

A large, thick teal line that meanders across the right side of the slide, resembling a stylized water wave or a mountain range.

2024-34 Investment Planning and Advice

Wellington City Council

Step 3: Council guidance on
DRAFT investment level

21 November 2023

Where we are in the process:



Seeking Council direction on DRAFT three waters OPEX and CAPEX budgets



- Council's baseline OPEX and CAPEX budgets for the 2024-34 LTP are based on the 2021-31 LTP figures
- These budgets are insufficient to ensure Council is compliant with health and safety, regulatory consenting and legislative requirements
- Due to the significant risks Council will carry, WWL recommends the Council LTP Baseline OPEX and CAPEX budgets should not be adopted as the final three waters budgets for the 2024-34 LTP
- Areas where WWL recommends budget is increased above the Council LTP Baseline OPEX and CAPEX baseline will be presented for consideration through this update

Operating Expenditure

Operating Expenditure (OPEX)

	23/24 Budget	Option 1: Council LTP Baseline Budget	Option 2: FY2023/24 OPEX + unavoidable cost increases	Option 3: WWL Recommended Budget
Monitoring & Investigations	\$5.1M	\$5.8M	\$5.5M	\$8.6M
Operations	\$0.4M	\$0.4M	\$0.5M	\$0.5M
Planned Maintenance	\$4.7M	\$0.0M	\$4.7M	\$9.4M
Reactive Maintenance	\$14.4M	\$7.8M	\$15.0M	\$19.6M
Treatment Plant	\$18.8M	\$21.0M	\$21.2M	\$21.2M
Management & Advisory Services	\$7.1M	\$6.6M	\$6.6M	\$6.9M
TOTAL	\$50.5M	\$41.6M	\$53.5M	\$66.2M

OPEX Option 1: Council Baseline LTP budget

- Option 1 is \$8.9M below the current FY2023/24 budget (which is already under pressure)
- This is a high-risk budget, insufficient to meet legislative requirements under the Water Services Entities Act 2022
- Option 1 is expected to result in:
 - non-compliance with regulations
 - legal consequences
 - risk to public health
 - increased leaks
 - reactive maintenance budgets exhausted within six months
 - inability to address unforeseen events
- Option 1 is not recommended



OPEX Option 2: FY2023/24 OPEX + unavoidable cost increases

- Option 2 is based on the FY2023/24 budget plus unavoidable cost increases at the Treatment Plants and for monitoring and operational activity
- The FY2023/24 budget is already below a level recommended by WWL. Option 2 therefore still carries risks
- The level of leakage and backlog of repairs will increase. WWL is estimating there to be 3500 open leaks by end of 2023/24. This will increase by 1000 leaks a year if the budget stays as is.
 - This will increase the risk of an acute regional water shortage
- The number of service failures, sewage overflows, leaks, and flooding events will increase
- Option 2 should be considered a minimum OPEX budget that could be adopted for FY2024/25 and beyond, but is not recommended by WWL



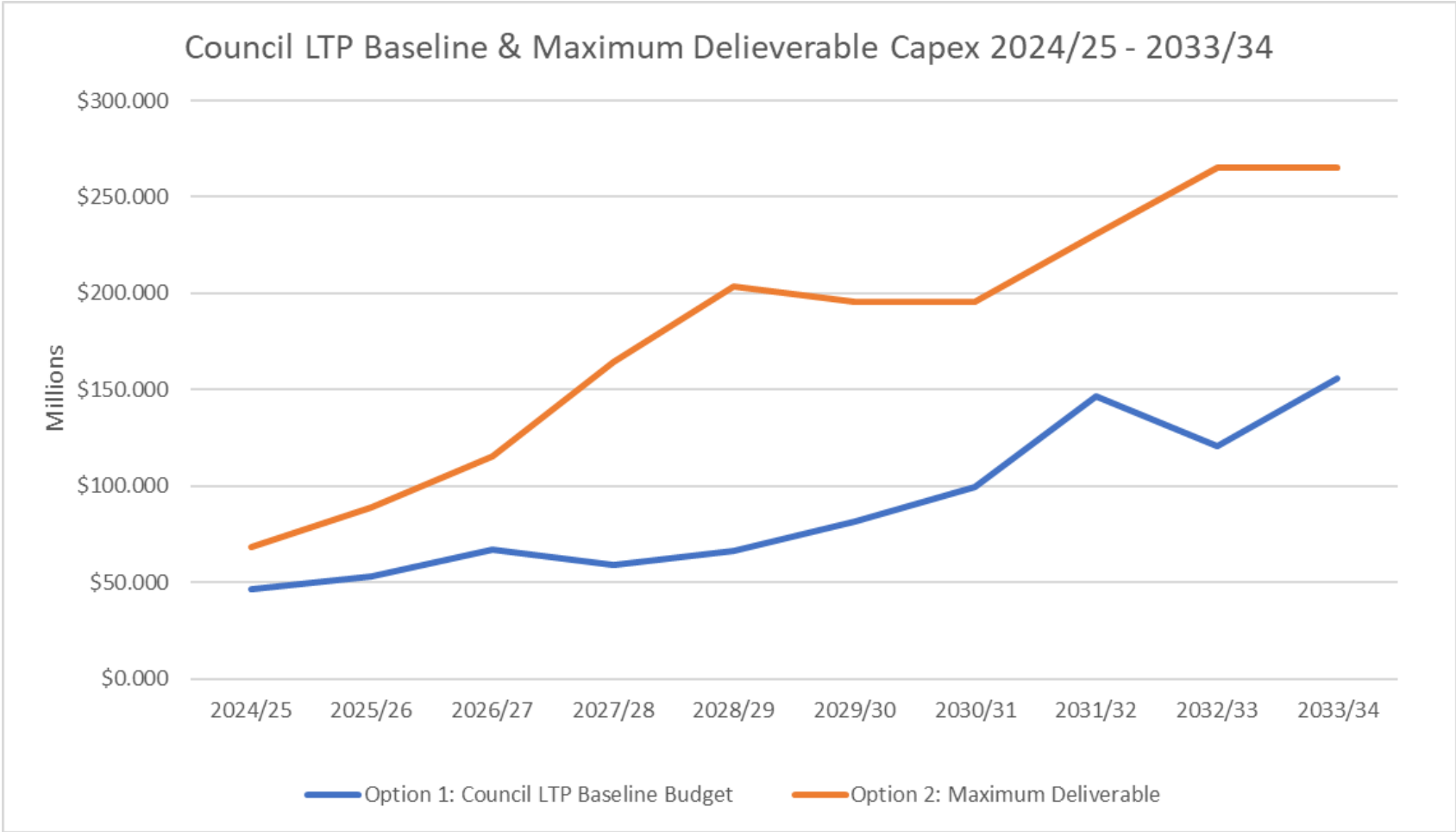
Capital Expenditure

Capital Expenditure (CAPEX)

CAPEX Options

	Year 1 24/25	Year 2 25/26	Year 3 26/27	10-year total
Option 1: Council LTP Baseline	\$46.28M	\$53.32M	\$66.89M	\$896.70M
Option 2: Maximum Deliverable	\$68,44M	\$89.11M	\$115.36M	\$1,793.49M
Difference	(\$22.16M)	(\$35.79M)	(\$48.47M)	(\$896.79M)

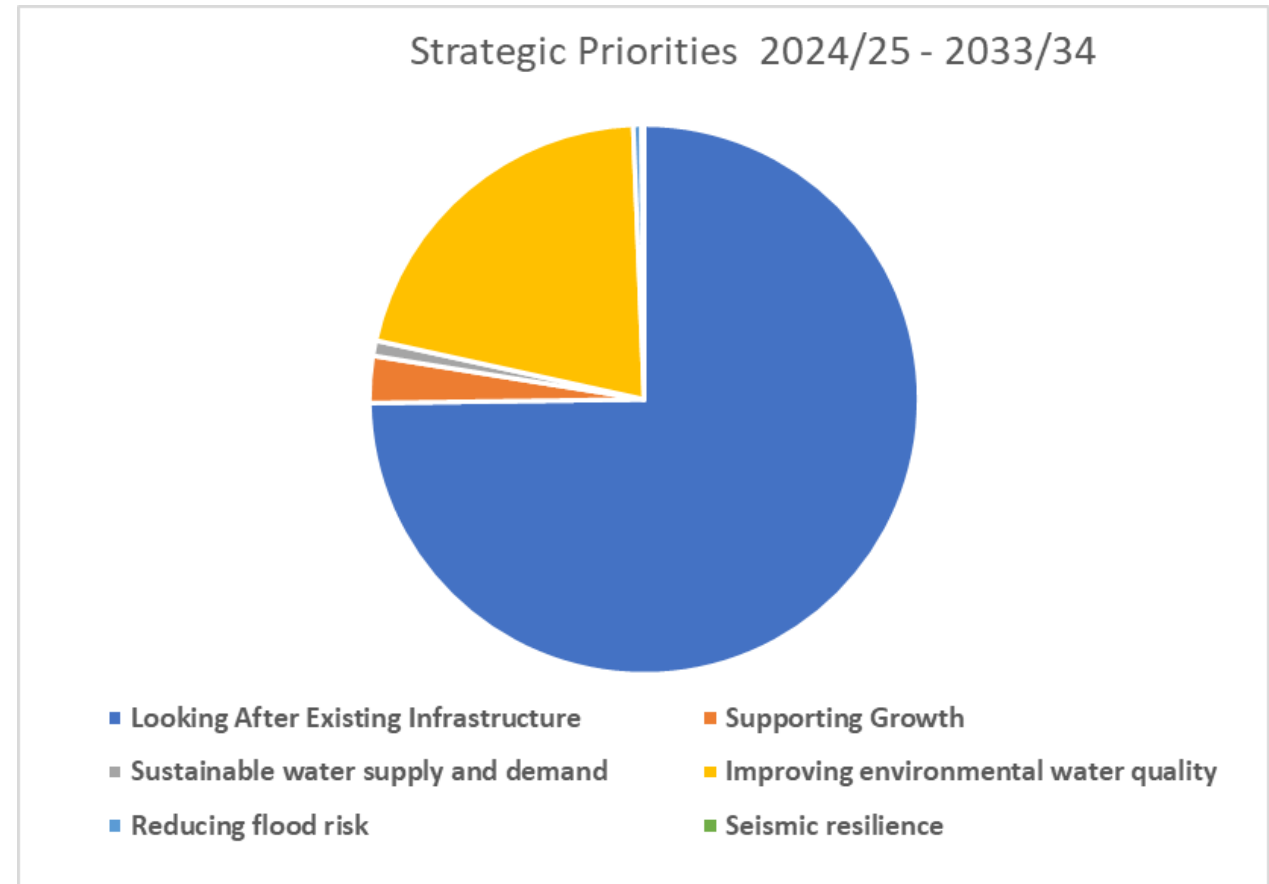
Capital Expenditure (CAPEX)



Risk reduction

Option 1: Council LTP Baseline CAPEX budget

- The draft CAPEX programme has been built to make best use of the Council Baseline LTP CAPEX budget
- Due to historic underinvestment in renewal activity, ageing infrastructure, and underling issues with council's assets, 75% of the Council Baseline budget targeted to critical renewals activity
- There is an inability to support growth or invest in initiatives to increase levels of service under Option 1



Option 1: Council Baseline CAPEX budget – Key activity delivered

Continuing delivery of the following contractually committed projects

- Wrights Hill drinking water reservoir seismic improvements
- VHCA Reservoir water quality renewals
- Stormwater Improvements - Main Road Tawa and Shirley Street to Hurman St
- CBD Pump station rising main programme:
 - Taranaki St new WW Rising Main
 - Victoria St (PS7), Wakefield St (PS5-6) & Victoria/Dixon St Shared Rising Main Renewals
 - Wakefield St new WW Rising Main
 - Pump Stations 1 - 7 Upgrades
- Karori Effluent Pipeline Remediation
- Wastewater Renewals - Aro Valley, Yule Stoke Tainui, Broomhedge and Severn Street

Moa and Western Wastewater Treatment Plants

- Moa Point inlet pump station
- Moa Point clarifiers and associated equipment
- Moa Point / Western / Careys Gully electrical and control upgrades
- Moa Point aeration renewal (delayed 2 years)

New Network Renewals across all waters

Improving Environmental Water Quality

- Modelling activities and Catchment management plans to respond to Global waster water overflow and stormwater quality consents
- Pilot sub catchment interventions for storm and wastewater

Activity to support Sustainable Water Supply and Demand

- Pressure Management (reduced budget below WWL recommendation)
- Reactive renewal of existing water meters

Option 1: Council LTP Baseline Budget – Risks

- The following key projects are either unfunded in Option 1: Council LTP Baseline budget or deferred beyond a start date that WWL recommends:
 - Moa Point and Western Wastewater Treatment Plant critical asset renewals at recommended rate
 - Universal residential smart meters
 - Pressure control valves at recommended rate
 - Eastern Trunk Main
 - Airport Triplicate Interceptor
 - Proactive network and pumpstation renewals at the recommended rate
 - Bell Road Reservoir Inlet Outlet Mains, Bell Road Reservoir and Moe-i-te-Ra (Aro) Reservoir replacements



Overview

Operating Expenditure (OPEX)

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Increased investment required in planned maintenance and leak management

Options for additional investment (WWL prioritised list)

While these are high priority activities WWL recommends council should consider to invest in, they do not address all unfunded activity and needs of the three waters network, for example infrastructure to support growth or level of service driven improvements

		Years 1-3	LTP 2024-34
	Baseline Budget	\$166.49M	\$898.69M
1	Additional budget for Moa Point and Western WWTPs critical renewals	\$10M	\$130.4M
2	Universal Residential Smart Meters Detailed Business Case	\$2.5M	\$124.2M
3	Pressure Management fully funded	\$3M	\$7.8M
4	Eastern Trunk Main Stage 1 Airport cargo area pipe	\$20M	\$89.2M
5	Airport Interceptor design through to consenting, and balance chambers	\$5M	\$91.2M
6	Increase in pump station renewals – three waters	\$15M	\$54.6M
7	Increase to 50% of target network renewals – three waters	\$45.5M	\$181M
8	Bell Road and Moe-i-te-Ra Reservoirs	\$10.8M	\$90M
Subtotal		\$110.8M	\$768.4M

Council prioritised network renewals (part of network renewals, not in addition):

9	Golden Mile Opportunistic Renewals (Delivered by LGWM)	\$30M	\$30M
10	Houghton Bay Stormwater Pipe	\$7M	\$7M

Attachments and further information

Impacts of Option 1: Council LTP Baseline

Looking after existing infrastructure

- Prioritised in the programme, but insufficient to address Treatment Plant renewals needs, or backlog of network and pump station renewals

Sustainable water supply and demand

- Minimal investment in activity to address acute water shortage risks
- Increasing water loss expected
- At Opex baseline, maintenance budget exhausted within 6 months

Growth

- Inability to support Council's growth aspirations
- No additional budget beyond finishing existing commitments

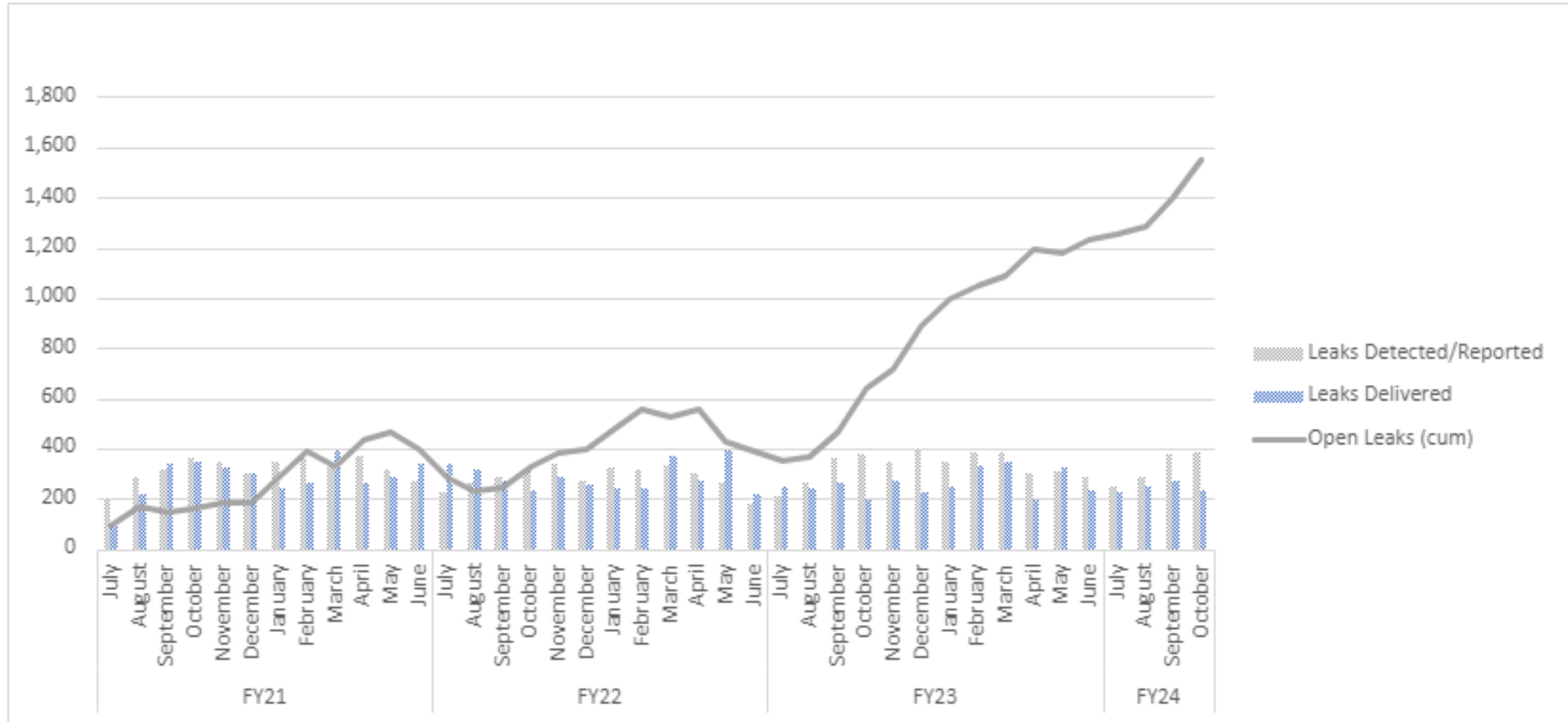
Improving environmental water quality

- Activity to deliver the global stormwater and wastewater discharge consents has been prioritised

Climate change and resilience

- No new activities funded beyond existing commitments

Historic Leak Backlog



Moa Point and Western Wastewater Treatment Plants

While the baseline budget prioritises investment at the WWTPs, it is still insufficient to address all risks present at the WWTPs

Outstanding risks

- Works and renewals deferred three or more years
- WCC is at increased risk of non-compliance and prosecution, raw sewage outflows, public health risk and increased odour at Moa Point

Proposed Mitigation:

Included budget to progress concept design of core activity to allow further prioritisation and can be quickly implemented if failure occurs of the deferred activity

Additional budget recommendation

Additional **\$10M** over the first 3 years should be prioritised to Moa Point and Western Wastewater Treatment Plants to progress deferred activity at the recommended time.



Sustainable Water Supply and Demand

Council LTP Baseline budget is insufficient to deliver on the core activity to achieve sustainable water supply and demand.

Outstanding risks

Inadequate budget to manage water loss, no water meters, and reduced budget for pressure control valves has risk:

- Goes against Council direction to provide additional investment in leak repair activity
- Increased risk of water supply shortages in summer
- Production pressure on water sources and treatment plants and increased risk of asset failure

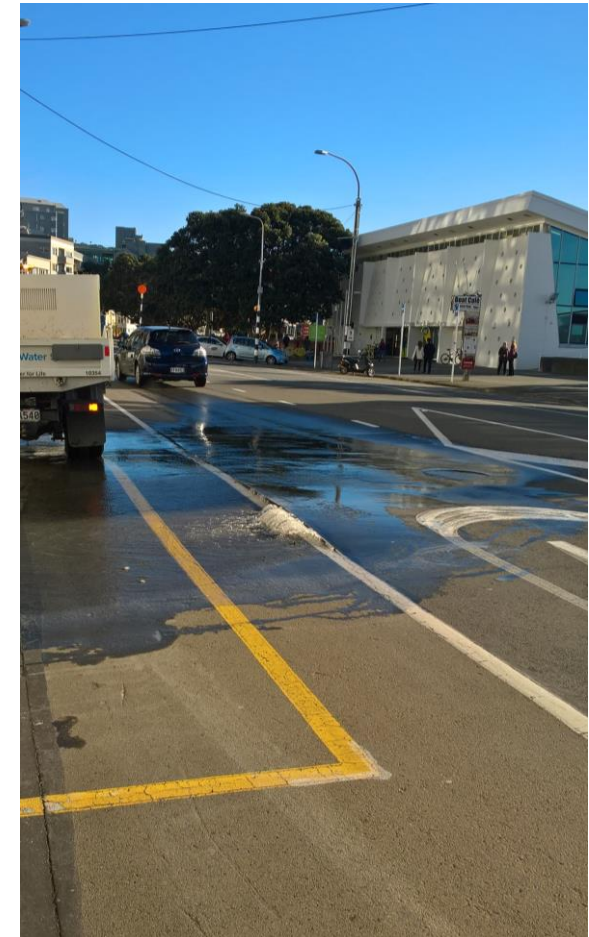
Proposed Mitigation:

Together, with the other metro councils fund a detailed business case for universal residential smart meters and defer implementation to start in 2027

Additional budget recommendation:

\$2M for WCC's contribution for a \$5M Universal Residential Smart Meters Detailed Business Case

\$3M to roll out pressure control valves at the rate recommended by WWL



Eastern Trunk Main

The Eastern Trunk Main is a very high critical asset which is in very poor condition and at high risk of structural failure. **Option 1: Council Baseline budget does not include any funding to renew this asset.**

Outstanding Risks

- Grade 5 VHCA passing under the Airport Logistics Centre
- Raw sewage would enter the centre in a collapse
- The Airport has started redeveloping the logistics centre and the risk collapse through construction is expected to increase
- There is a contingency in place to pump sewage around the site if a collapse occurred but this would be an OPEX cost to Council.

Proposed Mitigation:

Progress Stage 1 of 4 stage renewal process: Do the pipe under the logistics center first

Additional budget recommendation:

\$2M for design to a consenting level to better understand scope, costs and consent requirements

\$18M Delivery of the Eastern Trunk Main Stage 1: Airport cargo area pipe

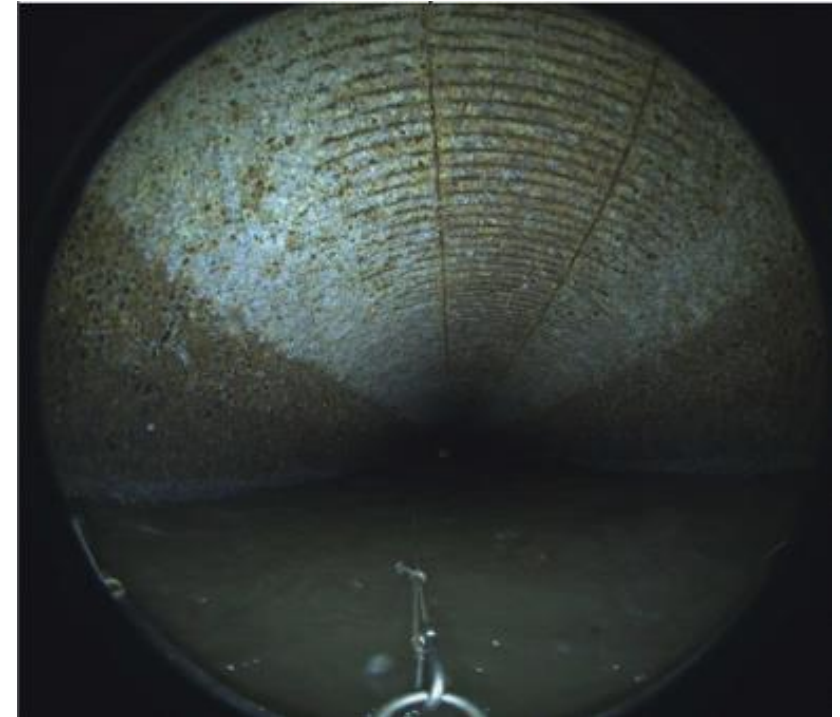


Image from inside the corroded interceptor showing exposed reinforcement steel

Airport Wastewater Triplicate Interceptor

A very high critical asset in very poor condition and in need of immediate renewal. Structural failure risk of this asset is very high. Option 1: Council LTP Baseline budget does not include any funding for this work.

Outstanding Risks

- As with the Eastern Trunk Main, the inside of one of the pipes is corroding and it is at very high risk of collapse
- Collapse will result in sewage spilling out through the Airport and Kilbirnie in wet weather
- Would be inefficient to renew this section in isolation of the other sections
- Some procurement issues securing a contractor to do the work

Proposed Mitigation:

Deliver the following ahead of entering an ECI for the renewal main work:

- Another round of CCTV investigations to understand the further deterioration of the pipe since 2021
- Design to a consenting level to better understand scope, costs and consent requirements
- Work to allow for flow control in the event of the pipe collapsing

Additional budget recommendation:

\$5M for investigation, design through to consenting level and delivery of new balance chambers to control flow in the event of the pipe collapsing



Pump station renewals

75% of the Council Baseline budget is put towards critical renewals activity but is still insufficient to meet minimum requirements to deliver reliable, safe and compliant three waters services. There is no budget in Option 1: Council LTP Baseline budget for wastewater and drinking water pumpstation renewals



Pumpstation Renewals

- Pump stations are critical assets that need a replacement plan to avoid asset failure
- Failing to plan increases risk of wastewater overflows impacting the environment and public health
- Water supply issues can be expected with failing drinking water pumpstations
- Option 1: Council LTP Baseline budget does not include any funding for planned renewal of wastewater and drinking water pumpstations.

There is little mitigation for the impacts of overdue pumpstation renewals. Increased investment to enable a greater rate of renewal is required.

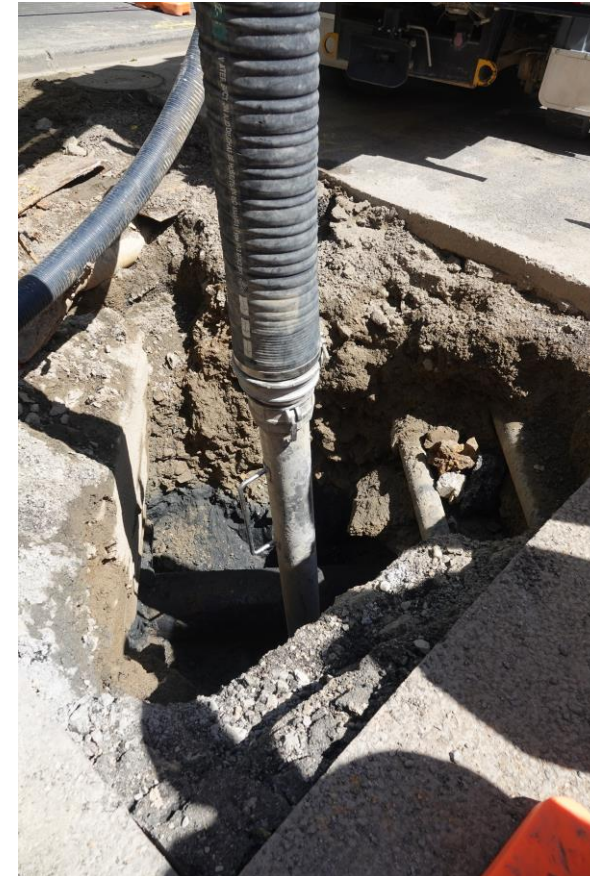
Network renewals

75% of the Council Baseline budget is put towards critical renewals activity but is still insufficient to meet minimum requirements to deliver reliable, safe and compliant three waters services. Option 1: Council LTP Baseline budget only allows for 37% of the WWL recommended level of network renewals over the 10-year LTP

Outstanding risks

- Network renewal levels need to be significantly increased to around 41km per
- Increased risk of wastewater overflows, seepage, and flooding events
- Operational funding for finding and fixing leaks of treated drinking water through council owned pipes is insufficient to reduce leakage to an acceptable level
- Reactive unavoidable OPEX costs responding to asset failures

**There is little mitigation for the impacts of overdue network renewals
Increased investment to enable a greater rate of renewal is required**



Bell Road and Moe-i-te-Ra Reservoirs

The existing Bell Road reservoir is well beyond its expected 100-yr service life and is in very poor condition, and it is at high risk of failure in even a moderate earthquake. Public health risk also present due to condition

Outstanding risks

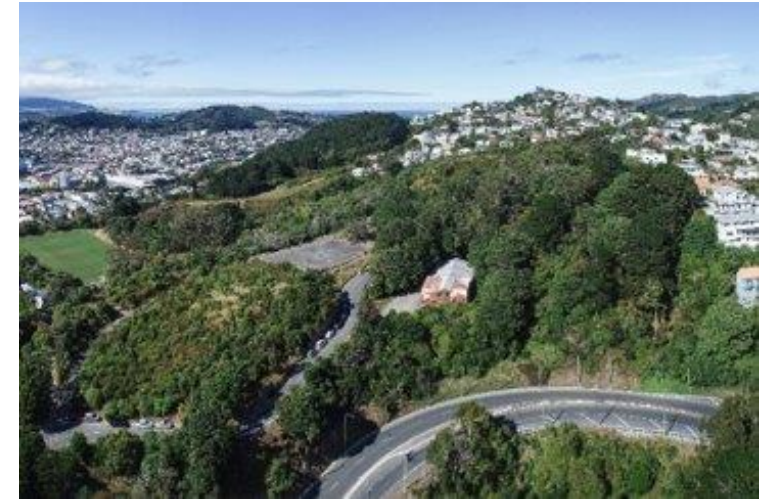
- Both reservoirs are needed to provide critical storage volume to the Bell Road and Aro supply zones
- Moe-i-te-Ra reservoir is needed to allow replacement of the Bell Road reservoir,
- Existing storage for the Aro zone is insufficient for current demand
- Forecast population growth in the Aro supply zone is to increase by 35-40% in the next 30 years

No mitigation

The programme of works to replace the Bell Road reservoir needs to be progressed as recommended by WWL at a cost of \$90M.

This cost includes connecting inlet and outlet supply pipelines.

\$10.8M to progress this work in years 1-3.



At 112 years old Bell Road reservoir is well beyond its expected service life



Other projects not included in Option 1: LTP Baseline

Golden Mile Opportunistic Renewals

- Council has a 'dig once' policy and is seeking to bring renewal of these assets forward
- Without the Let's Get Wellington Moving transport improvements going ahead, WWL would not prioritise these assets for renewal over other critical renewals

Houghton Bay Stormwater Pipe

- Leachate from the old landfill gets into the stormwater culvert below the landfill which frequently overtops in light rainfall and results in leachate discharging to Houghton Bay
- The stormwater culvert needs to be sealed as a first step

