



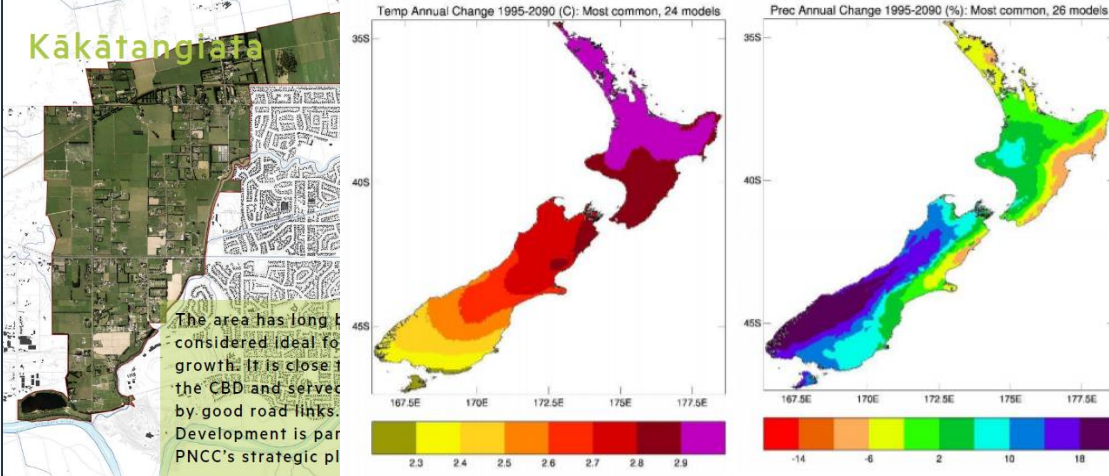
2021 SCHEME MEETINGS

Pohangina-Oroua Flood Control Scheme



\$650M of assets

- 1,270km of river channel
- 1,100km of drain
- 23 pump stations with a total discharge capacity of 43m³/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

Pohangina Oroua Scheme

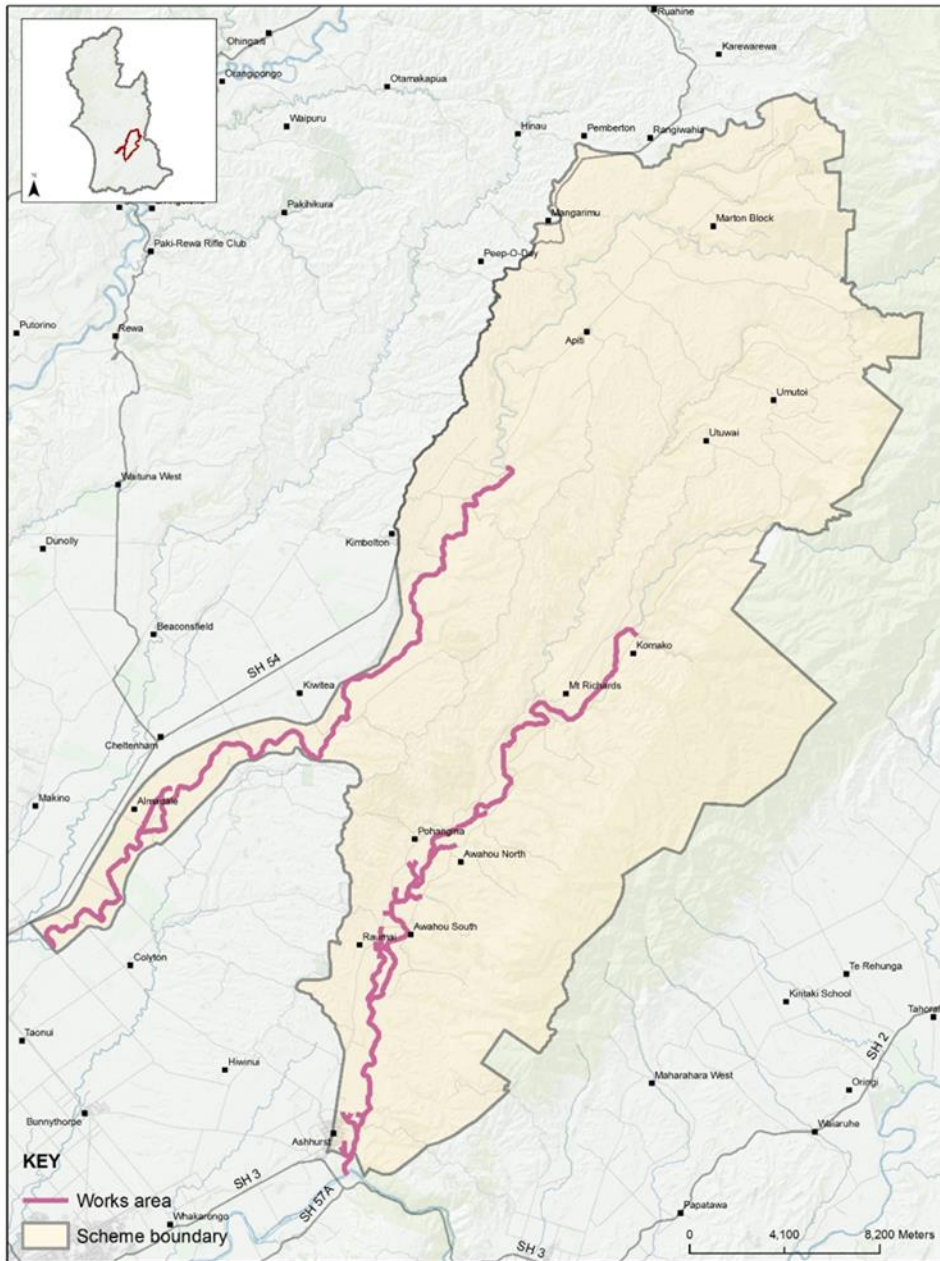
POHANGINA-OROUA RIVERS SCHEME

Scheme Assets.

- 5km permeable groynes
- 21.9km tied trees work
- 74.8ha protection planting
- 6.7km drainage channels
- 38ha forestry
- 2280 ton rock lining
- 860 ton rock groynes
- 2360 ton concrete rip rap

Total Asset Replacement Value:
\$5,994,212 (June 2020).

Predominantly servicing riparian
landowners on the Oroua and Pohangina
Rivers.



POHANGINA-OROUA SCHEME

Strategic Direction

The focus of the Scheme over the next 3 years is to continue to maintain existing infrastructure and to encourage the take up of subsidised erosion control works.

Aim

To maintain a level of service that meets the expectation of the local community for both flood protection, drainage and recreational use.

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 Scheme ratepayers.
- To maintain a clear and stable channel that provides an equitable level of flood protection to land in the Pohangina-Oroua Scheme.
- To maintain satisfactory drainage to meet stakeholders' expectations.
- To manage gravel and general channel conditions within the two rivers included in the Scheme to maintain desired channel alignment and minimise lateral erosion.

SCHEME FUNDING

Funding Policy

The Schemes funding comes from three revenue sources:

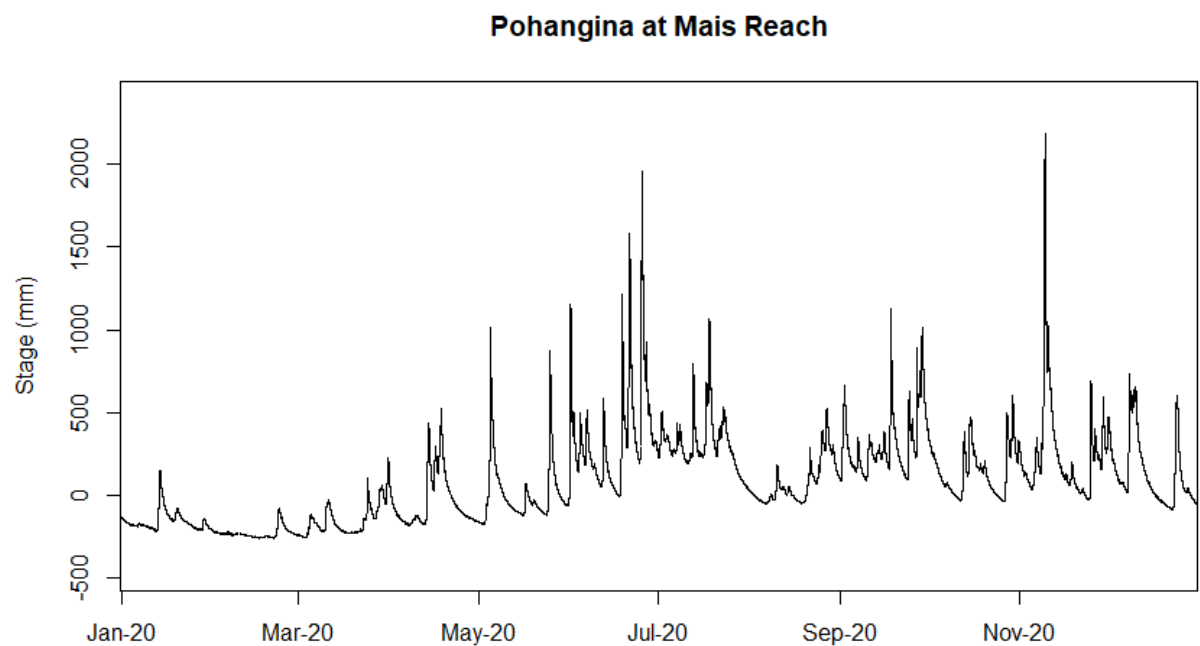
Targeted Rates – differential targeted rates levied on properties directly benefiting from or causing the need for the work.

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

POHANGINA AT MAIS REACH

Table: Annual maximum stage for the past decade



Year	Stage	Flow	Date
2010	2.730	295.199	2010-09-06 16:15:00
2011	2.337	227.356	2011-01-23 18:15:00
2012	3.177	396.063	2012-01-08 17:45:00
2013	3.434	464.750	2013-07-11 16:20:00
2014	2.414	239.812	2014-06-11 18:05:00
2015	3.187	381.952	2015-06-20 17:05:00
2016	1.493	102.720	2016-07-08 17:50:00
2017	3.009	352.060	2017-04-14 02:55:00
2018	4.206	809.238	2018-06-12 19:00:00
2019	2.380	253.843	2019-10-15 21:10:00
2020	2.186	226.895	2020-11-10 06:25:00

Statistics calculated from the annual year: January 2020 - January 2021

OROUA AT ALMADALE SLACKLINE

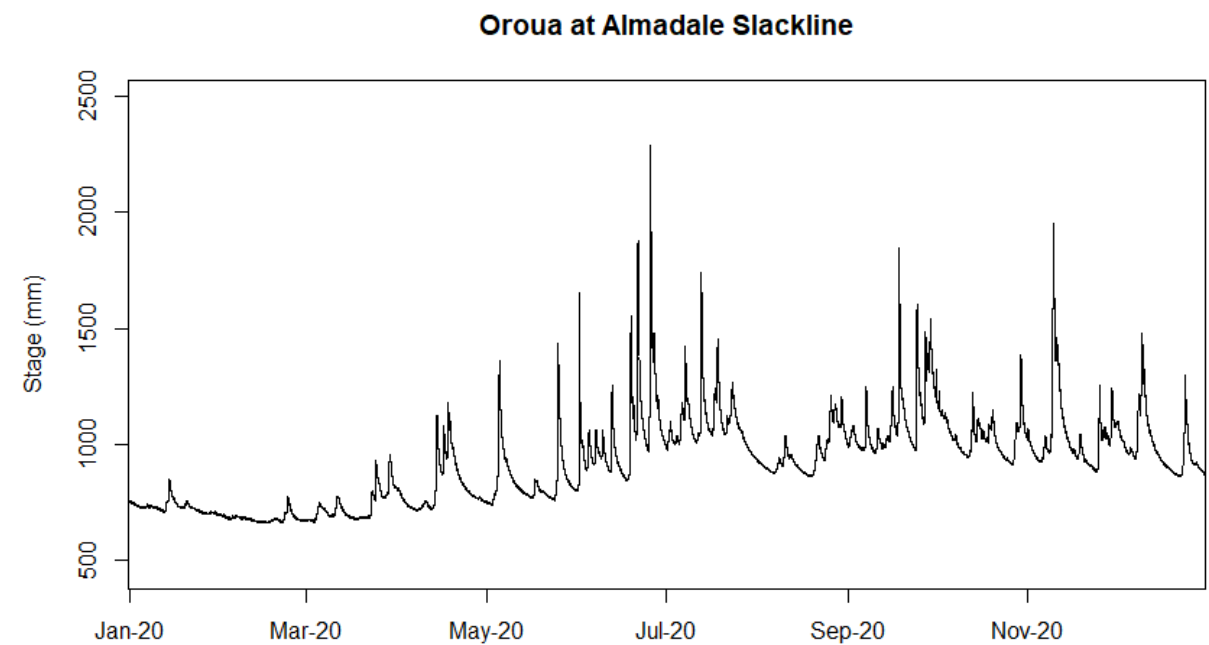


Table: Annual maximum stage for the past decade

Year	Stage	Flow	Date
2010	3.542	217.320	2010-09-06 18:15:00
2011	2.553	92.628	2011-11-24 13:55:00
2012	3.058	160.498	2012-03-21 05:40:00
2013	3.388	204.505	2013-09-25 12:10:00
2014	2.627	119.171	2014-06-11 20:05:00
2015	3.388	213.682	2015-06-20 21:45:00
2016	2.405	102.313	2016-07-08 22:25:00
2017	3.527	241.975	2017-04-14 06:50:00
2018	4.475	386.322	2018-06-12 22:35:00
2019	2.620	132.738	2019-10-16 02:45:00
2020	2.285	96.369	2020-06-26 05:55:00

Statistics calculated from the annual year: January 2020 - January 2021

KEY ACTIVITIES AND ISSUES: 2020-21

Scheme Expenditure

Expenditure is on track to finish year within budget

Works Activity

Willow pole planting approx. 12,500

Tree bank protection and rope and rail groyne work at 9 properties

Channel Maintenance (gravel management, beach clearing and removing debris from channel)

Totara Reserve repairs to old camping ground and channel maintenance work

Beach raking

Aerial Spray: Pohangina River- Ashhurst to Totara Reserve

Oroua River- Mahua Road to Coulters Line Bridge

Issues

Increasing demand for gravel from the both scheme rivers

Scheme global gravel consent

Pohangina - 30,000m³/year

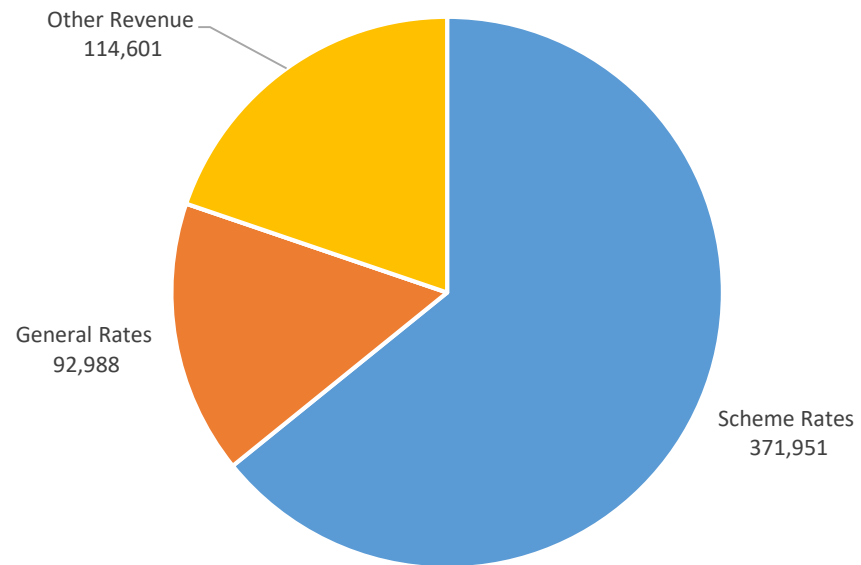
Oroua - 30,000m³/year



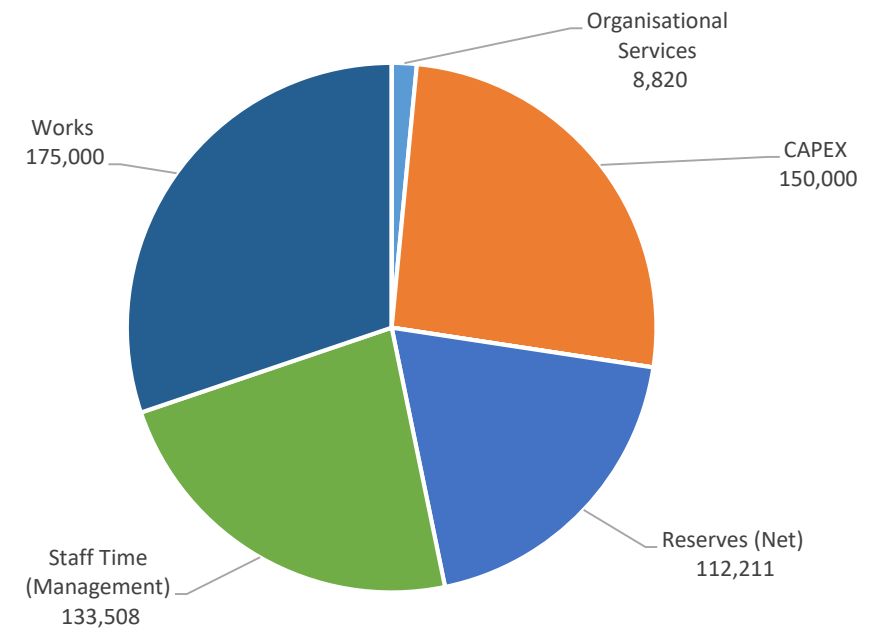
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INCOME AND EXPENDITURE 2020-21

Scheme Revenue - Current Year



Scheme Expenditure - Current Year



Photos



Willow poles at Gilcrest track



Vulnerable established Totara under threat prior to works now completed



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Willows planted at Gilcrest to protect Totara's



Typical damaged prior to channel works and planting



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Typical damage at Culling Property



White Property damage now repaired



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Key Activities and Issues: 2021-22

Scheme Budget

- No increase in budgeted works expenditure
- \$89,000 contribution to the Emergency Reserve Fund
- Subsidized work now 50/50
- Scheme Rate decrease of less than 1.0%

Works Activity

- Maintain focus on channel and vegetation maintenance.
- Continue to subsidise erosion protection work with requesting landowners

Survey's

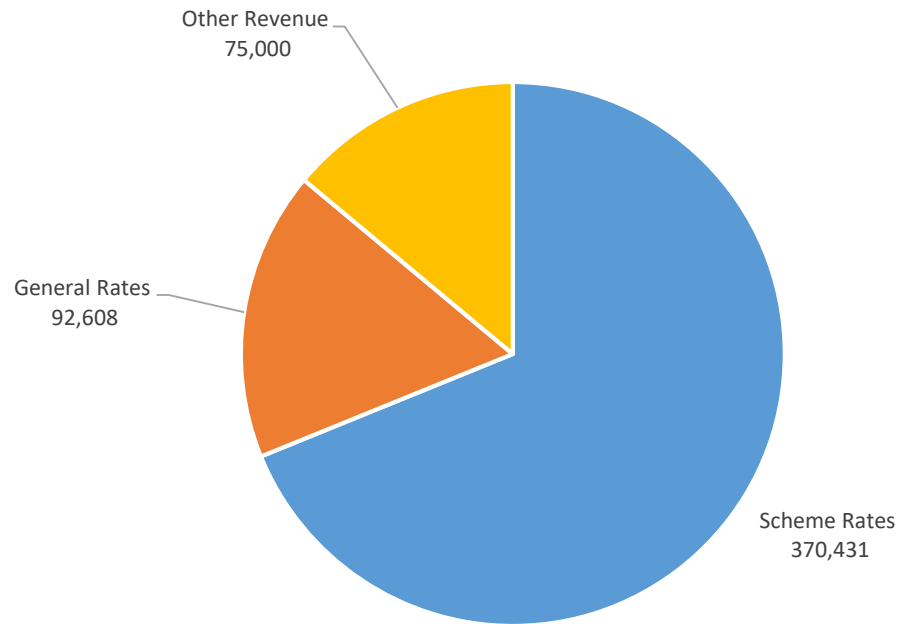
- Management of gravel resources with approved resource consent conditions

Scheme Review

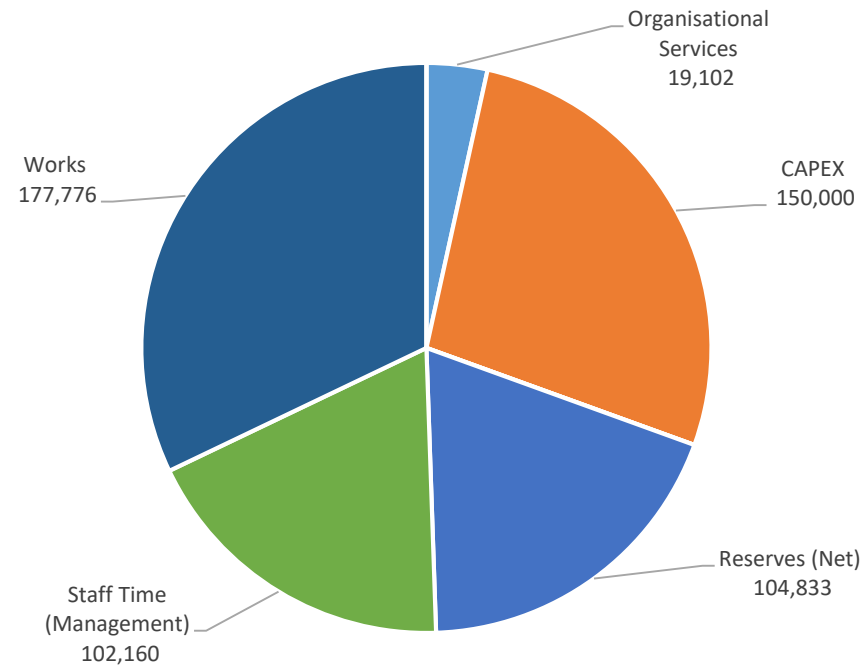
- Audit and Operation and Maintenance Manual programmed for 2023-24.

INCOME AND EXPENDITURE 2021-22

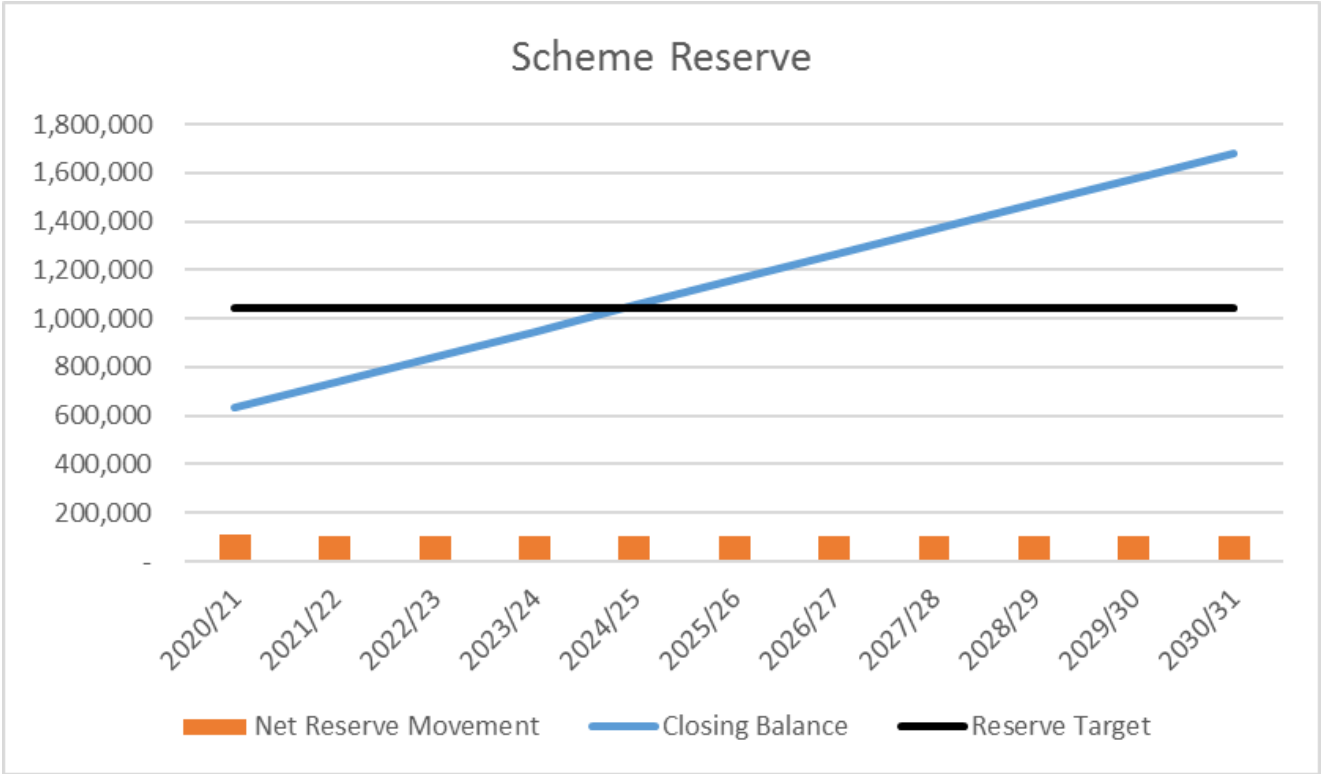
Scheme Revenue - 2021/22



Scheme Expenditure - 2021/22



EMERGENCY RESERVE BALANCE



NO LOAN ACCOUNT BALANCES



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ORANGA WAI - OUR FRESHWATER FUTURE

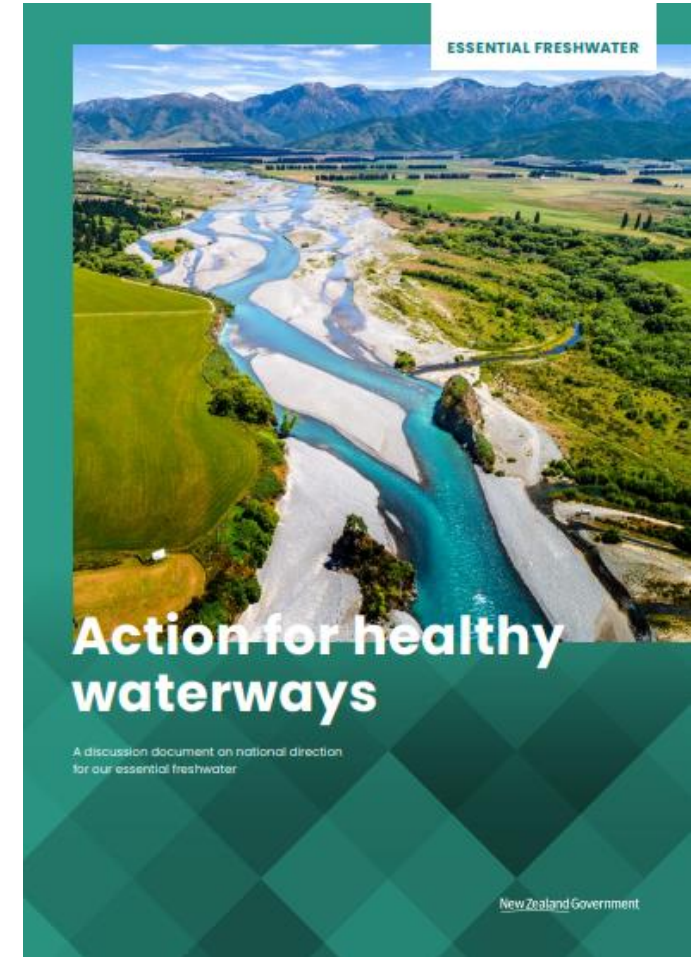
Implementing Government's 'Essential Freshwater' package

OVERVIEW

Government has introduced new requirements for managing the health of freshwater in New Zealand, including:

- Changes to the Resource Management Act 1991 (RMA)
- An updated National Policy Statement for Freshwater Management 2020 (NPS-FM)
- New National Environmental Standards for Freshwater (NES-FW)
- Additional new regulations under s360 of the RMA for:
 - Measuring and Reporting of Water Takes; and
 - Stock exclusion

Some of these changes come into effect immediately (from gazettal 3 August 2020), while others are phased in over time.



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NATIONAL ENVIRONMENTAL STANDARDS FOR FRESHWATER & REGULATIONS



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THE TASK AHEAD

Regional councils are required to:

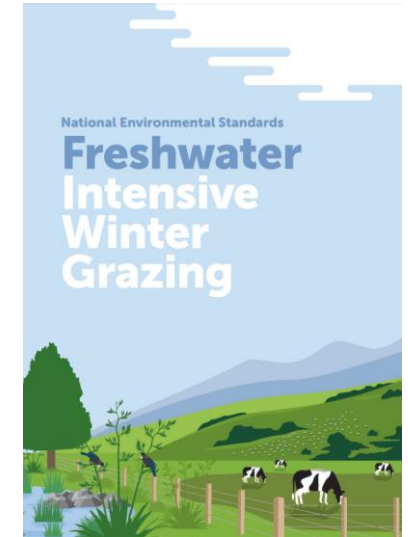
- Issue and monitor consents relating to intensification of land use (until the end of 2024), intensive winter grazing*, stock holding areas and feedlots – all come into effect from mid-2021, and activities that have more than a minor impact on wetlands and streams (effective from 3 Sep 2020).

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

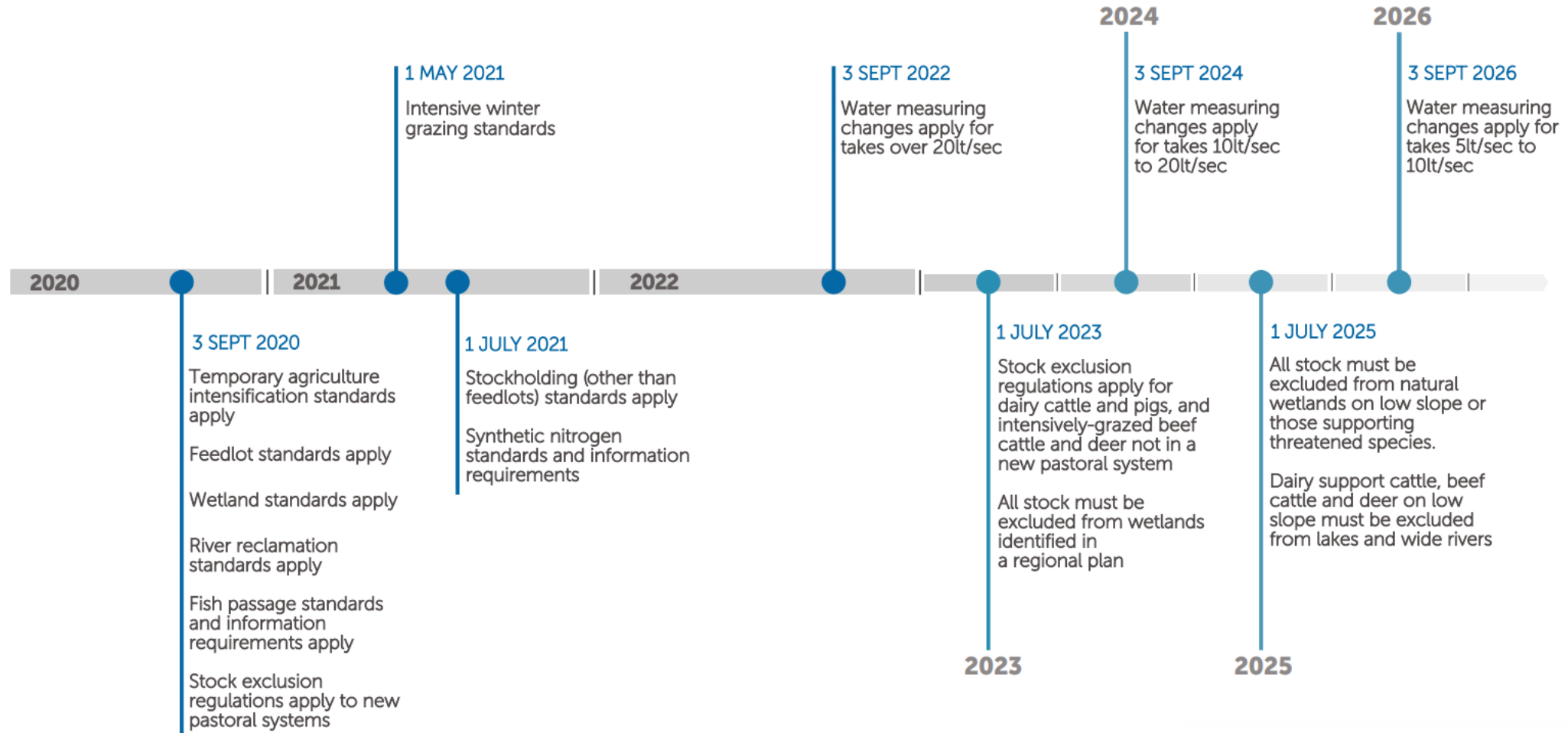
- Collect data and monitor levels of synthetic nitrogen fertiliser use
- Stock exclusion (dairy and beef cattle, pigs and deer) from wetlands, streams and their margins (>1m wide); requirements for bridges and culverts, phased in over time
- Real time monitoring and reporting of water takes >5 l/s

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:

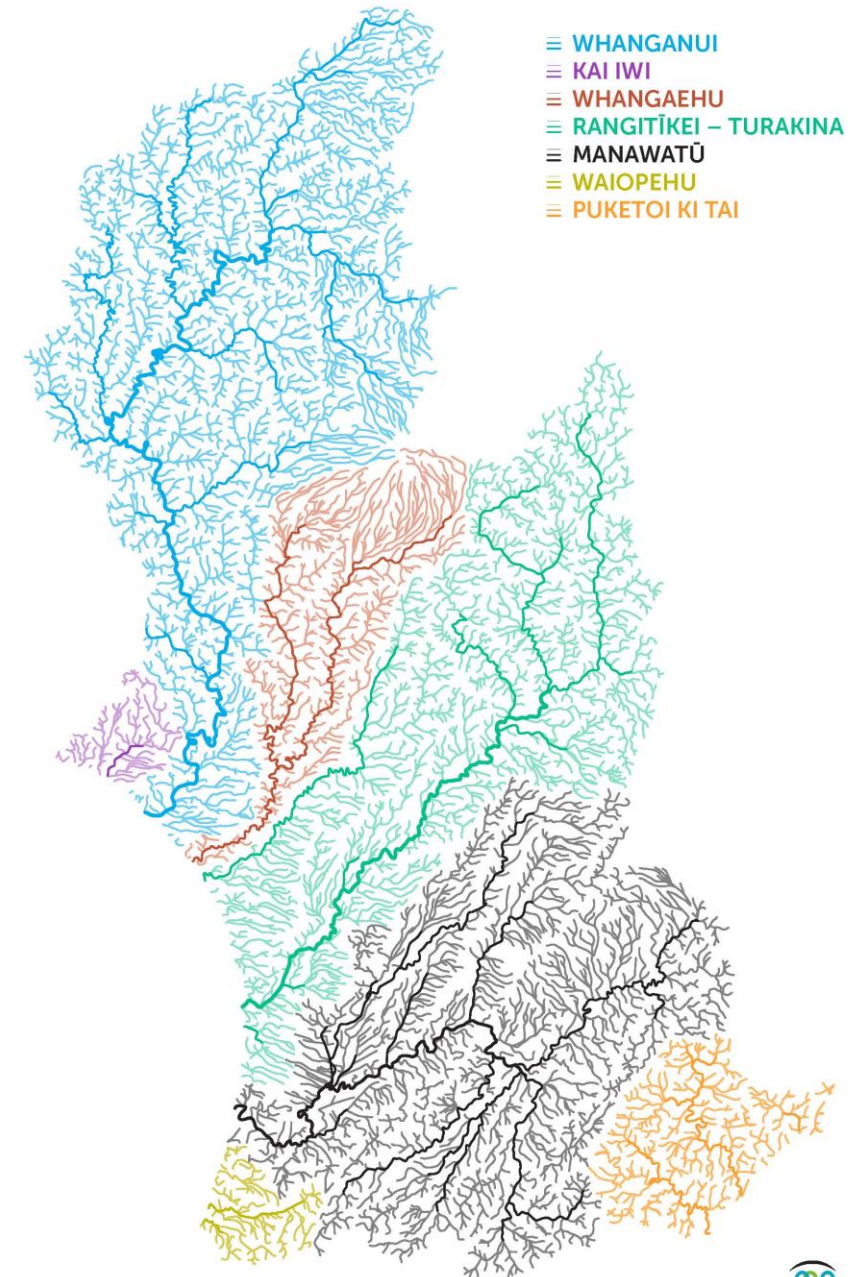
- engage with communities and tangata whenua to:
 - set our long-term vision (30 years and beyond);
 - implement the National Objectives Framework (NOF); and
 - report on progress towards this vision.
- map existing wetlands and encourage their restoration; address in-stream fish barriers

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)

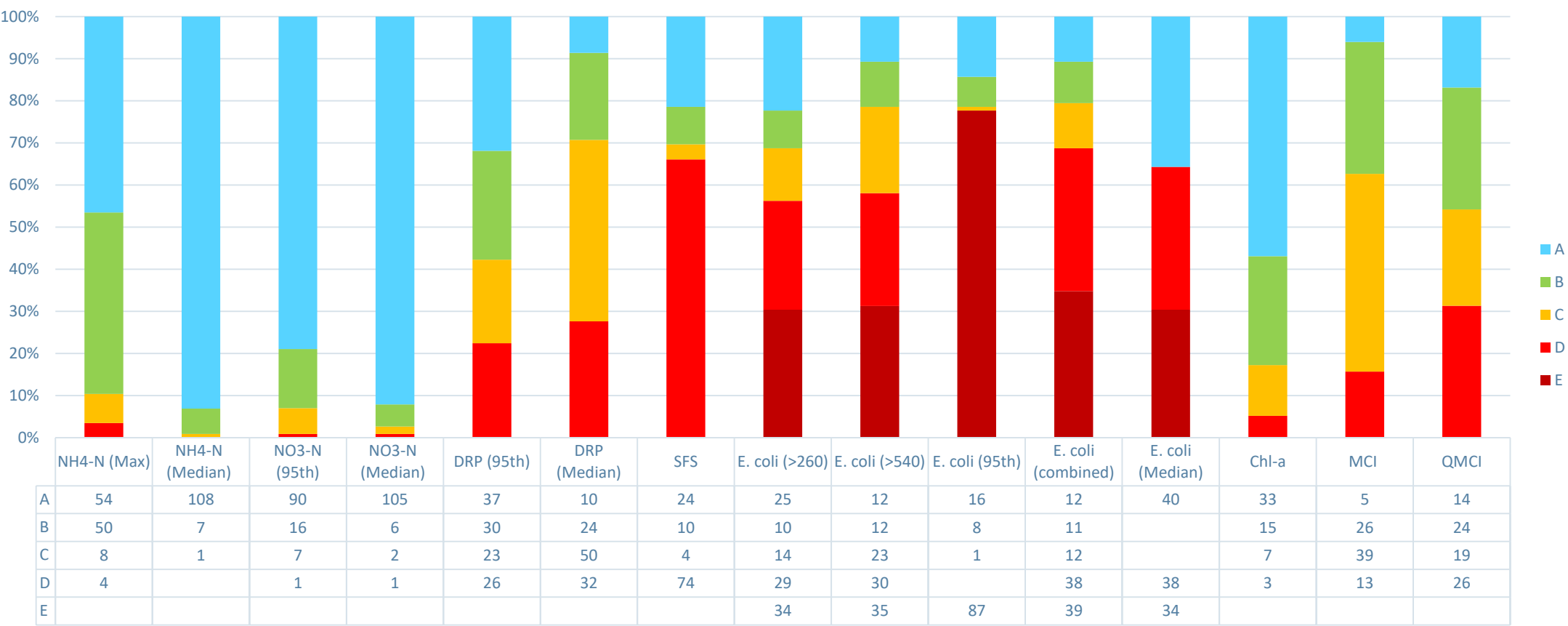
Value (and component)	Ecosystem health (Water quality)	
Freshwater body type	Rivers and lakes	
Attribute unit	mg NH ₄ -N/L (milligrams ammoniacal-nitrogen per litre)	
Attribute band and description	Numeric attribute state	
	Annual median	Annual maximum
A 99% species protection level: No observed effect on any species tested.	≤0.03	≤0.05
B 95% species protection level: Starts impacting occasionally on the 5% most sensitive species.	>0.03 and ≤0.24	>0.05 and ≤0.40
National bottom line	0.24	0.40
C 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
D 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



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