	
y KDC. This project	
egion) will be	
e Resilience Advisor	
ewing).	
0,	
ate Resilience	
investigate (and	
to support this	
ablishment of a	
t fund to support	
action. This will	
e review,	
current practice,	
nternal and	
h other grant fund	
I funding needs and	
es and identifying a	
such a programme	
project will be to	
s best practice, the	
nd summarises the	
oort will eventually	
f a business case to	

10	Adaptation	On-farm adaptation support	Promote activities that enable adaptive management in a changing climate, while meeting goals of soil conservation, water resilience, freshwater management and animal welfare. This may include targeted hill-country soil conservation programmes, building demand for poplars and willows for integrated farm forestry, encouraging resilient pasture, aligning with NES-FWM farm plan implementation, and encouraging the provision of stock shelter and shade.	Ongoing programme	CCM + Land Management	Existing resourcing	Ongoing.
11	Adaptation	Rain radar and flood forecasting Northland Region	Access to rain radar data to provide high-resolution rainfall records in near real-time, increasing spatial coverage currently missed by existing rain gauges. Will enable three- hour 'now-casting' to assist flood hazard management and civil defence responses, as well as improving river flood models and improving projections for engineering standards for infrastructure planning, etc.	Ongoing programme	Science team	Existing resourcing	Mott MacDonald, in conjunction are the engaged developers of th Workshops were held during the year. NRC's lead is from our scier input from the Rivers Team and I Advisor. Useable outcomes are e the end of this year A 'real time' flood forecasting me developed for Awanui / Kaitaia b of NRC. Outcome / deliverable an before the end of this year.
12	Adaptation	River flood hazards	Complete region-wide river flood modelling and develop a community flood-hazard risk assessment that identifies future prioritised work programme.	Ongoing programme	Rivers Team + Natural Hazards Advisor	Existing resourcing	 Natural Hazards Advisor role Climate Change team. Region-wide river flood mood A regional flood risk manage framework/strategy is being will form the corner stone of prioritisation work programs above).
13	Adaptation	Coastal hazards	Ongoing development of coastal hazard assessment, including the development of hydrodynamic models for Whangārei and other large harbours and estuaries, as well as developing a region-wide coastal erosion risk assessment. Ongoing technical support for regional adaptation planning programme with districts and communities, including additional local hazard assessments where required.	Ongoing programme	Natural Hazards Advisor	Existing resourcing	The coastal hazard assessment a mapping has been completed. Th detailed hydrodynamic models for harbours which are all publicly as Continued support is being provi Districts with regards to further of assessment, e.g., Raupō / Ruawa scheme and community adaptati projects e.g. following the adopt regional Te Tai Tokerau Climate / Strategy (TTCAS)

Р	roject #	Area	Project	Brief project description	Timeframe	Responsible	Funding source	Status notes
	14	Adaptation	Coastal aquifer saline ingress	Installation of additional monitoring sites and long-term monitoring of salinity levels in coastal aquifers. Investigations and improvements to our understanding of at-risk aquifers and community supplies from sea level rise- related saline ingress. Commissioning of a research report with climate scenario projections may require external funding.	Ongoing programme	Science team	Existing resourcing	No update.

ITEM: 4.5 Attachment 1

ion with MetService, f this project. the 1st half of this cience team with nd Natural Hazards re expected before

model is being a by DHI on behalf e are expected

ole has moved to

nodelling complete. agement ing developed which e of our future amme (see Action 4

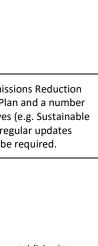
t and associated . This includes s for our major y available.

ovided to our er detailed hazard wai drainage cation planning option of our te Adaptation



15	Emissions reduction	NRC buildings	Continue to include LED lighting, solar power and other 'easy' low-carbon drivers in new builds. Investigation of further options for reducing embodied carbon in new buildings, such as using structural timber. Continue to invest in renewable energy infrastructure, efficiency and investigate efficiencies of alignment with EV charging. Align emissions reporting and forecasting methodology with UN Race to Zero criteria.	Ongoing programme	Strategic Projects and Facilities Manager	Existing resourcing	No update.
16	Emissions reduction	NRC bus fleet	Investigation of options for improvements in bus fleet efficiency and delivery modes; further develop optional analysis, business cases and timelines for complete transition to e-buses in alignment with emissions reduction targets. Align emissions reporting and forecasting methodology with UN Race to Zero criteria.	Ongoing programme	Group Manager – Community Resilience NTA	Existing resourcing	With the publication of the Emissi Plan and National Adaptation Plar of additional transport initiatives Public Transport Framework), reg from the Transport sector will be
17	Carbon removal	On-farm carbon removal support	Providing advice to landowners to support on-farm carbon removal activities such as afforestation, soil carbon and wetland restoration. This may include: - supporting and promoting appropriate private native afforestation projects that provide co-benefits such as biodiversity and soil conservation - helping landowners understand options for afforestation that support good land management practices, and providing information on opportunities to access the ETS - help build demand for poplars and willows for integrated farm forestry - ensuring council's land and catchment management programmes align with government and industry programmes (e.g. He Waka Eke Noa) to document and reduce on-farm emissions - using spatial planning to identify land with high potential for afforestation to reduce erosion risk and capture carbon.	Ongoing programme	Zero Carbon Transition Advisor Land Management Team	Existing resourcing	 Ongoing. Internal NRC working party exencourage organisational alig Land Management, Biodivers Planning and Policy and Clima programmes e.g., right tree, r time.

ITEM: 4.5 Attachment 1



ty established to alignment across versity, Biosecurity, limate Change ee, right place, right

Year 1

Project #	Area	Project	Brief project description	Timeframe	Responsible	Funding source	Status not
18	Internal climate change planning	Corporate climate positive transition plan	Development of corporate climate positive transition plan including an optimised greenhouse gas emissions reduction plan and carbon removal/offset investment plan. Will define organisational GHG emissions reduction and carbon removal targets using standard approach (UN Race to Zero criteria) and set out prioritised actions for council to become net-zero emissions before 2050, with an end goal of reaching climate positive (i.e. net negative emissions). Dependent on completion of NRC emissions reduction projects.	Deliverable Year 1	Zero Carbon Transition Advisor	FY21-24 LTP funding	 Toitū contract underway accounting data collectic coordinated by Zero Carl Advisor. Expected certifi Nov 2022. Work underway to defin reporting i.e., Scope 1, 2 and for example this will consideration of whethe Controlled Organisations Corporate Climate Positi will be scoped up concur footprint and commissio A summer student will a analysing a staff survey or climate change over the Design, deliver and analyse a so 'climate change and sustainab seeks to uncover current beha and helps identify potential accreduce staff impact on the envour climate change and sustainab staff survey to current obstacles and opportur obstacles on transport mode so facility requirements and the l this project will be to produce purpose, methodology, results and recommendations.
19	Internal climate change planning	Annual Plan business cases	Development of Annual Plan business cases following adoption of NRC's climate change strategy, recognising that some projects may require additional funding outside the Long-Term Plan process. Annual Plan business cases will be coordinated to align with the corporate zero-carbon plan and prioritise those requiring urgent investment in zero- emissions technology or investigations.	Deliverable Year 1	ссм	Existing resourcing	• None planned as yet.
20	Internal climate change planning	NRC policy review - internal	Review of key NRC internal policies to test alignment with NRC's climate change strategy, find areas for improvement and identify areas of potential inconsistency to embed adaptation, emissions reduction and carbon removal policies and standards across the organisation	Deliverable Year 1	CCM + Corporate Strategy	Existing resourcing	 Deep dive on corporate of for March/April 2023. As will include updates to the reflect best practice. External advice will also best practice against sec Climate Change Respons FNDC developing a climate per best practice advice) for NRC to consider (see Taitokerau Climate Adap

ITEM: 4.5 Attachment 1

otes

vay and carbon ction being Carbon Transition tification date approx.

fine 'boundary' of , 2 and 3 emissions will involve ther to include Council ons, bus fleet etc. sitive Transition Plan currently with carbon sioned in 2022/23. Il also be delivering and ey on sustainability and he coming summer:

a staff-focused nability survey' that chaviour and actions, l actions that could environment and meet tainability goals. This el to work preferences, rtunities, current le shift, end of trip ne like. The output of icce a report detailing ults, analysis, discussion

te climate risk planned As a minimum, this o the risk register to

so be sought to inform section 5ZW of the onse (Zero Carbon) Act. mate change policy (as ce) that may be useful ee Action 38 of Te laptation Strategy).

							 Climate governance projethis aspect and cover compolicy, monitoring and regovernance. Changes have been approreport template to require elected members to consigoals and impacts in decion Climate Change team is dwith the support of NRC's Specialist. Changes have also been mission procurement framework considerations. Climate Change team and Strategy holding monthly continually seek ways to
21	Internal climate change planning	Zero-carbon procurement policy	Develop/amend policy to require all business cases involving significant investments that have associated emissions to show evidence that zero-emissions options or other alternatives have been sufficiently considered. Investigate potential for including cost of high-quality carbon offsets in procurement lifecycle cost forecasts, where emissions-generating purchases are being considered against zero-/low-emissions options.	Deliverable Year 1	Zero Carbon Transition Advisor	FY21-24 LTP funding	Draft procurement policy near new inclusions around sustaina change included.
22	Adaptation	Te Taitokerau Joint Adaptation Strategy	Coordination and drafting of Te Taitokerau Joint Adaptation Strategy and associated reports with joint staff group Climate Adaptation Te Taitokerau. Includes reports such as climate risk overview; coastal community profiles; adaptation toolbox; adaptive pathways engagement framework; and the adaptation strategy's implementation plan. Strategy to be presented to the Joint Climate Change Adaptation Committee in August 2021.	Deliverable Year 1	Climate Adaptation Te Taitokerau Working Group members	Existing resourcing	 Strategy adopted by all Co implementation ongoing. 46 priority actions identified
23	Adaptation	Te Taitokerau Joint Adaptation Strategy - climate risk and Māori engagement report	Commissioning of research report to improve council's understanding of appropriate and successful engagement approaches when working with hapū and iwi on climate change issues. Will involve literature review and interviews. Outputs will provide guidance for hapū-focused climate change programme. Conducted by local tangata whenua researcher.	Deliverable Year 1	Contractor	Existing resourcing	Report expected to be finalised

Project #	Area	Project	Brief project description	Timeframe	Responsible	Funding source	Status notes
24	Adaptation	Te Taitokerau Joint Adaptation Strategy - communications and engagement plan	Communications and engagement plan for the Te Taitokerau Joint Adaptation Strategy, to help promote conversations with our communities about developing adaptive pathways plans.	Deliverable Year 1	Joint Communications Group (Climate Adaptation Te Taitokerau Working Group members)	FY21-24 LTP funding	 Work on this plan largely s January hui that identified fundamental issues aroum and governance of group. and media around the TTC largely reactive. Interim website developed <u>www.catt.org.nz</u> No TTCAS-specific broader engagement planned at th Progress reported to JCCA

oject will also dig into orporate climate risk, reporting, and

proved to Council uire all staff and onsider climate change ecision-making. The s driving this work IC's Governance

n made to NRC's new rk to include climate

nd Corporate nly meetings to to improve.

arly finalised, with inability and climate

Councils and g. ified.

ed in September.

tes

ely stalled following a fied a number of pund identity, purpose up. Communications TTCAS were therefore

ped – see

der community t this stage. CCAC.

25	Adaptation	Coastal habitat and sea level rise	Investigation of threats to coastal habitats, especially limits to landward migration with sea level rise. GIS analysis of existing mangrove, saltmarsh and seagrass habitat and expected impacts of sea level rise. Identification of potential areas for migration, and investigation of potential policy framework to enable land use change to allow landward habitat migration under sea level rise. (Also see Carbon removal - coastal blue carbon project.)	Deliverable Year 1	Science team	FY21-24 LTP funding	No update.
26	Emissions reduction	Corporate carbon footprint audit and emissions reduction options	Commissioning of corporate carbon footprint audit and verification using accredited provider. Investigate corporate emissions reduction options across major emissions sources (see below projects in emissions reduction section). Implement consistent and verifiable emissions reporting and forecasting methodology across organisation, using standard protocols (e.g., UNFCCC Race to Zero criteria).	Deliverable Year 1	Zero Carbon Transition Advisor	FY21-24 LTP funding	See update in Action 18 above
27	Emissions reduction	NRC vehicle fleet	Investigate options to decarbonise NRC's vehicle fleet in line with zero-carbon transition plan and emissions reduction plan. Includes identification of viable alternatives, life-cycle assessments, options assessments and development of business cases. Possible short-term options may include transition of some vehicles toward EVs and hybrids; options for alternatives to replace some/all 4WD Hiluxes; optimising vehicle use behaviour; considering a shared EV fleet with WDC. Implement consistent and verifiable emissions reporting and forecasting methodology.	Deliverable Year 1	NRC Strategic Projects and Facilities Manager	Existing resourcing	No update.
28	Emissions reduction	NRC maritime fleet	Investigation of options for improving the efficiency of vessels, transition of vessels to high-performance hulls and electric/hybrid engines as well as fuel-saving trip programming and behaviour. Improvements in monitoring and reporting of vessel emissions. Implement consistent and verifiable emissions reporting and forecasting methodology.	Deliverable Year 1	Maritime Manager	FY21-24 LTP funding	No update.
29	Emissions reduction	Consents and GHG emissions	Professional development and training to support resource consent team to develop capacity to assess new consent requirements re: GHG emissions in RMA from 2022. May include improving technical literacy for consent considerations such as process heat standards and processes, alternative low-carbon heat methods, greenhouse gas emissions reduction plans, etc.	Deliverable Year 1	Consents Manager	Existing resourcing	Amendments to RMA to comm will include requirement to hav National Adaptation Plan, Emis Plan in consents, new plans an Manager seeking advice throug MfE.

Project #	Area	Project	Brief project description	Timeframe	Responsible	Funding source	Status notes
30	Carbon removal	Coastal blue carbon	Undertake a carbon stocktake of coastal blue carbon ecosystems using existing GIS data (including mangroves, saltmarsh, seagrass, kelp beds). Develop a risk assessment of the impact of sea level rise on these ecosystems and investigate the carbon removal potential of coastal blue carbon ecosystems, considering projected landward migration potential and limitations such as physical or planning barriers. Investigate options for conservation, restoration and re-establishment of blue carbon habitats, and estimate future carbon storage potential under different policy settings. Consider blue carbon ecosystem carbon values in adaptation planning programmes (see above adaptation engagement project - Awanui stopbanks).	Deliverable Year 1	CCM + Science team	FY21-24 LTP funding	 PhD project underway to infeasibility of blue carbon a saltmarsh using Rangaunu study site. NRC supported Small Grant. Broader investigation not study site investigation study study site investigation study s

ITEM: 4.5 Attachment 1

ove.	
mmence Nov 30. This have regard to missions Reduction and policies. Consents ough Consents SIG and	
otes	
/ to investigate on approach for aunu Harbour as case rted via EnviroLink not started	

Year 2

Project #	Area	Project	Brief project description	Timeframe	Responsible	Funding source	Status not
31	Adaptation	Adaptation community engagement - Awanui coastal stopbanks	Adaptive pathways planning project with FNDC, as per Te Taitokerau Joint Adaptation Strategy. Scoping, data collection, hazard analysis and pre-engagement during 2022, with community engagement beginning 2023 once additional adaptation staff are on board.	Deliverable Year 2	Rivers team + Climate Change Team + FNDC	FY21-24 LTP funding	Not started.
32	Adaptation	Climate impacts - scientific review	Revision and update of Northland's climate change impact report (NIWA 2017) following release of the upcoming IPCC AR6 report in 2022.	Deliverable Year 2	ССМ	Existing resourcing	Downscaled IPCC 6AR project 2024 at earliest. These are ne region-specific climate impac
33	Adaptation	Drought vulnerability	Development of further information on drought risk to community and rural water supplies with climate change. Development of climate vulnerability assessment of community and primary industry water supplies, drawing on information from Three Waters review process. Investigation of approaches for communicating drought as a natural/climate hazard.	Deliverable Year 2	Science team + Natural Hazards ADvisor	Existing resourcing	Not started.
34	Adaptation	Freshwater resilience	Resilience of Northland's freshwater ecosystems in response to climate change, including maintaining/improving resilience of freshwater environments in Northland, including highly vulnerable areas; ensuring we are meeting NPS-FM and NES-FW objectives regarding accounting for climate change aspects; a study in the form of guidance/monitoring strategy by investigating historic information for identifying the risks associated with climate change on Northland's freshwater environments, and associated ecological and human health implications; continuous long-term water quality monitoring is undertaken in at least two reference river sites and one outstanding dune lake.	Deliverable Year 2	Science team	FY21-24 LTP funding	 Links with Actions 4, 4, 1. Freshwater Plan change pto give effect to Te Mana National Policy Statemen Management, see https://www.nrc.govt.nz freshwater-rules/the-freshwater-rules/the
35	Adaptation	Ecosystems, habitat and biodiversity	Commission literature review of at-risk ecosystems (e.g. lakes, terrestrial, freshwater and marine communities, coastal/estuarine habitats) and species threatened by climate impacts. May need to separate topics, limit scope and stage reports over time. (Funding likely to be both externally through Envirolink funding (research support grants) with some support via the new adaptive pathways LTP budget.)	Deliverable Year 2	Biodiversity Manager	Requires external funding	 \$155K allocated in CAPE) for this work to commen Biodiversity NRC made a submission draft of the National Poli Indigenous Biodiversity, recommendations aroun impacts and consideratic <u>https://environment.gov</u> regulations/national-poli statements/proposed-npp biodiversity/#developme process-to-date
36	Adaptation	Biosecurity threats	Preliminary review of high-risk sleeper and offshore biosecurity threats under future climate change scenarios, potentially including human health, agricultural and environmental threats. Project will support and align with a nationwide regional sector programme aiming for	Deliverable Year 2	GM Biosecurity	LTP 2021-24	The LTP provided resourcing of undertake a climate change + strategy. It is proposed that t strategy will be to prioritise th management implications of they relate to biosecurity and

ITEM: 4.5 Attachment 1

otes	
ections expected in	
needed to inform act assessment.	
, 14.	
ge project underway	
ana o Te Wai the nent for Freshwater	
.nz/environment/new- reshwater-plan/	
PEX budget 2023/24 ence, being led by	
on on the exposure	
olicy Statement for	
y, including specific	
und climate change	
tions. See <u>ovt.nz/acts-and-</u>	
olicy-	
-nps-indigenous-	
ment-of-the-npsib-	
ng of \$50K to	
e + biosecurity at the aim of the	
e the risks and	
of climate change as	
ind recommend	

	consistent methodology and provide a gap analysis and identify areas requiring further investigation.		actions for risk mitigation. It will get underway prior to Dec strategy finalised during 2023 at Biodiversity and Biosecurity
--	---	--	--

Project #	Area	Project	Brief project description	Timeframe	Responsible	Funding source	Status note
37	Emissions reduction	Regional economy and industry leadership	Investigation of options to support the transition to a zero-carbon economy in Northland, including working with regional economic development partners, industry and the primary sector alongside government agencies and research groups. Investigate alternative funding possibilities to incentivise uptake of zero-emissions technologies and R+D.	Deliverable Year 2	Climate Change team + Economic Policy	FY21-24 LTP funding	Northland Inc leading the deverse Regional Economic Developm workshops underway and stee members appointed. Climate as a key priority.
38	Carbon removal	Peatland/wetlands carbon storage	Commission a carbon stocktake of wetlands and peatlands using existing GIS data, with the objective to understand the carbon emissions and removal potential of peatlands/wetlands in Northland; also investigate possible approaches to enable conservation, restoration and re- establishment including changes to land management practices.	Deliverable Year 2	Science team + Biodiversity	Requires external funding	CCM part of Aotearoa Future project led by NIWA to tackle challenges.

ITEM: 4.5 Attachment 1

It is expected work December and the 023 (see agenda item Irity Working Party).

tes

levelopment of oment Strategy. Initial steering group te change identified

re Coast 5 yr research kle some of these

Year 3+

Project #	Area	Project	Brief project description	Timeframe	Responsible	Funding source	Status no
39	Internal climate change planning	NRC policy review - external	Review of key NRC external plans and policies such as the Regional Plan and Regional Policy Statement, to test alignment with council's climate change strategy, find areas for improvement and identify areas of potential inconsistency to embed adaptation, zero emissions and carbon removal rules and policies, in line with legislative requirements, other updates and new information on climate risks and emissions reduction requirements.	Deliverable Year 3+	Policy and Planning team	Requires future AP/LTP funding	Not started.
40	Adaptation	Wildfire hazards	Understand council's responsibilities and the availability of data regarding increase in wildfire risk under climate change scenarios.	Deliverable Year 3+	Natural Hazards Advisor	Existing resourcing	CCM working with SCION wildfire research project
41	Adaptation	Geotechnical hazards	Understand council's responsibilities and the availability of data regarding increase in risk of slips and landslides under climate change scenarios.	Deliverable Year 3+	Natural Hazards Advisor	Existing resourcing	Not started.
42	Emissions reduction	Regional EV charging network	Investigation of options for how NRC can support the development of a comprehensive regional EV charging infrastructure alongside other agencies, district councils and industry partners.	Deliverable Year 3+	Zero Carbon Transition Advisor	Requires future AP/LTP funding	No update.
43	Carbon removal	NRC carbon removal and emissions offset programme	Investigate approaches for emissions offsetting and carbon removal for council, including biological options such as wetland and coastal blue carbon restoration and afforestation projects. Consider options for measuring, reporting and verifying carbon removal including co- benefits such as biodiversity, water and social. Adopt best- practice approach for carbon offsets such as the 'Oxford principles for net-zero aligned offsetting'.	Deliverable Year 3+	Zero Carbon Transition Advisor	FY21-24 LTP funding	Cross-organisational discu (see Action 17)

ITEM: 4.5 Attachment 1

notes
N (and others) on t
scussions underway

TITLE: Climate Change Governance Review

From: Tom FitzGerald, Climate Change Manager

Authorised byVictoria Harwood, Pou Tiaki Hapori - GM Community Resilience, on 22Group Manager/s:August 2022

Whakarāpopototanga / Executive summary

Staff have progressed work and undertaken further engagement around climate governance since the previous Climate Change Working Party meeting on 25 May 2022. Climate governance was discussed and workshopped at the Joint Climate Change Adaptation Committee on Monday 29 August 2022.

The intent of these discussions was to create some options for how we want climate governance to be realised in Tai Tokerau. This would consist of some changes we could recommend immediately to current governance arrangements for the next triennium as well as an indication of the longer-term aspirations.

It is anticipated that the immediate steps to be taken will seek to streamline and consolidate reporting requirements, particularly as they relate to Northland Regional Council, but also recognising our role as regional leaders.

Staff can give a verbal update of the current status of these ongoing discussions and outline the next steps at the meeting.

Ngā mahi tūtohutia / Recommended actions

- 1. Note this report and the verbal update.
- 2. Note that staff will continue to engage with partners to progress this mahi and identify the next steps.

Background/Tuhinga

A climate governance paper was presented to the Climate Change Working Party on 25 May 2022. The paper highlighted several aspects of current governance arrangements and identified areas for improved efficiency and effectiveness.

The climate governance workstream has arisen largely because of observations and insight from new staff but are also subsequent to the publication of both Ngā Taumata o Te Moana (July 2021) and the Te Taitokerau Climate Adaptation Strategy (April 2022). Both documents set extensive work programmes via their respective Implementation Plans.

The Te Taitokerau Climate Adaptation Strategy (TTCAS) in particular recognises that oversight of clilmate change issues is an area where partner organisations (including Northland Regional Council) can build capacity in reporting and disclosure of climate risks and governance (Action 37). This is also reinforced by section 5ZW of the Climate Change Response (Zero Carbon) Act:

2019 No 61

Climate Change Response (Zero Carbon) An	nendment
Act 2019	

Power to request provision of information

5ZW Minister or Commission may request certain organisations to provide information on climate change adaptation

- (1) The Minister or the Commission may, in writing, request that a reporting organisation provide all or any of the following information:
 - (a) a description of the organisation's governance in relation to the risks of, and opportunities arising from, climate change:
 - (b) a description of the actual and potential effects of the risks and opportunities on the organisation's business, strategy, and financial planning:
 - (c) a description of the processes that the organisation uses to identify, assess, and manage the risks:
 - (d) a description of the metrics and targets used to assess and manage the risks and opportunities, including, if relevant, time frames and progress:
 - (e) any matters specified in regulations.
- The reporting organisation must comply with a request made under subsection (1).
- (3) The Minister must, as soon as practicable, provide the Commission with a copy of any information received in response to a request made by the Minister.
- (4) The Commission must, as soon as practicable, provide the Minister with a copy of any information received in response to a request made by the Commission.
- (5) The Minister and the Commission must not publicly disclose any information received in response to a request, unless disclosure of the information is necessary to enable the Minister or the Commission to perform a function or duty imposed by this Part.
- (6) Subsection (5) does not apply in respect of information that is already in the public domain.
- (7) Before publicly disclosing any information received in response to a request, the Minister or Commission must consult with the person to whom the information relates.
- (8) For the purposes of this section and section 5ZX, the following are reporting organisations:
 - (a) the Public Service, as defined in section 27 of the State Sector Act 1988:
 - (b) local authorities, as defined in section 5(1) of the Local Government Act 2002:
 - (c) council-controlled organisations, as defined in section 6(1) of the Local Government Act 2002:
 - (d) Crown entities, as defined in section 7(1) of the Crown Entities Act 2004, but excluding school boards of trustees:

This Act identifies local authorities as *reporting organisations* that may be subject to requests from the Minister for Climate Change or the Climate Change Commission for information on climate risks, governance, potential climate impactys on an organisaitons operations and planning, a description

of how risks are being addressed, and measures and targets used to measure succes or failure. Being ready to address these reporting requirements is currently within the forward work programme for 2022/23 of the Climate Change team and the Corporate Strategy team.

Legislative imperatives only provide one (important) aspect of our journey toward better governance. Reflecting our commitments to our Treaty partners and ensuring the right governance and decision-making structures are in place (or at least aiming to be constantly improving) is at the heart of the TTCAS (Action 1). In Action 3 the TTCAS goes further and asks Councils and their partners to clarify funding responsibilities in relation to adaptation (see for instance the Asher report completed for the Hawkes Bay Clifton to Tangioi Coastal Hazard Strategy).

Improved governance and greater collaboration and empowerment lie at the heart of many of these actions and will require some considered thinking and bold action to adress the climate crisis in a fair, equitable and effective manner.

Ngā tapirihanga / Attachments

Nil