

Land & Water Regional Plan for Otago

Community consultation on
environmental outcomes and
actions



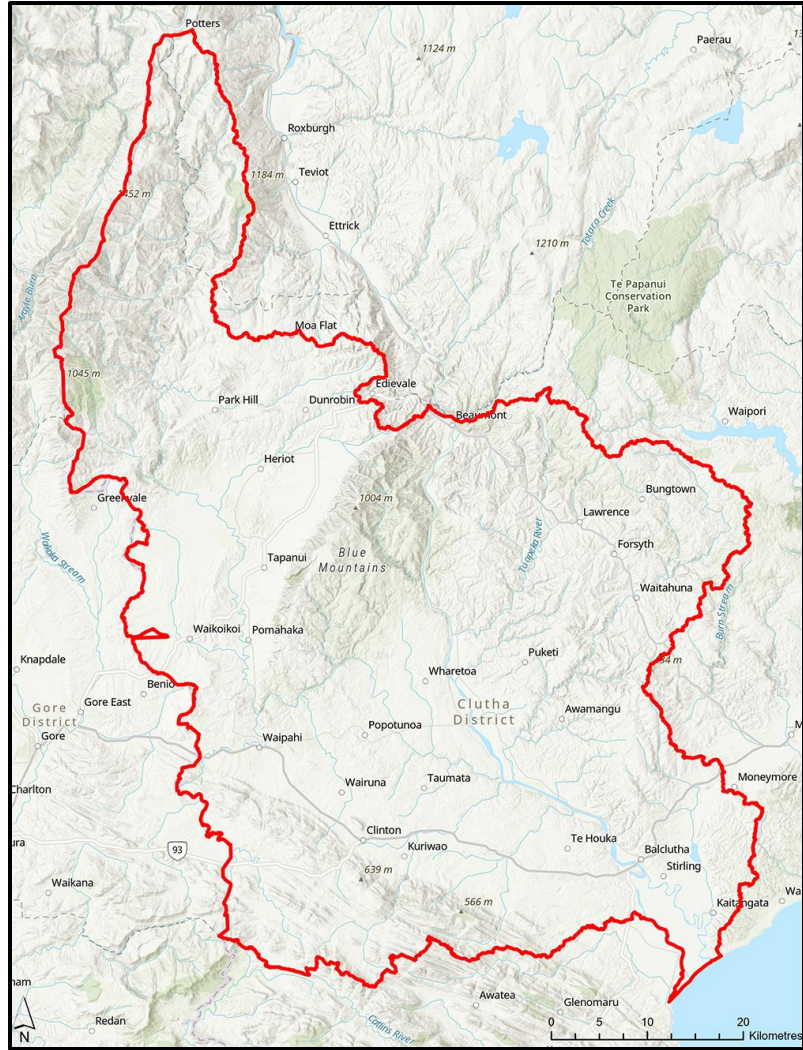
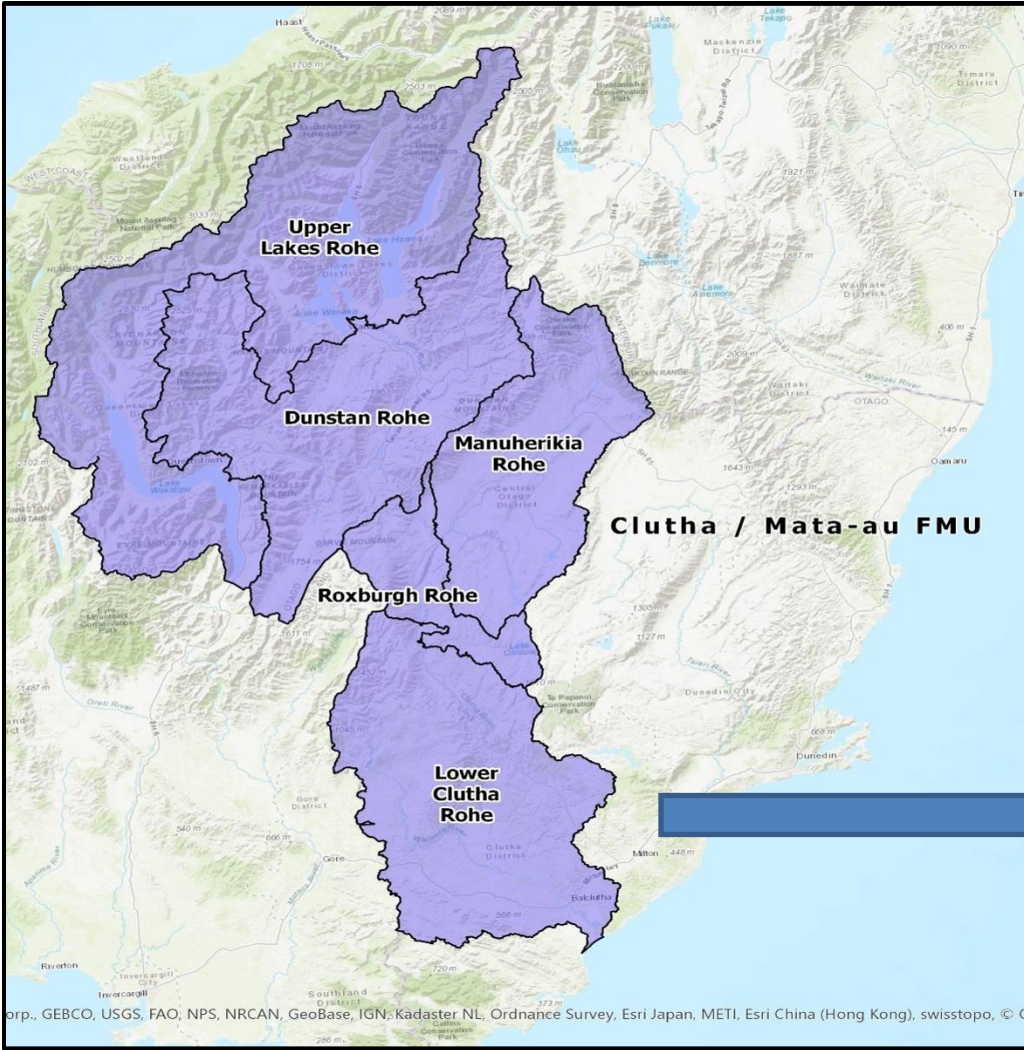
Lower Clutha Rohe
November 2022



Meeting outline

- ▶ Presentation: background (15 mins)
- ▶ Group discussion: possible environmental outcomes (20 mins)
- ▶ Group discussion: possible actions (40) minutes

Lower Clutha Rohe



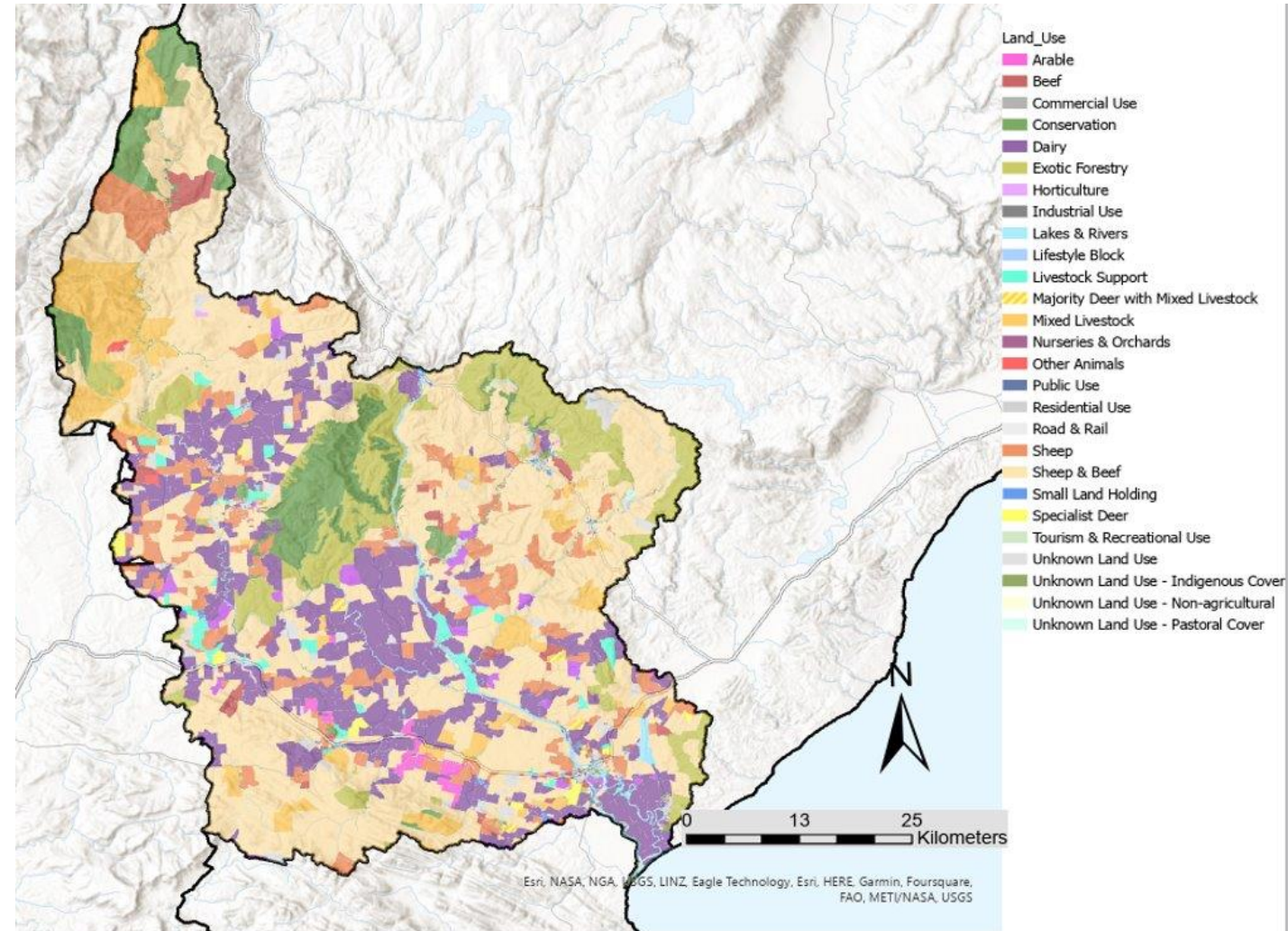
Land use overview

Key land uses

- ▶ Dry-stock farming: 56%
- ▶ Dairy: 17%
- ▶ Forestry: 9%
- ▶ Conservation estate: 7%

Key trends (1990-2018):

- ▶ Increase in conservation estate (40%), forestry (39%), dairy (37%), nurseries/vineyards/orchards (24%)
- ▶ Decrease in dry-stock farming (9%)



Water quality

- ▶ Water quality is generally degraded (high bacteria and nutrient levels)
- ▶ Monitoring results shows impact of poor drained soils (tile drains) & high intensity land use
- ☐ ▶ Lake Tuakitoto is *supertrophic* with high nutrient and algae levels, and poor water clarity
- ▶ Trend analyses for monitored sites mixed:
 - ▶ Last 20 years: degradation at many sites
 - ▶ Last 10 years: fewer degrading and more improving trends

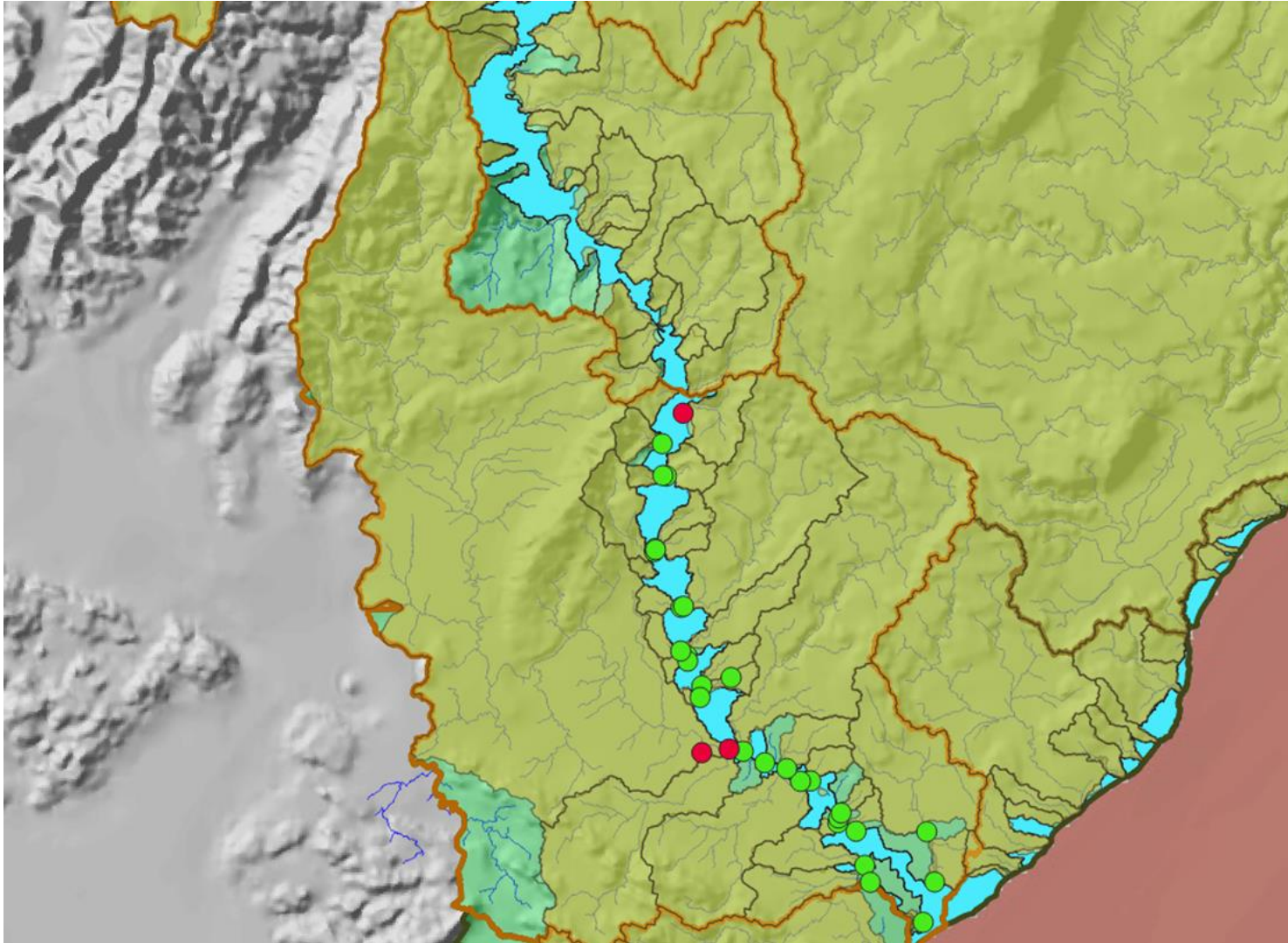


Water quantity

- ▶ Application of technical guidelines for ecological flow setting to modelled flows:
- ▶ Majority of catchments no environmental concerns
- ▶ Smaller number have potential for environmental concern
- ▶ Some catchments need further investigations



Water quantity



Management Scheme

No environmental
concern



Needs investigation



Mana whenua core values associated with freshwater

- ▶ Core values of whakapapa, mauri, tapu and mana descend from time immemorial
- ▶ They recognise that every water body has a unique personality and life force
- ▶ The life-supporting functions of wai are characterised by natural flow, healthy ecosystems and water quality
- ▶ Kāi Tahu are integrally connected to wai and have a duty to protect it for future generations

National Policy Statement for Freshwater Management

Te Mana o te Wai

- ▶ Te Mana o te Wai approach recognises the values of mauri and mana and the connection of mana whenua to the wai
- ▶ It recognises that protecting the health of freshwater protects the health and well-being of the wider environment and of people
- ▶ It seeks to protect the mauri of the wai

What does this mean?

We must respect the mauri of each water body

- ▶ Mauri is distinctive for each water body - each has its own personality, energy and life-supporting characteristics
- ▶ Flow regimes would reflect natural form and function, letting the river be itself
- ▶ Changes in water quality along the river would only be due to natural causes e.g. the river would not be used to dilute contaminants
- ▶ Provide for healthy resilience rather than managing to bottom lines
- ▶ Cross-mixing of the mauri of different waterbodies is not appropriate

What does this mean?

Integrated management/ ki uta ki tai

- ▶ Sustain and restore connections throughout catchment
- ▶ Recognise connections between surface water and groundwater
- ▶ Sustain and restore habitats of mahika kai and indigenous species
- ▶ Recognise and manage relationships between land use, water use, and water quality
- ▶ Have regard to cumulative effects and climate change risks

Examples of a Te Mana o te Wai approach

Activity	Approach
Water takes	<ul style="list-style-type: none">✓ Abstraction should be proportionate to natural flow✓ Sustainable abstraction from main stems or groundwater rather than small tributaries✓ Maintain surface water/groundwater connections✓ Ensure flow continuity from source to confluence or mouth
Structures	<ul style="list-style-type: none">✓ Should be located away from sensitive areas e.g. mahika kai, wetlands, areas of dynamic river processes✓ Design should minimise flow interruption and allow fish to migrate naturally✓ Design for changing environment (especially due to climate change)
Discharges	<ul style="list-style-type: none">✓ Deal with wastes on land
Also	<ul style="list-style-type: none">✓ Consider habitat needs holistically✓ Riparian buffers established and maintained

Mana whenua values for the Clutha/ Mata-au catchment

- ▶ The Mata-au is a very significant waterbody to Kāi Tahu
 - ▶ The purity of the source is an important part of the mauri –this needs to be reflected in management
 - ▶ The Mata-au and its tributaries are major connectors to wāhi tūpuna (ancestral landscapes) – although the environment has changed, the connection remains
 - ▶ Mahika kai values are important throughout the catchment, but have been degraded in many areas
 - ▶ Important habitat for taoka species – in lower Mata-au, these include tuna, kanakana, kākahi

What do mana whenua want to see?

Outcome	Concerns about current state
<p>Manage the whole catchment in a way that recognises the pristine source</p> <ul style="list-style-type: none"> • Manage land use to reverse degradation • Restore tussock lands in headwaters of Pomahaka and other tributaries 	<p>Degradation of the pristine waters as the awa flows down to the sea</p> <ul style="list-style-type: none"> • Wastewater discharges • Nutrients and sediment <p>Afforestation in upper catchments of tributaries</p>
<p>Protect and restore wetlands, including Lake Tuakitoto and those in upper catchments</p>	<p>Drainage</p> <p>Encroachment of intensive land use and artificial lowering of levels in Lake Tuakitoto</p>
<p>Better access to mahika kai</p>	<p>Degradation and loss of mahika kai through changes in habitat and water quality (nutrients and sediment)</p> <p>Poor access to water and water edge</p>
<p>Increased populations of indigenous species</p> <ul style="list-style-type: none"> • Improved fish passage • Healthy habitats, including protection of galaxiid and kanakana habitats, nursery/ spawning sites • Restore hydrological and vegetation connectivity 	<p>Effect of dam structures on sediment flow</p> <p>Effects of bed disturbance e.g. suction dredging on benthic environment</p> <p>Loss of riparian vegetation</p> <p>Loss of connection to tributaries and wetlands</p>

Mahinga Kai



Ability to fish at preferred sites, ki uta ki tai (catchment scale)

Food for whānau

Manaakitanga - Food for manuhiri

Ability to trade between whānau

Ability to use preferred harvest & storage methods

Ability to support intergenerational knowledge transfer activities

Ecological integrity of habitat

Fish condition

Access

Available in sufficient numbers

Safe to eat

Safe & desirable to harvest

Taonga species

Whakapapa & identity

Land & Water Regional Plan

- ▶ Notified by December 2023
- ▶ Key concepts
 - ▶ Te Mana o te Wai (health of the water)
 - ▶ Integrated management
 - ▶ Holistic (ki uta ki tai/ Mountains to sea)
 - ▶ Future proof (climate change)



Values for the Lower Clutha Rohe

FIRST PRIORITY – health and well being of water bodies and freshwater ecosystems

Ecosystem
health

Threatened
and taoka
species

Natural
form and
character

SECOND PRIORITY – health needs of people

Drinking
water
supply

THIRD PRIORITY – social, economic, and cultural well being

Animal
drinking
water

Food
production

Commercial
& industrial
use

Recreation
(human
contact)

Fishing

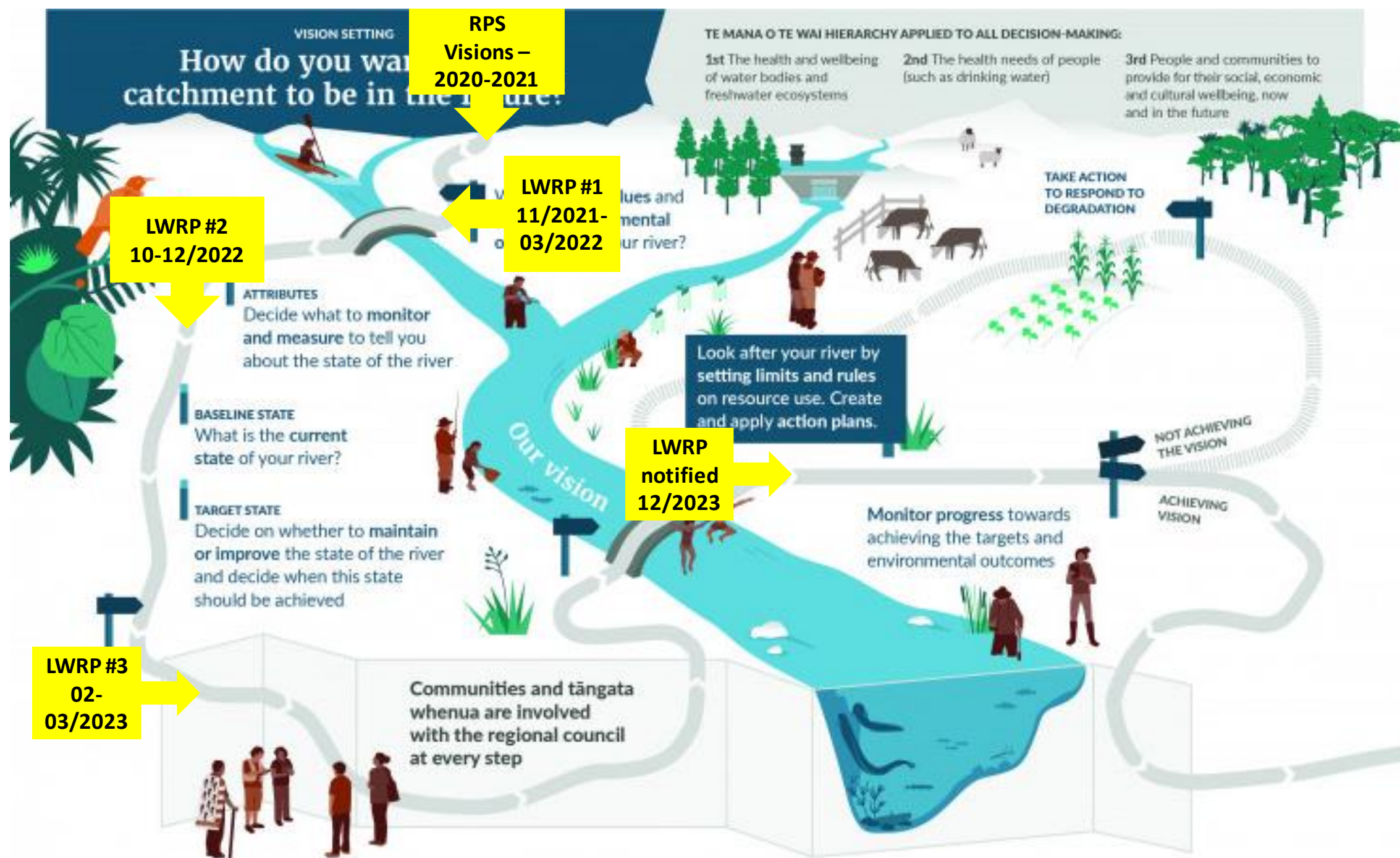
Hydro

Wāhi tūpuna

Mahika kai



The process we're following





Environmental Outcomes

Environmental Outcomes

- ▶ Must be set in the Plan for all values identified
- ▶ Describe what a value should look like
- ▶ Guides decision-making on:
 - ▶ Limits, rules and policies in the Plan
 - ▶ Resource consent applications
- ▶ ORC must set target states for attributes (indicators)

Environmental outcomes - group discussion



Do you agree or disagree with them?



Why?



What other environmental outcomes (for other values) we should include?



Types of actions

Actions

- ▶ Things we can do to achieve environmental outcomes
- ▶ Can be developed into rules and controls in the plan or initiatives like education campaigns
- ▶ Everyone has to play their part. Actions for everyone

E.g.:



Actions - group discussion



Are the possible actions we've identified practicable in your area?



What other actions should we consider?



What issues or unintended consequences do you see in any of these actions?



Closing

- ▶ Thanks for all your input today!
- ▶ Give us more feedback online: www.orc.govt.nz/plans-policies-reports/land-and-water-regional-plan
- ▶ We'll be back in early 2023 to update you on this work