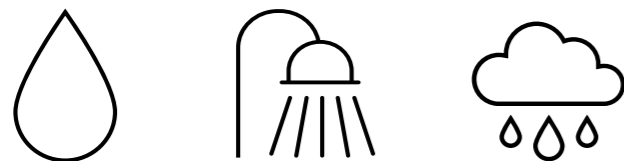


THREE WATERS 2021-2031 ACTIVITY SUMMARY



OVERVIEW



Three waters activity applies to all drinking water supplies, wastewater systems, urban stormwater schemes, open drains, and associated assets owned by Council and managed by Watercare.

Why we do it:

Council is committed to ensuring:

- Drinking water is delivered to a safe, reliable, and cost-effective standard.
- Collection, treatment, and disposal of wastewater in a way that does not cause harm to the public health and the environment.
- Management of stormwater in a way that protects impervious surfaces from rainfall runoff and the environment by limiting erosion as much as possible.

Supported Strategic Priorities:

The three waters activities are a fundamental service for our community. It supports all the strategic priorities but especially:

- Supporting our communities
- Working together with you
- Sustaining our environment
- Building our Economy

ASSET INFORMATION

Condition of our Assets:

A comprehensive condition assessment was completed by Jacobs in 2020 for Water and Wastewater Assets.

What are our Assets?

Water Supply

- 7 Treatment Plants
- 11 Pump Stations
- 28 Reservoirs
- 759 km pipeline

Wastewater

- 9 Treatment Plants
- 85 Pump Stations
- 297 km pipeline

Stormwater

- 129 km (known) pipe assets
- 3 Pump Stations
- 29 stormwater treatment and attenuation devices

Water Supply

Generally, assets are in reasonable condition, some electrical and control assets need replacement.

Wastewater

Condition of wastewater assets are varied depending on site, refer to AMP for details

Stormwater

An age-based condition assessment model shows that the state of stormwater assets are between very good to fair condition – refer to AMP for full details.

02 PART



What is our portfolio worth?

Water Supply - Reticulation + Treatment:

- Optimised Replacement cost: \$171, 035, 043
- Optimised Depreciated Replacement Cost: \$117,734,381
- Annual Depreciation: \$2,856,443

Wastewater - Reticulation + Treatment:

- Optimised Replacement cost: \$186,351,368
- Optimised Depreciated Replacement Cost: \$114,964,042
- Annual Depreciation: \$3,034,914

Stormwater - Rural + Urban:

- Optimised Replacement cost: \$79,913,308
- Optimised Depreciated Replacement Cost: \$65,032,234
- Annual Depreciation: \$854,037

LEVELS OF SERVICE

We have provided a deeper connection between our community outcomes and performance measures

Each of the Levels of Service are grouped into three categories:

- **Strategic** – requires significant capital investment to solve problems.
- **Tactical** – linked to renewal investment
- **Operational** – focus on the operations of our activity

Water Supply:

Drinking Water compliance
Water consumption

Wastewater:

Discharge Compliance

Stormwater:

System Reliability
Discharge Compliance

Water Supply:

Water Loss

Stormwater:

System Effectiveness

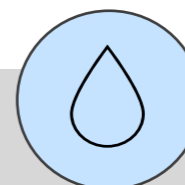
03 PART



Operational Levels of Service:

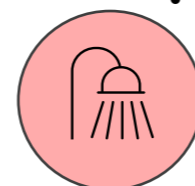
Water Supply:

- Urgent Fault Attendance
- Urgent Fault Resolution
- Non-Urgent Fault Attendance
- Non-Urgent Fault Resolution
- Fire Hydrant Testing
- Customer Satisfaction



Wastewater:

- Sensitive Environment Overflow (dry weather)
- Non-sensitive Environment Overflow (dry weather)
- Customer Satisfaction
- Wastewater Fault Attendance
- Wastewater Fault Resolution



Stormwater:

- Customer Satisfaction
- Flood Event Attendance



RISK MANAGEMENT

WATER SUPPLY	WASTEWATER	STORMWATER
Critical Safety Risk: Extremely Important	Critical Safety Risk: Extremely Important	Critical Safety Risk: Extremely Important
Related Risks: Asbestos On road driving Working in or near trenches/open excavations Working over or near water	Related Risks: Asbestos On road driving Hazardous substances Working in a confined space Working in or near trenches/open excavations	Related Risks: Asbestos On road driving Working in a confined space Working in or near trenches/open excavations

04 PART



What are our critical Assets?

A three waters criticality assessment has been completed on assets including water, wastewater and stormwater piped networks, in summary results show;

- Pipes located under railway/ state highway/ rivers are the most critical (criticality ranking of 5)
- Largest percentage of water supply pipe network (37%) contain a criticality score of 2 (consequence being minor)
- Largest percentage of wastewater pipe network (72%) contain a criticality score of 3 (consequence being moderate)
- Largest percentage of stormwater pipe network (62%) contain a criticality score of 1 (consequence being insignificant)

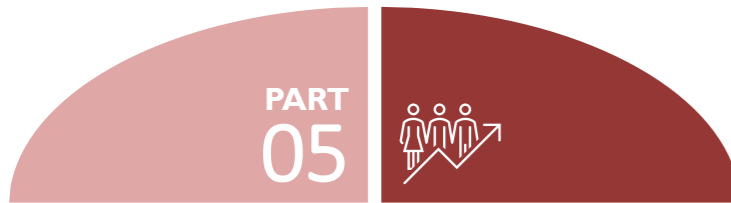
A full criticality assessment of pipe networks and above ground assets have been given in AMP Part 4: Risk Management Planning.

MANAGING GROWTH

Growth and Demand:

Key drivers likely to change the operating landscape of three waters activity include:

- Population and growth demographics
- Geographical demand
- Service delivery requirements
- Climate Change



What does Growth in Waikato look like?

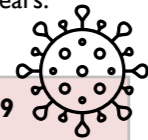
Waikato District Population (approximate 2020 is approximately 81,473.

Rate of Growth: Increasing by approximately 1.5% annually

The population is expected to continue growing significantly in some of the key towns and villages:

- North Waikato (Tuakau, Pokeno and Te Kauwhata)
- Central Waikato (Huntly, Taupiri and Ngaruawahia)
- West Waikato (Raglan)
- Hamilton peri-urban areas (Horotiu, Tamahere and Matangi)

The Waikato district population is predicted to increase by approximately 15,500-19,000 over the next 10 years.



What are the Impacts of Covid-19

The financial market mand particularly the Covid-19 crisis could have short term impacts on whether the residential, industrial, and commercial growth is maintained at its current rate of 1.5%.

As a result, the impact of Covid-19 has meant a reassessment of the growth projections for population and household projects in the district.

SUSTAINABILITY

Catch-pit Inserts/ Enviropods initiatives

Designed to capture gross pollutants such as litter and leaves and coarse sediment particles. (Stormwater)

Stream and WQ improvements

Complementary Initiatives Initiatives carried out by Council's community connections.

40:20:20 Initiative

Centralised Systems

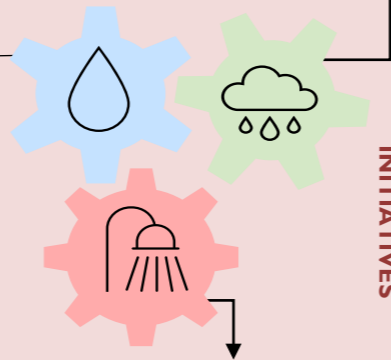
consolidate the water supply networks of areas within close proximity to each other.

Smart Water Campaign

Develop educational material to support raising public awareness around water and water use.

40:20:20 Initiative

Reduce carbon in infrastructure delivery by 40 percent



INITIATIVES



The wastewater activity contributes directly to approximately 31.4% of the Carbon Emissions produced by Council through the wastewater treatment schemes.

In order to further understand the opportunity to reduce biogenic emissions, analysis by wastewater treatment plant process type is required.

How are we managing Climate Change?

Council formally adopted an internal Climate Response and Resilience policy on Monday 31 August 2020.

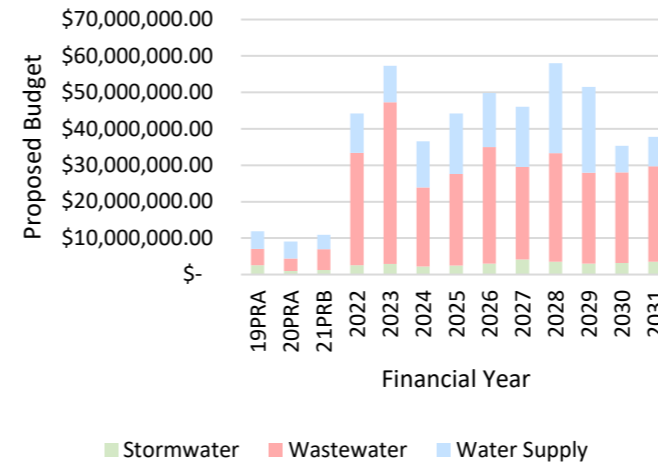
This policy is significant as it considers the needs of future generations by adopting best practice behaviours through proactive climate change and emissions reduction strategy.

Our responsibilities in relation to climate change are clearly outlined in the policy, demonstrating how we will act to minimise the effects of climate change by means of reducing greenhouse gas emissions and development of adaptation measures.

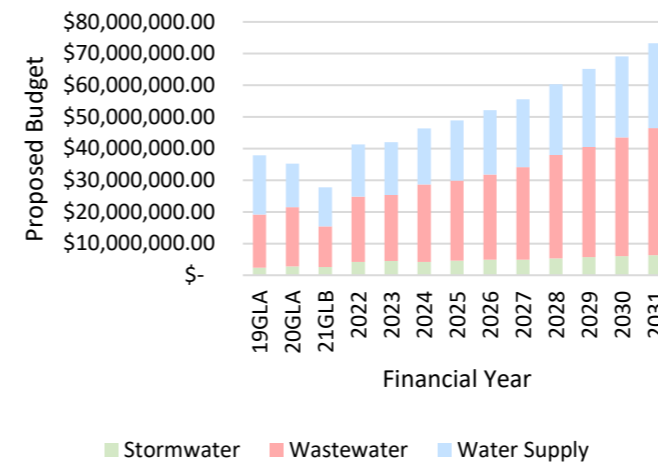
FINANCIAL PLANNING

Proposed Capital Programme

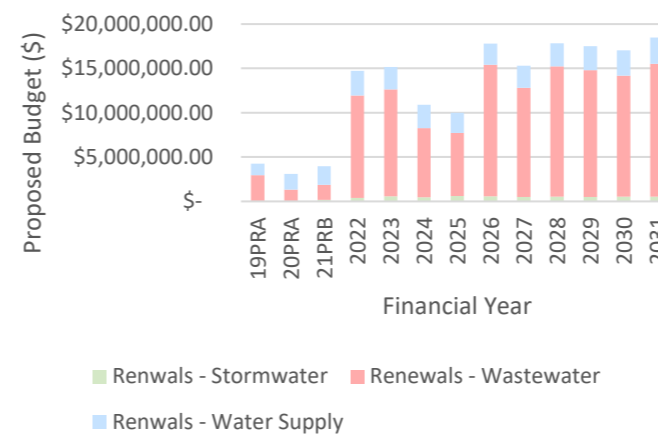
The proposed capital and renewals expenditure for the Three Waters activity has been predicted for the next 10 years:



Proposed Operational Programme



Proposed Renewal Programme



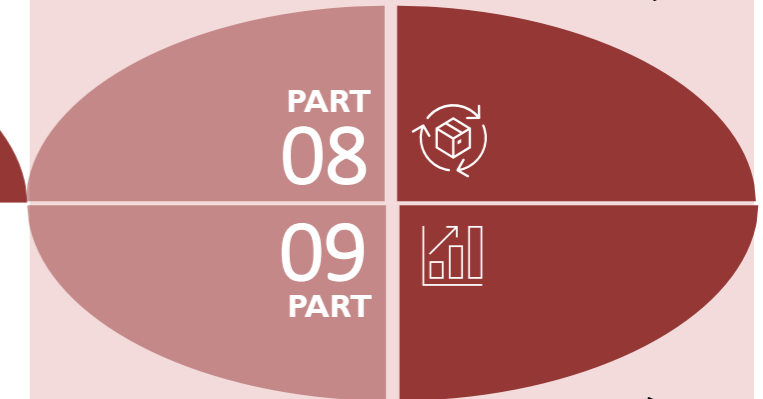
LIFECYCLE MANAGEMENT

What are our Operations and Maintenance Practices?

Watercare carry out maintenance on the water and wastewater networks and treatment plants with special contractors engaged as required. The current maintenance activities include: Monitoring, testing, meter readings, preventative maintenance inspections and activities and reactive maintenance.

Current maintenance activities include:

- Monitoring
- Testing
- Meter Readings
- Preventative Maintenance Inspections and Activities
- Reactive Maintenance



CONTINUOUS IMPROVEMENT

What is Continuous Improvement?

Continuous improvement is about identifying the maturity of asset management practices, improvements made since the last Asset Management Plan review and planning for future asset management improvement areas.

A detailed improvement Plan has been developed and included in the Three Waters AMP Part 9: Continuous Improvement.