



Freshwater Workshop

Taranaki Regional Council

Working with people | caring for Taranaki



Karakia

Kia uru uru mai

ā-hauora

ā-haukaha

ā-haumāia

Ki runga

Ki raro

Ki roto

Ki waho

Rirerire hau

Pai mārire



**In consultation with the community,
our role is to set the rules for managing our
region's freshwater resources**

Essential Freshwater

The Essential Freshwater package introduces new rules and regulations to:

- Stop further degradation of New Zealand's freshwater resources
- Improve water quality within five years
- Reverse past damage and bring waterways to a healthy state within a generation.

Aims for today

1. Present science on key issues affecting freshwater in our region
2. Gather feedback on our overarching objectives and outcomes for freshwater:
 - Te Mana o te Wai draft objective
 - Draft visions for freshwater in your area
 - Draft environmental outcomes in your area
3. Gather ideas on initiatives to mitigate negative environmental impacts
4. Discuss next steps



Thomas McElroy

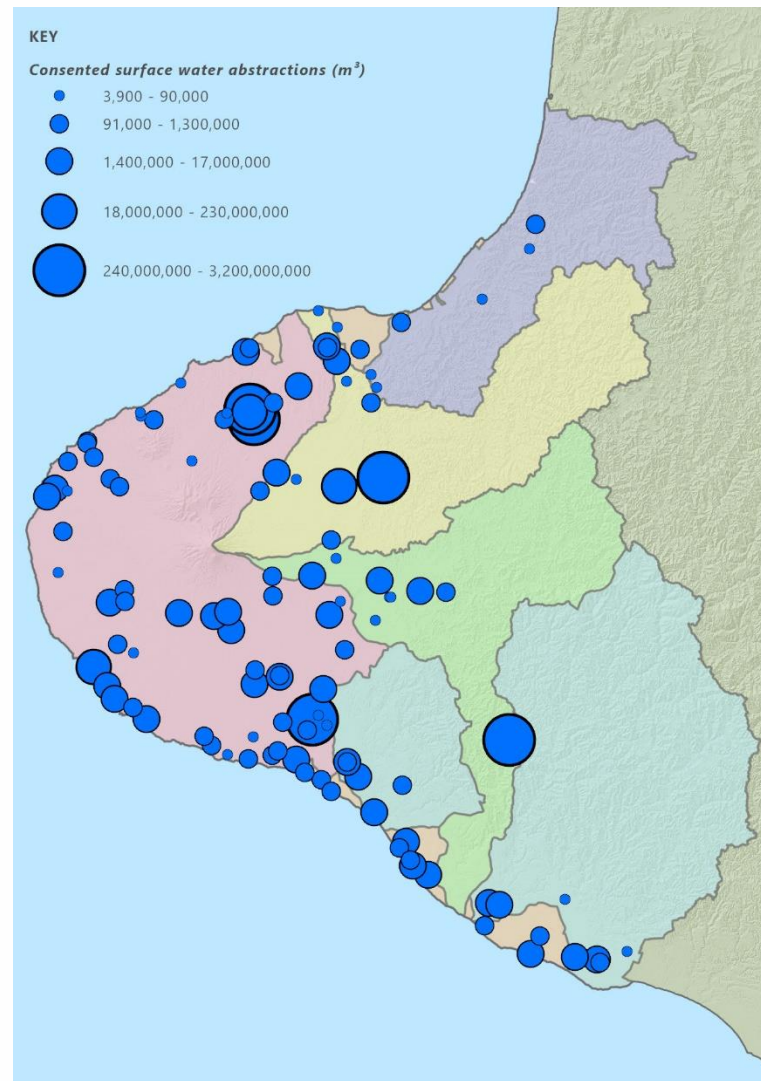
HOW'S TARANAKI LOOKING? – BASELINE STATE

How's Taranaki looking?

- Gains have been made in recent years with significant investment in riparian fencing and planting
- However, improvement is still required in many waterways
- Nutrients, sediment and *E. coli* present significant challenges
- The state of aquatic life is mixed, with most monitoring sites showing some degree of impact
- Swimability of freshwater requires a large improvement across much of the region to meet national targets

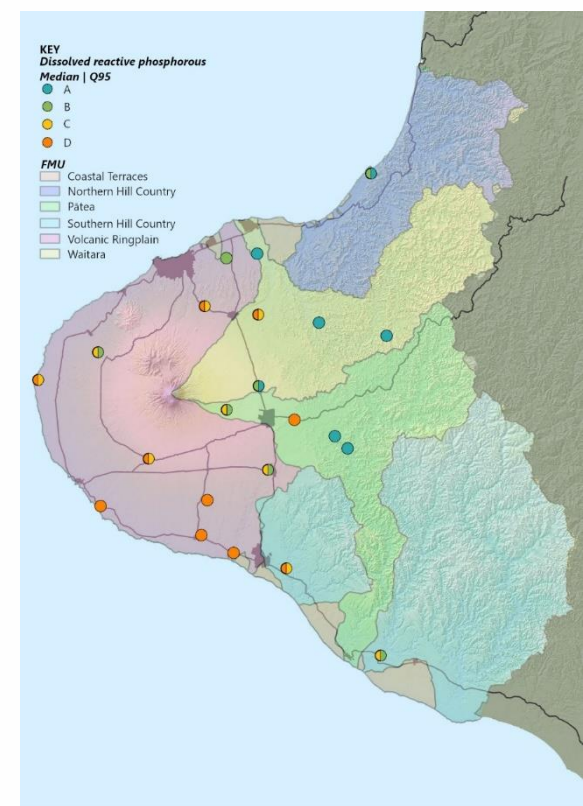
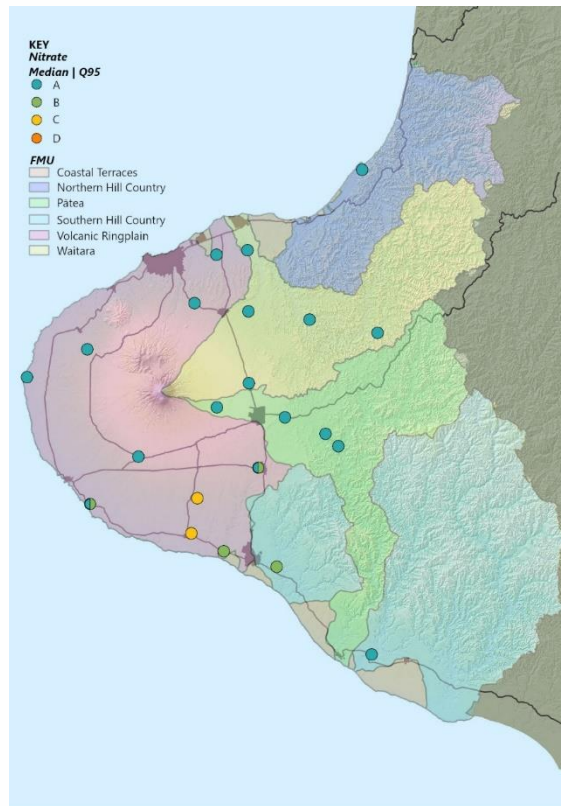
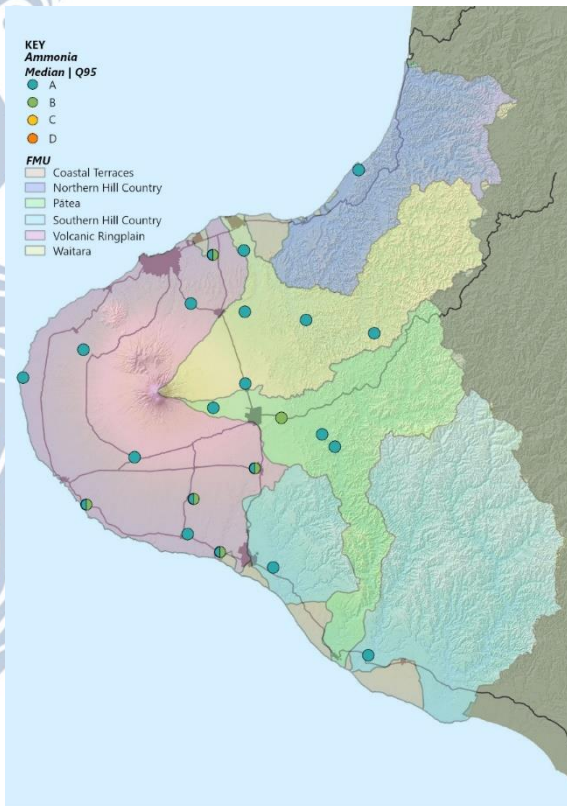
Water quantity

- 117 current consents
- >11.6 million cubic meter of water per day
- 96% for hydroelectric generation

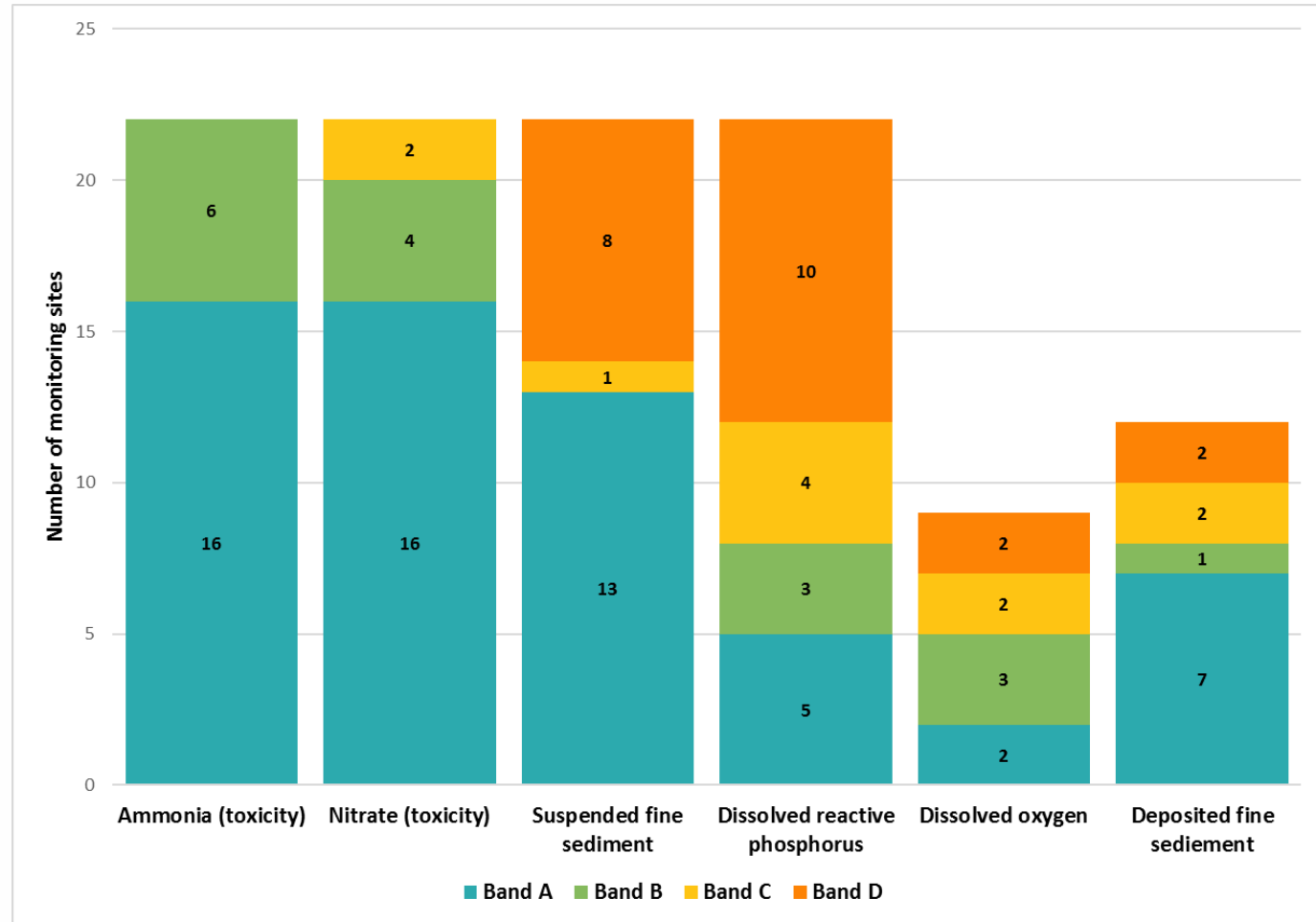


River water quality

Ammonia (toxicity), nitrate (toxicity) and dissolved reactive phosphorous

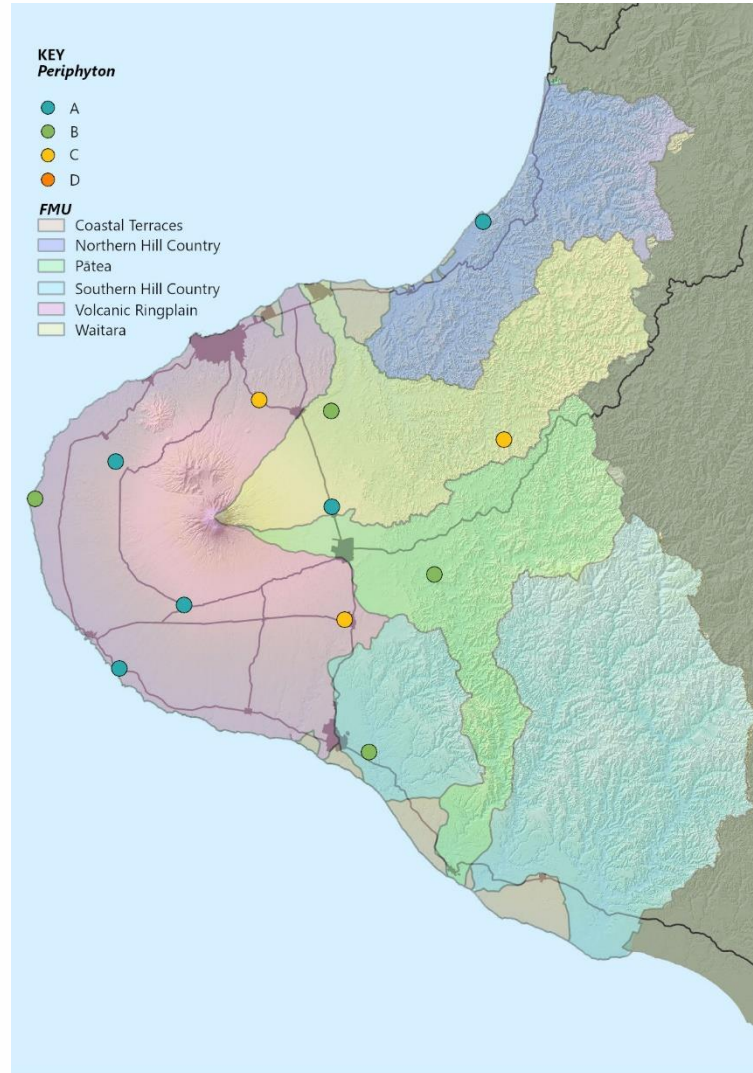


River water quality



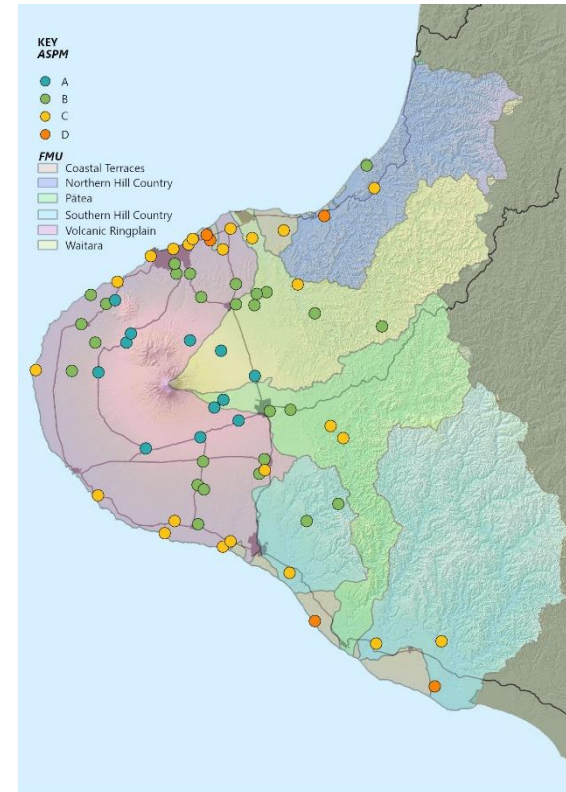
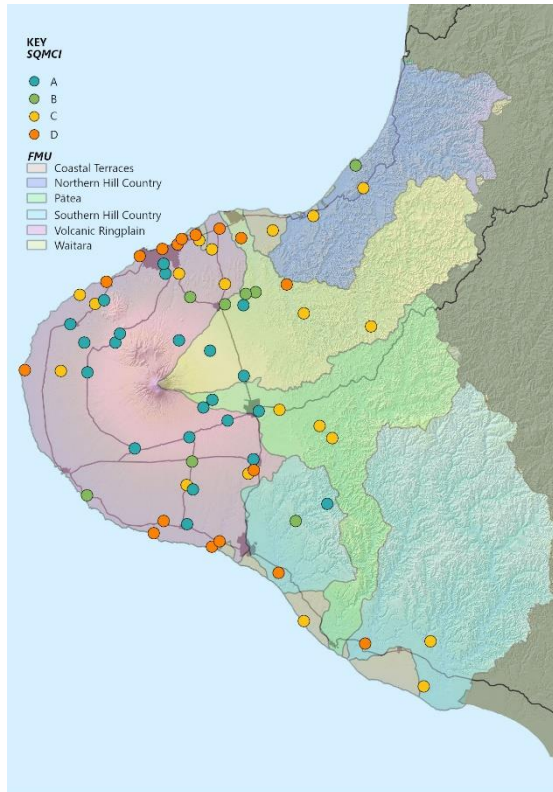
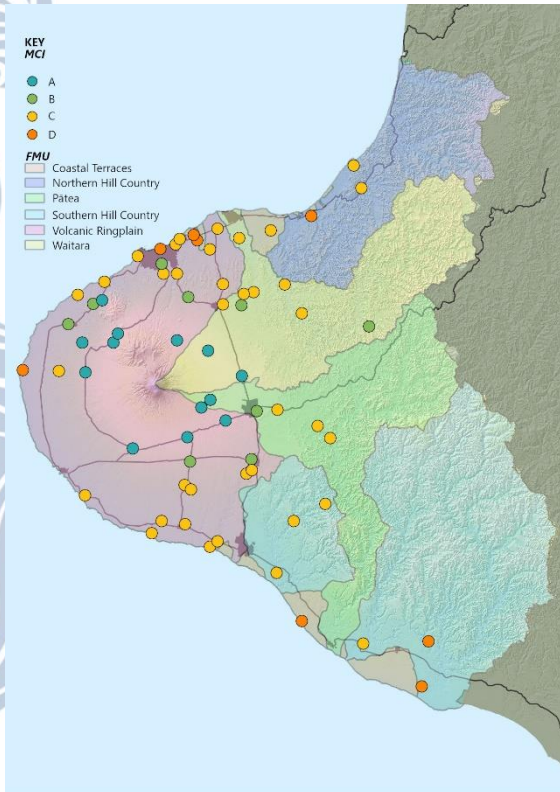
River ecosystems

Periphyton



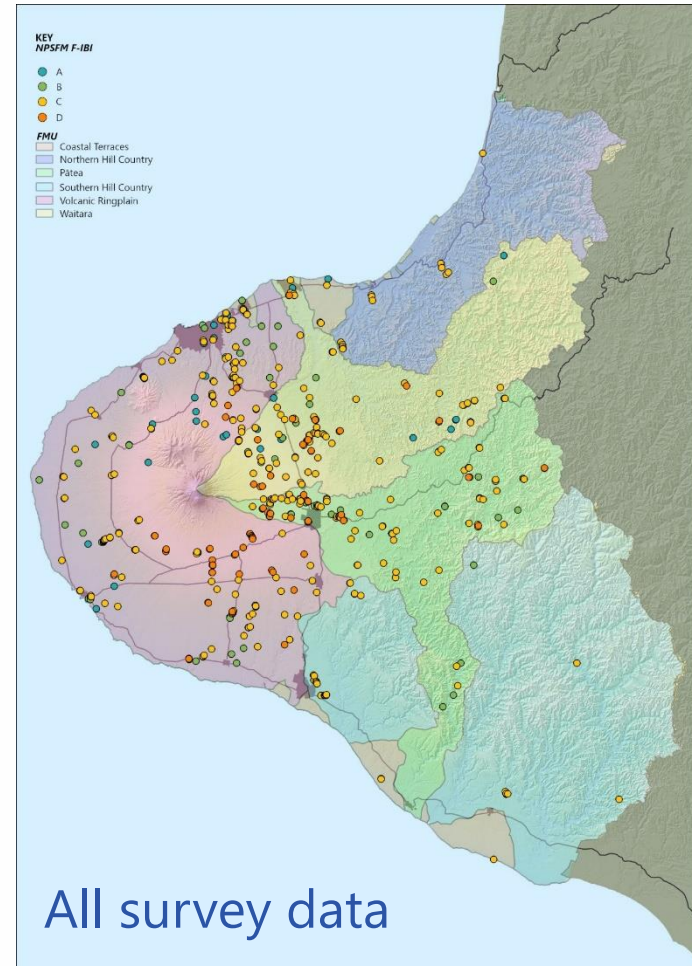
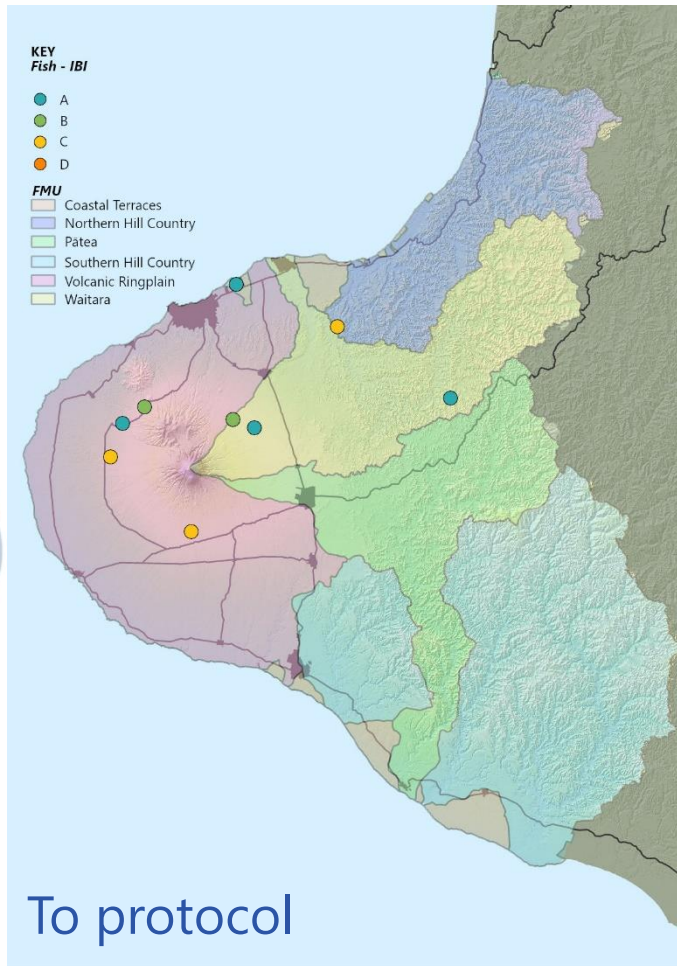
River ecosystems

Macroinvertebrates



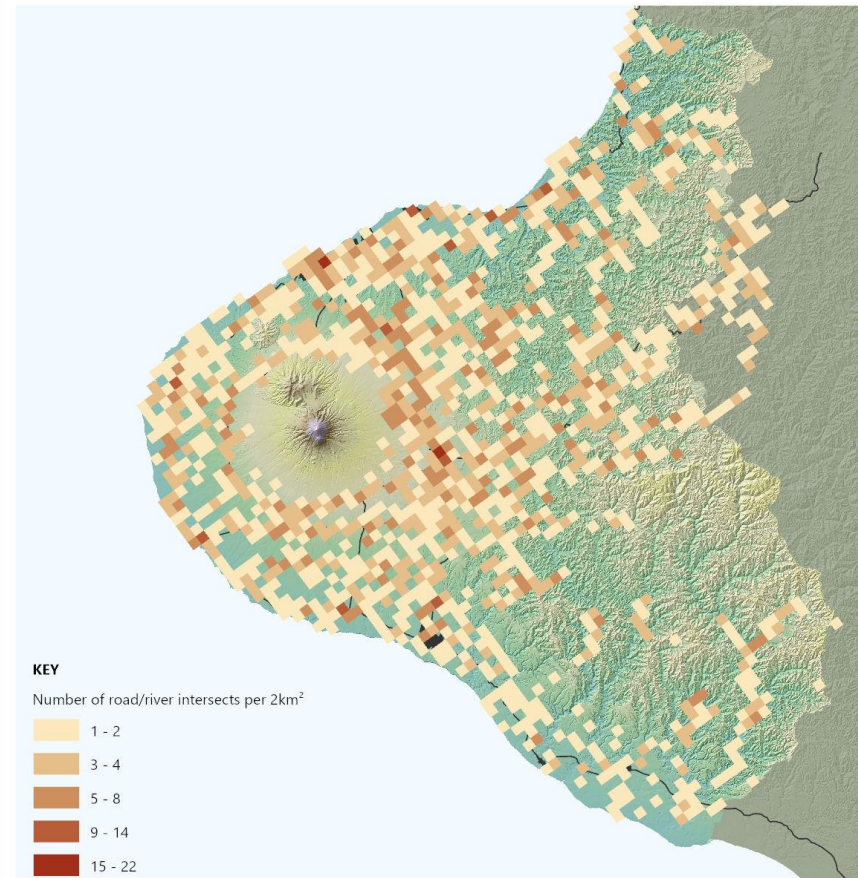
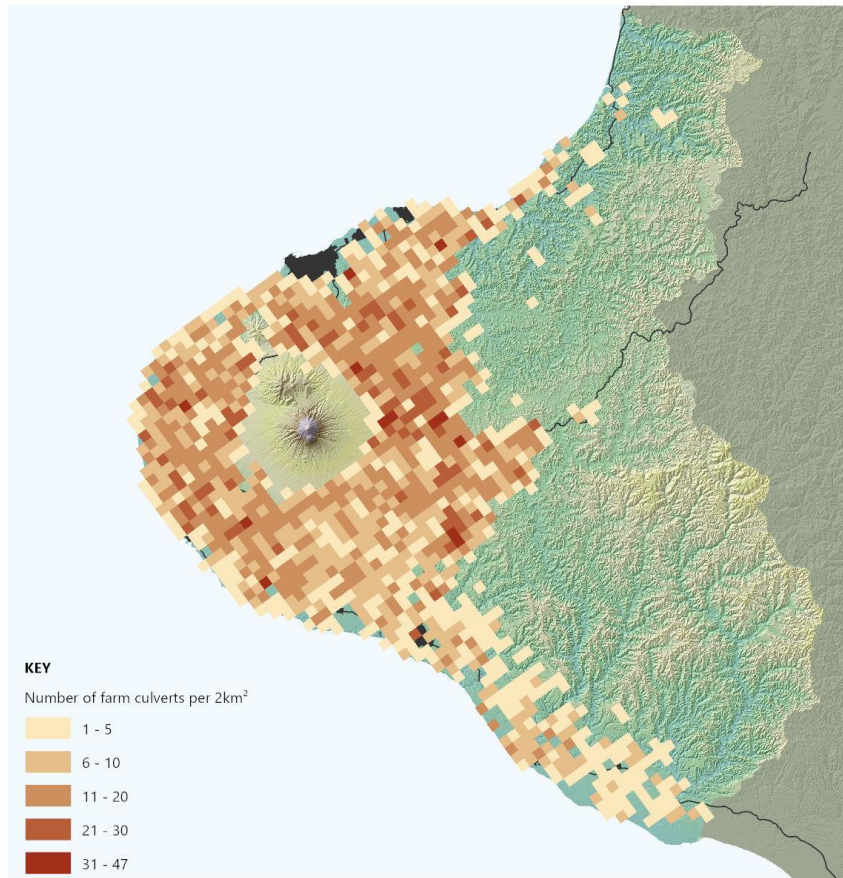
River ecosystems

Fish Index of Biotic Integrity

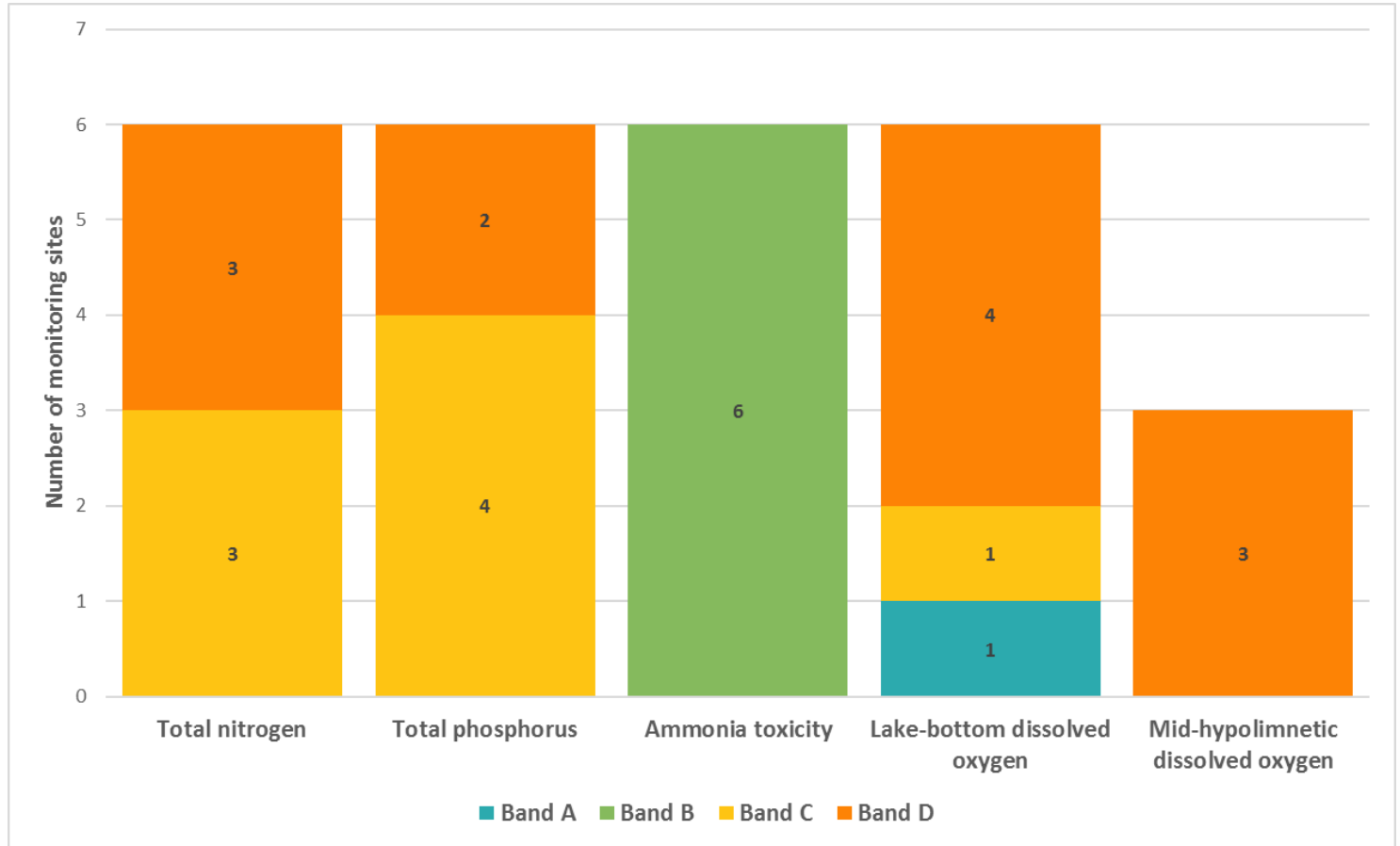


River ecosystems

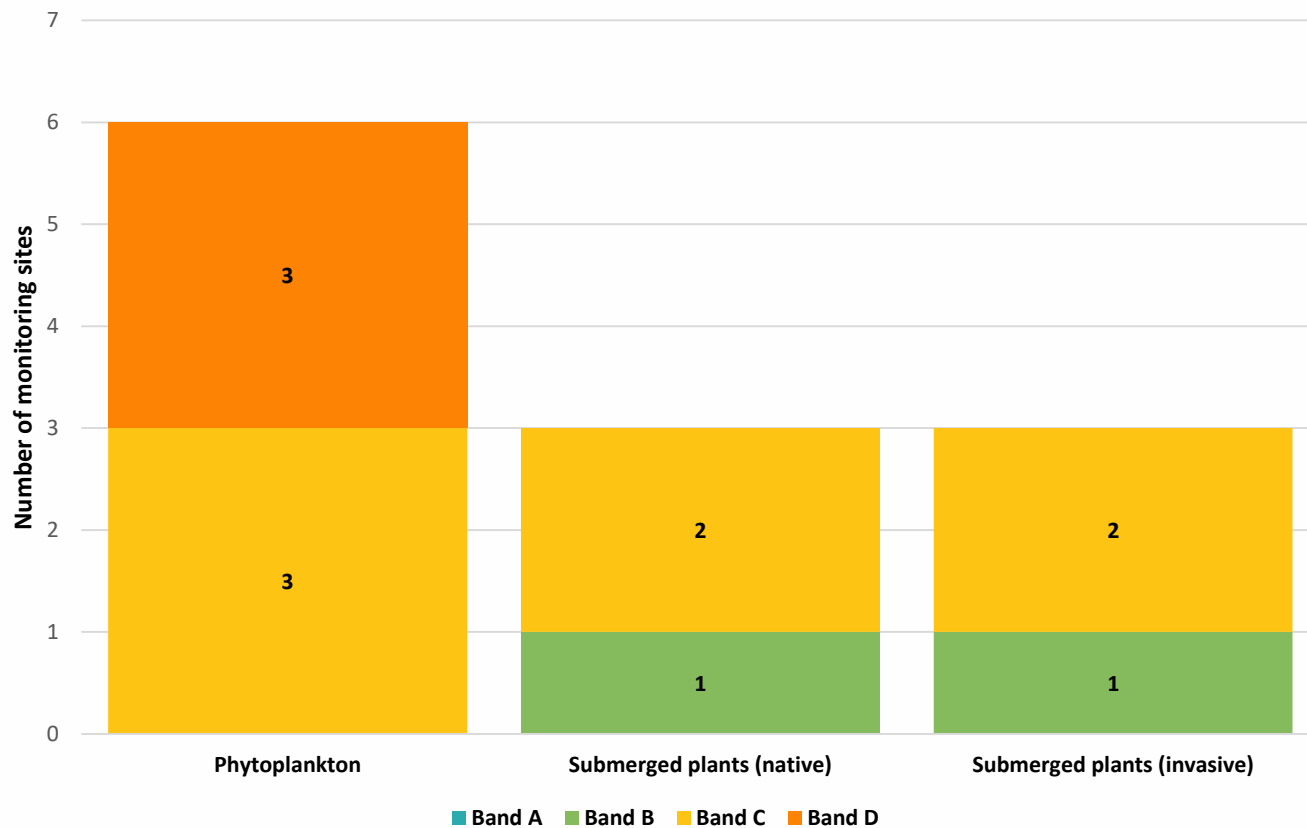
Fish passage



Lake water quality

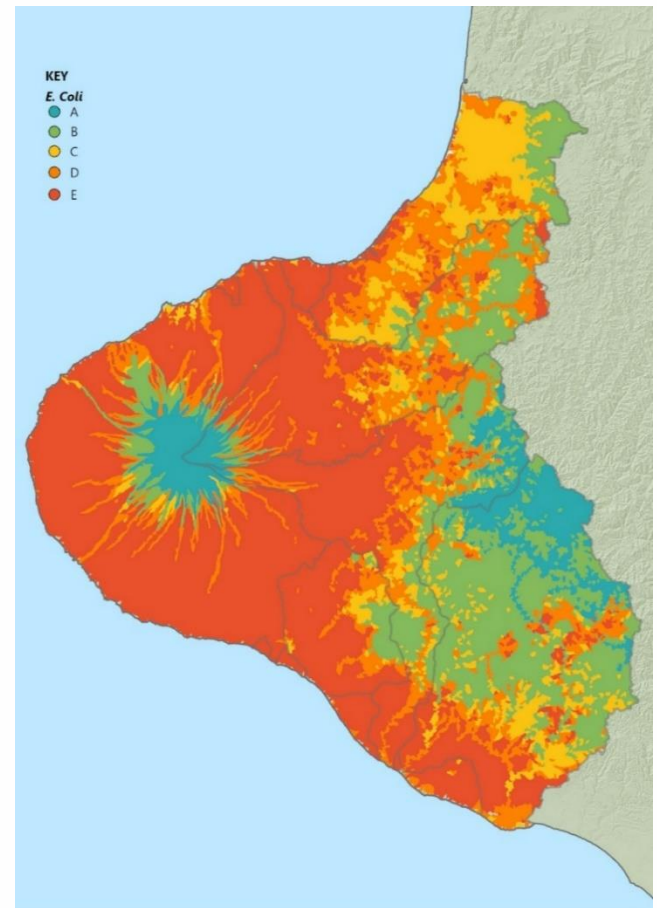
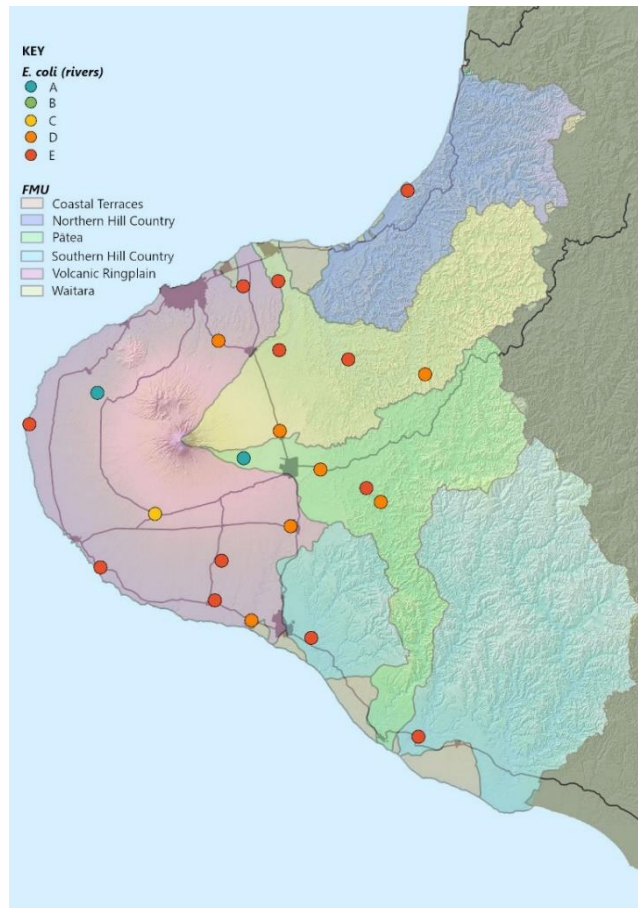


Lake ecosystems



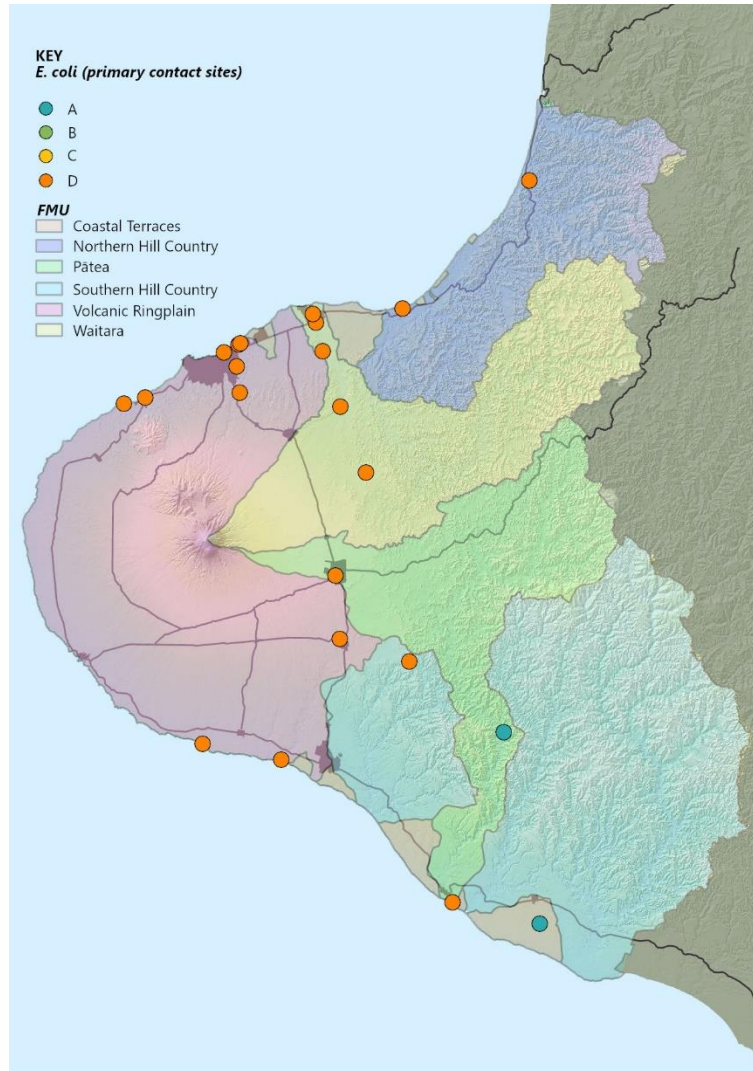
Human contact

E. coli (region-wide)



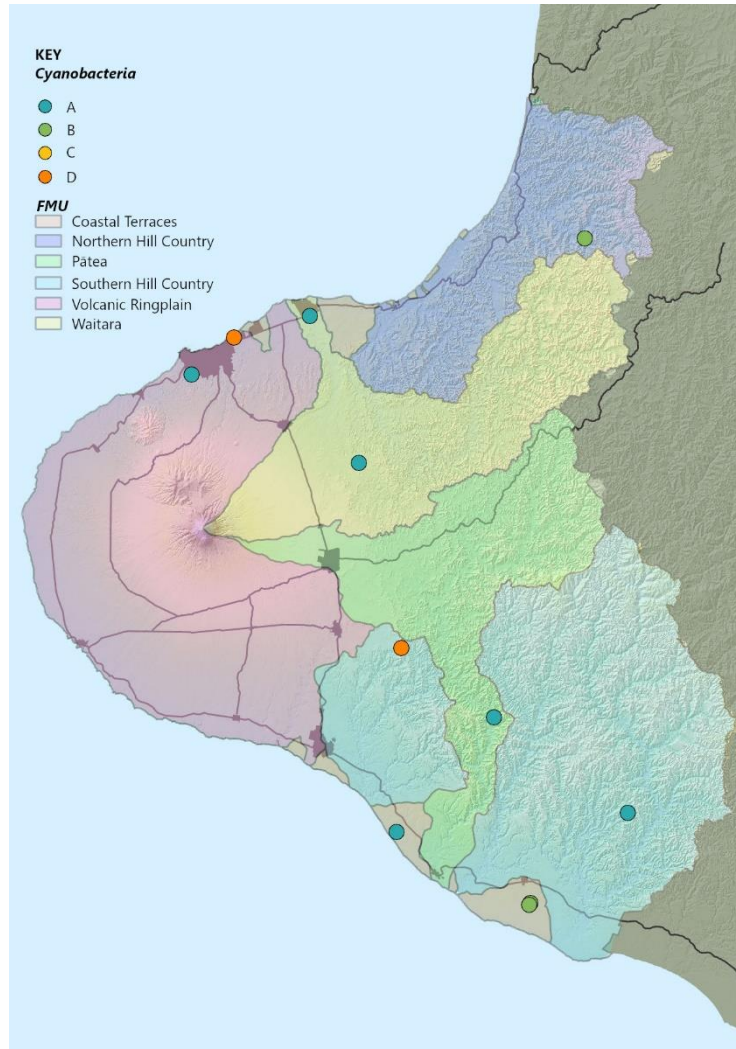
Human contact

E. coli (primary contact sites)



Human contact

Cyanobacteria (lakes)





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POLICY CONTEXT

Policy context

- Series of objectives that will then guide freshwater management decisions
 - Te Mana o te Wai (regional)
 - Long-term visions (Freshwater Management Units)
 - Environmental outcomes (Freshwater Management Units)
 - Other regional objectives, e.g. (not today)
 - Wetlands
 - Outstanding waterbodies
 - Management of specific activities (e.g. taking, discharging)



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TE MANA O TE WAI

Concept

Te Mana o te Wai is a concept that refers to the fundamental importance of water and recognises that protecting the health of freshwater protects the health and well-being of the wider environment. It protects the mauri of the wai. Te Mana o te Wai is about restoring and preserving the balance between the water, the wider environment, and the community.

Hierarchy of obligations

There is a hierarchy of obligations in Te Mana o te Wai that prioritises:

- (a) first, the health and well-being of water bodies and freshwater ecosystems
- (b) second, the health needs of people (such as drinking water)
- (c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

Principles

mana whakahaere: the power, authority, and obligations of tangata whenua to make decisions that maintain, protect, and sustain the health and well-being of, and their relationship with, freshwater.

kaitiakitanga: the obligation of tangata whenua to preserve, restore, enhance, and sustainably use freshwater for the benefit of present and future generations.

manaakitanga: the process by which tangata whenua show respect, generosity, and care for freshwater and for others.

governance: the responsibility of those with authority for making decisions about freshwater to do so in a way that prioritises the health and well-being of freshwater now and into the future.

stewardship: the obligation of all New Zealanders to manage freshwater in a way that ensures it sustains present and future generations.

care and respect: the responsibility of all New Zealanders to care for freshwater in providing for the health of the nation.

Te Mana o te Wai objective for Taranaki

- Overarching objective in the Regional Policy Statement
- How will we give effect to Te Mana o te Wai in Taranaki?
- What does treating water in accordance with Te Mana o te Wai look like?
- Objective for tangata whenua, all Taranaki people and those who make freshwater decisions

Te Mana o te Wai objective for Taranaki

Through partnership with tangata whenua and the community, Te Mana o te Wai will be given effect to by:

- a) recognising and providing for the mana motuhake, manaakitanga and kaitiakitanga of tangata whenua partners in management and decision making on freshwater;
- b) strengthening the relationships between wai (water), whenua (land) and all people and, for tangata whenua o Taranaki, affirming and strengthening the enduring, integral whakapapa relationships;
- c) upholding, protecting, and restoring the mauri, health, and well-being of wai and waterbodies for current and future generations;
- d) acknowledging and responding to the unique whakapapa of waterbodies; and
- e) providing for waterbodies to behave [naturally] as they wish;

so that the interconnectedness of wai, whenua and taiao continue to support and perpetuate life.

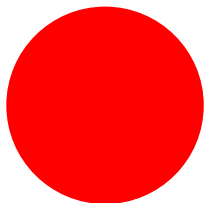


Exercise #1

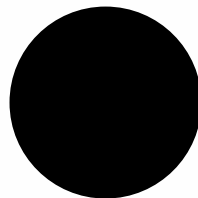
Te Mana o Te Wai

Exercise: Te Mana o te Wai

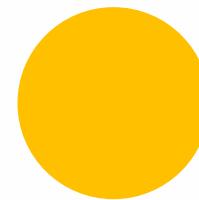
- Work at the table with your group
- Place a coloured dot to indicate your support for particular clauses. Apply one dot per bullet point.
- Indicate feedback about why you do or do not support outcome on the sheet.



No. I don't support
this outcome



Love it! I support
this outcome



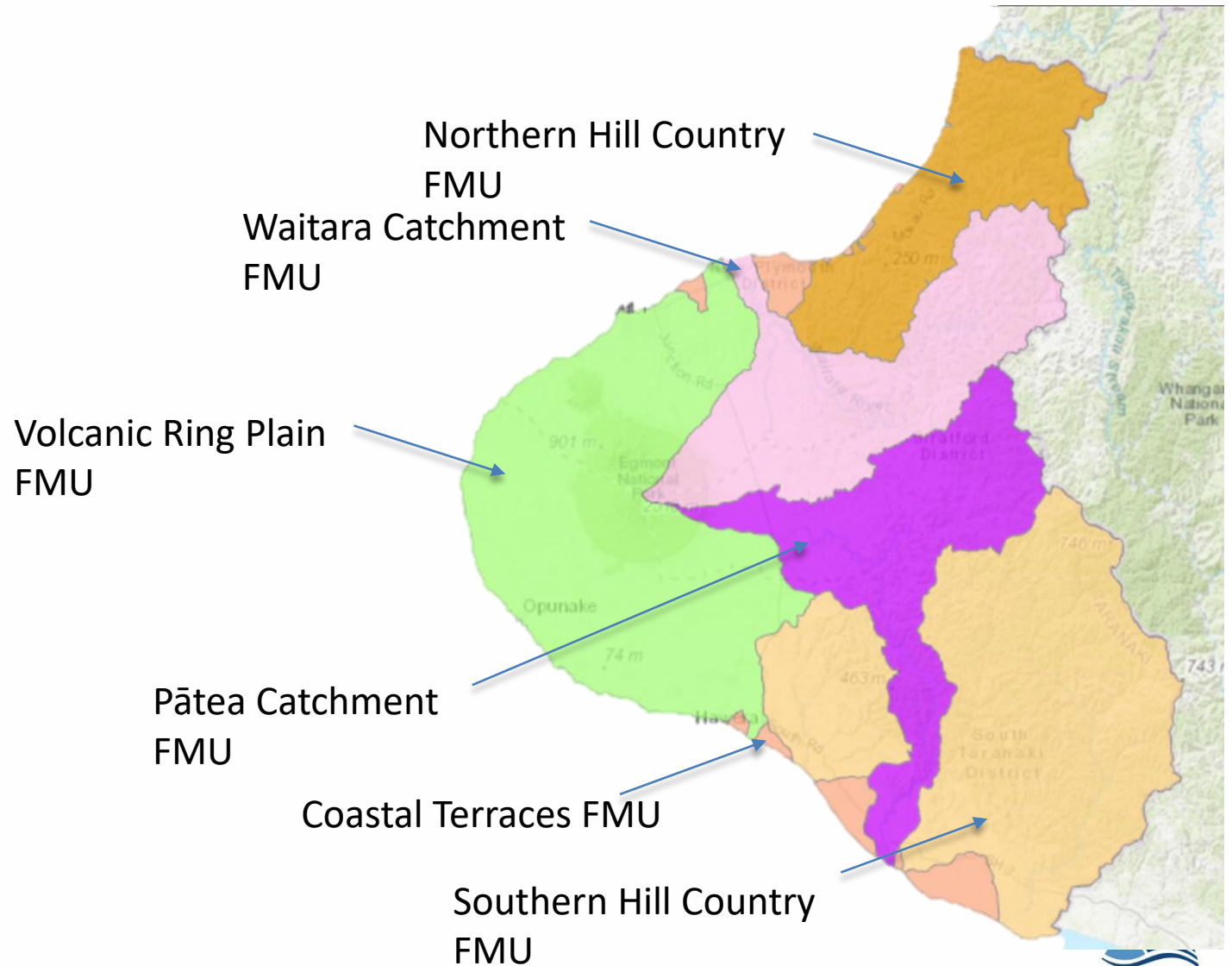
Undecided Not sure
about this outcome



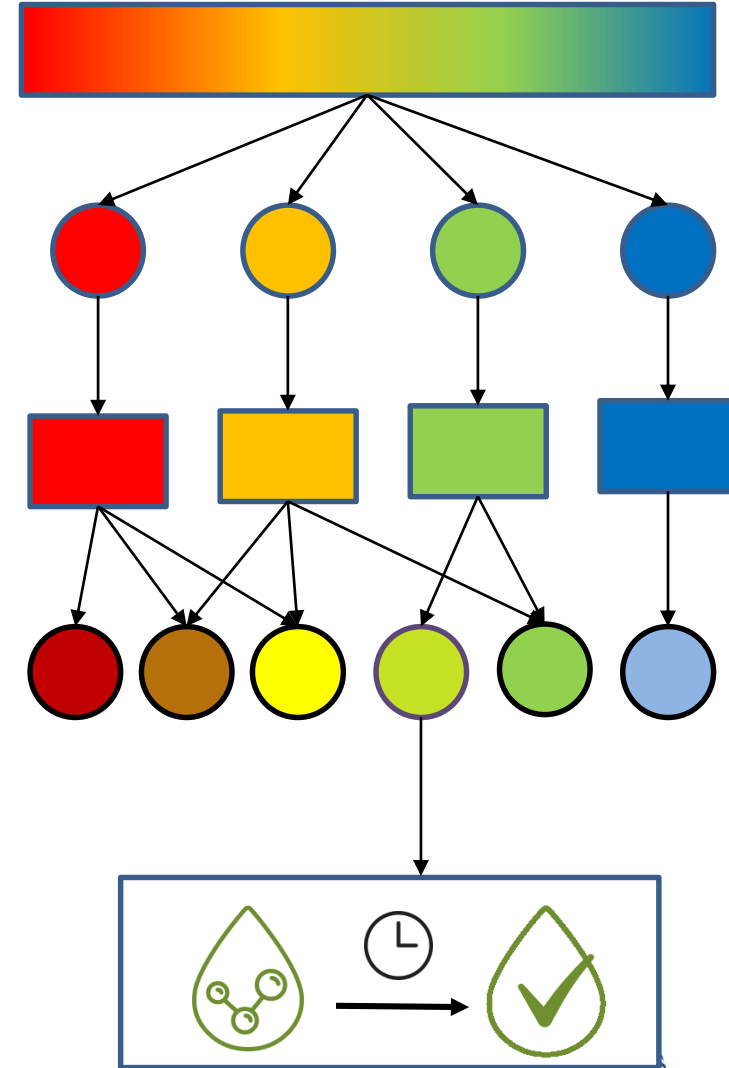
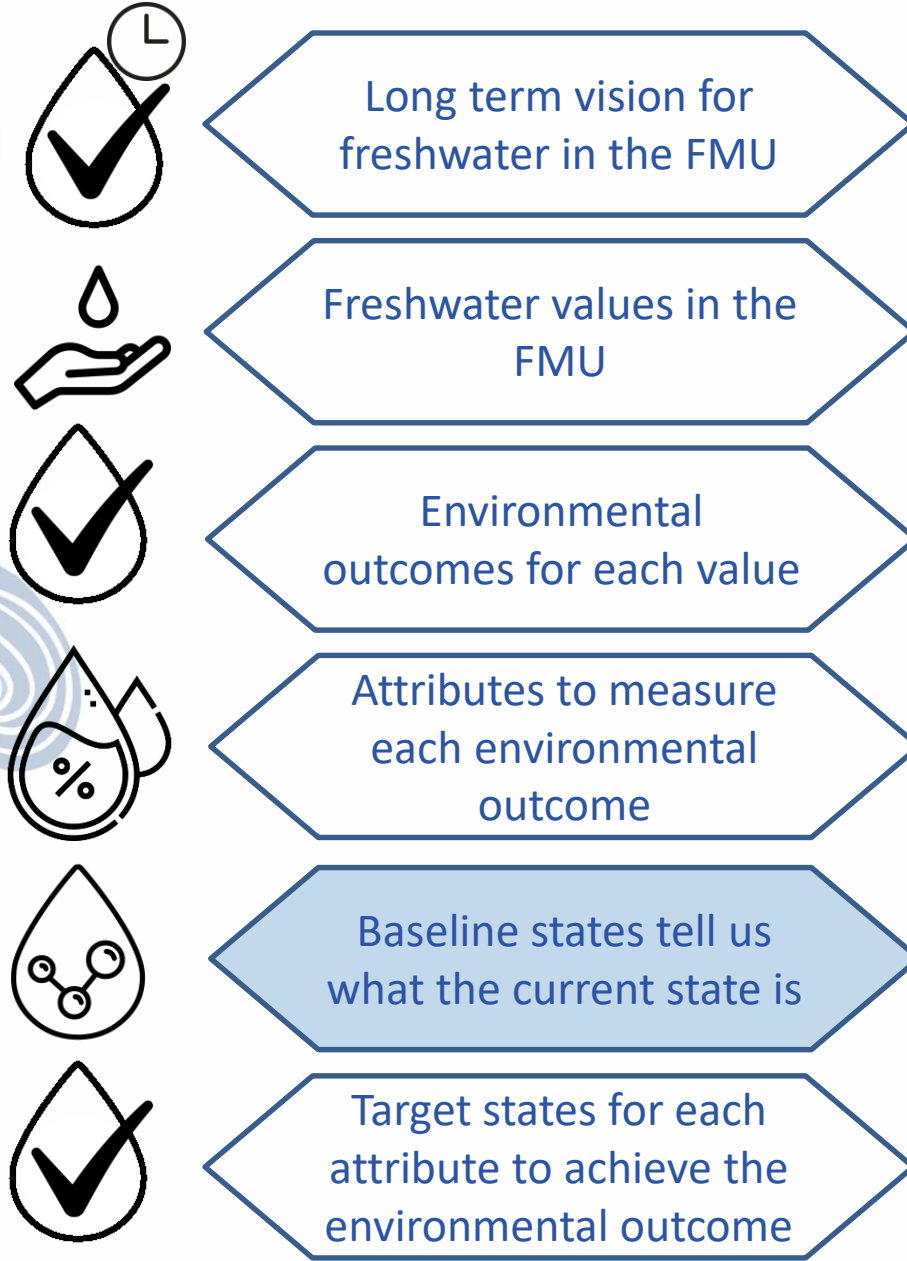
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NATIONAL OBJECTIVES FRAMEWORK

Freshwater Management Units



National Objectives Framework

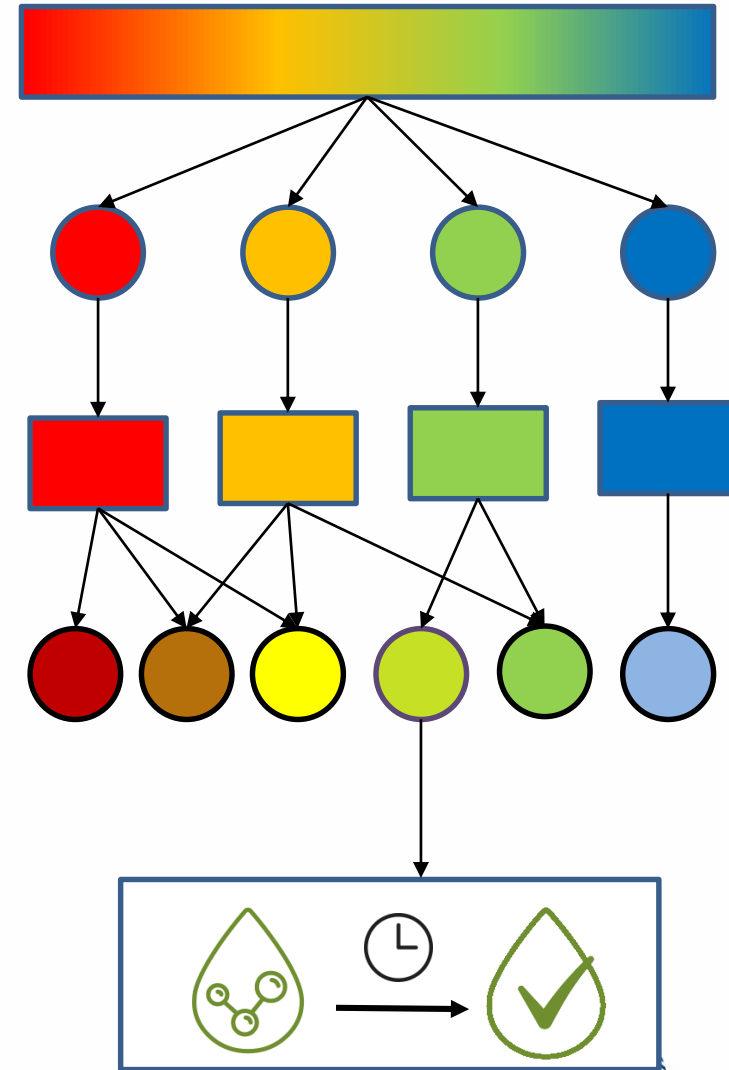
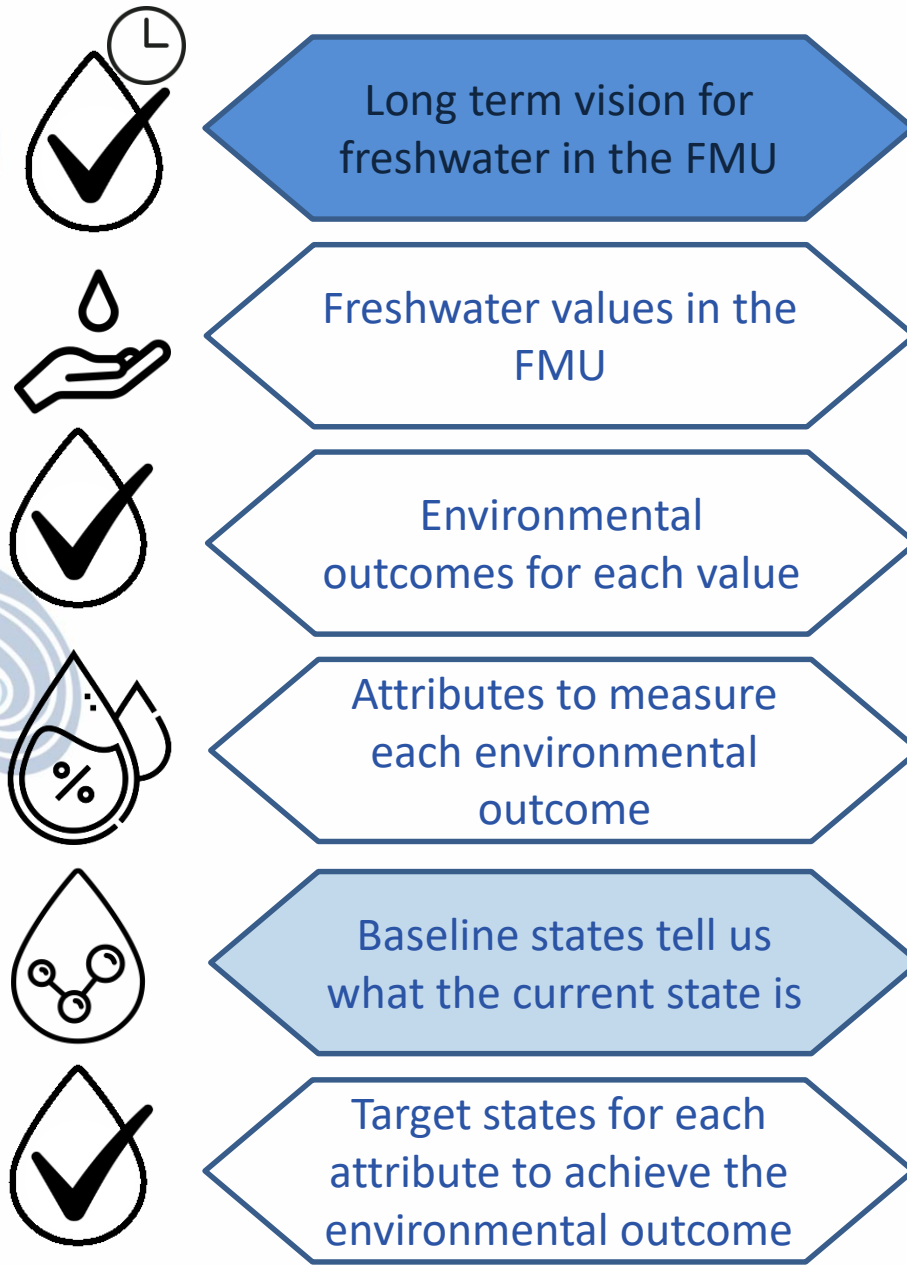




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FMU VISIONS

National Objectives Framework



Community feedback so far

- Two rounds of engagement on long-term visions for freshwater
- Key themes are available on the TRC website

<https://www.trc.govt.nz/council/news-and-events/have-your-say/past-consultations/>

Long-term vision example

Long-term vision for the Volcanic Ring Plain Freshwater Management Unit

In the Volcanic Ring Plain Freshwater Management Unit:

- 1. freshwater and the effects of activities on freshwater are managed to give effect to te Mana o te Wai;*
- 2. the journey of freshwater, from numerous springs on Taranaki Maunga and the broader volcanic apron down through coastal cliffs and estuaries to the Tasman Sea, sustain the life force and mauri of the environment and reflect their natural variability and natural form and character;*
- 3. the waters of Te Papa-Kura-o-Taranaki (the national park) and Conservation Lands are protected and celebrated as waters which behave in accordance with their natural character;*
- 4. water bodies, including riparian margins, wetlands and lakes, groundwater and surrounding habitats, support diverse, abundant and connected ecosystems and the resilience of indigenous and threatened species;*
- 5. the mana of tangata whenua and their traditional and ongoing relationships with wai are restored through mahinga kai and the practice of mātauranga Māori;*
- 6. land use and freshwater practices improve freshwater quality so that ecosystem health and human health needs are provided for and protected by:*
 - a. taking into account historical cumulative effects of intensive land use on the environment; and*
 - b. being responsive to the current and future effects of climate change;*
- 7. strong and resilient biodiversity provide for the sustainable harvest of mahinga kai, rongoa and fish; and*
- 8. water bodies, in particular primary contact sites, are safe for swimming, mahinga kai and other customary and recreational purposes;*

by the year (date tbc).

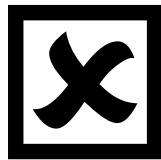


Exercise #2

Visions

Exercise: Visions

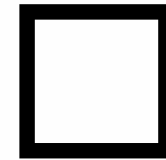
- Place a coloured dot to indicate your support for each clause of the vision. Apply one dot per bullet point.
- Indicate feedback about why you do or do not support vision on the sheet



No. I don't support
this outcome



Love it! I support
this outcome



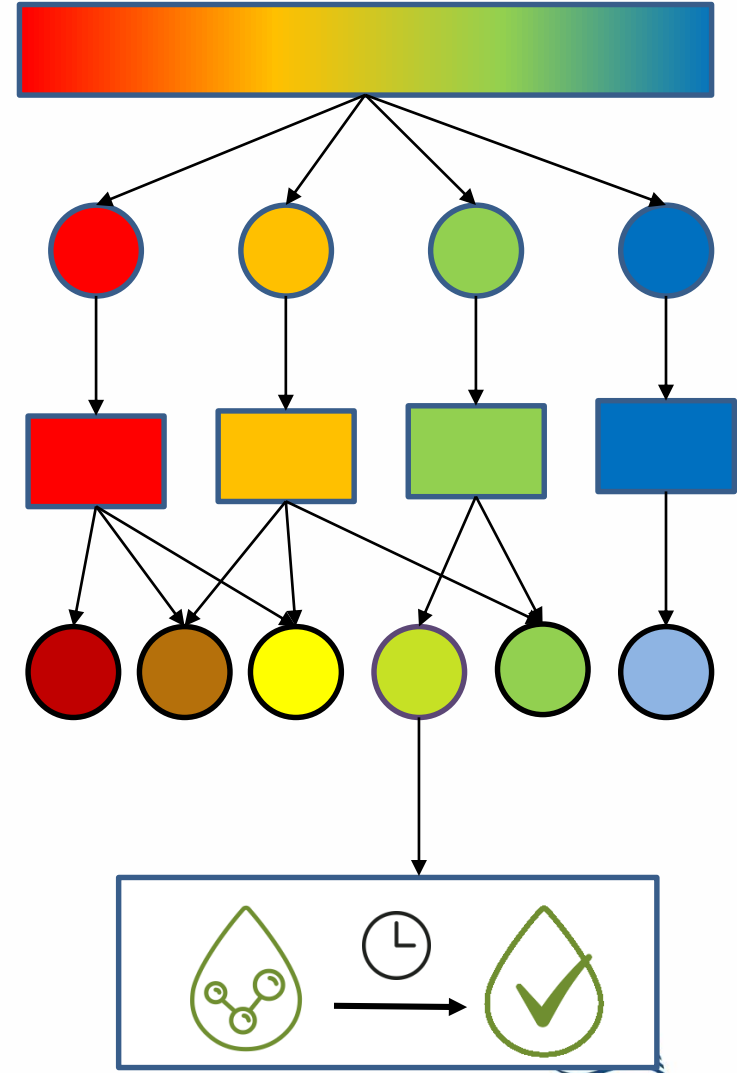
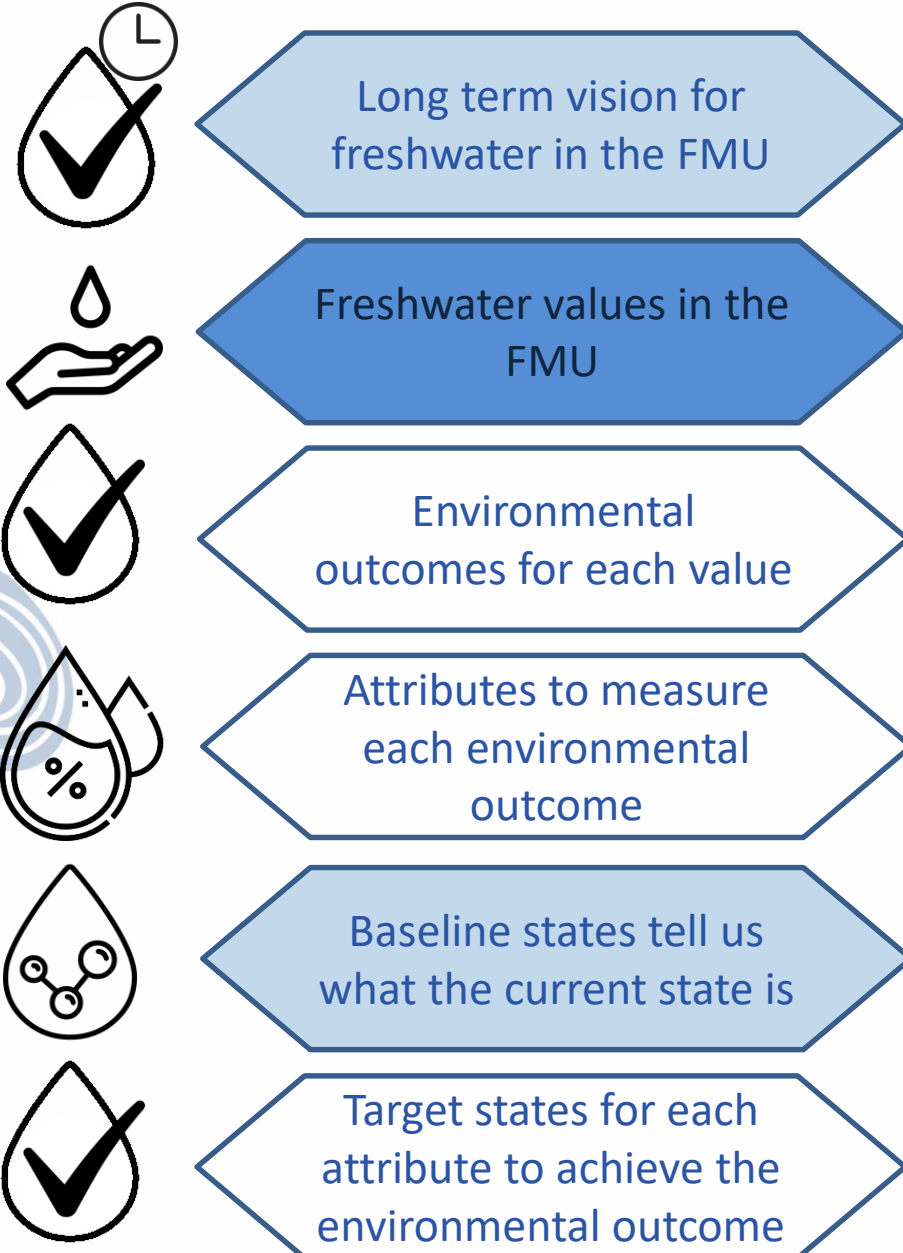
Undecided Not sure
about this outcome



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ENVIRONMENTAL VALUES & OUTCOMES

National Objectives Framework



Value identification

The NPSFM sets out a suite of **compulsory values** for the NOF:

- Ecosystem health
 - Water quality
 - Water quantity
 - Habitat
 - Aquatic life
 - Ecological processes
- Human Contact
- Threatened Species
- Mahinga kai

Value identification

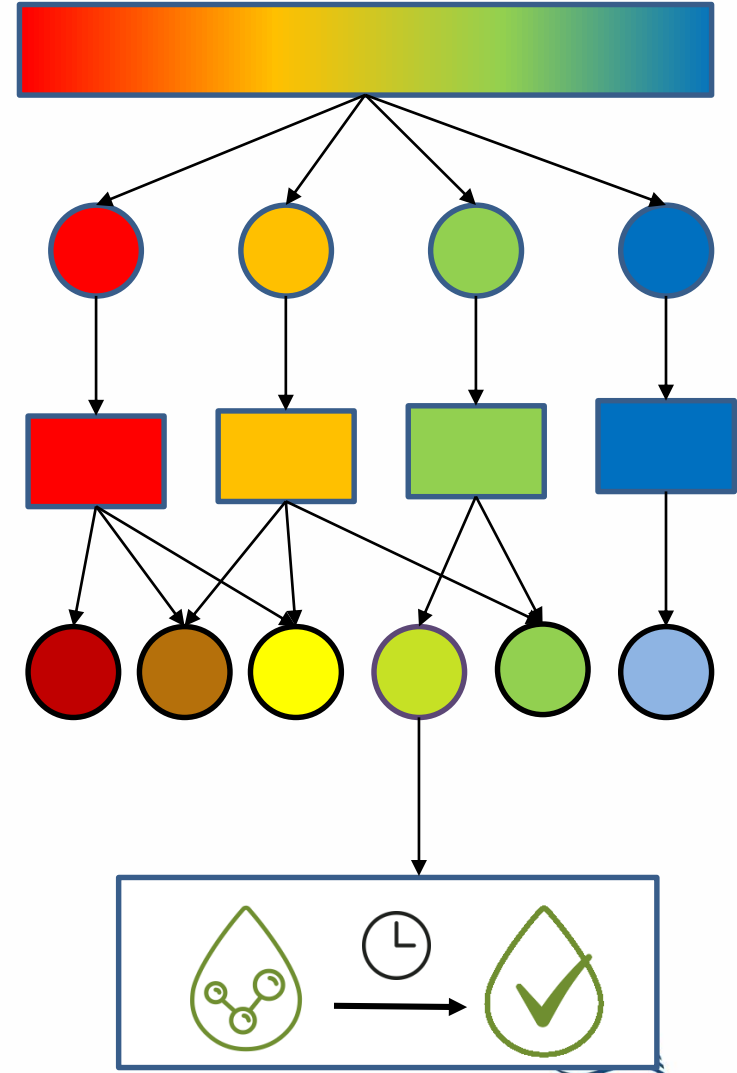
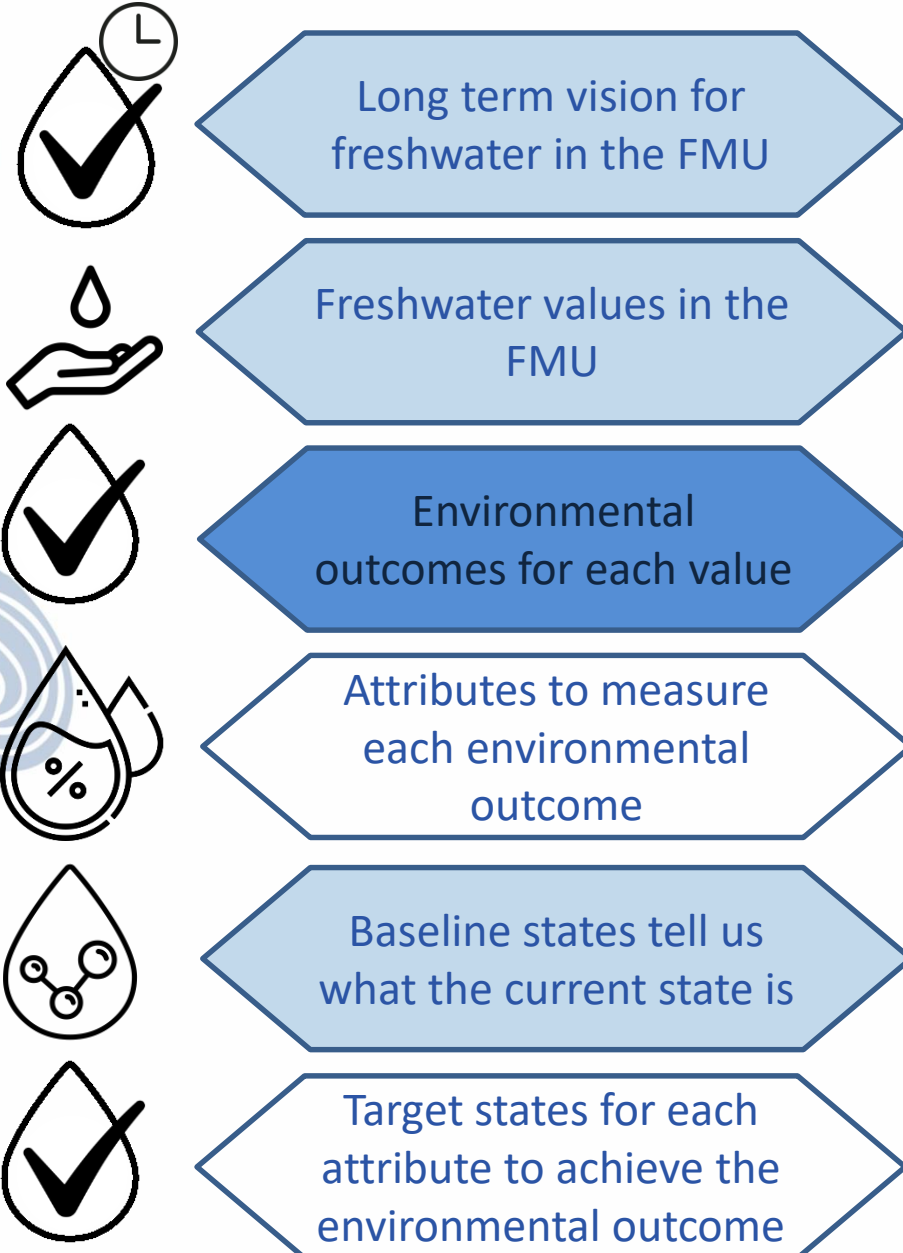
The NPSFM sets out a suite of **non-compulsory values** that must be included if they apply to an FMU:

- Natural form and character
- Drinking water supply
- Wai tapu
- Transport and Tauranga waka
- Fishing
- Hydro-electric power generation
- Animal drinking water
- Irrigation, cultivation, and production of food and beverages
- Commercial and industrial use

Other values to consider

	Northern Hill Country	Waitara	Volcanic Ring Plain	Coastal Terraces	Pātea	Southern Hill Country
Natural form and character	✓	✓	✓	✓	✓	✓
Drinking water supply	✓	✓	✓	✓	✓	✓
Wai tapu	✓	✓	✓	✓	✓	✓
Transport and tauranga waka		✓	✓		✓	✓
Fishing	✓	✓	✓		✓	✓
Hydro-electric power generation					✓	
Animal drinking water	✓	✓	✓	✓	✓	✓
Irrigation, cultivation and the production of food and beverages	✓	✓	✓	✓	✓	✓
Commercial and industrial use	✓	✓	✓	✓	✓	✓

National Objectives Framework



Environmental outcomes

- Objective that describes the water quality and quantity requirements for the value
- Once achieved as a whole will achieved the relevant long-term vision
- Not trying to balance values or provide direction on tensions between values

Ecosystem health – Water Quality

Environmental conditions ensure that ecosystems within the Volcanic Ring Plain FMU are healthy and resilient to seasonal variations, the impacts of climate change and the effects of land and freshwater use by achieving the following:

- a) Water Quality:** the physical and chemical measures of freshwater including appropriate light penetration and nutrient and oxygen concentrations ensure the healthy functioning of ecosystems;

Human contact

Human connections to water bodies are provided for, by:

- a) facilitating opportunities for safe contact at primary contact sites particularly in summer; and
- b) reducing the overall risk to human health throughout the Volcanic Ring Plain FMU.

Commercial & industrial

Commercial and industrial activities and opportunities within the Volcanic Ring Plain FMU are sustainably provided for by suitable and reliable freshwater quality and quantity.

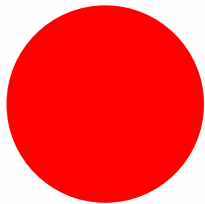


Exercise #3

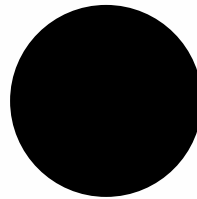
Environmental outcomes

Exercise: Environmental Outcomes

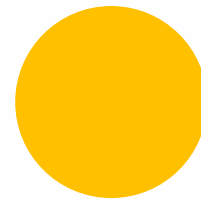
- Make your way around each FMU station.
- Place a coloured dot to indicate your support for particular outcomes. Apply one dot per bullet point.
- Indicate feedback about why you do or do not support outcome on the sheet



No. I don't support
this outcome



Love it! I support
this outcome



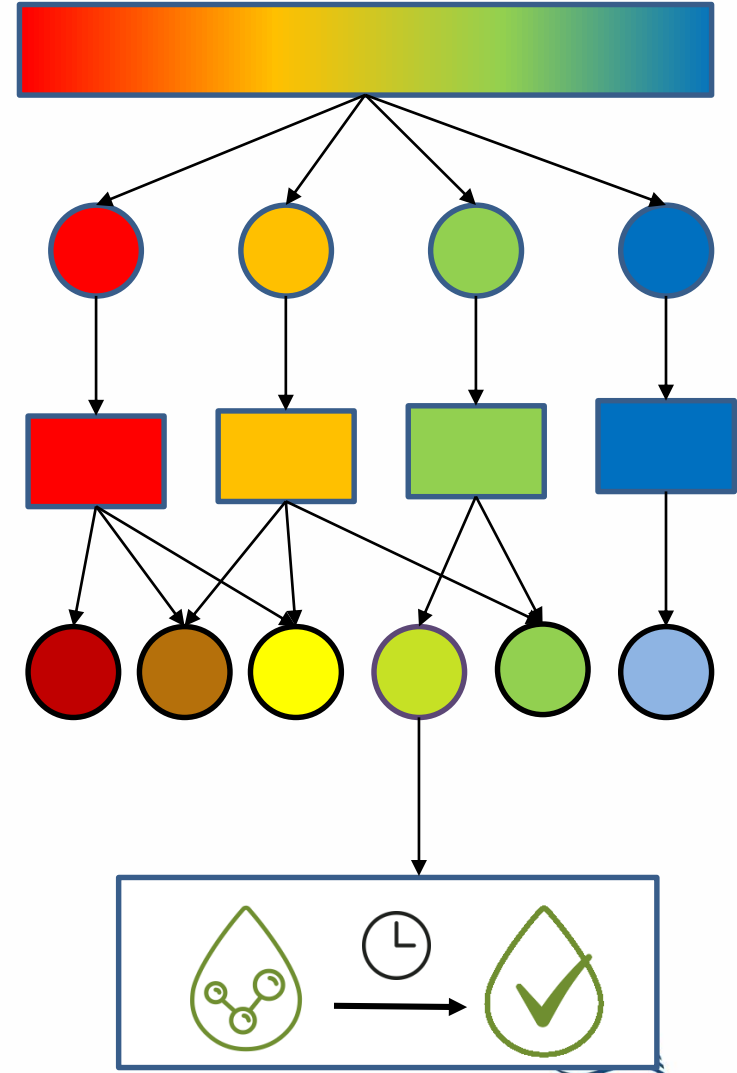
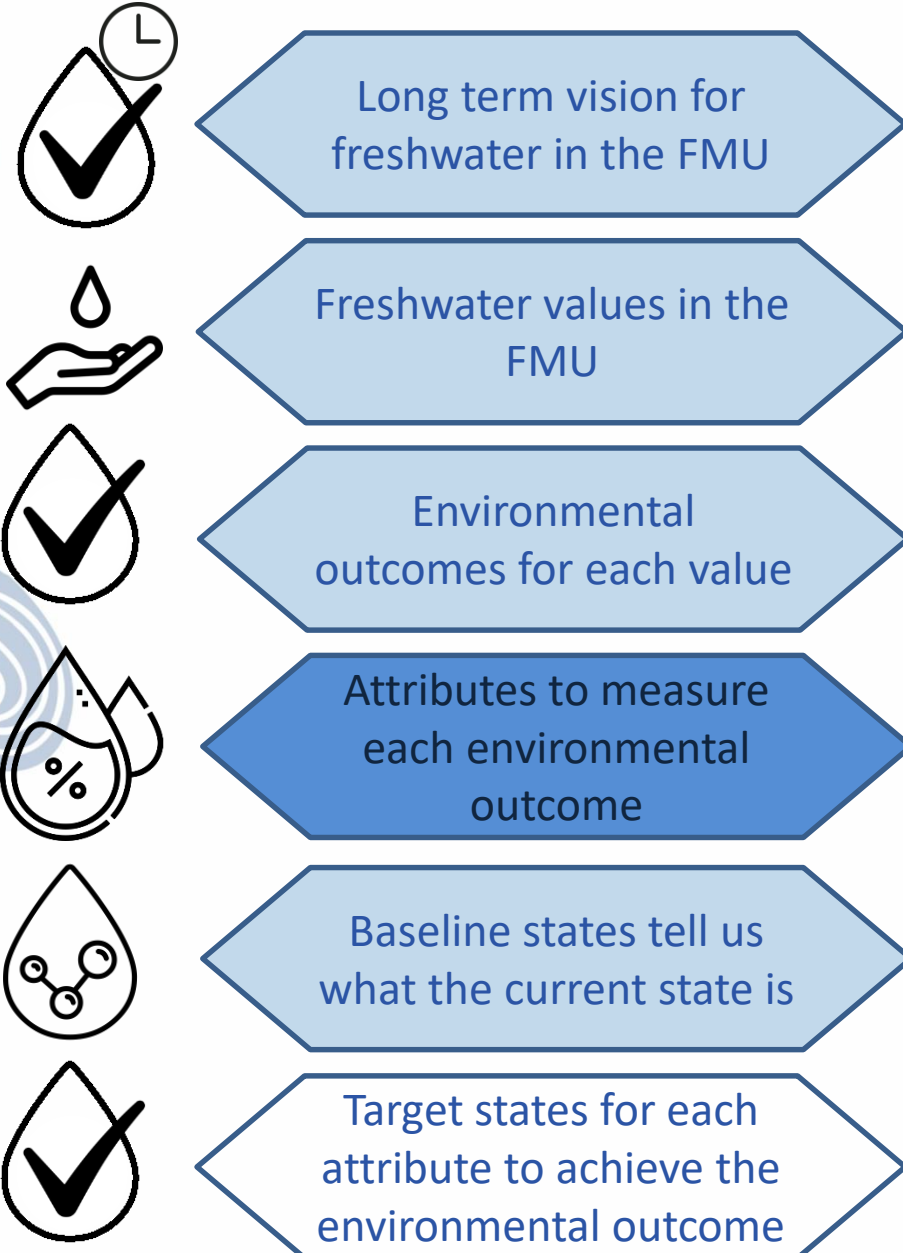
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about this outcome



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ATTRIBUTES – PERFORMANCE MEASURES

National Objectives Framework



Using attributes to measure progress

Only two values already have prescribed attributes:

- Ecosystem health
- Human contact

Prescribed attributes

Ecosystem health

- Phytoplankton (trophic state)
- Periphyton (trophic state)
- Total nitrogen (trophic state)
- Total phosphorous (trophic state)
- Ammonia (toxicity)
- Nitrate (toxicity)
- Dissolved oxygen (point sources)
- Suspended fine sediment
- Submerged plants (natives)
- Submerged plants (invasive species)
- Fish (rivers)
- Macroinvertebrates (MCI & QMCI)
- Macroinvertebrates (ASPM score)
- Deposited fine sediment
- Dissolved oxygen
- Lake bottom dissolved oxygen
- Mid-hypolimnetic dissolved oxygen
- Dissolved reactive phosphorus
- Ecosystem metabolism

Human contact

- *E. coli*
- *E. coli* (primary contact sites)
- Cyanobacteria (planktonic)

Values without prescribed attributes

- Threatened species
- Mahinga kai
- Natural form and character
- Drinking water supply
- Wai tapu
- Transport and tauranga waka
- Fishing
- Hydro-electric power generation
- Animal drinking water
- Irrigation/ cultivation/ production of food/ beverages
- Commercial / industrial use



Exercise #4

Attributes for measuring progress

Are there any other relevant measures we should consider, particularly in relation to non-compulsory values?

Measuring progress towards environmental outcomes

Ecosystem health

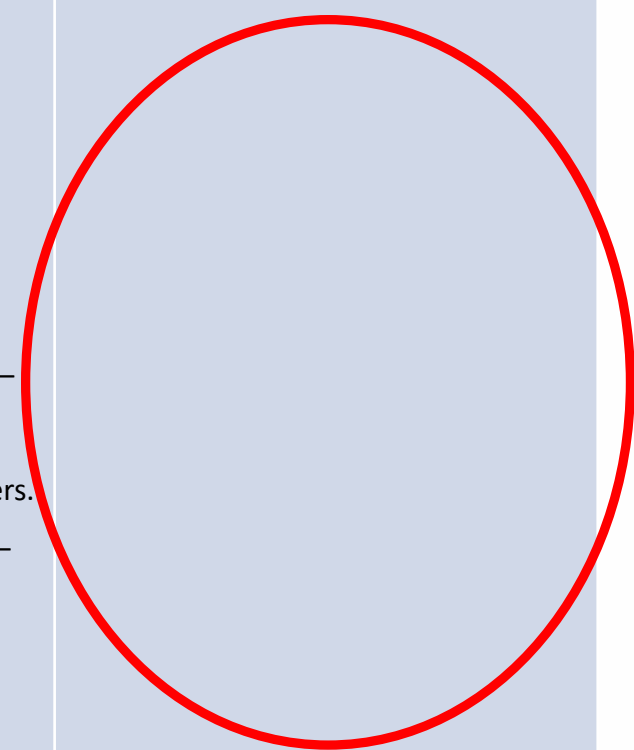
Environmental conditions ensure that ecosystems within the FMU are healthy and resilient to seasonal variations, the impacts of climate change and the effects of land and freshwater use by achieving the following:

a. **Water Quality: the physical and chemical measures of freshwater including appropriate light penetration and nutrient and oxygen concentrations ensure the healthy functioning of ecosystems;**

We measure:

- Total nitrogen – lakes.
- Total phosphorus – lakes.
- Ammonia (toxicity) – rivers & lakes.
- Nitrate (toxicity) – rivers.
- Dissolved oxygen – rivers.
- Dissolved reactive phosphorus – rivers.
- Suspended fine sediment – rivers.
- Lake-bottom dissolved oxygen – lakes.
- Mid-hypolimnetic dissolved oxygen – lakes.

Is there anything else should we consider?

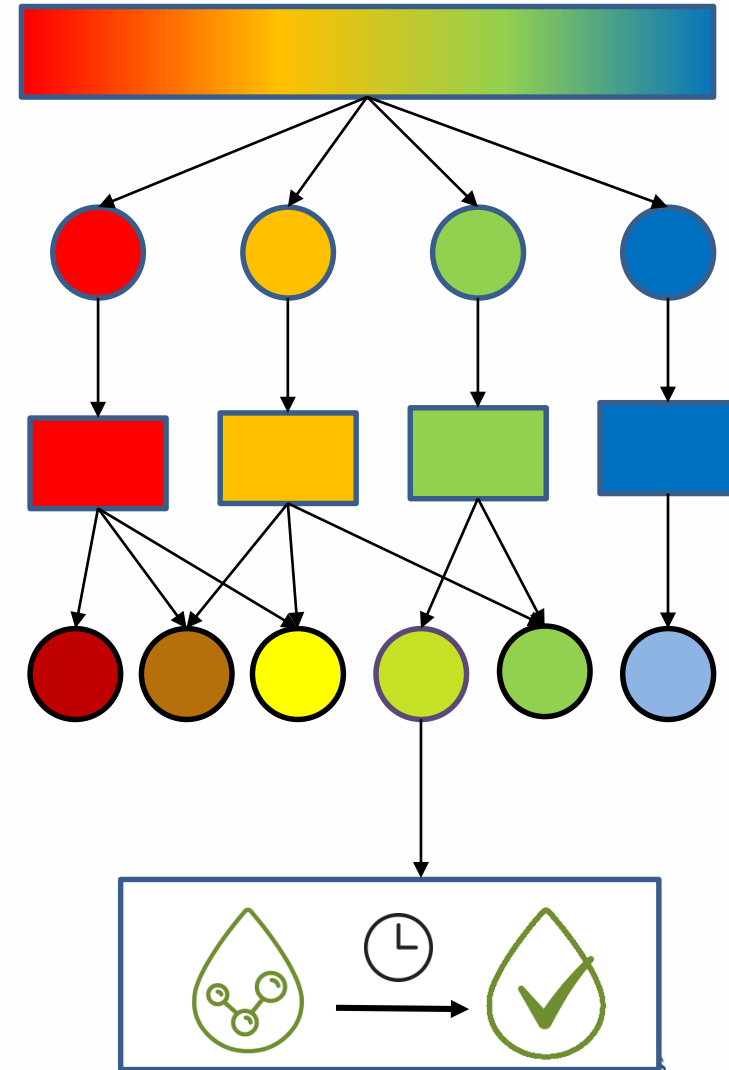
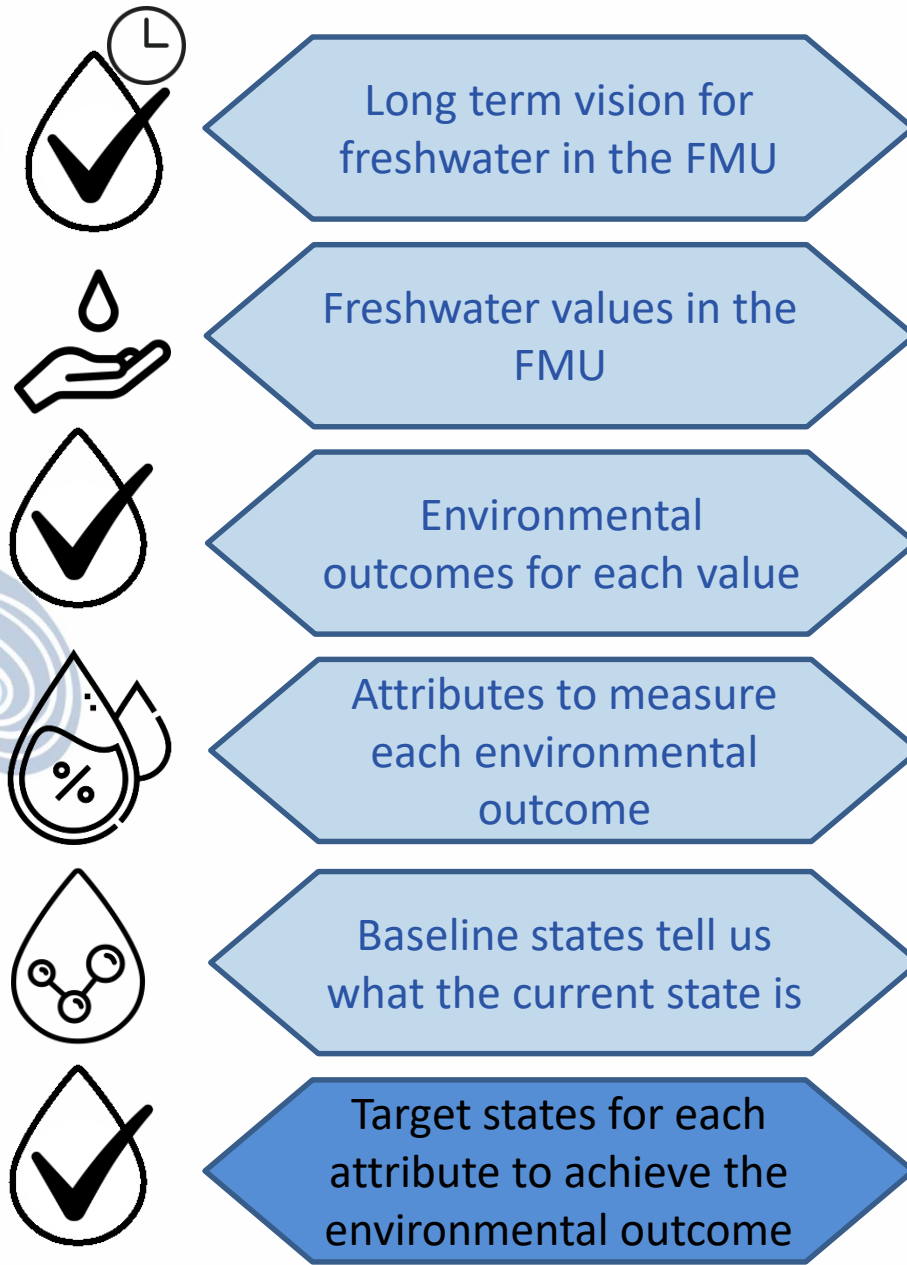




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LOOKING AHEAD - TARGET SETTING

National Objectives Framework



Moving the dial

- We are using spatial modelling tools to simulate the impact of various environmental actions (or mitigation strategies), on improving water quality and quantity
- Flows, sediment, nitrogen, phosphorous and *E. coli*

Moving the dial

- What outcomes could we expect to see under a range of future scenarios with different environmental actions in place? For example:
 - Completion of riparian fencing and planting
 - Removal of all farm dairy effluent discharges to water
 - Hill country poplar planting and scrub reversion
 - Other established and developing farm mitigation strategies
 - Different water allocation frameworks
- These modelled scenarios will help to inform the target setting process, by providing an indication of what we can realistically achieve with the tools that are available.

Exercise #5

Environmental actions

Are there any other environmental actions that you think we should factor into the modelling in order to build the evidence base for informing the target setting process?

Group discussion





NEXT STEPS

Key dates

	Sep 2023	Oct 2023	Nov 2023	Dec 2023	Jan 2024	Feb 2024	Mar 2024	Apr 2024	May 2024	Jun 2024	Jul 2024	Aug 2024	Sep 2024	Oct 2024	Nov 2024	Dec 2024
Vision, values and objectives	■															
VVO public consultation	■	■														
Targets and limits	■	■	■	■	■	■										
Targets and limits public consultation							■	■								
Regional objectives, policies and rules	■	■	■	■	■	■	■	■								
Pulling it all together								■	■	■	■	■				
Clause 3 consultation												■	■			
Clause 4A consultation with iwi													■	■		
Finalisation															■	■
Public notification																■

Next steps

- Public consultation continues: close 27 Oct
- Circulate survey with each of your contacts
- Engagement with iwi and hapū continues
- Report out in late 2023 sharing feedback from this round of engagement
- Next round of workshops:
 - Mar/Apr 2024
- Notification of Freshwater Provisions end 2024

Tell us what you think

- Via one of six location based surveys (available at www.trc.govt.nz)
- Via a written submission
- Email policy@trc.govt.nz
- Via a meeting with policy staff

Feedback to us no later than Fri, 27 October

Karakia

Kia uru uru mai

ā-hauora

ā-haukaha

ā-haumāia

Ki runga

Ki raro

Ki roto

Ki waho

Rirerire hau

Pai mārire



www.trc.govt.nz/haveyoursay

Check out the latest information
on our website