



**2019-2020
RIVER MANAGEMENT ACTIVITY GROUP**

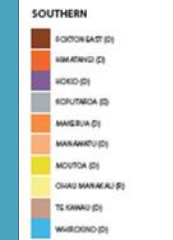
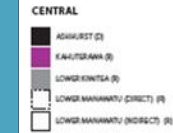
TUTAENUI SCHEME MEETING

HORIZONS RIVER MANAGEMENT

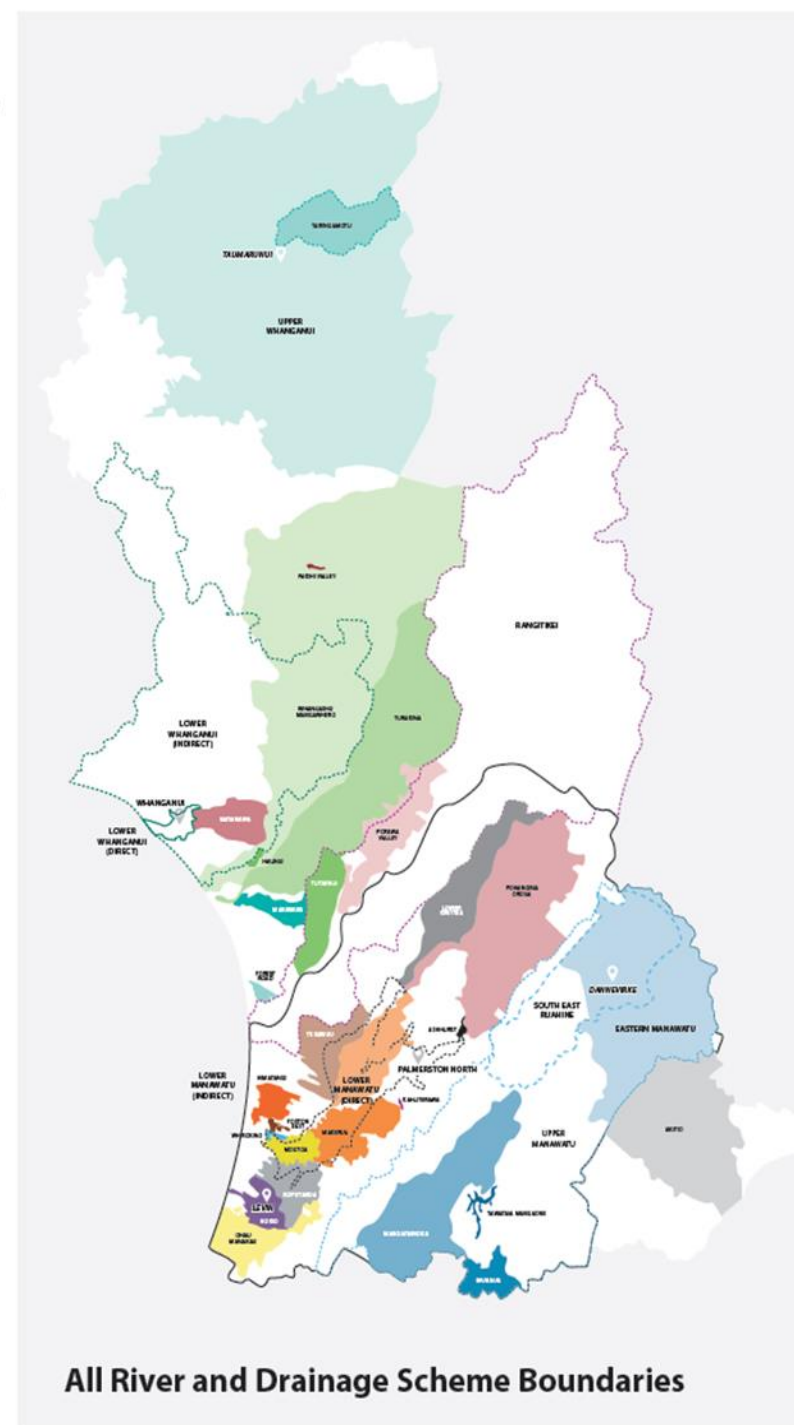
32 staff with a current operating budget of \$11M

34 River and drainage schemes

Providing protection/benefit to 10 urban areas and 75,000 hectares of rural land



(D) Drainage | (R) River



All River and Drainage Scheme Boundaries



1,270km of river channel

1,100km of drain



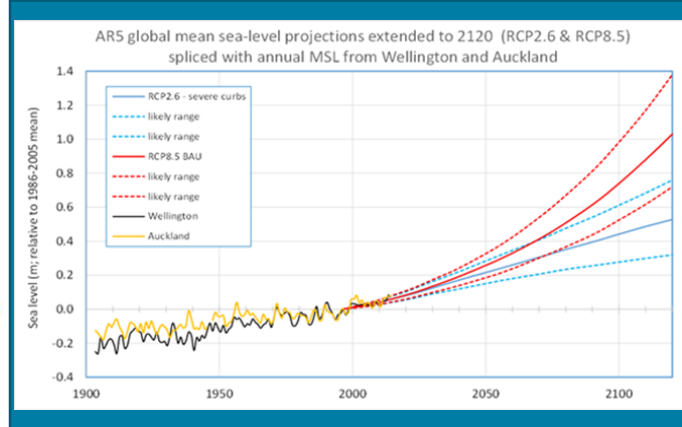
23 pump stations with a total discharge capacity of 43m³/s

53 detention dams that store 4.3 million cubic metres of floodwater



500km of stopbanks





SIGNIFICANT RIVER MANAGEMENT ISSUES FOR THE REGION

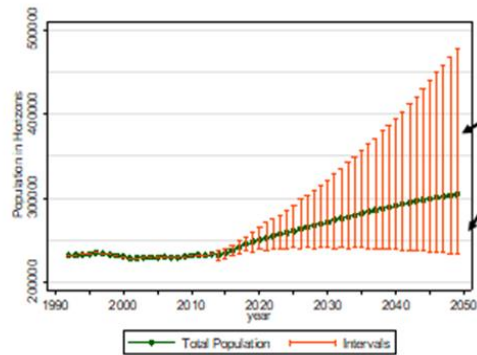
Operational reliability

Sediment build-up reducing flood protection standards

Urban growth

Climate change

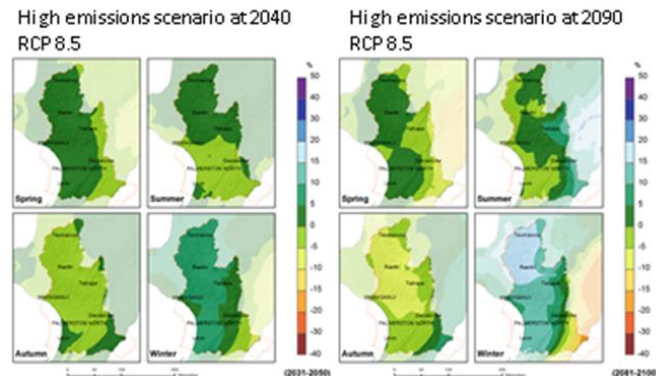
The population within the region is likely to grow to over 300,000 by 2050.



Shows likely upper and lower bounds

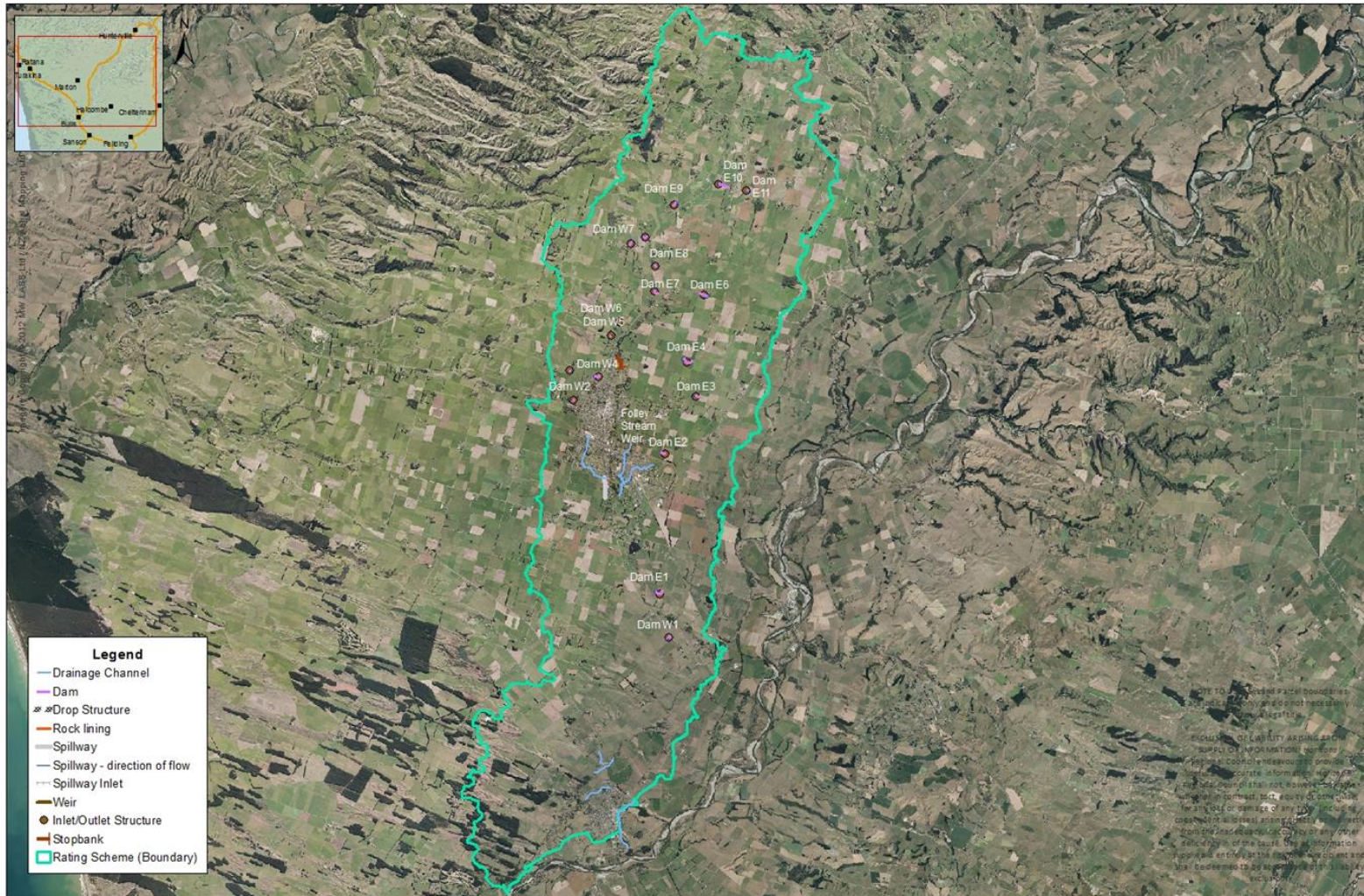
Annual growth for 1995-2015 was almost 0%
For 2015-2048 population projected to grow at an average of 0.9%

Horizons rainfall projections



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Tutaenui Scheme



Scheme Facts

Scheme Assets.

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

Total Asset Replacement Value:
\$1,537,898.23 (July 2017).

Tutaenui Stream Catchment is 13,600ha.

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

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.



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TUTAENUI RIVER 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.



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Scheme Funding

Funding Policy

The Schemes funding comes from three revenue sources:

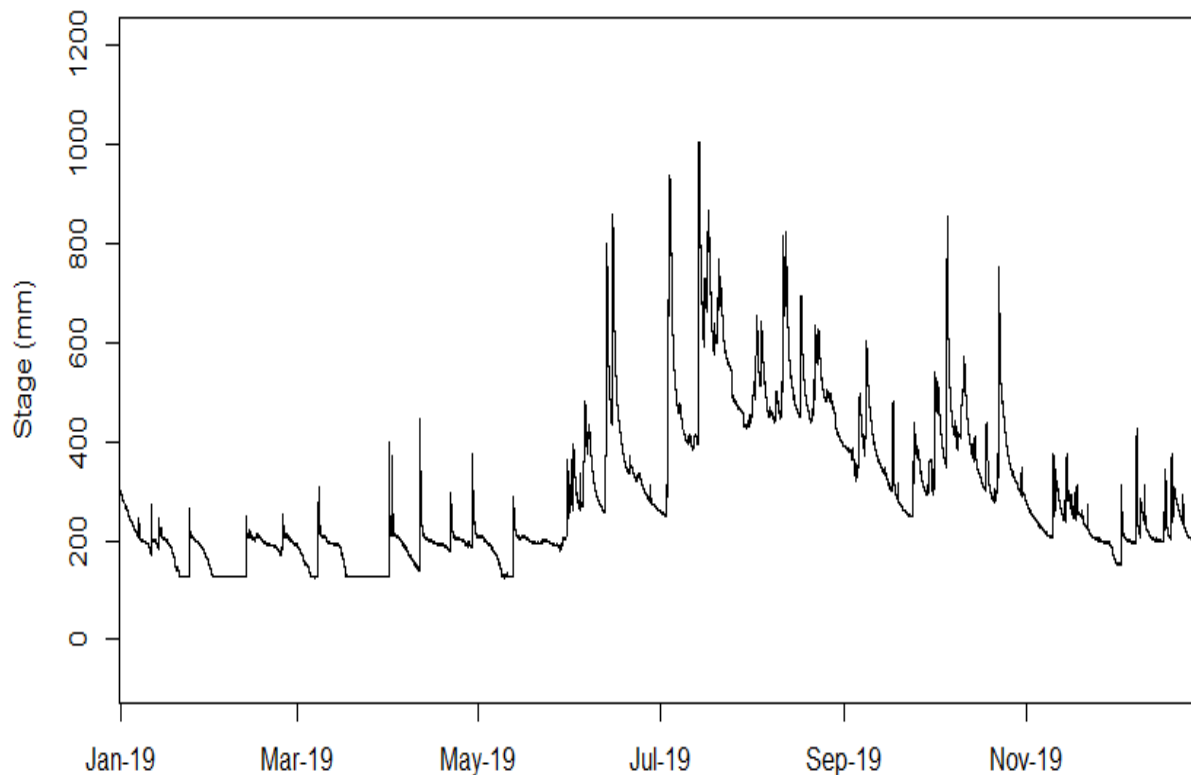
Targeted Rates – differential targeted rates levied on properties directly benefiting from or causing the need for the work.

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

Tutaenui at Hammond Street

Tutaenui at Hammond St



Year	Stage	Flow	Date
2009	1.348	11.625	2009-10-18 09:00:00
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	11.527	2014-10-27 15:25:00
2015	3.920	184.453	2015-06-20 22:25:00
2016	1.322	10.997	2016-08-27 04:25:00
2017	1.599	18.799	2017-10-11 18:50:00
2018	1.368	12.123	2018-06-18 20:40:00
2019	1.003	5.229	2019-07-14 15:50:00

Statistics calculated from the annual year: January 2019 - January 2020

Key Activities and Issues: 2019-20

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

Photos

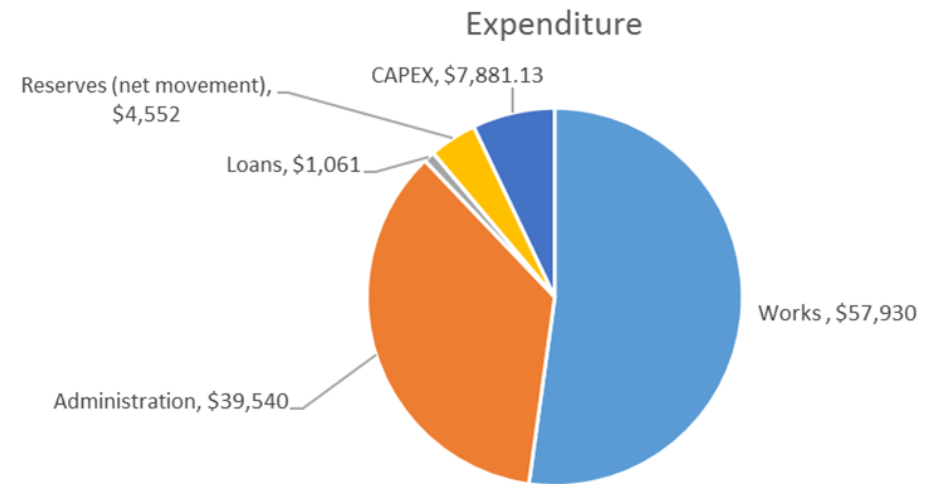
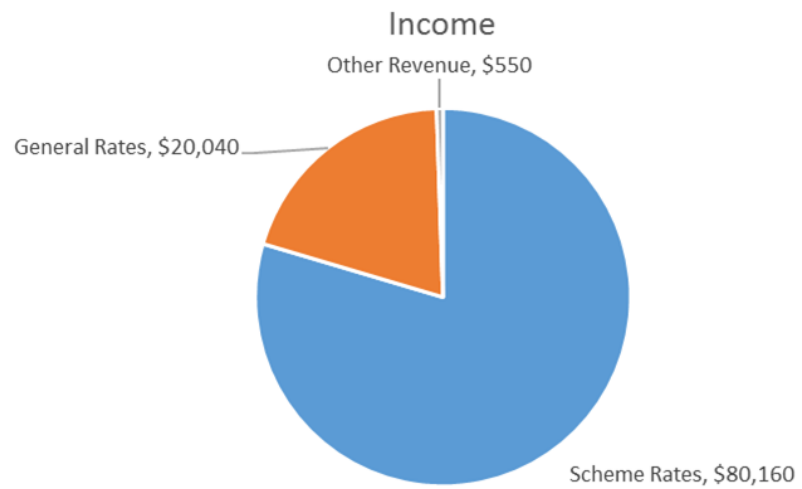


Typical grate clearing operation by our staff



Typical willow planting at a repair site

Income and Expenditure 2019-20



Key Activities and Issues: 2020-21

Scheme Budget

- \$15,057 increase in works expenditure due to staff cost savings and asset renewal
- \$6,869 contribution from the Emergency Reserve Fund
- Scheme Rate change of less than 1%

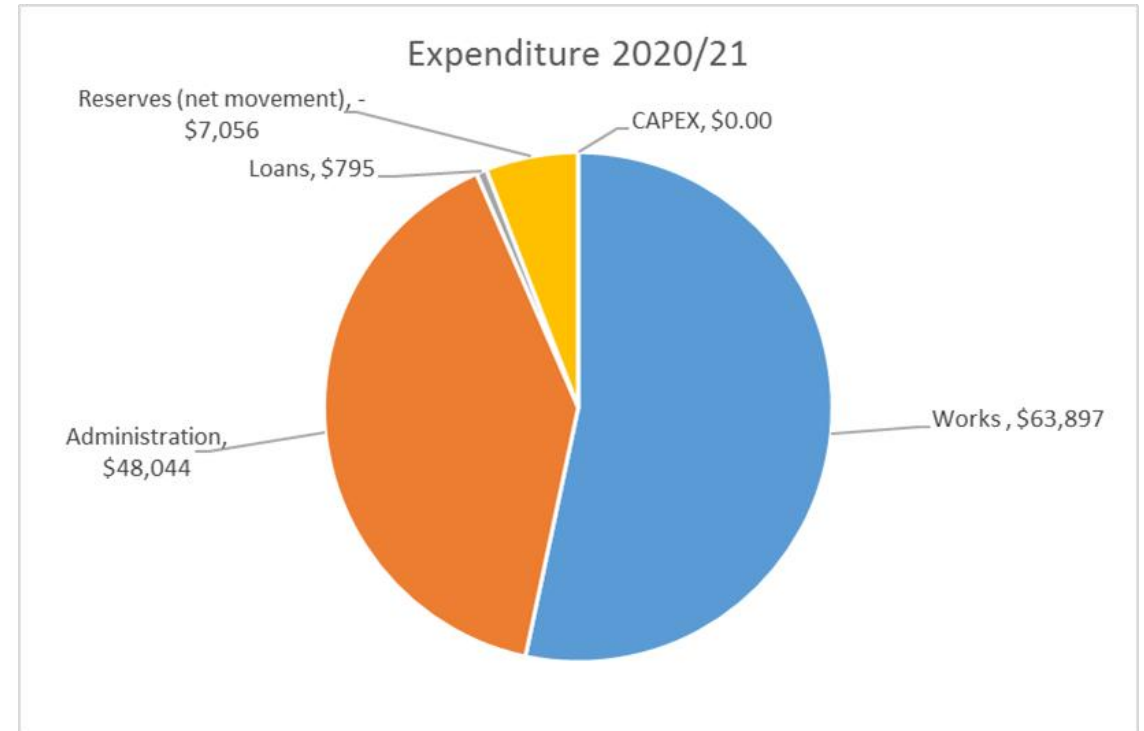
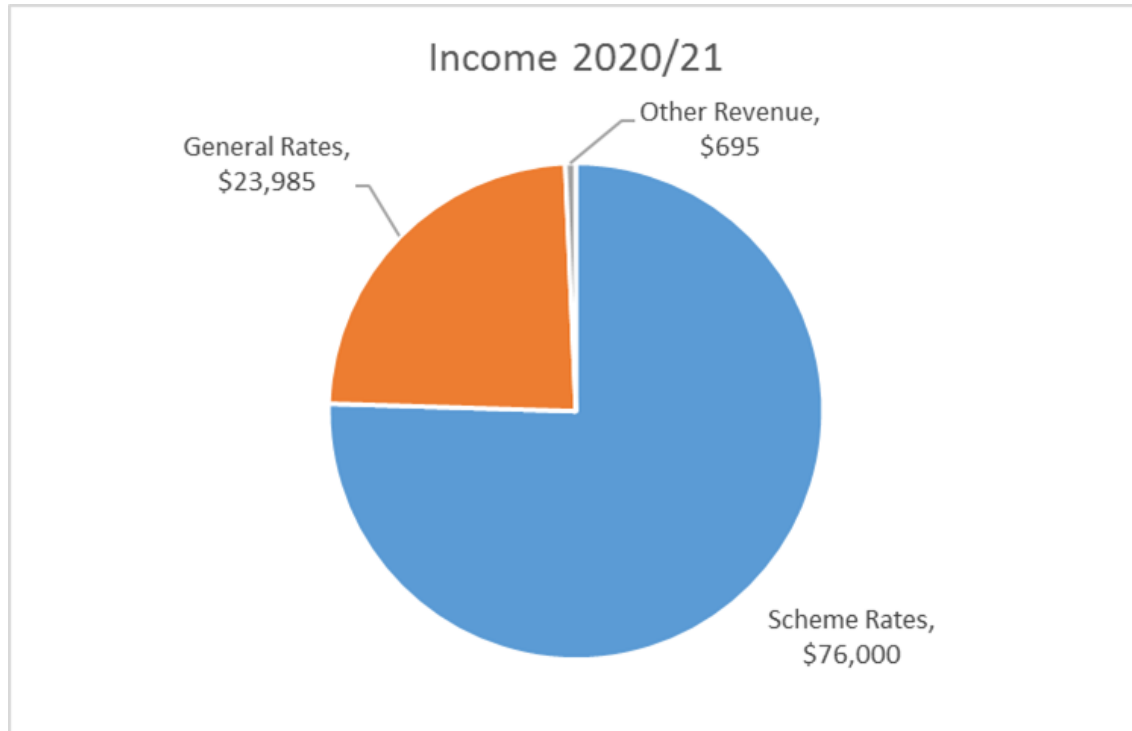
Works Activity

- Continue stream maintenance
- Implement dam safety initiatives for 18 dams
- \$313 for asset renewals
- Flood plain modelling analysis

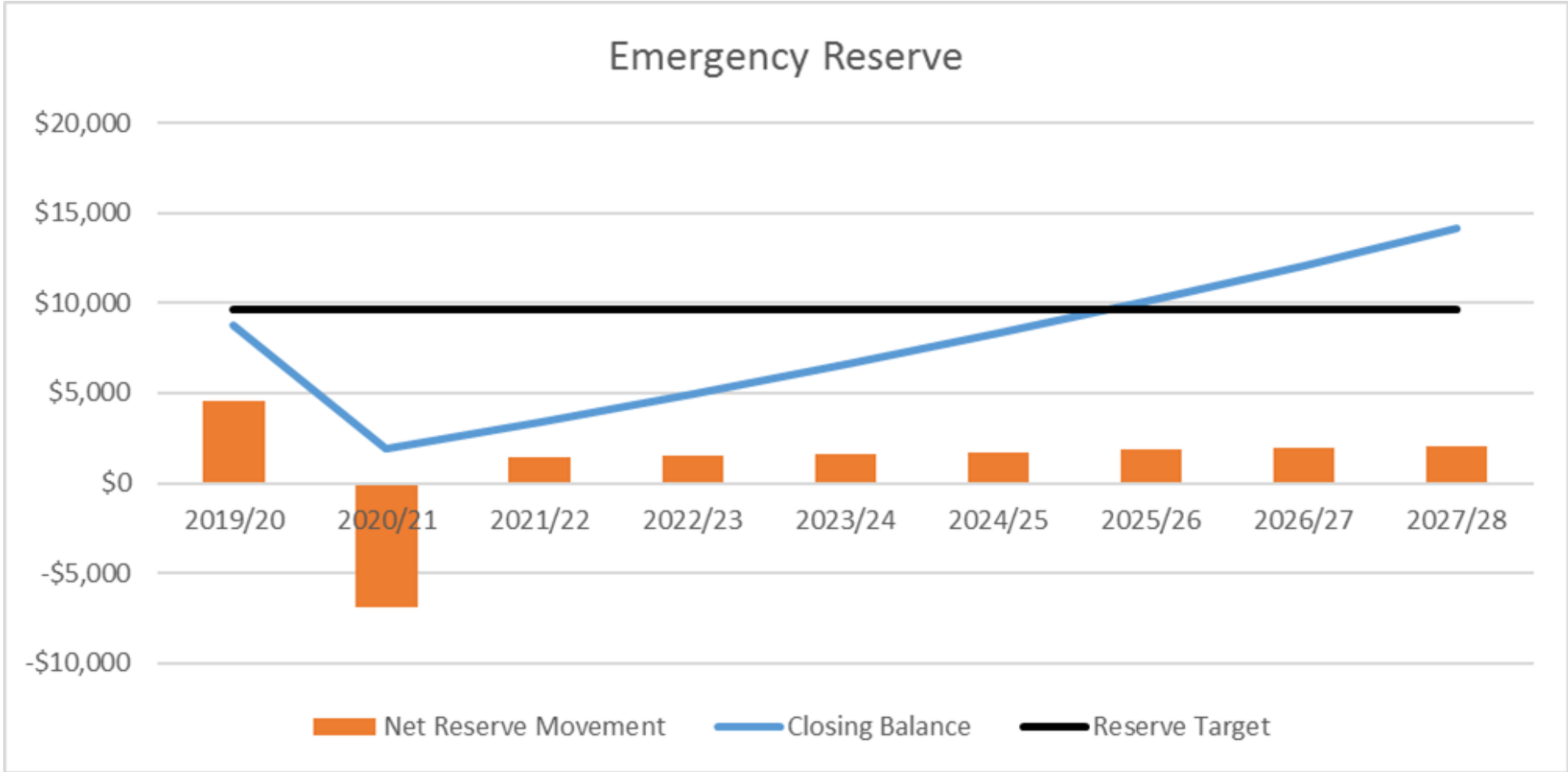
Scheme Review, Audit, and Operation and Maintenance Manual

- Programmed for 2025-26

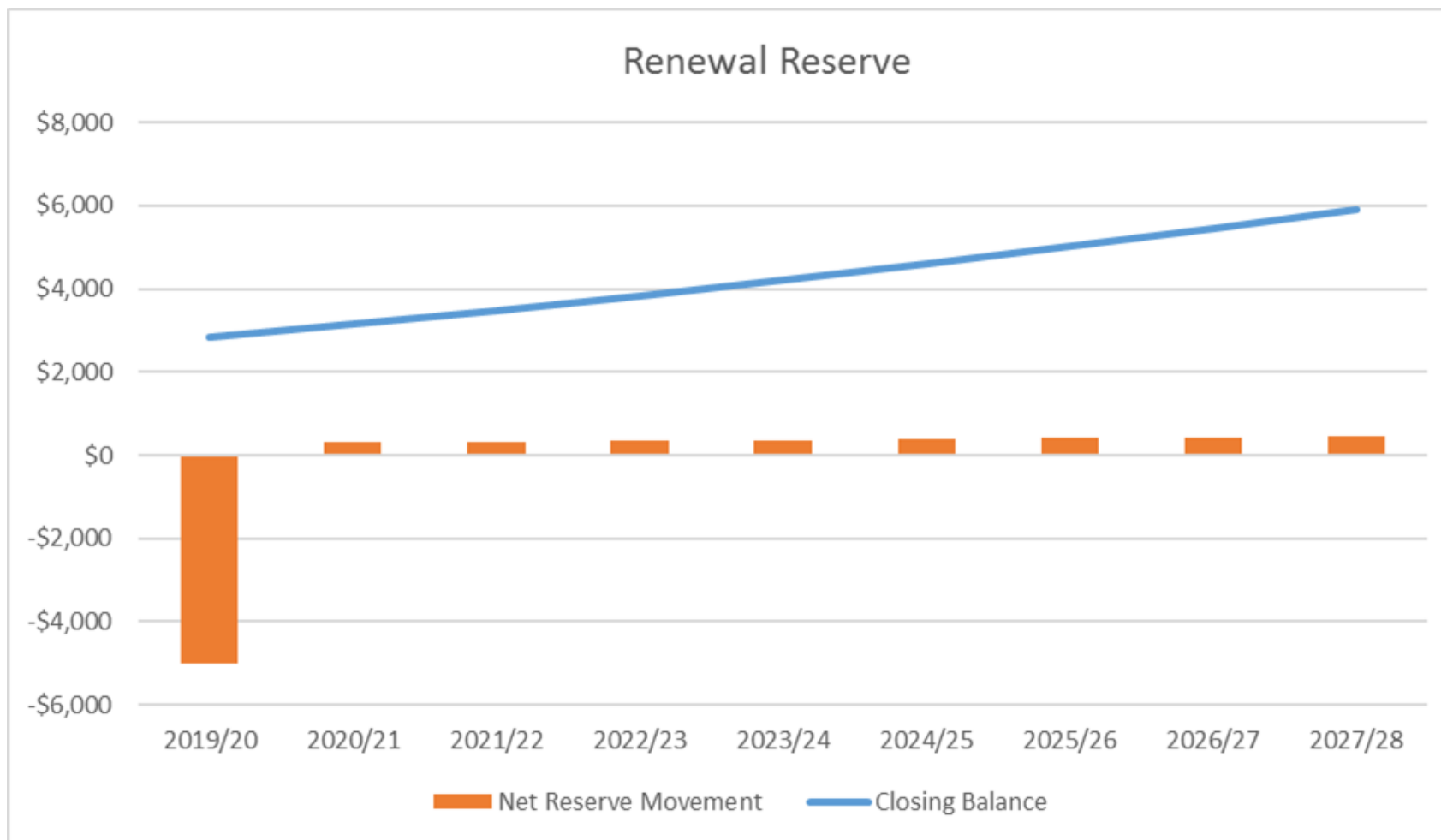
Income and Expenditure: 2020-21



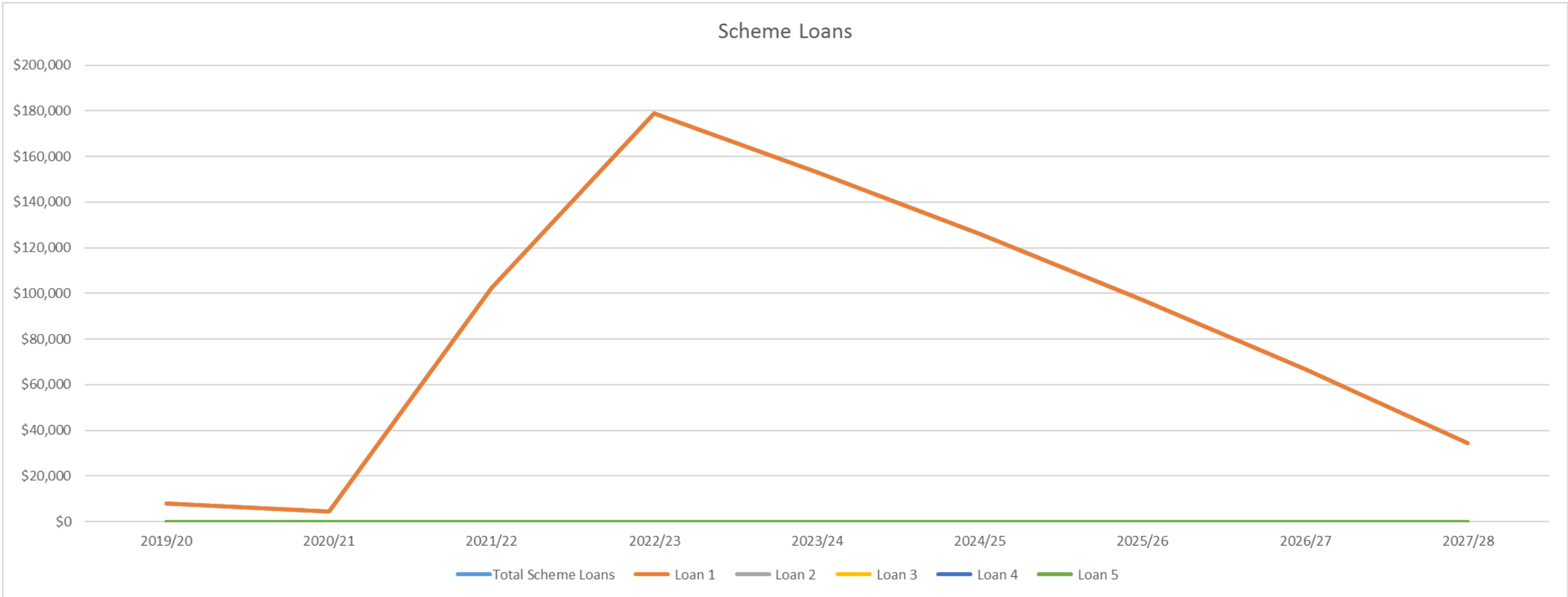
Emergency Reserve Balance



Renewal Reserve Balance



Loan Account Balances



Issues Arising

TUTAENUI SCHEME	
SH3 Bridge at Bulls (Southern side) needs cleaning there are willows in the channel	Being addressed this year
Water Quality of the Tutaenui	Could we include this in the presentation next year Community recorded trout and flounder being caught in the lower reaches of the Tutaenui this year.
Grant Ewens – Gravel extraction & willows on the boundary.	This is being investigated. Is also included in the Rangitikei River gravel study
Review dam safety graphs i.e. what is 'satisfactory'?	Graphs reviewed

The End



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REGIONAL COUNCIL



For more information visit www.horizons.govt.nz
or freephone Horizons on **0508 800 800**