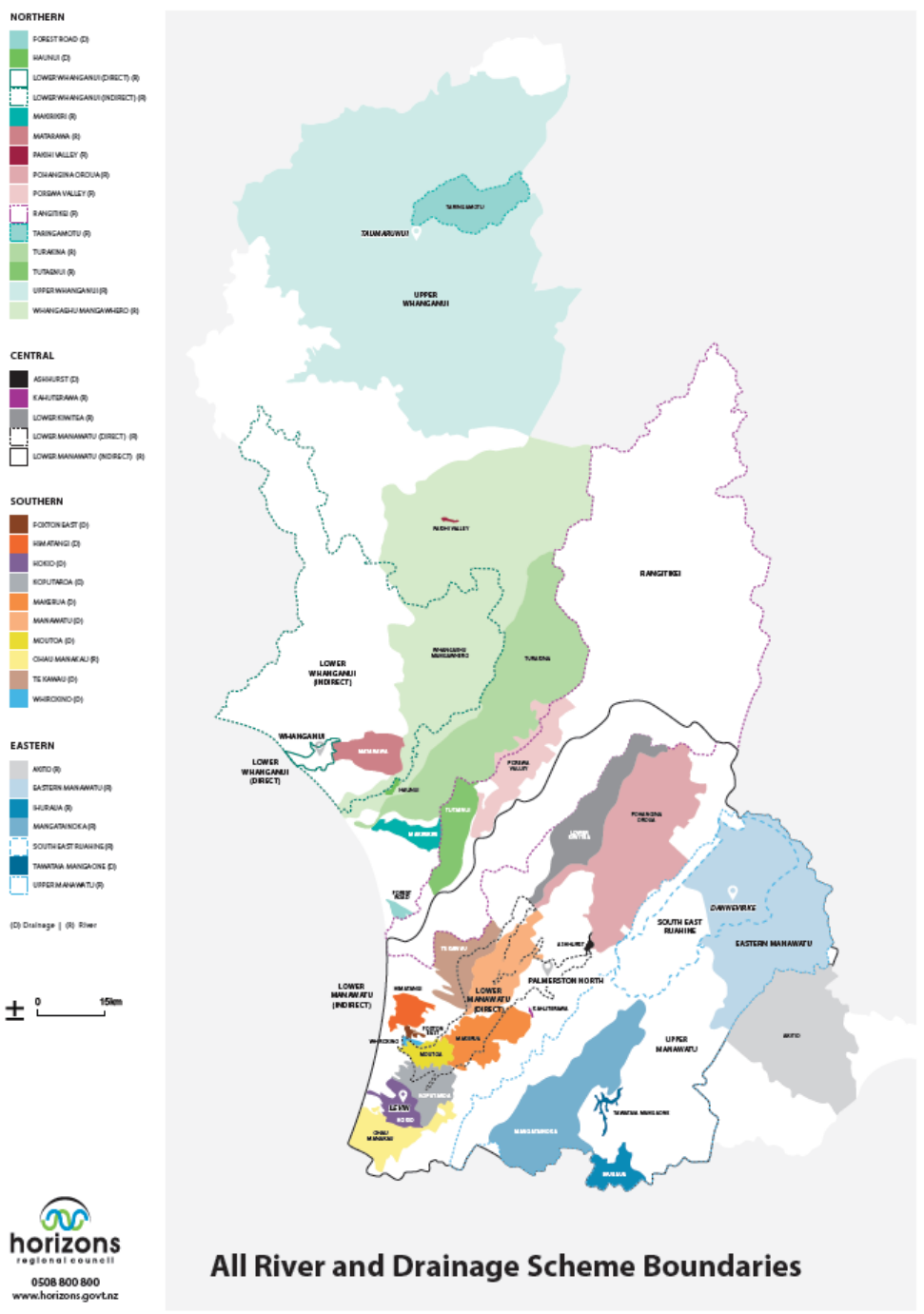




2020-2021 Annual Plan Consultation
River Management Activity Group
KOPUTAROA DRAINAGE SCHEME

Horizons River Management

- 32 staff with a current operating budget of \$11.8M
- 34 River and drainage schemes
- Providing protection/benefit to 10 urban areas and 75,000 hectares of rural land





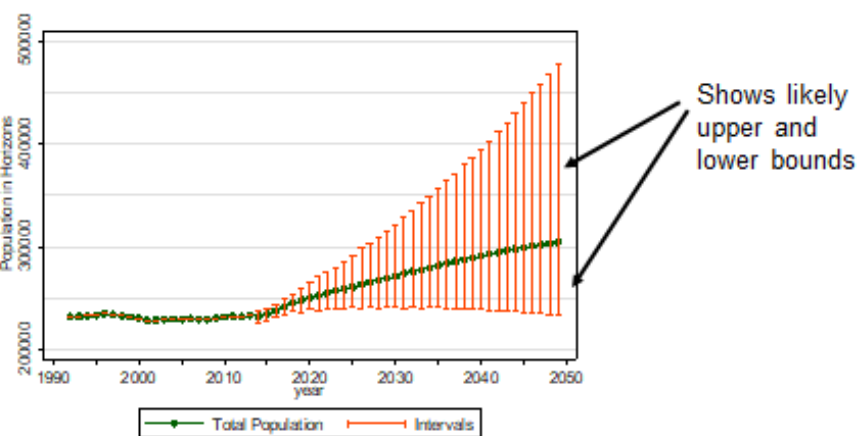
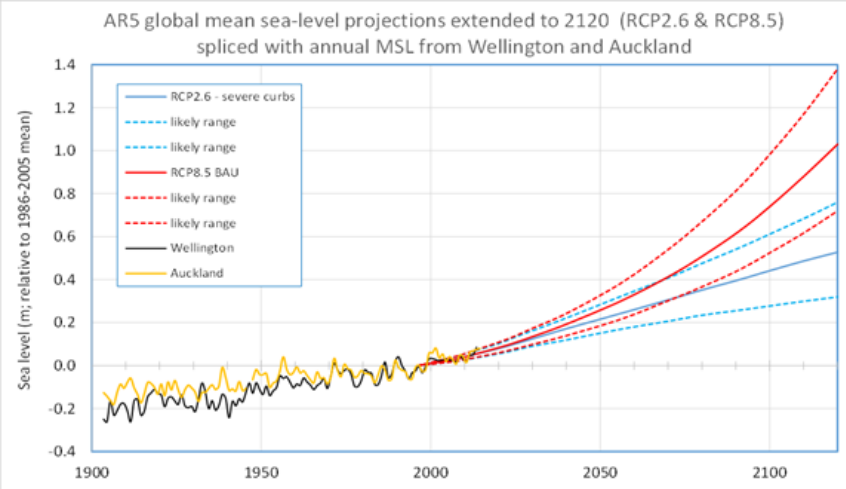
- 1,270km of river channel
- 1,100km of drain
- 23 pump stations with a total discharge capacity of 43m³/s
- 53 detention dams that store 4.3 million cubic metres of floodwater
- 500km of stopbanks



Significant river management issues for the Region

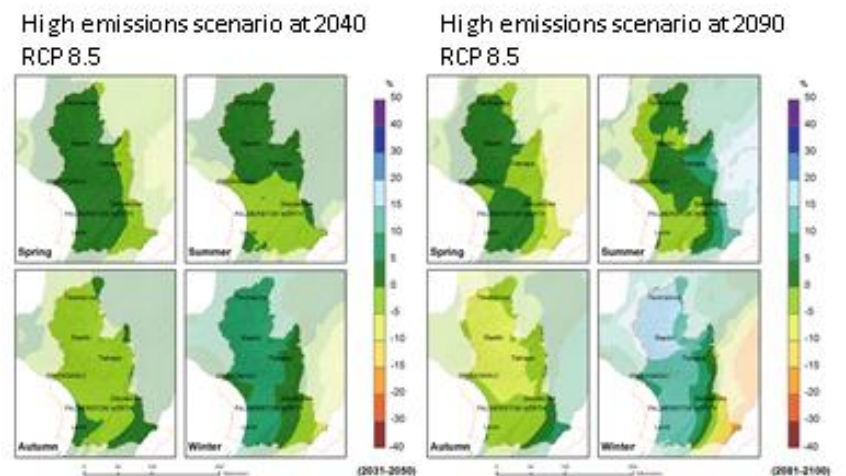
- Operational reliability
- Sediment build-up reducing flood protection standards
- Urban growth
- Climate change

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

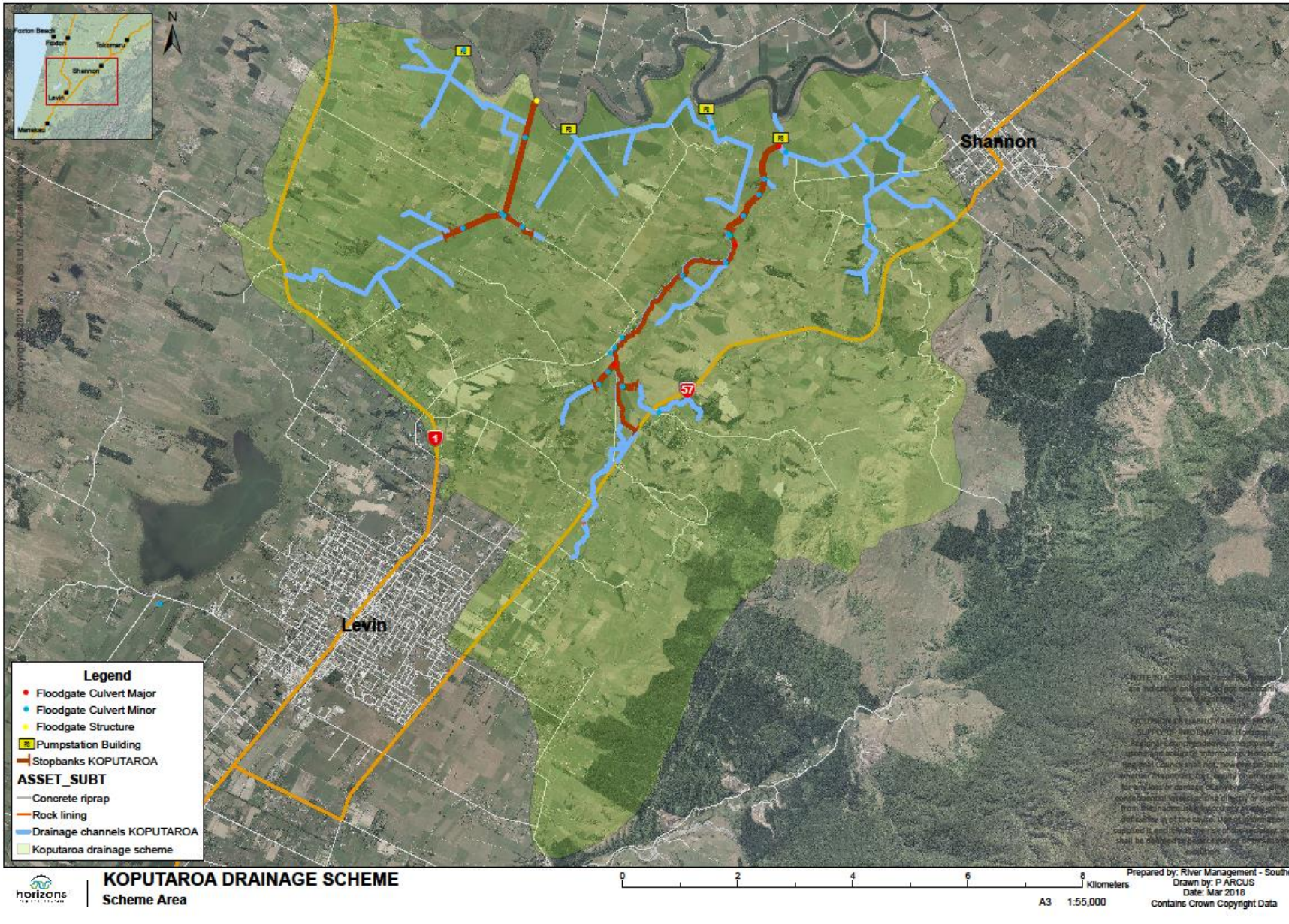


Annual growth for 1995-2015 was almost 0%
 For 2015-2048 population projected to grow at an average of 0.9%

Horizons rainfall projections



Koputaroa Drainage Scheme



Scheme Facts

- Scheme Assets.
 - 39 floodgated culverts
 - 52 km of drainage channels
 - 4 Pump station
 - 16 km Stopbanks
- Total Asset Value: \$8,910,053.
- Scheme Area 9,940ha.
- Predominantly servicing dairy, horticultural land and an increasing number of lifestyle blocks.

KOPUTAROA DRAINAGE SCHEME

Strategic Direction

With a comprehensive review of the scheme currently underway this will ultimately guide the strategic direction of the scheme going forward.

Aim

Maintain the existing network of drainage channels and flood protection and review the remaining life of the scheme major assets.

Scheme Design Criteria

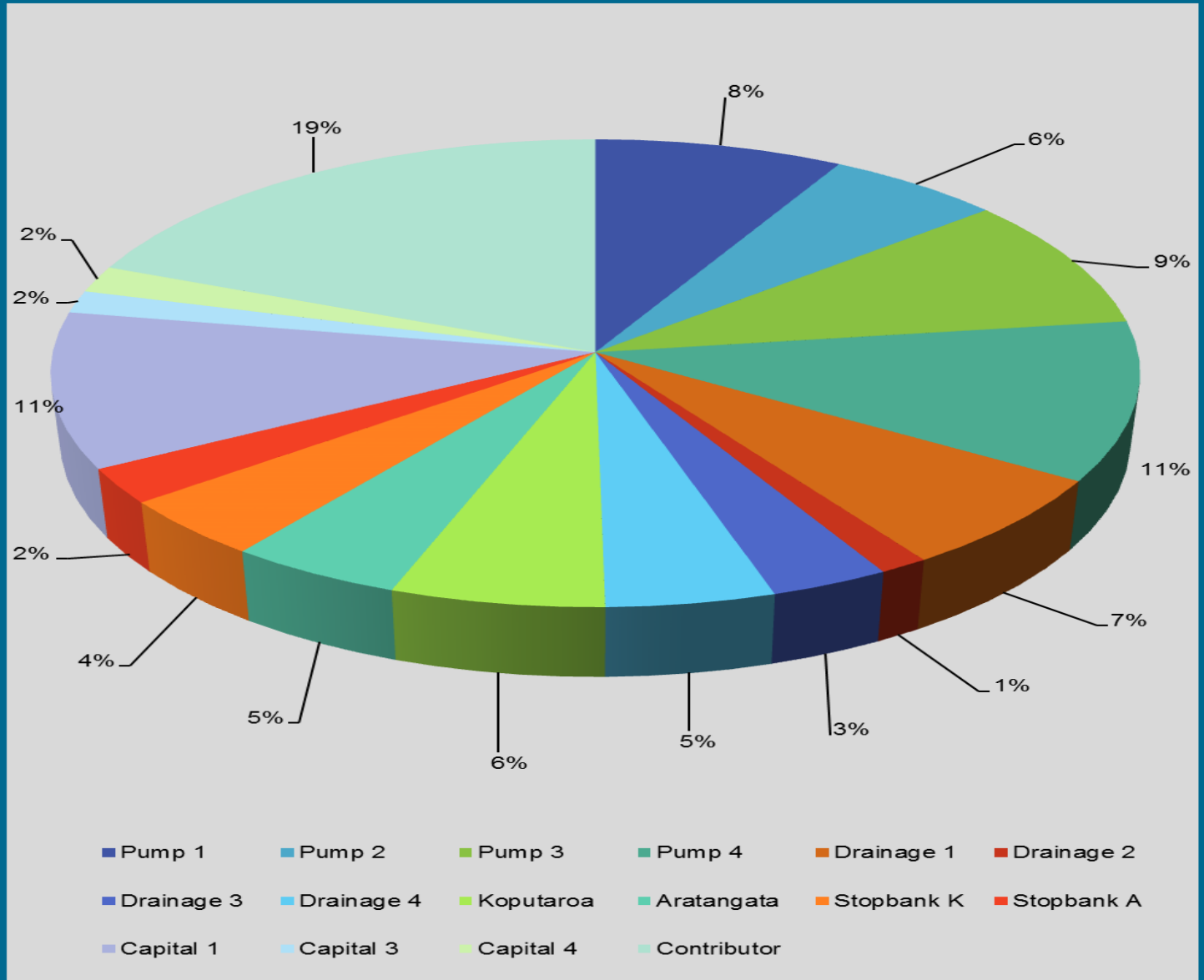
- Drainage Channels:
 - Design is based on a 3-5 year rainfall event.
 - Drain full drainage coefficient of 25mm/day.
- Culverts:
 - Designed based on drain full plus 30%.
 - Designed for a 50mm head loss over the culvert.

KOPUTAROA DRAINAGE SCHEME

Scheme Design Criteria Continued

- Stopbanks:
 - Below the Railway Design RL = 5.58 with LB 200mm below design and RB 50mm below design. Estimated 30 year protection standard.
- Pumping
 - Pumping Co-efficient:
 - Pump 1 = 14.4mm/ha/day
 - Pump 2 = 12.5mm/ha/day
 - Pump 3 = 12.3mm/ha/day
 - Pump 4 = 12.9mm/ha/day

Scheme Funding



Funding Policy

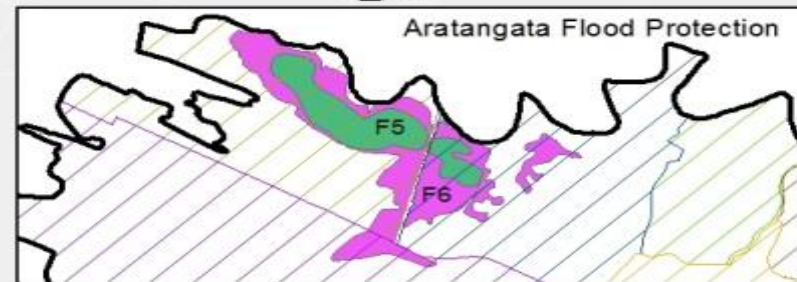
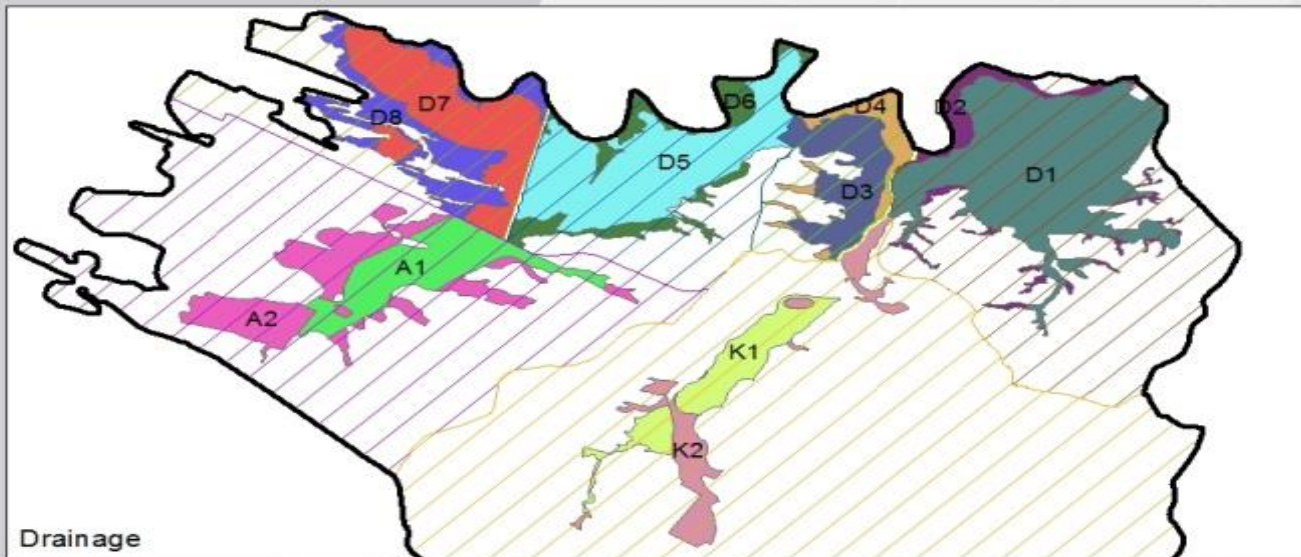
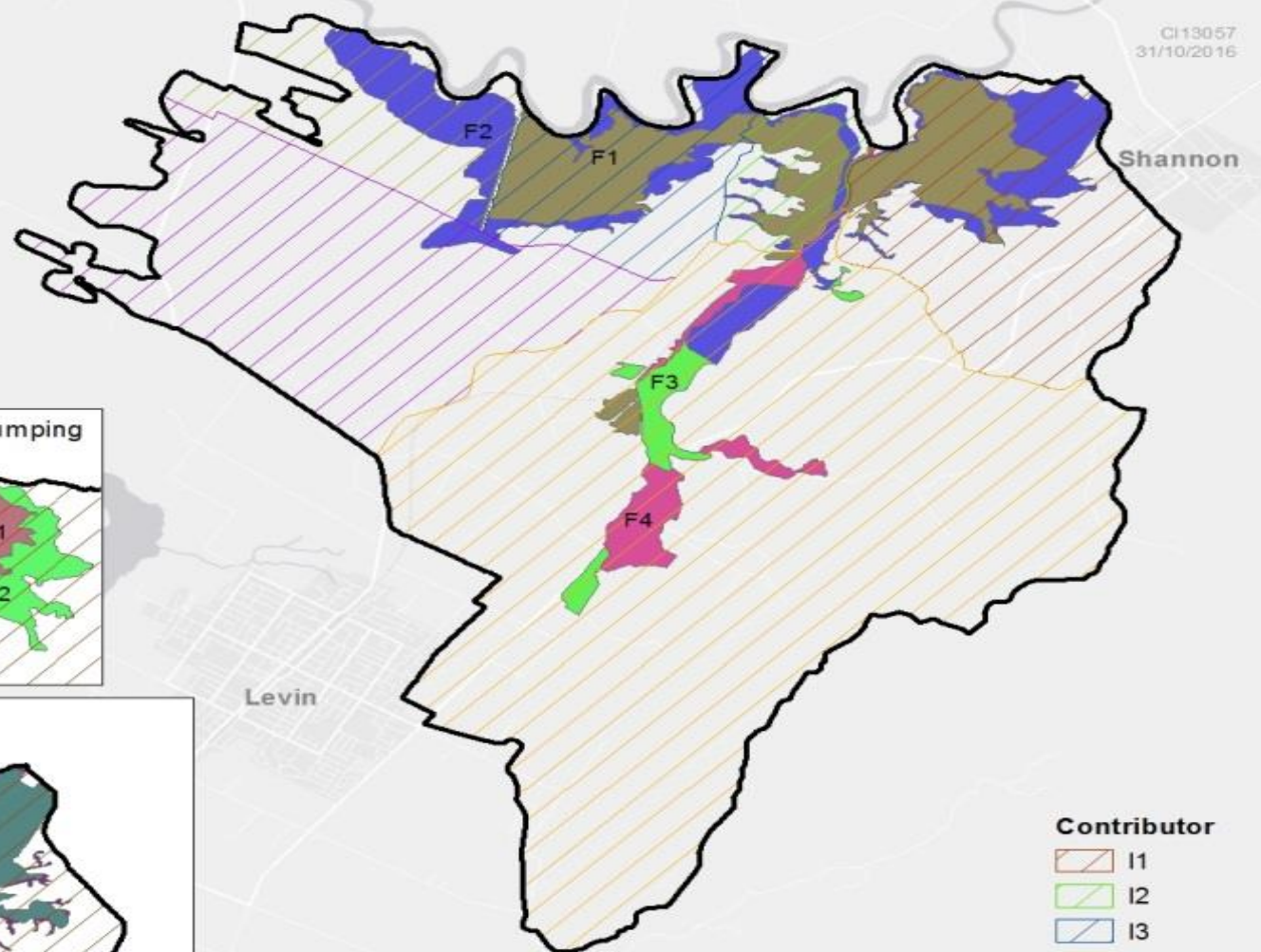
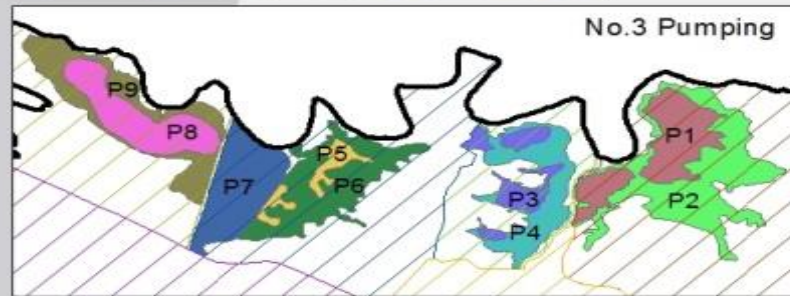
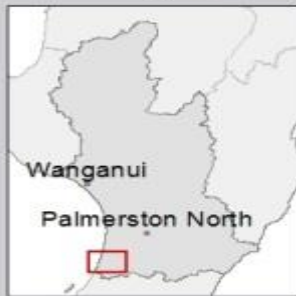
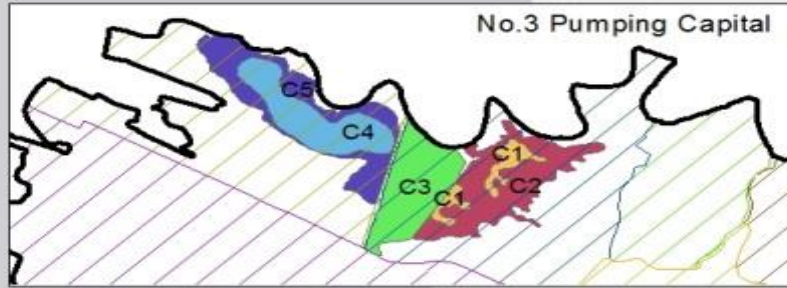
The Schemes funding comes from three revenue sources:

- Targeted Rates – differential targeted rates levied on properties directly benefiting from or causing the need for the work. 80% of scheme cost.
- General Rates – uniformed rate levied over all properties in the Horizons Region. 20% of the scheme cost.
- 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

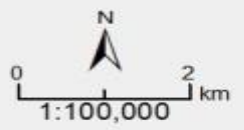
Koputaroa

Scheme Presentation Map

CI13057
31/10/2016



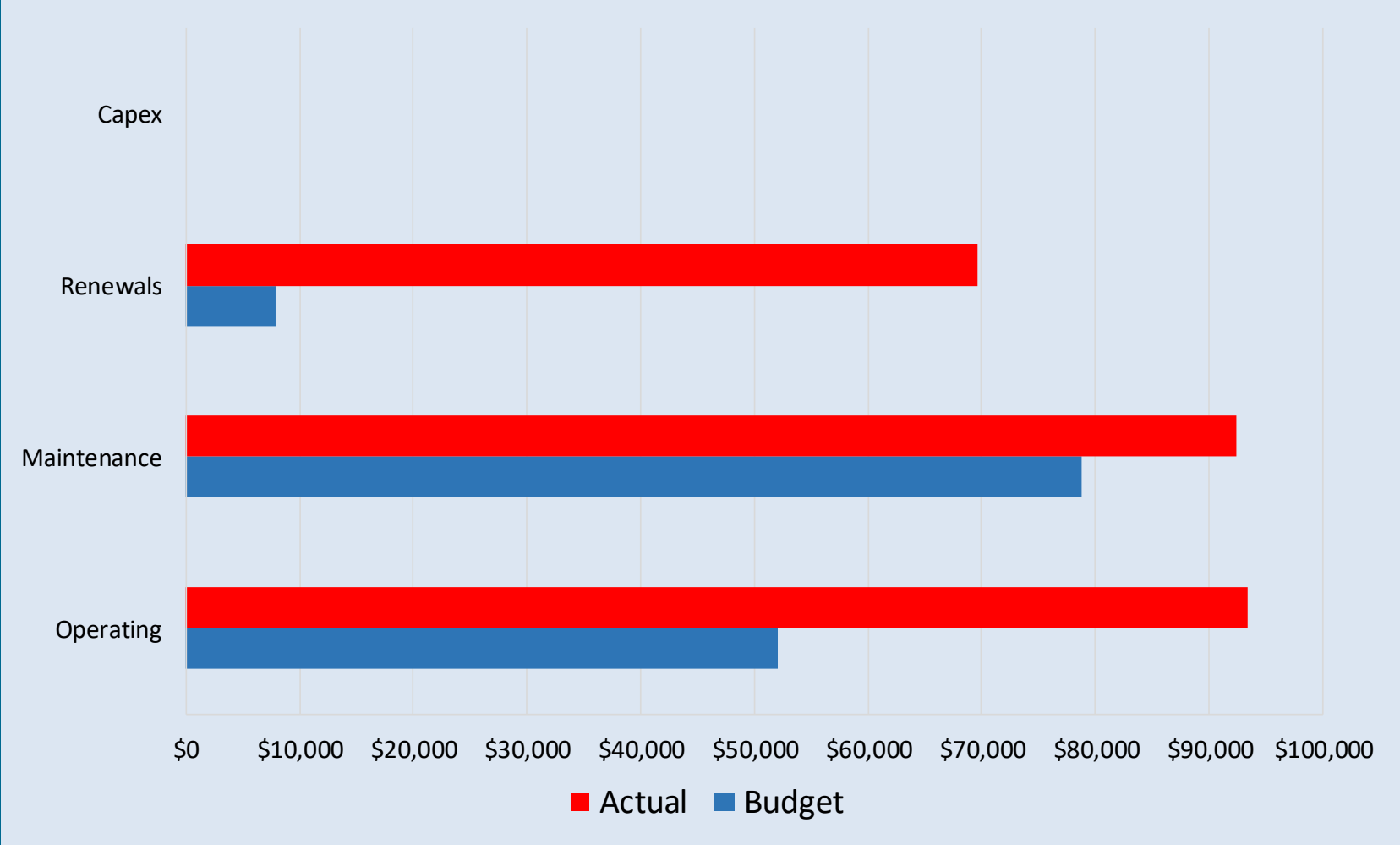
- Contributor**
- I1
 - I2
 - I3
 - I4
 - IA
 - IK
- Indirect**
- IN



Key Activities and Issues: 2019-20

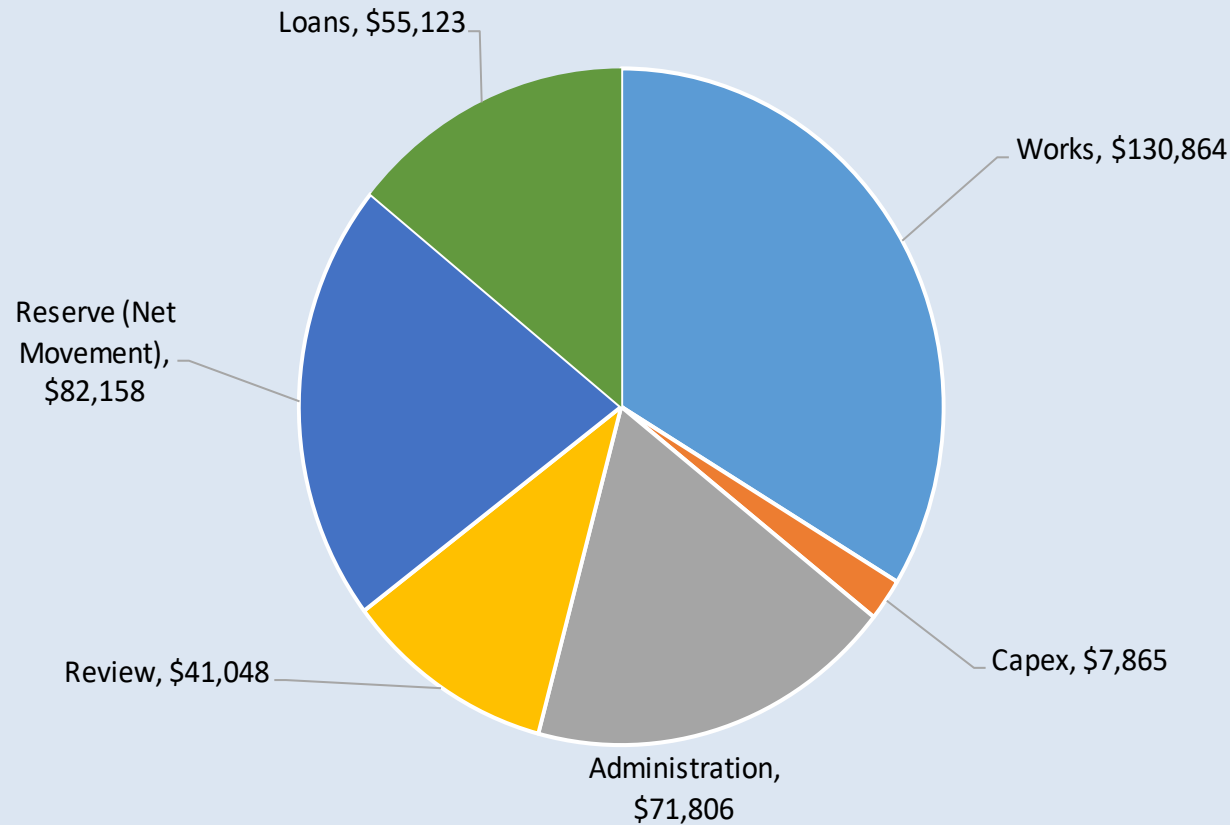
- **Scheme Expenditure**
 - Expenditure is on track to be within the original budget.
 - Power cost continue to be high compared with the budgeted amount.
- **Works Activity**
 - Drain maintenance program is currently being prepared and work will hopefully be underway before the end of the month.
 - Koputaroa No.1 Pump Station: No.1 pump pulled for servicing.
 - Otherwise activity within the scheme has been quite.
- **Review/Audit**
 - Review of scheme classification. (In Progress)
 - O&M Manuals for scheme pump stations. (On Hold)

Works Budget vs Actual: 2019-20

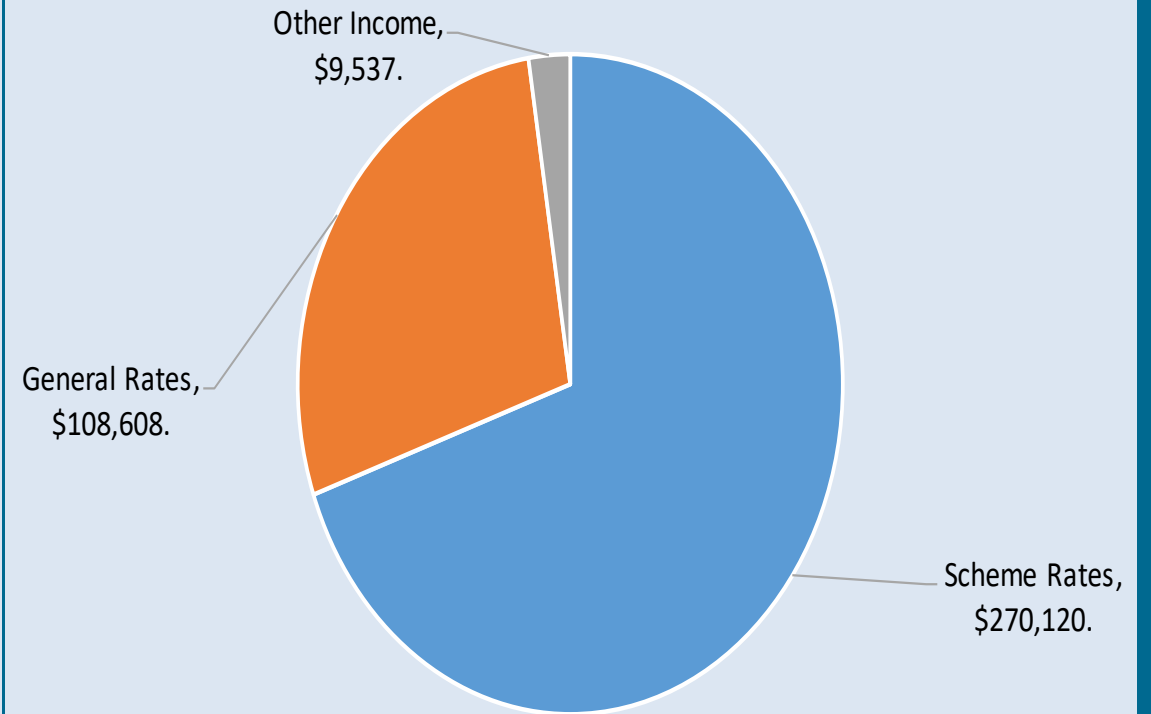


Income and Expenditure: 2019-20

Operating Expenditure



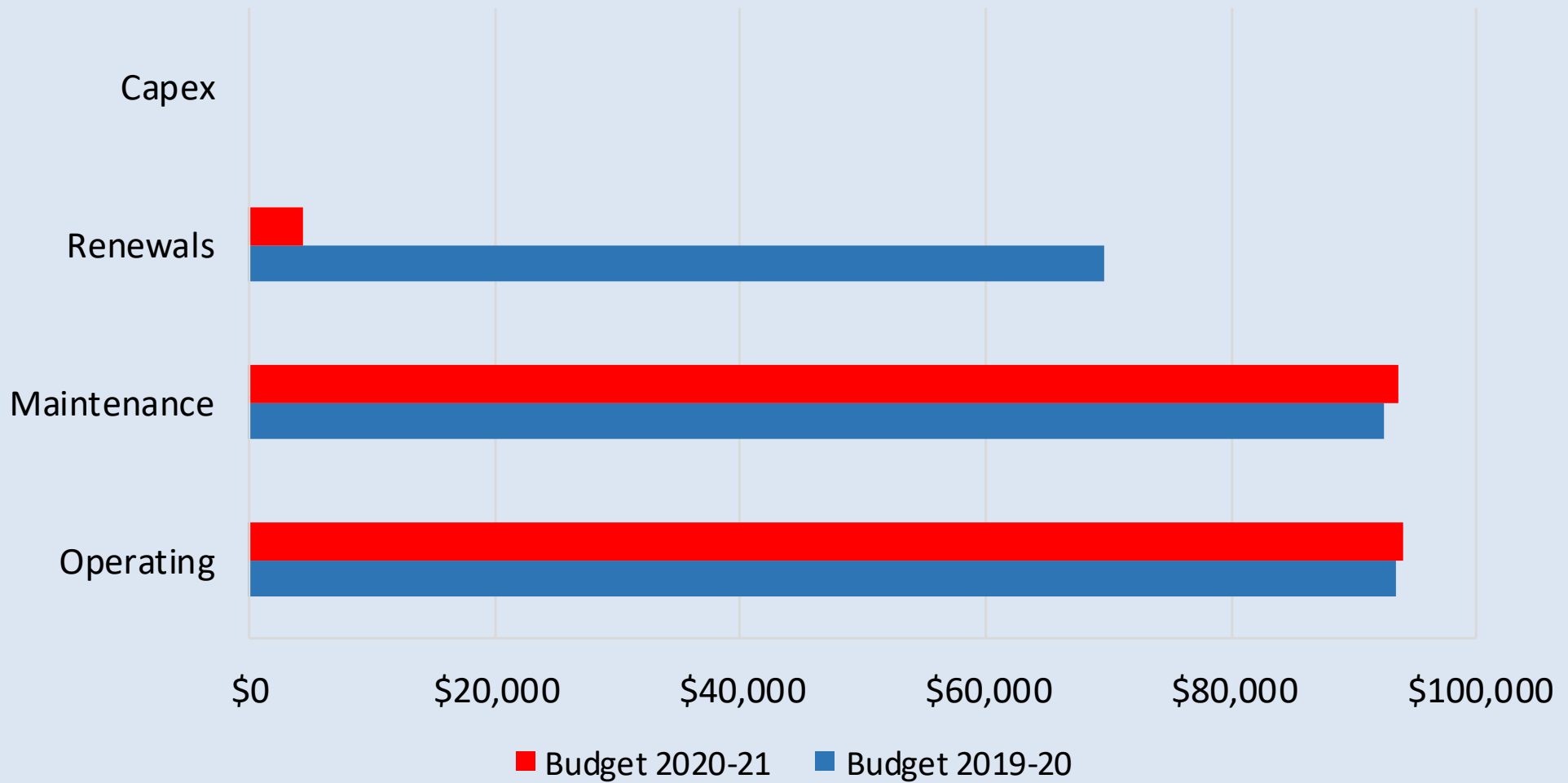
Income



Key Activities and Issues: 2020-21

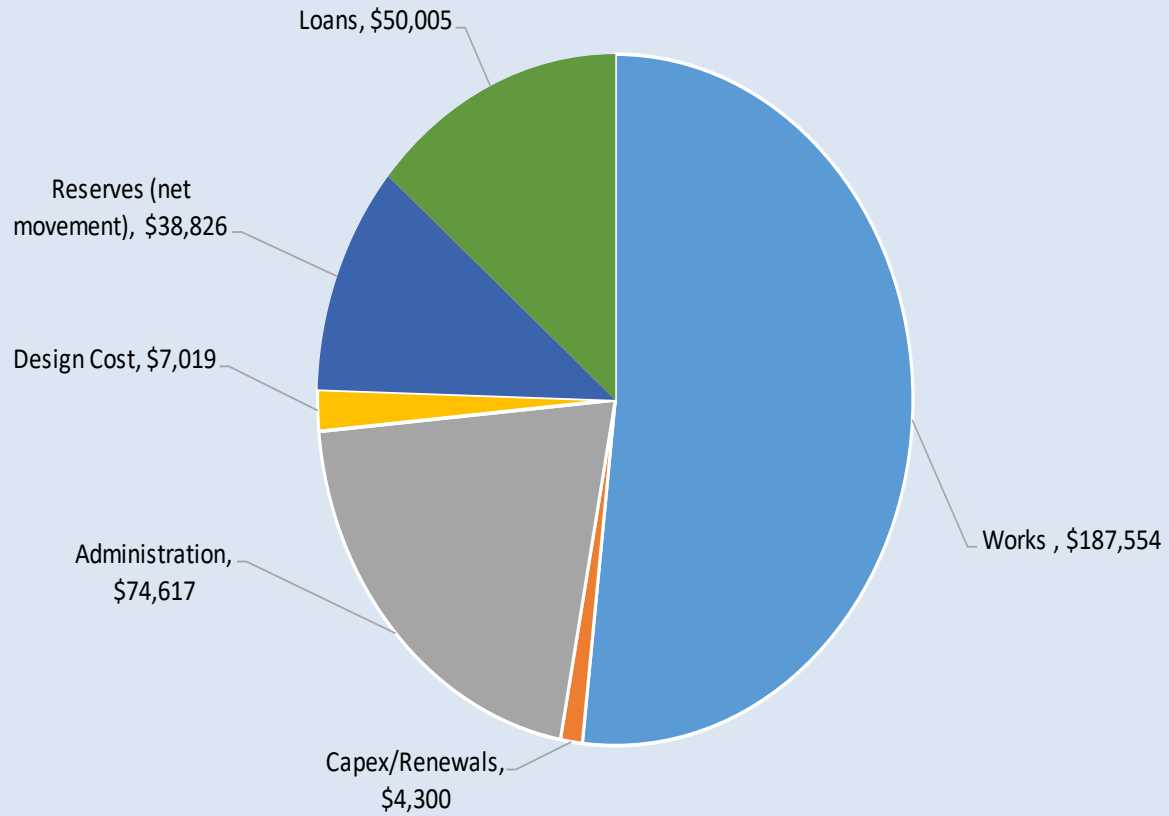
- **Scheme Budget**
 - Scheme Rate increase of 0%. (\$493)
 - Increase in scheme management cost, Insurance and design cost.
 - Increase in drawdown from Emergency Reserve Fund to \$10,000.
- **Works Activity**
 - On going maintenance of scheme assets.
- **Review/Audit**
 - Review of scheme classification
 - O&M Manuals for scheme pump stations.

Works Budget 2019-20 vs 2020-21

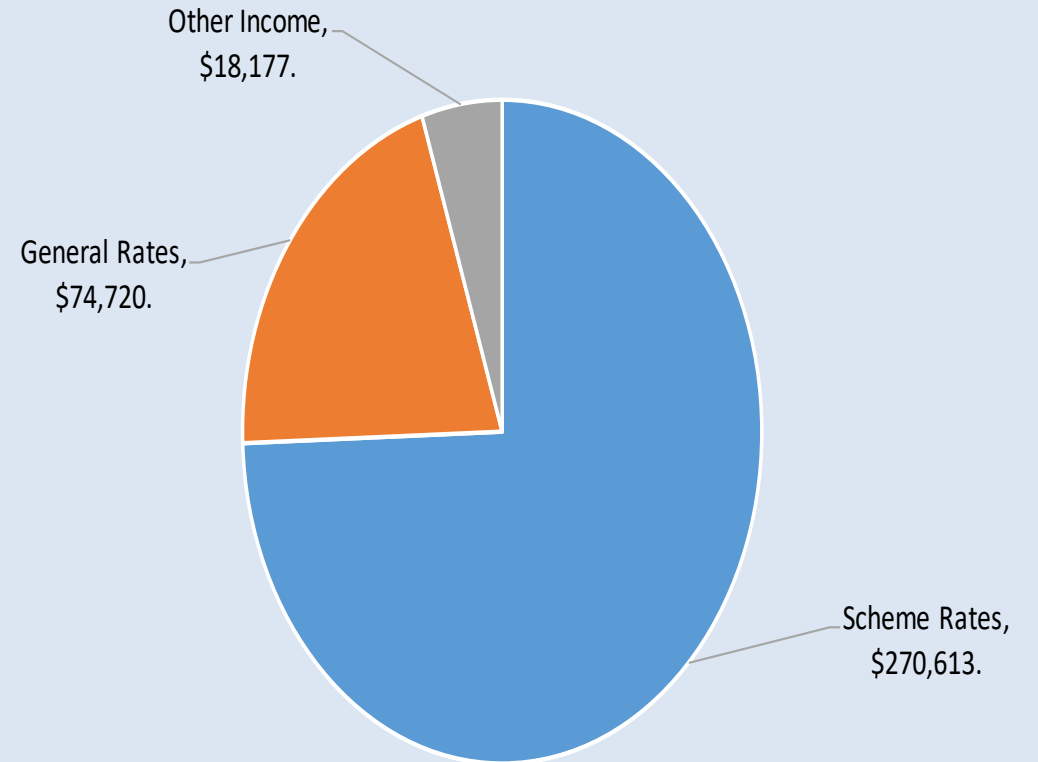


Income and Expenditure 2020-21

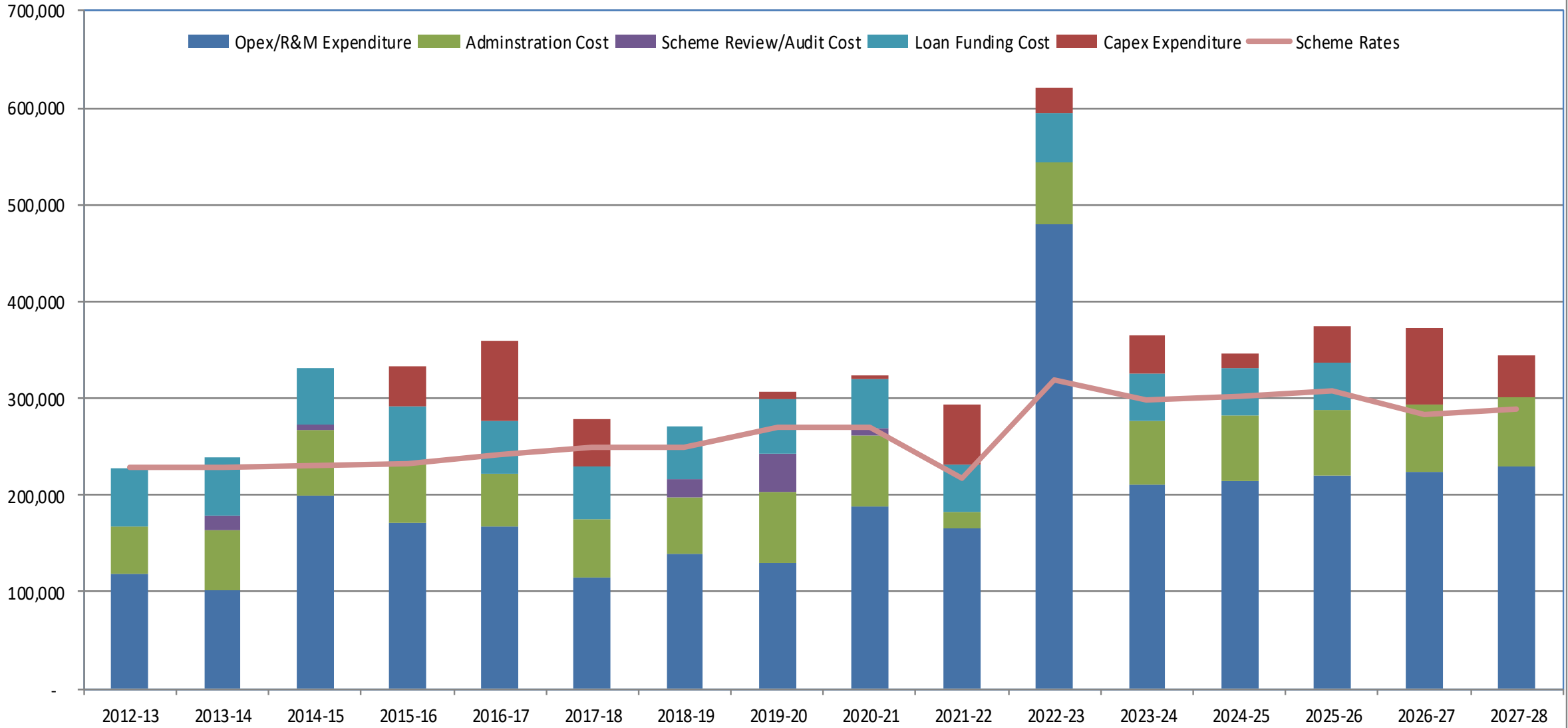
Operating Expenditure



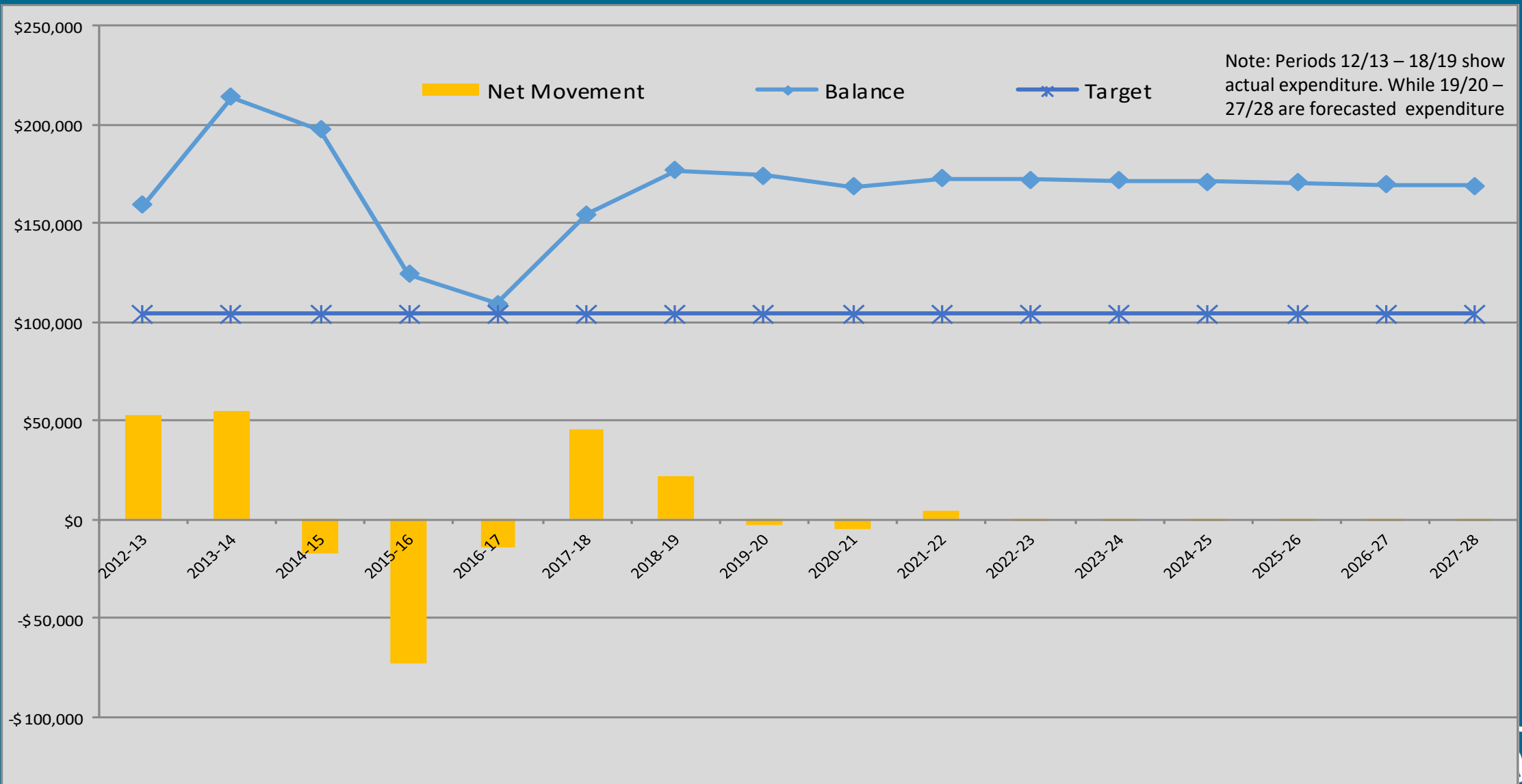
Income



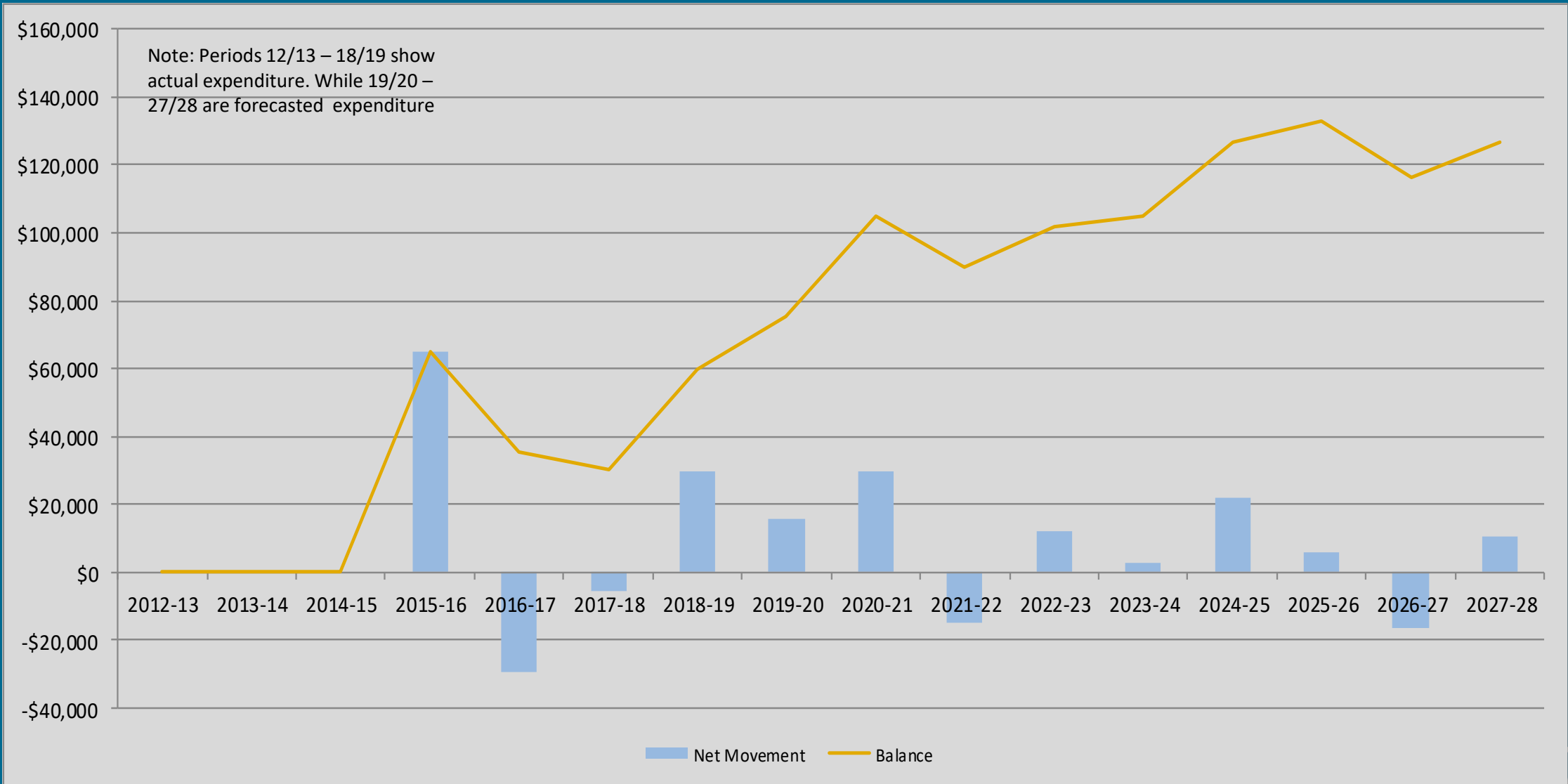
Koputaroa Drainage Scheme



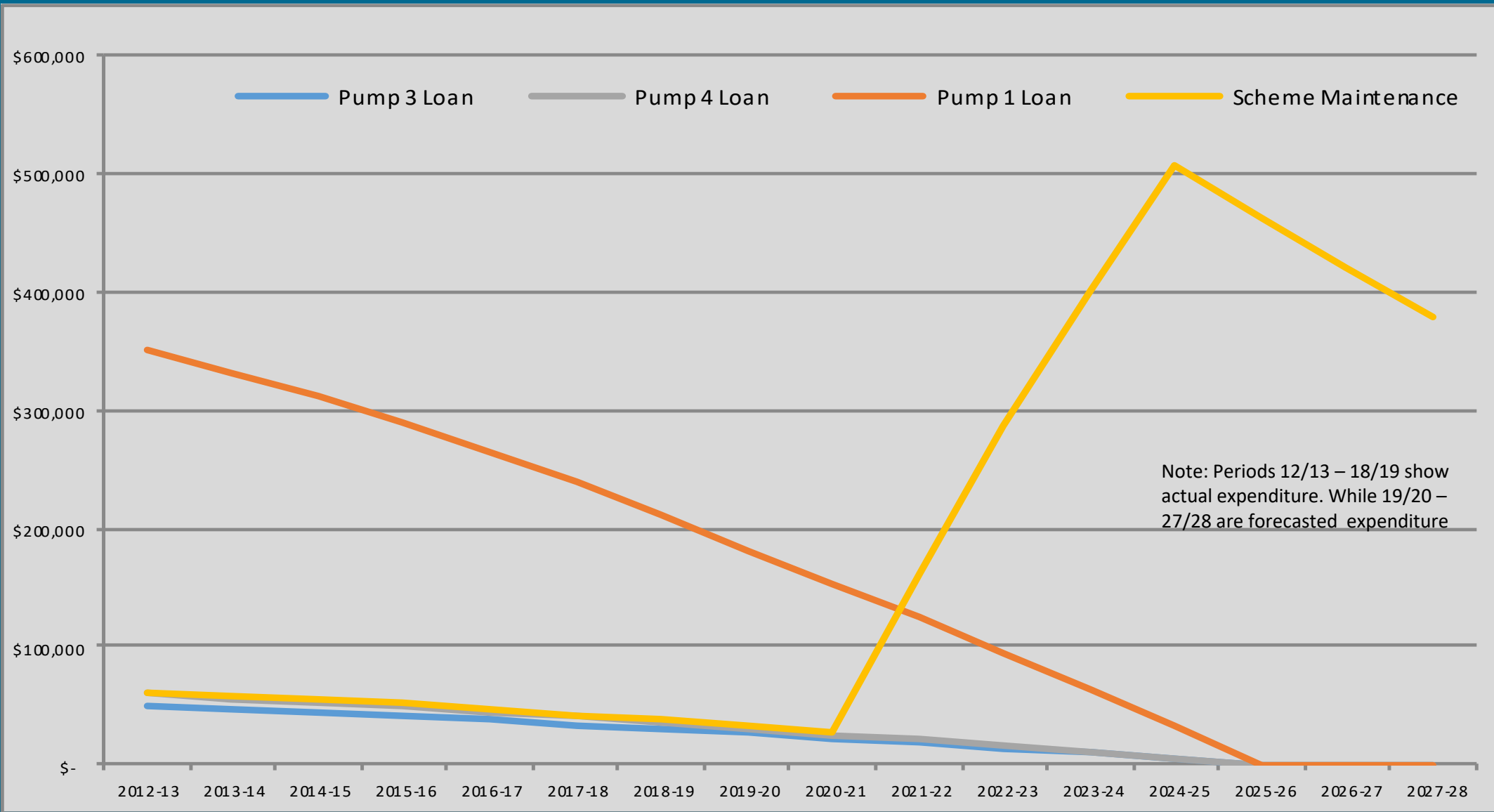
Emergency Reserve Balance



Renewal Reserve Balance



Loan Account Balance



Issue Arising From 2019 Catchment Community Meeting

Issues	Action Required	Who	Comment
NONE			

The End