

Government Co Investment in Flood Protection: discussion with Rural and Provincial Sector, LGNZ

Graeme Campbell
GWRC and Convenor
River Managers SIG
& John Hutchings
Hutch Consulting
2 March 2023



Regional and
Unitary Councils
Aotearoa



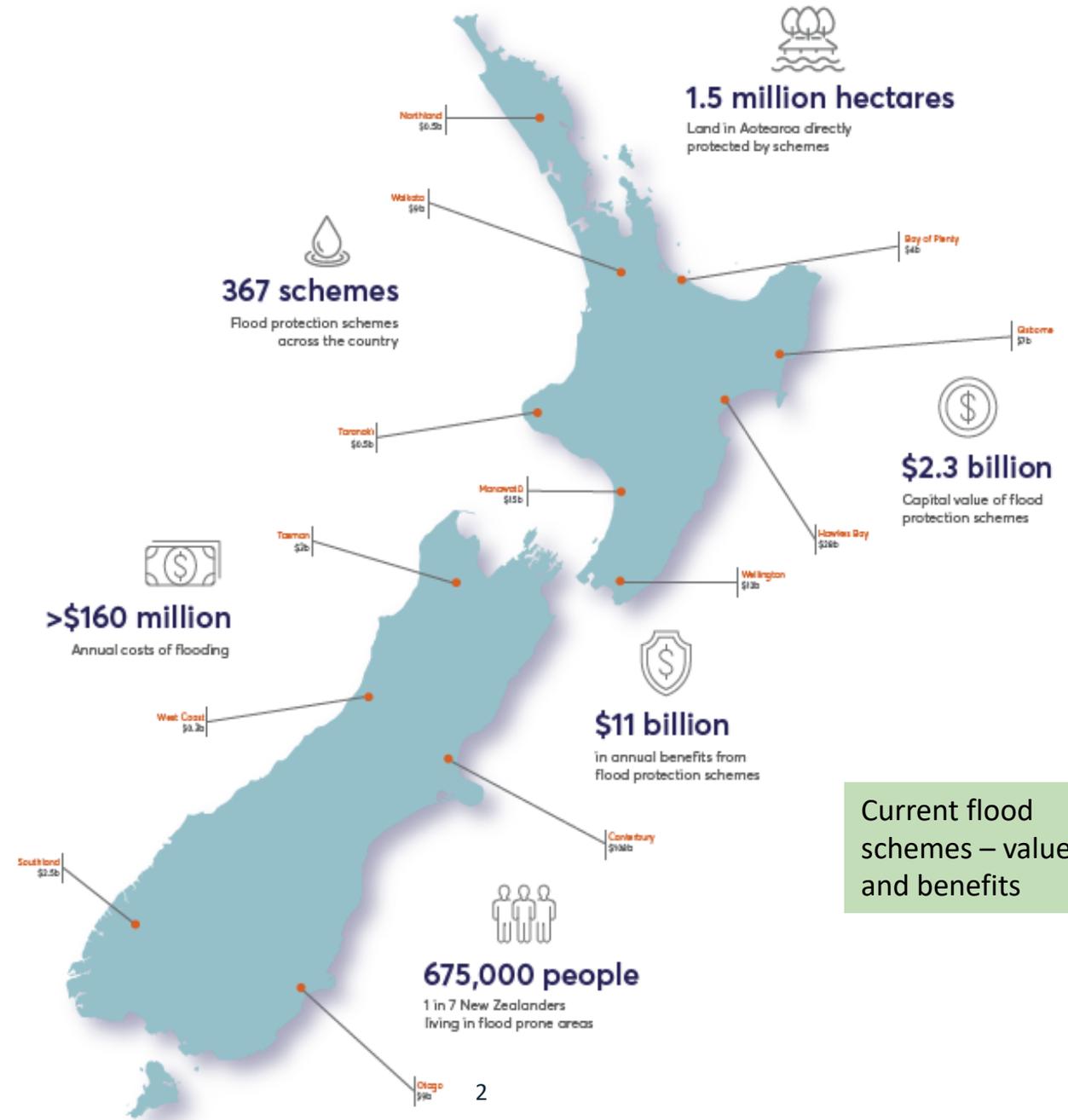
Purpose and background

Provide a progress report on – Te Uru Kahika flood (river-related) risk resilience plans and the case for central government co-investment

Discuss the next steps – to secure 2023 and a longer-term Government commitment to co-investment to build greater community resilience against river flooding risks

Background – the Regional Sector Group (RSG) has requested that \$257m be provided in Budget 2023 for 92 flood risk resilience infrastructure projects

Our request to you – support the RSG request



Current flood schemes – value and benefits

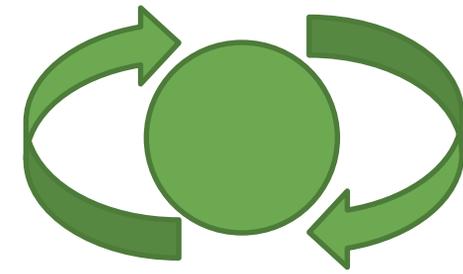
Context

Cyclones Halo and Gabrielle have been devastating

Currently still in response mode, moving to recovery mode, needing to continue to focus on risk reduction while also working on being better prepared (ready) for the next storm event

Gabrielle affected:

- 30% of New Zealand's land mass
- 50% of New Zealand's population
- 50% of the area generating New Zealand's GDP
- Expected cost of recover - \$13billion



Response
Recovery
Risk Reduction
Readiness

+



Context ...continued

Adapting to climate change has new urgency. An Adaptation Act is in development.

- 675,000 people live in areas that may be affected by floods (1:7 seven New Zealanders)
- 411,000 buildings may be affected by floods
- Capital assets exposed to flooding have a value of \$135billion
- Plus roads, rail and other network / communication utility services

Managed retreat is a long-term game – who pays, how much, for what?
(estimated \$100billion cost - \$3.7billion /pa)

New RMA legislation will make better provision for:

- Spatial Planning – right use, of the right land, in the right place
- National Planning Framework – to provide, among other things – better national guidance on natural hazard management

For the past 30 years, regional / unitary **councils have met most of the cost of flood protection** measures with little contribution from central government – they need to come back to the table

Flooding may be caused by

1. **overload of stormwater** management systems (TLA responsibility) or / linked to
2. **overtopping of river channels** (regional council focus)



Challenge

Newsroom commentator (23 July) ...*"We believe its far more cost-effective to actually put the fence at the top of the cliff, or the stop-bank next to the river....rather than what we're dealing with in Buller and elsewhere at the moment around clean-up"*

Ashburton / Canterbury flood (June 2021), Marlborough flood (July 2021), Westport / Buller floods (July 2021, Feb 2022), Nelson (August 2022) and now Cyclones Hale & Gabrielle (January and February 2023) are **live manifestations of the flood challenge** – all are related to climate change

Flooding is the number one, commonly occurring natural hazard in Aotearoa. New Zealand now faces, on average, one major flood event every eight months. Investment in flood protection buys time for other longer-term flood risk resilience initiatives to be put in place

A step change in investment is required.



Change drivers – why now?

Flood protection schemes are a critical first action in adapting to the impacts of climate change. Without on-going investment in these schemes, we will not achieve a more resilient New Zealand.

- **Climate change is causing higher flood levels** and more frequent floods. High risk areas are becoming more difficult to insure. Government is becoming the insurer of last resort – at the bottom of the cliff.
- **More communities and expanded public assets**, with much more value than when the schemes were constructed, **are now at risk from floods**.
- Schemes must also now achieve integrated land uses, enhance ecological and water quality outcomes and meet **contemporary iwi and wider community aspirations**.
- A '**multi-tool**' / **PARA comprehensive approach** is required to building community resilience against the risk of flooding. Flood protection schemes remain the primary tool.
- **Insurers are becoming more discerning** – they are withdrawing from those with high risks. Keeping or reducing the 'risk' to an acceptable level is the critical action now needed to keep insurers in the market.

To more fairly recognise national, regional and local public and private interests,

National interest in flood protection

Flood protection infrastructure is nationally important. It underpins the integrity of public and private assets and lifelines and provides resilience and security to communities and their investments.

- Is fiscally **responsible and fair**.
- Reflects Treasury's **Living Standards Frameworks**.
- Is supportive of wellbeing and social inclusion and reflects **equity / ability to pay** considerations.
- Is supportive of **job creation** and lifting the productive potential of the regions.
- Contributes to the security of **access routes** (rail and road) for commerce.
- Directly protects **Crown assets** such hospitals, schools, infrastructure etc. (with a value of \$1b in each of Ashburton, Blenheim and Westport)
- Contributes to investment '**opportunity costs**.' •
- Works against the risk of **escalating insurance** premiums or the risk of insurance companies refusing to provide insurance cover in flood risk areas.
- Provides for resilience and adaptation against the effects of **climate change-induced** 'above-design' storm events.
- Above all else, provides **resilience and increased levels of safety and security** to existing and future individuals and communities.

Co-investment in flood protection aligns with current resource management and climate change policy initiatives

MANAGE RISK

through flood protection schemes:

stopbanks, barriers & river management / nature-based solutions (e.g. wetlands)

detention & relief mechanisms / flood-flow diversion



“Multi Tool” approach to flood management

AVOID RISK

through land-use planning:

hazard assesment, mapping and zoning locating new development in low-risk areas

restrictive planning in high-risk areas managed retreat

CONTROL RISK

through building infrastructure and design:

raising floor heights

ACCEPT RISK

through emergency response / preparedness and community education:

warning systems flood modelling

evacuation plans community preparedness plans

TRANSFER RISK

through insurance markets:

insurance pay-out / higher premiums or excesses in high-risk areas or

withdrawal of insurance cover in high risk areas

Co-investment 2023 request to Government

Te Uru Kahika sent (December 2022) a co-investment case to MBIE requesting \$257m for 92 projects, with a total cost of \$428m: *'Before the Deluge: Building Flood Resilience in Aotearoa'*.

Recommended Government cost-share:

- 75% for projects in less wealthy districts.
- 60% for projects in other districts.
- NB may need some review after Gabrielle,
- Need to secure long-term Government co-investment

Core content:

- Case studies – demonstrable progress and confirmed cost/benefit
- Strategic case: challenge and rationale
- Economic case: options for intervention and preferred way forward
- Financial case: funding sources
- Implementation: operationalising co-investment
- Recommendations: roadmap for moving forward
- Appendix: details about the 92 projects

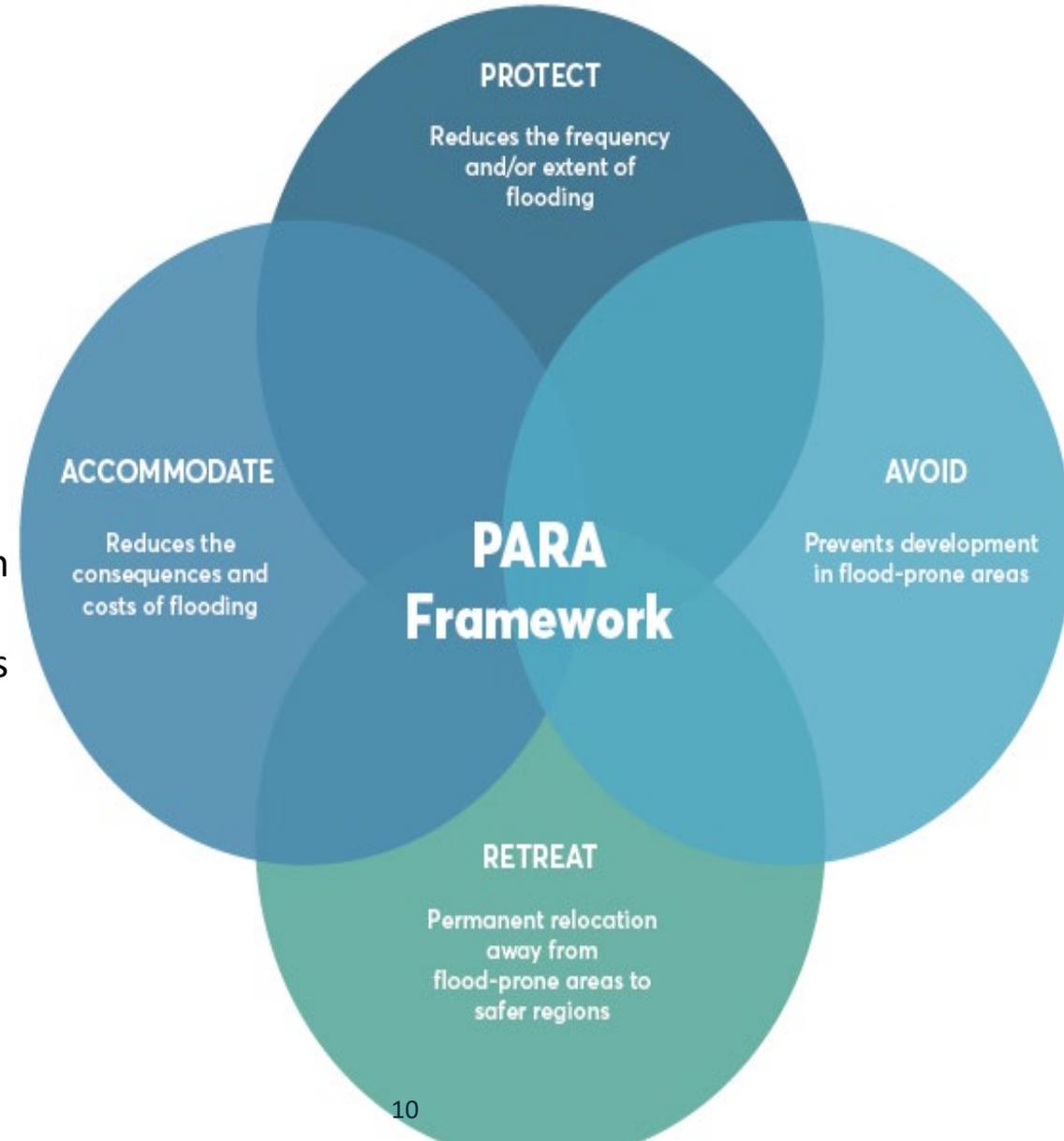


Future work programme

On-going / annual central government co-investment in flood protection to be requested, on top of \$200m from regional / unitary councils

Further research is required to document:

- Cost of achieving 1:100 or better level of service for all 367 flood protection schemes across NZ.
- Priority to be attributed to projects across Aotearoa.
- Costs saved because of harm / damage averted (C/B).
- Relationship / alignment between proposed flood protection investment and
 - measures that avoid, accommodate or retreat from floods
 - environmental / Te Mana o te Wai / give the river 'more room to move' initiatives.
 - Waka Kotahi and or Kiwi Rail / utility-communication network infrastructure improvement plans.



Next steps / recommendations / matters for further consideration

1. Support Te Uru Kahika work in 2023 to establish a **long-term co-investment model**
2. Urge Government to put in place **an enhanced version of the Kānoa Community Resilience Advisory Board** as ⁺ the mechanism for achieving **joint central / local government / agency decision making** on longer-term community flood risk management structures
3. Urge Government to bring **Waka Kotahi and Kiwi Rail and network utility infrastructure providers and the insurance sector** onto the same page as Te Uru Kahika / local government in prioritising community flood risk resilience proposals
4. Support / apply **communication messages** that engender cross-party and community support for inclusion of the co-investment proposition in Budget 2023 and beyond
5. Actively participate to help shape a wide spectrum of related **flood risk management mechanisms (multi-tool / PARA)** including those tied to resource management reform, future for local government considerations and climate change adaptation initiatives, but note some of these mechanisms will take some time to have effect