Three Waters Asset Management Plan

Ōpōtiki District Council

STRONG COMMUNITY STRONG FUTURE

July 2024

1. Introduction

1.1 Council Overview

Ōpōtiki district is bounded on one long side by the eastern half of the Bay of Plenty embayment of the Pacific Ocean and on the other long side by the Raukumara mountain range which rises to 1754 m at Mt. Hikurangi. The largest town in the district is Ōpōtiki and the largest river is the Motu river. The economy is driven primarily by agriculture with over 400 farms amounting to a total area of 75,660 hectares.

Ōpōtiki District encompasses an area of **310,100** hectares.

3 major waterways (Motu River, Otara River and the Waioeka River).

10,550 (estimated population at 30 June 2023).

1.2 Community Outcomes

- Development and protection of the natural environment
- Services and facilities meet our needs
- Fair and efficient leadership
- A strong and effective community spirit
- Purposeful work and learning opportunities
- Development supports the community
- Culture and history are treasured

- Contribution to community outcomes:
- **Water Supply** – safe, reliance, cost effective drinking water
- **Wastewater** - protect public health, property and environment
- **Stormwater** - protect public health, property and environment

1.3 Challenges

THREE WATERS
- Provide for growth
- Maintain level of service
- Protect the environment and public health
- Ageing Infrastructure
- Effective life cycle management.

WATER SERVICES
- Allow for harbour development
- Protect public health
- Comply with legislation

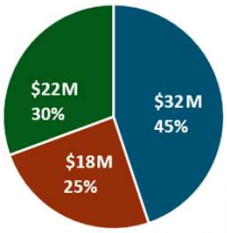
WASTEWATER
- Move vulnerable assets out of areas of potential inundation
- Mitigate risk of asset failure
- Reduce inflow and infiltration
- Climate change.

STORMWATER
- Protect against inundation
- Address climate change.

1.4 Key Facts and Figures

Area	3,089 km^2
Population	10,550 - (2022)
Residential properties	4,239 - (2018)
Non-residential properties	0 - (2018)

Average age of pipelines (years)



Replacement Value (ODRC)

Combined replacement value
$71M

1.5 Data Confidence and Reliability

Dataset	Asset Register	Asset Valuations	Asset Condition	Asset Criticality	LOS	Performance measures	Resource Consents	Demand Projections	Risk and Resilience	CAPEX Forecast	OPEX Forecast	Renewals
WS	B	C	B	C	B	C	B	C	D	B	B	B
WW	B	C	B	C	B	C	B	C	D	B	B	B
SW	C	C	D	D	C	D	B	C	D	B	B	C

A - Very High | B - High | C - Medium | D- Low | E - Very Low

Overall Rating for ODC is B (Medium) - Data based on sound record, procedures, investigations and analysis which is properly documented, but has minor shortcomings for example data is old, some documentation is missing, and reliance is placed on unconfirmed reports. Asset condition data is very low, ODC is actively working on increasing this data set. Current decisions for renewals are based on asset life, performance and operational knowledge within ODC.

2. Partnerships and stakeholders

2.1 Mana Whenua Engagement

Ōpōtiki District Council recognises mana whenua and the important role Māori play in Council's decision-making processes and aim to build and grow mutually beneficial, positive relationships with iwi and hapū situated within the Ōpōtiki District.

On 27 May 2023 the signing of Te Whakatōhea's deed settlement occurred. Te Whānau a Apanui also initialled a deed of settlement in late 2023, and Ngai Tai have begun their treaty settlement process also. These are historic milestones for the rohe and Council looks forward to playing a supporting role for our district's Iwi.

The aspirations of our local iwi and opportunities enabled by settlement will play a significant role in the development and growth of the Ōpōtiki district over the next ten years. Currently we engage with iwi on an as required basis as there is no formalised partnership yet between Council and iwi.

2.2 Key Customers and Stakeholders

The Three Waters activities exists to meet the needs and requirements of customers, partners and key stakeholders. The table below identified the areas of interests, expectations and involvements of this group.

Customers/Stakeholders	Area of Interest	Involvement/Expectations
Home owners; businesses; organisations; health and medical facilities; education facilities; community groups; tourists and visitors	Water, wastewater, stormwater usage	These customers realise the benefits of provided by the water supply, wastewater and stormwater activities
Iwi	Te Mana o te Wai Iwi & Hapū cultural heritage	All water to be respected and mauri of water to be protected and enhanced
Bay of Plenty Regional Council	Development, usage and discharge plans	Administers and enforces effective resource management in the Bay of Plenty region. Applications are processed through Bay of Plenty Regional Council.
Taumata Arowai / Ministry of Health	Drinking water safety	Compliance with drinking water standards and regulations
Audit New Zealand	Compliance and financial regulation	Carries out annual audits of Council on the Auditor-General's behalf to give ratepayers assurance that Council is appropriately reporting on how they spend public money and on the services they have provided.
Other Government agencies; Ratepayers Associations; Environmental groups; Fish and Game	Development, usage and discharge plans	These groups liaise with Council in relation to three waters services. Affected parties to Council's resource consents.
Other utility providers	Operations, performance and management of works	New Zealand Utilities Advisory Group (NZUAG) requirements for co-ordinating networks.
Bay of Plenty Emergency Management /Civil Defence	Emergency Operations	In the event of a Civil Defence emergency they provide advice and work alongside emergency services, lifeline utilities and government departments.
Elected Members; Committees; CEO, Management and Staff	Performance and management of services	Key internal stakeholders responsible for the management and operation of the Three Waters system.

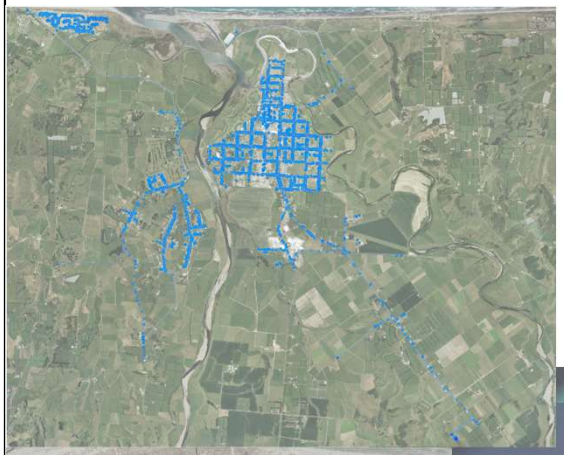
3. Our services and assets we manage

3.1.1 Water Supply

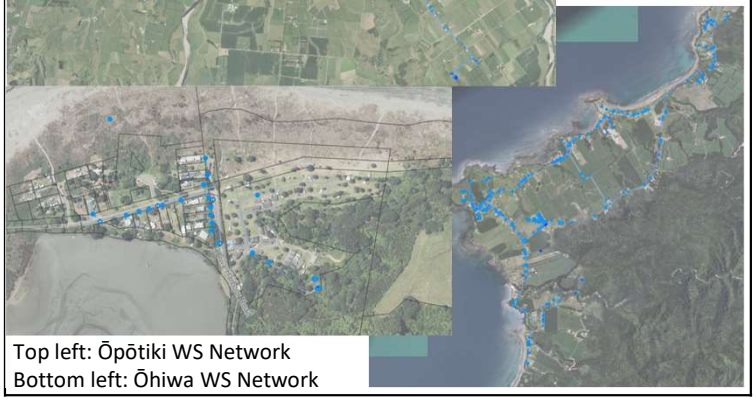
We manage three water supply schemes which serve approximately 60% of the Ōpōtiki District population. The largest scheme with about 2,175 connections, services Ōpōtiki and Hukutaia. There are two smaller schemes which service Te Kaha (220 connections) and Ōhiwa (17 connections). Treatment varies between schemes, with both Ōpōtiki /Hukutaia and Te Kaha chlorinated and treated with UV disinfection. None of the water supplies are fluoridated.

- multiple groundwater and infiltration wells
- 3 treatment plants, 4 pump stations, 9 water storage sites
- approximately 112 km water supply pipelines

All connections are metered and charged by volume.



Bottom right: Te Kaha WS Network

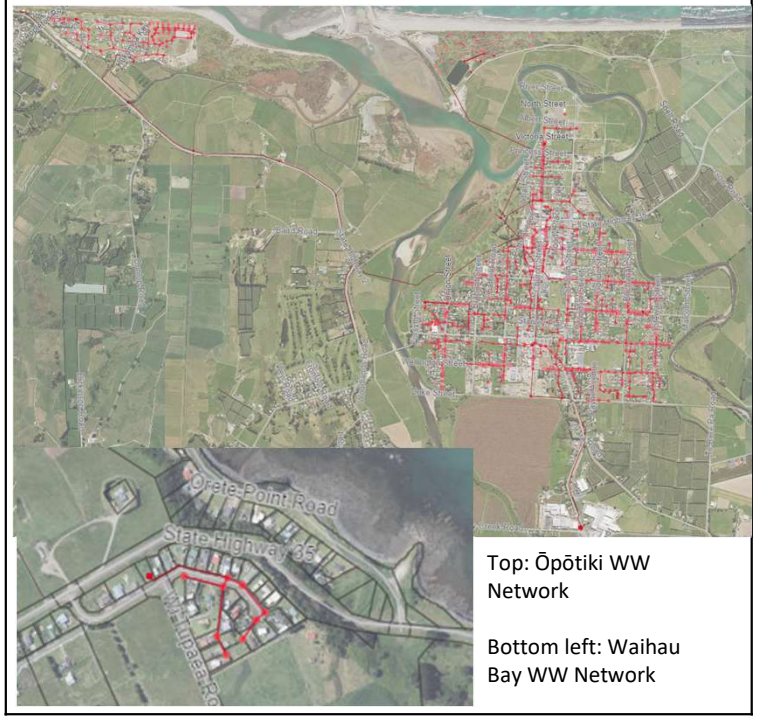


Top left: Ōpōtiki WS Network
Bottom left: Ōhiwa WS Network

3.1.2 Wastewater

We manage two wastewater schemes in Ōpōtiki/Hukutaia (~1,400 connections) and Waihau Bay (~30 connections) which equates to about one third of the district's population. There are plans to expand the wastewater scheme to service the Hukutaia growth area.

- one treatment plant at Ōpōtiki with primary and secondary treatment and disposal to land
- one septic tank at Waihau Bay with disposal to land
- about 46 km wastewater pipelines



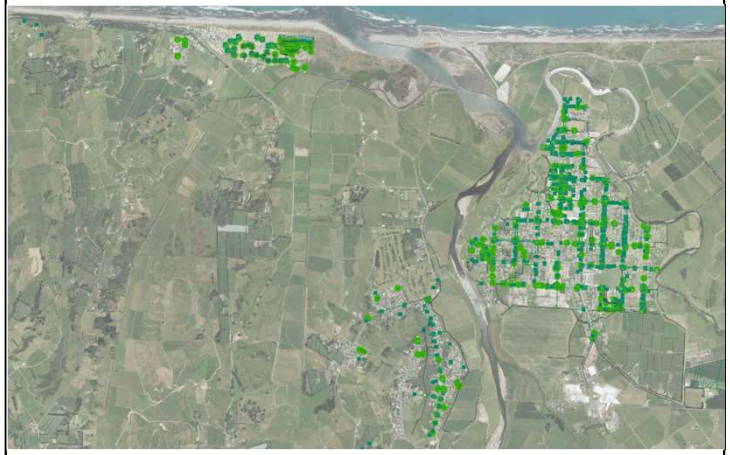
Top: Ōpōtiki WW Network

Bottom left: Waihau Bay WW Network

3.1.3 Stormwater

We manage the urban stormwater network in Ōpōtiki which interfaces with the Bay of Plenty Regional Council flood protection scheme. Approximately two thirds of Ōpōtiki's stormwater is discharged into Tarawa Creek.

- 12 pump stations
- 21 flood gates
- 2 wetlands
- 29 km of stormwater pipelines
- 20 km of open drains



Above: Ōpōtiki SW Network

3.2 State of the assets – Water Supply

3.2.1 Asset Quantity and Values

The latest asset valuations are shown in the table below. (Three Waters Infrastructure Valuation, Beca Projects NZ Limited, Feb 2023). This valuation was completed in accordance with Public Benefit Entities International Public Sector Accounting Standards 17, Property, Plant and Equipment.

Asset	Quantity	Unit	Replacement Cost	Depreciated Replacement Cost	Annual Depreciation
Pipework	109861.75	m	$ 38,543,333	$ 26,156,263	$ 443,468
Hydrants	323	No.	$ 675,763	$ 351,174	$ 11,421
Valves	592	No.	$ 832,547	$ 465,032	$ 16,034
Toby	2402	No.	$ 1,400,531	$ 139,590	$ 15,822
Intakes	4	No.	$ 56,691	$ 29,119	$ 1,646
Electrical and controls	98	No.	$ 1,131,149	$ 520,580	$ 39,126
Treatment Plant	382	No.	$ 5,462,173	$ 3,809,759	$ 114,331
Storage	16	No.	$ 1,036,835	$ 474,585	$ 15,182
Other	1	No.	$ 6,020.80	$ 4,735.11	$ 75.26
Total			$ 49,145,043	$ 31,950,838	$ 657,104

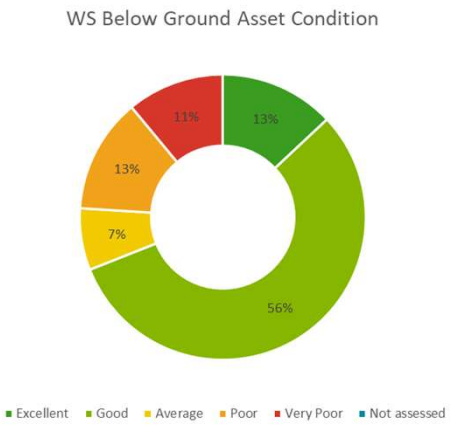
Depreciated values have been calculated using the optimised depreciated replacement cost (ODRC) method where asset optimisation and residual ODRC values have been considered. The valuation was completed via the Council's Univerus asset management database.

There was an overall movement of 19% between the 2020 and 2022 valuations. The majority of the valuation movement was due to minor depreciation method changes, changes in the unit costs, the net value of additions and deletions, renewals, the depreciation of asset values that existed as at 30 June 2020 and remaining useful life adjustments for assets in service that have reached and exceeded their base lives.

3.2.2 Asset Condition

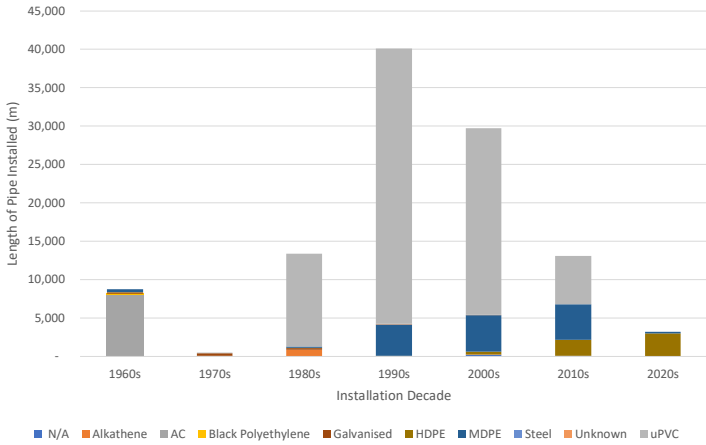
The International Infrastructure Management Manual provides guidance on assessing the condition of assets and approaches to grading the condition. In line with this, Council uses a condition grading system to identify the condition of assets at the group level. Using the system, the expected condition of assets is ranked from 1 (excellent) to 5 (very poor).

The figure below presents the condition distribution of the water supply assets. The majority of assets (76%) have a condition rating of average or better, with 13% of the asset base with a poor rating and 11% with a very poor rating.



3.2.3 Asset Age Profile

The figure below presents the installation of water supply mains by decades. Council monitors the remaining useful lives of its assets, this is directly linked to the installation dates and material type. Most of the network is comprised of PVC or PE pipes with large sections of the Hukutaia network still made of asbestos-cement pipe. About 9km of water supply mains are over 50 years of age and nearing their respective useful lives.



3.2 State of the assets – Water Supply

3.2.4 List of Critical Assets

A Criticality Framework was developed to assign criticality to the three waters assets in Ōpōtiki District. The framework identifies critical assets which require condition information to inform their maintenance and renewal. The outcomes from the framework helps inform Asset Management Plans and Long Term Plan. The framework considers the following drivers:

- Health (sickness)
- Safety – staff & public (trauma)
- Loss of service (domestic)
- Key customers and business impacts
- Environment and Cultural
- Damage to property
- Damage and disruption to 3rd party utilities
- Compliance
- Complexity
- Financial on Council
- Image / Legal / Reputation

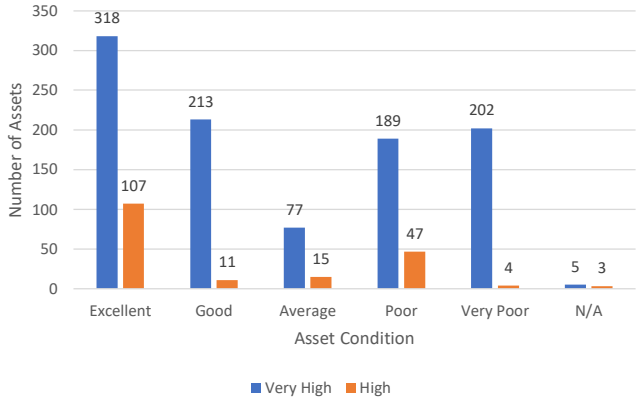
The table below lists the water supply assets with a High criticality rating and the drivers for the rating.

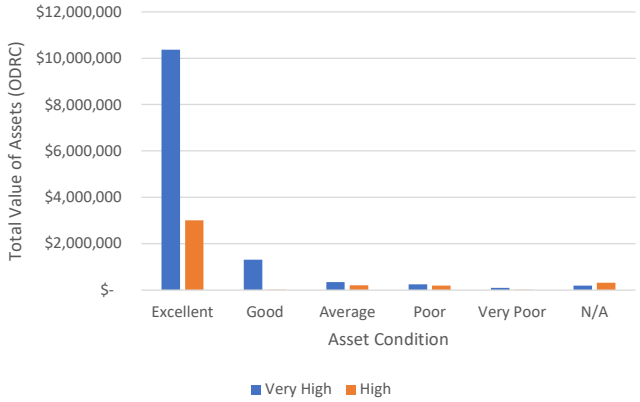
Water scheme	High	Drivers
Ōpōtiki	Water treatment plant	Loss of supply and health (sickness)
	Main 355mm Feed to Network	
	Primary Reservoir	Loss of supply
	SCADA System	Loss of supply and damage to property
	Water Quality Management	Health (sickness) and compliance
Te Kaha	Water treatment plant	Loss of supply
	Supply Line to Network	Loss of supply and complexity
	SCADA System	Loss of supply and damage to property
	Water Quality Management	Health (sickness) and compliance
Ohiwa	SCADA System	Loss of supply and damage to property
	Water Quality Management	Health (sickness) and compliance

3.2.5 Condition of Critical Assets

To monitor the condition of high critical water supply assets, techniques are identified based on the likely failure modes of specific assets. Inspections are scheduled and likely to become more frequent as the asset ages or as deterioration is noted. Analysis is undertaken using the measured deterioration to predict likely asset life with the intent to undertake pro-active renewal of the asset prior to failure.

The figures below provides condition distributions in asset numbers and values for water supply assets with a Very High and High Criticality rating.





3.2.6 Supporting commentary

No water supply assets have been identified with an extreme critical rating. The details of assets with criticality ratings can be found in the report: *Asset Criticality Framework for 3 Waters,* ProjectMax, (2022).

Assets with Moderate rating are presented below.

Water scheme	Moderate	Drivers
Ōpōtiki	Water source with well pumps	Loss of service
	Water Source Boost Pumps	
	Raw water Rising Main	
	Hukuataia Booster Pumps	Loss of supply
	Hukuataia Reservoir	
	CBD	Damage to property and complexity
Te Kaha	Water source with submersible pumps	Loss of supply
	Reservoir	
Ōhiwa	Water source with submersible pumps	Loss of supply
	Water Treatment Plant / Reservoir	

3.3 State of the assets – Wastewater

3.3.1 Asset Quantity and Values

The latest asset valuations are shown in the table below. (Three Waters Infrastructure Valuation, Beca Projects NZ Limited, Feb 2023). This valuation was completed in accordance with Public Benefit Entities International Public Sector Accounting Standards 17, Property, Plant and Equipment.

Asset	Quantity	Unit	Replacement Cost	Depreciated Replacement Cost	Annual Depreciation
Pipe (<160mm)	33,043	m	$ 12,607,180	$ 7,817,948	$ 146,192
Pipe (200-250mm)	3,687	m	$ 2,356,192	$ 1,852,421	$ 31,818
Pipe (375mm)	1,884	m	$ 1,838,210	$ 1,281,930	$ 20,425
Service Connections	1,416	No.	$ 3,888,336	$ 691,408	$ 48,604
Manholes	450	No.	$ 2,482,031	$ 1,035,424	$ 28,632
Electrical Controls	92	No.	$ 692,480	$ 319,905	$ 27,216
Treatment	245	No.	$ 5,420,889	$ 3,756,458	$ 111,117
Other	59	No.	$ 1,111,164	$ 786,470	$ 13,630
Total			$ 30,396,481	$ 17,541,963	$ 427,633

Depreciated values have been calculated using the optimised depreciated replacement cost (ODRC) method where asset optimisation and residual ODRC values have been considered. The valuation was completed via the Council's Univerus asset management database.

There was an overall movement of 19% between the 2020 and 2022 valuations. The majority of the valuation movement was due to minor depreciation method changes, changes in the unit costs, the net value of additions and deletions, renewals, the depreciation of asset values that existed as at 30 June 2020 and remaining useful life adjustments for assets in service that have reached and exceeded their base lives.

3.3.2 Asset Condition

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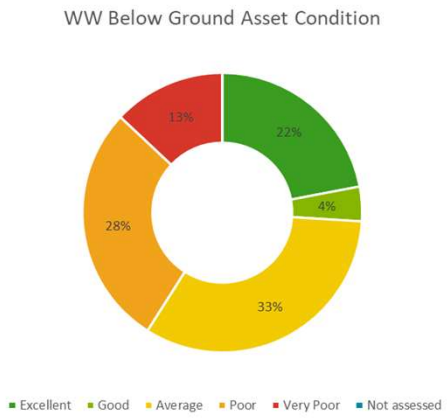
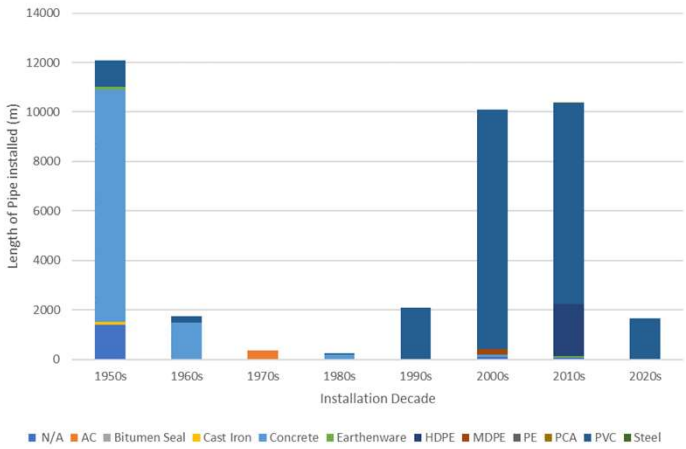
The figure below presents the condition distribution of the water supply assets. More than half of assets (59%) have a condition rating of average or better, with 28% of the asset base with a poor rating and 13% with a very poor rating.



3.3.3 Asset Age Profile

The figure below presents the installation of wastewater mains by decades. Council monitors the remaining useful lives of its assets, this is directly linked to the installation dates and material type. About 14km of wastewater mains are over 50 years of age and nearing their respective useful lives. Older pipes are mainly concrete.



3.3 State of the assets – Wastewater

3.3.4 List of Critical Assets

A Criticality Framework was developed to assign criticality to the three waters assets in Ōpōtiki District. The framework identifies critical assets which require condition information to inform their maintenance and renewal. The outcomes from the framework helps inform Asset Management Plans and Long Term Plan. The framework considers the following drivers:

- Health (sickness)
- Safety – staff & public (trauma)
- Loss of service (domestic)
- Key customers and business impacts
- Environment and Cultural
- Damage to property
- Damage and disruption to 3rd party utilities
- Compliance
- Complexity
- Financial on Council
- Image / Legal / Reputation

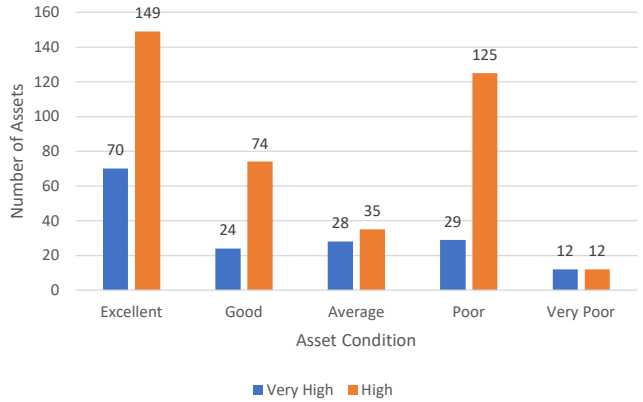
The table below lists the wastewater assets with a High criticality rating and the drivers for the rating.

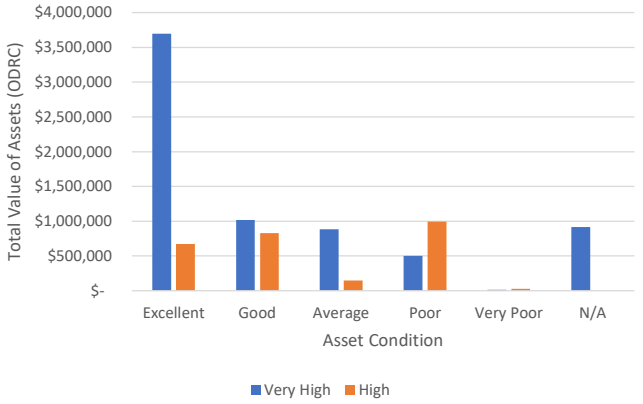
Wastewater scheme	High	Drivers
Ōpōtiki	River Crossings	Environmental
	Pump Stations (PS 1, 2 and 8)	Loss of service, environment, damage to property and key customers and business impacts
	Rising Mains (PS 1, 2 and 8)	
	SCADA System	Health (sickness), environment and compliance
	Water Quality Management	
Waihau Bay	SCADA System	Health (sickness), environment and compliance

3.3.5 Condition of Critical Assets

To monitor the condition of high critical wastewater assets, techniques are identified based on the likely failure modes of specific assets. Inspections are scheduled and likely to become more frequent as the asset ages or as deterioration is noted. Analysis is undertaken using the measured deterioration to predict likely asset life with the intent to undertake pro-active renewal of the asset prior to failure.

The figures below provides condition distributions in asset numbers and values for wastewater assets with a Very High and High Criticality rating.





3.3.6 Supporting commentary

No wastewater assets have been identified with an extreme critical rating. The details of assets with criticality ratings can be found in the report: Asset Criticality Framework for 3 Waters, ProjectMax, (2022).

Assets with Moderate rating are presented below.

Wastewater scheme	High	Drivers
Ōpōtiki	Pump Stations (PS 1, 4, 5, 6 and 7)	Loss of service, environment, damage to property and key customers and business impacts
	Rising Mains (PS 1, 4, 5, 6 and 7)	
	Collection network	Damage (Property) and Loss of Service
	Key Customers	
Waihau Bay	Pump Station	Environment
	Disposal Field	Compliance, environment, complexity

3.4 State of the assets – Stormwater

3.4.1 Asset Quantity and Values

The latest asset valuations are shown in the table below. (Three Waters Infrastructure Valuation, Beca Projects NZ Limited, Feb 2023). This valuation was completed in accordance with Public Benefit Entities International Public Sector Accounting Standards 17, Property, Plant and Equipment.

Asset	Quantity	Unit	Replacement Cost	Depreciated Replacement Cost	Annual Depreciation
Open Drains	19755.76	m	$ 61,885	$ 19,358	$ 785
Culverts	904.26	m	$ 964,507	$ 649,705	$ 10,717
Pipe (<=150mm)	7202.61	m	$ 2,313,926	$ 1,330,821	$ 36,058
Pipe (180-250mm)	8729.63	m	$ 5,260,228	$ 3,524,675	$ 58,711
Pipe (>250mm)	16861.88	m	$ 17,893,376	$ 12,200,683	$ 200,588
Service Connections	1063.35	m	$ 378,234	$ 306,439	$ 4,203
Catchpits	527	No.	$ 1,566,902	$ 1,128,575	$ 18,404
Manholes	223	No.	$ 1,439,458	$ 1,007,185	$ 17,993
Electrical and controls	66	No.	$ 398,087	$ 246,175	$ 18,462
Inlet/outlet	66	No.	$ 391,497	$ 228,000	$ 6,440
Plant/Structures	114	No.	$ 1,538,984	$ 1,118,635	$ 33,363
Total			$ 32,207,084	$ 21,760,251	$ 405,723

Depreciated values have been calculated using the optimised depreciated replacement cost (ODRC) method where asset optimisation and residual ODRC values have been considered. The valuation was completed via the Council's Univerus asset management database.

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3.4.2 Asset Condition

The International Infrastructure Management Manual provides guidance on assessing the condition of assets and approaches to grading the condition. In line with this, Council uses a condition grading system to identify the condition of assets at the group level. Using the system, the expected condition of assets is ranked from 1 (excellent) to 5 (very poor).

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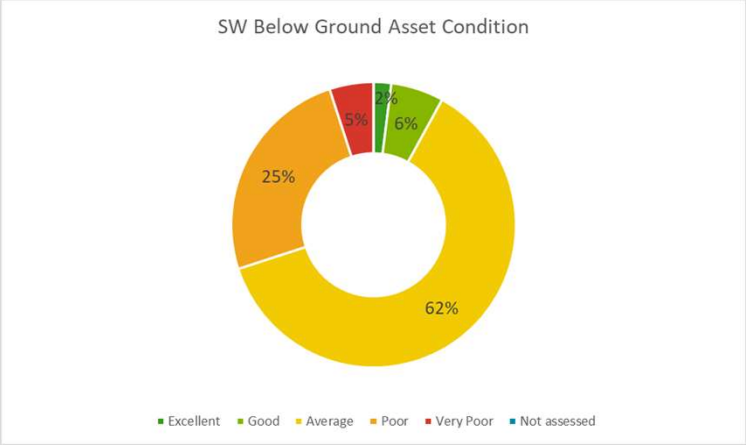
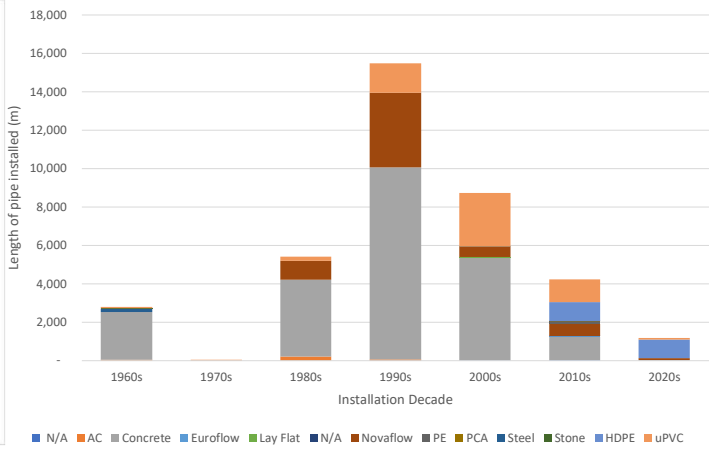


3.4.3 Asset Age Profile

The figure below presents the installation of stormwater mains by decades. Council monitors the remaining useful lives of its assets, this is directly linked to the installation dates and material type. About 22km of stormwater mains are over 50 years of age and nearing their respective useful lives. Older pipes are mainly concrete.



3.4 State of the assets – Stormwater

3.4.4 List of Critical Assets

A Criticality Framework was developed to assign criticality to the three waters assets in Ōpōtiki District. The framework identifies critical assets which require condition information to inform their maintenance and renewal. The outcomes from the framework helps inform Asset Management Plans and Long Term Plan. The framework considers the following drivers:

- Health (sickness)
- Safety – staff & public (trauma)
- Loss of service (domestic)
- Key customers and business impacts
- Environment and Cultural
- Damage to property
- Damage and disruption to 3rd party utilities
- Compliance
- Complexity
- Financial on Council
- Image / Legal / Reputation

The table below lists the stormwater assets with a High criticality rating and the drivers for the rating.

Criticality Ratings	Ōpōtiki Stormwater	Drivers
Extreme	Stopbanks	Damage to property and injury
High	Floodgates	Damage to property
	SCADA System	Damage to property

3.4.5 Condition of Critical Assets

To monitor the condition of high critical stormwater assets, techniques are identified based on the likely failure modes of specific assets. Inspections are scheduled and likely to become more frequent as the asset ages or as deterioration is noted. Analysis is undertaken using the measured deterioration to predict likely asset life with the intent to undertake pro-active renewal of the asset prior to failure.

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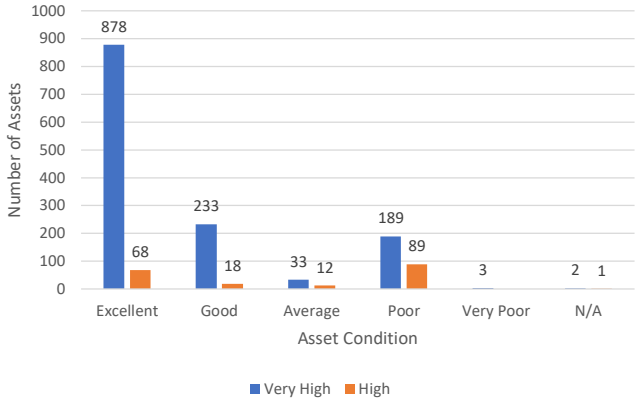
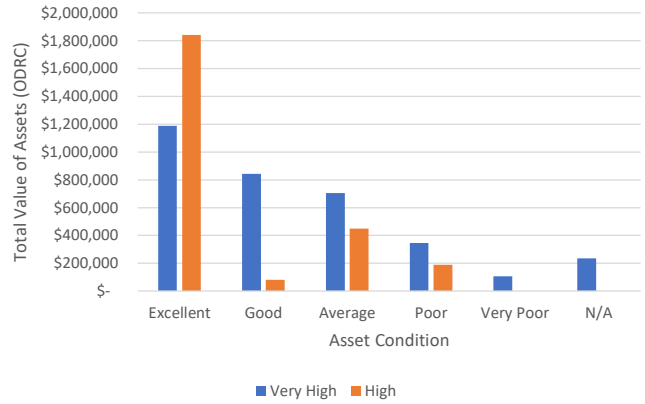




3.4.6 Supporting commentary

Reliable operation of the flood protection assets, e.g. stopbanks, floodgates is essential to the operation of the stormwater system. These are owned and maintained by Bay of Plenty Regional Council but their integrity is paramount to the safety and protection of district residents.

The details of assets with criticality ratings can be found in the report: Asset Criticality Framework for 3 Waters, ProjectMax, (2022).

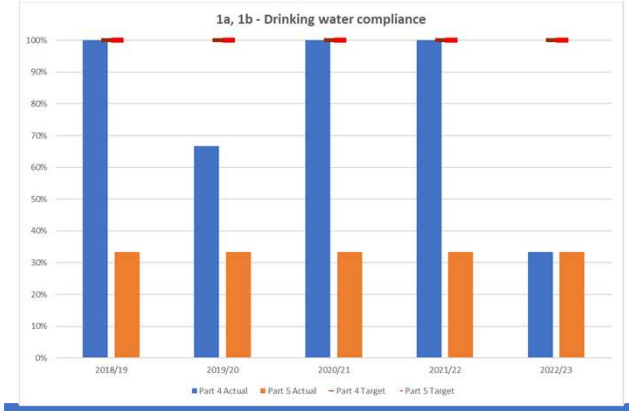
Assets with Moderate rating are presented below.

Criticality Ratings	Ōpōtiki Stormwater	Drivers
Moderate	Bay of Plenty Regional Council interception drain and Pump Stations	Damage to property
	Overland Flow Paths	
	Open Drains	

4. Current Level of Service and Performance – Water Supply

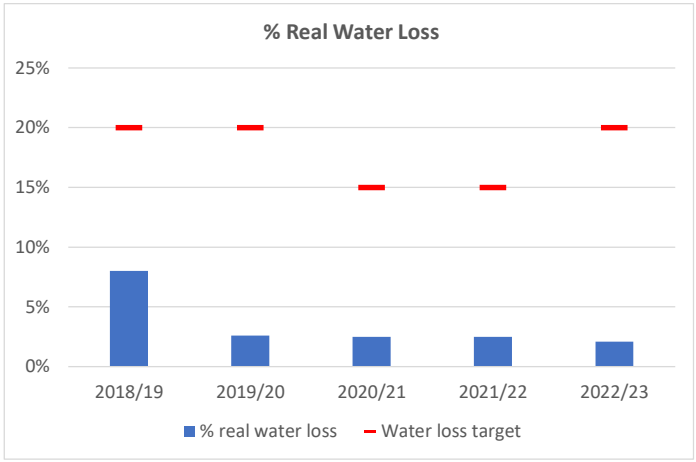
Water Supply (1a) & (1b) - Safety of drinking water

The figure below shows that Council drinking water supplies have not fully complied with the following criteria for the last five years:
(a) part 4 of the drinking-water standards (bacteria compliance criteria), and
(b) part 5 of the drinking-water standards (protozoal compliance criteria)



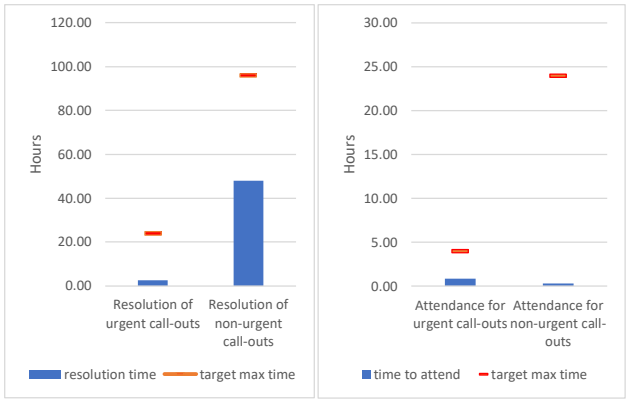
Water Supply (2) - Maintenance of the reticulation network

The figure below shows the percentage of real water loss from the Council's water networks. The loss has been well under the maximum target for the last five years. However, the actual values seems much lower than typical industry values and may require more investigation.



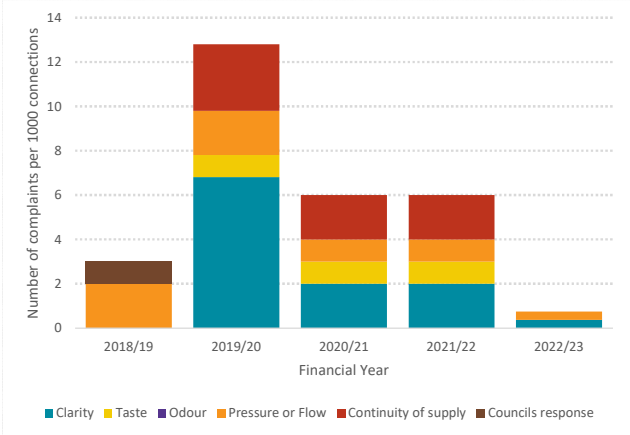
Water Supply (3) - Fault Response Times

The figures below show the median times to attend and resolve call-out in response to a fault or unplanned interruption to the water supply system in 2022/23. Attendance and resolution times were all within target.



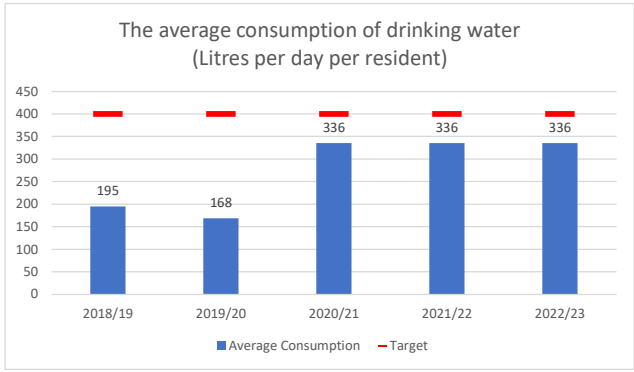
Water Supply (4) – Customer Satisfaction

The figure below shows the total number of complaints received by the Council regarding: (a) drinking water clarity, (b) drinking water taste, (c) drinking water odour, (d) drinking water pressure or flow, (e) continuity of supply, and (f) the local authority's response to any of these issues - expressed per 1000 connections to the Council's networked reticulation system. Overall complaints have decreased in recent years.



Water Supply (5) – Demand Management

The figure below shows the average consumption of drinking water per day per resident with targets over the last five financial years. Average consumption has remained below the maximum target for the last five years

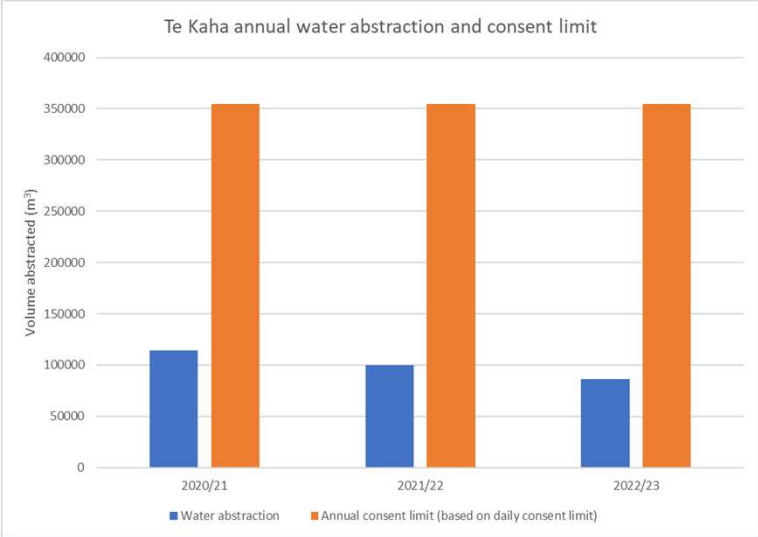


Water Supply (6) - Consents owned and expiry dates

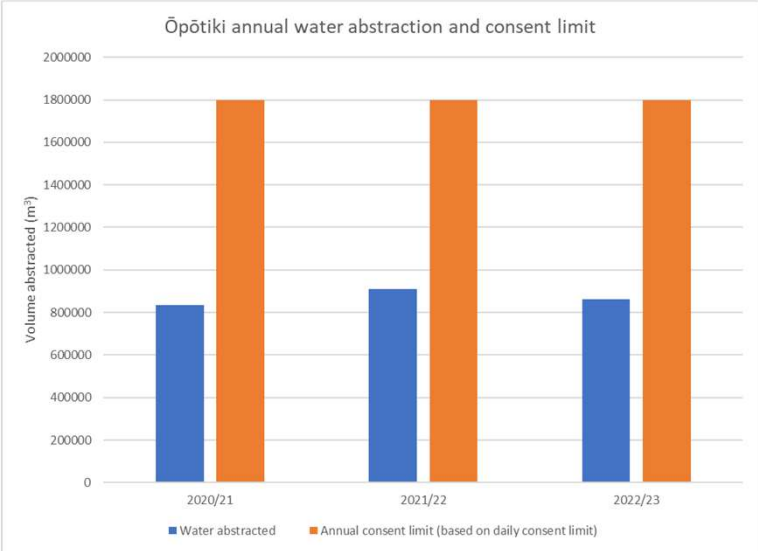
Network	Consents	Expiry date
Ōpōtiki Town	68042 - Taking water from a bore for public supply located at Woodlands Road Ōpōtiki.	30/11/2024
	66501 - Taking water from two bores located at Clark Cross Road Ōpōtiki.	31/10/2045
Te Kaha	61174 - Taking of Water from shallow filter bed adjacent to the Puremutahuri Stream for the Te Kaha community supply.	31/09/2021

4. Current Level of Service and Performance – Water Supply

Water Supply (7a) - Water abstraction (Te Kaha)



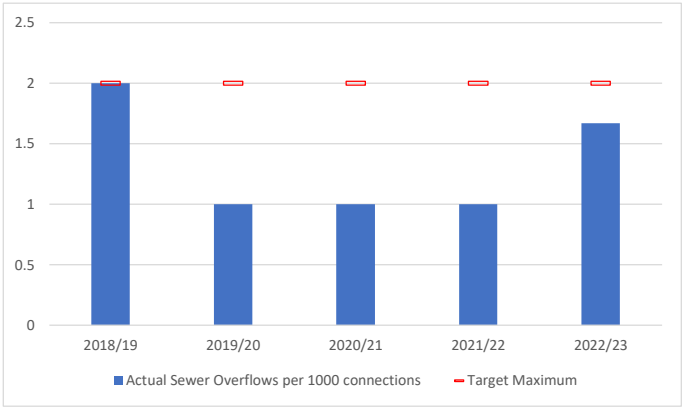
Water Supply (7b) - Water abstraction (Ōpōtiki)



4. Current Level of Service and Performance – Wastewater

Wastewater (1) – System and Adequacy

The number of dry weather sewerage overflows from the Council's sewerage system (expressed per 1000 sewerage connections) for the last five years has been lower than the maximum target.



Wastewater (2) – Discharge Compliance

With regard to the following Mandatory Performance Measure reported in Council Annual Reports:
Compliance with the territorial authority's resource consents for discharge from its sewerage system measured by the number of:

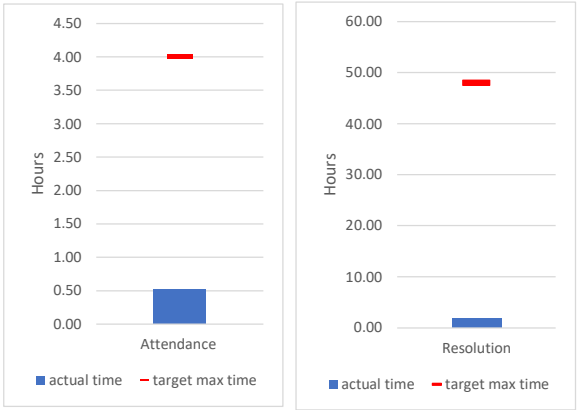
- Abatement notices
- Infringement notices
- Enforcement orders
- Convictions

Received by the territorial authority in relation to those resource consents.

Ōpōtiki District Council received an abatement notice with regards to discharges from the Ōpōtiki township effluent overflow pond breaching the number of allowable days discharging to the receiving environment (between the period of 1 November 2021 to 31 October 2022).

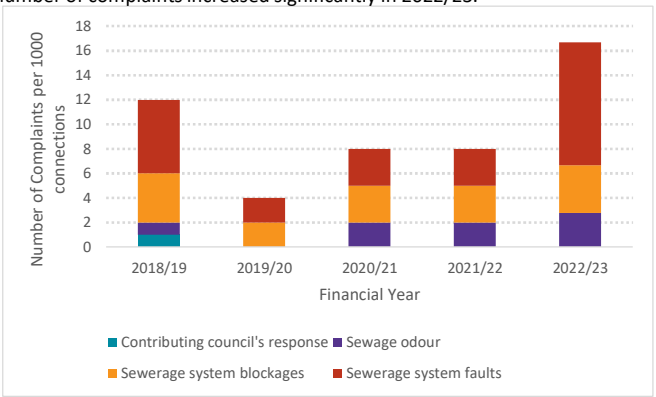
Wastewater (3) - Fault Response Times

The figure below shows the 2022/23 median response times to attend to sewerage overflows resulting from a blockage or other fault in the sewerage system, (a) attendance time and (b) resolution time. Actual times were all within target timeframes.



Wastewater (4) – Customer Satisfaction

The figure below shows the total number of complaints received by the Council about the following: (a) sewage odour (b) sewerage system faults (c) sewerage system blockages, and (d) the territorial authority's response to issues with its sewerage system, expressed per 1000 connections to the sewerage system. The number of complaints increased significantly in 2022/23.



Wastewater (5) - Consent owned and expiry dates

Network	Consents	Expiry date
Ōpōtiki Town	050423 - Constructing and locating a pipeline within the coastal marine area of the Otara River for the reticulation of sewage from its treatment plant at Potts Ave, Ōpōtiki	30/11/2029
	63594 - Discharging wastewater milli-screenings from the Ōpōtiki Wastewater Treatment Plant to land	31/07/2025
	RM17-0736-AP - Resource consent is to authorise and specify conditions with discharging septic tank treated wastewater to ground soakage, at the Te Ahiaua Reserve, Ōpōtiki.	31/01/2024
	63179 - Secondary treated sewage via soakage trenches to land adjacent to the Waioeka Estuary, Ōpōtiki.	31/07/2025
Waihau Bay	63013 - Discharging treated sewage to ground soakage on the permit holder's property at Te Moana Subdivision, Otutehapari Roa, Waihau Bay, Ōpōtiki.	30/04/2030

4. Current Level of Service and Performance – Stormwater

Stormwater (1) – System and Adequacy

With regard to the following Mandatory Performance Measure reported in Council Annual Reports:

- The number of flooding events that occur in a territorial authority district

Council considers flooding events as an overflow of stormwater from a territorial authority's stormwater system that enters a habitable floor.

There have been no such flooding events in the last five years.

Stormwater(3) - Response Times

With regard to the following Mandatory Performance Measure reported in Council Annual Reports:

- The median response time to attend a flooding event, measured from the time that the territorial authority receives notification to the time that service personnel reach the site.

There have been no flooding events in the last five years.

Stormwater (2) – Discharge Compliance

With regard to the following Mandatory Performance Measure reported in Council Annual Reports:
Compliance with the territorial authority's resource consents for discharge from its sewerage system measured by the number of:

- Abatement notices
- Infringement notices
- Enforcement orders
- Convictions

Received by the territorial authority in relation to those resource consents.

Ōpōtiki District Council has not received any notices or convictions in the last five years.

Stormwater (4) – Customer Satisfaction

The figure below shows the number of complaints received by the Council about the performance of its stormwater system, expressed per 1000 properties connected to the stormwater system. There are few complaints recorded about the stormwater activity

Stormwater (5) - Consents owned and expiry dates

Network	Consents	Expiry date
Ōpōtiki Town	40192 - To authorise the continued presence of two outfall structures. located on the eastern bank of Tarawa Creek.	30/04/1934
	62902 - Discharge of 1200 litres per second (2% AEP) of stormwater generated by the Waiotahi Beach Resort Subdivision to Huntress Creek.	31/03/2020
	67024 - For the purpose of authorising the installation of a reticulated stormwater system and the discharge of stormwater to the Waioeka River at the Forsythe Street reserve.	30/04/2047
	67809 - For the purpose of removing and replacing a 900 mm diameter culvert with a 1200 mm culvert, in, on and under the bed of an un-named drain at Bryan Road, Ōpōtiki.	30/04/2049
	62935 - Discharging Stormwater from 1671 SH 2 Waiōtahe Beach to storage/soakage pond.	31/12/2024
	68223 - Discharge stormwater to the Waioeka River and Otara Rivers from two stormwater pumping station (Tarawa Creek pump station to King Street, - St Johns street pump station at High street).	24/09/2017
	RM19-0462-DC.01 - Discharge of sediment contaminated stormwater to land and where it may enter the Waiotahi Estuary while earth works is being undertaken.	31/08/2024

4. Current Level of Service and Performance

Areas of concern and mitigation options

Water Supply

- Treatment processes have improved in Te Kaha and Ōhiwa to ensure that not only bacteria but also protozoa are removed. These improvements were completed in 2019, 2020 and 2024, Ōpōtiki and Ōhiwa supplies are now fully compliant, with Te Kaha still regularly failing protozoa compliance due to high turbidity issues in source water.
- Despite improvements, the Te Kaha intake struggles with contamination during heavy rain. Plans to switch to a cleaner groundwater source are underway with one bore already operational. However, a secondary bore collapsed, necessitating further investigation to achieve a reliable backup system for Te Kaha's new water source, especially during heavy rainfall.
- Enough water is stored for firefighting in Ōpōtiki, Hukutaia Waiotahi Drifts and Ōhiwa. But in Te Kaha, there is a need for more water storage specifically for firefighting. This will require further investigation once a new water source is determined.
- The Hukutaia area has limited water storage capacity, with just one reservoir on Crooked Rd. Council plans to improve the resilience of supply to the Hukutaia area by either making the reservoir bigger to hold more water or adding a new river crossing and Booster Station. This station would allow Hukutaia to get water directly from the main Ōpōtiki reservoir or, in emergencies, from water bores. Both options will enable increased resilience by ensuring that a 24-hour storage capacity is available to both Ōpōtiki township and Hukutaia.
- The replacement of 5.8 km of DN300 uPVC watermain from the WTP to Ford Street is planned to go ahead due to multiple previous pipe failures in this section of the network. This will reduce the effect on the community during a pipe failure and ensure a reliable service is provided.
- The water supply for Ōhiwa is meeting current demands but may need to be increased for seasonal variations in demand or if the resident population increases. Further investigation is needed, and resource consent obtained if demand is likely to exceed consent limits.

Wastewater

- Despite an increase in 2022/23, Council's wastewater network performs well during dry weather (with sewer overflows per 1000 properties still below the target maximum performance criteria). However, the network often struggles during heavy rain. The system can't handle the extra water from leaks and stormwater entering it. We have already completed work to reduce the amount of water getting into the network. Further plans include upgrading wastewater pump station 1 (WWPS01) and the corresponding rising main from WWPS01 to the wastewater treatment plant. This upgrade will allow for additional capacity in the network.
- Our immediate focus is on reducing stormwater getting into the system. The biggest public health risk comes from the system overflowing during storms, which can also stop properties from being able to flush toilets during very heavy rain. Upgrades are also planned for the wastewater treatment plant and disposal field to handle increased flows from population and industrial growth without risking public health.

Stormwater

- Currently, neighbourhoods around the township experience localised areas of nuisance and damaging flooding for storm events between a 1 in 10-year and 1 in 50-year AEP. The Council's goal over the next 30-years, is to ensure that no homes in the township will flood from a storm that's expected once every 50 years (1 in 50-year ARI event). Urban stormwater modelling has helped identify locations where the reticulation network requires upgrading or extending to address existing issues. Plans are in place to increase the pumping capacity and ensure that resilience (provision of back-ups and retrofitting) improvements have also been planned in the trunk parts of the network to address large storm events.
- Overland flow entering the township from the south is also of major concern, particularly during large storm events. To address this issue, ŌDC plans to work with Regional Council to mitigate against this overland flow, therefore minimising the volume of stormwater runoff entering the township from upstream catchments. The planned options here include the upgrade of the SH2 culvert and the provision of increased attenuation through the construction of stop banks with a suitable standard of protection for the township.

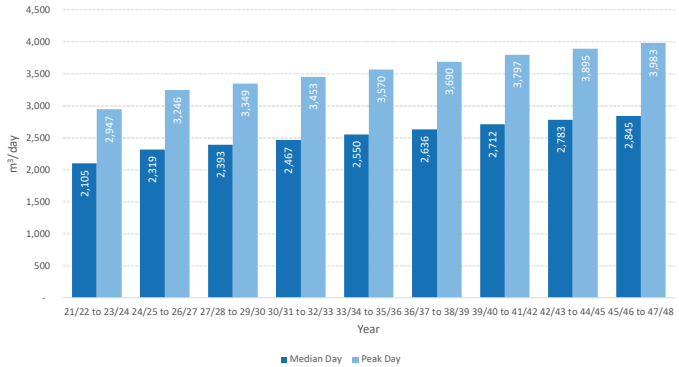
5. Planning for the future

5.1 Relevant Strategic Documents

1. **Eastern Bay Economic Development Strategy (2018).** The strategy provide an overview of the development opportunities and constraints facing the Eastern Bay of Plenty region. It identifies priorities on key catalytic infrastructure projects for regional economic development. These projects and recommendations will promote the investment and development of three waters infrastructure.
2. **Ōpōtiki District Draft Economic Development Strategy (2013**). The Strategy aims to drive growth in the economy, particularly sustainable employment in Ōpōtiki District, to achieve the vision of "Strong Community Strong Future". The economic growth will have an impact on service performance and delivery of three waters infrastructure.
3. **Ōpōtiki District Visitor Strategy (2014-2018).** The Strategy aims to increase the value of the visitor industry to Ōpōtiki and to share Ōpōtiki's unique landscape and culture. It also supports local business development and tourism environment. The implication on three waters services will be higher demand on existing three waters infrastructure and increased maintenance and renewal costs.
4. **Long Term Plan (2024-2034).** Council's Long Term Plan provides the direction and strategies that drive three waters asset management. Programmes for capital, maintenance and renewal works are linked to the Plan along with essential budgeting requirements.
5. **Infrastructure Strategy (2024-2054).** The Strategy describes the key infrastructure related challenges facing the Council's three waters and transport activities over the next 30 years. It sets out what the options and implications are for responding to these challenges, and Council's preferred approach.
6. **District Plan (2021).** The Plan is developed in compliance with the requirements of the Resource Management Act 1991. It controls the way the Council and community use, subdivide and develop land in the district. It identifies where activities can take place, what land can be developed and what features should be protected.

5.2 Demand Drivers

1. **Population** - Population is projected to increase to 11,760 by 2031, reaching 14,100 in 2051 (Eastern Bay of Plenty Housing and Business Needs Research, MRCagney (NZ), 2023)
2. **Economic Activities** – A summary of Ōpōtiki District's strategic priorities for economic development is listed below.
    - Develop Marine Economy
    - Support Local Industry Growth
    - Attract Investment and Add Value
    - Grow the Visitor Economy
    - Purposeful Work and Learning Opportunities
3. **Climate Change** – It is forecasted that there will be more frequent and severe storm events in Ōpōtiki. This will increase the risks to homes and infrastructure in vulnerable areas in the district. Climate change will also cause an increase in the risk of coastal hazards, e.g., sea levels and storm surges. Much of the developed land in the district is near the coast.
4. **Tourism** – Council has been promoting the growth of visitor economy in the district. This will have an impact on infrastructure services. Higher demand on existing three waters infrastructure and increased maintenance and renewal costs are anticipated.
5. **Water Quality and Water Reforms**– Water Reform and new water regulators may affect three waters service, especially the drinking water. This primarily includes meeting the drinking water legislation and standards, assessment of the state of three waters infrastructure, and discharge resource consents. This may increase compliance costs and project investment.

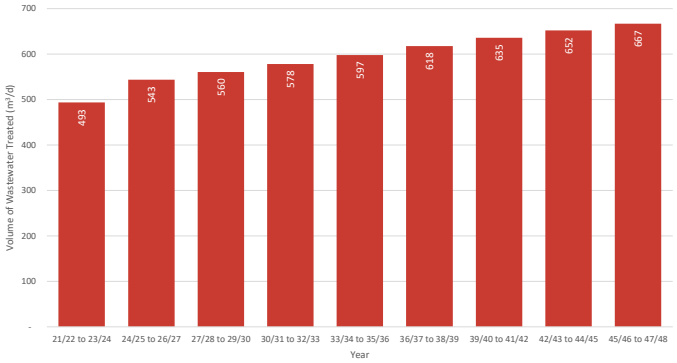


5.3 Demand Projections

Potential water and wastewater demand changes in Ōpōtiki are shown below. The forecasts are based on population and high level demand consumptions across the district.

Key future water and wastewater demand themes are:

- The district experiences some seasonal variations in population. Additional water storage may be required during summer demand.
- There is some opportunity to reduce water consumption through demand management in Ōpōtiki. The water storage and treatment capacity need to be increased.
- The Ōpōtiki wastewater treatment plant is close to its design capacity. The extensions are programmed to accommodate the increasing demand.
- The Ōpōtiki wastewater network upgrades are programmed to accommodate the increasing demand and stress on the network during wet weather and high flow events. The upgrades to the wastewater network are also linked to the Ōpōtiki wastewater treatment plant upgrades and design requirements.



5.4 Managing Demand (Mitigation Measures)

	Water Supply	Wastewater	Stormwater
Meeting Existing Demands	Ōpōtiki Town: Obtain reasonable knowledge of demand, pumped rates and capacity Ricado monitoring system installed at critical pump stations Additional bulk flow meters are proposed in all supplies for leak detection and demand management Te Kaha: The upgrade of Te Kaha water supply with the securing of a secondary bore to provided duty/standby bores to meet existing and future demand. Ōhiwa: Obtain reasonable knowledge of demand, pumped rates and capacity.	Ōpōtiki Town: • Obtain reasonable knowledge of demand, pumped rates and capacity • Ricado monitoring system installed at critical pump stations. • Install monitoring equipment on the network to monitor the network performance and check whether additional works are required • Improve the wastewater treatment plant to increase treatment and volume capacity to improve existing LOS and also to allow for growth, by e.g., constructing a second oxidation pond and constructing stage 2 anaerobic ponds for both oxidation ponds • Improve trade waste management and monitoring to allow for the harbour development and other industrial growth • Pump Station 2 Rising main extension Waihau Bay: The existing wastewater system is meeting current demands noting that it is nearing capacity during peak demand.	Ōpōtiki Town: • Stormwater modelling for the Ōpōtiki catchments to identify upgrades and additional storm attenuation (ponding) areas • Ricado monitoring system installed at critical pump stations. • Enhancements to the stopbank to the south of the town (south of Church Street and Duke Street) to channel farm runoff back into the rivers rather than through the town • Improve other storm basins around Ōpōtiki to increase available storage and reduce ponding on private property or roads
Meeting Future Demands	Ōpōtiki Town: • Asset performance to be assessed during major events, worst areas investigated further • Install Secondary Trident Filter • Increase water storage and treatment capacity of the water supply network • Improve the water supply infrastructure due to the industrial demand for the harbour development • Assess the state of water supply infrastructure in Ōpōtiki to estimate the cost of upgrading water infrastructure to address public health and environmental impacts • Additional water storage may be required during summer demand • New main river crossing to Hukutaia and booster pump station Te Kaha: The upgrade of Te Kaha water supply with the securing of a secondary bore to provided duty/standby bores to meet existing and future demand. Ōhiwa: No future demand anticipated for Ōhiwa.	Ōpōtiki Town: • Asset performance to be assessed during major events, worst areas investigated further • Improve the wastewater infrastructure due to the industrial demand for the harbour and other development • Assess the state of wastewater infrastructure in Ōpōtiki to estimate the cost of upgrading wastewater infrastructure to address public health and environmental impacts • Hukutaia Wastewater reticulation design & investigation • The Drifts subdivisions (Stage 2), catchment infill, proposed marina development and potential additional flow and load associated with industry Waihau Bay: Seasonal and permanent population trends will be monitored to better understand any capacity constraints. No Growth or LOS projects are currently forecast.	Ōpōtiki Town: • Asset performance to be assessed during major events, worst areas investigated further • Improve the stormwater infrastructure due to the industrial demand for the harbour development • Hukutaia Stormwater reticulation design & investigation • Develop an optimised design from the stormwater model and implement rolling upgrades as development occurs in town.

6 Risk Management

6.1 Risk Management Approach and Key Risks

Council adopted a Risk Management Policy and a Risk Management Framework in 2015. The Risk Management Framework provides detailed guidance on how to describe, identify and manage risk. It uses a well established approach derived from AS/NZS ISO 31000:2009. Risks are informed by key strategic issues and consideration of existing assets and current operations, as well as levels of service performance indicators. Key risks for the three water schemes have been identified through assessment of the activities at both asset and operational levels and recorded in risk register which is revisited periodically.

6.2 Building Resilience

Council has developed water safety plans and emergency management plans. Those are updated periodically. It is important to engage sufficient staff or long-term contractors to maintain technical knowledge of schemes in preparation for natural hazards or emergency response.
Council participates in Bay of Plenty Lifeline Utilities group which are made up of all the essential utilities in Bay of Plenty region. This group, working alongside Civil Defence and Emergency Management during emergencies, to restore essential services for community.

Network	High Level Risk/Issue Title	Caused by	Impacts	Current Controls and Mitigation	Proposed further response
Three waters	Risk: Asset Management Practice	• Poor internal controls • Undeveloped processes • Inadequate maintenance contracts • Improper data population • Absence or loss of records • Loss of institutional knowledge • Inaccurate population Predictions	• Poor audit reviews • Fraud • Poor value for money • Unbudgeted expenditure • Poor planning and inadequate modelling • Inadequate cost recovery • Possible damage unrecorded and unrectified • Increased cost of repairs • Risk of cross connections (sewer and stormwater) • Overflows to streams and rivers not monitored or rectified	• Ongoing audit and development of asset management plans • Adhere to process and procedure Improvement programme • Develop asset management policy and framework • Programme renewals, maintenance and upgrades based on optimised designs. • Manage and review expenses.	• Develop Strategic plan with district planners and councillors.
Three waters	Risk: Scheme Operation	• Lack of resource • Lack of expertise • Fluctuations in expenses • Incorrect technical operation • Poor decision making & planning • Lack of maintenance	• Risk to public health • Non-compliance with legislation • Environmental contamination or damage • Poor information for decision making • Increased life cycle costs • Increased maintenance and operational costs • Deterioration of assets	• Obtain robust data for decision making • Manage online monitoring of schemes. Ensure software and data collection equipment is kept up to date • Adhere to accounting and asset management standards and accepted practice. Update asset data regularly	• Discuss development plans with District planners and councillors to ensure adequate infrastructure is available or any restrictions are known.
Three waters	Risk: Scheme Legalisation	• Lack of easements • Outdated, inadequate or non-existent bylaws	• Loss of access – possible delays in undertaking remedial works • Poor public perception • Increased liability for Council and reduced ability to control inappropriate behaviours	• Work with planners and developers to ensure new infrastructure is incorporated. • Review and update bylaws on a regular basis • Manage consents and compliance	• Improve programming and continue record keeping processes.

6 Risk Management – continued

Network	High Level Risk/Issue Title	Caused by	Impacts	Current Controls and Mitigation	Proposed further response
Three waters	Risk: Asset Condition	Failure due to age or event	• Risk to public health • Loss of service • Risk of damage to other infrastructure (e.g. road pavement) • Risk to public and private property • Possible collapse or wash-out • Contamination of the environment	• Prepare for climate change • Mitigate risk of natural hazards • Ensure adequate storage for emergencies. • Condition assessments on critical assets & performance modelling • Storm and scheme performance modelling informing asset project planning. • Move or protect infrastructure out of areas prone to flooding • System monitoring and maintain minimum construction standards. • Effective lifecycle management	• Assemble recovery plan • Check infrastructure in low lying areas or at river crossings • Provide/enhance flood storage areas. • Ensure treatment plants are protected from increased storm surges or inundation.
Three waters	Risk: Scheme Performance	Poor performance due to lack of capacity	• Limit growth • Inadequate water pressures allowing backflow • Inadequate firefighting capability • Risk to property • Damage to public assets	• Scheme pressure monitoring and performance modelling informing asset planning • Assessment of service requirements informing asset project planning and lifecycle management • System monitoring and development planning informing renewal and maintenance programme	• Allow for growth
Three waters	Risk: Asset Maintenance	Poor performance due to impairment	• Loss of service • Risk to public health • Risk to public property • Risk to public health and property Contamination of the environment	• Effective life cycle management • Programme renewals, maintenance and upgrades based on optimised designs and timeframes • Maintain level of service Measure performance against key performance indicators – review regularly and use data to inform decision making • Scheme leakage testing and water loss monitoring • Effective water safety planning and asset project planning.	• Engage local contractors under long term maintenance contracts to assist with condition assessments and regular renewals wherever possible.
Three waters	Risk: Scheme Function	Inadequate treatment	• Risk to public health • Non-compliance with legislation • Environmental contamination or damage	• Safe disposal of filter backwash • Maintain treatment environment • Educate public and enforce trade waste runoff control. • Comply with legislation. • Monitor stormwater discharge and maintain treatment environment • Reduce overflows from wastewater network. • Reduce leaching of wastewater from network into ground or streams and rivers. • Maintain treatment environment	• Move wastewater infrastructure away from areas prone to flooding or flood storage areas. • Monitor and manage any overflows. • Dispose of hazardous waste from treatment processes in accordance with best practice.

7 Asset Operations and Maintenance

7.1 Operations and Maintenance Requirements (WHY)

Council is responsible for how the asset will be operated and maintained on a day-to-day basis to:

- Achieve adequate level of service performance targets
- Meet resource consent conditions requirements
- Ensure the capacity of three waters assets is maintained
- Deliver three waters services at the required level
- Ensure effective control of water and support water conservation and efficiency
- Protect public health and safety

Council delivers three waters services mainly through maintenance contracts. Physical works are mainly covered by the maintenance contracts. The service delivery model is presented below.

Service Delivery Function	Internal Service Delivery Team	Internal Capabilities	External Service Delivery
Design	Three Waters	Minor projects	Consultants/Contractors
Construct	Three Waters	Operational works only	All projects to contractors
Operate	Three Waters	Minor fixtures, minor CCTV works	Mechanical and electrical repairs Backflow device testing and laboratory services CCTV inspection
Maintenance	Three Waters		All external through local service providers

7.2 Key Operational Processes and Asset Maintenance (WHAT)

Operational objectives	Operations and maintenance activities
Scheme operation	• Obtain robust data for decision making. • Manage on-line monitoring of schemes. Ensure software and data collection equipment is kept up to date. • Adhere to accounting and asset management standards and accepted practice. Up-date asset data regularly. • Discuss development plans with District planners and councillors to ensure adequate infrastructure is available or any restrictions are known.
Manage scheme technical operation	• Maintain accurate records of new works. Produce/update operations manuals. • Ensure Water Safety Plans and Emergency Management Plans are developed and updated. • Engage sufficient staff or long-term contractors to maintain technical knowledge of schemes.
Asset maintenance	• Effective life cycle management • Programme renewals, maintenance and upgrades based on optimised designs and timeframes. • Engage local contractors under long term maintenance contracts to assist with condition assessments and regular renewals wherever possible. Only engage larger contractors for major works on a short timescale. • Maintain level of service • Measure performance against key performance indicators – review regularly and use data to inform decision making • Effective data management • Ongoing population of asset register and maintenance expenditure

7.3 Operations and Maintenance Plan (HOW)

- Operational and maintenance expenditure is monitored against set budgets throughout the year. Good operational management should predict expenses accurately. Currently expenditure for three waters assets is predicted using high level annual trends. The ideal method for managing expenditure should be via proactive maintenance schedules and detailed operational budgets.
- Historically asset management data has lacked the sophistication to allow the assembly of robust proactive maintenance schedules. While critical assets such as pumps have been proactively maintained most other maintenance has been carried out on an ad hoc basis as faults and failures occurred. This historical practice has been further exacerbated by a lack of general renewal budgeting leading to costs of inexplicable asset failures being paid for by operational budgets.
- A full re-itemisation of plant assets was carried out for all three waters, eliminating inaccuracy in replacement costs and paving the way for the assembly of maintenance schedules. New long-term contracts for maintenance and operation are set to be procured from 2024/2025 for a 6-year contract period.

8. Asset Renewals

Renewal Approach

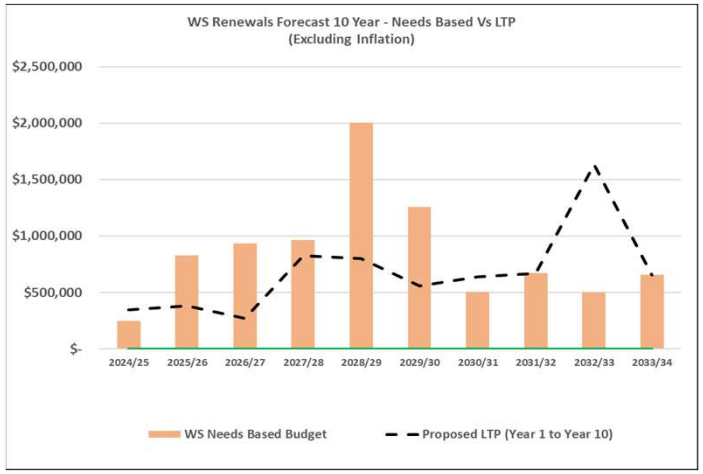
Renewal Plan

8.1 Water Supply

Ōpōtiki District Council maintains an Asset Database in Univerus. This records asset ages, condition and expected remaining life. This has been used to as a tool to estimate future renewals over the thirty years of the Asset Management Plan. Assets nearing the end of their lives are reviewed and included in the long-term plan. Assets that may be showing signs of premature failure are also
included in work plans and compared with other similar assets of similar age so that the estimated remaining lives can be updated.

Ōpōtiki District Council's decisions on how the renewals budgets are spent and prioritised are currently based around reactive response works. Number of breaks or service requests from public contribute to the priority of an asset for renewal.

Major renewals projects include the renewal of the 5.8 km DN 300 uPVC WTP to Ford Street (FY28-FY34), Hukutaia Water Supply LOS and Resilience Implementation Phase (FY31-FY33), and the renewals of the Hukutaia AC water mains on Grant, road, Hukutaia Road, and Woodlands Road (FY33).

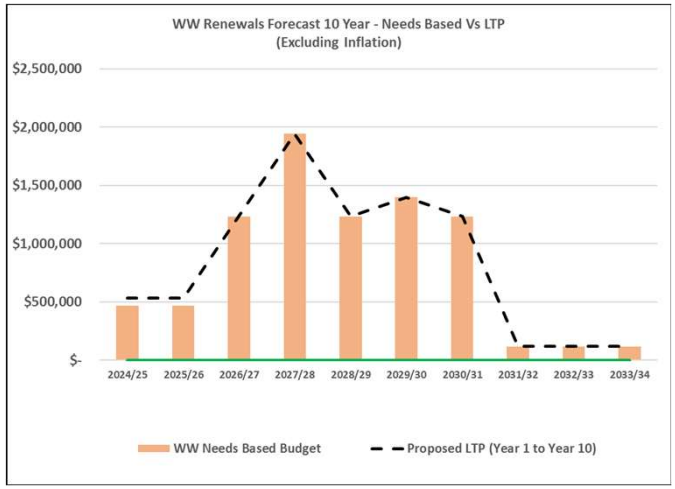


8.2 Wastewater

Ōpōtiki District Council maintains an Asset Database in Univerus. This records asset ages, condition and expected remaining life. This has been used to as a tool to estimate future renewals over the thirty years of the Asset Management Plan. Assets nearing the end of their lives are reviewed and included in the long-term plan. Assets that may be showing signs of premature failure are also
included in work plans and compared with other similar assets of similar age so that the estimated remaining lives can be updated.

Ōpōtiki District Council's decisions on how the renewals budgets are spent and prioritised are currently based around reactive response works. Number of breaks or service requests from public contribute to the priority of an asset for renewal.

There are a large number of general ongoing renewals budgets incorporated into the LTP forecast. Reticulation Rehabilitation for Ōpōtiki Town is one of the larger renewal's budgets from FY27-FY31 with the decrease in I&I being one of the biggest drivers to increase LOS for the community. WW Pump Station 01 (Potts Avenue) is up for renewal to resolve LOS issues and align with growth projects.

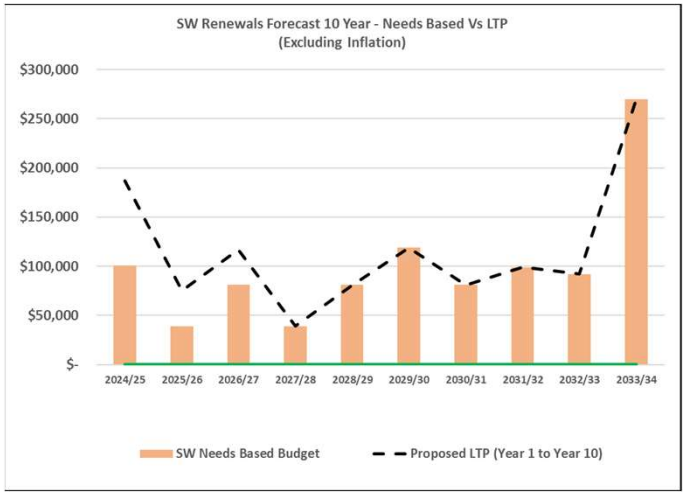


8.3 Stormwater

Ōpōtiki District Council maintains an Asset Database in Univerus. This records asset ages, condition and expected remaining life. This has been used to as a tool to estimate future renewals over the thirty years of the Asset Management Plan. Assets nearing the end of their lives are reviewed and included in the long-term plan. Assets that may be showing signs of premature failure are also
included in work plans and compared with other similar assets of similar age so that the estimated remaining lives can be updated.

Ōpōtiki District Council's decisions on how the renewals budgets are spent and prioritised are currently based on flood risk management. Age, insider knowledge from the Operations team, and service requests from the public contribute to the priority of an asset for renewal. Long term data is being collected from CCTV footage to inform how renewals budgets will be prioritised for the future.

Stormwater renewals budgets are included for Ōpōtiki Town SW Drainage Renewals, SW Pump Station Renewals, and Stormwater Reticulation Renewals.



9. Asset Improvements and Disposals

9.1 Asset Improvements

Ōpōtiki Harbour-Wharf Masterplan
Council has adopted a new masterplan to upgrade and develop the Ōpōtiki Harbour-Wharf precinct. This will result in new commercial developments. The core infrastructure assets, including three waters infrastructure will be planned to service these areas accordingly.

Waihau Bay Masterplan
Consultation on this masterplan is underway and may require new three waters services when implemented.

Hukutaia Draft Structure Plan
A Hukutaia Plan Change is underway for the development of Hukutaia is currently under consultation and will require three waters services when implemented (planned within next 5-10 years)

Asset Management Policy and Framework
Council has plans to develop an asset management policy to set the Council's asset management framework for managing infrastructure assets in a structured, integrated, cost-effective and sustainable manner. The Policy will cover three waters assets and other infrastructure assets. The Asset Management Framework provides a management structure within which requirements, goals, objectives, strategies, and tactics are brought together to enable a balanced and consistent approach to asset management and improvement of infrastructure services provision, including three waters services.

Asset Management Improvements
Council has an Asset Improvement Plan for three waters activities. Areas which require the most focus are:

- **Risk management** - Risk Management Framework set up at corporate level provides direction at activity level. Refinement in critical asset register with monitoring of assets in place
- **Maintenance** - Bring Ricado maintenance recording system online to ensure all maintenance is recorded. Develop maintenance contracts with service providers.
- **Maintenance data** - Maintenance data attached to individual assets. History recorded in Asset Management System. Ricado system to enable direct contractor population.
- **Operations** - Current operations manuals to be updated in line with new equipment installed. Technical performance measures to be documented. Routine operations included in contract documents where appropriate.
- **Audit/Review** - Internal audit processes in place to ensure continuous improvement program is effectively followed

Further Improvement
The following further improvements to the plan are suggested:

1. Review results of I and I monitoring and determine whether further works are required to the wastewater network and if so the nature and value of the work.
2. Complete design of sludge management proposals for the Ōpōtiki wastewater plan
3. Confirm capacity of Ōpōtiki wastewater treatment plant
4. Determine water supply capacity that is available for the Harbour development and any constraints on the ability to supply
5. Prioritise stormwater improvements

9.2 Asset Disposals

Disposal is the retirement or sale of assets whether surplus or replaced by new or improved systems. Assets may need to be disposed of for a number of reasons, particularly if they fall under some criteria, including those identified below:

- Underutilisation
- Obsolescence
- Cost inefficiency
- Policy change
- Provision exceeds required Levels of Service
- Service provided by other means (e.g. private sector involvement)
- Potential risk of ownership (financial, environmental, legal, social).

As part of the lifecycle asset management process, Council considers the costs of asset disposal in the long-term financial forecasts. These costs are generally incorporated in the capital cost of level of service increases or asset renewals. While there are assets that fit under one or more of the above criteria, the Local Government Act provides clear instances when assets can be disposed of.

Council has no plans to dispose of any three waters assets other than those that become obsolete as a result of renewal or upgrading works.

10. Investment Forecasts

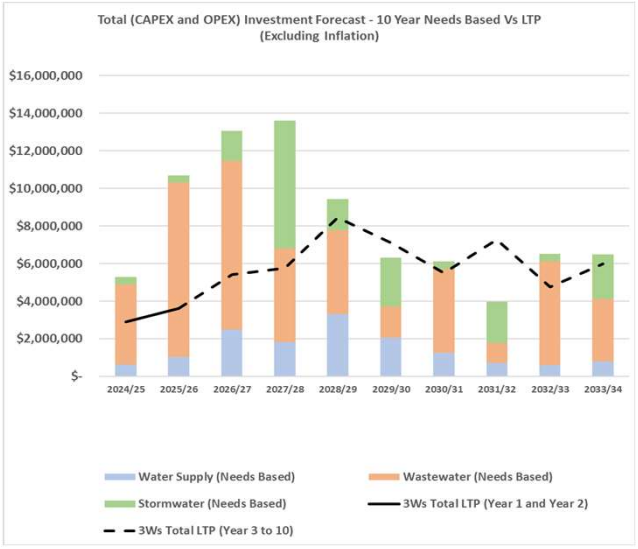
10.1 Total Investment

Summary of Total Investment (CAPEX + OPEX)

The total investment needs for ODC, can be summarised as under ODC's investment forecast for the 3 activities in Year 1 and 2 of the LTP is $6,516,000, with the net operational expenditure projected at $690,000 (net cost of service) and capital expenditure at $5,826,000 (total capital spend).

The below figure shows the drop from the needs based budget to actual LTP budget. The needs based budget portrays an unconstrained budget that allows for all works to be completed for LOS, growth, and renewals. Projects have been prioritised based on risk to LOS and safety for the community. This prioritisation has allowed the budgets to have a wider spread over the next ten financial years.

Detailed Tables for each area of spending are included in our LTP/activity plan.



10.2 Capital Investment

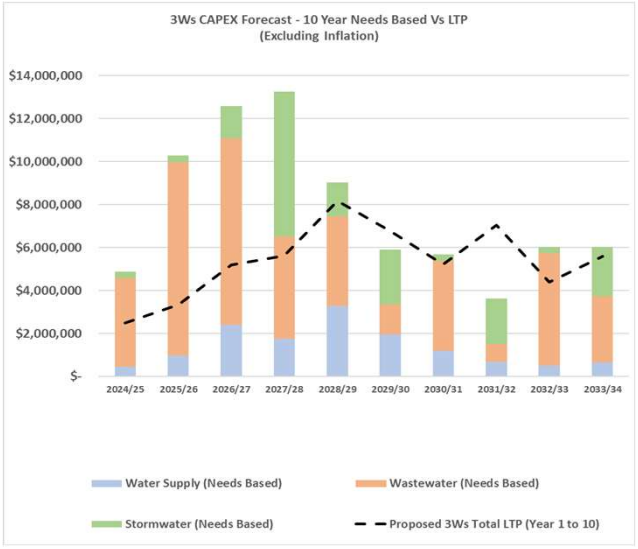
Summary of Total Capital Investment (CAPEX)

ODC is committed to prioritising and accomplishing capital projects within the Ōpōtiki district with focus on community safety and health. The total capital investment needs for ODC, can be linked back to ODC's outcome introduced in the Overview section. ODC's largest investment areas cover:

- Healthy water bodies
- Safe and healthy communities

The capital projects have resources available through local contractors and consultants. For large CAPEX projects these contractors and consultants have been involved throughout the planning a budget estimate process.

The below figure estimates the overall Capital investment profile for ODC, over Year 1 and 2 of LTP is $5,826,000.
The CAPEX forecast for 10-year period FY24 to FY34 is $53,785,000, averaging approximately $5,378,500 per annum.



10.3 Operational Investment

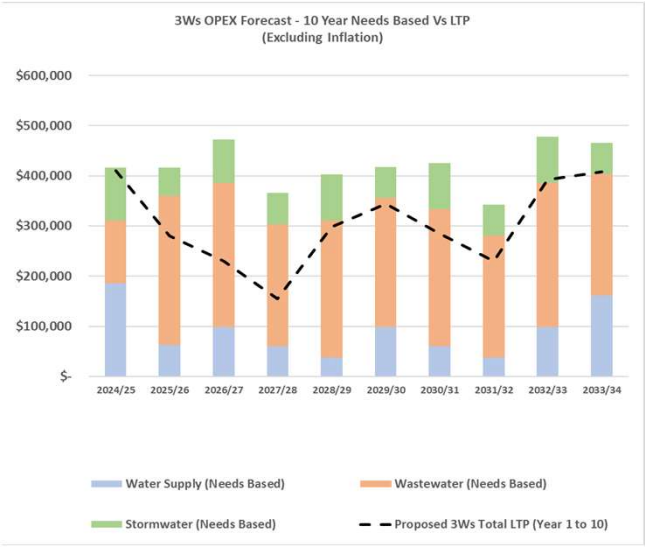
Summary of Operational and Maintenance Expenditure

ODC's operational and maintenance expenditure budget covers the daily costs to operate and maintain existing ODC assets across Water Supply, Wastewater, and Stormwater.

The figure below presents the break-down of operational investments for three water activities in ODC for Year 1 and 2 as $690,000.
The operational expenditure is broken down to:

- 37% on water supply,
- 63% on wastewater and
- 24% on stormwater.

0.3% of the overall expenditure is to be spent on Compliance, 75.9% on Maintenance, 18.7% on Operational Planning & Investigations and 5.1% on Operations. The below figure estimates the overall direct operational investment profile for ODC, over the 10-year period FY24 to FY34 at $3,032,000, averaging approximately $303,000 per annum.



11. Key Projects

11.1 Key Water Supply Projects (including inflation – further breakdown found in Section 12)

##	Project	Primary Driver	Year/s	Costs	Financial Data Confidence	Description and Objectives of the project	Benefits/Justification of the project	Project Stage
1	Hukutaia – Water supply LOS and Resilience	LOS	2025-33	$2.71m	Cost calculated using: (1) Contract Unit Rates (2) Engineers Estimates (3) Staff Estimates	The main objective for this project is to maintain LOS to the Hukutaia residents and building resilience into the reticulation network to allow for future growth.	This project contributes to addressing the following areas of concern: (i) Growth – This project is driven by the current growth projections and anticipated need for increased supply to the Hukutaia area. (ii) LOS – The increased resilience in the Hukutaia area.	• Planning • Design • Implementation
2	Te Kaha – Water Treatment Plant Relocation	LOS	2025-27	$1.62m	Cost calculated using: (1) Contract Unit Rates (2) Engineers Estimates (3) Staff Estimates	The main objective of this project is to address the raw water quality issues at the Te Kaha Water Treatment Plant by relocating the Water Treatment Plant and changing source. This project also aims to resolve ongoing access issues to the trunk main, as it runs through private property.	This project contributes to addressing the following areas of concern: (i) LOS – Safety of drinking water; Compliance with Part 4 and Part 5 of DWSNZ. (ii) LOS - Water safety plans improvements.	• Design • Construction
3	Water Reticulation Renewals – Replace 5.8km of DN300 uPVC watermain from WTP to Ford Street	Renewal	2024-50	$8.85m	Cost calculated using: (1) Contract Unit Rates (2) Engineers Estimates (3) Staff Estimates	The main objective of this project is to replace the 5.8 km of DN300 uPVC water main running from the Water Treatment Plant to Ford Street with new DN300 uPVC/HDPE to reduce the risk of pipe failures on the watermain. The batch of DN300 uPVC used when installing the watermain has had multiple pipe failures resulting in the need to supply raw water to the community during repairs. This section of watermain has been noted as a very brittle batch of pipe.	This project contributes to addressing the following areas of concern: (i) LOS – Maintain supply to the community and reduce the health risk to community having to supply raw water when the watermain fails. (ii) (ii) Renewal – Watermain is due for renewal based on condition of pipe and the ongoing need for repairs, this is a critical watermain for the water supply of Ōpōtiki Town.	• Design • Construction

11. Key Projects

11.1 Key Water Supply Projects (including inflation - continued)

##	Project	Primary Driver	Year/s	Costs	Financial Data Confidence	Description and Objectives of the project	Benefits/Justification of the project	Project Stage
4	Ōpōtiki Town Treatment Renewals	Renewal	2025-54	$3.86m	Costs calculated using: • Univerus asset data • Unit rates	The main objective for this budget is to allow for end of life assets to be renewed to maintain the Water Treatment Plants assets.	This project budget contributes to addressing the following areas of concern: (i) Renewal – Ensure Water Treatment Plant is remains compliant with DWSNZ by renewing assets as required. (ii) LOS – Maintain supply to Ōpōtiki Town from the Water Treatment Plant.	• Design • Construction
5	Ōpōtiki Town Reticulation Renewals	Renewal	2025-54	$3.3m	Costs calculated using: • Univerus asset data • Unit rates	The main objective for this budget is to allow for end of life pipe assets to be renewed within the Ōpōtiki Town reticulation network to maintain level of service to the community.	This project budget contributes to addressing the following areas of concern: (i) Renewal – Ensure Ōpōtiki Town reticulation remains compliant with DWSNZ by renewing assets as required. (ii) LOS – Maintain supply to Ōpōtiki Town community.	• Design • Construction
6	Ōpōtiki Town – Valves, hydrants and meters	Renewal	2025-54	$2.53m	Costs calculated using: • Univerus asset data • Unit rates	The main objective for this budget is to allow for end of life valves, hydrants and meters to be renewed within the Ōpōtiki Town reticulation network to maintain level of service to the community.	This project budget contributes to addressing the following areas of concern: (i) Renewal – Ensure Ōpōtiki Town reticulation remains compliant with DWSNZ by renewing assets as required. (ii) LOS – Maintain supply to Ōpōtiki Town community.	• Design • Construction

11. Key Projects

11.2 Key Wastewater Projects (including inflation – further breakdown found in Section 12)

##	Project	Primary Driver	Year/s	Costs	Financial Data Confidence	Description and Objectives of the project	Benefits/Justification of the project	Project Stage
1	Wastewater network development for Hukutaia Growth Area	Growth	2027-2030 (Phase 1) 2033-2037 (Phase 2)	$7.45m	Cost calculated using: (1) Contract Unit Rates (2) Engineers Estimates (3) Staff Estimates	The main objective of this project is to provide a wastewater network to Hukutaia that connects it to the existing wastewater network for Ōpōtiki Town. The residents of Hukutaia are not currently provided a wastewater connection and with the current growth projections and development prospectives it is anticipated to be required. This will also provide the current residents the opportunity to connect to the wastewater system.	This project contributes to addressing the following areas of concern: (i) LOS – Provide WW service connection to current and proposed Hukutaia properties. (ii) Growth – Extension of WW network based on growth prediction for Ōpōtiki.	• Design • Construction
2	Wastewater Treatment Plant Upgrade	LOS	2024-36 (completed in 6 phases)	$20.05m	Cost calculated using: (1) Contract Unit Rates (2) Engineers Estimates (3) Staff Estimates	The main objective of this project is to upgrade the WWTP, this is driven by the WWTP's consent requiring reconsenting in 2025. The upgrades proposed are also required to maintain LOS in Ōpōtiki which is heavily impacted by I&I issues within the network. The upgrades also allow for growth based on the growth predictions.	This project contributes to addressing the following areas of concern: (i) Compliance – Renewal of consent at WWTP to continue wastewater treatment services to Ōpōtiki town. (ii) LOS – Maintain capacity at WWTP to ensure limited loss of service to community. (iii) Growth – WWTP to be upgraded to allow for additional capacity based on growth predictions.	• New Resource Consent • Early Works Design • Preliminary Design • Detailed Design • Construction
3	Ōpōtiki Town – Reticulation rehabilitation	Renewal	2024-31	$6.73m	Costs calculated using: • Univerus asset data • Unit rates	The main objective for this budget is to allow for the rehabilitation of active reticulation assets to focus on continuing to reduce infiltration and inflow of stormwater into the system.	This project contributes to addressing the following areas of concern: (i) LOS – Maintain service in the WW reticulation network of Ōpōtiki.	• Design • Construction

11. Key Projects

11.2 Key Wastewater Projects (including inflation - continued)

##	Project	Primary Driver	Year/s	Costs	Financial Data Confidence	Description and Objectives of the project	Benefits/Justification of the project	Project Stage
4	Ōpōtiki Town – WWPS01 Rising main to WWTP - Diversion and Upgrade	LOS	2024-28	$2.65m	Cost calculated using: (1) Contract Unit Rates (2) Engineers Estimates (3) Staff Estimates	This project is aligned with the WWPS01 upgrade – Potts Avenue. To complete the upgrades to WWPS01 to increase pumping capacity and LOS to the community, the rising main needs to be upgraded.	This project contributes to addressing the following areas of concern: (i) LOS – Loss of service during storm events. (ii) Growth – Increasing capacity of wastewater network to allow for growth projections in Ōpōtiki.	• Planning • Design • Construction
5	Upgrade WWPS01 – Potts Avenue	LOS	2024-26	$1.68m	Cost calculated using: (1) Contract Unit Rates (2) Engineers Estimates (3) Staff Estimates	The main objective of this project is to upgrade the WWPS01 to allow for additional capacity at WWPS01. WWPS01 is a critical pump station in the WW network, all waste flows through WWPS01 to the WWTP. WWPS01 reaches capacity quickly during storm events due to I&I in the network as well as areas of the network associated with tidal patterns. This leads to surcharging in the network and loss of service during storm events for some areas of Ōpōtiki.	This project contributes to addressing the following areas of concern: (i) LOS – Loss of service during storm events. (ii) Growth – Increasing capacity of wastewater network to allow for growth projections in Ōpōtiki.	• Planning • Design • Construction
5	Ōpōtiki Town - Wastewater Reticulation Renewals	Renewal	2024-54	$3.27m	Costs calculated using: • Univerus asset data • Unit rates	The main objective for this budget is to allow for end of life assets to be renewed within the Ōpōtiki Town reticulation network to maintain level of service to the community.	This project budget contributes to addressing the following areas of concern: (i) Renewal – Ensure Ōpōtiki Town reticulation remains compliant by renewing assets as required. (ii) LOS – Maintain LOS to Ōpōtiki Town community.	• Design • Construction
6	Ōpōtiki Town - Wastewater Treatment Renewals	Renewal	2024-54	$3.37m	Costs calculated using: • Univerus asset data • Unit rates	The main objective for this budget is to allow for end of life assets to be renewed to maintain the Wastewater Treatment Plants assets.	This project budget contributes to addressing the following areas of concern: (i) Renewal – Ensure Ōpōtiki Town WWTP remains compliant by renewing assets as required. (ii) LOS – Maintain LOS to Ōpōtiki Town.	• Design • Construction

11. Key Projects

11.3 Key Stormwater Projects (including inflation – further breakdown found in Section 12)

##	Project	Primary Driver	Year/s	Costs	Financial Data Confidence	Description and Objectives of the project	Benefits/Justification of the project	Project Stage
1	Rural to Urban Flood Protection – SH2 Culvert Upgrade	LOS	2024-30	$1.44m	Cost calculated using: (1) Contract Unit Rates (2) Engineers Estimates (3) Staff Estimates	This project involves an upgrade to the SH2 culvert, in east rural Ōpōtiki. This upgrade aims to address the flooding on the eastern side of SH2 to minimise the effect of rural flooding on the eastern urban area of Ōpōtiki. This project in combination with Duke Street stop bank will aim to allow for enough storage for flood waters to be pumped out by the Bay of Plenty Regional Council pump station and/or attenuate.	This project contributes to addressing the following areas of concern: (i) LOS – increase the level of service provided to the Ōpōtiki community during storm and flooding events. (ii) Health and safety – keep community members safe during flooding events.	• Design • Construction
2	Stormwater infrastructure development for Hukutaia Growth Area (Phase 01 and 02)	Growth	2028-53	$14.93m	Cost calculated using: (1) Contract Unit Rates (2) Engineers Estimates (3) Staff Estimates	The main objective of this project is to provide a stormwater network to Hukutaia that can provide service to current residents and allow for anticipated growth.	This project contributes to addressing the following areas of concern: (i) LOS – Provide SW service to current and proposed Hukutaia properties. (ii) Growth – Extension of SW network based on growth prediction for Ōpōtiki.	• Planning • Design • Construction
3	Ōpōtiki Town - Stormwater Pump Station - Tarawa Creek Upgrade	LOS	2031-33	$3.65m	Cost calculated using: (1) Contract Unit Rates (2) Engineers Estimates (3) Staff Estimates	During extreme storm events, elevated water levels in the two rivers combined with overland flow from upstream catchments results in the township being inundated. Projections of increased frequency of extreme or large magnitude storm events would require upgrades to the pump stations to ensure the level of service to the township is maintained, as a minimum requirement.	This project contributes to addressing the following areas of concern: (i) LOS – increase the level of service provided to Ōpōtiki community during storm and flooding events. (ii) Health and safety – keep community members safe during flooding events.	• Design • Construction

11. Key Projects

11.3 Key Stormwater Projects (including inflation - continued)

##	Project	Primary Driver	Year/s	Costs	Financial Data Confidence	Description and Objectives of the project	Benefits/Justification of the project	Project Stage
4	Ōpōtiki Town - Stormwater Reticulation extensions / upgrades	LOS	2030-54	$9.21m	Costs calculated using: • Univerus asset data • Unit rates	Stormwater reticulation extensions and capacity upgrades are required across Ōpōtiki Town to keep up projected climate change and sea level rise scenarios. During extreme storm events the elevated water levels in the Waioeka and Otara rivers, combined with overland flow results in the township being inundated. There is a requirement to maintain or improve LOS within Ōpōtiki to mitigate this flooding.	This project budget contributes to addressing the following areas of concern: (i) LOS – Maintain LOS to Ōpōtiki Town community and reduce inundation during extreme storm events. (ii) Health and safety – keep community members safe during flooding events.	• Design • Construction
5	Ōpōtiki Town - Stormwater Reticulation Renewals	Renewal	2024-54	$12.28m	Costs calculated using: • Univerus asset data • Unit rates	The main objective for this budget is to allow for end of life assets to be renewed within the Ōpōtiki Town reticulation network to maintain level of service to the community.	This project budget contributes to addressing the following areas of concern: (i) Renewal – Ensure Ōpōtiki Town reticulation remains functional and compliant by renewing assets as required. (ii) LOS – Maintain LOS to Ōpōtiki Town community.	• Design • Construction
6	Ōpōtiki Town - Flood Water Storage Area - Tarawa Creek	LOS	2034-36	$3.14m	Cost calculated using: (1) Contract Unit Rates (2) Engineers Estimates (3) Staff Estimates	Stormwater reticulation extensions and capacity upgrades are required across Ōpōtiki Town to keep up projected climate change and sea level rise scenarios. During extreme storm events the elevated water levels in the Waioeka and Otara rivers, combined with overland flow results in the township being inundated. There is a requirement to maintain or improve LOS within Ōpōtiki to mitigate this flooding.	This project contributes to addressing the following areas of concern: (i) LOS – Maintain LOS to Ōpōtiki Town community and reduce inundation during extreme storm events. (ii) Health and safety – keep community members safe during flooding events.	• Design • Construction

12. All Projects

12.1 Capital Investment (CAPEX) Projects (Water Supply – including inflation)

Key projects and programmes	Total estimated cost	Year 1-3	Year 4-10	Year 11-30
LOS				
Hukutaia - Water Supply LOS and Resilience - 1 - Planning Phase	$25,705	$25,705	$-	$-
Hukutaia - Water Supply LOS and Resilience - 2 - Design Phase	$158,745	$158,745	$-	$-
Hukutaia - Water Supply LOS and Resilience - 3 - Implementation Phase	$2,525,250	$-	$2,525,250	$-
Ōhiwa - Water Telemetry Upgrade	$50,000	$50,000	$-	$-
Te Kaha - Water Treatment Plant Relocation - 1 - New Water Source	$160,000	$160,000	$-	$-
Te Kaha - Water Treatment Plant Relocation - 2 - Design	$129,553	$129,553	$-	$-
Te Kaha - Water Treatment Plant Relocation - 3 - Construction	$1,333,458	$1,333,458	$-	$-
Te Kaha Water - Booster to OBrien's 1.4km	$1,096,520	$-	$1,096,520	$-
Te Kaha Water - Reticulation upgrades - Copenhagan Loop	$586,854	$-	$586,854	$-
Growth				
Ōpōtiki Town - Water Reticulation Upgrades for Harbour	$169,775	$-	$169,775	$-
Ōpōtiki Town - Water Ring Main - Duke St - 1 - Planning and Design Phase	$79,439	$-	$-	$79,439
Ōpōtiki Town - Water Ring Main - Duke St - 2 - Easement Arrangement	$246,421	$-	$-	$246,421
Ōpōtiki Town - Water Ring Main - Duke St - 3 - Construction Phase	$509,598	$-	$-	$509,598
Renewals				
Hukutaia - Valves and Hydrants Renewals	$97,290	$17,479	$79,811	$-
Hukutaia - Booster Station Electrical Control Renewal	$115,001	$15,000	$42,135	$57,866
Hukutaia - Reticulation Renewals	$1,704,774	$231,488	$271,182	$1,202,104
Hukutaia - Water Main Renewal - Grant Road - AC Watermain	$342,051	$-	$342,051	$-
Hukutaia - Water Main Renewal - Hukutia Rd - AC Watermain	$438,022	$-	$438,022	$-
Hukutaia - Water Main Renewal - Woodlands Road - AC Watermain	$615,200	$-	$615,200	$-
Ōhiwa - Water Reticulation Renewals	$10,524	$6,350	$-	$4,174
Ōhiwa - Water Treatment Renewals	$95,463	$6,173	$16,435	$72,855
Ōpōtiki Town - Otara Booster Station Renewals and Pumps	$375,922	$11,641	$127,908	$236,373
Ōpōtiki Town - Valves, Hydrants and Meters Renewals	$2,526,253	$22,620	$223,454	$2,280,179
Ōpōtiki Town - Water Reservoir Lining Renewal	$373,804	$-	$373,804	$-
Ōpōtiki Town - Water Reticulation Renewals	$3,296,984	$273,726	$550,579	$2,472,679
Ōpōtiki Town - Water Reticulation Renewals - 5.8km DN300 uPVC WTP to Ford Street - 1 - Planning and Design	$25,000	$25,000	$-	$-
Ōpōtiki Town - Water Reticulation Renewals - 5.8km DN300 uPVC WTP to Ford Street - 2 - Construction	$8,823,358	$-	$2,054,400	$6,768,958
Ōpōtiki Town - Water Reticulation Renewals - Ōpōtiki WTP Treated Water Main	$158,612	$-	$158,612	$-
Ōpōtiki Town - Water Treatment Renewals	$3,861,256	$193,660	$747,258	$2,920,338
Ōpōtiki Town - Water Treatment UV Renewals	$428,718	$22,620	$103,285	$302,813
Te Kaha - Valves, Hydrants, Meters, Pumps Renewals	$412,024	$17,479	$87,837	$306,708
Te Kaha - Water Reticulation Renewals	$1,331,122	$94,270	$435,449	$801,403
Te Kaha - Water Treatment Renewals	$985,053	$92,153	$164,352	$728,548

12. All Projects

12.2 Capital Investment (CAPEX) Projects (Wastewater – including inflation)

Key projects and programmes	Total estimated cost	Year 1-3	Year 4-10	Year 11-30
LOS				
Ōpōtiki Town - Factory Rd Wastewater Extension - 1 - Design Phase	$100,985	$-	$100,985	$-
Ōpōtiki Town - Factory Rd Wastewater Extension - 2 - Implementation Phase	$290,013	$-	$290,013	$-
Ōpōtiki Town - Wastewater Pump Station 01 Potts Avenue - Upgrade	$1,677,626	$1,677,626	$-	$-
Ōpōtiki Town - WWPS01 Rising main to WWTP - Diversion and Upgrade	$2,650,319	$226,144	$2,424,175	$-
Ōpōtiki Town - WWTP - Stage 2a - Early Works Design	$75,000	$75,000	$-	$-
Ōpōtiki Town - WWTP - Stage 2b - Preliminary Design	$560,000	$560,000	$-	$-
Ōpōtiki Town - WWTP - Stage 3 - Detailed Design	$740,304	$740,304	$-	$-
Ōpōtiki Town - WWTP - Stage 4a - Construction - Early Works	$1,050,775	$1,050,775	$-	$-
Ōpōtiki Town - WWTP - Stage 4b - Construction	$17,423,095	$-	$13,326,806	$4,096,289
Ōpōtiki Town Wastewater - Caravan Wastewater Dumpstation	$306,583	$-	$306,583	$-
Growth				
Hukutaia - Wastewater infrastructure development for Hukutaia Growth Area - Phase 01	$3,102,200	$-	$3,102,200	$-
Hukutaia - Wastewater infrastructure development for Hukutaia Growth Area - Phase 02	$4,352,882	$-	$314,425	$4,038,457
Hukutaia - WWPS 04 Rising Main Separation / WWPS05 Upgrade	$289,996	$-	$289,996	$-
Ōpōtiki Town - Wastewater Extension Stage 2 - Otara Rd	$843,944	$-	$843,944	$-
Renewals				
Ōpōtiki Town - Reticulation Rehabilitation - 1 - Investigations and Planning	$250,000	$250,000	$-	$-
Ōpōtiki Town - Reticulation Rehabilitation - 2 - Design and Approvals	$257,050	$257,050	$-	$-
Ōpōtiki Town - Reticulation Rehabilitation - 3 - Construction	$6,222,358	$1,178,946	$5,043,412	$-
Ōpōtiki Town - Wastewater Reticulation Renewals	$3,273,408	$282,193	$550,579	$2,440,636
Ōpōtiki Town - Wastewater reticulation renewals - Waiotahe Drifts - replace PN6 rising main with PN12	$772,693	$-	$772,693	$-
Ōpōtiki Town - Wastewater Treatment Renewals	$3,367,924	$199,739	$369,794	$2,798,391
Ōpōtiki Town - WWTP - Stage 1 - New Resource Consent	$202,820	$202,820	$-	$-
Waihau Bay - Wastewater Disposal Field Renewals	$191,482	$-	$191,482	$-
Waihau Bay - Wastewater Reticulation Renewals	$286,388	$18,519	$49,305	$218,564
Waihau Bay - Wastewater Treatment Renewals	$47,731	$3,086	$8,218	$36,427

12. All Projects

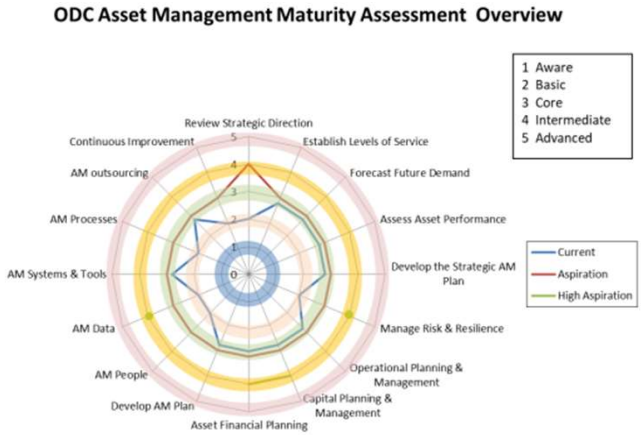
12.3 Capital Investment (CAPEX) Projects (Stormwater – including inflation)

Key projects and programmes	Total estimated cost	Year 1-3	Year 4-10	Year 11-30
LOS				
Ōpōtiki Town - Flood Water Storage Area - Tarawa Creek	$3,141,220	$-	$-	$3,141,220
Ōpōtiki Town - Rural to Urban Flood Protection - SH 2 Culvert Upgrade - 1 - Investigation and Design	$92,538	$92,538	$-	$-
Ōpōtiki Town - Rural to Urban Flood Protection - SH 2 Culvert Upgrade - 2 - Consent and Approvals	$53,666	$26,458	$27,208	$-
Ōpōtiki Town - Rural to Urban Flood Protection - SH 2 Culvert Upgrade - 3 - Construction	$1,292,390	$-	$1,292,390	$-
Ōpōtiki Town - Rural to Urban Flood Protection - Duke St West Stopbank - 1 - Investigations and Design	$77,115	$77,115	$-	$-
Ōpōtiki Town - Rural to Urban Flood Protection - Duke St West Stopbank - 2 - Consent	$26,458	$26,458	$-	$-
Ōpōtiki Town - Rural to Urban Flood Protection - Duke St West Stopbank - 3 - Construction	$838,125	$-	$838,125	$-
Ōpōtiki Town - Stormwater Main Upgrade - St John Street	$895,796	$-	$-	$895,796
Ōpōtiki Town - Stormwater Portable Pumps and Permanent Sumps - 1 - Planning and Design	$50,000	$50,000	$-	$-
Ōpōtiki Town - Stormwater Portable Pumps and Permanent Sumps - 2 - Sump Construction	$260,813	$260,813	$-	$-
Ōpōtiki Town - Stormwater Portable Pumps and Permanent Sumps - 3 - Existing Pump Upgrade	$102,820	$102,820	$-	$-
Ōpōtiki Town - Stormwater Portable Pumps and Permanent Sumps - 4 - New Pump/s Purchase	$529,150	$529,150	$-	$-
Ōpōtiki Town - Stormwater Pump Station - Tarawa Creek Upgrade	$3,648,900	$-	$3,648,900	$-
Ōpōtiki Town - Stormwater Basin - Wellington/Union Street	$250,000	$250,000	$-	$-
Ōpōtiki Town - Stormwater Reticulation extensions/upgrades	$9,208,251	$-	$1,084,940	$8,123,311
Growth				
Hukutaia - Stormwater infrastructure development for Hukutaia Growth Area - Phase 01	$2,977,200	$-	$2,977,200	$-
Hukutaia - Stormwater infrastructure development for Hukutaia Growth Area - Phase 02	$11,956,084	$-	$-	$11,956,084
Renewals				
Ōpōtiki Town - Stormwater culvert cost share	$50,000	$50,000	$-	$-
Ōpōtiki Town - Stormwater Drainage Renewals	$570,830	$45,283	$77,502	$448,045
Ōpōtiki Town - Stormwater Pump Stations - Renewals	$1,195,063	$61,166	$259,470	$874,427
Ōpōtiki Town - Stormwater Reticulation Renewals	$12,277,830	$231,488	$599,396	$11,446,946

13 Continual Improvement

13.1 Asset Management Maturity

Our last asset management maturity assessment was conducted in 2022 (Assessment of Asset Management Maturity - 3 Waters and Roading, ProjectMax Ltd, May 2022). The diagram below provides a comparison of current against aspirational asset management practice.



- The highest priority improvements identified were:
- Reviewing Strategic Direction
- Developing and Reviewing Levels of Service
- Managing Risk and Resilience
- AM Data and Information

13.2 Asset Management Improvement Plan

The following improvement actions were recommended in the 2022 asset management maturity assessment:

- Develop and implement an asset management policy
- Review of asset management cycle every three years
- Further development of level of service technical measures and target
- Stakeholder engagement on levels of service
- Implement three waters criticality framework via GIS and asset management system
- Incorporate criticality into investment decision making
- Embed resilience into risk management processes
- Review how asset data is recorded in the asset management system and implications for how assets are described, how valuations are done, how maintenance is recorded and how renewals are planned

13.3 Improvements based on OAG Report

The office of the Auditor General provided an audit in June 2023 (Report to the Council on the audit of Ōpōtiki District Council to 30 June 2022, Audit NZ, June 2023)

The most urgent and necessary recommendations were:

- Ensure appropriate and reliable condition information is recorded in the asset management register
- Implement the valuer's recommendations for three waters asset data
- Ensure revaluation adjustments are appropriately reflected in the asset information
- Ensure the annual reconciliation between the fixed asset register, and the general ledger, are prepared and reviewed as soon as possible after balance date, ideally within two months
- Establish a formal monitoring and reporting process over the service level agreement delivery with Bay of Plenty Regional Council, including consideration of how this is reported to council
- Formally advise council of any delays in achieving planned capital works as well as the impact of any delays on the wider community
- Ensure council is prepared for the transition to the new accounting standard PBE IPSAS 41 Financial Assets
- Publish the accountability documents for council-controlled organisations on the council website in a manner that is easy to locate by a standard search enquiry