



2021 SCHEME MEETINGS

Tutaenui Flood Control Scheme

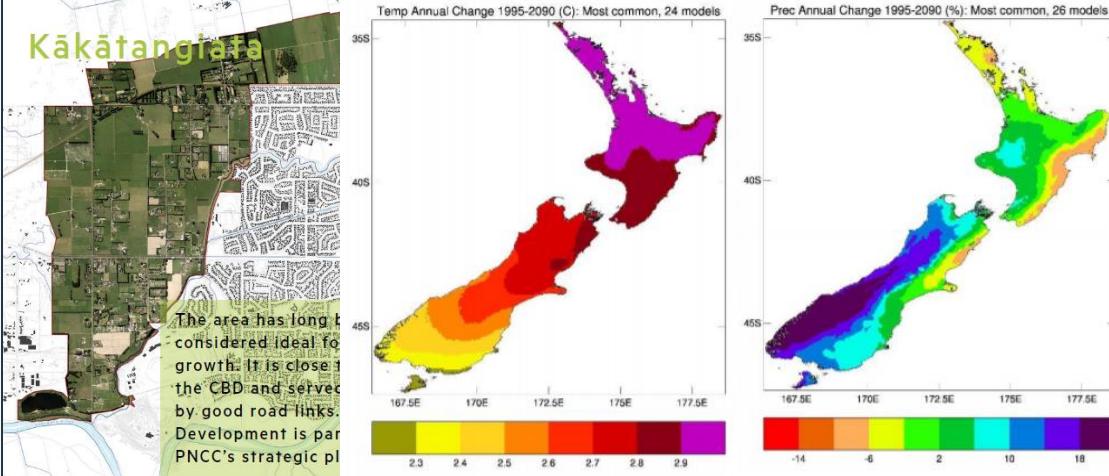


\$650M of assets

- 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



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SIGNIFICANT RIVER MANAGEMENT ISSUES



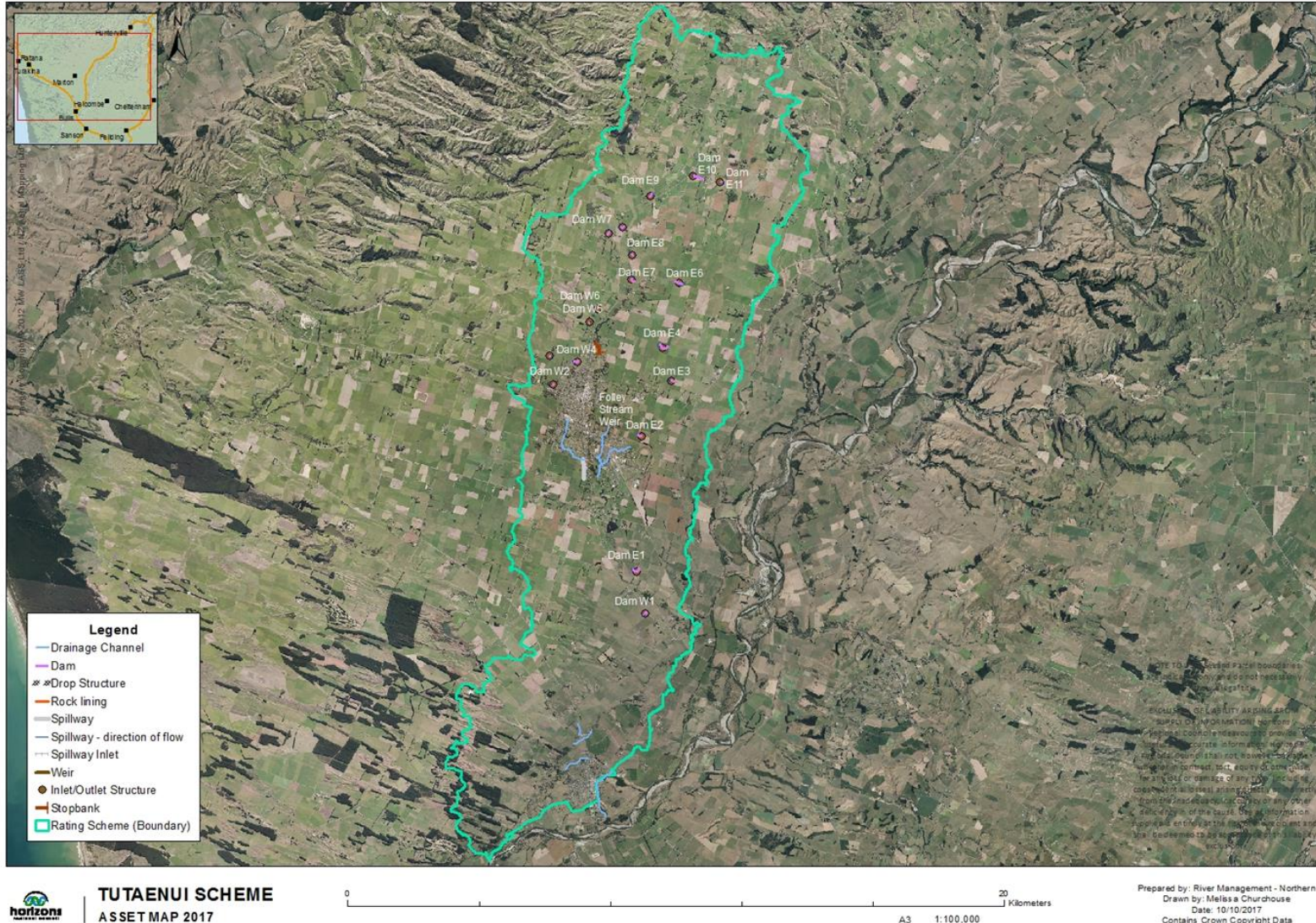
- Accelerating land use change
- Unsustainable land use
- Climate change
- Asset reliability
- Evolving community expectations



SCHEME UPDATE SUMMARY

Tutaenui River Management Scheme

TUTAENUI FLOOD CONTROL SCHEME



Scheme Assets.

- 18 Detention Dams
- 418m Stopbank
- 2 Grade Control Structures
- 1 Spillway
- 3km Drainage Channels

Total Asset Replacement Value:
\$3,904,013 (June 2020).

Tutaenui Stream Catchment is 13,600ha.

Protects the townships' of Bulls and Marton
and surrounding rural land from flooding.



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TUTAENUI 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 standards.

Aim

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

TUTAENUI SCHEME

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 maintain a clear and stable channel that provides an equitable level of flood protection to land in the Tutaenui Scheme.

To maintain satisfactory drainage to meet stakeholders' expectations.

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.

To protect the townships of Marton, Bulls and rural land adjacent to the Tutaenui Stream from flood events that do not exceed 5% Annual Exceedance Probability (AEP) through the effective operation of flood detention dams.

SCHEME FUNDING

Funding Policy

The Schemes funding comes from three revenue sources:

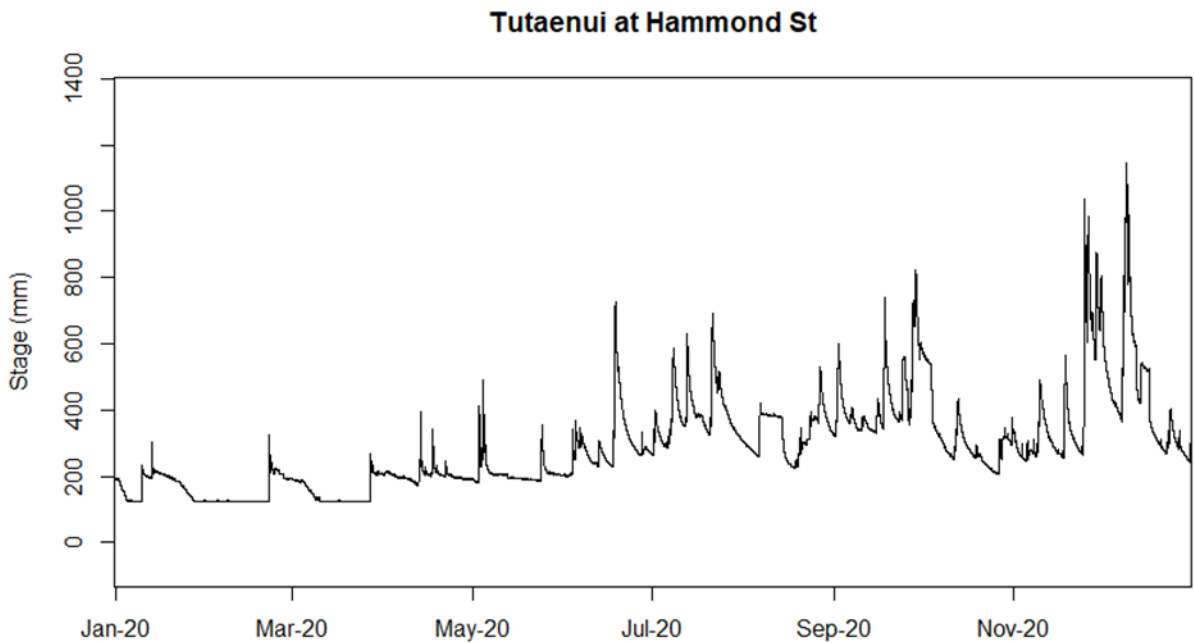
Targeted Rates – differential targeted rates levied on properties directly benefiting from or causing the need for the work.

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

TUTAENUI AT HAMMOND STREET

Table: Annual maximum stage for the past decade



Year	Stage	Flow	Date
2010	2.305	50.000	2010-09-06 16:55:00
2011	1.493	15.524	2011-07-14 06:05:00
2012	1.998	34.424	2012-08-17 08:50:00
2013	1.938	31.748	2013-10-15 15:40:00
2014	1.344	9.057	2014-10-27 15:25:00
2015	3.920	60.892	2015-06-20 22:25:00
2016	1.322	8.768	2016-08-27 04:25:00
2017	1.599	12.564	2017-10-11 18:50:00
2018	1.368	9.373	2018-06-18 20:40:00
2019	1.003	4.952	2019-07-14 15:50:00
2020	1.146	6.962	2020-12-09 19:45:00

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

Dam inspections and maintenance

Layering

Removing trees from the stream channel

Spraying drains

Fencing

Channel maintenance

Gravel management

Dam Safety Study

Global gravel consent



Before and after repairs at Dam E4



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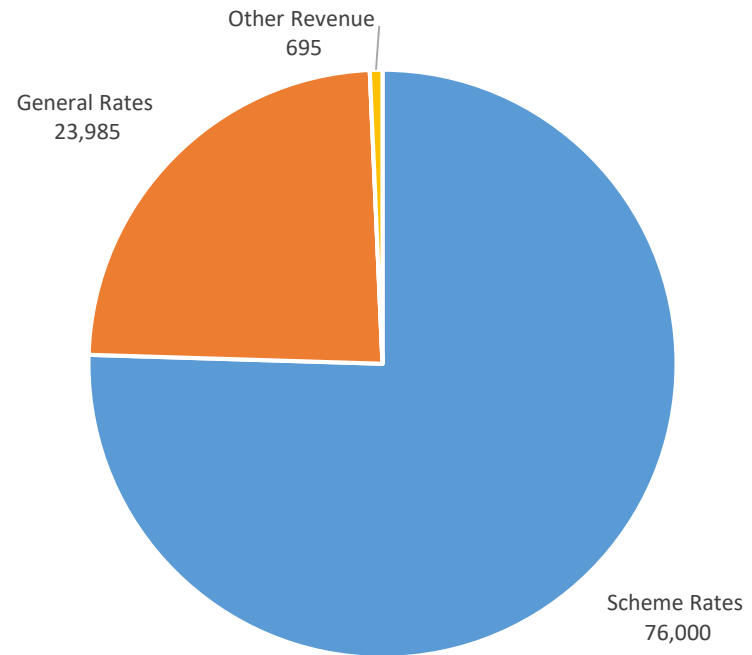
Concrete repairs at the Folly Stream Wilson Park and Channel Maintenance



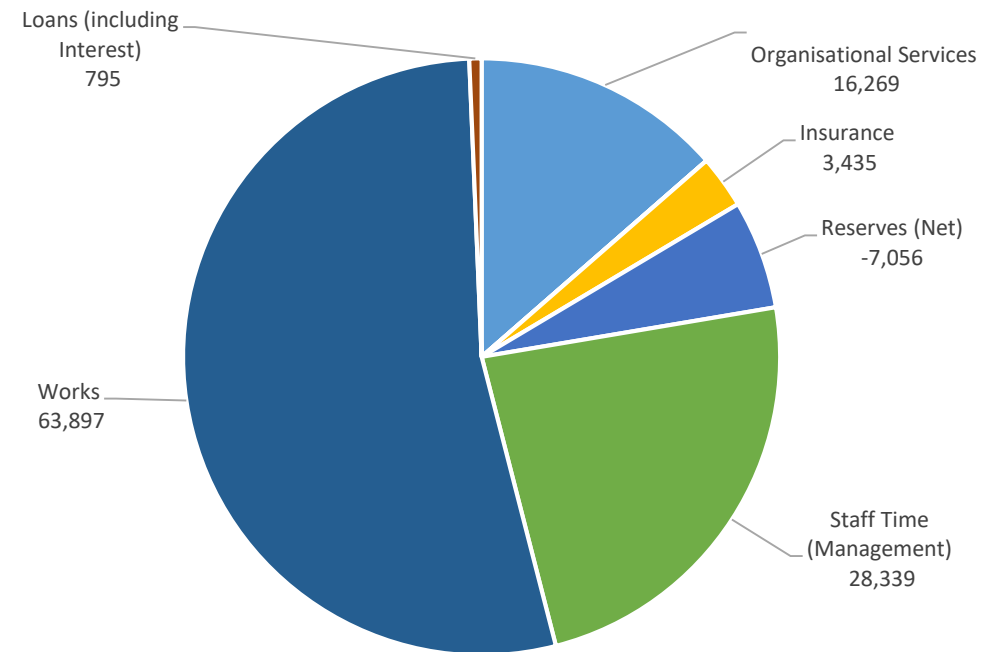
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INCOME AND EXPENDITURE 2020-21

Scheme Revenue - Current Year



Scheme Expenditure - Current Year



Key Activities and Issues: 2021-22

Scheme Budget

- \$14,212 increase in works expenditure due to capex project
- \$1,072 contribution from the Emergency Reserve Fund
- Scheme Rate change of less than 1%

Works Activity

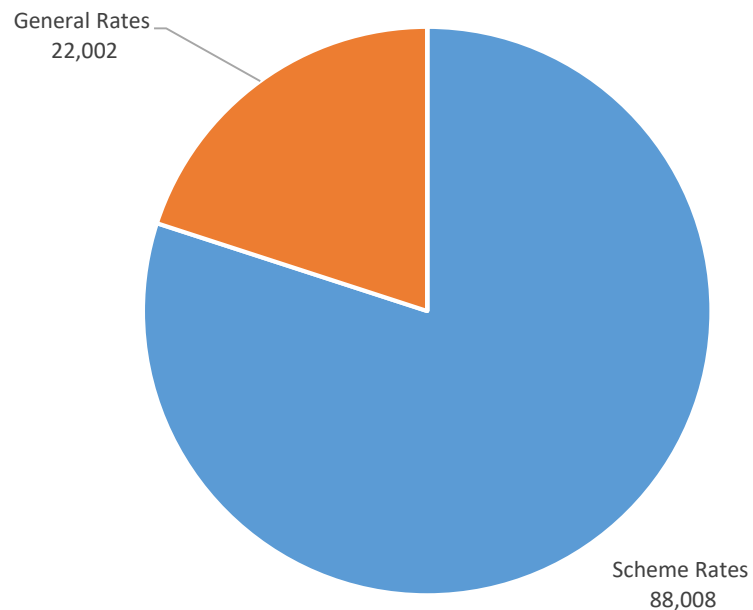
- Continue stream maintenance
- Implement dam safety initiatives for 18 dams
- \$350 for asset renewals
- Flood plain modelling analysis

Scheme Review, Audit, and Operation and Maintenance Manual

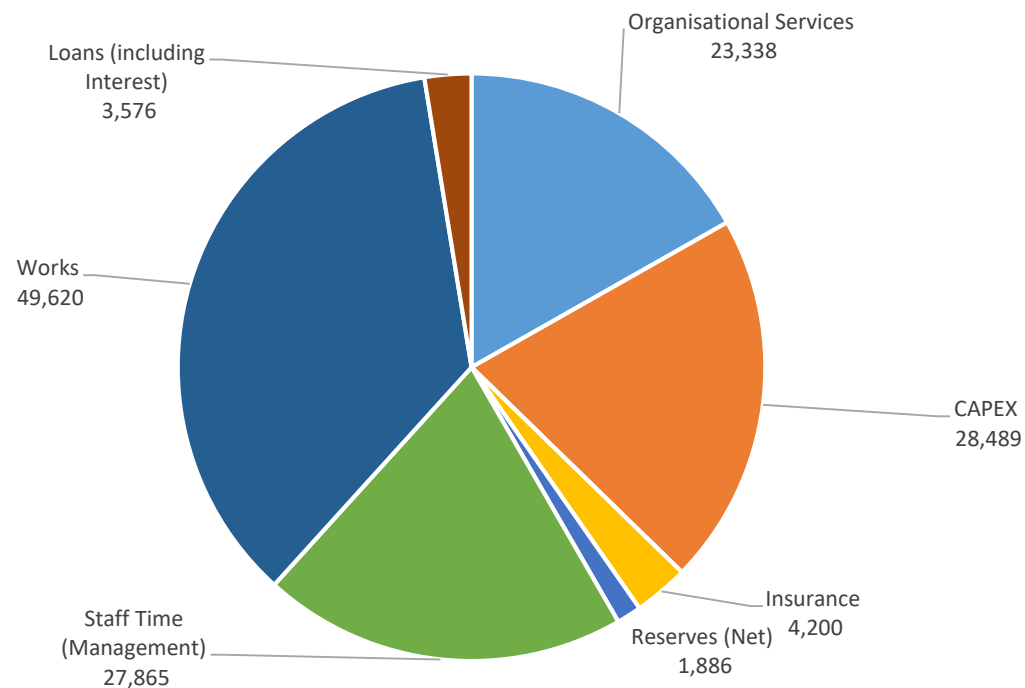
- Programmed for 2025-26

INCOME AND EXPENDITURE 2021-22

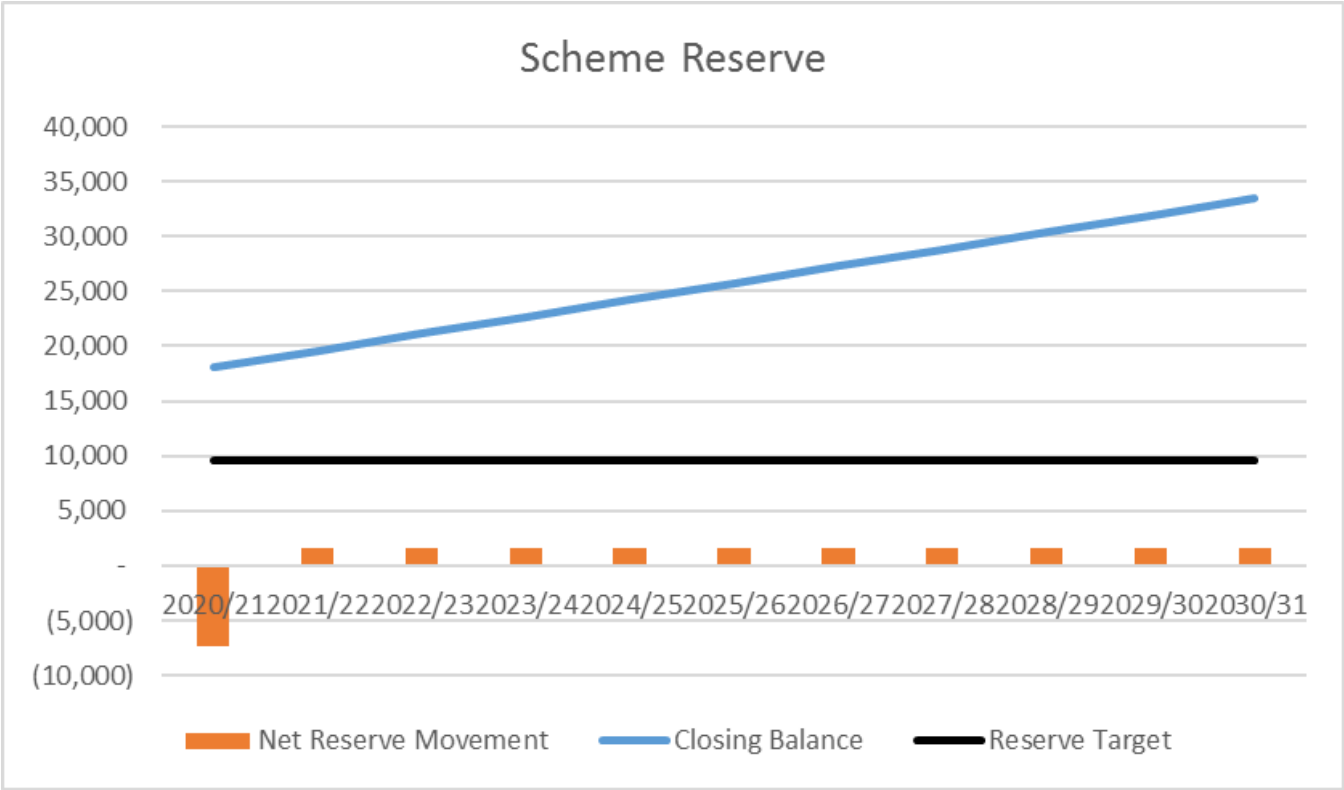
Scheme Revenue - 2021/22



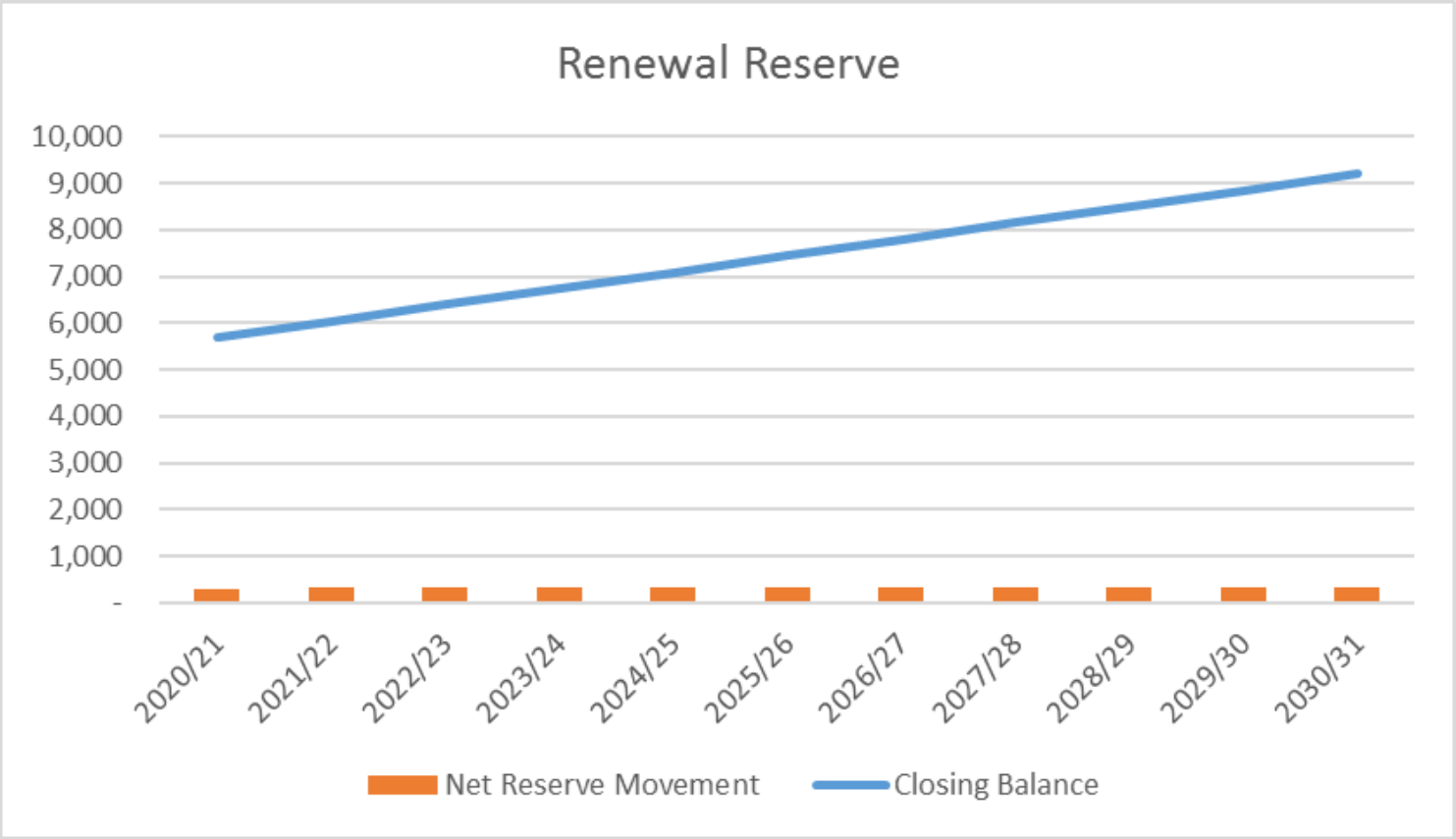
Scheme Expenditure - 2021/22



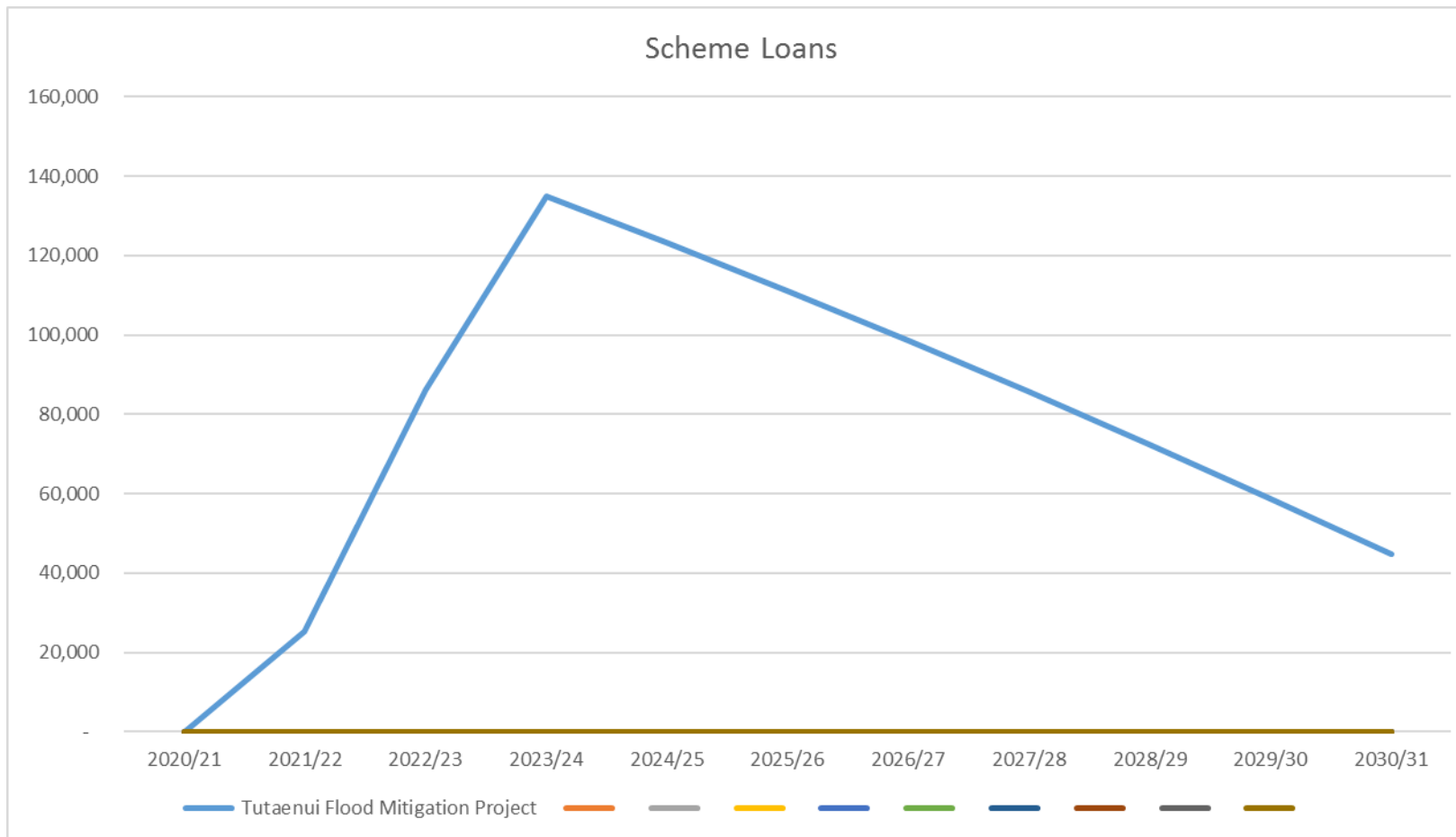
EMERGENCY RESERVE BALANCE



RENEWAL RESERVE BALANCE



LOAN ACCOUNT BALANCES





ORANGA WAI - OUR FRESHWATER FUTURE

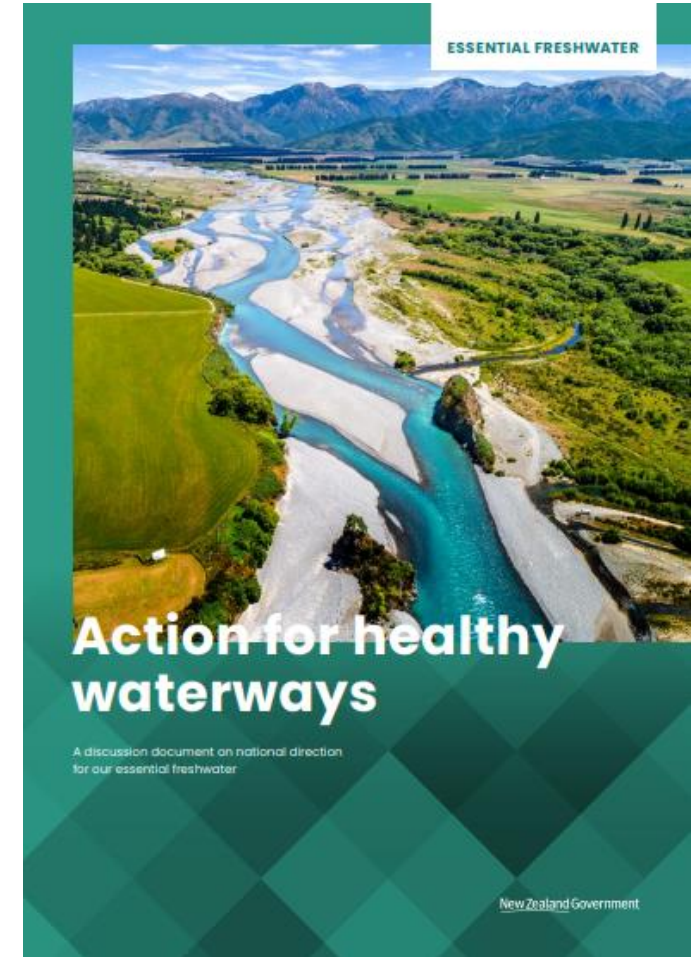
Implementing Government's 'Essential Freshwater' package

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.



NATIONAL ENVIRONMENTAL STANDARDS FOR FRESHWATER & REGULATIONS



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THE TASK AHEAD

Regional councils are required to:

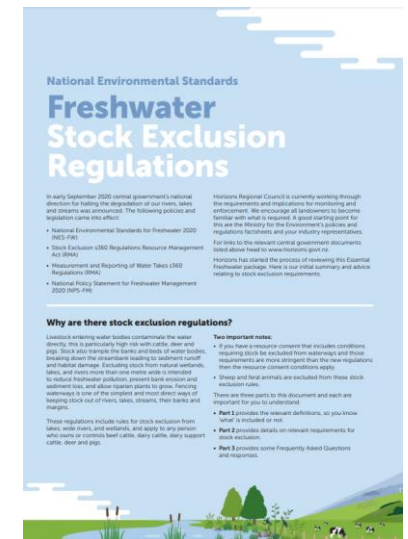
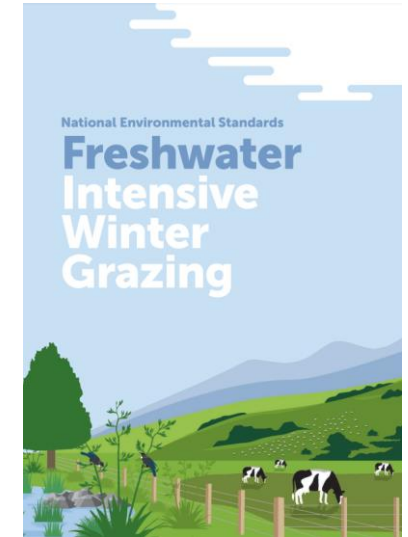
- Issue and monitor consents relating to intensification of land use (until the end of 2024), intensive winter grazing*, stock holding areas and feedlots – all come into effect from mid-2021, and activities that have more than a minor impact on wetlands and streams (effective from 3 Sep 2020).

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

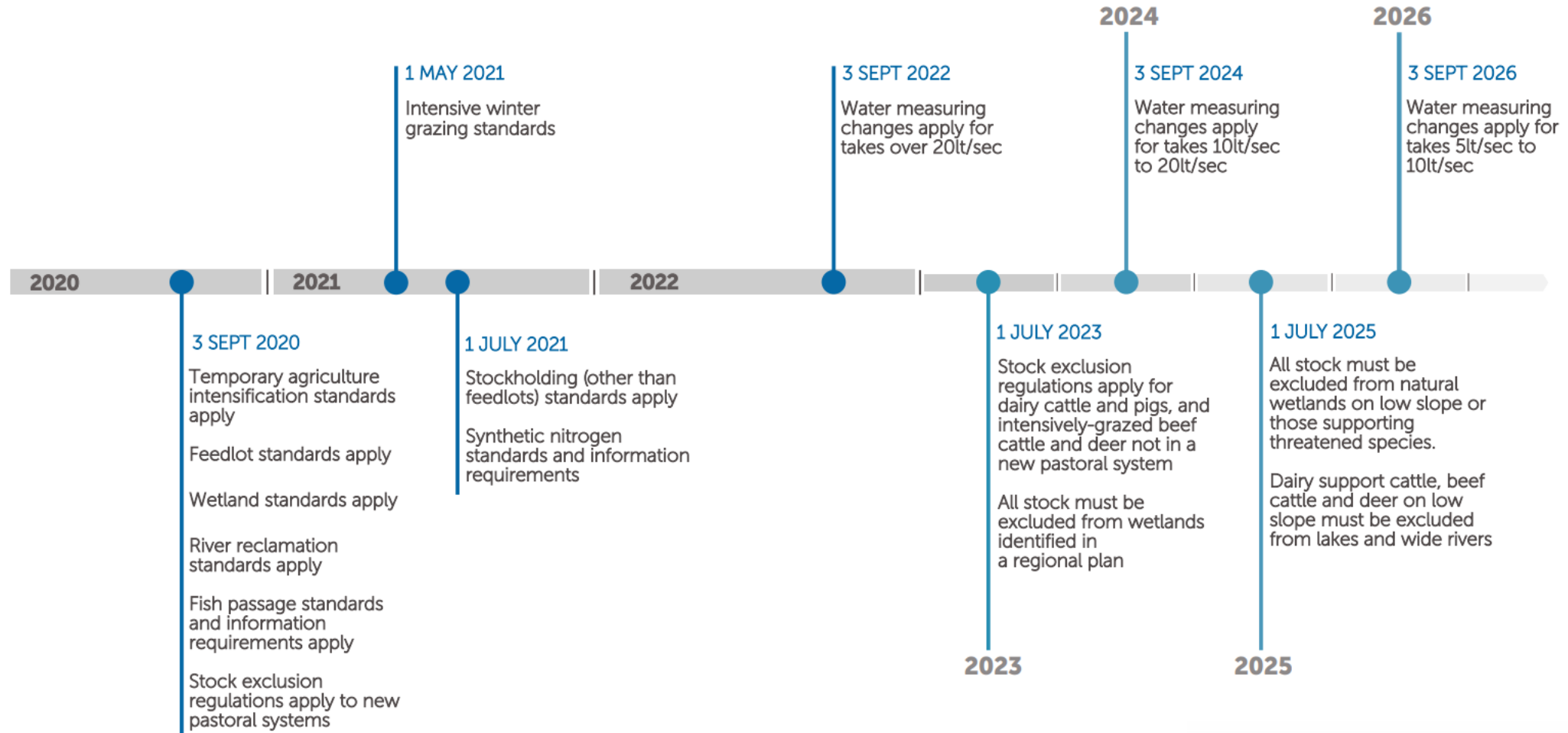
- Collect data and monitor levels of synthetic nitrogen fertiliser use
- Stock exclusion (dairy and beef cattle, pigs and deer) from wetlands, streams and their margins (>1m wide); requirements for bridges and culverts, phased in over time
- Real time monitoring and reporting of water takes >5 l/s

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:

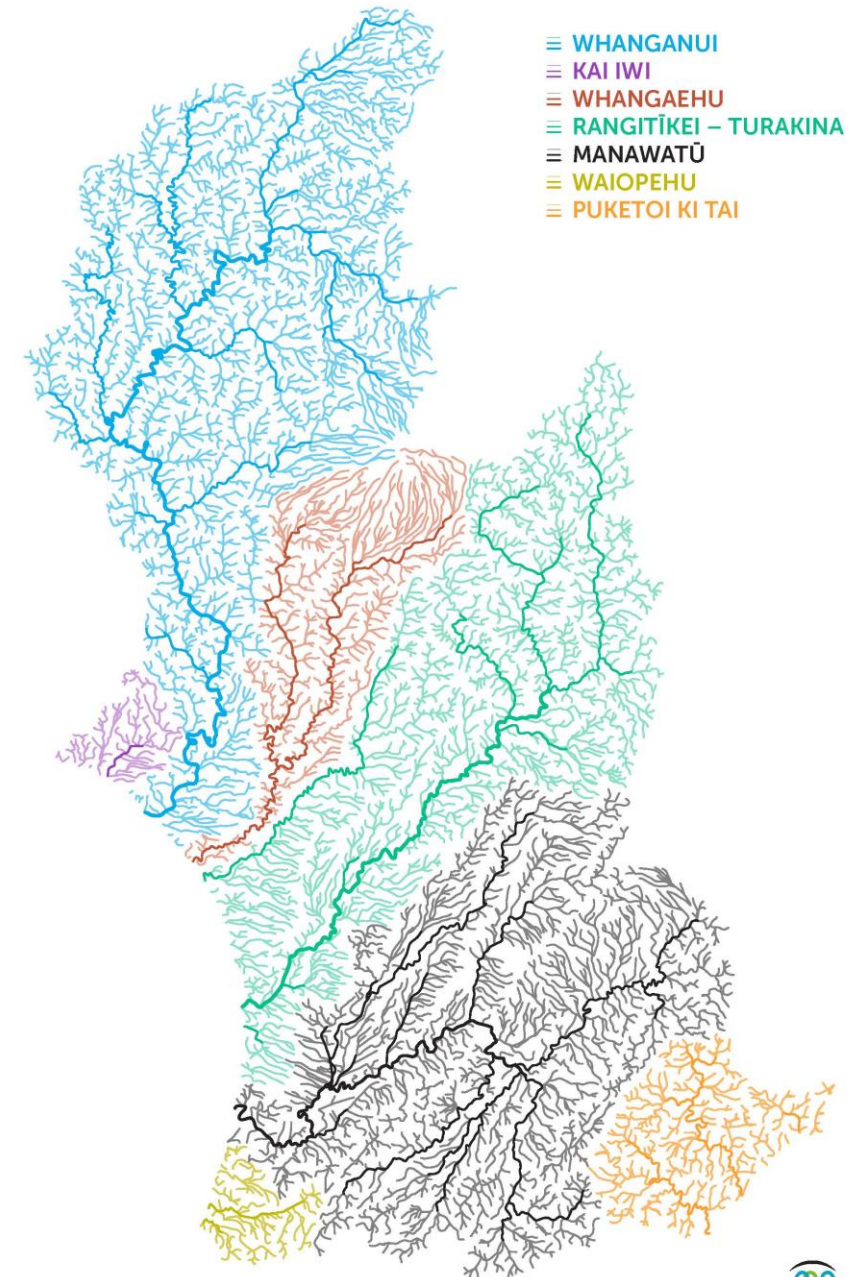
- engage with communities and tangata whenua to:
 - set our long-term vision (30 years and beyond);
 - implement the National Objectives Framework (NOF); and
 - report on progress towards this vision.
- map existing wetlands and encourage their restoration; address in-stream fish barriers

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)

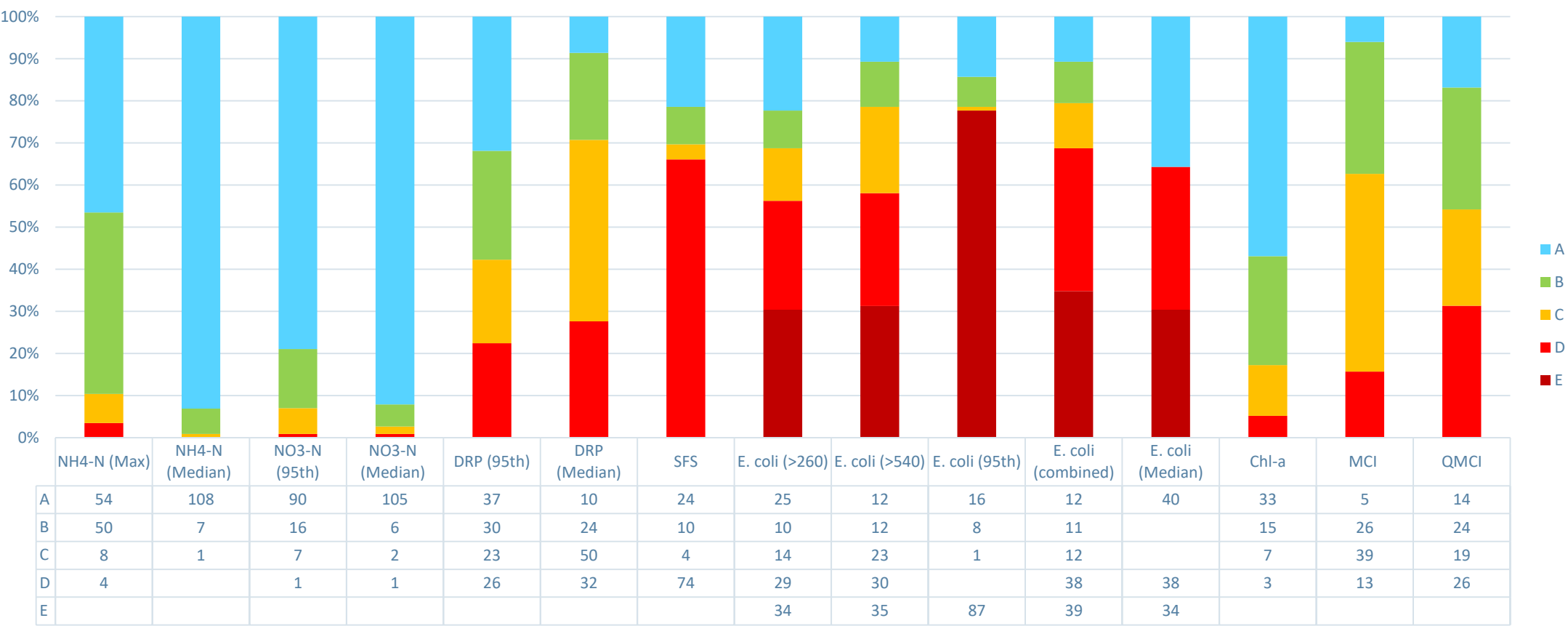
Value (and component)	Ecosystem health (Water quality)	
Freshwater body type	Rivers and lakes	
Attribute unit	mg NH ₄ -N/L (milligrams ammoniacal-nitrogen per litre)	
Attribute band and description	Numeric attribute state	
	Annual median	Annual maximum
A 99% species protection level: No observed effect 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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Wai** | **OUR
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