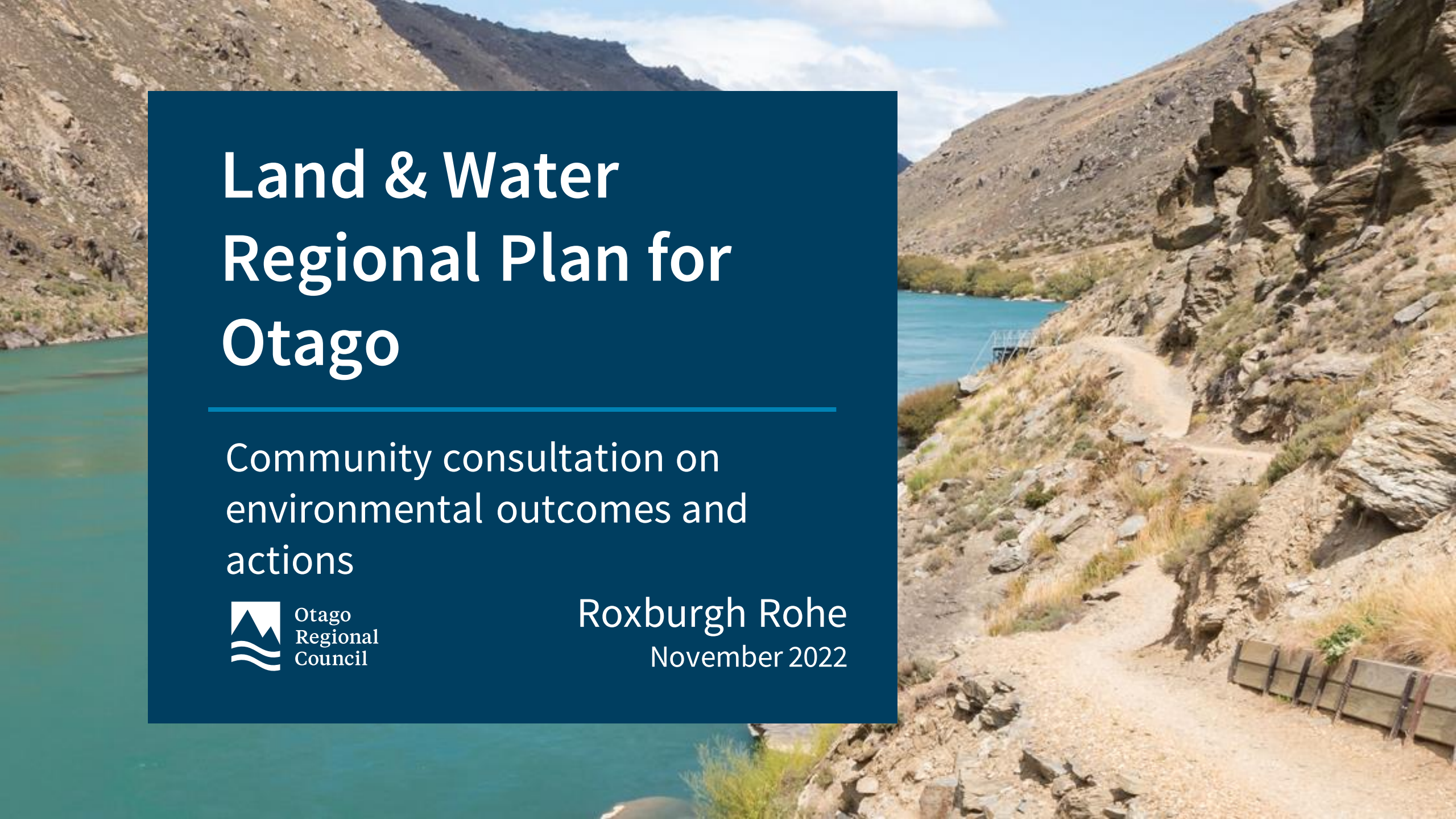


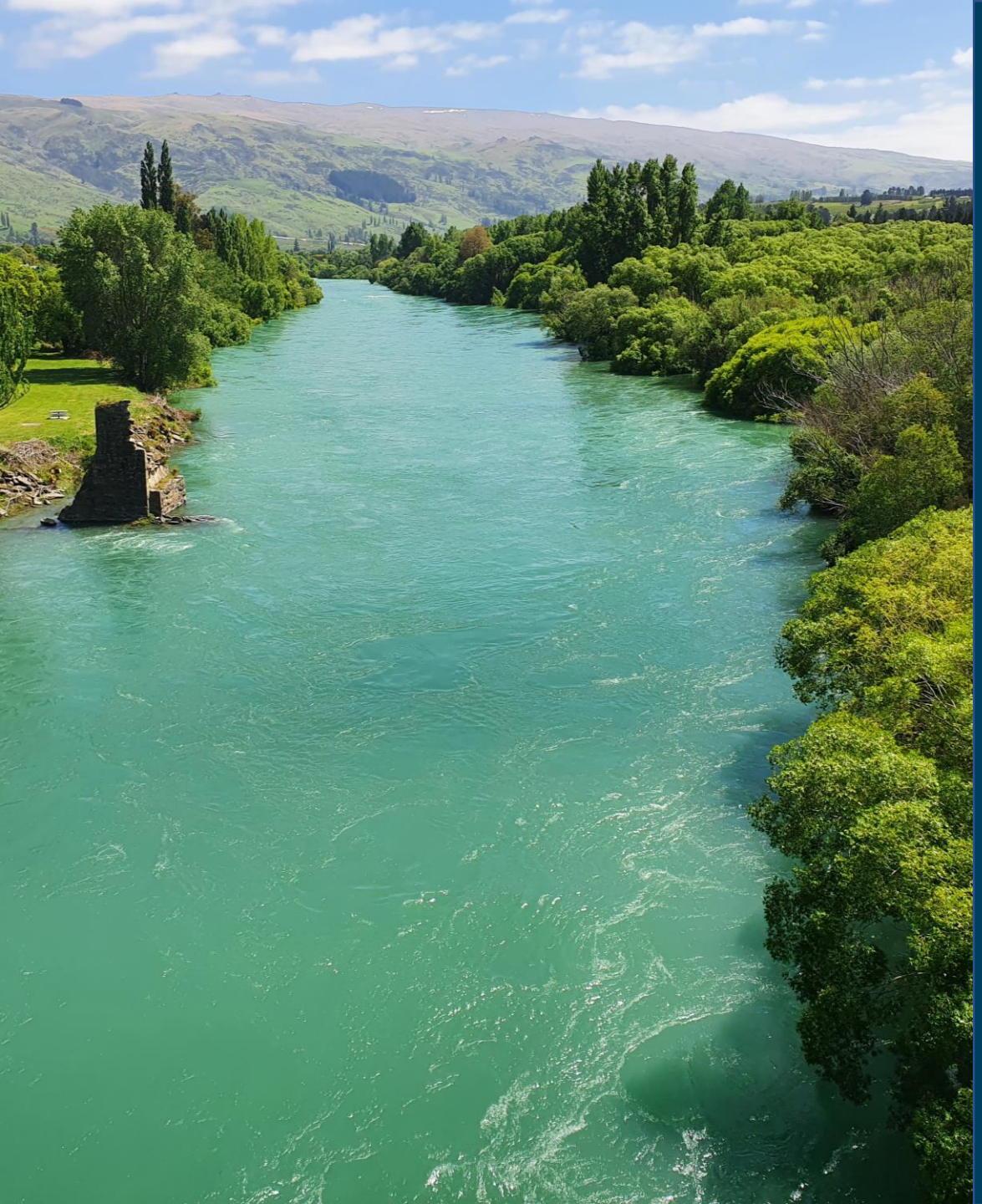
Land & Water Regional Plan for Otago

Community consultation on environmental outcomes and actions

Otago Regional Council

Roxburgh Rohe

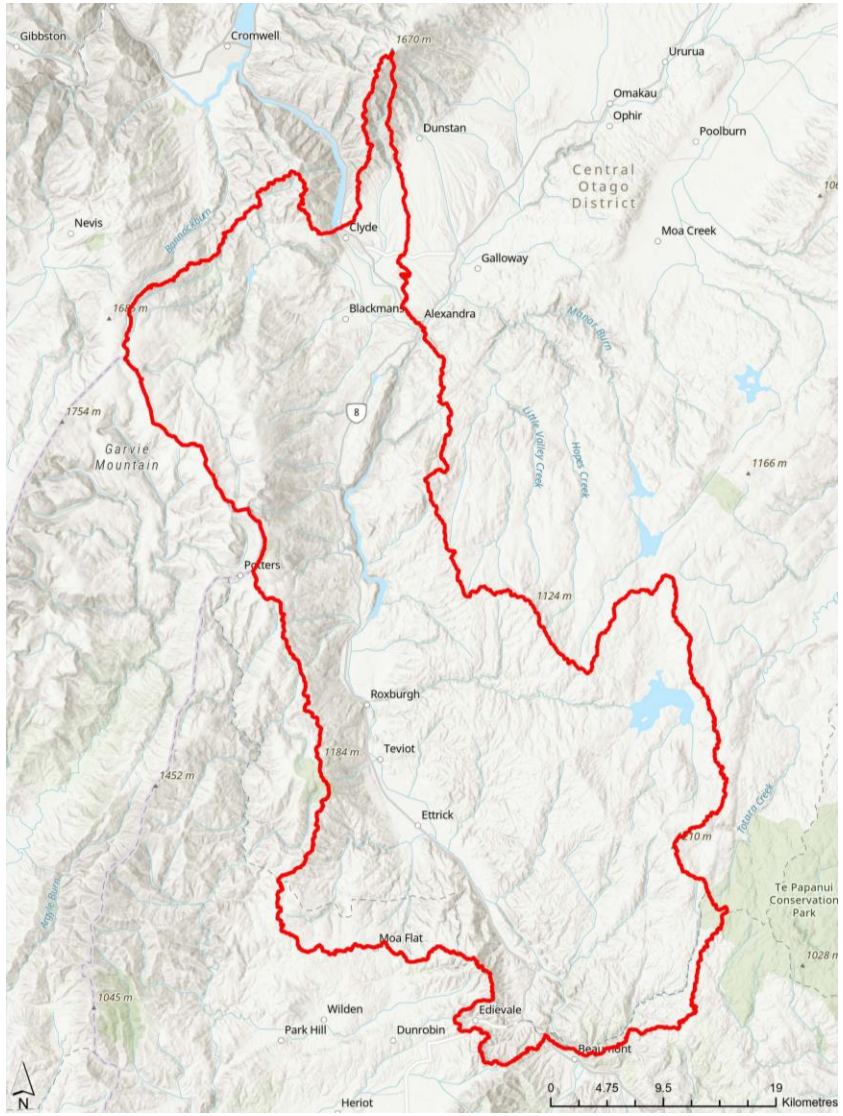
November 2022



Meeting outline

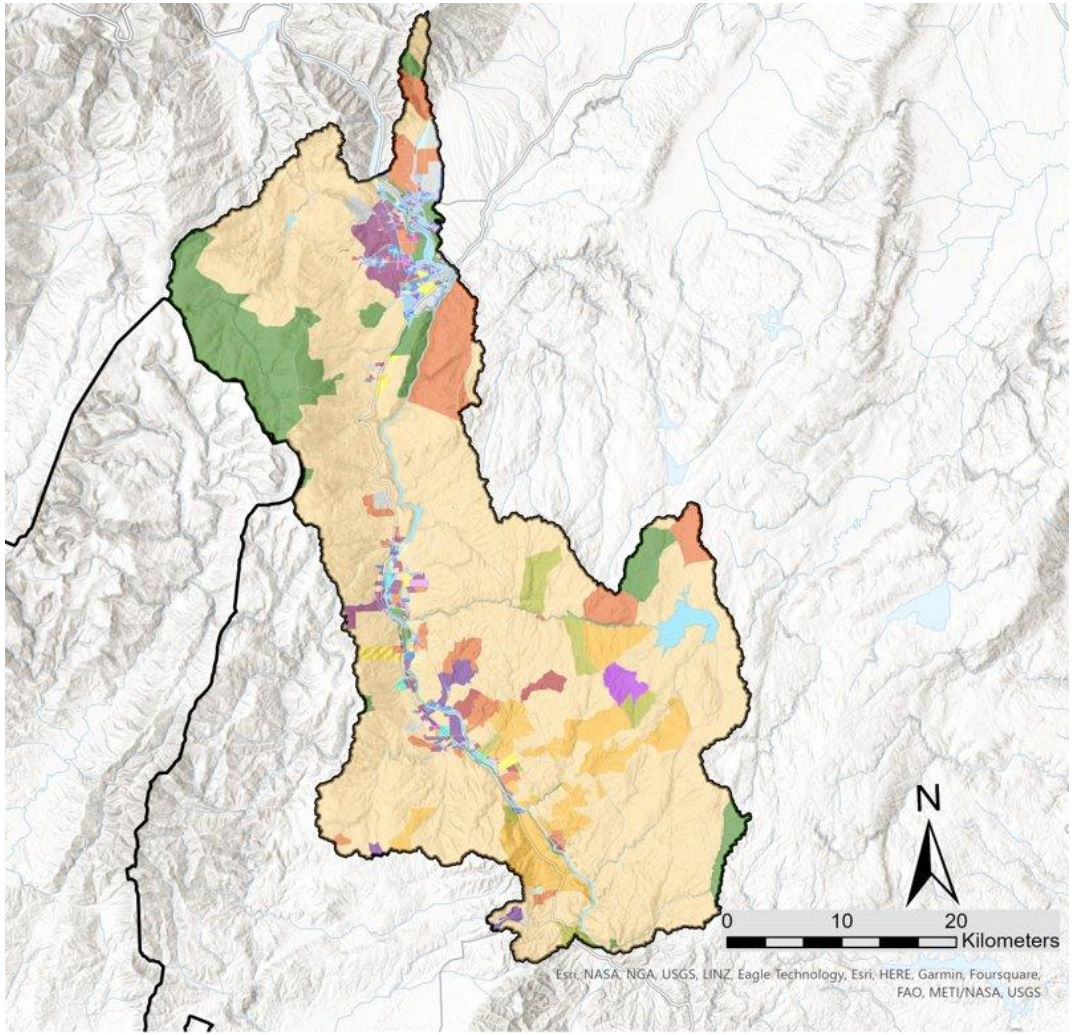
- Presentation: background (15 mins)
- Group discussion: possible environmental outcomes (20 mins)
- Group discussion: possible actions (40) minutes

Roxburgh Rohe



Land use overview

- Dry-stock farming: ~ 77%
- Conservation: ~ 10%
- Exotic forestry & nurseries/orchards: ~ 2%
- Notable trends (1990-2018):
  - Forestry grown by 156%
  - Nurseries/vineyards/orchards grown by 17%
  - Dairy area expanded 4-fold



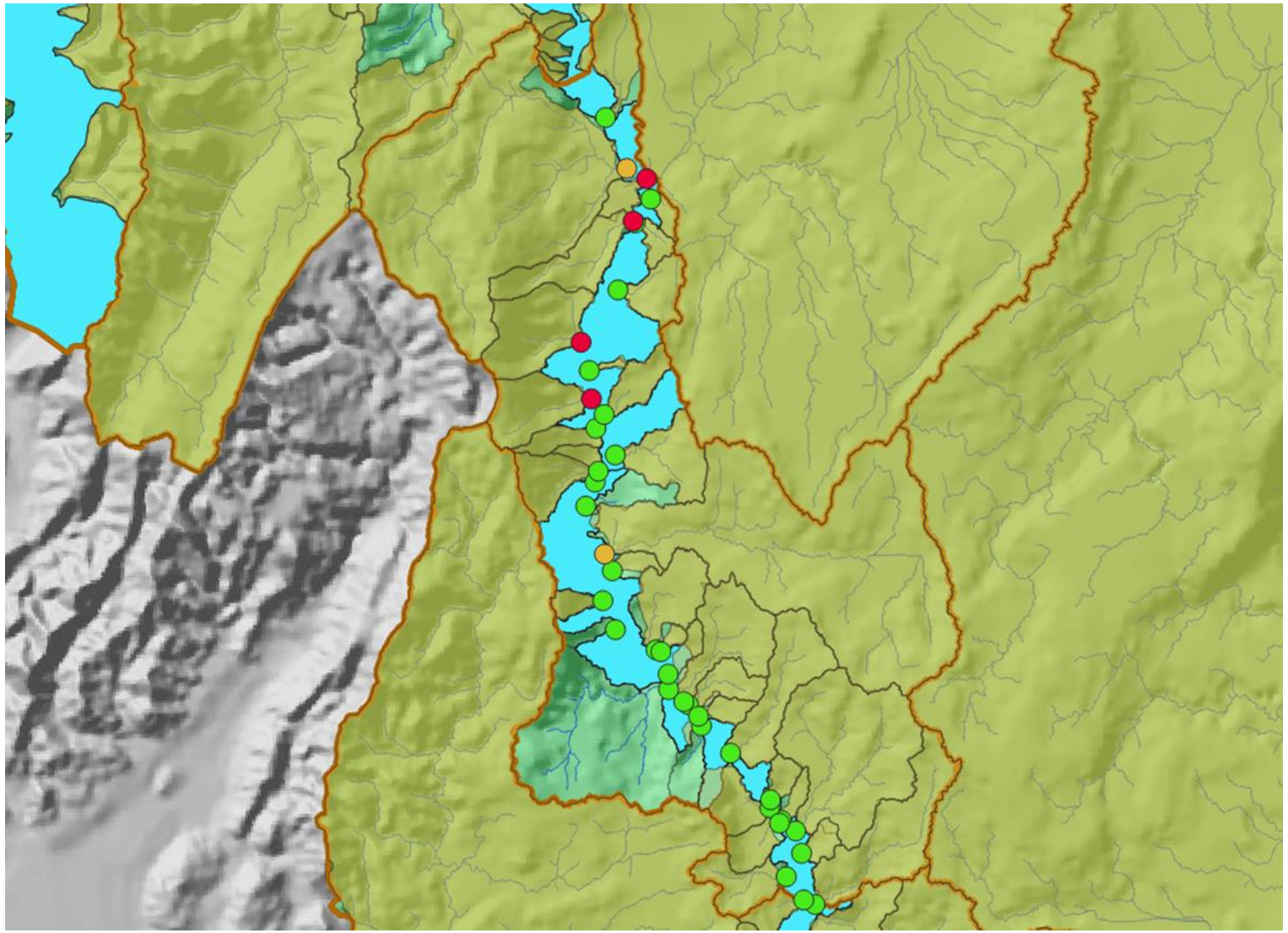
Water quality

- Water quality in the Roxburgh Rohe is generally good
- Monitoring results reflect impact of land use change on water quality (e.g. Benger Burn, Teviot River)
- Trend analyses for monitored sites mixed:
  - Improving trends for the Clutha River at Millers Flat for most parameters over the last 10 years
  - Degrading trends for ammoniacal nitrogen and chlorophyll-a (algae) over the last 10 years, but improving trends for other parameters

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

Modeling with limit setting (Hayes et al.,2021)

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	✓ 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	✓ 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	✓ Deal with wastes on land
Also	✓ 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
  - Also important habitat for taoka species – native fish, birds etc

What do mana whenua want to see?

Outcome	Concerns about current state
Manage the whole catchment in a way that recognises the pristine source • Better recognition of the connection between water and land – manage land use to reverse degradation	Degradation of the pristine waters as the awa flows down to the sea • Wastewater discharges • Nutrients • Sediment
Let the rivers flow as naturally as possible	Effects of dams Heavy abstraction from tributaries
Better access to mahika kai	Degradation and loss of mahika kai through changes in habitat, water quality and flow Poor access to water and water edge
Increased populations of indigenous species • Improved fish passage • Healthy habitats • Protection of galaxiid habitats	Effect of dam structures on fish migration and sediment flow Effects of bed disturbance e.g. suction dredging on benthic environment

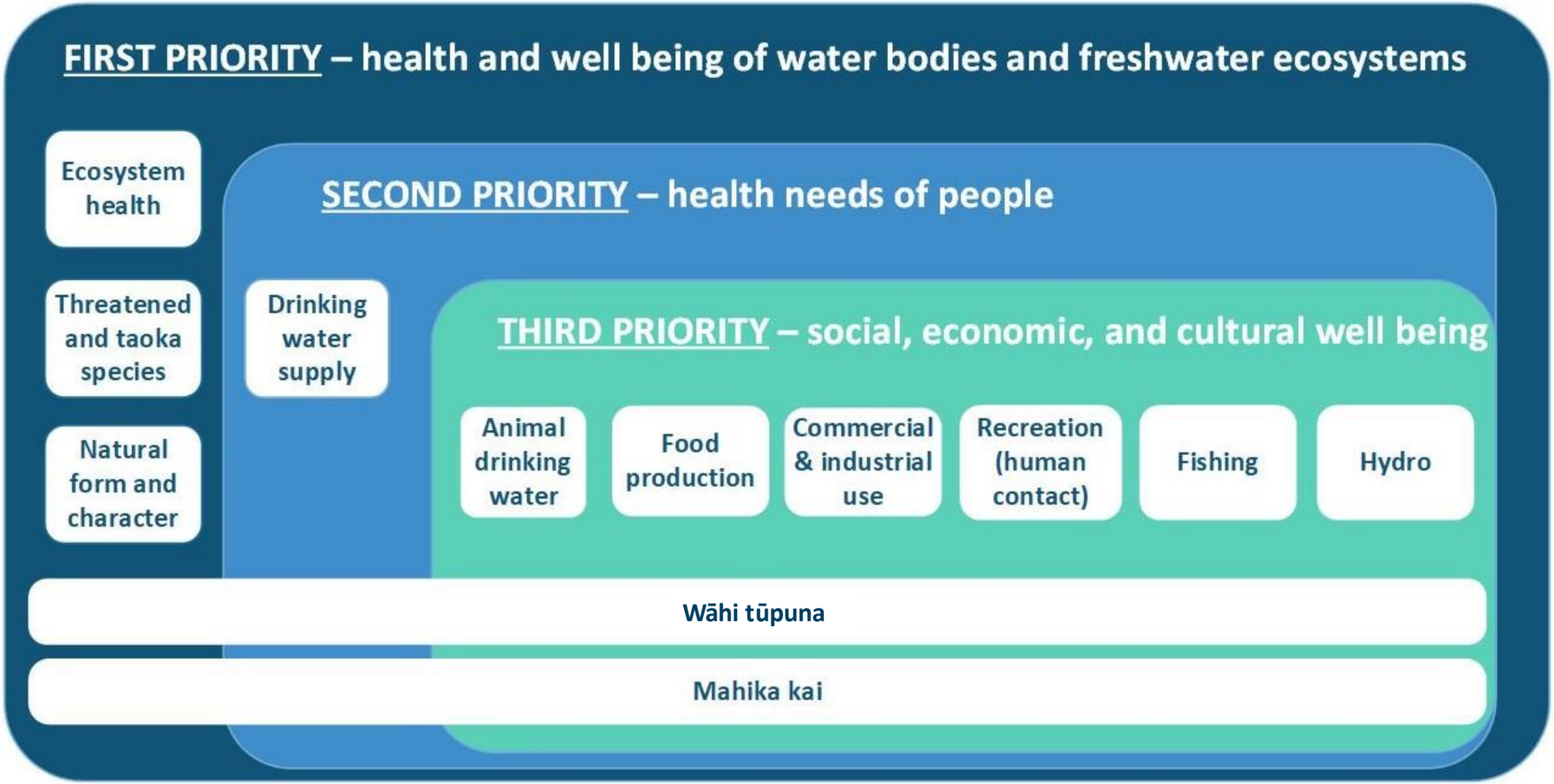

Mahinga Kai
Ability to fish at preferred sites, ki uta ki tai (catchment scale)
Food for whānau
Manaakitanga - Food for manuhiri
Whakapapa & identity
Ability to trade between whānau
Taonga species
Ability to use preferred harvest & storage methods
Safe & desirable to harvest
Available in sufficient numbers
Fish condition
Ability to support intergenerational knowledge transfer activities
Safe to eat
Access
Ecological integrity of habitat

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)

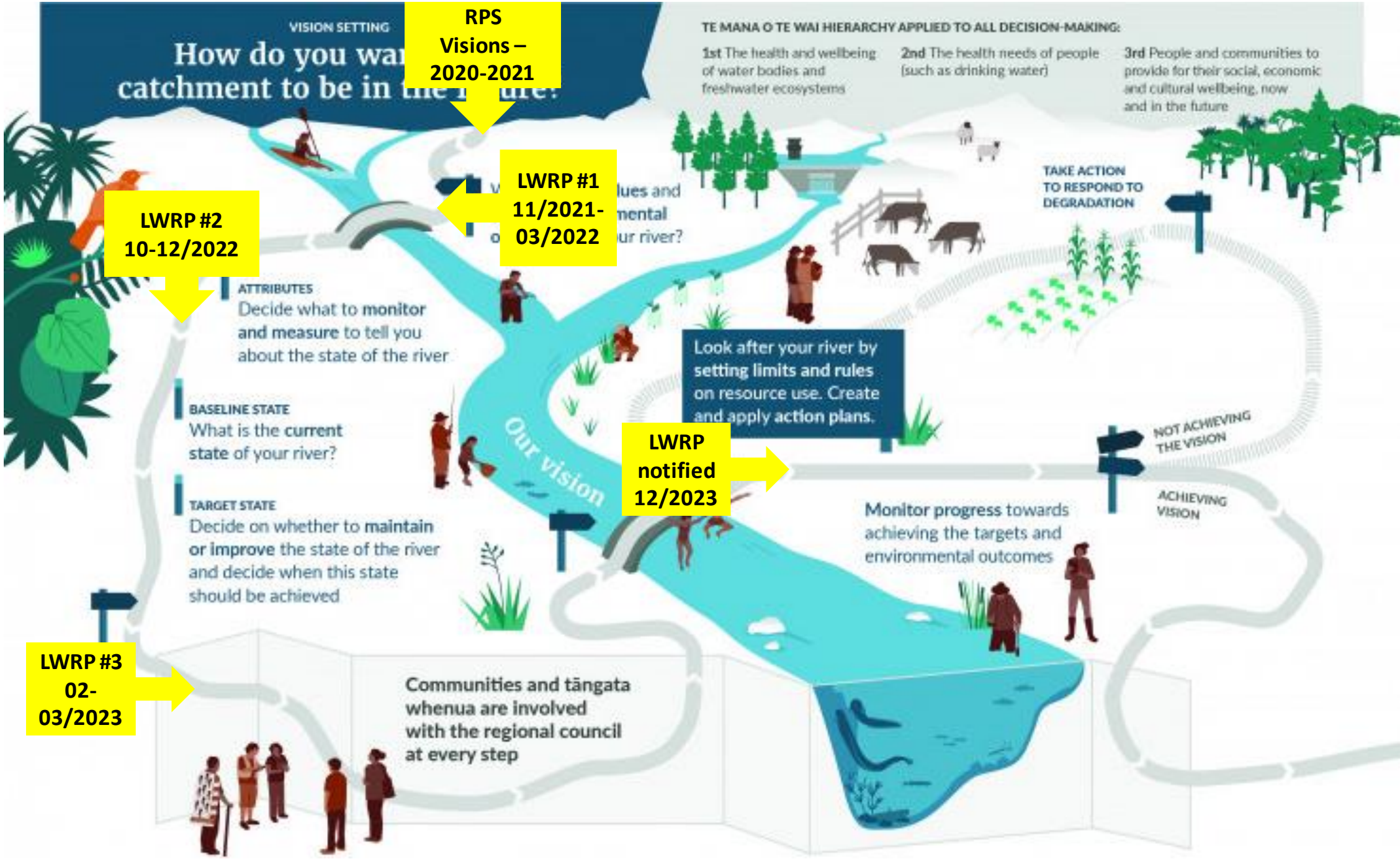
Otago Regional Council

Values for the Roxburgh Rohe



Otago Regional Council

The process we're following



Otago Regional Council

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)

Otago Regional Council

Environmental outcomes - group discussion

- Do you agree or disagree with them?
- Why?
- What other environmental outcomes (for other values) we should include?

Otago Regional Council

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.:

Otago Regional Council

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?

Otago Regional Council

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