



# 2021 SCHEME MEETINGS

Porewa Flood Control Scheme





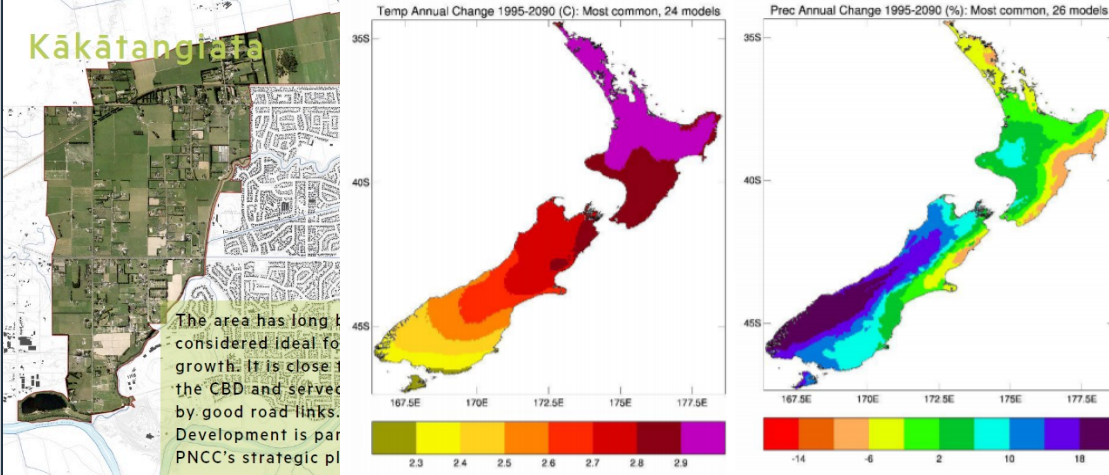




\$650M of assets

- 1,270km of river channel
- 1,100km of drain
- 23 pump stations with a total discharge capacity of 43m<sup>3</sup>/s
- 54 detention dams that can store 4.3M cubic metres of floodwater
- 500km of stopbanks





# SIGNIFICANT RIVER MANAGEMENT ISSUES

- Accelerating land use change
- Unsustainable land use
- Climate change
- Asset reliability
- Evolving community expectations



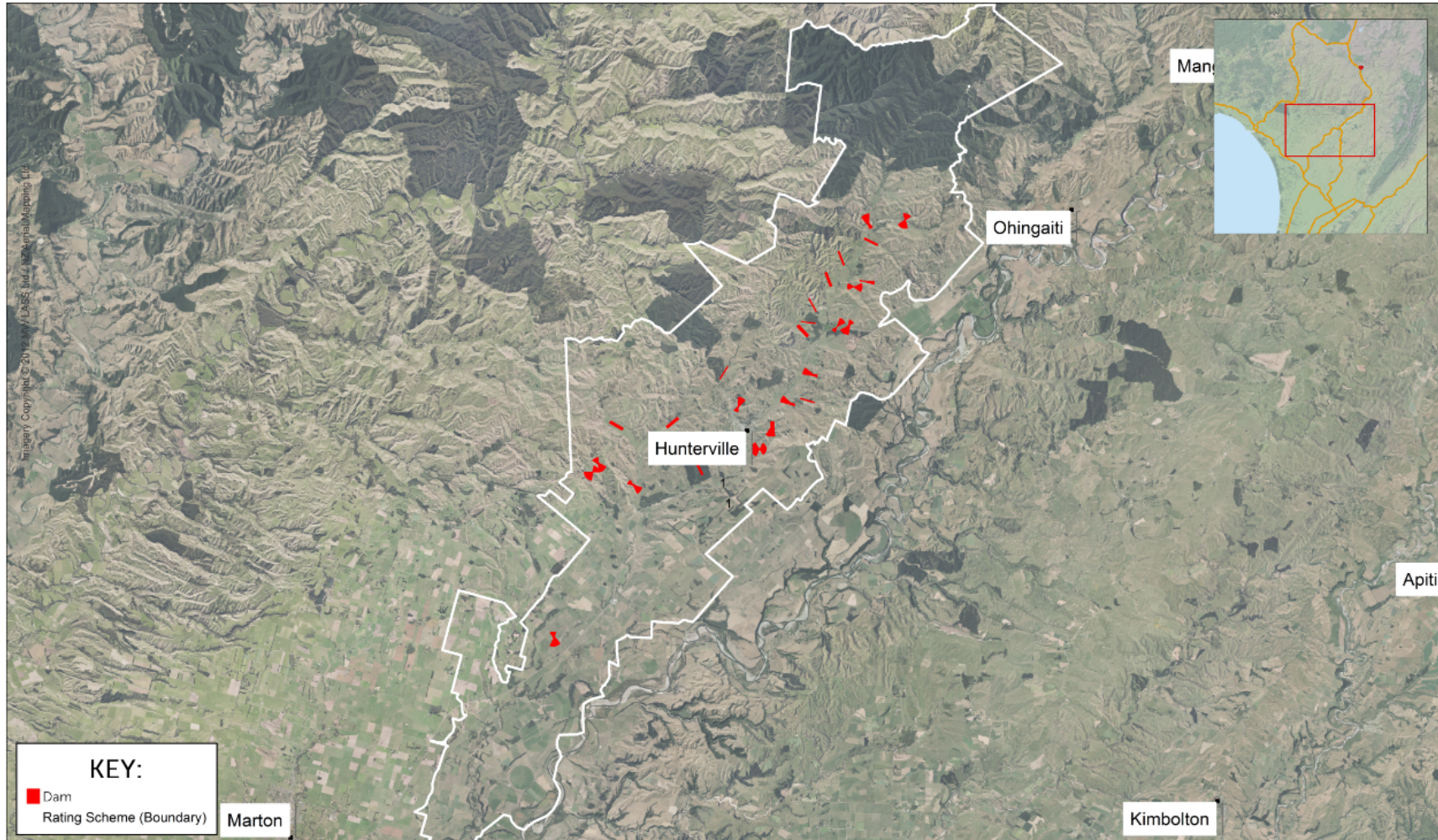




## SCHEME UPDATE SUMMARY



# Porewa Flood Control Scheme Assets



## Scheme Facts

Scheme Assets.  
27 Detention Dams

Total Asset Replacement Value:  
\$7,959,334  
(July 2020).

## POREWA SCHEME

Asset Map 2020



0 2.25 4.5 9 km

A3 1:131,642

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# POREWA SCHEME

## Strategic Direction

The focus of the Scheme over the next 3 years is to continue to maintain existing infrastructure and to implement dam safety review findings.

## Aim

To maintain a level of service that meets the expectation of the local community (township of Rata, Hunterville and approximately 800ha of rural land in the valley floor) for flood protection.

## Scheme Level of Service

To ensure that the assets are managed in a consistent, efficient and sustainable manner.

To ensure the long-term performance of the assets and ensure cost-effective delivery of service to the standard agreed with the ratepayers.

To protect from flood events that do not exceed 4% Annual Exceedance Probability (AEP).

To manage gravel and general channel conditions within the various streams included in the Scheme in order to maintain desired channel alignment and minimise lateral erosion.



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# Scheme Funding

## Funding Policy

The Schemes funding comes from three revenue sources:

Targeted Rates – differential targeted rates levied on properties directly benefiting from or causing the need for the work.

General Rates – uniformed rate levied over all properties in the Horizons Region.

Other income – Revenue from lease land, forestry blocks, scheme reserves, etc. held by the scheme. This is used to reduce the level of the targeted rate



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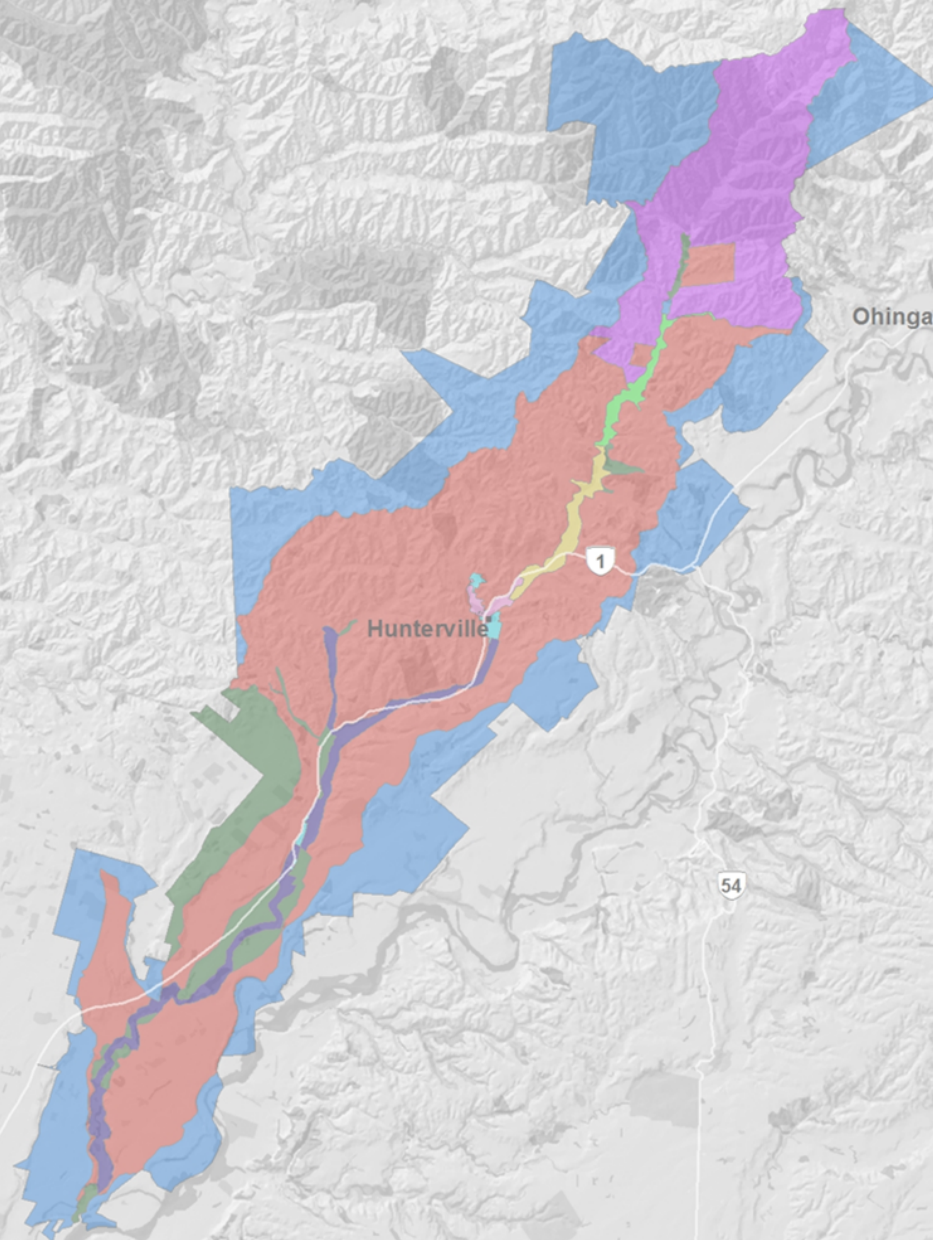




# Porewa Valley

Scheme Presentation Map

- A
- B
- C
- D
- E
- F
- G
- U1
- U2





# Key Activities and Issues: 2020-21

## Scheme Expenditure

Higher than expected maintenance costs during the spring period when added to nearly \$20k of intermediate and large dam inspection costs this year will result in a budget over expenditure of around \$20k. Funding this shortfall will come from a \$5,200 saving made from last years budget with the remainder being drawn from reserves.

## Works Activity

- Dam inspections, maintenance and repairs.

- Vegetation clearance and spraying.

- Removal of tree blockages – North of Hunterville.

- Burn the last of our old slash piles (near Queens Park).

- Stantec annual review of high and medium PIC dams



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# Photos



Inlet screen being replaced at dam 82



Dam 46 spillway pumped out to inspect dissipation blocks as recommended in Stantec review



## Photos



Dam 39, an example of a number of inlet screens which are rusted and due for replacement in the next few years

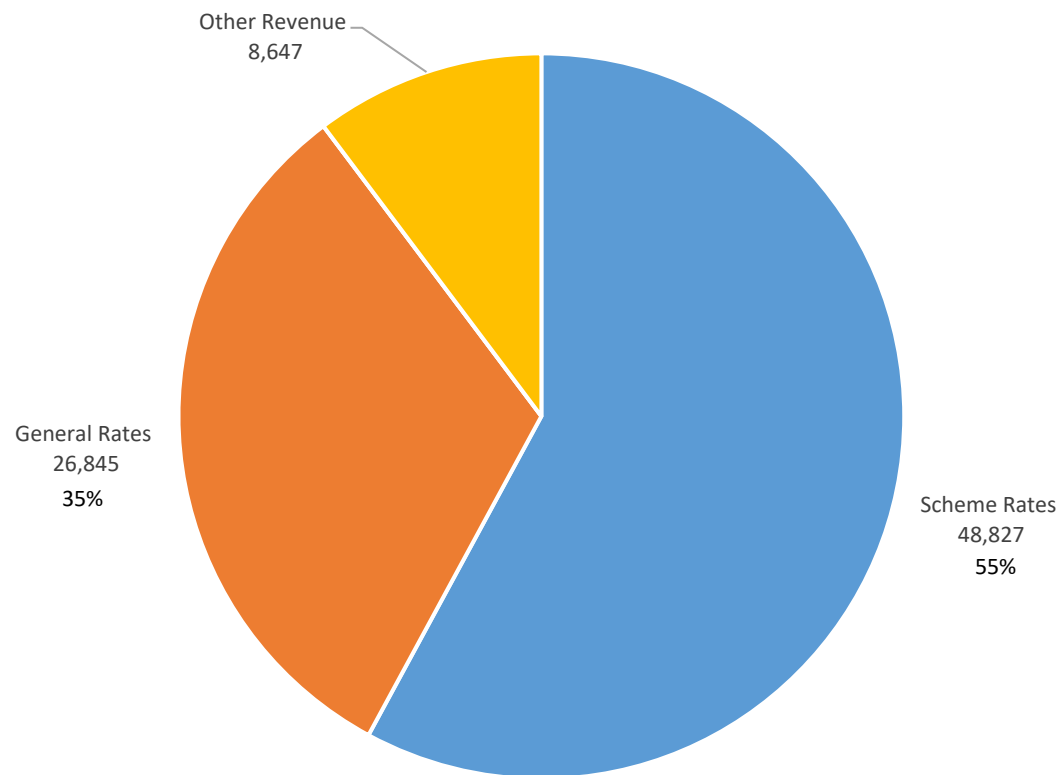


An example of stock tracking on the dam embankment. We plan to address these issues when it can be fitted into the budget

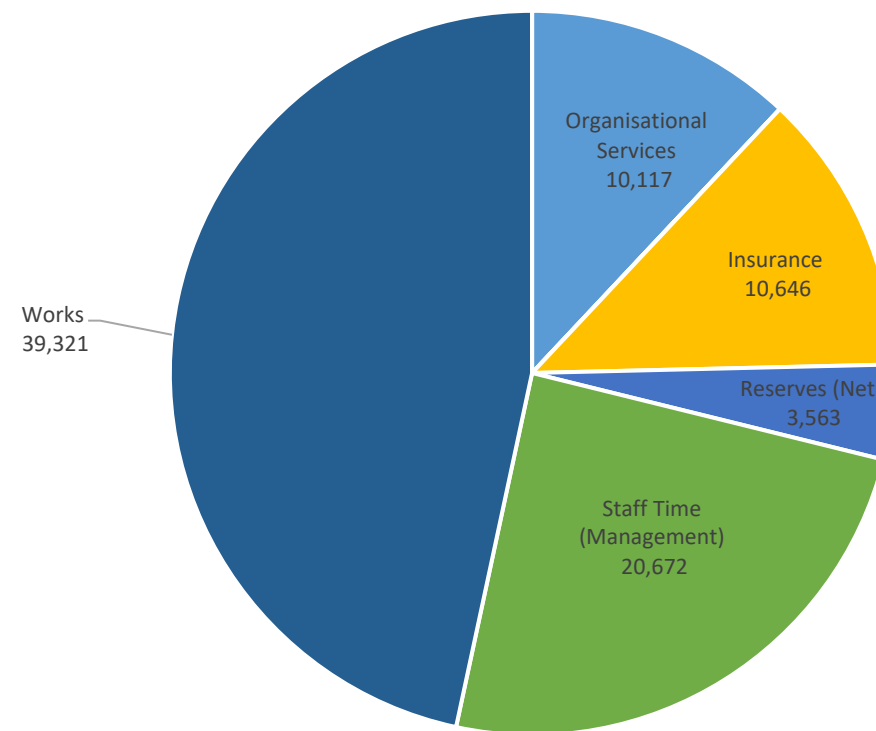


# Income and Expenditure 2020-21

Scheme Revenue - Current Year



Scheme Expenditure - Current Year



# Key Activities and Issues: 2021-22

## Scheme Budget

\$2,000 contribution to the Emergency Reserve Fund

\$5,100 contribution to the Renewal Reserves Fund

## Works Activity

Continue dam maintenance program.

Implement dam safety initiatives for 27 dams.

Higher maintenance regime through Hunterville township.

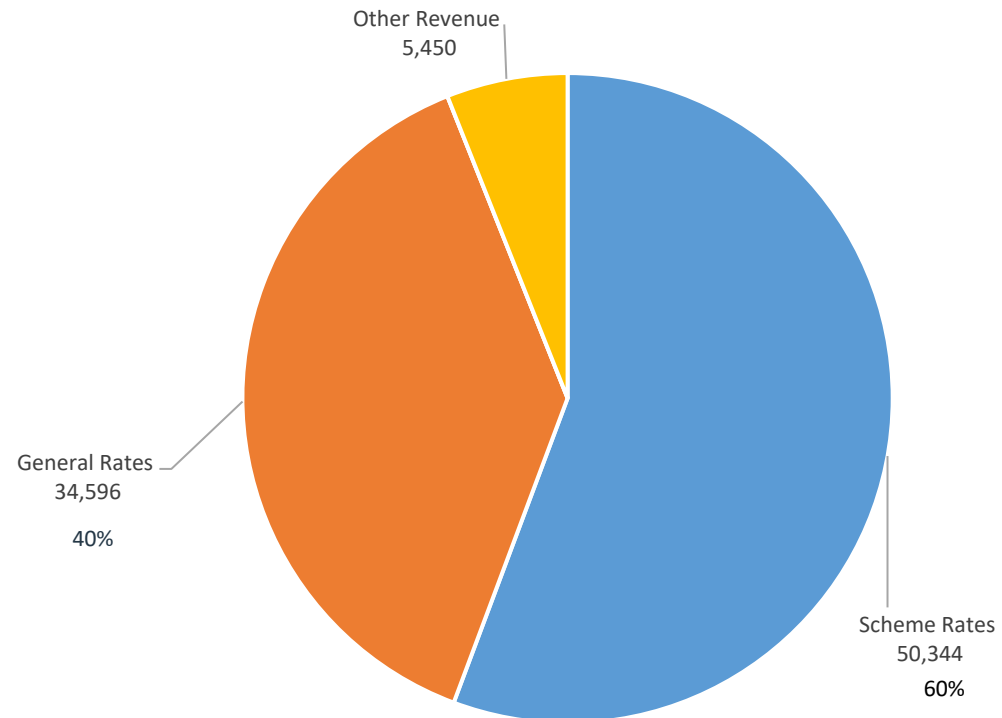
Address stream blockages as they occur.

Stantec annual review of dams with medium and high PIC ratings (dam numbers; 46, 62, 73, 75, 84, 86, 98 and 100)

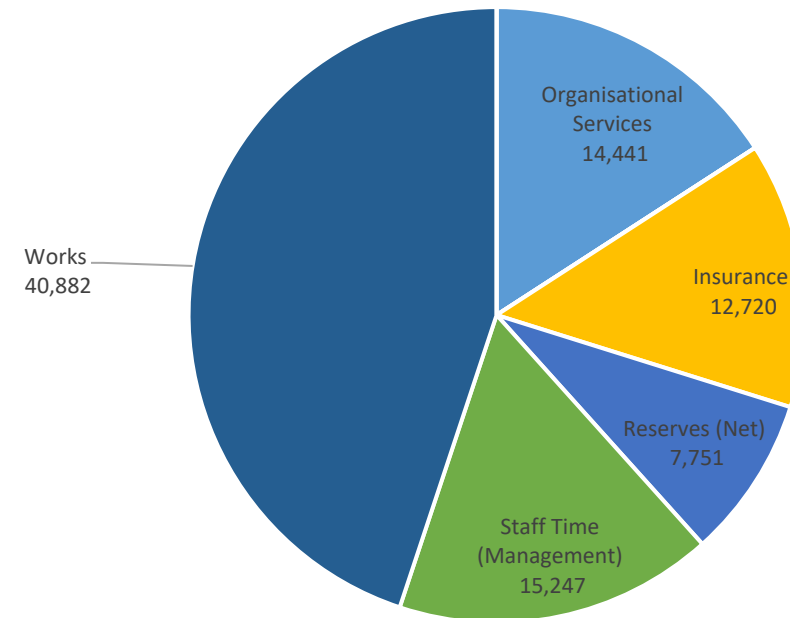


# Income and Expenditure: 2021-22

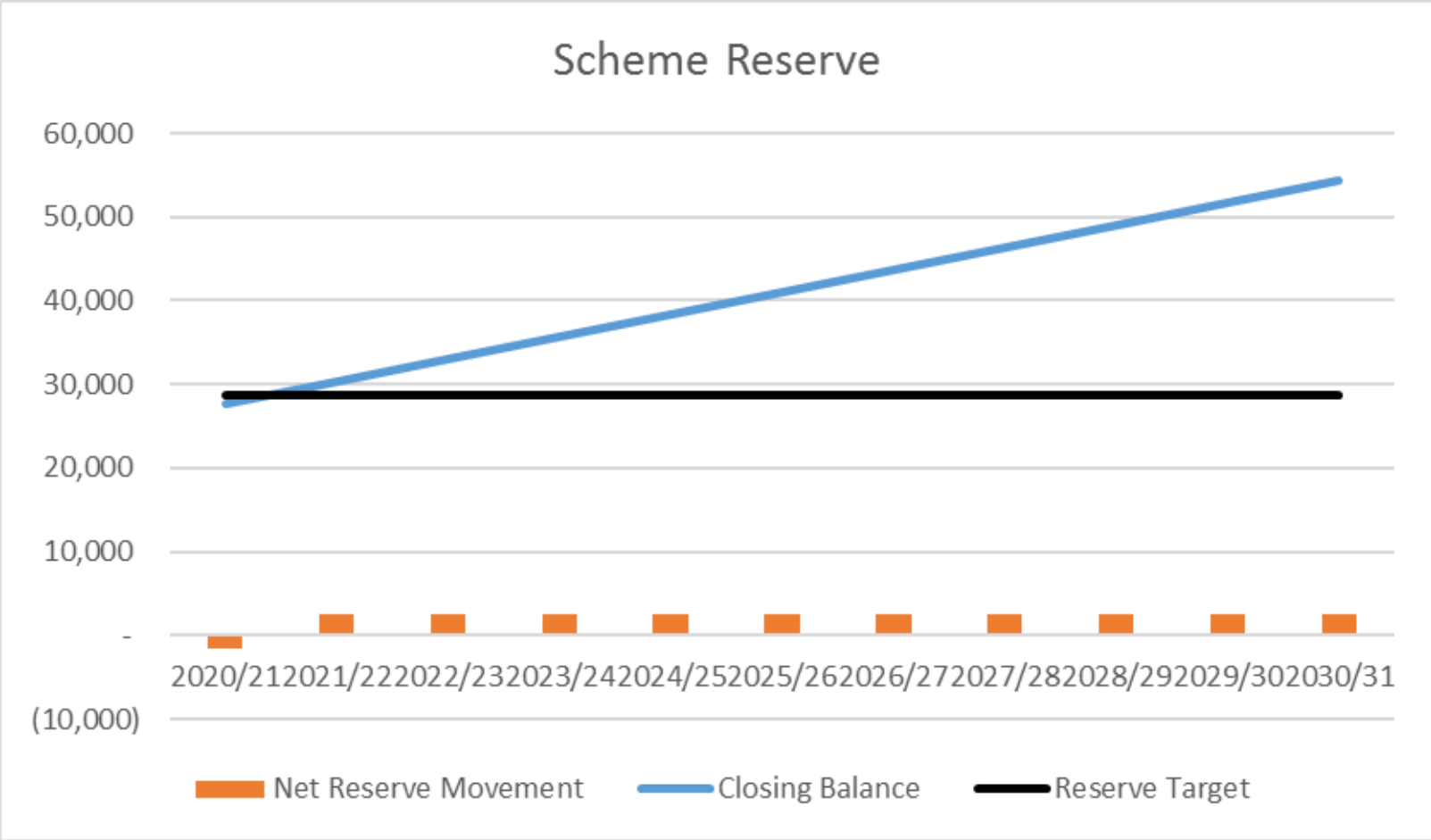
Scheme Revenue - 2021/22



Scheme Expenditure - 2021/22

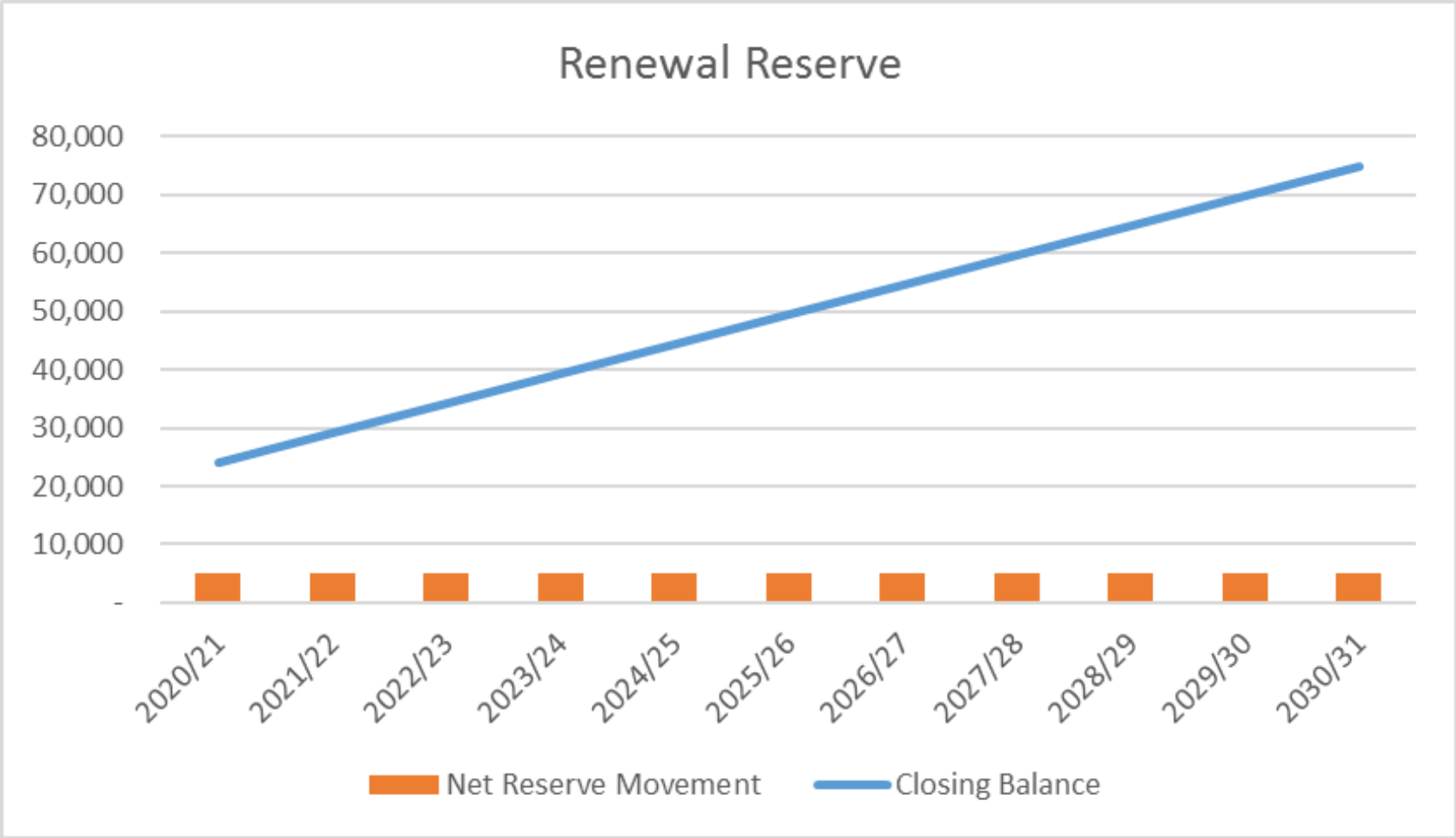


# Emergency Reserve Balance





# Renewal Reserve Balance



# **NATIONAL ENVIRONMENTAL STANDARDS FOR FRESHWATER & REGULATIONS**



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# THE TASK AHEAD

Regional councils are required to:

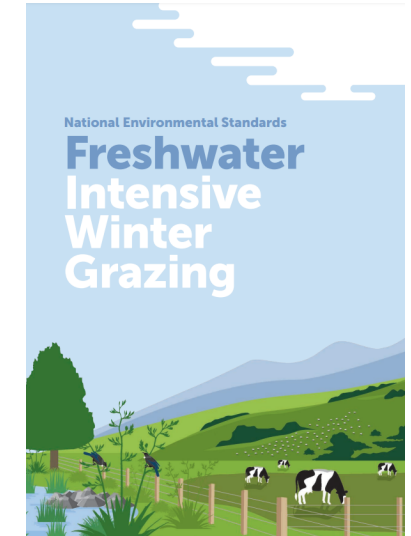
- Issue and monitor consents relating to intensification of land use (until the end of 2024), intensive winter grazing\*, stock holding areas and feedlots – all come into effect from mid-2021, and activities that have more than a minor impact on wetlands and streams (effective from 3 Sep 2020).

\*Land owners seeking consent for intensive winter grazing need to work directly with iwi/hapū.

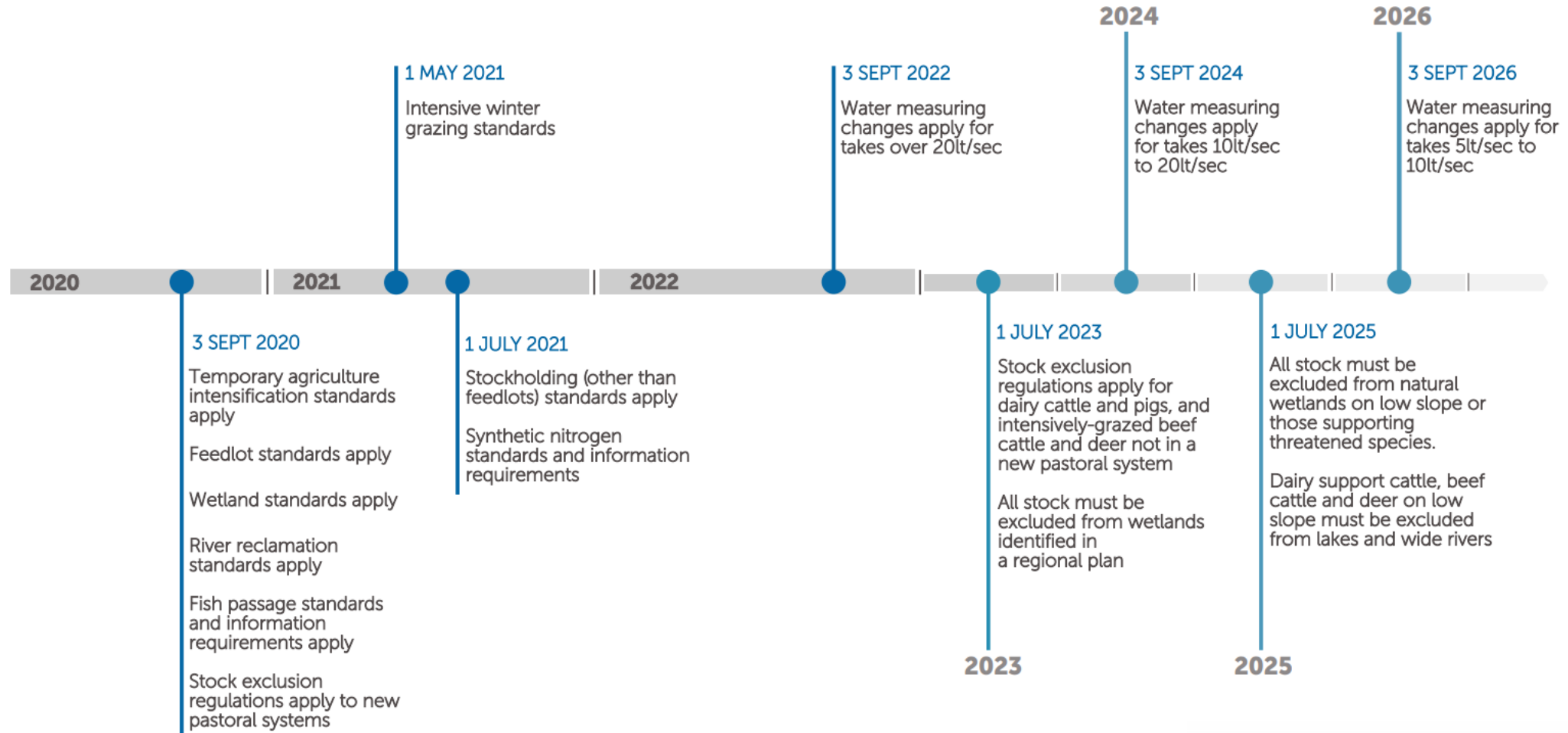
- Collect data and monitor levels of synthetic nitrogen fertiliser use
- Stock exclusion (dairy and beef cattle, pigs and deer) from wetlands, streams and their margins (>1m wide); requirements for bridges and culverts, phased in over time
- Real time monitoring and reporting of water takes >5 l/s

Also coming:

- Mandatory freshwater modules in farm plans (currently in draft)



# New National Freshwater Rules





# **NATIONAL POLICY STATEMENT FOR FRESHWATER MANAGEMENT (NPS-FM)**



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# NATIONAL POLICY DIRECTION

Aim is to halt waterway degradation within 5 years and improve water quality within a generation

NPS-FM introduces new (or updated) requirements including:

- Managing freshwater in a way that 'gives effect' to Te Mana o te Wai.
- Improving degraded water bodies, and maintaining or improving all others applying 'national bottom lines'.
- Compulsory values: ecosystem health, human contact, threatened species and mahinga kai, plus other values we must consider
- We must use the best information available including, where practicable, complete and scientifically robust data, but not refrain from decision making on the basis of uncertainty.
- Monitor and report annually on freshwater (including the data used); publish a synthesis report every five years containing a single ecosystem health score and respond to any deterioration.

## What is a National Policy Statement?

In essence, national policy statements prescribe objectives and policies for local authorities for matters of national significance.

In some cases they provide direction as to how local authorities give effect to those policies and objectives.

This includes the NPS-FW and will likely include the NPS for Indigenous Biodiversity to be released in 2021.



# TE MANA O TE WAI

6 principals:

- Mana whakahaere
- Kaitiakitanga
- Manaakitanga
- Governance
- Stewardship
- Care and respect

Hierarchy of obligations:

1. The health and well-being of water bodies and freshwater ecosystems
2. The health needs of people (such as drinking water)
3. The ability of people and communities to provide for their social, economic and cultural well-being, now and in the future

Read MfE's [Te Mana o te Wai factsheet](#) or watch their [brief explainer videos](#)



Figure 1: How regional councils must give effect to Te Mana o te Wai

# THE TASK AHEAD

Regional councils are required to:

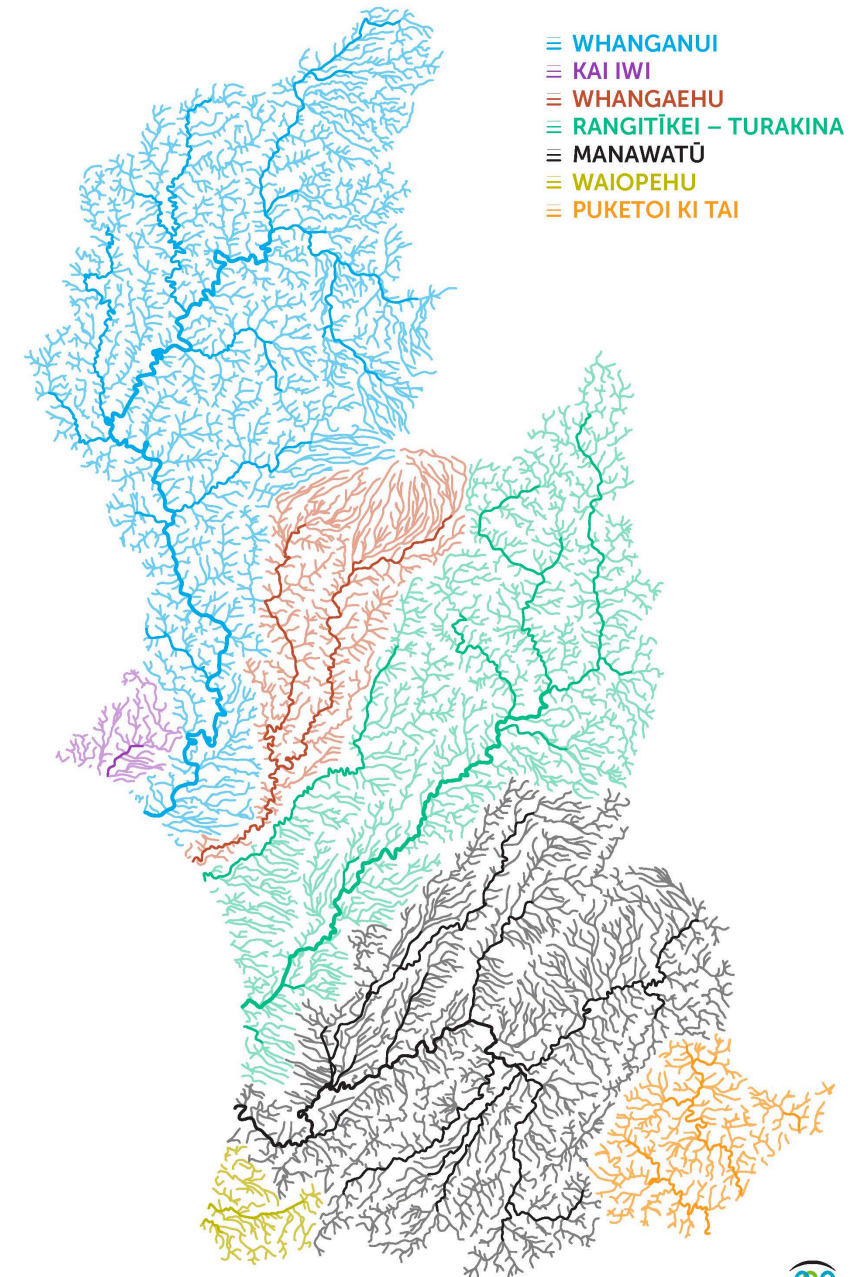
- engage with communities and tangata whenua to:
  - set our long-term vision (30 years and beyond);
  - implement the National Objectives Framework (NOF); and
  - report on progress towards this vision.
- map existing wetlands and encourage their restoration; address in-stream fish barriers

For each Freshwater Management Unit (FMU) we must identify:

- our values and vision for freshwater
- environmental outcomes (for each value), attributes (and their baseline and target states); and
- set limits and/or prepare action plans to achieve environmental outcomes.

We must use the best information available including, where practicable complete and scientifically robust data, but not refrain from decision making on the basis of uncertainty.

Monitor and report annually on freshwater (including the data used); pull a synthesis report every five years containing a single ecosystem health score and respond to any deterioration.





# NATIONAL OBJECTIVES FRAMEWORK (NOF)

**Table 5 – Ammonia (toxicity)**

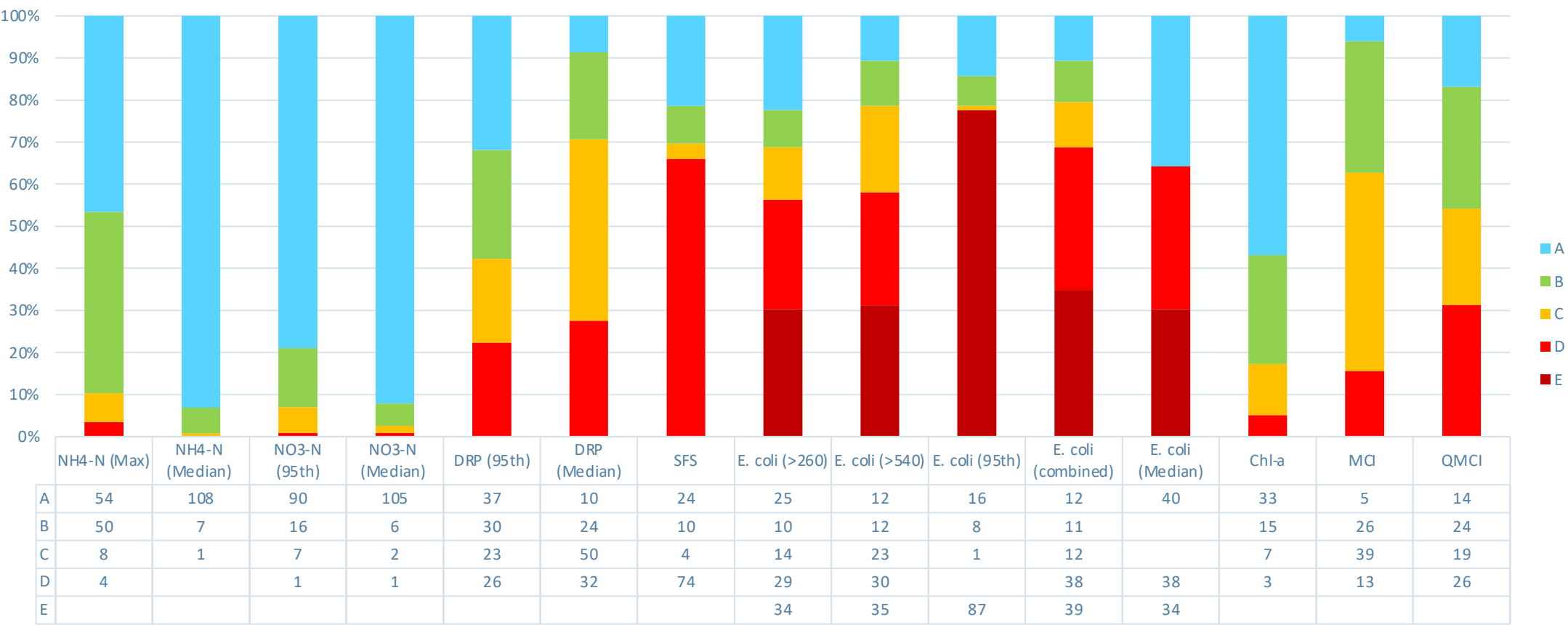
Value (and component)	Ecosystem health (Water quality)	
Freshwater body type	Rivers and lakes	
Attribute unit	mg NH <sub>4</sub> -N/L (milligrams ammoniacal-nitrogen per litre)	
Attribute band and description	Numeric attribute state	
	Annual median	Annual maximum
<b>A</b> 99% species protection level: No observed effect on any species tested.	≤0.03	≤0.05
<b>B</b> 95% species protection level: Starts impacting occasionally on the 5% most sensitive species.	>0.03 and ≤0.24	>0.05 and ≤0.40
<b>National bottom line</b>	<b>0.24</b>	<b>0.40</b>
<b>C</b> 80% species protection level: Starts impacting regularly on the 20% most sensitive species (reduced survival of most sensitive species).	>0.24 and ≤1.30	>0.40 and ≤2.20
<b>D</b> Starts approaching acute impact level (that is, risk of death) for sensitive species.	>1.30	>2.20

Numeric attribute state is based on pH 8 and temperature of 20°C. Compliance with the numeric attribute states should be undertaken after pH adjustment.

- 22 attributes that provide for identified values (compulsory and non-compulsory)
- Some require limits to be set, others require action plans to address issues.
- Most have a 'national bottom line' set above the 'C' or 'D' band.

# CURRENT STATE – SOE SITES

State of Environment Sites - NOF Assessment





# LOTS OF WORK TO DO...

- Lots of new regulations
- More consultation and collaboration with tangata whenua, communities and industry
- Greater demand on iwi, Horizons, primary sector and industry, to provide guidance, and much more consent and compliance work
- New and expanded monitoring and reporting requirements (particularly for DO, fish, deposited sediment etc,)
- More data and information collection and sharing
- Establish limits and/or action plans to address water quality issues
- Ready ourselves to notify a plan change by Dec 2024
- Lots of work to do yet to meet with central and local government, iwi/hapū, primary sector reps, stakeholders to work through the details and interpretations, and communicate these with the wider community and write them into policy
- Further changes to come – NPS for indigenous biodiversity, implementing National Planning Standards, RM reform...

# HORIZONS HELP AND GUIDANCE

## Events and information:

Hui-a-iwi (twice a year) + three-weekly freshwater hui from late Feb 2021

[e-newsletters](#), guidance documents and brochures, social media,

Events: Manawatu River Improvement Festival – Sat 27 February, Rural Games – Fri 12-Sun 14 March, Central Districts Field Days – Thu 18-Sat 20 March, Community and scheme meetings

Check out our website: <https://www.horizons.govt.nz/managing-natural-resources/our-freshwater-future>

Please direct enquiries to [info@ourfreshwaterfuture.nz](mailto:info@ourfreshwaterfuture.nz)



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