



Oranga Takiwa
K. Nelson, M. Tipa, G. Tipa

Our challenge

- We cant do everything that people want from us and still have time and energy for our priorities.
- We need to reframe discussions and do what delivers the outcomes we want.
- We need to have a coordinating framework

Our programme – Oranga Takiwa

- Aims to restore our takiwa (territory)
- With limited human and financial resources
- By maximising the value from limited capacity & capability
- And collaborating with others
- To achieve outcomes on the ground
- While being true to our values

What does aquatic restoration means in terms of our values?

- Whakapapa
- Whanaungatanga
- Te Ao Maori
- Mauri
- Rangatiratanga
- Taonga Tuku Iho
- Manaakitanga
- Mahinga kai

TE AO MAORI

- Take a takiwa wide approach
 - Catchment by catchment
- Know what whanau want to achieve?
- Restore sites, reaches and catchments to deliver whanau outcomes

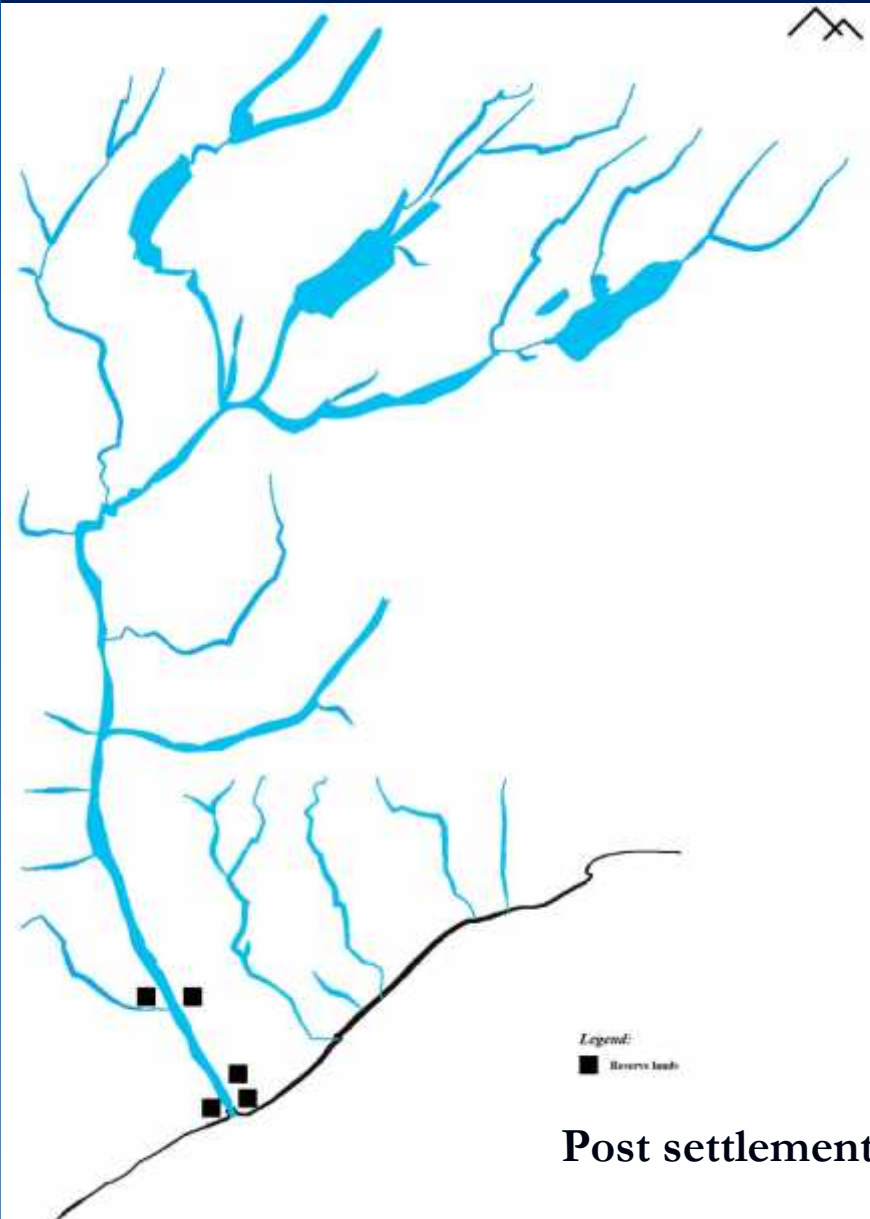
Across our takiwa

- Compiling historical profiles of catchments so we know the “historic reference condition”
- Undertaken assessments so that we increase our knowledge of our catchments especially changes from historic condition

What is our “reference condition”



Pre settlement



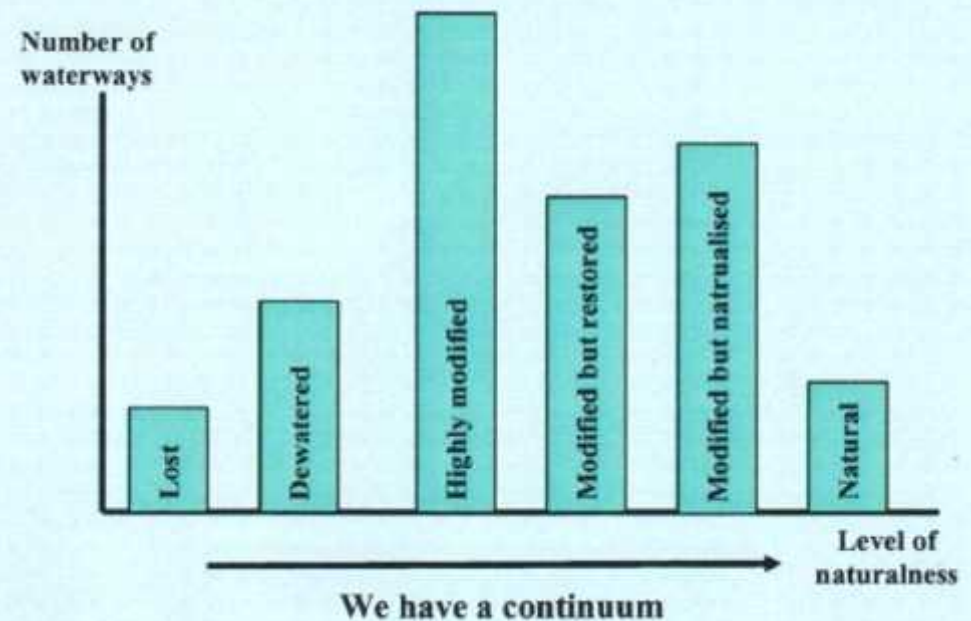
Post settlement

River assessments

- What do the waterways in our takiwa look like (CHI, flow assessments, eel surveys)
- Lets move all our streams along the continuum
- No backward steps
- Let's celebrate every movement – no matter how small

We have a mix of waterways

- Some natural
- Some modified that mimic natural ones
- Some modified with certain characteristics restored
- Some highly modified
- Some dewatered waterways
- Some lost



WHANAUNGATANGA

- Whanaungatanga is about connections
- Water in a catchment makes connections
- Restore
 - Connections within the catchment
 - The interdependencies within ecosystems
 - Our place in the system

Issues

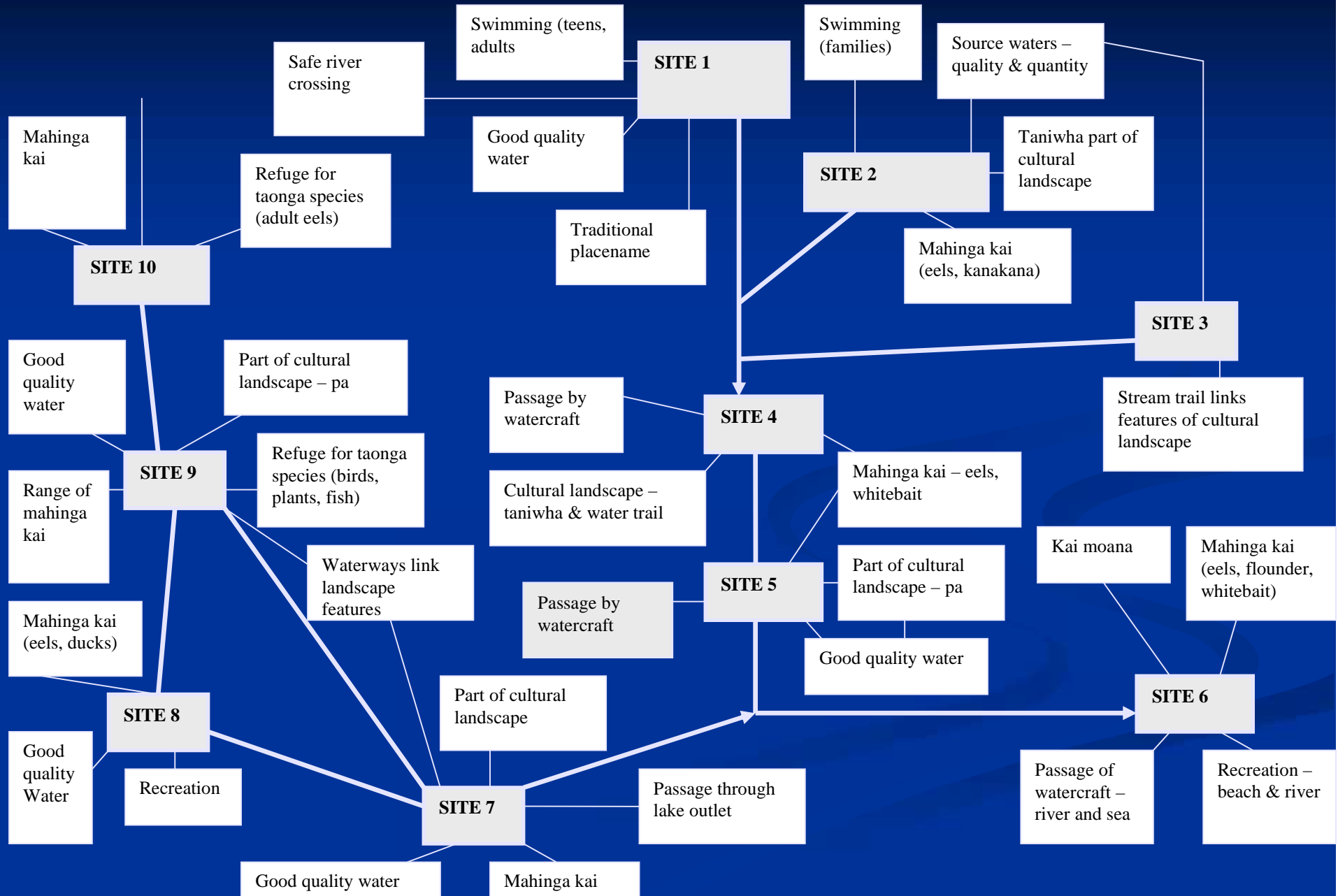
Sedimentation

Riparian margins

Water makes connections

River mouth closures

Connections whanau want to restore



[Mynt-Taluk aktiv](#)
[Mynt-Taluk inaktiv](#)
[New-Signupcenter](#)
[Opportunitäten](#)
[Offene Projekte](#)

Across our takiwa

- Outcomes identified for 3 catchments so far
- River mouth survey across takiwa – timing of closures and openings during summer / autumn (migration times)
- Instream barriers (culverts)
 - Culvert survey - one catchment so far
- Riparian planting – ongoing
 - One catchment - runanga led planting
 - Advocacy in other catchments
 - Whanau nurseries & propagation to support planting
- Advocating for environmental flows & quality standards
- Hikoi for whanau members

**A flow regime was set in
this catchment in 2010**



**And then this catchment in
2011**



The flow in this dewatered reach was restored in the 1990s



Whanau connections



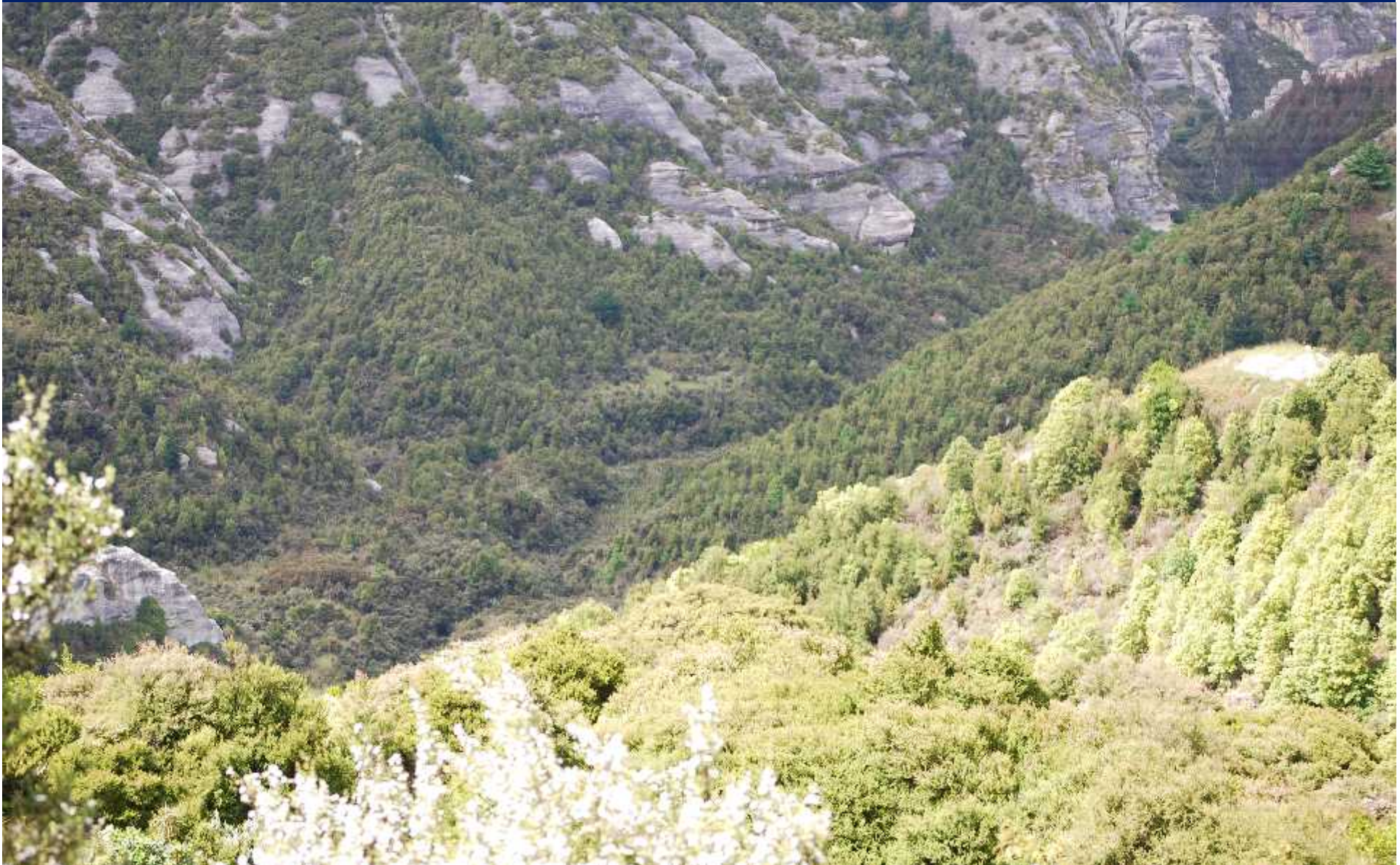
MAURI

- Protect ki uta ki tai – healthy functioning systems
- Get early runs on the board - secure remaining healthy sites
- Secure critical areas – habitats, refuges, source waters (springs), river mouth habitats
- Expand out from healthy areas – build on the successes
- Work with others to identify the long term restoration needs of degraded lowland reaches (e.g. Lower Waitaki)
- Identify water quality hot spots
- Recognise that our awa need water
 - Environmental flows
 - Bring back water

Across our takiwa

- Secured headwater protection –5 catchments and counting
- Leading one restoration project – the stream closest to the marae
- Securing and using constructed ponds as substitute habitats for mahinga kai
- Relying on farm plans for water quality issues (audit, MOU)

Protected privately owned lands in the headwaters – the “source” waters



Our whanau led restoration project



TAONGA TUKU IHO

- Recognise the full range of taonga in a catchment, how impacted, and their restoration needs
- Reconnect whanau to their taonga
- Protect taonga for the long term – not “band aid” solutions

Central to
whakapapa, identity

Te Reo, Traditional
placenames, Stories,

Distinctive water
quality

Kai – from land,
water, riparian



Fibre / materials
for cultural use

Nohoanga, pa, urupa,
tuahu throughout the
system

Navigable
waterway
(distinctive craft)

Distinctive climate

Energy

Distinctive geological
formations (shelters,
quarries)

Distinctive air, light

Ecological value
Role in the food chain – top predator

Economic value
Commercial QMS, Trade

Socio - cultural value
Food, whakapapa, stories, education, kaihaukai, manaakitanga, species names

Stressors
Water quality, water quantity, habitats, passage, loss of access, overfishing

Linked resources
Fishing materials
Constructing hinaki



Health impacts

- From no fish
- From contaminated fish

Economic impacts

- Buying substitutes

Cultural impacts

- Loss of Te Reo
- Loss of cultural practices
- Loss of matauranga

Across our takiwa

- Mapping taonga
- Assessments of state of taonga
- Securing and restoring taonga
 - Secured a pa harakeke
 - Secured a pa raupo
- Advocacy for protection in multiple forums – district, regional and national levels
- Participating in management groups (e.g Weka Project Team, Rock Art Trust, Native Fish Komiti)
- Wananga

Secured a fantastic pa harakeke



And a pa raupo in another catchment



And a site to add to our rock art legacy

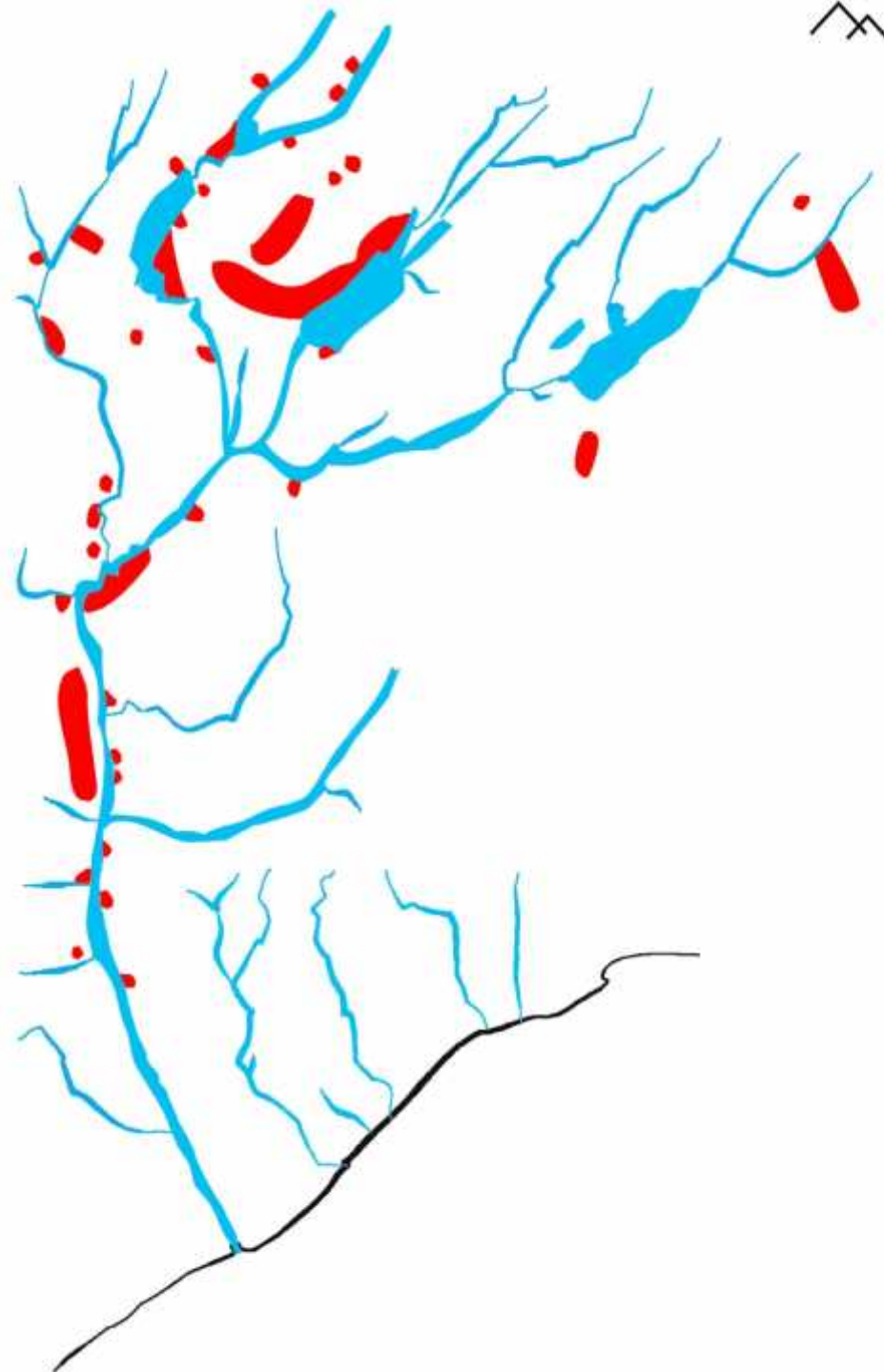


MAHINGA KAI

- Prioritise enhancement of valued species as defined by whanau
- Prioritise restoration of sites / reaches identified by whanau
- Meet the life cycle needs of taonga species (spawning, passage)
- Extend the number of reaches that are accessible and support cultural use
- Define the reference condition
- Prioritise issues that prevent use

Weka distribution
in the Waitaki
In the 18th century

What is our vision
for the future?



Across our takiwa

- Understanding the state of our resources – for example:
 - Eel surveys
 - Whitebait habitat
 - River mouth survey
 - Database of spawning sites
 - Secured permission from landowners to artificial habitat
- Investigating reintroductions of taonga species
- Secured access to fireponds in the forest (that are full of koura)
 - Wananga

Securing artificial habitats



Wananga



Weka reintroduced to Otago



A combined runanga project, working with Department of Conservation, Te Runanga o Ngai Tahu and Private landowners

Eel management – across the takiwa

- Eel surveys – presence and absence
- Relocating eels within a catchment
- Fish passage
 - Trap and transfer of elvers
 - Trap and transfer adult migrants
- Prioritized protection of riparian wetlands
- Identified and secured some sites
- Wananga held to increase understanding of eels
- Investigating relocating elvers between catchments
- Advocate for flow regimes that maintained connections

RANGATIRATANGA

- Reframe the discussions – outcomes and opportunities rather than impacts and losses
 - Identify those who can help deliver outcomes
- Monitor, learn, adapt our strategies to deliver outcomes
 - Why monitor? What to monitor? Who to monitor?
- Utilise collaborations



A lost catchment

A new landscape with opportunity

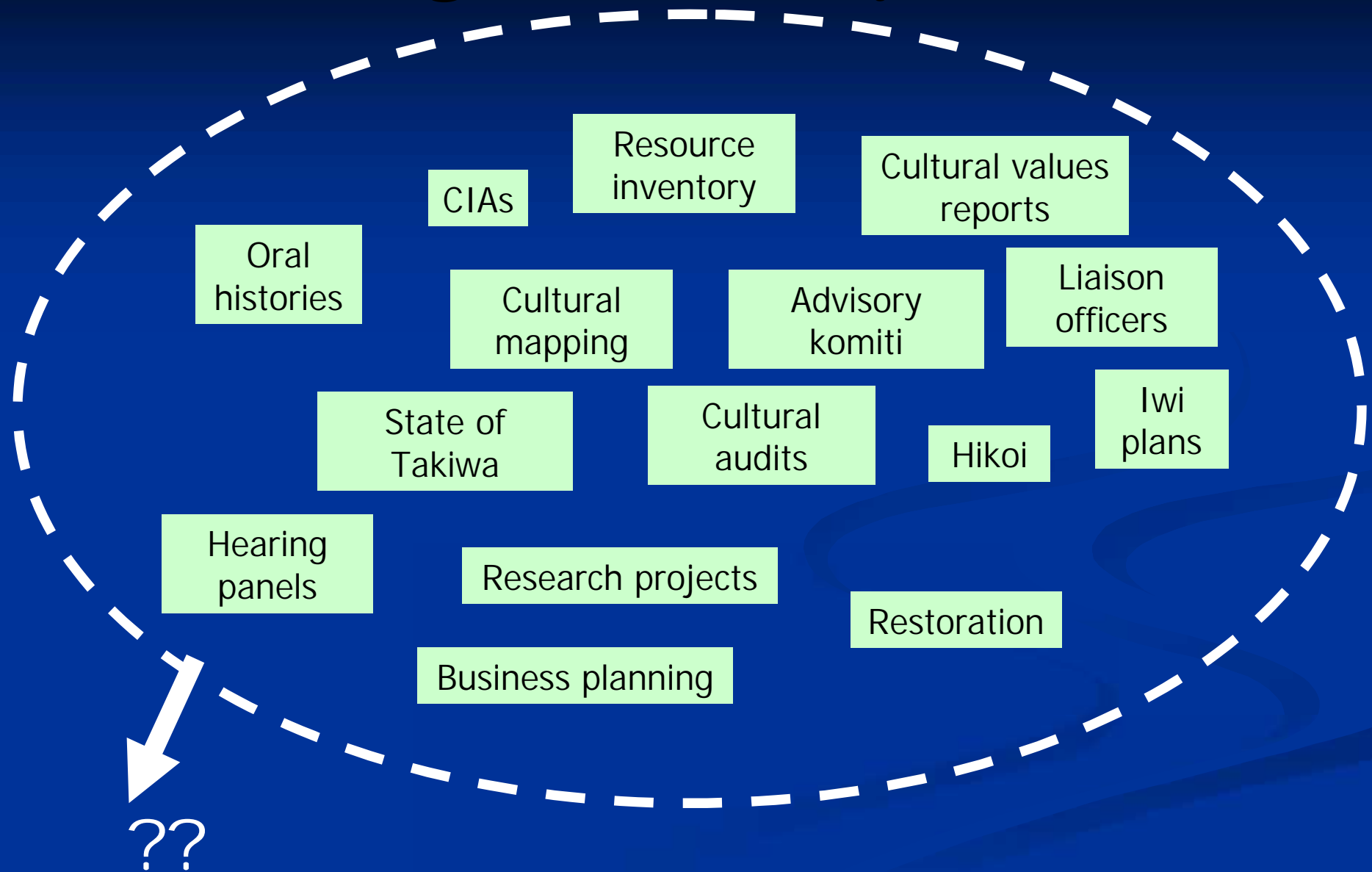


Our assessments inform our decisions

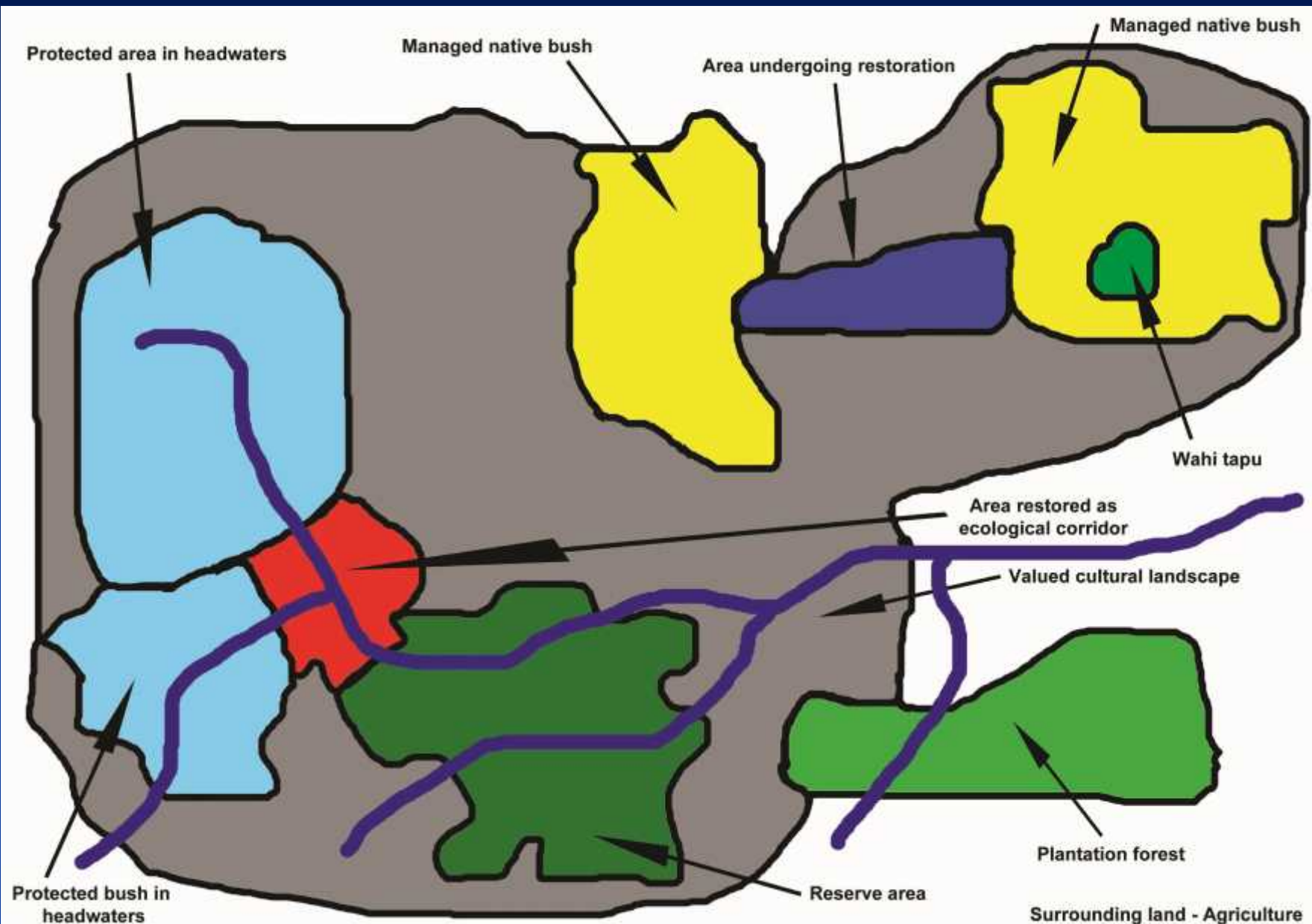


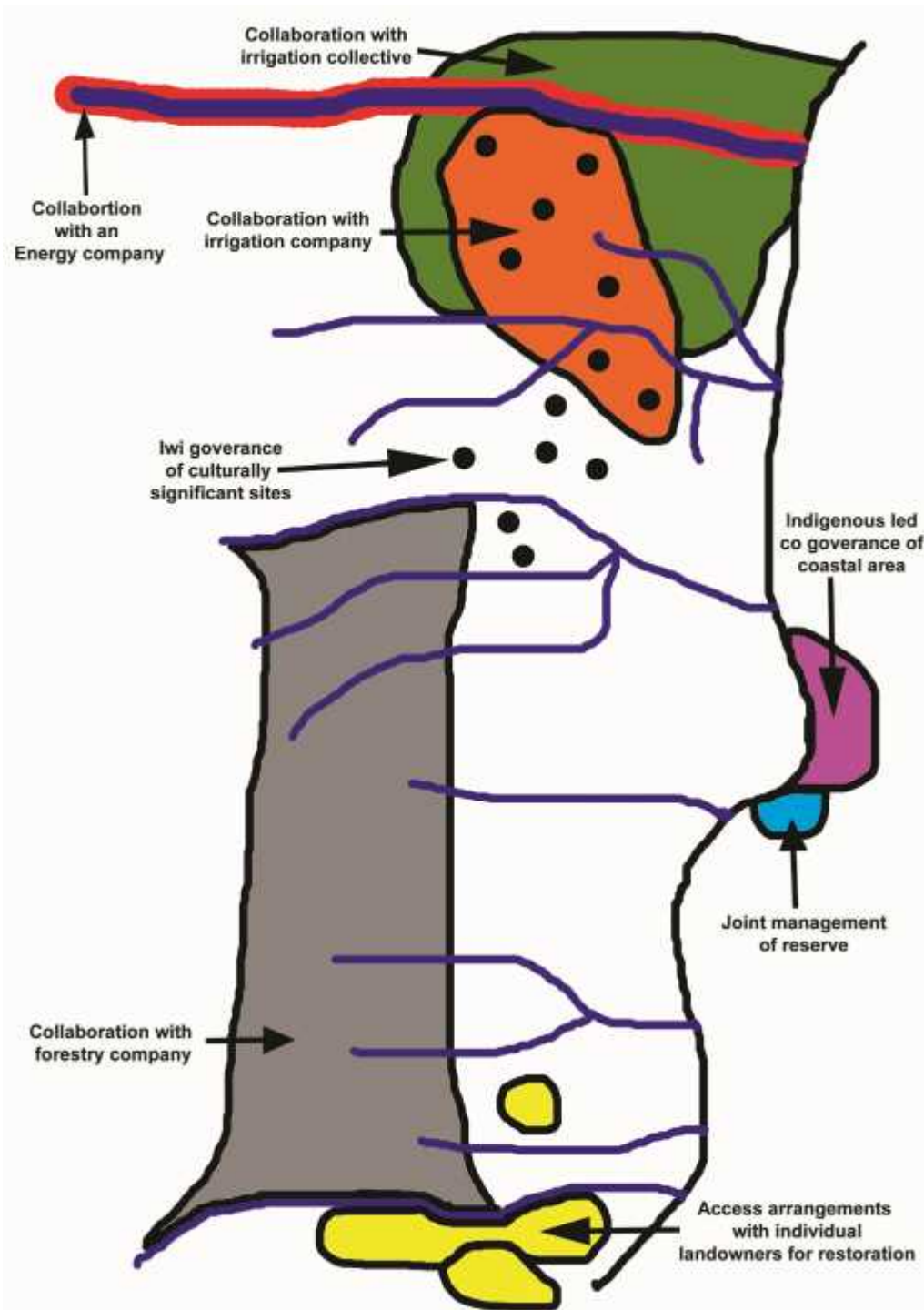
So what?

We have gone from 10 years of this



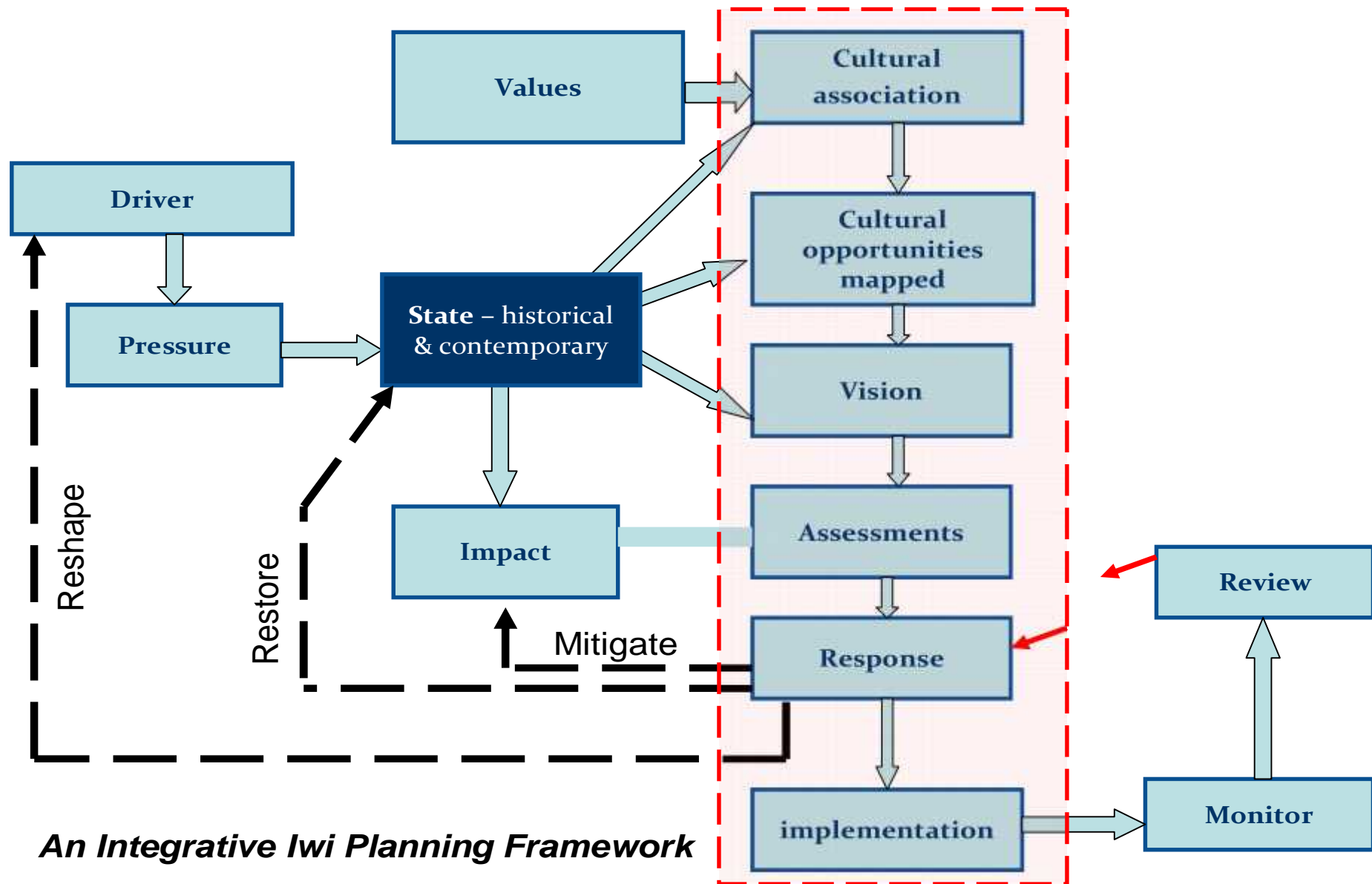
Co-ordination of activities in a catchment

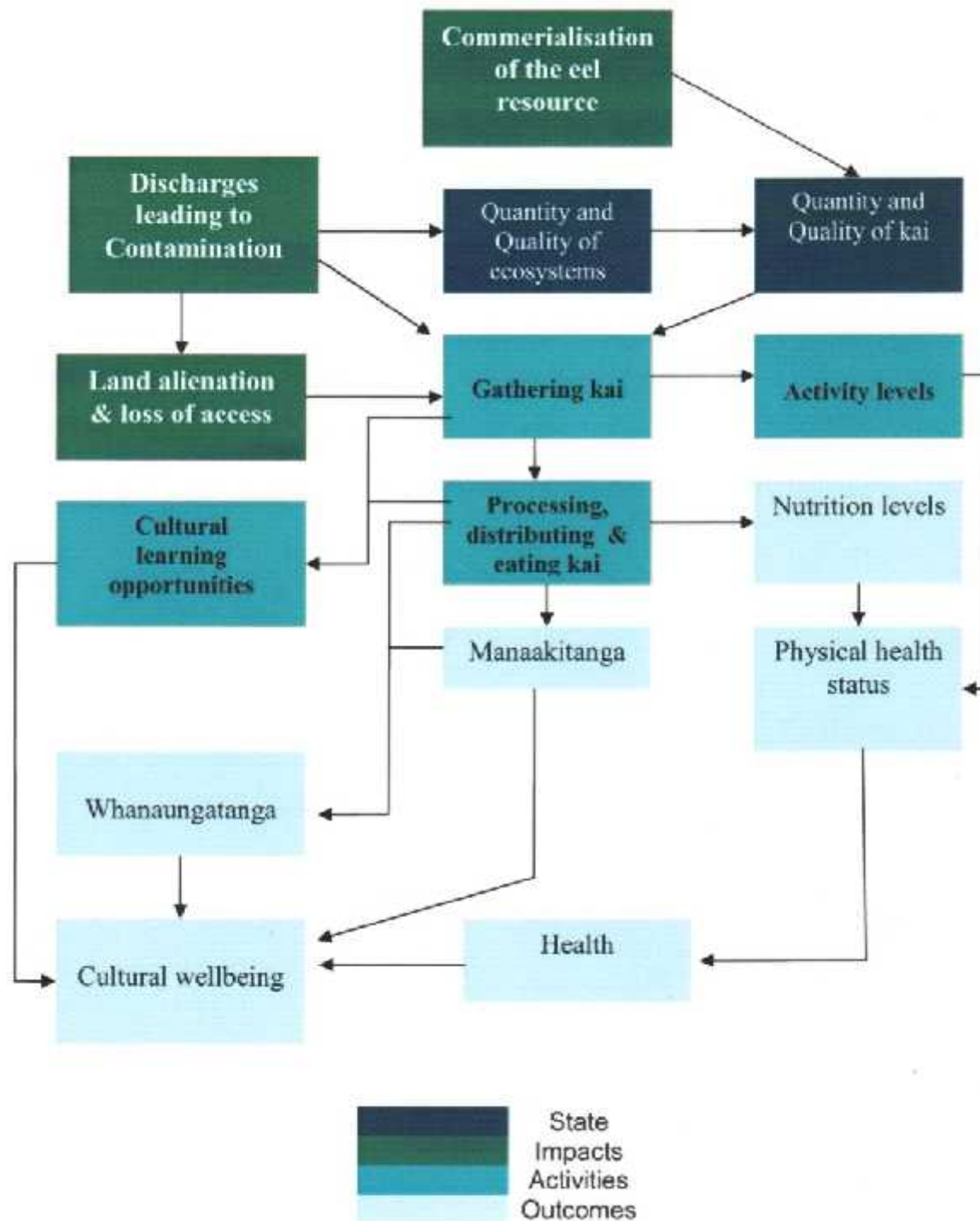




Co-ordination of our
collaborations and
initiatives across our
takiwa

With a focus on what we want





And an understanding of how it all contributes to the wellbeing of our whanau

Multiple projects,

**Utilising mātāuranga & western
science**

Multiple collaborations

Multiple projects,

**Utilising matauranga & western
science**

Multiple collaborations

ONE KAUPAPA

