

**Joint Climate Change Adaptation
Committee**

Thursday 20 March 2025 at 1:00 pm

AGENDA

Joint Climate Change Adaptation Committee Agenda

Meeting to be held in the Council Chamber
36 Water Street, Whangārei
on Thursday 20 March 2025, commencing at 1:00 pm

Recommendations contained in the agenda are NOT decisions of the meeting. Please refer to minutes for resolutions.

MEMBERSHIP OF THE JOINT CLIMATE CHANGE ADAPTATION COMMITTEE

Chairperson, Te Uri o Hau and Te Roroa Representative Fiona Kemp

NRC Councillor, Amy
Macdonald

KDC Mayor, Craig Jepson

Deputy Chairperson – WDC
Councillor, Scott McKenzie

FNDC Deputy Mayor, Kelly
Stratford

WDC iwi/hapu representative
Delaraine Armstrong

FNDC iwi/hapu representative
Nyze Manuel

NRC iwi/hapu representative
George Riley


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TITLE: Confirmation of Minutes - 4th November 2024
From: Claire Lewinski, Climate Resilience Fund Administrator
Authorised by Louisa Gritt, Group Manager - Community Resilience, on 25 February 2025
Group Manager/s:

Ngā mahi tūtohutia / Recommendation

That the minutes of the JCCAC meeting held on 4 November 2024 be confirmed as a true and correct record and that these be duly authenticated by the Chair.

Attachments/Ngā tapirihanga

Attachment 1: Unconfirmed Minutes of 4th November 2024 [↓](#) 

Joint Climate Change Adaptation Committee
4 November 2024

Joint Climate Change Adaptation Committee Minutes

Meeting held in the NRC Council Chamber
36 Water Street, Whangārei
on Monday 4 November 2024, commencing at 1.00pm

Tuhinga/Present:

Chairperson, Te Uri o Hau and Te Roroa Representative Fiona Kemp
Deputy Chairperson - WDC Councillor, Scott McKenzie
NRC Councillor, Amy Macdonald
KDC Mayor, Craig Jepson
FNDC Councillor, Kelly Stratford
WDC Iwi/hapu representative, Delaraine Armstrong
NRC Iwi/hapu Representative, George Riley

I Tae Mai/In Attendance:

Full Meeting

NRC Alternate, Councillor John Blackwell (online)
WDC Alternate, Councillor Nick Connop
KDC Iwi/hapu Representative, Snow Tane (online)
WDC Iwi/hapu Alternate, Hinemoa Apetera
Deputy Chair NRC, Tui Shortland (online)
WDC CEO, Simon Weston (online)
NRC Group Manager - Community Resilience, Louisa Gritt
NRC Chief Executive Officer, Jono Gibbard
Rakesh Piano, NRC Regional Climate Adaptation Lead
NRC Secretariat, Haylee Labelle
Natalie Child, NRC Climate Action and Natural Hazards Manager
Nicole Ross, NRC Regional Adaptation Programme Coordinator
Michelle Howe, NRC Zero Carbon Transition Advisor
Sarah Gauden-Ing, NRC Natural Hazards Specialist
Ingrid Kuindersma, NRC Senior Policy Planner
Kim Wall, Climate Resilience Advisor (online)
FNDC GM Planning & Policy, Roger Ackers (online)
WDC, Bernadette Aperahama
WDC, Roselyn Naidu
NRC Mike Smith (online)
FNDC, Katy Simon (online)
FNDC, Esther Powell (online)
Helen Kemp (online)

The Chair declared the meeting open at 1pm with karakia by George Riley.

Joint Climate Change Adaptation Committee
4 November 2024

Ngā Mahi Whakapai/Housekeeping (Item 1.0)

Ngā whakapahā/Apologies (Item 2.0)

Moved (Macdonald / Mckenzie)

That the apologies from NRC Councillor Crawford, FNDC iwi/hapu representative Nyze Porter for non-attendance be received.

Carried

Confirmation of Minutes - 27 May 2024 (Item 4.1)

Report from Haylee Labelle, Personal Assistant Community Resilience

Moved (Mckenzie / Kemp)

That the minutes of the Joint Climate Change Adaptation Committee meeting held on 27 May 2024, be confirmed as a true and correct record and that these be duly authenticated by the Chair.

Carried

Receipt of Action Sheet (Item 5.1)

Report from Haylee Labelle, Personal Assistant Community Resilience

Moved (Stratford / Macdonald)

That the action sheet be received.

Carried

Membership and Appointments - JCCAC (Item 6.1)

Report from Rakesh Pinao, Regional Climate Adaptation Programme Lead and Natalie Child, Climate Action & Natural Hazards Manager

Moved (Stratford / Mckenzie)

1. That the report 'Membership and Appointments - JCCAC' by Rakesh Pinao, Regional Climate Adaptation Programme Lead and Natalie Child, Climate Action & Natural Hazards Manager and dated 9 October 2024, be received.
2. Notes that Nyze Porter has been appointed as the Far North District Council's iwi member on the Joint Climate Change Adaptation Committee.
3. Notes that Delaraine Armstrong has been appointed as the Whangārei District Council's iwi member on the Joint Climate Change Adaptation Committee.
4. Notes that Hinemoa Apetera has been appointed as the Whangārei District Council's alternate iwi member of the Joint Climate Change Adaptation Committee.

Carried

Secretarial note: additional recommendation was tabled as below

5. Notes the change in Northern Regional Council representation from councillors John Blackwell (member) and Chair Geoff Crawford (alternate) to councillors Amy

Joint Climate Change Adaptation Committee
4 November 2024

Macdonald (member) and John Blackwell (alternate).

Climate Programme Progress (Item 6.2)

Report from Natalie Child, Climate Action & Natural Hazards Manager and Rakesh Pinao, Regional Climate Adaptation Programme Lead

Moved (Stratford / Riley)

That the report 'Climate Programme Progress' by Natalie Child, Climate Action & Natural Hazards Manager and Rakesh Pinao, Regional Climate Adaptation Programme Lead and dated 9 October 2024, be received.

Carried

Secretarial note: The establishment of the new website was noted and it was highlighted that some rural communities have such poor connectivity that they cannot access information provided. Members were encouraged to advocate wherever they can for improved connectivity for Northland. Regional risk portal is under development, can discuss in the new year, it is intended for Te Tai Tokerau not just NRC. Workshops are being run this week to assess risk and work with hapu/iwi as to how they want to access this. This will be accessible to all staff across the region. The cancellation of the Ruawai adaptation programme was discussed. This programme ceased with the start of the Kaipara Long Term Plan. Mayor Jepson considers that this community is already well protected. Cr Macdonald encouraged staff to ensure that lessons from the work done to date on this project were used to improve future projects. The Chair noted that work had continued in this area through Te ara huringa o Te Taiao.

Action:

1. **JCCAC chair to consider a presentation on the learnings from TAHA (Te ara huringa o Te Taiao) from marae to a future JCCAC meeting**

Conclusion

The meeting concluded at 1.30pm and moved to a workshop

TITLE: **Receipt of Action Sheet**

From: Claire Lewinski, Climate Resilience Fund Administrator

Authorised by Louisa Gritt, Group Manager - Community Resilience, on 07 March 2025
Group Manager/s:

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: JCCAC Action Sheet [↓](#) 

Joint Climate Change Adaptation Committee Action Sheet

Action #	Meeting date	Agenda Item	Action	Person(s) responsible	Status	Notes
1	7/03/2022	Peer review of the Joint Strategy (Item 6.3)	CATT will review options for the Matauranga Maori Review and the process and report back to the JCCAC.	Rakesh Pinao	On Hold	<p>14/03/25: A matauranga māori review remains outstanding. The Te Ao Māori decision making framework (Te Mana o Te Ao Turoa) includes a series of recommendations that are our best voice of regional tangata whenua and climate change adaptation. The regional Leadership investigation workshop and recommendations report will acknowledge this work, and confirm with members views of next steps.</p> <p>23/10/24: It was agreed to put the governance review on hold for now given other priorities</p> <p>2023: Expected to coincide with Governance Review in late 2024 to include Strategy review.</p>
6	4/08/2023	Flood Adaptation Strategy (Item 6.5)	NRC Climate Change Manager to investigate the accuracy with the flood predicting tools used. Findings will be distributed to the committee.	Sarah Gauden-Ing	Completed	<p>February 2025:</p> <ul style="list-style-type: none"> •Integrated Flood Resilient Framework NRC Staff meet in December 2024 to review the proposed framework and to discuss how it could be implemented across the organisation. So initial areas where staff can work together have been identified and are being implemented . •Flood modelling The Ruawai (Raupo Drainage Scheme) Flood Model was completed in December 2024 and published on the NRC's public GIS in February 2025. Quality Assurance checks of the Paunakitere & Waimea and Whangarei models have identified some issues, staff are working with the consultants to ensure that the information published is robust. The Wairoa model (CIP funded) is on track for completion in April 2025, though full quality checks will be needed before the model's results are published. <p>These models predict the flood extents, velocity and depths, they are built on national and international good practice using sophisticated computer modelling.</p> <ul style="list-style-type: none"> •Early Flood Forecasting The two trials of Early Flood Forecasting continue to be developed. The success of these two trials will be evaluated later in 2025. NRC has committed funding over the next 4 years through it's Long-Term Plan for the implementation of a region wide Flood Forecast tool. <p>23/10/24:</p> <ul style="list-style-type: none"> •Flood Adaptation Strategy work ongoing to get embedded into council processes. •Flood modelling There is an ongoing flood modelling programme to identify the potential flood extent, three are due to be published by the end of the (calendar) year - Punakitere & Waimea, Ruawai (Raupo Drainage) and Whangarei, and one has just been commissioned – Wairoa. These models predict the flood extents and
1	4/11/2024		JCCAC chair to consider a presentation on the learnings from TAHA (Te ara huringa o Te Taiao) from marae to a future JCCAC meeting	JCCAC Chair		

TITLE: **Programme Update Report**

From: Rakesh Pinao, Regional Climate Adaptation Programme Lead

Authorised by Group Manager/s: Louisa Gritt, Group Manager - Community Resilience, on 07 March 2025

Whakarāpopototanga / Executive summary

This report provides a climate adaptation programme update for information. The report highlights progress in community adaptation planning, including community adaptation projects for Whangarei and Far North District Councils.

Ngā mahi tūtohutia / Recommendation

That the report 'Programme Update Report' by Rakesh Pinao, Regional Climate Adaptation Programme Lead and dated 25 February 2025, be received.

Background/Tuhinga

The joint regional climate adaptation programme has been progressing and the update below provided in line with the programme structure.

Theme 5: Community Adaptation Planning

- **Whangārei District Council's** Community Adaptation Planning
 - Whangārei District Council's first adaptation project, Whangaruru/Oakura catchment, is finalising its scoping report which will come to JCCAC in July for information.
 - The partnership with Ngātiwai has been established, and the Matakokiri Take Ahuarangi has been appointed into the project. This is a part-time community engagement officer position.
 - The scoping report aims to provide co-design recommendations for the community adaptation planning process to support Ngātiwai and WDC as partners, as well as indicative project scope, schedule and suggestions for project structure, resourcing, technical requirements, budget and timelines.

- **Far North District Council's** Community Adaptation Planning
 - A draft programme plan for the district will be recommended to Council mid-2025 for approval. A draft will be presented to the JCCAC in July.
 - Stage One project, which includes Hokianga, Whangapē and Herekino, continues in the preparation and context phase. The focus is relationship-building with tangata whenua and community. Established Kaimanaaki Hapori, local community advisor, roles has been critical to achieving this.
 - The Stage One scoping report, will formally establish the project, is planned for August - September 2025. Stage One progress is delayed by about six months. The project is now estimated to run until early 2027, depending on FNDC decisions and the next Long Term Planning process.

- **Kaipara District Council's** Community Adaptation Planning and Ruawai Adaptive Pathways formally ceased with the LTP adoption in July 2024.
- **Northland Regional Council's** community-led resilience initiatives continue.
 - The now Climate Resilient Communities Fund was launch in September 2024 and undertook it's first round of funding that has not been notified to recipients. Formalising the payment of grants is underway as groups look to commence their proposals.
 - Following LTP approval of a 10-year \$9.2 million regionally contestable investment in community resilience initiatives. The next round of Submissions is due to open in April.
 - Tangata Whenua Climate Adaptation Fund outputs are yet to be fully collated, and communication is being planned to share lessons and celebrate successes.

Theme 4: Science & Risk

- Regional Risk Portal has completed gathered data and continues to reconcile this into the how the system will be used. We expected to demo to committee members around May 2025.
- A new Natural Hazards Advisor role has been appointed to enable greater support from NRC to adaptation projects and to the public enquiries as engagement grows.
- Ruawai Flood Model updates are complete (covering the Ruawai drainage scheme) and will be available publicly. See attachment 1.
- NRC participation in the Whangarei Urban Flood Strategy will ensure integration of natural hazards.

Theme 2: Community engagement

- Summer engagement season is almost complete with climate action promoted via several activities. Climate games showcasing river flooding and adaptation concepts, nature-based solutions education with a wave tank show the value of coastal ecosystems, and a value mapping exercise to encourage reflection on what we value. Paparoa A&P Show, Waitangi Day, Broadwood A&P, Field Days all included these events.
- Coastal Conversations was a Seaweeek public engagement series in Whangarei district. Guest speaker Jim Dahm spoke alongside local CoastCare groups in four locations: Ruakaka, Waipu, Whananaki, Ngunguru. CoastCare groups were celebrated for their work over a number of years and included the wider work of mana whenua and local schools. A workshop with Jim Dahm was also hosted in Oakura with residents in a slightly simpler format knowing the Adaptation project would be starting there soon.
- The regional climate action website platform is awaiting soft launch. The website will promote partnerships and highlight the roles of individuals and communities alongside council and central government responses.
- Tangata whenua engagement work planning continues. An internal cross-council Māori relationships hui proposed for April to ensure alignment in our outreach and relationship building for climate action.

Theme 3: Embedding Climate Change in Council operations


- As part of Coastal Conversations, two internally focused events were also run to raise awareness inside councils for coastal erosion, ecosystem values and restoration and the future challenges of climate change. The role of adaptation planning was identified.
 - A governance session focused on councilors and committee members with attendance from NRC, WDC, KDC councilors and a community board member from Far North District Councils Bay of Islands Ward.


- A staff session focused received attendance form all four councils also, including consent, compliance and infrastructure staff.
 - Several key topics were raised about how we utilise the value of nature and how we translate the techniques and experiences to Northland. This included integration of hapū perspectives, resource consenting processes and how to make community dune restoration techniques easier. It also allowed a discussion about how adaptation planning may enable greater community alignment to unlock resources (council funding and community capabilities) in the future.
- Climate FRESK workshops were run to raise awareness of the impacts of climate change. This targeted NRC ELT members. Training with CATT staff is yet to be completed but will enable the workshop to be offered within councils for many staff, and potentially the public.

Notes:

CATT or “Climate Adaptation Te Taitokerau” is the combined group across four councils delivering on climate change work, developed to share expertise, resources and enhance collaboration for the uncertainty of climate adaptation work.

Attachments/Ngā tapirihanga

Attachment 1: Far North District Council Community Adaptation Programme update [↓](#) 

Attachment 2: New Flood Hazard Layers for Ruawai [↓](#) 

Appendix 1

Te Kaunihera o Te Hiku o te Ika - Far North District Council

FNDC's community adaptation planning work has two parallel pieces of work.

1. An overarching Community Adaptation Programme Plan
2. Preparation and context for Stage One project in Hokianga - Whangapē - Herekino areas

Community Adaptation Programme Plan

The Community Adaptation Programme Plan will guide ten plus years of adaptation planning work. The Programme Plan will establish the foundational elements of our council's community adaptation work: vision, outcome, goals, scope and high-level engagement approaches. It will set a standard for each adaptation planning project and for adjoining adaptation tools and resources.

Staff are currently seeking early direction from our Council on a draft part one. Staff will seek Council approval mid-2025 and will present a complete draft to the Committee at the next Committee meeting (est. July).

Stage One Project

Stage One continues in the preparation and context phase. The focus is relationship-building with tangata whenua and community. So far, staff have:

- Sought early direction from relevant Community Board Members on engagement and community needs.
- Established Kaimanaaki Hapori, local community advisor roles, to guide early kōrero and early engagement.
- Established a Kaupapa Māori lead to support tangata whenua relationships and tangata whenua-led adaptation (this is an externally funded role).
- Supported the Kaimanaaki Hapori in over 25 early engagement initiatives across Hokianga nui ā Kupe.
- Created draft tools and templates for communities to jumpstart their adaptation planning.
- Created draft kaupapa Māori tools and templates to support tangata whenua-led adaptation.
- Undertaken natural hazards stocktake assessment and developed a natural hazards risk GIS portal.
- Developed an operational Memorandum of Understanding with Northland Regional Council on adaptation planning roles, responsibilities and resourcing.

The preparation and context work will inform a Stage One scoping report. This report will formally establish the Stage One project. Staff expect to deliver the scoping report August - September 2025.

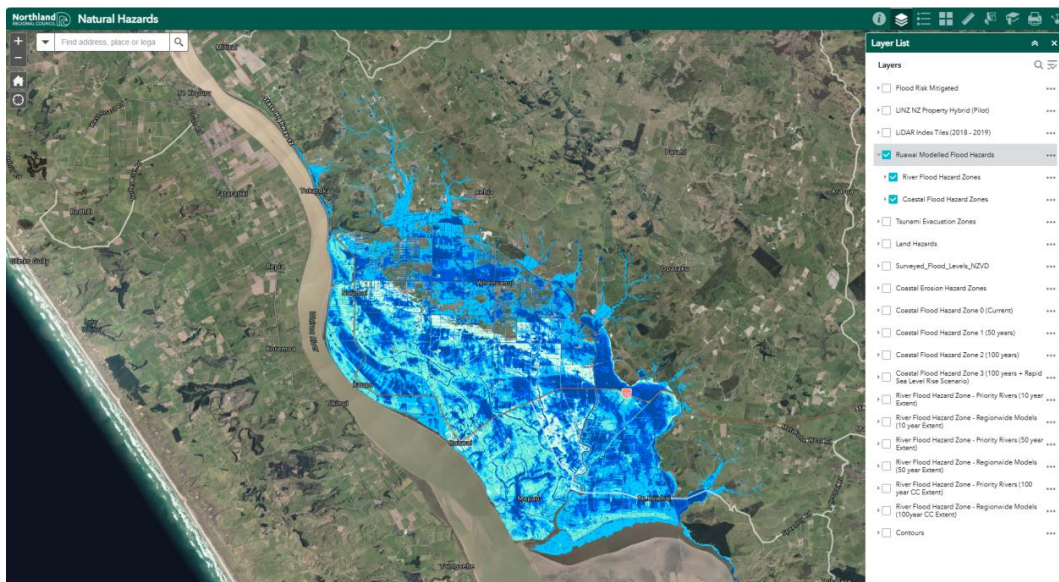
Stage One progress is delayed by about six months. The project is now estimated to run until early 2027, depending on FNDC decisions and the next Long Term Planning process.

Appendix 2

New Flood Hazard Layers for Ruawai (February 2025)

This map now includes the 2024 Ruawai (Raupo Drainage) Model to replace the 2021 Regionwide Model for the Ruawai area. The model includes both river flooding and coastal inundation (storm surge + wave height). The river flood model shows 10 year (10% Annual Exceedance Probability (AEP), 50 year (2% AEP) and 100 year plus climate change (1% AEP + CC). The coastal inundation shows the following Coastal Flood Hazard Zones (CFHZ): CFHZ0 (Current - 1% AEP), CFHZ1 (50 year - 2% AEP + 0.6m SLR), CFHZ2 (100 year- 1% AEP + 1.2m SLR) and CFHZ3 (100 year - 1% AEP + 1.66m SLR). The 2024 Ruawai (Raupo Drainage) Model was produced by Water Technology for Northland Regional Council.

An overall image of the model extent and where it sits in the flood layers is shown below.



Available via the Advanced Natural Hazards Viewer:

<https://www.nrc.govt.nz/environment/natural-hazards-portal/hazard-maps/advanced-hazard-map-viewer/>

TITLE: Notice of Motion - Climate Data Review

From: Haylee Labelle, Personal Assistant Community Resilience

Authorised by Group Manager/s: Louisa Gritt, Group Manager - Community Resilience, on 11 March 2025

Executive summary/Whakarāpopototanga

The purpose of this report is to present for JCCACs consideration a Notice of Motion submitted to the Chief Executive Officer Northern Regional Council seeking agreement for the Joint Climate Change Adaptation Committee to write to the Government requesting a review of the latest scientific data from the IPCC and other relevant sources, with the aim of ensuring that New Zealand's climate adaptation strategies align with the most current and robust science.

Recommendation(s)

1. That the report 'Notice of Motion - Climate Data Review' by Louisa Gritt, GM Community Resilience and dated 11 March 2025, be received.
 2. That the Joint Climate Change Adaptation Committee agrees that the Chief Executive of the Northland Regional Council (as the secretariat for the Joint Committee) write to the Minister for the Environment, requesting:
 - i. A review of the latest climate science, including the most recent IPCC reports and other relevant research.
 - ii. An assessment of whether New Zealand's current approach to climate adaptation is based on the most appropriate Representative Concentration Pathways (RCPs) or Shared Socioeconomic Pathways (SSPs).
 - iii. Consideration of whether updates to official guidance and policies are necessary to reflect the most current scientific understanding. **(Attached)**.
-

Considerations

Being an administrative matter, climate impact, environmental impact, community views, Māori impact statement, financial and implementation implications are not directly applicable

1. Significance and engagement

This is an administrative matter and is considered to be of low significance when assessed against Northern Regional Council's Significance and Engagement Policy

2. Policy, risk management and legislative compliance

The matters addressed within this report comply with Northern Regional Council's Standing Orders.

Background/Tuhinga

Section 27 of NRC's Standing Orders¹ outlines the process regarding Notices of Motion. Key points include:

- Notices of Motion must be signed by the mover and submitted in writing to the Chief Executive Officer at least five clear days before the meeting in which it is to be considered.
- There is a suite of reasons for which the Chief Executive can refuse to accept a Notice of Motion.
- Notices of Motion may not be considered at a meeting in the absence of the mover unless moved by another member who has been authorised to do so in writing by the mover.
- Only the mover, at the time the Notice of Motion is moved and with the agreement of a majority of those present at the meeting, may alter a proposed Notice of Motion. Once moved and seconded no further amendments can be made to a Notice of Motion.

If a Notice of Motion is considered and rejected, a similar notice of motion cannot be accepted within 12 months, unless signed by not less than one third of all members, including vacancies.

The Notice of Motion as presented in this report is deemed valid.

Attachments/Ngā tapirihanga

Attachment 1: Notice of Motion [↓](#) 

¹ Standing Orders can be viewed using the following link: <https://www.nrc.govt.nz/media/j53kfica/nrc-standing-orders-2022-2025-including-administrative-updates-to-17-august-2023.pdf>



Climate data review

Notice of Motion: Mayor Craig Jepson (KDC)

Meeting: Joint Climate Change Adaptation Committee
Date of meeting: 20 March 2025

Purpose

To seek agreement for the Joint Climate Change Adaptation Committee to write to the Government requesting a review of the latest scientific data from the IPCC and other relevant sources, with the aim of ensuring that New Zealand's climate adaptation strategies align with the most current and robust science.

Executive summary | Whakarāpopototanga

As per the Joint Committee's terms of reference, its role is to advocate for climate change adaptation, both at a regional level and within the individual councils it represents. This notice of motion aligns with that mandate.

It is our responsibility as leaders to acknowledge and incorporate the latest scientific developments into our planning, engineering, flood modelling, and policy frameworks—areas that are ultimately funded by our communities and ratepayers.

The IPCC is recognized globally as a leading authority on climate science, yet there are emerging scientific studies that have not yet been integrated into its framework. Additionally, NIWA, as the Government's key advisor on climate projections, has not fully adopted the most recent IPCC guidance on future climate scenarios. This raises concerns about whether New Zealand's adaptation planning is based on the most appropriate Representative Concentration Pathways (RCPs) and Shared Socioeconomic Pathways (SSPs).

Motion | Ngā tūhunga

That the Joint Climate Change Adaptation Committee:

- a) Agrees that the Chief Executive of the Northland Regional Council (as the secretariat for the Joint Committee) write to the Minister for the Environment, requesting:
 - i. A review of the latest climate science, including the most recent IPCC reports and other relevant research.
 - ii. An assessment of whether New Zealand's current approach to climate adaptation is based on the most appropriate Representative Concentration Pathways (RCPs) or Shared Socioeconomic Pathways (SSPs).
 - iii. Consideration of whether updates to official guidance and policies are necessary to reflect the most current scientific understanding.

Context and Discussion | Horopaki ngā kōrerorero

There are two sets of models: RCP and SSPs:

Representative Concentration Pathways (RCP)

Representative Concentration Pathways (RCP) are climate change scenarios to project future greenhouse gas concentrations. These pathways (or trajectories) describe future



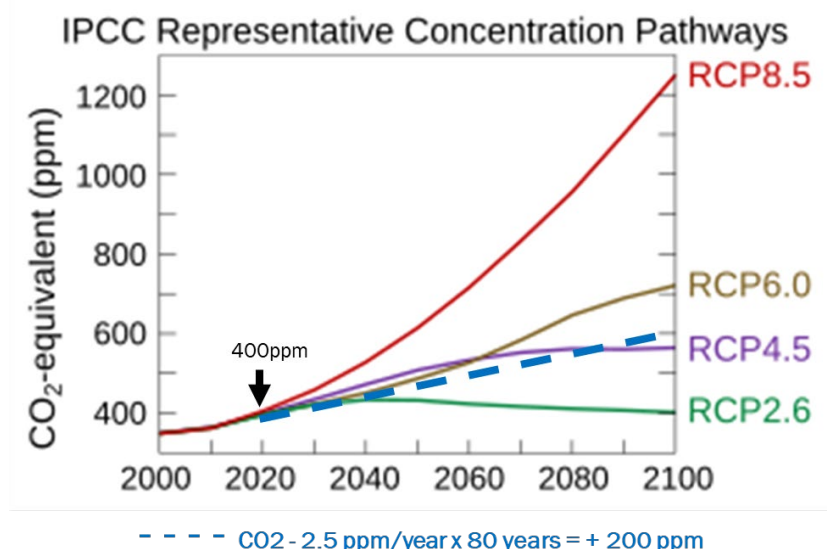
greenhouse gas concentrations (not emissions) and have been formally adopted by the IPCC.

Shared Socioeconomic Pathway (SSP5)

IPCC's 6th Assessment Report (2021–22) shifted to a new core set of future representative scenarios, based on Shared Socio-economic Pathways (SSPs). These comprise different socio-economic assumptions that drive future greenhouse gas emissions. The scenarios span a wide range of plausible societal and climatic futures, based on greenhouse gas emissions, that result in the stabilisation of global warming at 1.5°C to over 4°C warming by 2100. You can find out more about the SSPs [here](#). The

New Zealand currently utilises RCP8.5: **NIWA, Councils, and many Government Departments are using a Model titled Representative Concentration Pathway 8.5 (RCP 8.5).**

Victoria University of Wellington undertook and developed Sea Rise NZ data (5-year project, 2018, \$7.1 million. In 2022 received an additional \$13 million) utilizing SSPs.



RCP 8.5 refers to the concentration of carbon that delivers global warming at an average of 8.5 watts per square meter across the planet. The RCP 8.5 pathway delivers a temperature increase of about 4.3°C by 2100, relative to pre-industrial temperatures.

Currently CO₂ is increasing at a rate that would result in a level of approximately 600ppm by 2100 rather than the 1300ppm depicted in RCP 8.5.

Important to note of the increase in CO₂ less than 5% is attributable to humans with over 95% being a natural increase.

AR6 acknowledges that RCP8.5 represents an extreme, high-emissions pathway that was initially developed as a worst-case scenario rather than a probable future, yet New Zealand uses this unlikely high model.



AR6 places more emphasis on SSP2-4.5 and SSP3-7.0 as likely baselines for assessing climate outcomes based on current and moderate mitigation policies.

SSPs-8.5 represents an increase of 8.5 watts per meter squared (W/m^2) between 1750 and 2100.

Example of variation between actual measurements, RCP's and SSPs on Sea level rise in the Auckland area.

	SSP2-4.5	SSP3-7.0	SSP5-8.5	SSP5-8.5 H+
2005	0	0	0	0
2030	0.11	0.11	0.11	0.15
2040	0.16	0.16	0.18	0.23
2050	0.22	0.24	0.26	0.33
2060	0.28	0.31	0.34	0.44
2070	0.35	0.4	0.44	0.58
2080	0.42	0.5	0.56	0.74
2090	0.5	0.61	0.69	0.91
2100	0.58	0.74	0.84	1.11
2110	0.67	0.84	0.95	1.31
2120	0.74	0.96	1.09	1.5
2130	0.82	1.08	1.22	1.69

Projected Sea Level Rise - 100 years

Tide Gauges	14.5 cm	New Zealand average - last 100 years and not accelerating		
IPCC	RCP2.6	RCP4.5	RCP6.0	RCP8.5
	26 to 55 cm	32 to 63 cm	33 to 63 cm	45 to 82 cm
NZSeaRise	SSP2-4.5	SSP3-7.0	SSP5-8.5	SSP5-8.5 H+
100 yrs to 2120	74 cm	96 cm	109 cm (1.09m)	150 cm (1.5m)

|



Options

Option 1: Approve the motion.

The advantage with this option is that the committee is providing regional leadership to seek the Government to review its approach based on updated science in line with global thinking.

There is no disadvantage to this option.

Option 2: Status quo remains.

Policy and planning implications

Agreeing to this notice of motion will help drive clarity in the management and leadership of climate adaptation across the region and country.

Financial implications

There are no financial implications of this notice of motion

Significance and engagement | Hirahira me ngā whakapāpā

The decisions or matters of this motion are considered to have a low degree of significance. No feedback is required, and the public will be informed of this decision via the agenda and minutes publication of this meeting on the website and through other channels if appropriate.

Craig Jepson
Mayor
Kaipara District