



**2019-2020
RIVER MANAGEMENT ACTIVITY GROUP**

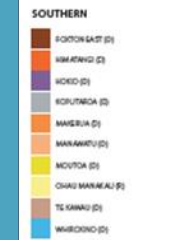
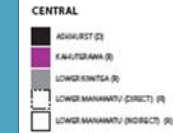
POHANGINA-OROUA SCHEME MEETING

HORIZONS RIVER MANAGEMENT

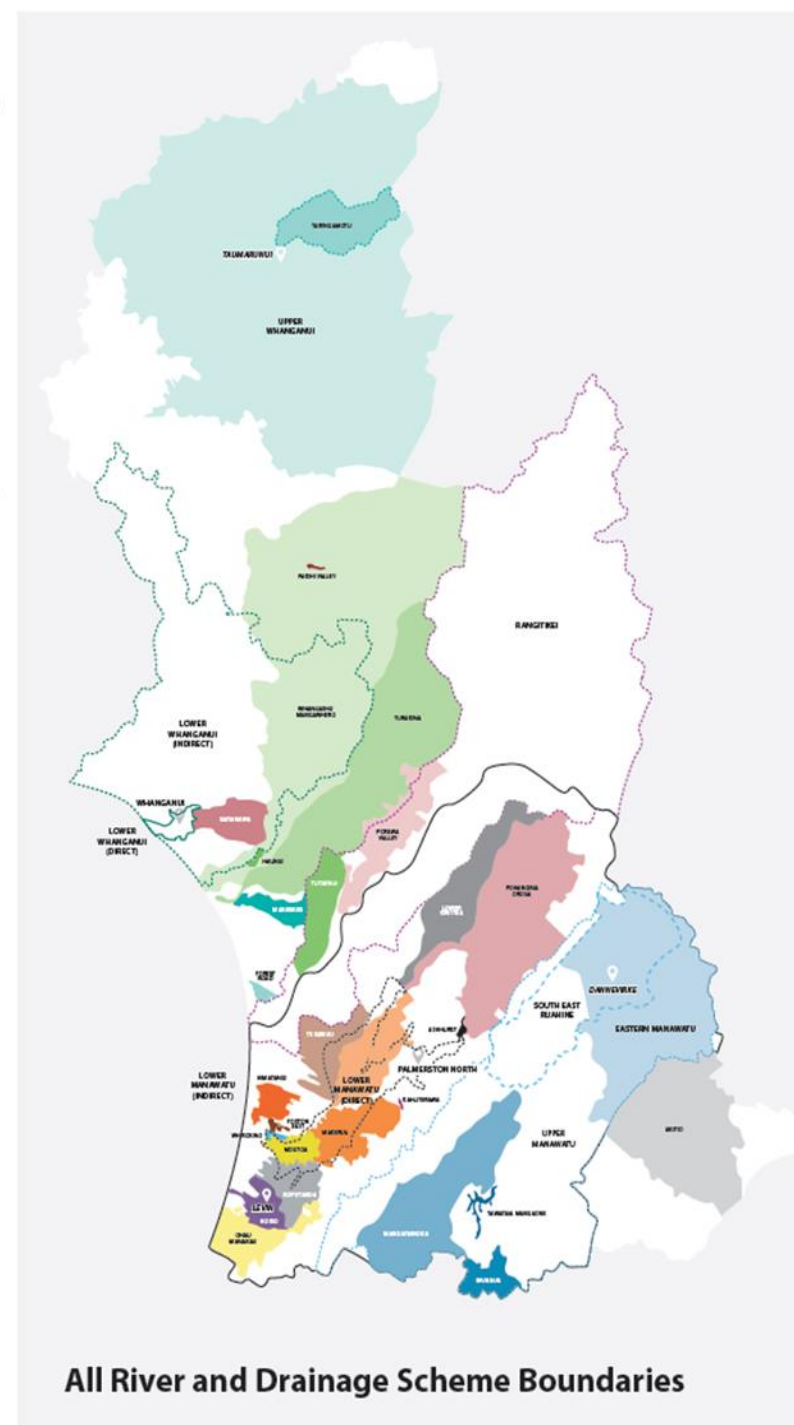
32 staff with a current operating budget of \$11M

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

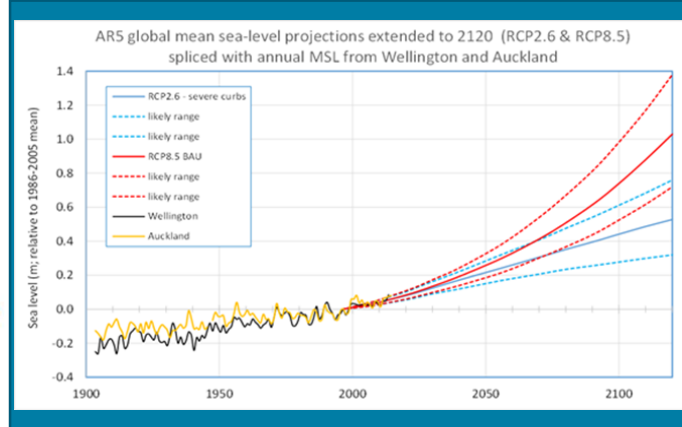


53 detention dams that store 4.3 million cubic metres of floodwater



500km of stopbanks





SIGNIFICANT RIVER MANAGEMENT ISSUES FOR THE REGION

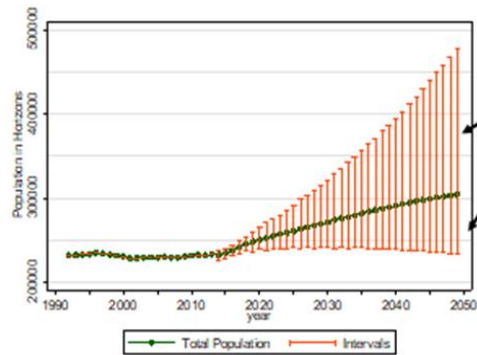
Operational reliability

Sediment build-up reducing flood protection standards

Urban growth

Climate change

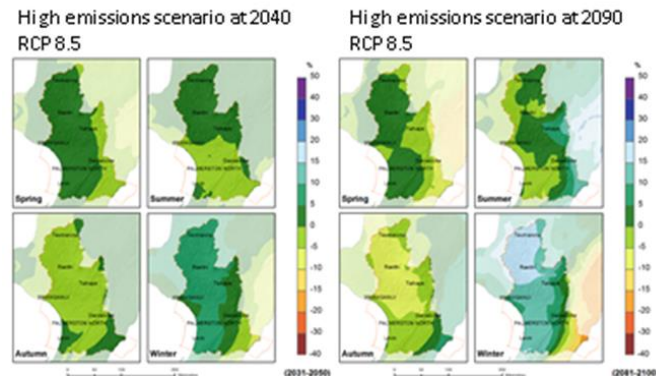
The population within the region is likely to grow to over 300,000 by 2050.



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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Pohangina-Oroua Scheme

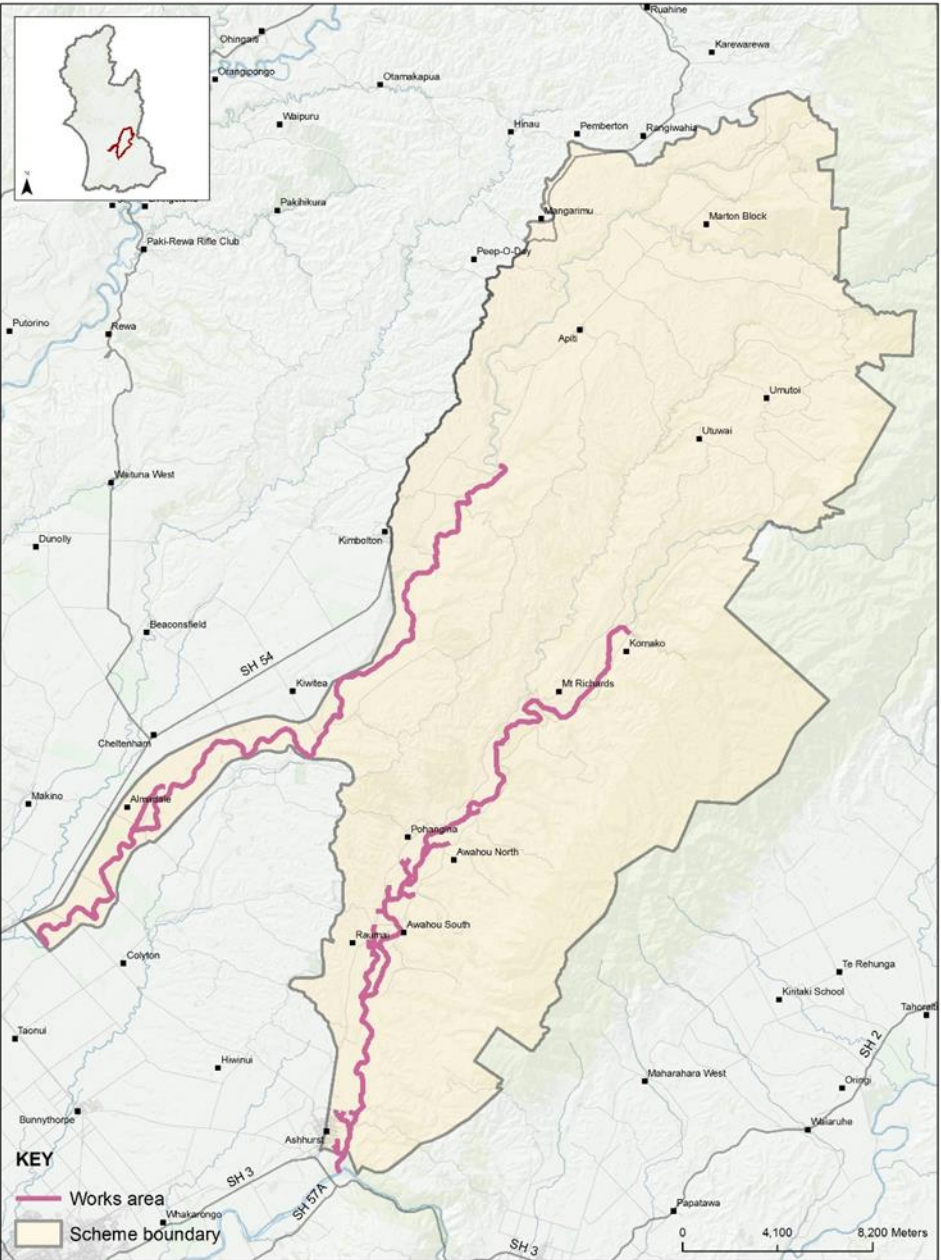
Scheme Facts

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: \$5,921,531.18 (July 2017).

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.

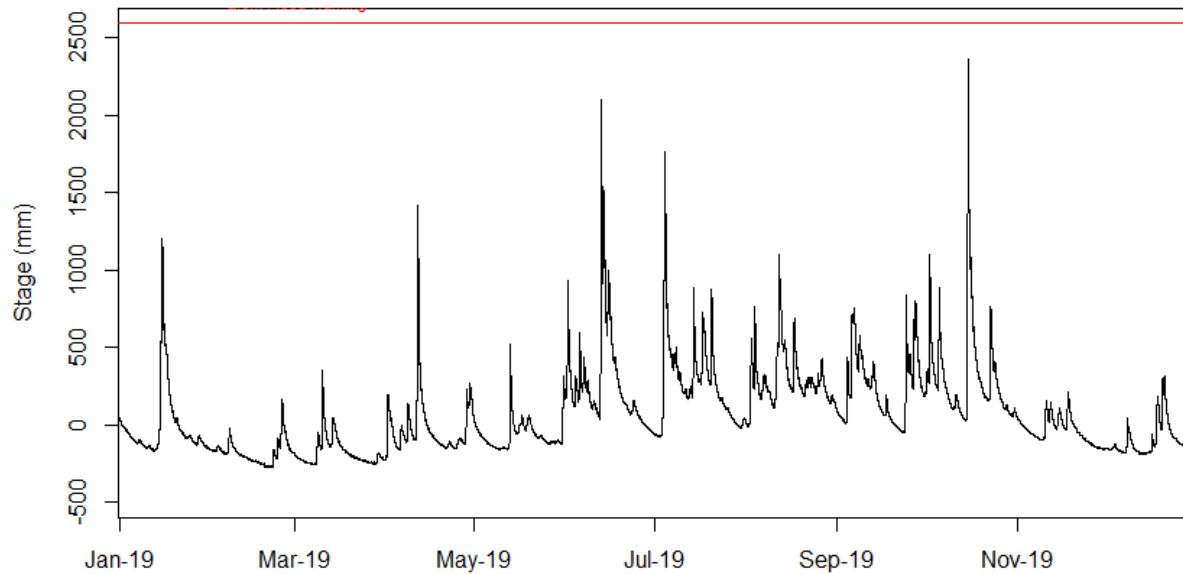
General Rates – uniformed rate levied over all properties in the Horizons Region.

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

Annual maximum stage for the past decade

Pohangina at Mais Reach

Pohangina at Mais Reach



Year	Stage	Flow	Date
2009	2.454	246.899	2009-06-29 01:35:00
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	2.367	249.252	2019-10-15 21:15:00

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



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Oroua at Almadale Slackline

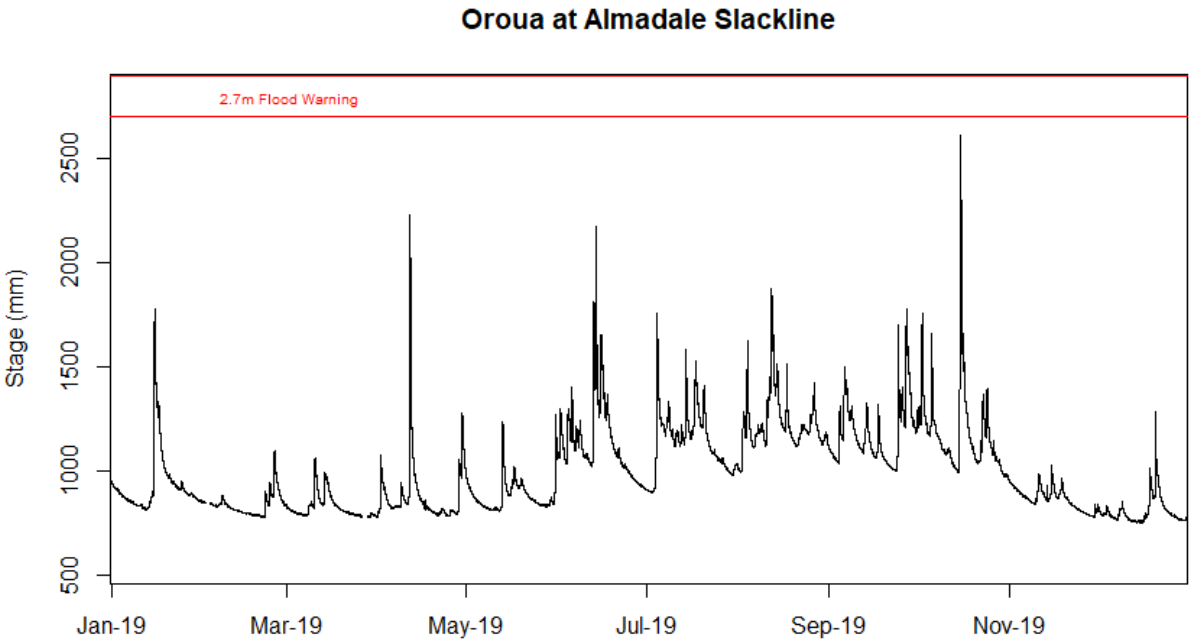


Table 4 : Annual maximum stage for the past decade

Year	Stage	Flow	Date
2009	2.655	86.842	2009-07-24 08:15:00
2010	3.542	217.138	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	385.439	2018-06-12 22:35:00
2019	2.612	131.559	2019-10-16 03:30:00

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

Willow pole planting approx. 19,500

Tree bank protection and rope and rail groyne work at 15 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



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Photos



26 Tonne Komatsu Bulldozer on the Pohangina clearing the beaches



Clearing the large volumes of debris removed from the active channel



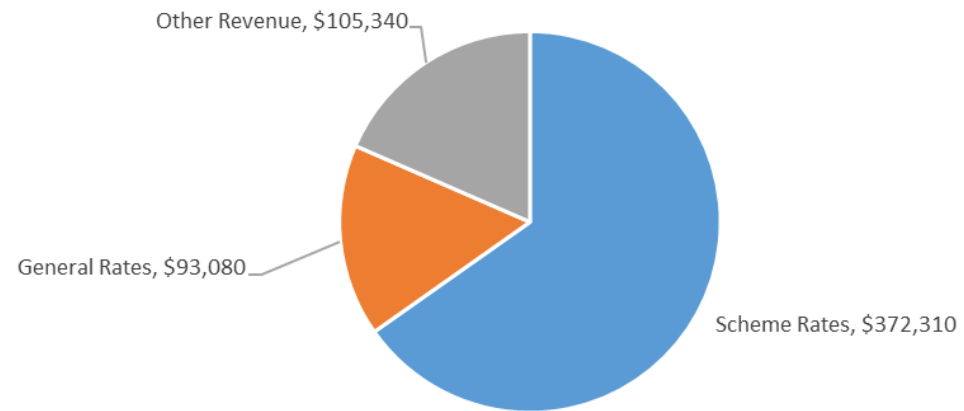
Beach clearing machine with 750mm deep rippers



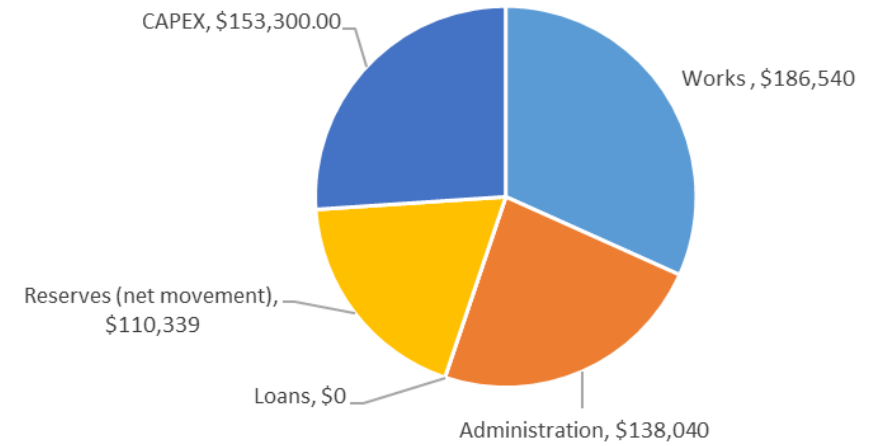
Results of beach raking on the Pohangina River at Leamy's

Income and Expenditure 2019-20

Income



Expenditure



Key Activities and Issues: 2020-21

Scheme Budget

- No increase in budgeted works expenditure
- \$112,211 contribution to the Emergency Reserve Fund
- Change in subsidized works from 60/40 to 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

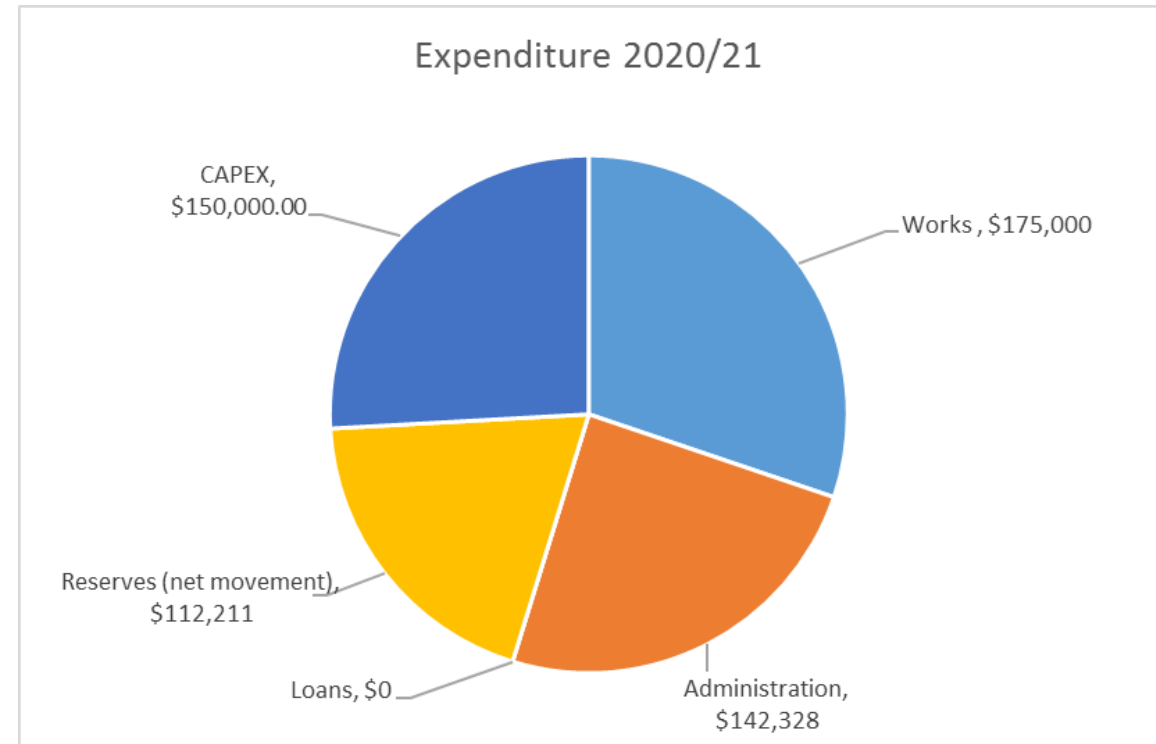
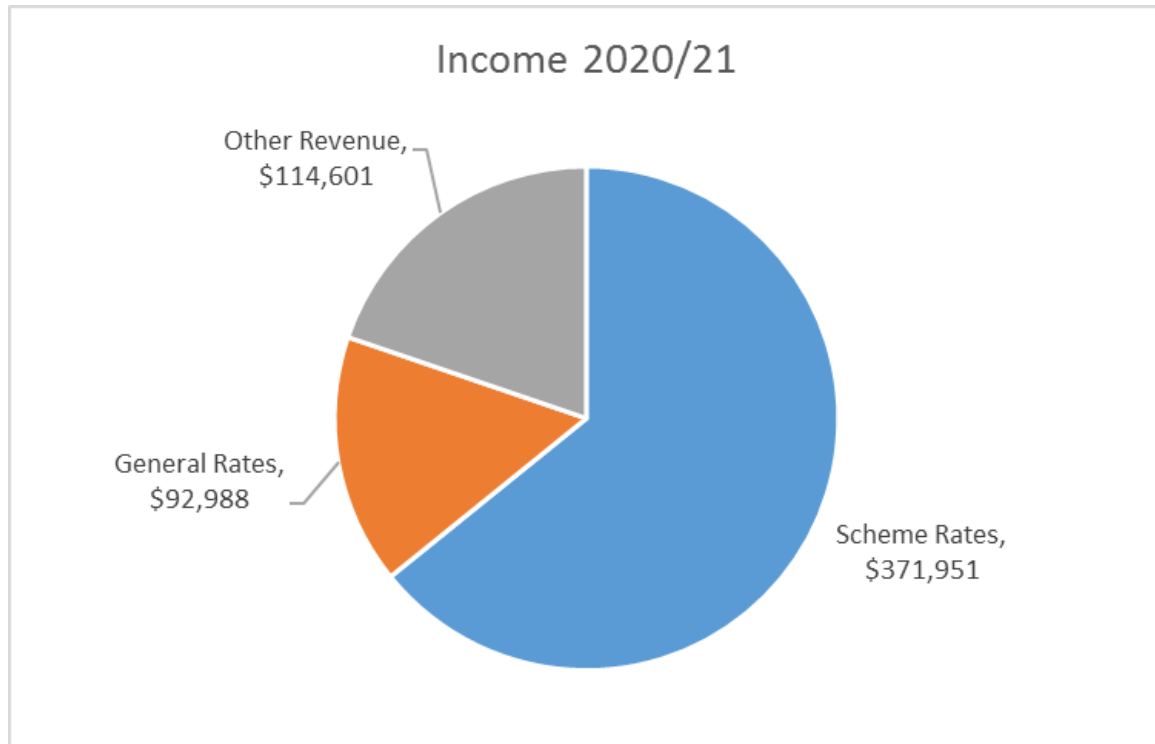
- Management of gravel resources with approved resource consent conditions

Scheme Review

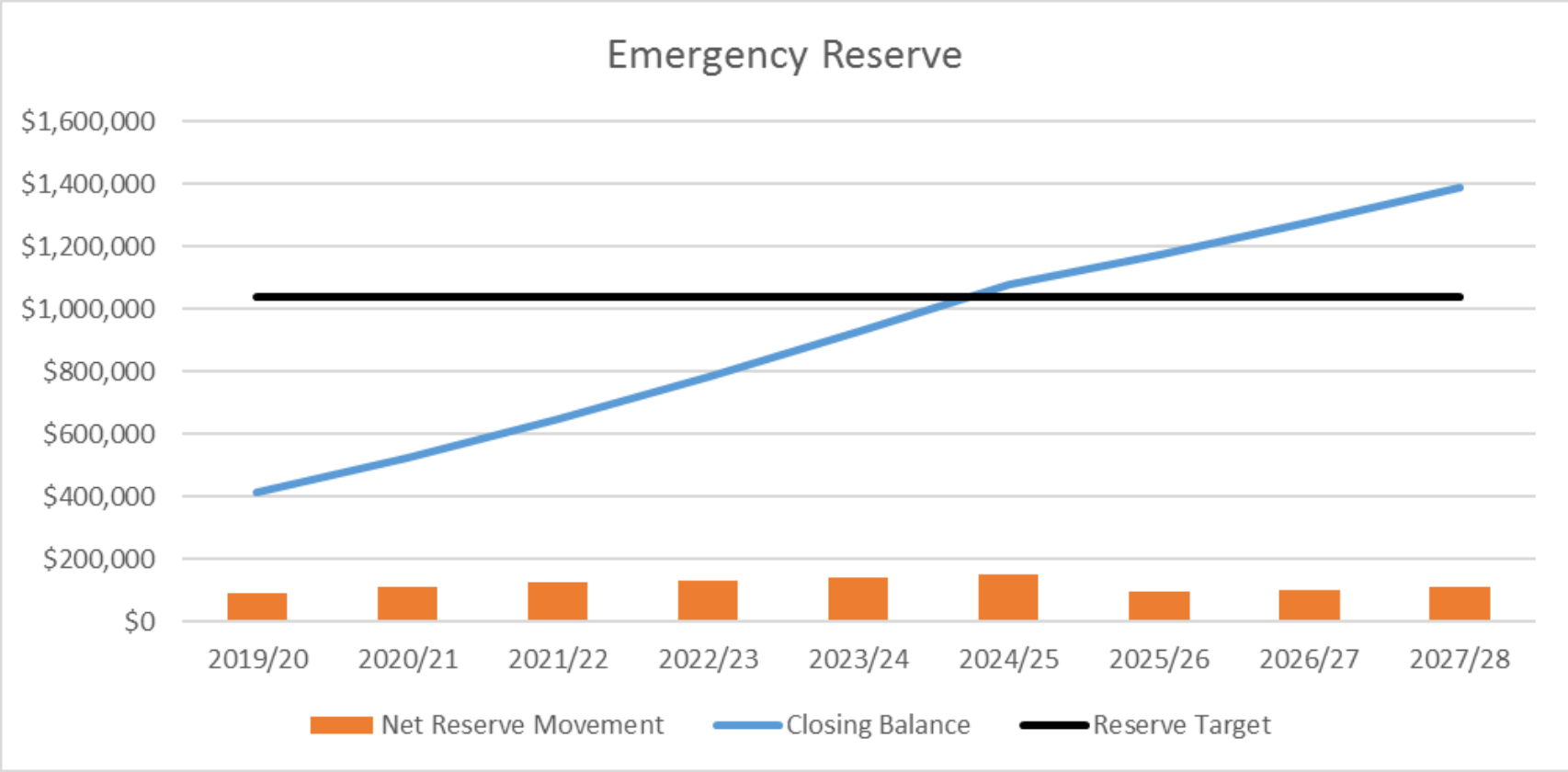
- Audit and Operation and Maintenance Manual programmed for 2023-24.



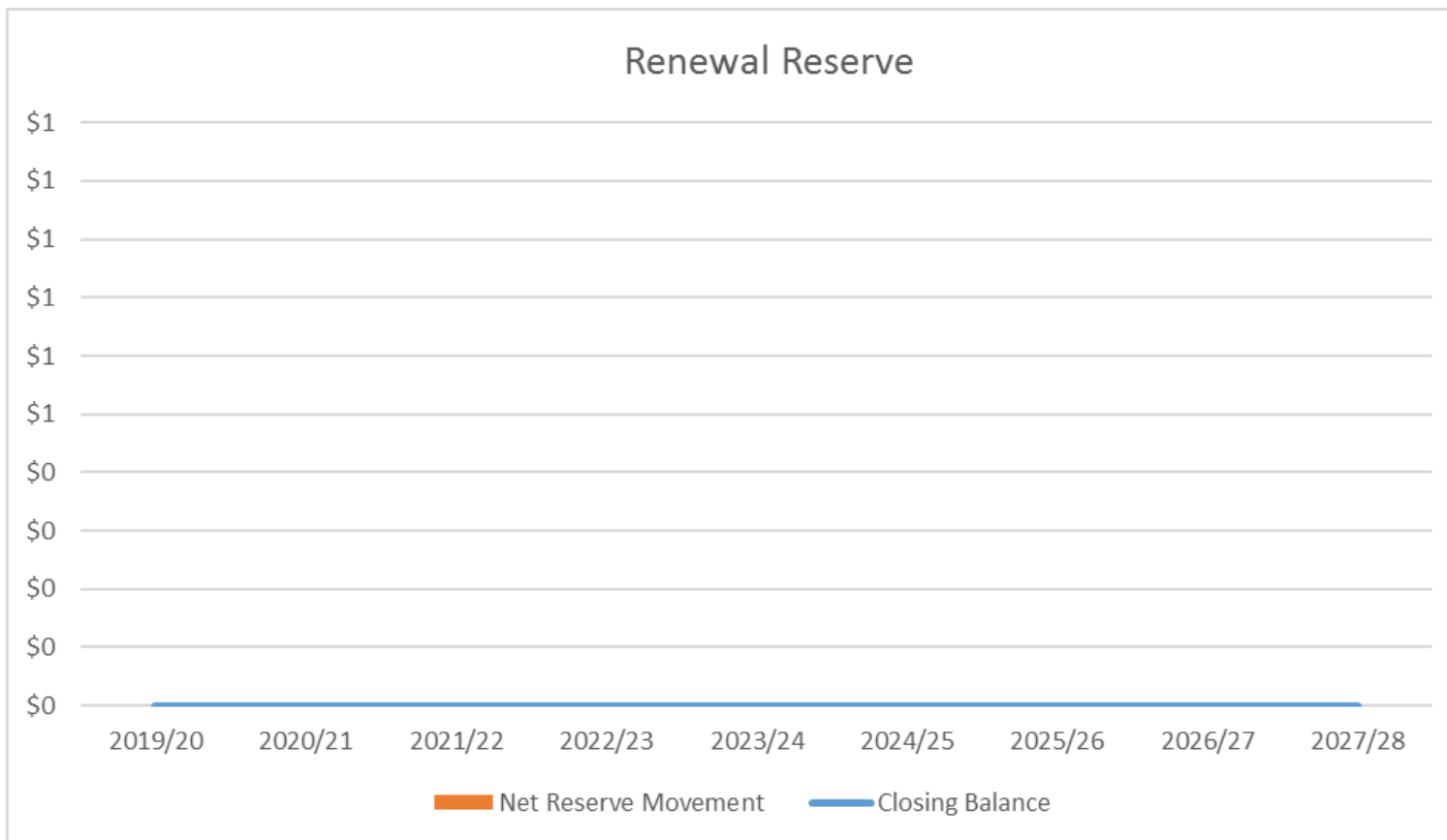
Income and Expenditure: 2020-21



Emergency Reserve Balance



Renewal Reserve Balance



Loan Account Balances

No Loans



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Issues Arising

No issues



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REGIONAL COUNCIL



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or freephone Horizons on **0508 800 800**