

Matariki Hunga Nui!



Ngāti Kahungunu Taiao

Cyclone Gabrielle



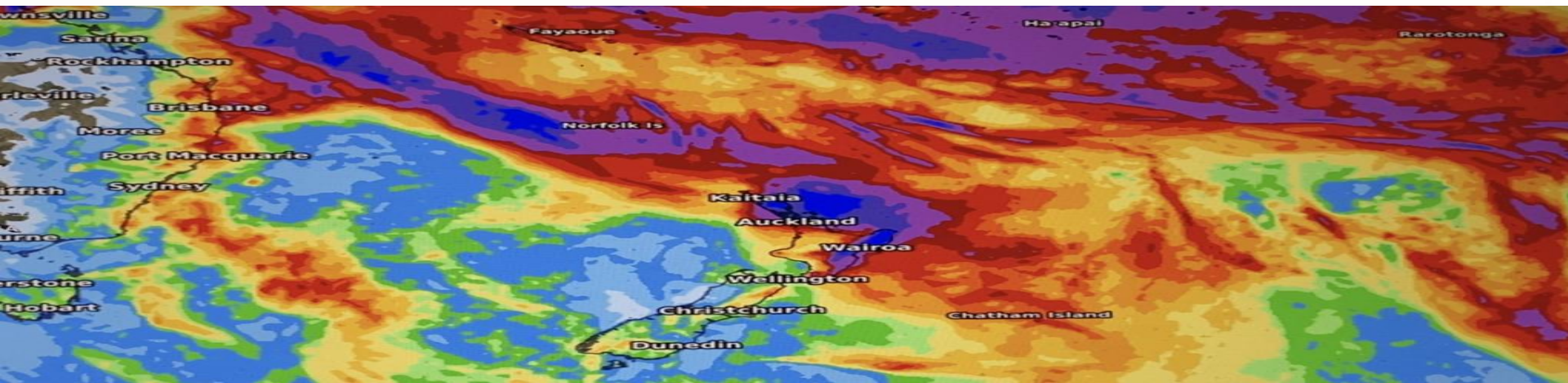
Cyclone Gabrielle

Bad

- Major Weather Events will Increase
 - Symptom of Climate Change

Good

- Opportunity to Improve – Te Mana o te Wai
 - Solutions align with Te Ao Māori
 - Multiple benefits



Working with Rivers*

- Understanding different Rivers
- Solutions for Wairoa are more relevant to the Porangahau and the Karamu Rivers, than Ngaruroro, Tukituki and Tutaekuri



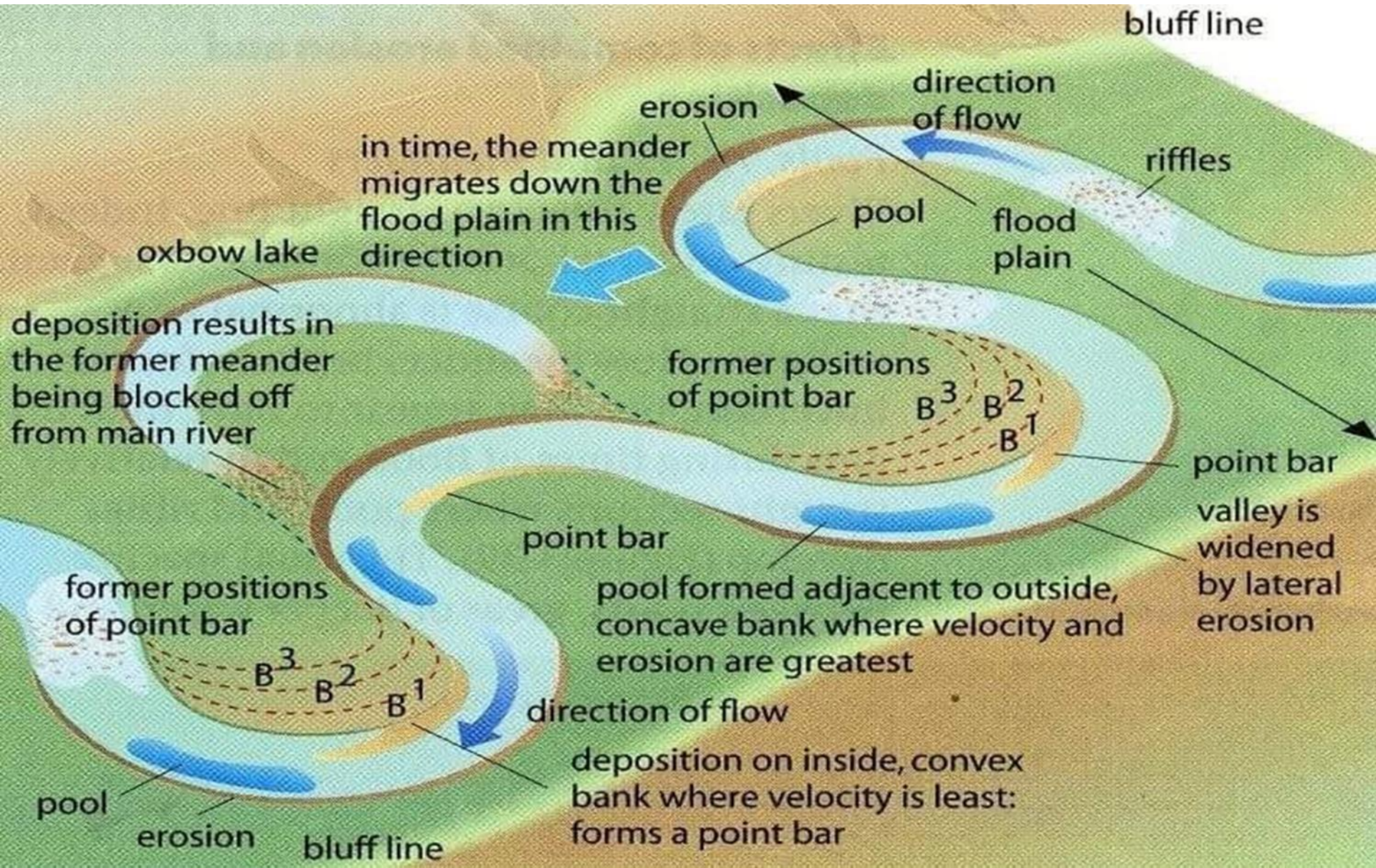
Braided Rivers

Tukituki, Ngaruroro, Tutaekuri

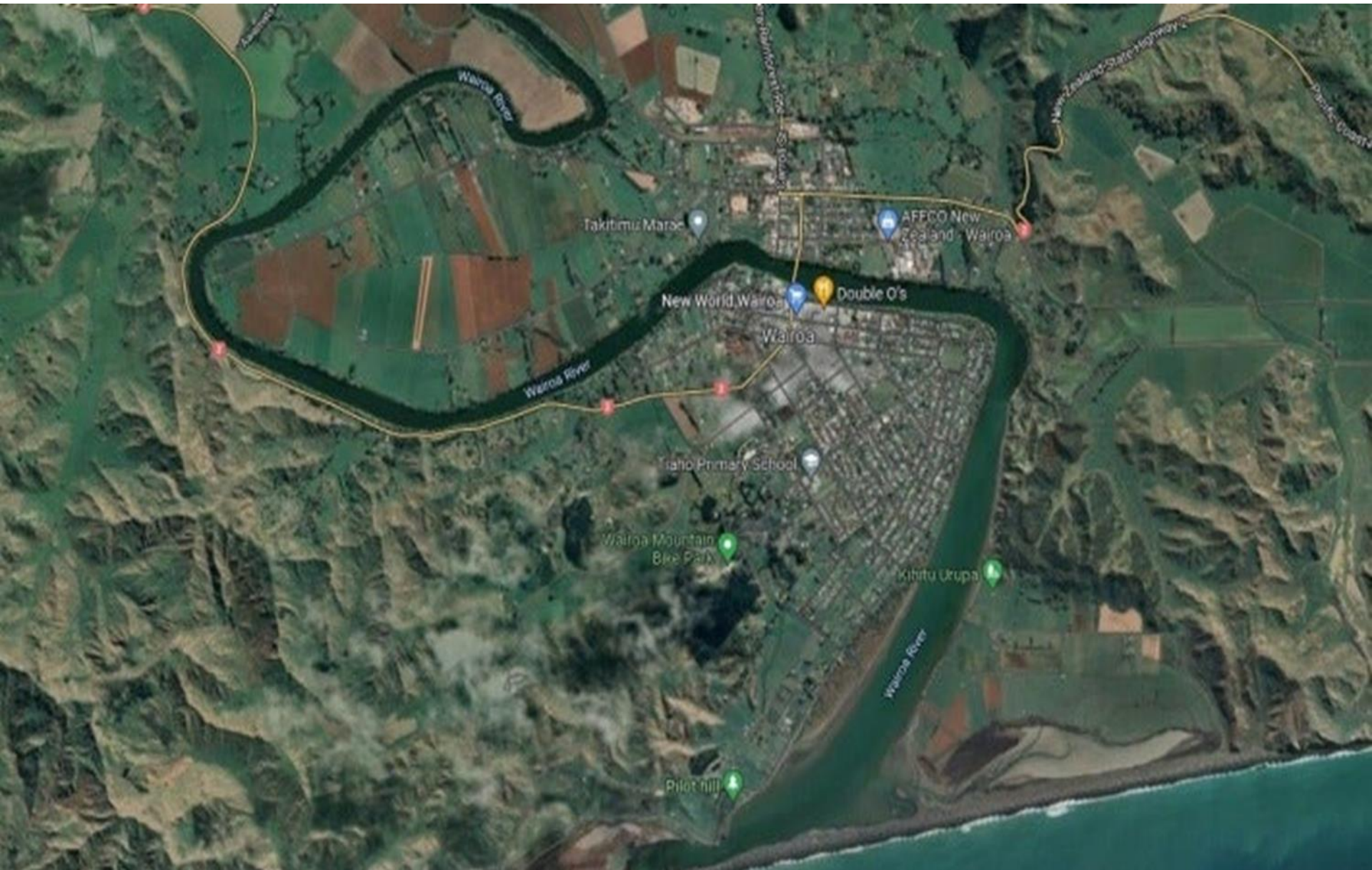


River Single Channel Meandering River

Porangahau, Te Wairoa, Karamu



Single Channel Meandering Rivers



Turning Tragedy and Risk into Opportunity

- Reduce the risk of flood 'damage' through responsible water management.
- Cost-effective solutions require an 'actual' integrated approach to river and floodplain management. **Mana Whenua Awa Plans**
- Reconnect rivers to floodplains – move back stop banks, property purchase, flood conveyance or attenuation zones, riparian plantings
- Open flood plains “naturally” decrease the velocity of the river, putting less pressure on critical stop-banks that protect property and agriculture lands.



Building Catchment Resilience



HEADWATERS

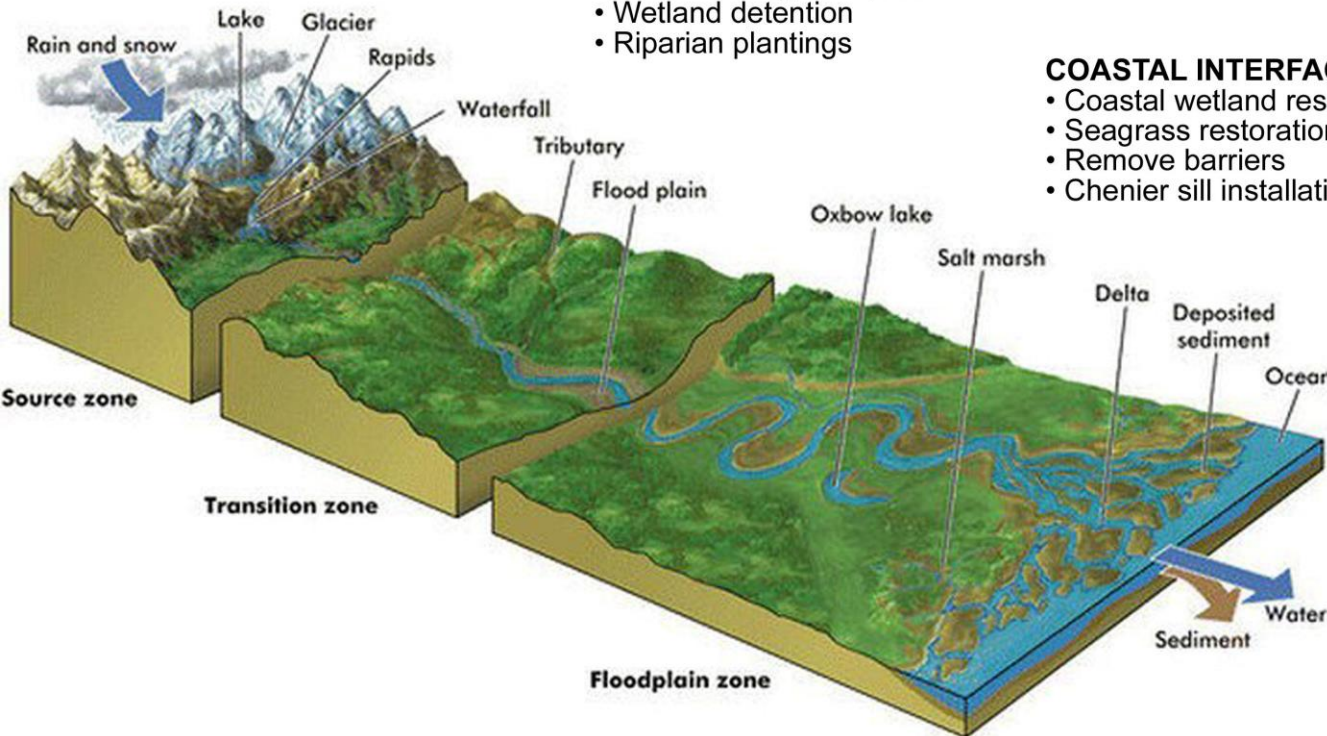
- Protect existing forests
- Pest control
- Afforestation
- Low impact forestry
- Regenerative agriculture

FLOODPLAINS

- Making room for rivers
- Reconnecting floodplains
- Wetland detention
- Riparian plantings

COASTAL INTERFACE

- Coastal wetland restoration
- Seagrass restoration
- Remove barriers
- Chenier sill installation



MUTLI LAYER BENEFITS

- Reduce flood risk
- Increased economic resilience
- Reduce coastal erosion risk
- Clean water
- Support aquifer recharge
- Enhanced recreation
- Retain soil
- Reduce sedimentation
- Attenuate runoff
- Enhance biodiversity
- Allow for inland migration
- Enhance carbon storage

Learn and Improve

Practical examples

- **Forestry slash**, willows etc?
- **Stop channelizing** or trying to ‘train’ rivers – planting exotic trees on river beds.

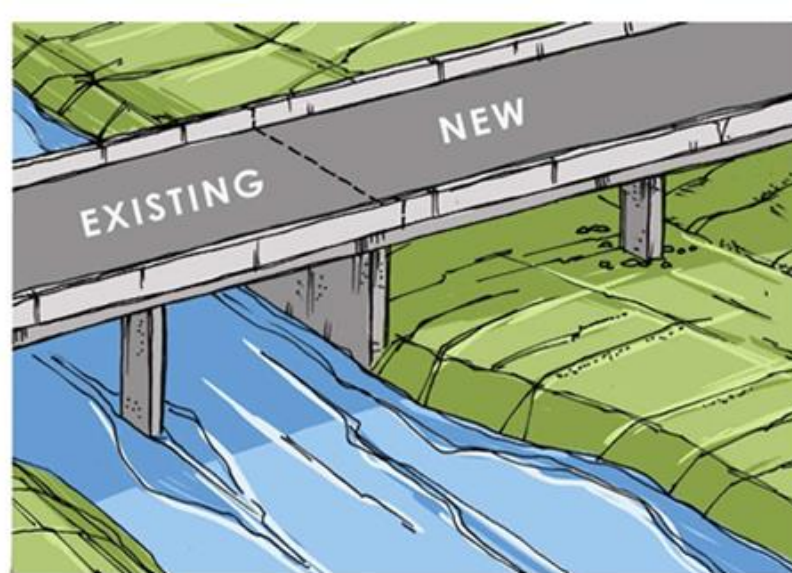
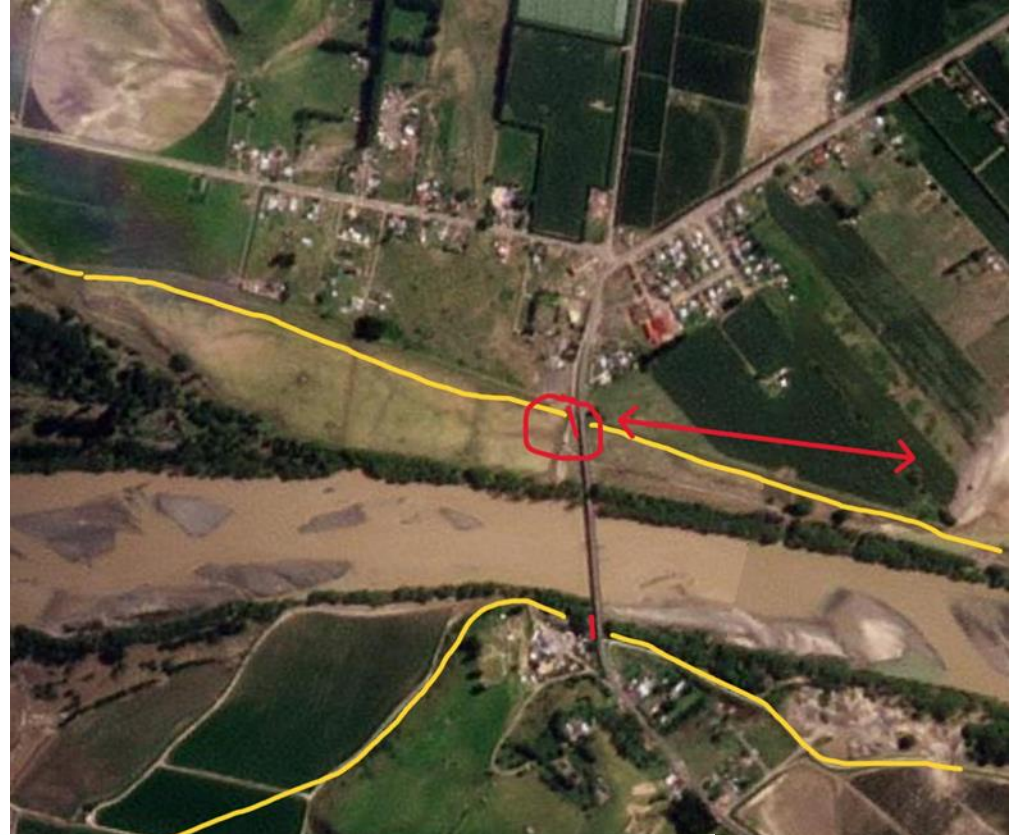


“...confining dynamic rivers ... and may accentuate channel instability and elevate the risk of catastrophic flooding”



Bridges –

- longer, higher, less pillars
- **move back bridge abutments**
- Potentially move bridge. Address bottlenecks!
- E.g. Omahu



Bridges – redesign accordingly

Waka Kotahi, NZ Rail, District Councils



Move back stop banks – practical example

- 3 houses below affected by blue line



Stop encroachment on flood plains

- *Current proposals to narrow flood plains e.g. Maraekakaho*



Improving Planning

- Explore solutions that builds ‘actual’ resilience into the landscape and delivers multiple benefits for people and nature
 - It means doing things differently
- E.g. include matauranga Māori, Te Ao Māori ... meaningfully





**THREE
WATERS
REFORM**

Strategic Planning Act (SPA)

RMA Reform



**Natural and Built
Environments Act
(NBA)**



**WHAT IS
CO-GOVERNANCE?**

Managed Retreat and Climate Adaptation Act (CAA)

KOTAHI

TŌ TĀTAU PAPA, TŌ TĀTAU ANAMATA

OUR PEOPLE, OUR FUTURE

Kahungunu Freshwater Objectives

since 2010 ...

1. The revitalisation of the **Mauri** of waterways. *Te Mana o te Wai*
2. Repatriation of our values, practices and customs – enabling access and use of waterways and resources. *Mana Motuhake, Mahinga Kai*
3. Water quality and quantity provides for safe and reliable drinking water
4. Maintain, enhance restore water quality. *Waimāori, Kaitiakitanga*
5. Managed for aquatic ecosystem purposes; Maintain water flow and quantity for ecosystem health. *Native Flora and Fauna*
6. Avoid adverse causes and effects of unsustainable land use.
7. Manage water and land use at the sub-catchment scale and provide and resource for effective hapū input. *Mana Whenua Management - Monitoring*

Eat, drink, swim, play, survive, protect, restore, exist as tangata whenua

Planning Recommendations - Think BIG Act Local **Mana Awa Plans**

(sub-catchment / catchment)

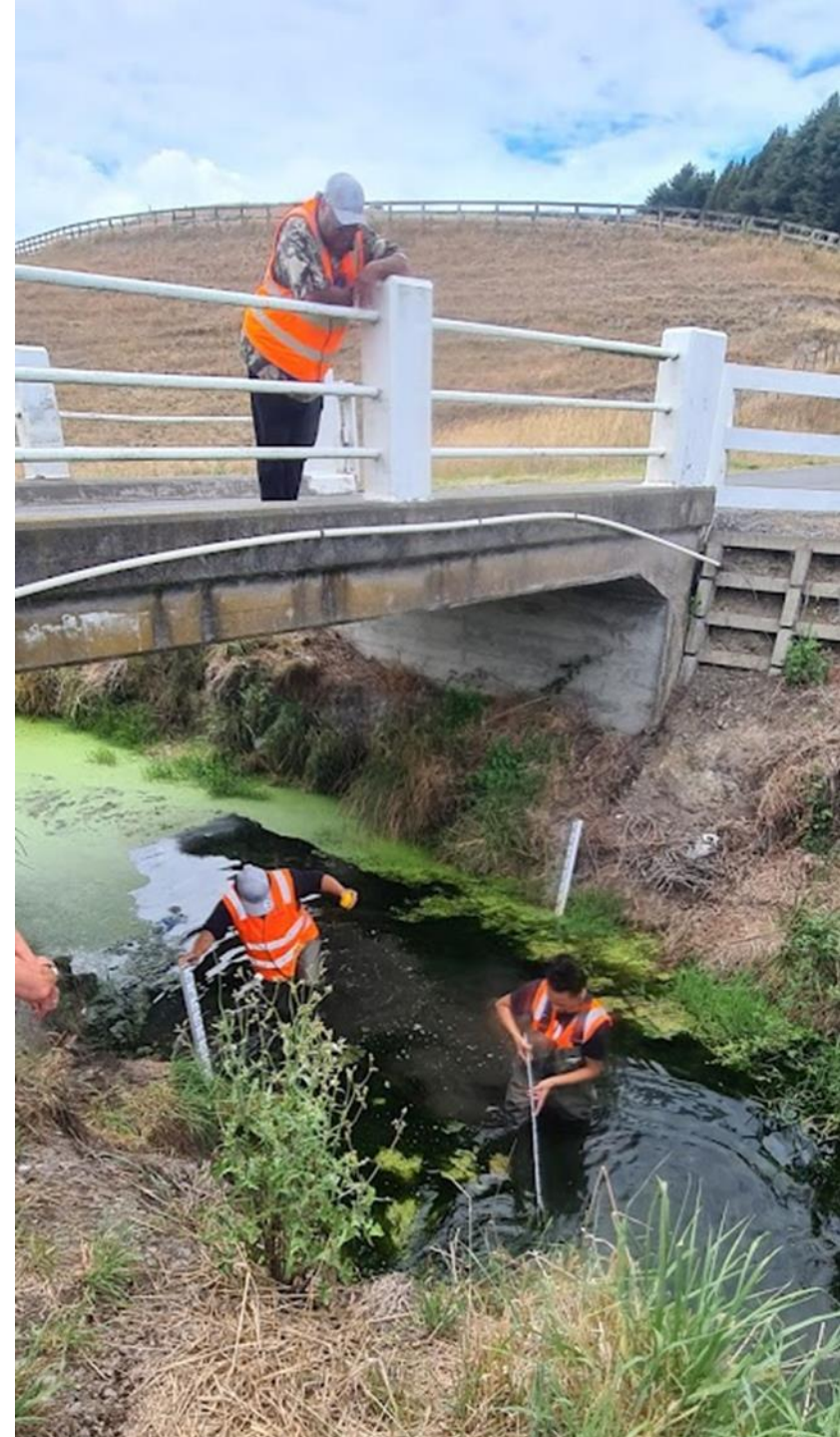


Own Facilitation and Experts
No stakeholders ... co-design first step
12-24 months, mana whenua design wananga

- E.g. Mohaka - Pahauwera
- Catchment Plans (chapter in Regional Kotahi Plan) and wider e.g. flood control, native fish...

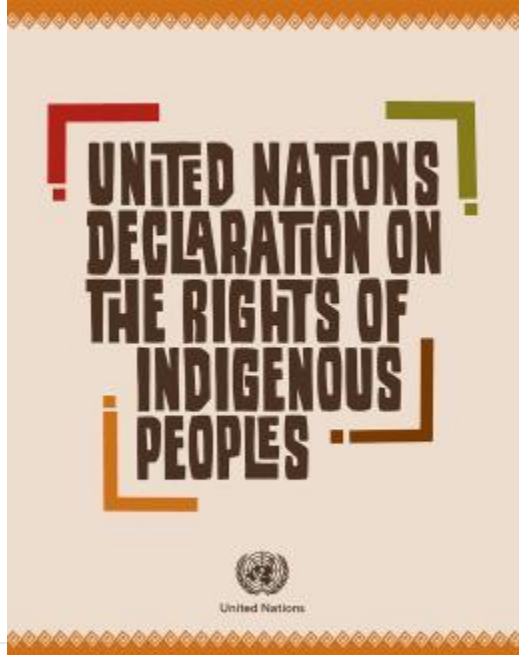
Mana Awa Plans

- Mana Whenua **Regulation**
- **Set Limits and Targets**
- **Water Quality**
- **Water Quantity**
- Establishes **policy and rules**
- **Monitor** limits and targets
- Land Use operates within above
- NOT HELPING: Mitigation / off-setting – *oppose natural solutions*;
- large scale spatial management – *averages can hide the 'truth'*



Consultation and Engagement

International Best Practice – Indigenous Peoples



Free Prior Informed Consent

The consent is free, given voluntarily and without coercion, intimidation or manipulation. A process that is self-directed by the community from whom consent is being sought, unencumbered by coercion, expectations or timelines that are externally imposed.

The consent is sought sufficiently in advance of any authorization or commencement of activities.

A collective decision made by the right holders and reached through a customary decision-making processes of the communities.

The engagement and type of information that should be provided prior to seeking consent and also as part of the ongoing consent process.

 **Hawke's Bay
Regional Council**
Safeguarding Your Environment

WARNING
Pathway Susceptible
to Flooding

