

Meeting: Strategy and Policy Committee

Meeting Date: 10 December 2024

Presentations

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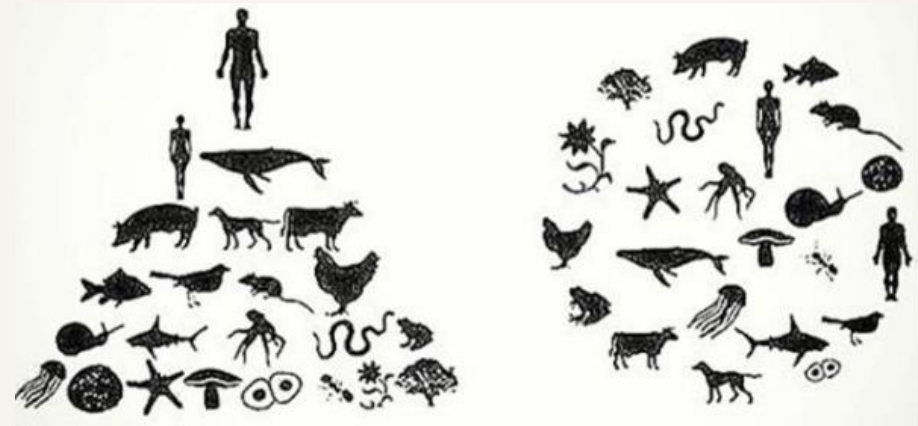
Climate Change and Health

Vicktoria Blake – Principal Advisor Climate Risk & Resilience
December 2024

Te Kāwanatanga o Aotearoa
New Zealand Government

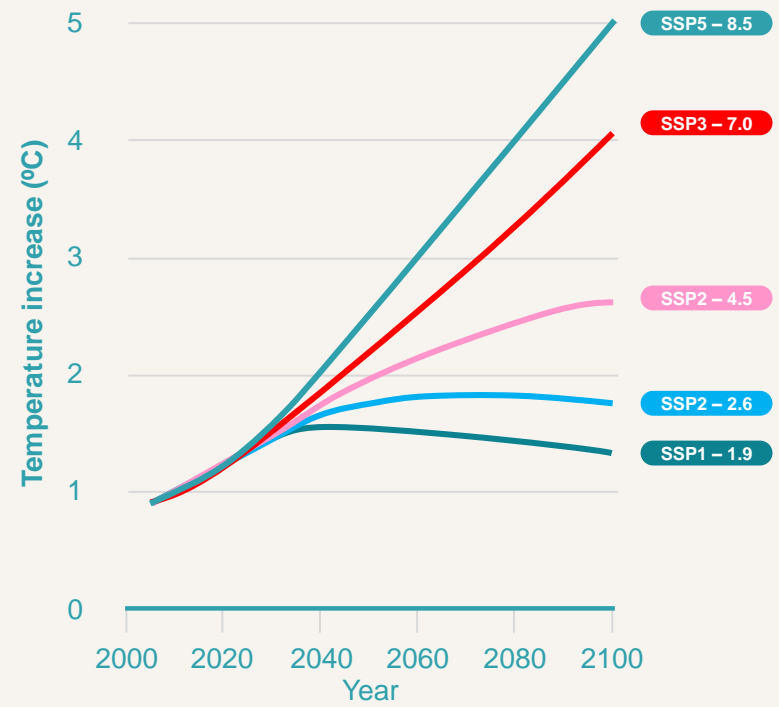
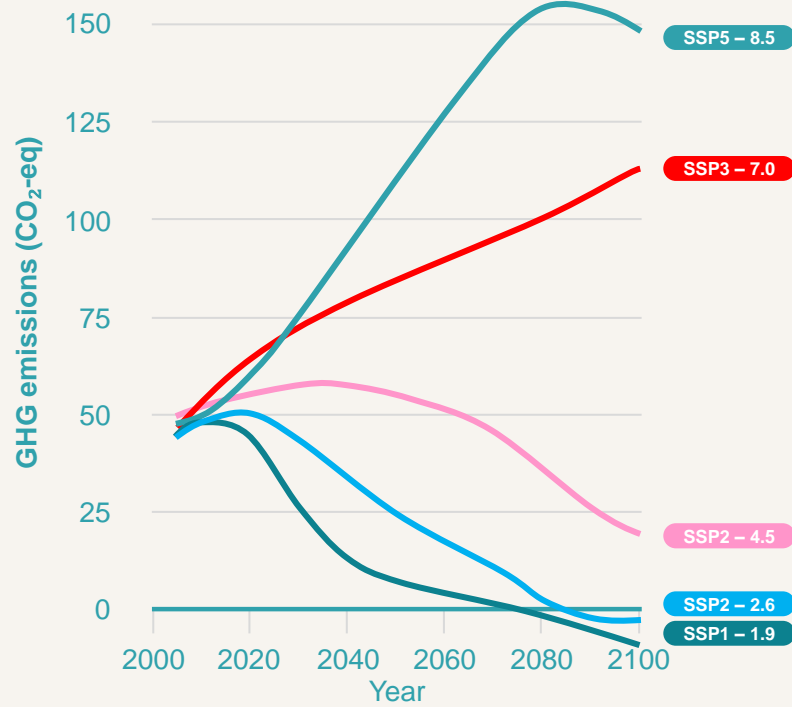
Health New Zealand
Te Whatu Ora

**Ka ora te taiao,
ka ora te tāngata**
**We are a part of
nature,
not apart from it**



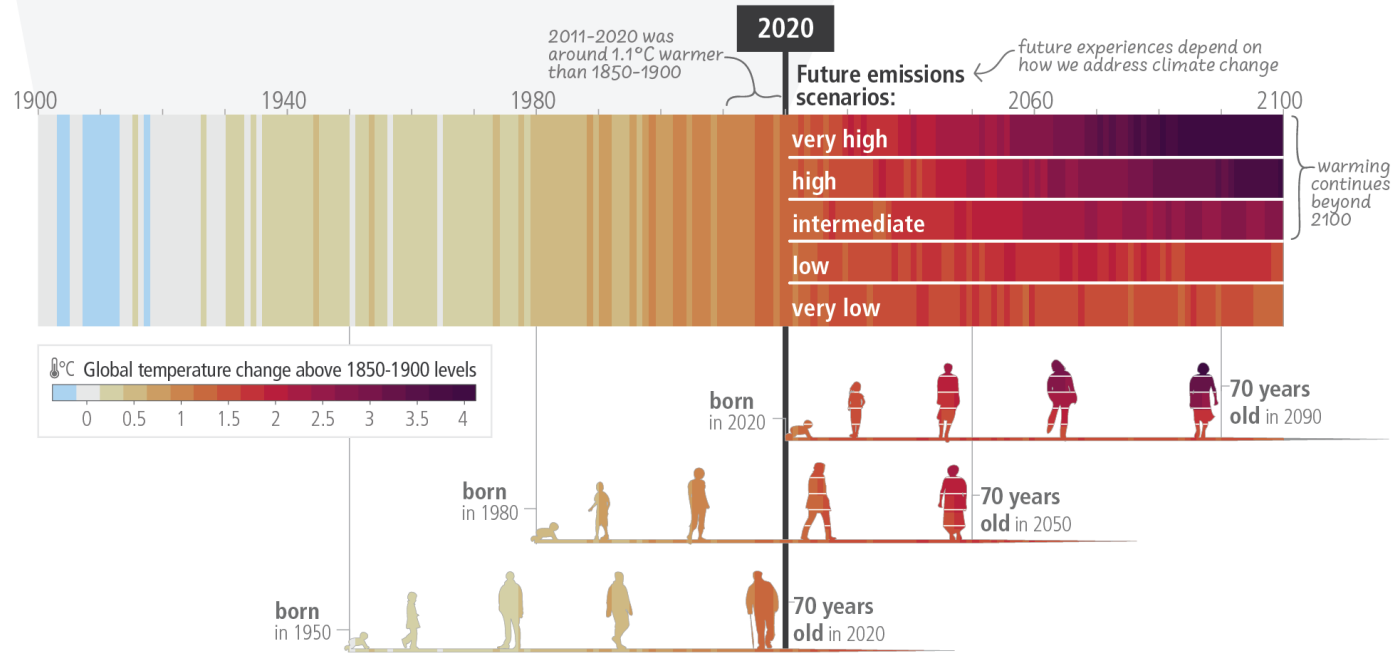
Shared Socioeconomic Pathways – Climate Projects

(IPCC 6th Assessment)



Climate change and environmental degradation impacts quality of life

c) The extent to which current and future generations will experience a hotter and different world depends on choices now and in the near-term

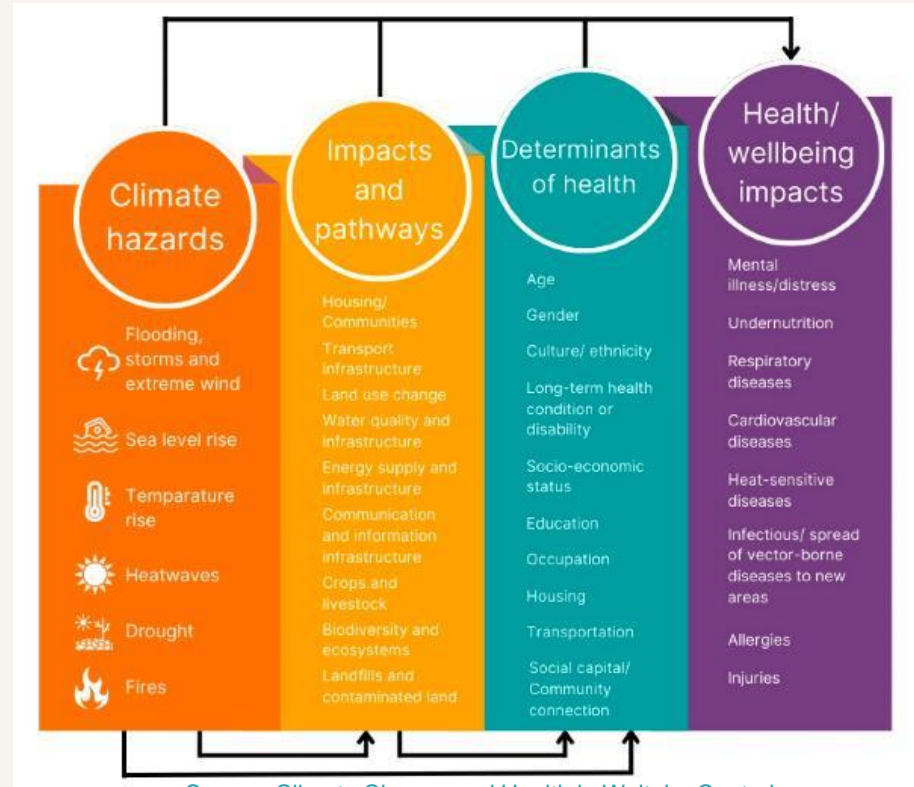


Impacts of climate change on human health



(Source: Centers for Disease Control and Prevention)

Cascading risks



Source: [Climate Change and Health in Waitaha Canterbury](#)

Climate scenarios

Focus areas

	Scenario 1 (>3°C aligned)	Scenario 2	Scenario 3 (1.5°C aligned)
	'Hot House World'	'Delayed & Disorderly'	'Ambitious & Orderly'
SSP Scenario:	• SSP3 – 7.0	• SSP2 – 4.5	• SSP1 – 1.9
Temp. (2050):	• 2.1°C	• 2.0°C	• 1.6°C
Temp. (2100):	• 3.6°C	• 2.7°C	• 1.4°C
CCC Scenario:	• Current policies	• Headwinds	• Tailwinds

Short-term 2023 (present-day) – 2030, Medium-term 2030 – 2050, Long-term 2050 – 2100

Risk factor	Trend of risk factor in scenarios over 2025-2100		
	Hothouse	Disorderly	Orderly
Temperature extremes Mortality & morbidity	Extreme increase ↑	Major increase ↑	Moderate increase ↑
Extreme weather events and associated floods Mortality & morbidity	Extreme increase ↑	Major increase ↑	Moderate increase ↑
Air pollution and urban from changes Mortality & morbidity	Moderate increase ↑	Moderate decrease ↓	Major decrease ↓
Diets and food system Non-communicable disease incidence	Moderate increase ↑	Minor increase ↑	Major decrease ↓
Infectious and vector-borne disease Exposure to pathogens	Major increase ↑	Moderate increase ↑	Minor increase ↑

Government policy and funding, including mātauranga Māori

Socioeconomic status and demographic drivers, including economic distribution, people movements and migration

Environmental drivers, including types of extreme weather events

Built environment and food systems, including transport systems and urban form

Health system impacts, including primary and community care, hospital care, public health services, aged care, medicines and medical supplies and health insurance

Climate scenarios



Hot House World

- Policies shift to become increasingly oriented towards domestic and regional priorities.
- Declining public investment in health and education
- Energy, water and food security issues

Delayed & Disorderly

- World follows a path in which social, economic, and technological trends do not shift markedly from current patterns.
- Global ambition and rhetoric high
- Climate action variable across countries.

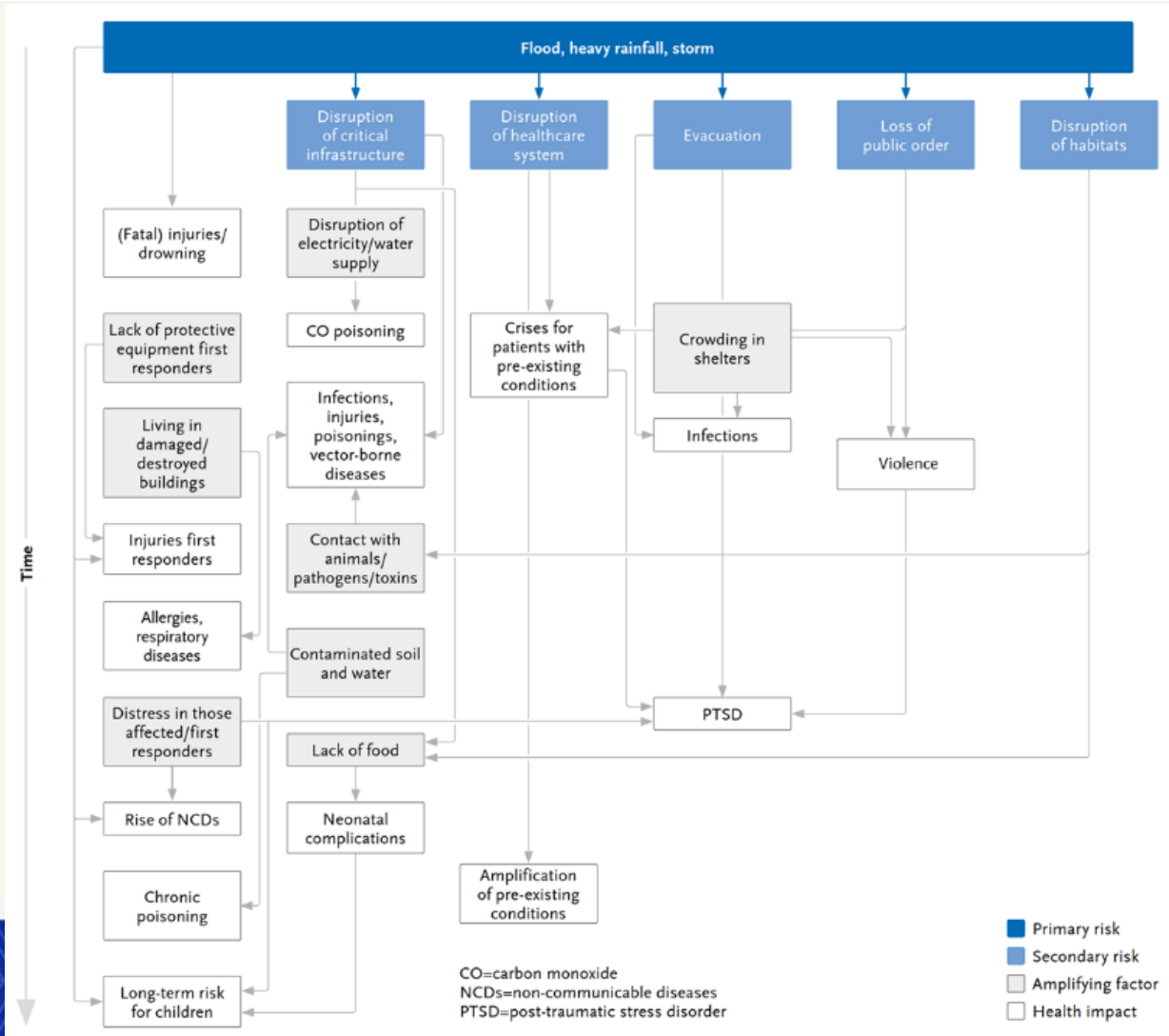


Ambitious & Orderly

- The world shifts towards a more sustainable and socially inclusive path
- Respect for environmental boundaries which emphasises human health and wellbeing.
- Growing recognition that climate change is causing a global health emergency
- Emissions decline globally from 2025 - 2050 through the implementation of ambitious and coordinated climate action across countries.

Cascading risks

Figure 5.2: Cascading risks triggered by floods, heavy rainfall and storms. Arrows indicate possible causal relationships between risks, amplifying factors and health consequences. Adapted from (Butsch, et al., 2023)



Te Whatu Ora priority workstreams

Strategic integration of sustainability



To integrate sustainability in core strategic, decision making processes and culture.

Health System Decarbonisation



To reduce health system carbon emissions in line with a 1.5-degree scenario.

Environment in All Practices



To realise co-benefits that include the environment alongside health, equity, social and economic values.

Health System Resilience and Adaptation



To ensure sector resilience by planning for and adapting to the impacts of climate change.

Emissions (tCO2e)	FY22/23	FY23/24
Total measured emissions	237,822	205,275
Category 1	102,413	83,087
Category 2	41,705	27,015
Category 3	80,343	80,696
Category 4	13,361	14,476

Recent Events



Item 7.1, Presentation

Recent Events

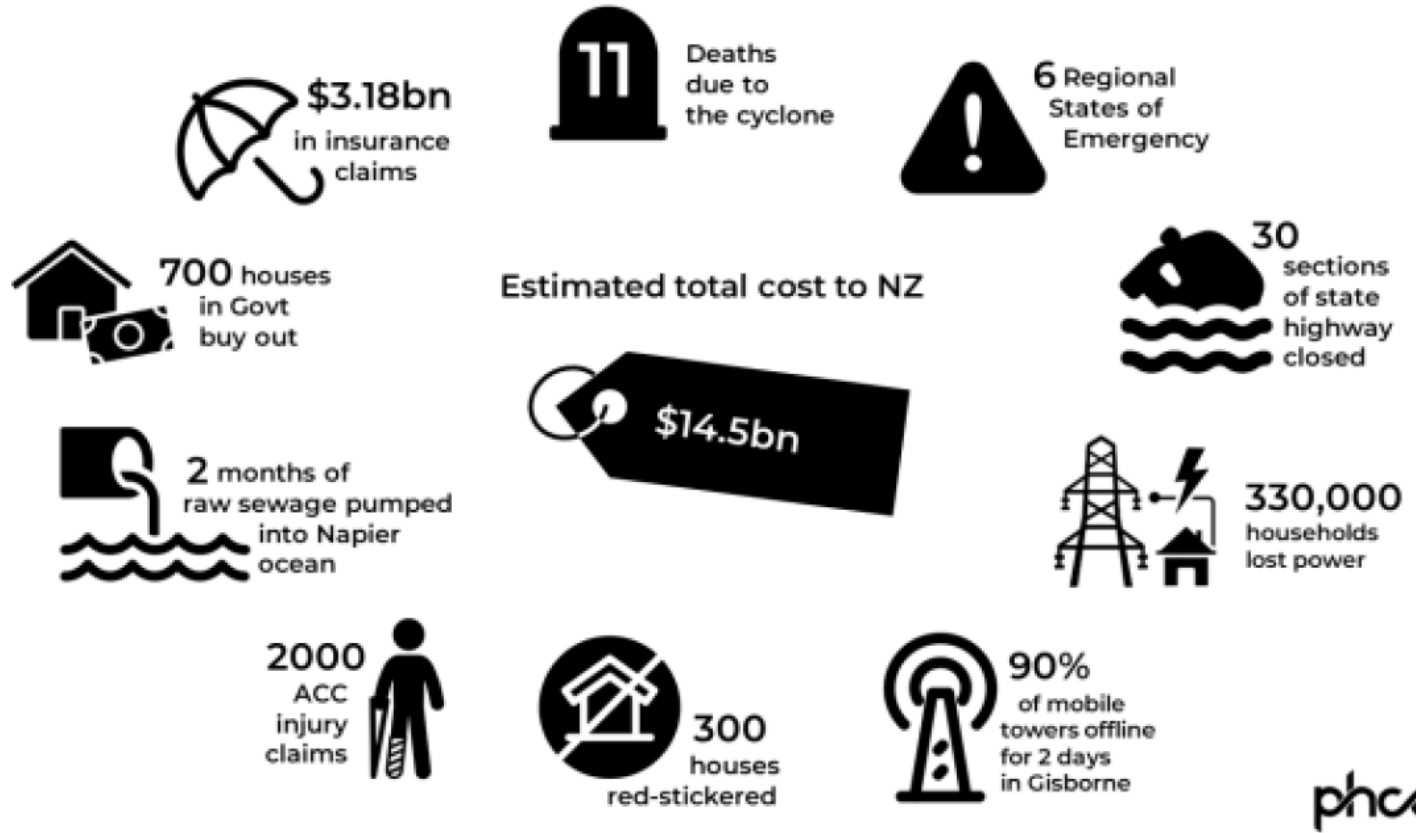


While devastating to the communities impacted, Cyclone Gabrielle can be considered as a moderate scale event when compared to what New Zealand could experience

Government Inquiry into the Response to the North Island Severe Weather Events



Cost of Cyclone Gabrielle

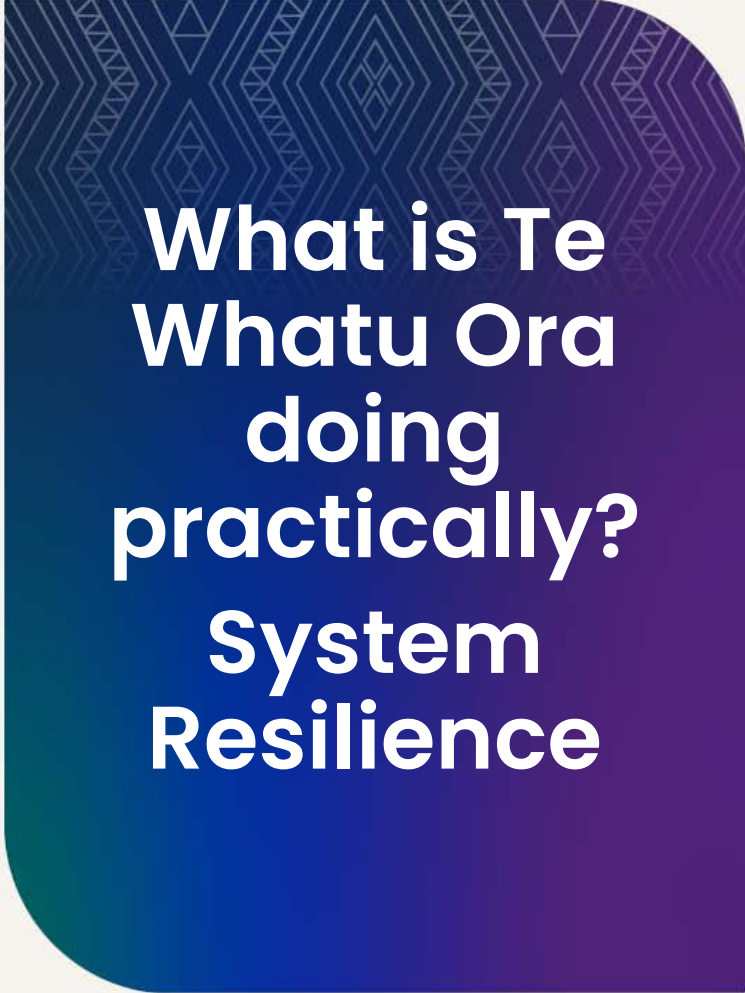


Eskdale – one year on



Images: V Blake December 2023





What is Te Whatu Ora doing practically? System Resilience

- Key infrastructure Climate Change Risk Assessment complete
- Supported Manatū Hauora on creation of Health National Adaptation Plan (HNAP)
- Assisting MOH with vulnerability and adaptation assessment
- Climate change scenario analysis – healthcare, building and construction, energy (internal only)
- Mapping across organisation for touchpoints for work on climate change and health monitoring, management and adaptation solutions
- Commencing work on a healthcare climate resilience planning



What we don't know

- We need to develop a deeper understanding of the impacts on human health and wellbeing stemming from climate change and its direct, indirect and transition related risks
- We need to understand the financial and health cost implications stemming from the impacts of climate change, and the benefits that climate change mitigation can bring



Nga mihi nui ki a koutou

Contact

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Resources

Healthcare sector climate scenarios

<https://www.sustainablehealthcareaotearoa.org.nz/projects>

Health National Adaptation Plan

<https://www.health.govt.nz/publications/health-national-adaptation-plan-2024-2027>



Freshwater Programme – next steps

S&P Committee workshop

10 December 2024





Today's presentation has three parts.....

1. Decision on way forward
2. Implementation and budget
3. Risk overview



Decision on way forward - context

1. Uncertainty in the national landscape is now a fact of life – changing government direction
2. We were waiting for a Cabinet paper but not sure it will shed much light
3. The **why** behind the need for policy/plan change is well established – outcome focused
4. We have developed a good product – it will solve problems
5. A stakeholder conversation is needed



Which brings us to the options

	2025			
	Jan	Mar	June	Sept
Option 1 Release draft prior to NPSFM 2025 and pivot		Release Draft RPS and RNRP change (excluding diffuse losses from farming) AND Release Farming Discussion Document	Pivot in response to NPSFM 2025	Release Draft diffuse losses from farming rules
Option 2 Release after NPSFM 2025	Topic testing informally with stakeholders and tangata whenua (including OSET, Water Quality, enabling provisions, farming land use amongst others)		Pivot in response to NPSFM 2025	Release draft whole proposed RPS and RNRP change (including diffuse losses from farming rules)
Option 3 Post 2026 – Next triennium	Topic testing informally with stakeholders and tangata whenua (including farming land use)		Pivot in response to NPSFM 2025	Final drafts completed for future process, no release
Option 4 Module approach	Release Draft RPS and modules of RNRP change	Topic testing informally with stakeholders and tangata whenua	Pivot in response to NPSFM 2025	Decision on balance of RNRP



Recommended – Option 2

Why?

- The NPSFM will have been sorted
- Continues the momentum
- Stakeholder conversations remain critical:
 - culmination of many strands of work and engagement commitments
 - needed to support what happens in the future
 - requests being received (eg catchment groups)
- Focus on environmental outcomes/no regrets
- Retains ability to notify ahead of RM reform



Topic Testing

1. Continuing to test the draft is the best way to be fully prepared for any future decision
2. Testing elements of the draft with stakeholders, affected parties, tangata whenua to fine tune
3. Groups are keen to see these
4. Limited topics – not the full draft

Implementation and budget





Implementation and budget

1. Savings from **FW programme** and **FW Implementation** provided in the DAP process
2. Further reductions proposed in this report (based on review of project priorities) – budget now halved
3. In the absence of new more robust policy, projects become more important
4. Potentially further changes depending on today's decision.....



Priority Projects

1. Accounting System
2. Existing tangata whenua projects
3. Land use monitoring, datasets
4. Monitoring (eg gauging for water restrictions)
5. Catchment Group support
6. Streamlining working with iwi/hapū consents process

Risk Overview





Risk overview

Request from Audit and Risk Committee for “deep dive”

Risk of legislative change now actual event

Freshwater Programme risks dependent on “where to from here?”

Risks associated with extended timelines.



Risks?

1. Risk of expectations of community/tangata whenua not being met – reputational risk
2. Water quality “maintain and improve” at risk:
 - a) Delay in action
 - b) Intensification
3. Science/data risks – currency of information?
Note: PCE reporting on regional data/information

Mount Maunganui Airshed Management Plan

Advance matters for consideration





Mount Airshed Management Plan

- **Optional:** not undertaken for PC13, but
- **Strongly Recommended** (by Environment Court), and a
- **Reputational risk** if not developed



MMAMP – Considerations

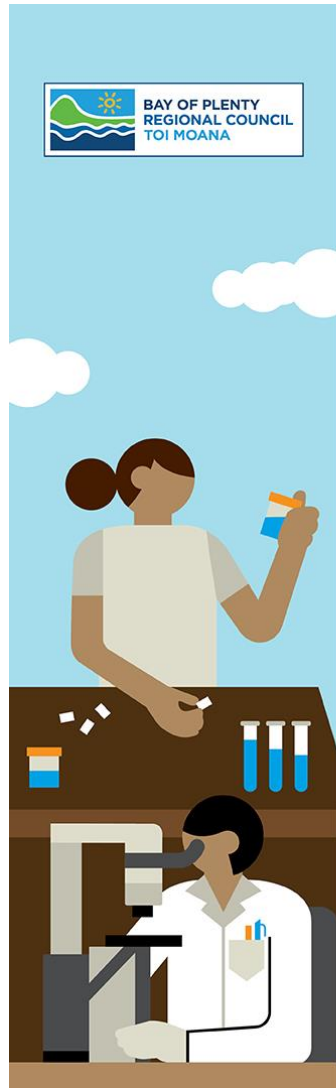
Many MMA parties with many existing documents:

- **PC13 (Air Quality)** new provisions for BSM, U Yards
- **TCC’s Mount to Arataki Spatial Plan** (incl Mount Industrial Plan)
- **Priority One – Mount Maunganui Industry Environmental Accord**
- **Public confusion** – *“Who does what?”*
- **Consultation fatigue** – *“Why are you asking me this again?”*



MMAMP: Suggested Scope & Content

- Develop AMP as per Court's recommendation
- Limited to Regional Council Role
- Contaminants: PM10 and odour
- Timeframe 1-2 years (as Rules already in place)
- Consultation: the MAQWP will inform the AMP through consultative process



Identified Actions for AMP

Work Item

Review scope/interests of other forums

Review of AQ monitor locations

Assessment of monitoring

Investigate dwellings within MMA industrial zone

Review annual average guideline value for PM₁₀

Advocacy with emitters

Review of consent clauses

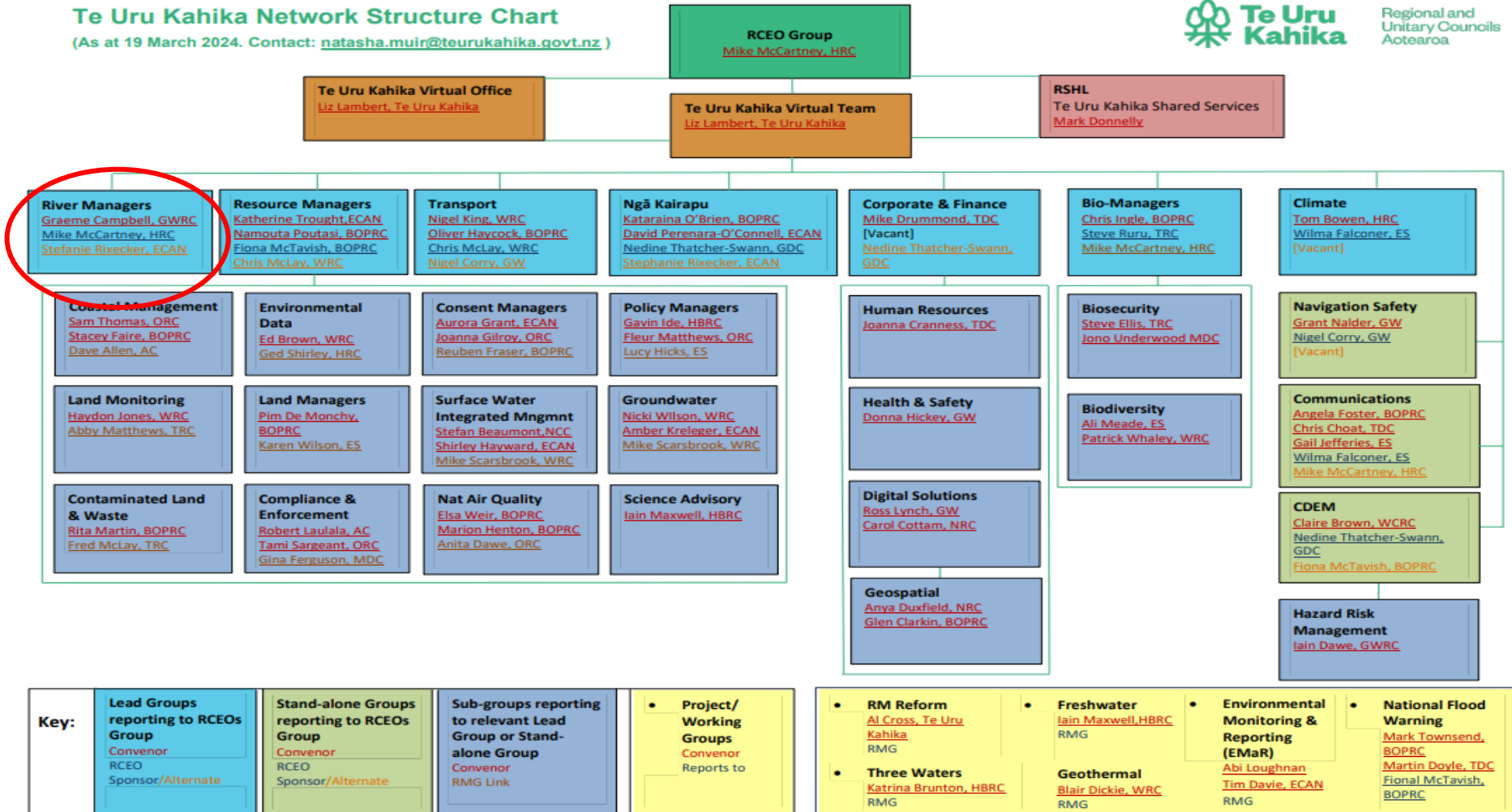
NZ River Managers SIG 10 Year Plan

Presentation to Strategy and Policy
Committee

Dec 2024



Te Uru Kahika Network Structure Chart
(As at 19 March 2024. Contact: natasha.muir@teurukahika.govt.nz)



NZ River Managers SIG

Reps from all 16 Councils meet 6 monthly



Convenor – Graeme Campbell GWRC



Hiding in plain sight

An overview of current practices, national benefits and future challenges of our flood protection, river control and land drainage schemes

Prepared for
River Managers' Special Interest Group

Prepared by
Tonkin & Taylor Ltd

Date
April 2018



Enabling Collaboration

Champion



Leigh Griffiths

Rivers Manager @ Environment
Canterbury

Sustainable Funding, Project Delivery and Support

Champion



Graeme Campbell GWRC



Policy Influence and Implementation

Champion



Nick Brown
Regional Planning Manager, Healthy Waters
Auckland Council



Quality People

Champion



Shaun McCracken

Flood Protection Recovery Manager at Environment Canterbury

Best Practice

Champion



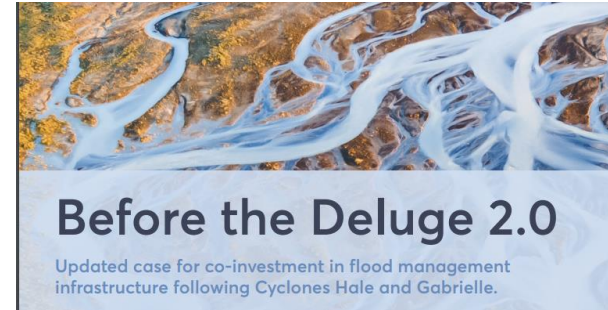
Mark Townsend
Engineering Manager
BOPRC
Toi Moana





Sustainable Funding

Crown Infrastructure Partners - Shovel Ready Projects



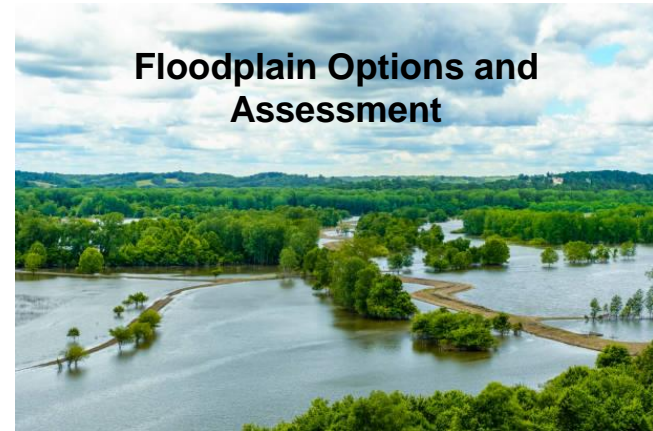
Resilient River Communities



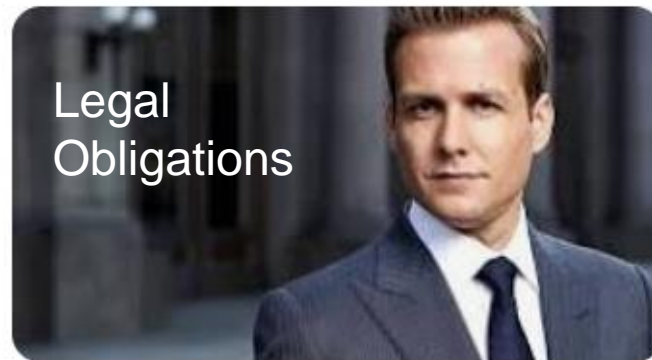
Best Practice



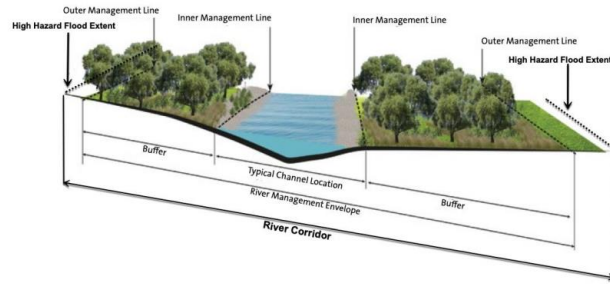
Engaging with Māori
A guide for Aotearoa
New Zealand River Managers



**Floodplain Options and
Assessment**



**Legal
Obligations**



Application of Room for the River

**Bay of Plenty
hydraulic modelling
guidelines**

Guideline 2024/03



**Stopbank design and
construction guidelines**



What's underway ?



Riparian Management Guidelines



Innovative Practices

Asset Management Group

Following national and international AM best practice:

- ISO 55000 series for understanding "what" needs to be done.
- International Infrastructure Management Manual (IIMM) for understanding "how" to do it.
- IPWEA and NAMS+

Assessing progress:

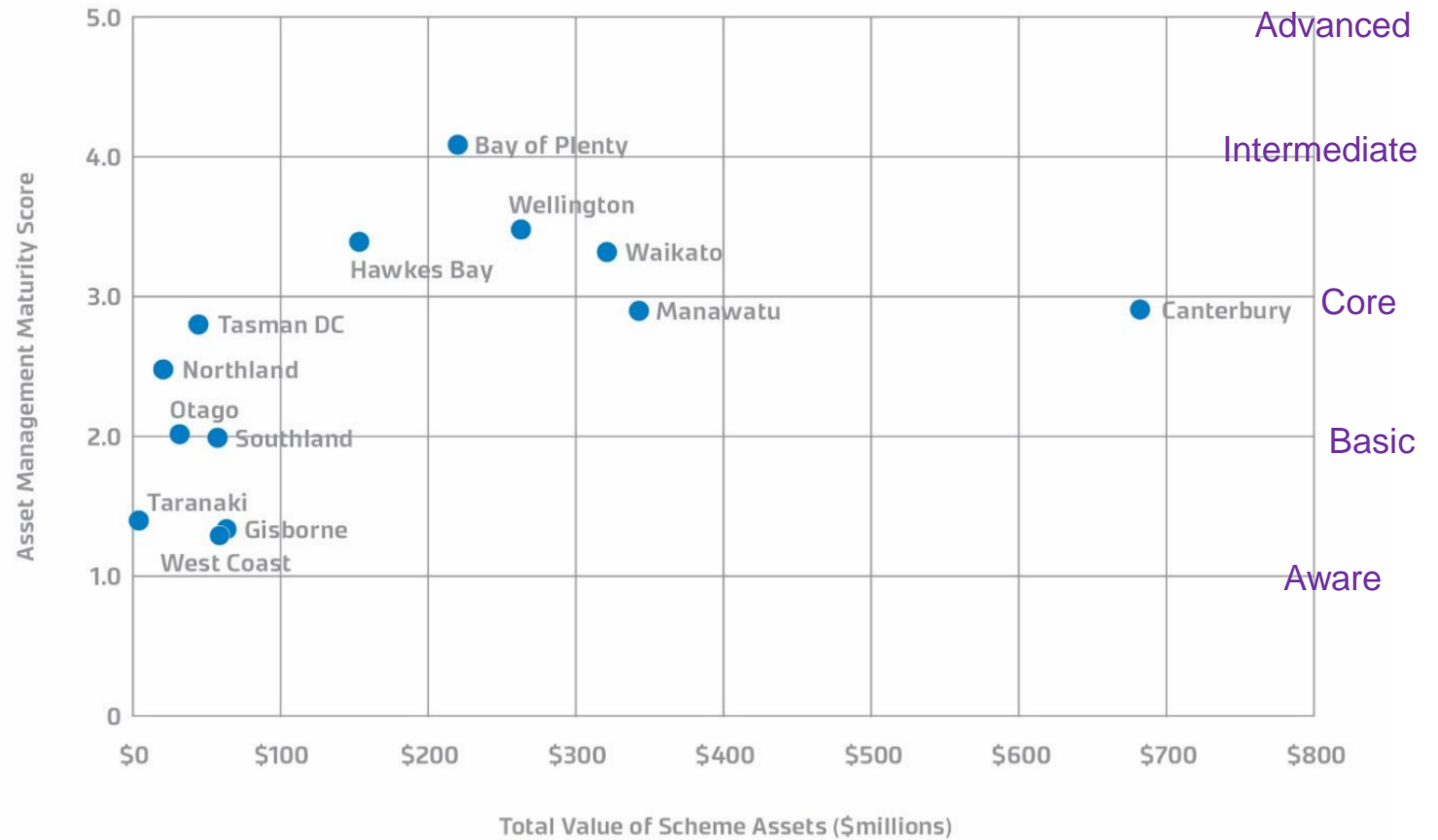
- Self-assessment tool developed by the Treasury Office.
- Aligned with IIMM methodology and incorporates ISO 55000 requirements.
- Assesses current AM practice, identify gaps, determines appropriate targets.
- Highlights areas for investment to enhance maturity levels.
- Gain support and agreement from elected members, senior management and stakeholders.

Endorsed by Treasury for government agencies.





AMP Maturity – fit for purpose

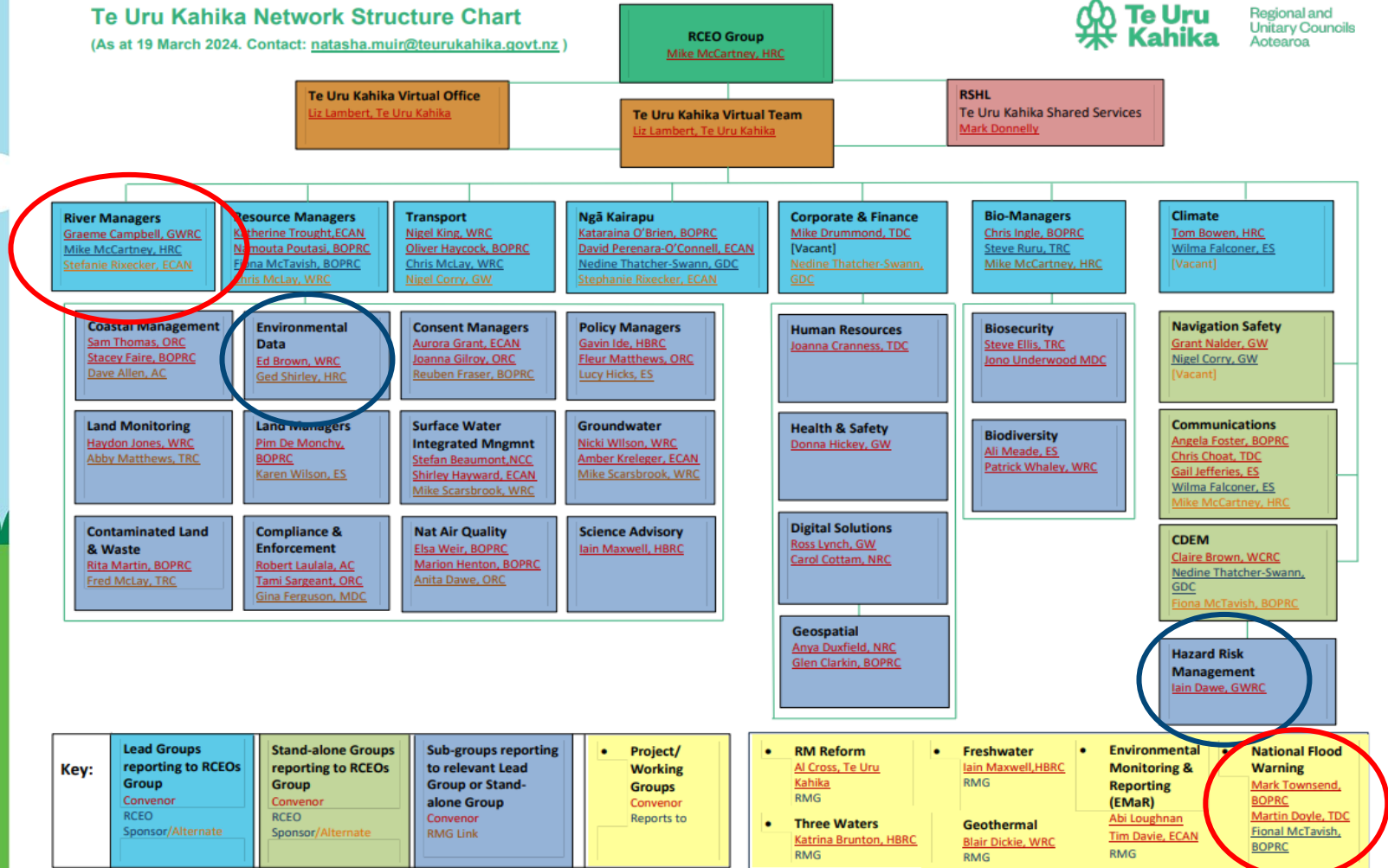




Flood Warning

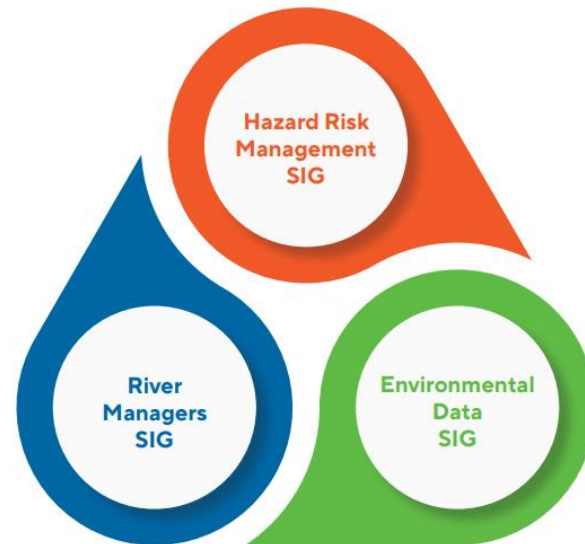


Te Uru Kahika Network Structure Chart
(As at 19 March 2024. Contact: natasha.muir@teurukahika.govt.nz)





National Flood Warning Steering Group



Special Interest Groups (SIGs) working together to enable effective flood management.

OUR VISION

Floods are managed to support community safety and damage reduction

Supporting Regional Councils and Unitary Authorities to raise the standard of flood management across New Zealand.

Providing a central point of contact for flood management.

Connecting Councils who are working on the same flood related issues.



Flood Warning Workshop and Symposium

Christchurch July 2024

Flood Manual Maturity Assessment

	Topic of assessment
1	Scope and purpose (breadth of flood manual and relevant audience)
2	Roles and responsibilities (of organisation and partner agencies)
3	Communication and critical contacts (i.e., key stakeholders)
4	Flood mapping and historical flood events
5	Flood forecasting systems (i.e., platform and approach)
6	Environmental data (rating tables and rainfall tables)
7	Trigger levels (trigger descriptions and associated actions)
8	Flood warnings (recipients and systems – who and how, including PIM)
9	Integration with Civil Defence Emergency Management
10	Training and Exercise programme / activities

