



**2019-2020  
RIVER MANAGEMENT ACTIVITY GROUP  
MATARAWA 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

## NORTHERN

- FOREST ROAD (D)
- WAIKING (D)
- LOWER WHANGAREI (DIRECT) (R)
- LOWER WHANGAREI (INDIRECT) (R)
- MANGIWI (R)
- MATEPANA (R)
- RANGI VALLEY (R)
- POHANGIWA CATCHMENT (R)
- POHANGI VALLEY (R)
- RANGITIKEI (R)
- TARANAKI (R)
- TURAKINA (R)
- TUANGI (R)
- UPPER WHANGAREI (R)
- WHANGAREI MANGIWI (R)

## CENTRAL

- ADAMSTON (D)
- KAIHUI (R)
- LOWER KAITI (R)
- LOWER MANAWATU (DIRECT) (R)
- LOWER MANAWATU (INDIRECT) (R)

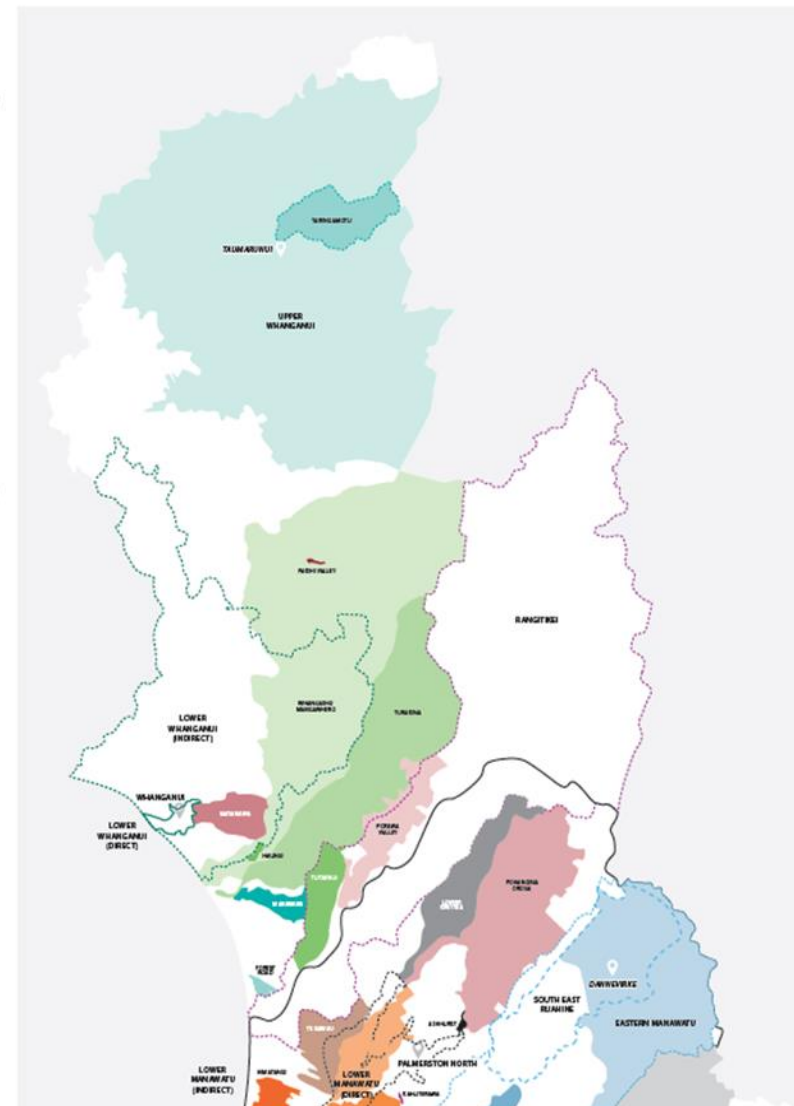
## SOUTHERN

- COCKEN EST (D)
- HIMARANGI (D)
- HOKIO (D)
- KOPIUTARA (D)
- MANGIWI (D)
- MANAWATU (D)
- MOUORA (D)
- OHAI MANAIA (R)
- TE KAIHU (D)
- WHIRIKONO (D)

## EASTERN

- AIKIO (R)
- EASTERN MANAWATU (R)
- HAURUA (R)
- MANGATANGI (R)
- SOUTH EAST RANGITIKEI (R)
- TARANAKI MANGIWI (D)
- UPPER MANAWATU (R)

(D) Drainage | (R) River







1,270km of river channel



1,100km of drain



23 pump stations with a total discharge capacity of 43m<sup>3</sup>/s



53 detention dams that store 4.3 million cubic metres of floodwater



500km of stopbanks







# SIGNIFICANT RIVER MANAGEMENT ISSUES FOR THE REGION

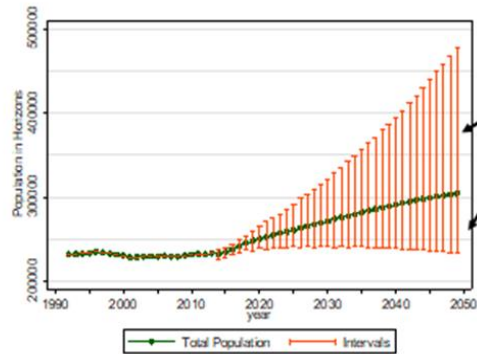
Operational reliability

Sediment build-up reducing flood protection standards

Urban growth

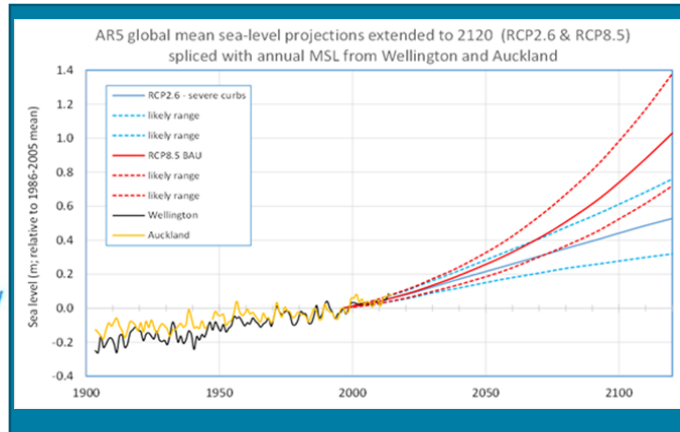
Climate change

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

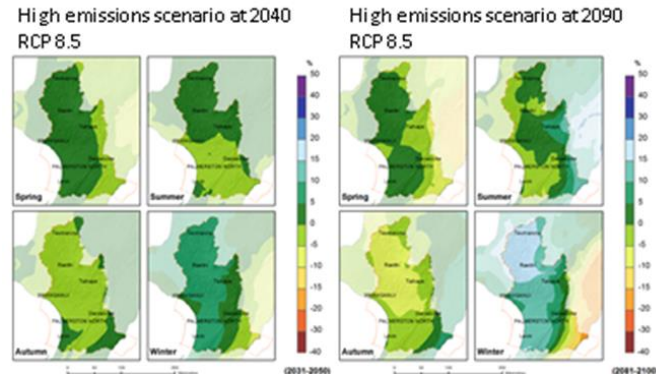


Shows likely upper and lower bounds

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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# MATARAWA SCHEME ASSETS

## Scheme Facts

### Scheme Assets.

- 5 detention dams
- 16 floodgated structures
- 4km of stopbanks
- 120 tons rock lining
- 1 diversion structure
- 1 bridge
- 7.5km drainage channels

Total Asset Replacement Value:  
\$3,063,842.94  
(July 2019).

Four catchments: Matarawa,  
Mangamoku, Kaukatea and  
Mangaone Stream catchments.



## MATARAWA FLOOD CONTROL SCHEME

Asset Map 2020



0 0.5 1 2 km

A3 1:40,000

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Date: March 2020  
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# MATARAWA SCHEME (URBAN)

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River Engineering Officer  
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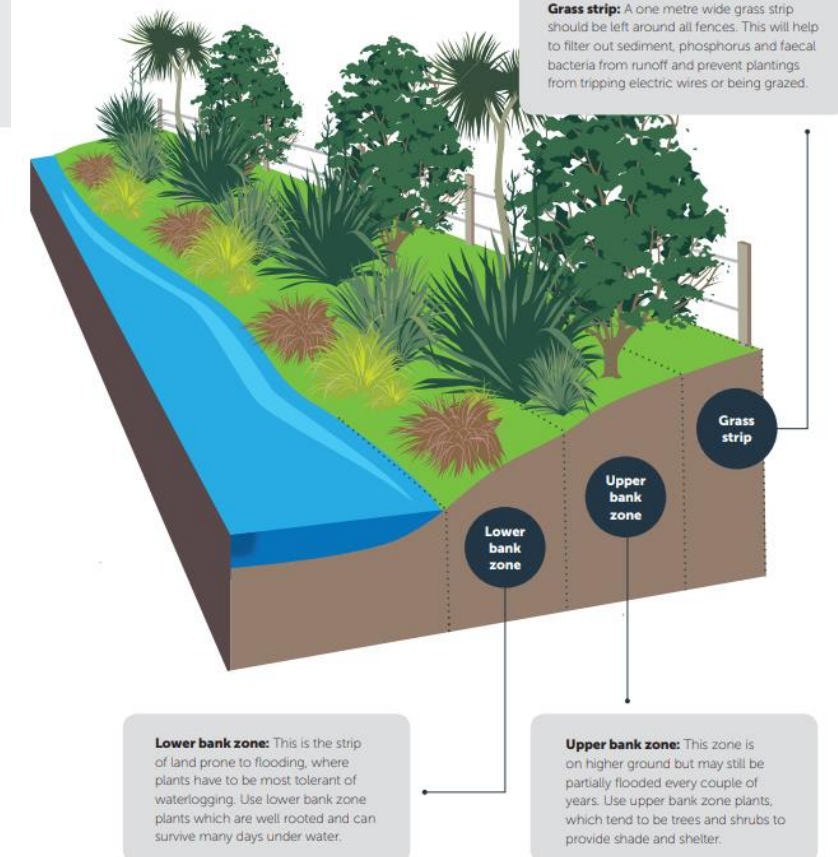
Matarawa Stream 84 Wakefield Street to the Mouth through Kowhai Park.

- Most of Large Channel Clearing Work Completed Finishing two stage jobs i.e. Esplanade off Raine Street
- Entering Maintenance Stage
  - Spraying Willows
  - Clearing stream blockages
  - Bamboo
- Creating awareness regarding property owners riparian responsibilities.
- Planting & Engineering Advice
- Horizons Pollution Hotline 0508 476 558



## HOW TO PLANT A TYPICAL STREAM MARGIN

Image supplied by Dairy NZ.



# MATARAWA SCHEME

## Strategic Direction

The focus of the Scheme over the next 3 years is to continue to maintain existing infrastructure. Design options are currently being investigated in relation to the Mateongaonga diversion.

## Aim

The primary objective of the Matarawa Flood Control Scheme is to protect rural land from flooding. With the addition of Matarawa Urban, the focus now includes maintaining channel capacity to reduce flooding. The urban area of Whanganui East continues to derive a flood protection benefit from detention dams and from the Mateongaonga Diversion Channel.

## Scheme Level of Service

To ensure assets are managed in a consistent, efficient and sustainable manner.

To maintain river alignment in order to minimize river bank erosion.

To maintain drainage capacity that facilitates maintenance of the groundwater levels.



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# Scheme Funding

## Funding Policy

The Schemes funding comes from three revenue sources:

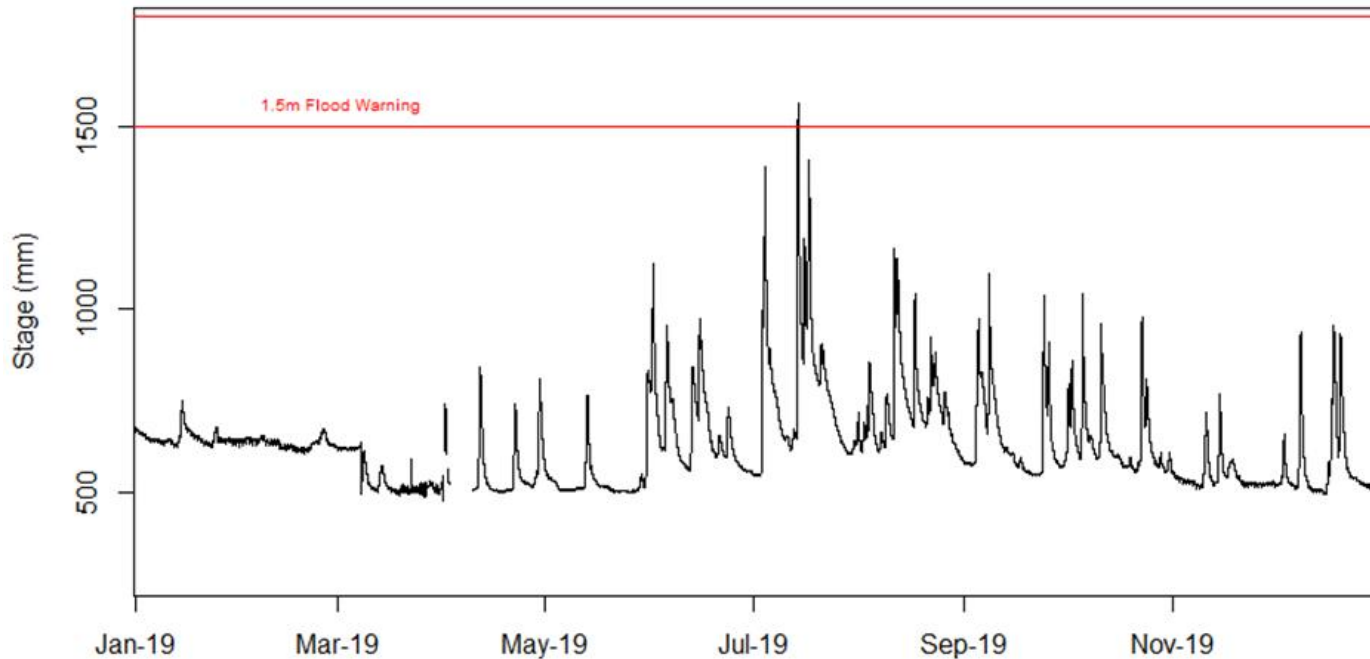
Targeted Rates – differential targeted rates levied on properties directly benefiting from or causing the need for the work.

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



### Matarawa at City Branch



### Annual maximum stage for the past decade

Year	Stage	Flow	Date
2009	1.890	4.846	2009-10-27 09:30:00
2010	2.018	4.494	2010-09-06 16:10:00
2011	1.730	3.246	2011-01-24 13:00:00
2012	1.620	2.840	2012-01-08 17:00:00
2013	1.966	4.241	2013-10-15 14:00:00
2014	1.762	3.370	2014-05-25 01:45:00
2015	-	-	-
2016	1.423	2.176	2016-10-07 13:10:00
2017	1.778	3.433	2017-05-12 14:50:00
2018	1.747	3.311	2018-06-18 20:35:00
2019	1.564	2.643	2019-07-14 17:40:00



# Photos



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# Key Activities and Issues: 2019-20 RURAL

## **Scheme Expenditure**

Expenditure is on track to finish year within budget.

## **Works Activity**

Monthly Dam inspections and maintenance (removal of debris after rainfall events).

Removal of Tree Blockages – Matarawa Stream.

Spraying of drains and willows.

Willow removal planned in Wakefield Street on the boundary of the Urban and Rural Zones.

De-silting area above Dam 1.1

# Key Activities and Issues: 2019-20 URBAN

## Scheme Expenditure

Expenditure is on track to finish year within budget. Urban work has now moved into the maintenance phase as initial channel clearance project is complete.

## Works Activity

Bamboo removal remains a challenge in the Urban sector with repeated spray visits required to gain control.

Semi-reactive response to new channel blockages.

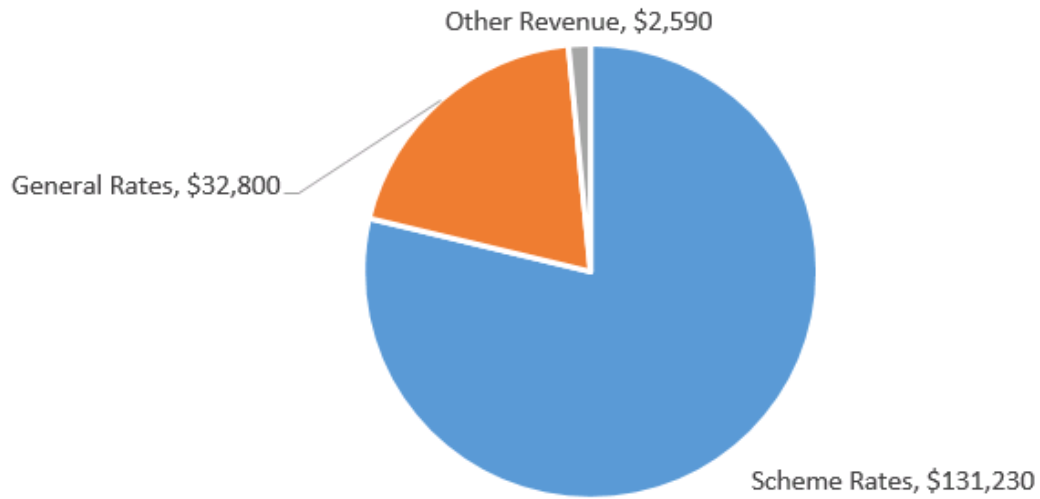
Responding to landowner queries regarding weed growth following channel clearance work.

Kowhai Park vegetation management in conjunction with Whanganui District Council.

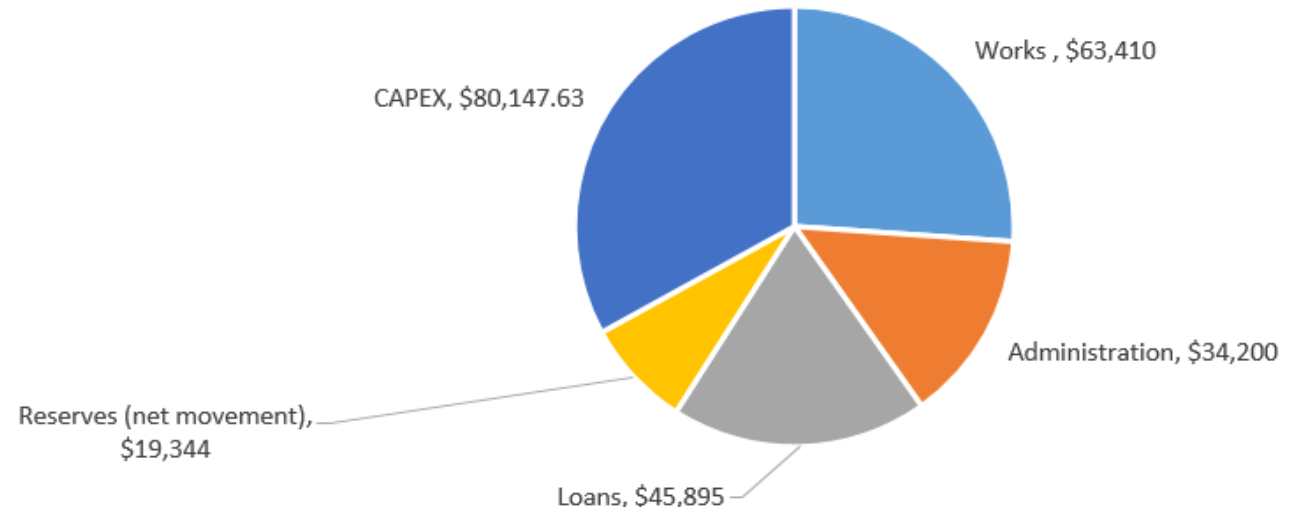


# Income and Expenditure: 2019-20

## Income



## Expenditure



# Key Activities and Issues: 2020-21

## Scheme Budget

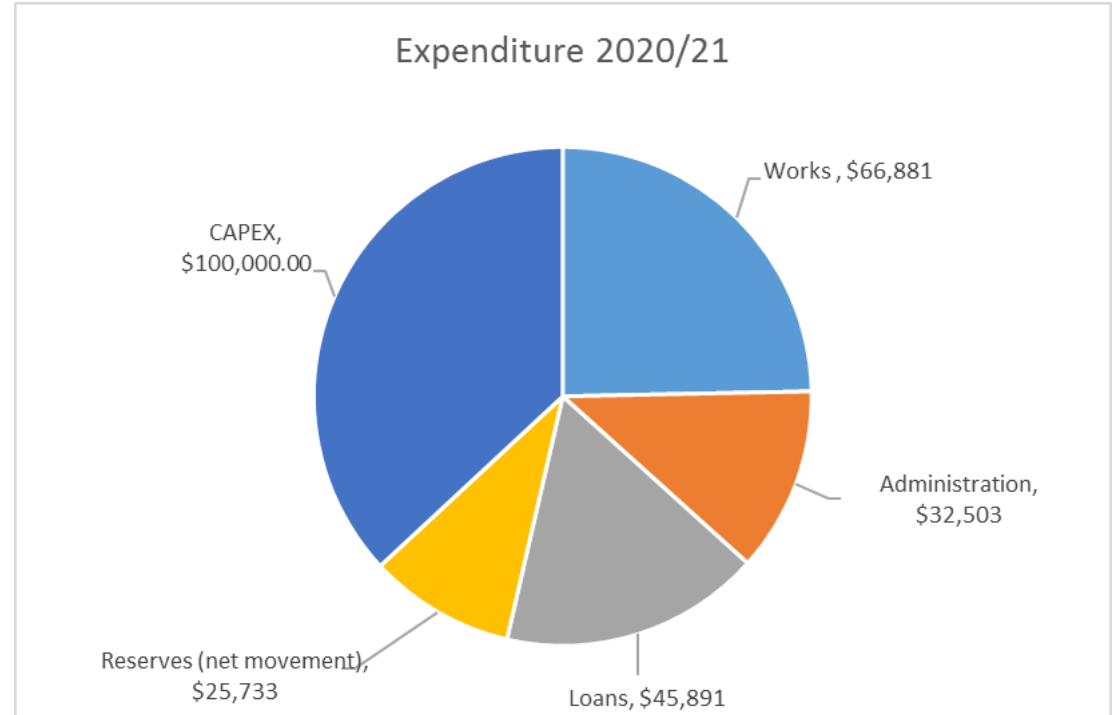
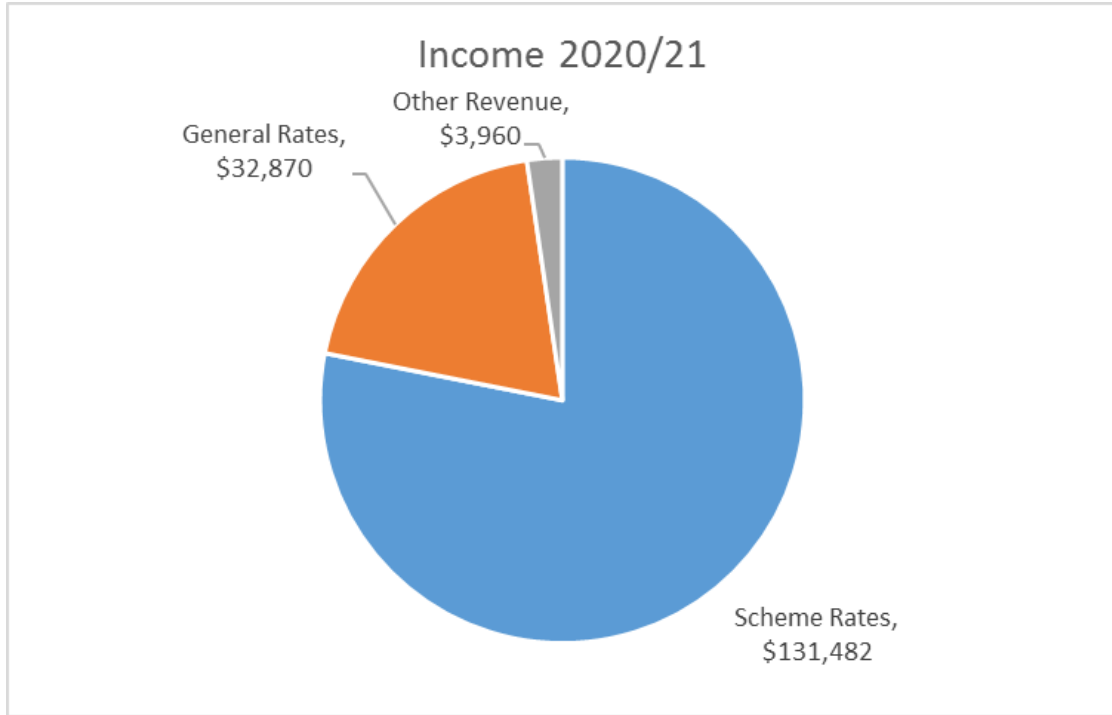
Budget reducing as initial Urban work completed and now in maintenance period  
\$18,179 contribution to the Emergency Reserve Fund  
\$7,554 contribution to the Renewal Reserve Fund  
Scheme Rate decrease of 9%

## Works Activity

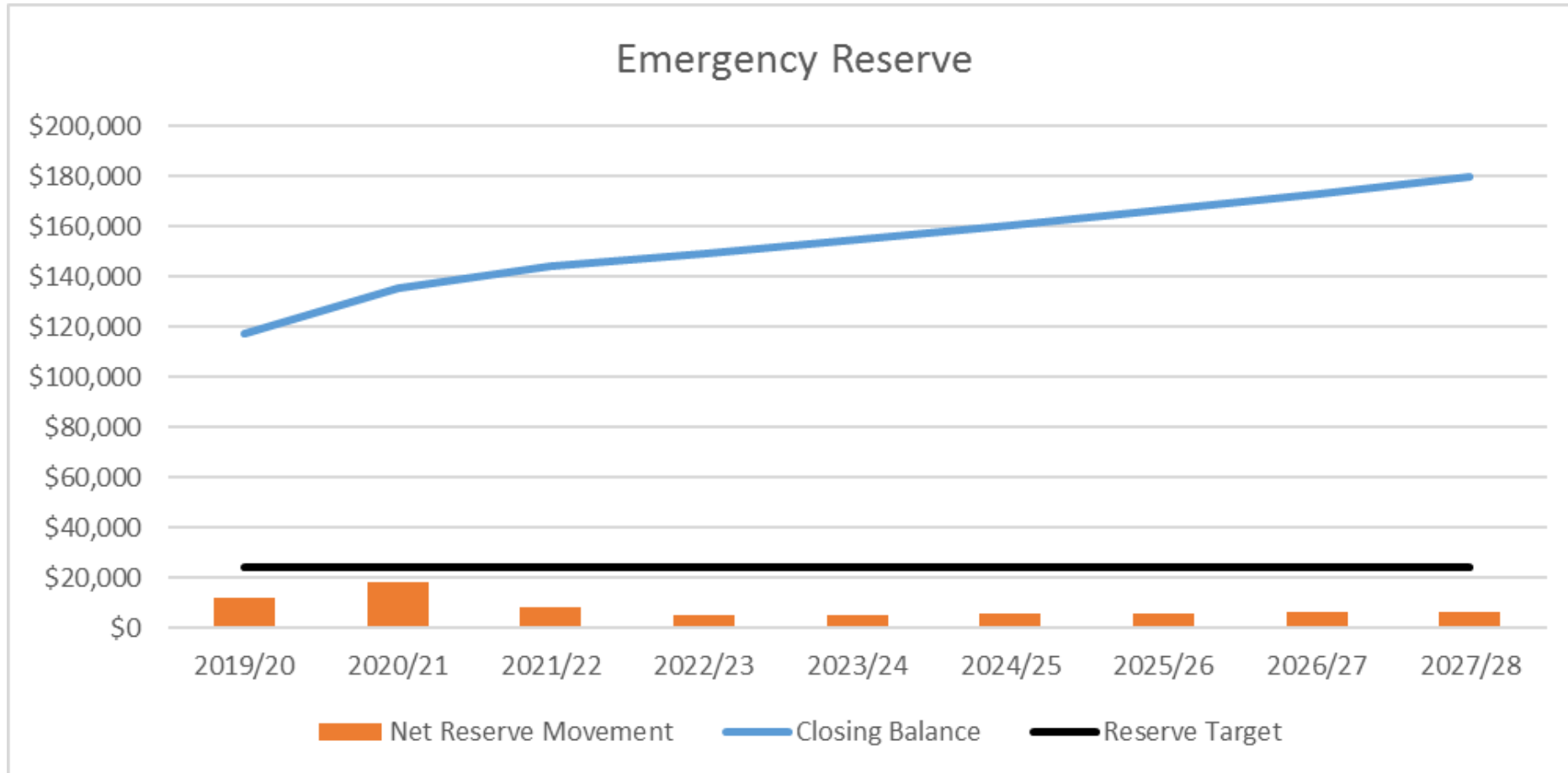
Urban channel clearing. Increased focus on channel and vegetation maintenance.  
Investigate stream diversion structure.  
Commence implementation of dam safety initiatives.



# Income and Expenditure 2020-21

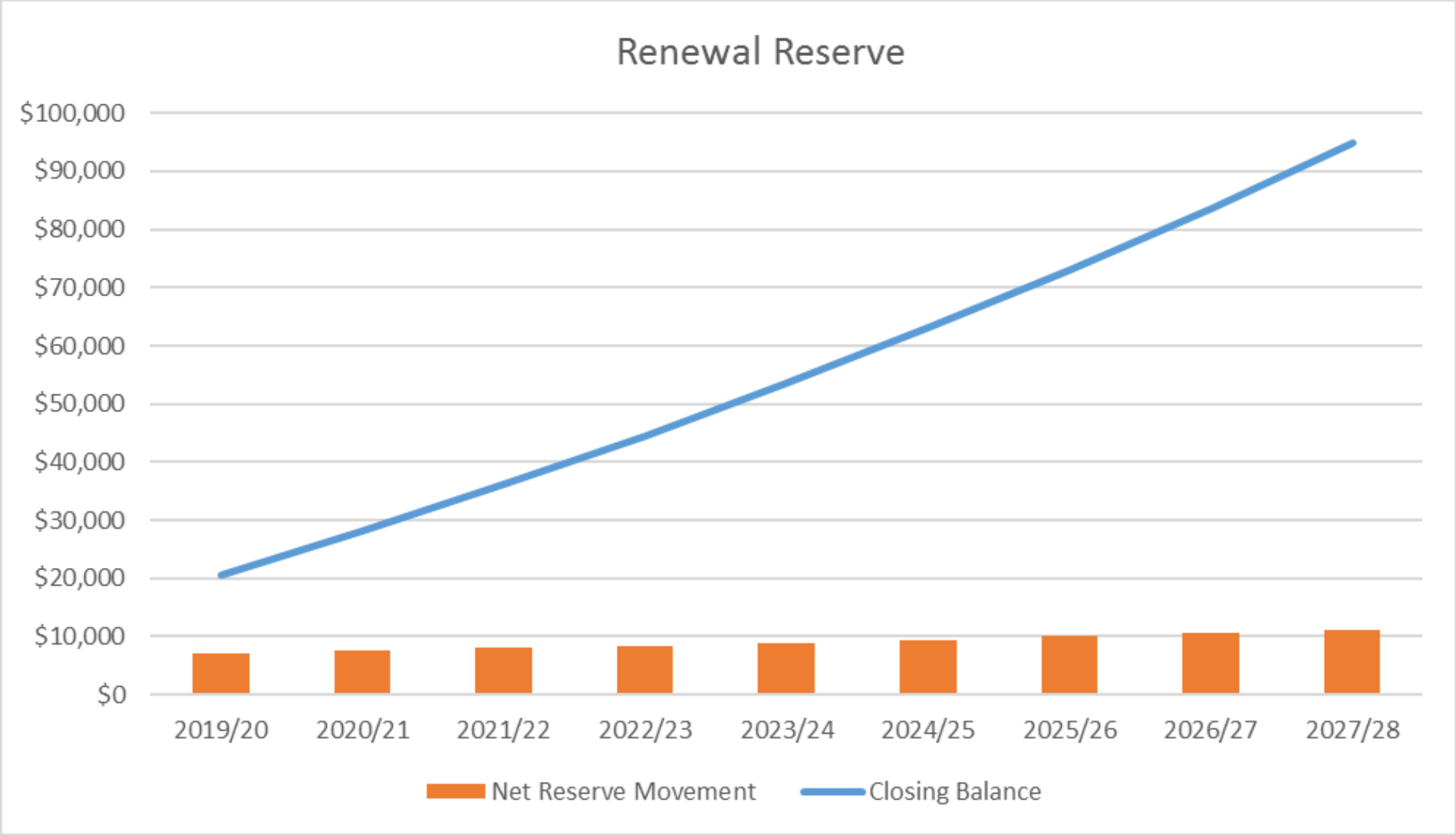


# Emergency Reserve Balance





# Renewal Reserve Balance



# Loan Account Balances



# Issues Arising

MATARAWA SCHEME	
Progress of the Gerse St culvert investigation.	WDC have taken responsibility for this culvert.
Ikitara Road dam maintenance and ownership.	WDC own this dam and subsequent maintenance is their responsibility.
LTP confusion around Anzac Parade retreat funding.	Retreat proposal currently being prepared.



# The End



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REGIONAL COUNCIL



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