

TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

Notes of a Regional Council Workshop

Date:	24 April 2024
Time:	11.00am
Venue:	Council Chamber Hawke's Bay Regional Council 159 Dalton Street NAPIER
Present:	Cr H Ormsby, Chair Cr W Foley, Deputy Chair T Eden (RPC Deputy Co-chair) Cr X Harding Cr T Hokianga Cr N Kirton Cr C Lambert Cr J Mackintosh Cr D Roadley Cr S Siers Cr J van Beek <i>(online)</i> Cr M Williams
In Attendance:	N Peet –Chief Executive S Young – Group Manager Corporate Services <i>(online)</i> C Dolley – Group Manager Asset Management L Hooper – Team Leader Governance J Kingsford – Manager Regional Projects H Fraser – Works Group Manager

1. Welcome/Karakia/Apologies

The Chair welcomed everyone and the group offered a karakia to open the workshop.

Apologies for absence were tendered by Mike Paku and Tania Hopmans.

2. Flood Resilience Strategy

Nic Peet introduced the session. Chris Dolley explained the workshop as a starting point for developing a strategy for flood resilience in the face of a fast-changing climate. Discussions covered:

• An overview of the history of key decisions including 2015, 2018 and 2021 LTPs, with slow and steady approach to making improvements and asset replacements at key sites.

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2018 LTP
Maintain BAU
Benchmarking to prepare for 2021 LTP
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2021 LTP

Covid 19- IRG Co-funding \$10.8m for \$30m programme Transformational change to Asset Management systems and processes SCADA and CCTV upgrades Commitment to Scheme reviews for all Schemes New flood forecasting tools

- Levels of service and levels of protection are modelled and account for things like slash through freeboard. Bridges were not normally included in modelling in the past. Linked in to TREC through Waka Kotahi and others highlighting the impacts of bridges on other infrastructure and the need for bridge design to change given the Cyclone Gabrielle event, e.g. higher, longer span. Specifically, have discussed the Awatoto rail bridge with Kiwirail and stressed the need for a better-designed replacement for the temporary bridge that's in place now.
- Modelling for over-design events has been done, including a *failure mode analysis* done of the Heretaunga Scheme done in the 1999 which articulated what might happen (where would the water go) in an over-topping or failure event. Some scenarios played out in Cyclone Gabrielle but others didn't. Also, currently T+T is running over-design event modelling, including a 500-year post-Gabrielle event in addition to probable maximum flood.
- One potential improvement to Council's information-sharing is to make more of this type of work (1999 report) available to the public via the hazards web portal.
- More meaningful 'measures' need to be used to communicate the level or severity of river flows/ floods.
- Models have been updated with the Cyclone Gabrielle data, and going forward, modelling is being used to determine where the most significant issues are likely to occur and identify a wide range of options for how to mitigate against those failures happening.
- Understanding the flood plain as a whole and having thresholds is key to future response management– through a flood plain management plan. These flood plain management plans would include areas of risk and thresholds for when action needs to be taken, e.g. evacuations.
- Had the forecast data for Cyclone Gabrielle from MetService been accurate the flood models would have shown the flooding that occurred and the response by CDEM would have been much different and potentially tens of thousands of people would have been evacuated.
- Have new flood forecasting tools that run in the background 24/7.



← next 3 years work

 Very good knowledge and experience base in HB, or in NZ. The Dutch model comes up often, and have looked at using in the past however very expensive. National tax funds hundreds of millions of dollars of maintenance work which is simply unaffordable for NZ. Philosophy is all about protecting people and buildings and they have moved whole rivers to protect communities, which doesn't 'mesh' with the NZ view of 'giving rivers room'.

Build	Back	Better
Phase One:	Phase Two:	Phase Three:
O to 9 months	6 months to 2 years	1 to 10 years
/hat		•
 Rapid repair of stopbank breaches to agreed 1% AEP design standard pre-Gabrielle to: Protect people and property from frequent flooding Move properties from 2C" to 1 Ensure river maintenance schemes meet agreed service levels Secure funding for silt and debris. 	 Recalibrate the 1% AEP design standard Restore agreed sections of stopbanks to the new 1% AEP post-Gabrielle Progress solutions to move properties from categories 2C and 2P to 1 Review and improve river maintenance schemes. 	Reconfigure schemes to provide resilience in future over-design events by implementing recommendations from reviews, such as flood spillways, secondary stopbanks, making room for rivers, increased protection levels for urban areas Progress solutions for categories 2A and 3.
 Complete breach repairs Fix scours, clear debris and drains, replant edge protection Survey rivers for channel capacity Carry out river maintenance works Collect silt and debris. 	 Use NIWA's flood frequency assessment on new return periods for each catchment Assess gap between new 1% AEP and actual protection level Engage communities on protection levels Prioritise physical works to protect people and property to achieve 1% AEP Carry out river maintenance works. 	 Use technical scheme reviews and independent review to capture community views and assess options Progress parallel workstream for design, consenting, funding and land purchases Integrate infrastructure design where roads, bridges and flood protection intersect.

• Modelling of future events, factoring in climate change, is being done.

- The Flood Plain Management Plan (to be developed) will be community focused and talk about the risks and options for interventions to mediate those risks and strongly connected to the districts and their District Plans, including how communities can interact with warnings and alerts. These will replace the technical, internal looking documents we currently have.
- New Flood Plain Management Plans
 - Avoid Risk
 - Reduce flood risk to people and property
 - Support resilient local economy and river scheme that is affordable and <u>fairly funded</u>
 - Work with district councils to coordinate long term planning outcomes
 - Recognise role of tangata whenua and their cultural values
 - Recognise environmental matters
 - Provide recreational activities
- Operational Management Plans- next stage
- Tonkin + Taylor modelling being done for overdesign events (500yr, post-Cyclone Gabrielle) including secondary flow paths, detention of flood waters, room for the river and nature based solutions. Challenge will be how HBRC engages with the community on a wide range of solutions/interventions as part of the plan into the future. Will work with T+T to share their work with the independent flood scheme performance review panel and potentially present to council in a month or so.
- Key point is that if you live on a flood plain there are interventions that can be made/built, but they all have limits.
- Rules around evacuation include that it must be done in daylight and you must allow sufficient time.
- T+T is also investigating the costs associated with interventions.
- Before the deluge the sector's business case to government for investment in flood resilience is currently with the government for consideration. HBRC has not sought more funding in addition to the \$250M we already need to deliver on, however still actively involved in Crown funding discussions.

Flood Resilience – step change for HBRC

- Heretaunga Plains Flood Control Scheme
- Upper Tukituki Flood Control Scheme
- IRG Program
- Before the Deluge Work Program
 from 2028
- All Schemes Reviewed by 2026- fast tracked through NIWE agreement

 Napier Urban Waterways- \$50m over 10 years
- \$3M has supercharged the scheme review programme from 10 years be completed by 2026, with those reviews ultimately bound to identify additional investment required.

Martin Williams left at 12.22pm

- The (Raikes) report that John Bostock tabled during the Revenue & Financing Policy Review hearing has been provided to the independent flood scheme performance review panel and to T+T.
- The following slides highlight the evolving picture associated with flood resilience.



Protect

Staying in place and building defences, eg, stopbanks and sea walls

Avoid

Staying away from areas where the risk is too high, eg, restricting or preventing development and making changes to existing land use Purposely moving away from areas where the risk is too high, eg, red zoning, placing restrictions on land use and relocating community assets

Retreat



Accommodate

Staying in place and making changes to buildings and infrastructure, to improve resilience

Evolution of flood risk management PAST PRESENT FUTURE tion District / protection 50 years' protection District / prot ence 250 - 500 years result 50-100 years a u a M X Man 2 e L 1 e River channe Incremental increase in level of community resilience against flood risks

Regional councils apply an integrated / whole catchment / ecosystem sensitive approach to flood risk management. Resource management reform will provide additional opportunities - including the use spatial planning tools. Flood protection schemes will always be a critical component of flood risk management.

Martin Williams rejoined the meeting online at 12.25pm.

- Urban stormwater networks are the responsibility of the district and city councils and taking account of those in district plans. Stormwater networks interact with flood schemes when they run into rivers.
- Scheme reviews for smaller schemes include engagement with those communities, however there
 has been a tendency to keep costs low to the detriment of the scheme, e.g. maintenance work not
 done because it was deemed too expensive by the community. Expect that there will be
 recommendations for significant funding to bring some of the smaller schemes back up to
 acceptable levels of service not just for current landowners but for all generations.
- Status of scheme reviews is:

- Scheme Reviews Underway

- Heretaunga Plains Flood Control
- Upper Tukituki
- Opoho
- Ohuia/Whakaki
- Wairoa Rivers and Streams/Nuhaka
- HPFC Karamu HPFC
 - Raupare/Twyford*

- Scheme Reviews Completed
 - Napier / Meeanee
 - HPFC Brookfields / Awatoto
 - HPFC Pakowhai

- Scheme Reviews to be undertaken
 - Upper Makara
 - Porangahau
 - Esk Whirinaki*
 - HPFC Haumoana / Te Awanga Maraetotara*
 - HPFC Muddy Creek
 - Paeroa
 - HPFC Puninga
 - Te Ngarue
 - Kairakau
 - Poukawa
 - Kopuawhara
 - Central and Southern
 - HPFC Tutaekuri Waimate / Moteo

*Two Schemes bundled together

out to market and will all be completed by the end of 2026

- Looking at ways to provide value include:
 - Harmonising Napier Urban Waterways
 - Two organisations providing different parts of the same network
 - Determined in 1989
 - Consider Divest Scheme and Assets e.g.
 - Small Schemes
 - Ohuia
 - Opoho
 - Small Forests
 - Mahia
 - Waipawa
 - Waipukurau
- T+T report on the Tukituki review recommended gravel extraction to a greater extent and a contract for tender is going out next week.
- Need to make programmes of work and their timeframes visible internally and to the community.

HBRC Providing Value

- Harmonising Napier Urban Waterways
 - Two organisations providing different parts of the same network
 - Determined in 1989
- Consider Divest Scheme and Assets e.g.
 - Small Schemes
 - Ohuia
 - <u>Opoho</u>
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- small forests for wastewater discharges
- T+T presented their work to date on the Upper Tukituki review and HBRC has already commissioned the removal of gravel in front of Waipawa, plus a couple of areas have been identified where the river is perched and changing the grade line is recommended.
- It was suggested that community engagement needs to start with the question "what should we do for flood resilience"? rather than proposing solutions for the community to comment on. Resourcing will have to be scoped with the comms & engagement team.
- If this is going to be Council's number one strategic priority, the conversations will come after the

LTP. Getting from present to future, the elements are 1. Evidence gathering, 2. Develop the proposed approach to future resilience with engagement with the community, leading to 3. Decisions (2027 LTP). The \$250M Category 2 work will be running parallel. A timeline will be developed.

- All infrastructure providers are sharing information and working together, particularly through the Regional Recovery Agency infrastructure pou.
- Important to promote future workshops as a means of providing the community with information about what the Council is doing and where work is at.

A karakia was offered to close.

Closure:

The workshop closed at 1.13pm on Wednesday, 24 April 2024.