2024-34 Investment Planning and Advice

Wellington City Council

Step 3: Council guidance on DRAFT investment level

21 November 2023

Wellington Water

Our water, our future.

Purpose and outcome sought

Provide a view of the three waters capital (CAPEX) and operational (OPEX) activity that would be prioritised within Council's baseline budgets, highlight the activity that would not proceed within those budgets and the associated risks Council will carry, and seek your direction on investment levels

Recap – Where we are in the process:

Seeking Council direction on DRAFT three waters OPEX and CAPEX budgets

WWL is seeking direction from Council on DRAFT three waters OPEX and CAPEX budgets for the 2024-34 Long Term Plan (LTP) period

- WWL has presented a recommended OPEX budget and a maximum deliverable CAPEX budget to Council. Subsequently, Council has provided direction on baseline budgets for 2024-34 LTP OPEX and CAPEX based on the 2021-31 LTP. WWL has adjusted the three waters OPEX and CAPEX programmes to fit those budgets.
  - The Council directed CAPEX and OPEX budgets are referred to as the 'Council LTP Baseline' budgets throughout this presentation.

- We understand the funding constraints Council is under and appreciate the three waters programme needs to be weighed up against other Council budgets. However, WWL advises that the Council LTP Baseline OPEX budget will require a 'run to failure' approach to be adopted for most of Council's assets and this has consequences.

- Council should note,
  - the Council LTP Baseline OPEX and CAPEX budgets are insufficient to ensure Council is compliant with health and safety, regulatory consenting and legislative requirements,
  - the Council LTP Baseline OPEX budget is insufficient to ensure existing levels of service are provided, and
  - the Council LTP Baseline CAPEX budget does not deliver on the five regional strategic priorities.

- Due to the significant risks Council will carry, WWL does not recommended the Council LTP Baseline OPEX and CAPEX budgets be adopted as the final three waters budgets for the 2024-34 LTP.

- The key risks of these budgets are detailed throughout this update. Options to mitigate the risks are presented for Council to consider (where possible), and a view is provided of where additional budget should be directed if funding above the Council Baseline budgets is available.

Operating Expenditure

Operating Expenditure (OPEX)

OPEX plays a critical role in maintaining Council's three waters assets and providing three waters service to its communities. The FY2023/24 OPEX budget is already constrained and a budget below this level would result in a significant reduction in planned maintenance and reactive maintenance, leading to more faults, but poorer response capacity

Three OPEX options are presented to Council:

- Option 1: Council LTP Baseline Budget
  - This budget does not provide for any planned maintenance activity
  - This budget provides for very limited reactive maintenance and will likely be fully expended by December
- Option 2: FY2023/24 OPEX + unavoidable cost increases
  - This budget provides for current levels of planned and reactive maintenance
  - Unavoidable cost increases at the Treatment Plants and for monitoring and operational activity is included in this budget
- Option 3: WWL Recommended Budget
  - This budget would ensure all OPEX activity WWL recommends is undertaken over the LTP period is funded
  - This budget ensures that leak detection and leak repair activities are fully funded

	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 LTP Baseline budget

The Water Services Entities Act 2022 states OPEX budgets for the 2024-34 LTP should ensure the levels of service currently planned to be provided this year [FY2023/24], will at least be maintained. Option 1: Council Baseline Budget is insufficient to meet this legislative requirement. It would also result in non-compliance with regulations, legal consequences, public health requirements and will ultimately place greater pressure on reactive maintenance budgets, which too would be reduced below current levels.

- Much of the activity within the OPEX budget cannot be avoided or deferred as it is essential for the operation and maintenance of Council's assets. For example, costs required for the day-to-day operation of critical services where the consequence of failure is very high or for maintaining compliance with legislation, regulation, or industry standards.

- Under Option 1: Council LTP Baseline budget, the following activity will be prioritised:
  - Monitoring of consent compliance, water sampling and asset management
  - Limited investigations into active leakage detection, emergency investigations, condition assessments and growth planning
  - Moa Point and Western Wastewater Treatment Plant operating costs - includes increased disposal costs, power (includes increase in processing flow), contract price increases
  - Indirect WWL overhead to manage three water assets on behalf of council (aiming for a 5% reduction in costs)
  - Running costs of the Wastewater Treatment Plant Joint Venture with Porirua City Council

	Option 1: Council Baseline Budget 24/25	Option 3: WWL Recommended Budget	Difference
Monitoring & Investigations	$5.5M	$8.6M	($3.1M)
Operations	$0.4M	$0.5M	($0.1M)
Planned Maintenance	$0.0M	$9.4M	($9.4M)
Reactive Maintenance	$8.1M	$19.6M	($11.5M)
Treatment Plant	$21.0M	$21.2M	($0.2M)
Management & Advisory Services	$6.6M	$6.9M	($0.3M)
TOTAL	**$41.6M**	**$66.2M**	**($24.6M)**

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

Option 2 represents a minimum OPEX budget that could be adopted for FY2024/25 and beyond, based on current year funding levels, plus unavoidable cost increases at the Treatment Plants and for monitoring and operational activity. This budget will result in increasing level of leakage and increasing backlog of repairs.

Option 2: FY2023/24 OPEX + unavoidable cost increases addresses some of the risks that are present with the Option 1 budget. The following is activity would be delivered under Option 2:

- Leak detection and leak repair is maintained at current levels. Best practice leak detection would be approximately $690k higher in order to effectively address the acute water shortage risk
- Planned Maintenance reflects current activity levels, which are below Wellington Water's recommended levels and will result in increased failures
- Reactive Maintenance will be able to respond to calls for approximately 3,500 leaks in the full year, with approximately 1,000 unable to be responded to
- The budget allows to do approximately 2,000 permanent reinstatements, however, this is below the anticipated requirement, so backlog will grow

	Option 2: FY2023/24 OPEX + unavoidable cost increases	Option 3: WWL Recommended Budget	Difference
Monitoring & Investigations	$5.5M	$8.6M	($3.1M)
Operations	$0.5M	$0.5M	($0.0M)
Planned Maintenance	$4.7M	$9.4M	($4.7M)
Reactive Maintenance	$15.0M	$19.6M	($4.6M)
Treatment Plant	$21.2M	$21.2M	($0.0M)
Management & Advisory Services	$6.6M	$6.9M	($0.3M)
TOTAL	**$53.5M**	**$66.2M**	**($12.7M)**

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

There is insufficient budget under Option 2 to undertake planned maintenance at a level recommended by WWL

Expenditure on the following activity would be reduced under Option 2: FY2023/24 OPEX + unavoidable cost increases:

Activity	Risks
Planned and reactive network maintenance	At the current FY2023/24 funding level WWL is predicting there will be in the order of 2500 open leaks by the end of the financial year. Keeping the budget to the same level in 2023/24 will add approximately an additional 1000 each year (3500 open leaks by end of 2023/24). This will result in increasing the risk of an acute regional water crisis as water loss worsens. Small leaks left unattended will get larger and increase risk of creating emergency works. Other activity that will not be completed under Option2: 'FY2023/24 OPEX + unavoidable cost increases' includes: CBD syphon clearing – one off maintenance required to fix existing stormwater capacity and ongoing pollution and odour issues. Compliance assessment and associated repairs on Karori wastewater discharge pipeline – risk of another large system failure. Significant reduction in stormwater hot spot and outlet inspections and associated maintenance, including the South Coast. Increases the probability of high impact flooding during storm events. Planned wastewater network hot spot flushing programme - unfunded for a second year in a row, increasing the risk of wastewater overflows. Houghton Bay Stormwater pipe flushing program. Wastewater pumpstation cleaning will continue to be done quarterly, rather than monthly as WWL recommends. This compounding effect of lack of maintenance increases the risk of untreated wastewater overflows. This will result in an increased number of service failures, sewage overflows, leaks, flooding etc will be inevitable, putting extra pressure on the reactive budget. Operational funding for finding and fixing leaks is insufficient to reduce leakage to an acceptable level. Ageing network and increasing renewals backlog is compounding the leakage issue. WWL advice is that the Council Baseline budget is insufficient to make meaningful progress to address water loss within the water supply network.

Capital Expenditure

Capital Expenditure (CAPEX)

WWL has worked with Council officers to determine the DRAFT capital investment programme that would be prioritised for delivery over the 2024-34 LTP period

Two CAPEX options are presented to Council to illustrate each possible end of Council's CAPEX budget spectrum:

- Option 1: Council LTP Baseline budget:
  - the 2021-31 LTP level of CAPEX for 20254/25 onwards
  - This is a high-risk option below the current FY2023/24 level of CAPEX for Council's three waters assets

- Option 2: WWL Recommended (Maximum Deliverable):
  - A level of CAPEX WWL is confident it could deliver for Council.
  - This is a step up in CAPEX for the city to work towards meeting expected levels of service but is still insufficient to address all CAPEX needs. The investment need for the City exceeds this budget level.

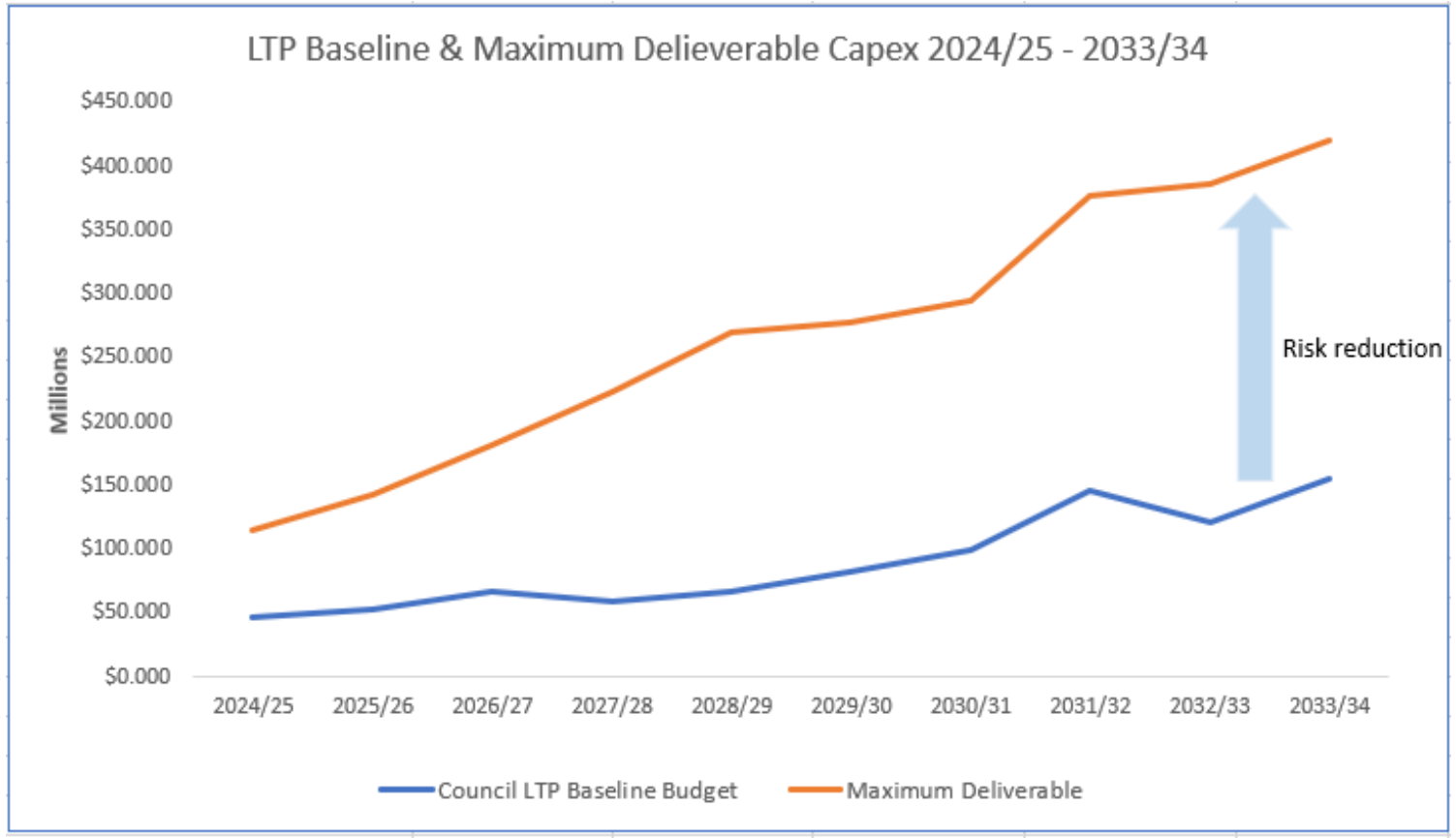
Note, current year budget is $60.08M. This includes budget to bring forward Taranaki Rising Main and Omāroro Reservoir.

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)

The gap between Option 1: Council LTP Baseline budget and Option 2: Maximum Deliverable includes risks and opportunities that could be addressed if a budget above Option 1 were made available.



WWL expects Council will agree to a budget in between Option 1: Council LTP Baseline budget and Option 2: Maximum Deliverable.

The final budget will depend on the level of risk Council is willing to adopt for the 2024-34 LTP period.

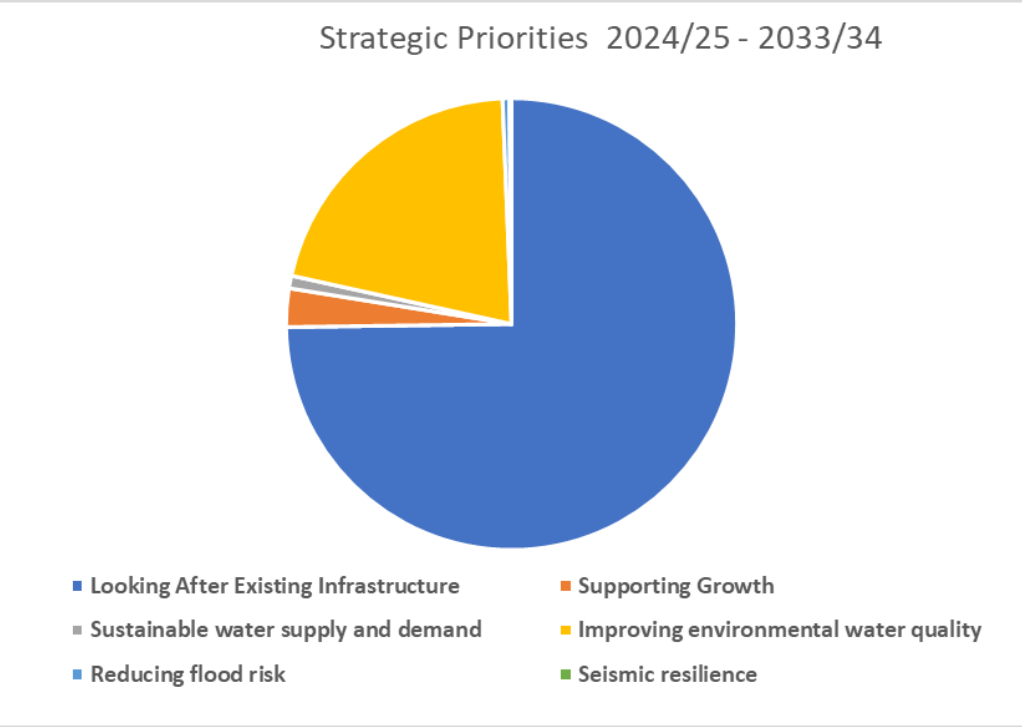
WWL is cognisant that this level of investment needs to be considered in the context of all capital infrastructure works that will be underway in the city over the next 10 years.

Option 1: Council LTP Baseline CAPEX budget

The DRAFT CAPEX programme has been built to make best use of the Council Baseline CAPEX budget. Due to historic underinvestment in renewal activity, ageing infrastructure and underlying issues with council's assets, most of the expenditure in Option 1 is targeted at Looking After Existing Infrastructure.

The following underlying principles have been applied to build a CAPEX programme to fit Option 1: Council LTP Baseline CAPEX budget:

- Continuing with contractually committed projects already in the delivery phase to ensure continuity of activity underway
- Prioritise the following core activity before starting anything new:
  - All compliance / consenting work, for example resource consent renewals and progressing the global stormwater and network overflow consents.
  - Control systems and modelling – these programmes that are considered essential activity to manage assets and support other investment
  - Reactive renewal budget for all asset types
  - Minimum levels of budget for planned renewals across all asset types
  - Addressing most urgent renewal activities at Treatment Plants to ensure operational compliance.



Option 1: Council LTP Baseline budget prioritises investment on looking after existing infrastructure in the first three years – 75% of the Council Baseline budget is put towards critical renewals activity.

Option 1: Council Baseline CAPEX budget – Key activity delivered

Outside the ongoing core programmes of work, the following are the key projects that would be delivered in the first three years under Option 1: Council LTP Baseline budget

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 UV renewal
- 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

Activity to support Sustainable Water Supply and Demand

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

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

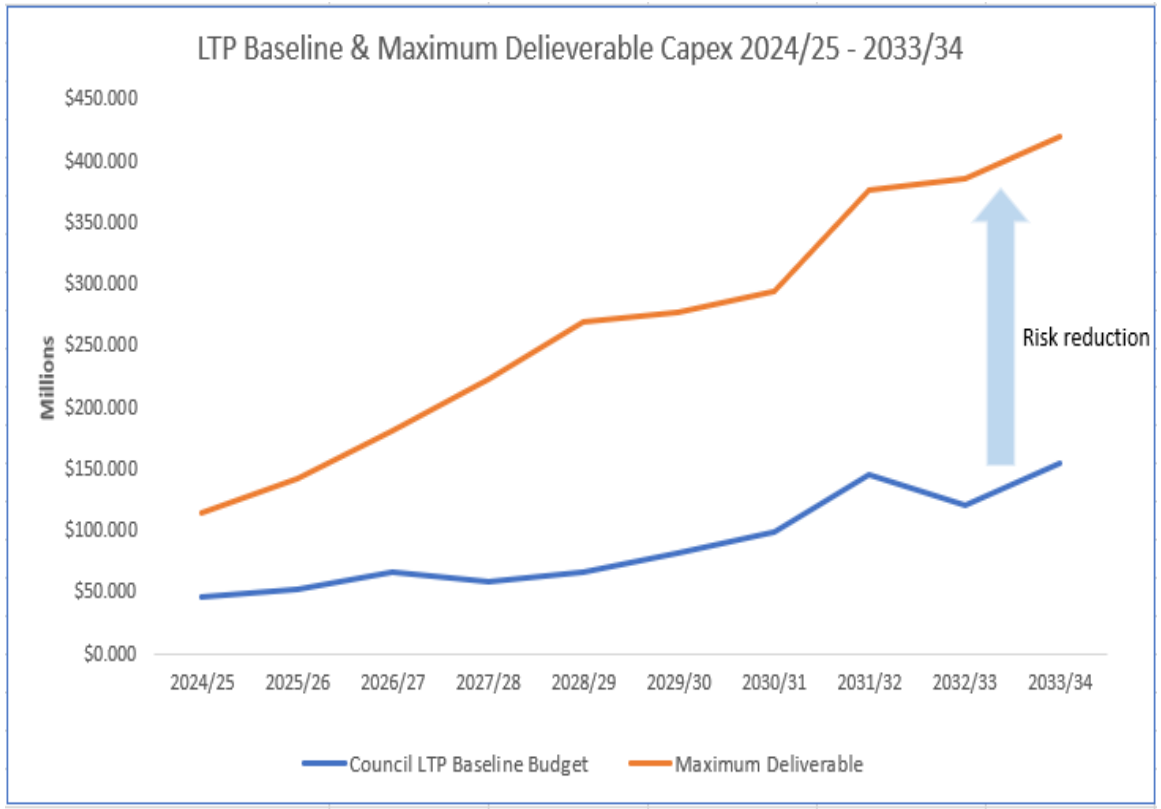
Option 1: Council LTP Baseline Budget – Risks

Many risks cannot be addressed under Option 1: Council LTP Baseline budget. It is anticipated that Council will adopt a budget somewhere in between Option 1 and Option 2 to address some of these key risks.

- There is insufficient budget in Option 1 to proactively renew Council's assets at a recommended rate. This is expected to result in an increased level of and unavoidable reactive renewals as assets break and will not make meaningful progress towards achieving network renewals at the WWL recommended levels – to a target of 41km per year.

- The following key projects are either unfunded in Option 1: Council LTP Baseline budget or deferred beyond a start date that WWL recommends:
  - Some Moa Point and Western Wastewater Treatment Plant critical asset renewals
  - Universal Residential Smart Meters
  - Airport Triplicate Interceptor
  - Eastern Trunk Main
  - Bell Road Reservoir Inlet Outlet Mains, Bell Road Reservoir and Moe-i-te-Ra (Aro) Reservoir replacements

- The risks of not progressing these key projects in the 2024-34 LTP period when WWL recommends are detailed on subsequent slides, along with mitigation strategies to address those risks where applicable.



Moa Point and Western Wastewater Treatment Plants

The Moa Point and Western Wastewater Treatment Plants require significant renewal as many of the assets at the plants are at the end of their useful life. Without renewal, they are operating under a reactive 'run to failure' approach, where parts are fixed or replaced when they break. There is little redundancy in the system making repairs difficult. Reactive asset replacement results in an extended period of non-compliance, odour issues and impacts to water quality while design is completed and parts are procured.

While the baseline budget prioritises investment at the Moa Point and Western Wastewater Treatment Plants, it is still insufficient to address all risks.

The following activity would be deferred three or more years beyond the WWL recommended start date under Option 1: Council LTP Baseline budget:

- Moa Point Roof Replacement & Associated Works
- Moa Point Odour and Ventilation Renewal
- Western UV replacement
- Western Mechanical Equipment Renewals

This works totals $26.3M over years 1 to 3 in addition to $45.9M of renewals activity that would be delivered under Option 1.

Outstanding risks

The likelihood of the following risks occurring is high under Option 1: Council LTP Baseline budget:

- Consent non-compliance and probable prosecution
- Increasing frequency of untreated sewage overflows to sea, with associated unsafe public exposure to raw sewage
- Unacceptable health and safety risks to workers and the public due to loose leaking roof
- Elevated public health risk due to exposure to undisinfected or poorly treated wastewater
- Increased odour at Moa Point

Proposed Mitigation:

Option 1: Council LTP Baseline budget includes $2M to progress concept design of critical asset renewal activity deferred beyond the WWL recommended start date. This will allow further prioritisation of the deferred activity and means in the event of failure the solution to address the failure can be more readily implemented (subject to funding).

Additional budget recommendation years 1-3:

An additional $10M over the first three years should be prioritised to Moa Point and Western Wastewater Treatment Plants to progress the top priority deferred critical renewals through to delivery.

Sustainable Water Supply and Demand

WWL's future options study demonstrates that attempting to meet WCC and the region's water supply requirements without universal smart metering and increased water loss management will require investment in water supply options that will cost significantly more than the recommended approach, will result in increased carbon emissions, and create worse outcomes for freshwater and the environment.
Option 1: Council LTP Baseline budget is insufficient to deliver on the core activity to achieve sustainable water supply and demand.

The Wellington region has come close to customers not having adequate supply of water in the past. WCC attended the Water Shortage Summit where the following outcomes agreed in principle were:

1. Increase water supply through additional raw water storage lakes (GWRC)
2. Increase water loss management (4 councils)
3. Install smart water meters to support demand and leakage reduction (4 councils)

The following activity will not be delivered as recommended by WWL under Option 1: Council LTP Baseline budgets:

- Sufficient water loss management to address existing high levels of leakage (OPEX)
- Pressure control valves – budget reduced by $1m per year
- Universal residential smart meters – excluded from the 10-year programme

Outstanding risks

- Constrained spend on water loss projects goes against Council direction to provide additional investment in leak repair activity; places production pressure on water sources and treatment plants; increases the likelihood of asset failure; and increases the risk of water supply shortages in the summer months.
- A target 30% year on year increase in water network renewals is required to address the backlog in leaks in the long term. Option 1 does not allow for this.
- Pressure control valves contribute to reducing water loss by decreasing water pressure and subsequently the risk of leaks, and the amount of water lost.

Proposed Mitigation:
Together, with the other metro councils fund a detailed business case for universal residential smart meters and defer implementation to start in year four (FY 2027/28).

Additional budget recommendation years 1-3:
$3M to roll out pressure control valves at the rate recommended by WWL
$2M for WCC's contribution for a $5M Universal Residential Smart Meters Detailed Business Case *(Based on EY estimate for Detailed Business Case cost)*

Eastern Trunk Main

The Eastern Trunk Main is a very high critical asset which has been identified through the VHCA programme as being in very poor condition and overdue for renewal. The risk and likelihood of structural failure of this asset is very high. Option 1: Council Baseline budget does not include any funding to renew this asset.

This asset is located in a regionally significant site - through the Wellington International Airport. CCTV and laser profiling as part of VHCA assessment has identified the inside of this pipe is corroding from the inside, is at very high risk of collapse in some sections and needs to be renewed now.

WWL is currently working through investigation and contingency plans, and discussions with the Wellington International Airport continue.

Eastern Trunk Main

Renewal of the Eastern Trunk Main can be completed in four sections:

- Stage 1: Airport cargo area pipe
- Stage 2: Golf course pipe
- Stage 3: Residential pipe
- Stage 4: Airport South Terminal and South-east Apron

Stage 1 renewal would see a new pipe replace the existing one in a new position which aligns with the Airport Logistic Centre redevelopment.

Stage 1 should be prioritised.

Outstanding Risks

The most critical part of the Eastern Trunk Main is Stage 1. This section is Grade 5 VHCA, it passes under the Airport Logistics Centre and there is no diversion if the pipe collapses. If a collapse were to occur, raw sewage would enter the Airport Logistics Centre.

The Airport has started redeveloping the logistics centre and the risk of this section of the pipe collapsing through construction is expected to increase. WWL has been working with the Wellington International Airport to establish a contingency plan to pump sewage around the site if this section of the pipe collapses. This would be an OPEX cost to Council.

Proposed Mitigation:
Progress Stage 1: Airport cargo area pipe section of the Eastern Trunk Main through the logistics center in isolation to the rest of the pipe renewal.

Additional budget recommendation years 1-3:
$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

Airport Wastewater Triplicate Interceptor

The Airport Wastewater Triplicate Interceptor is a very high critical asset which was identified through the VHCA programme as being in very poor condition and overdue for renewal. The risk and likelihood of structural failure of this asset is very high. Renewal will take multiple years. Option 1: Council LTP Baseline budget does not include any funding for this work.

This asset has been assessed (CCTV and laser profiling as part of VHCA assessment) as a combination of VHCA Grade 3, 4 and 5. As with the Eastern Trunk Main, the inside of one of the triplicate pipes is corroding from the inside, is at very high risk of collapse in some sections and needs to be renewed now.

Airport Wastewater Triplicate Interceptor

The Airport Wastewater Triplicate Interceptor runs through Kilbirnie, along the western side of the airport runway and around the southern end of the runway to connect to the Moa Point Wastewater Treatment Plant.

Due to the internal corrosion of the pipe, there is very high risk of the pipe collapsing, resulting in sewage spilling out through the west apron of the Wellington International Airport and Kilbirnie in wet weather flows. Modelling still needs to be completed to confirm the exact locations and extent of overflow.

Note, there are two points where the Wastewater Triplicate Interceptor passes under aircraft taxi areas. Structural assessment on the taxi way crossing sections has confirmed protection is in place above the pipe and collapse due to aircraft weight is unlikely.

Outstanding Risks - Airport Wastewater Interceptor

Significant internal corrosion means the pipe needs to be re-lined now. Due to the complexity of re-lining this asset within the airport land, it would be inefficient to break it up and re-line the VHCA Grade 5 sections in isolation of the other sections.

The current procurement strategy suggests it would be difficult to get a contractor to deliver this project in smaller sections. An Early Contractor Involvement (ECI) contract has been proposed for this works due to the complexity. However, there is an option to do some activity outside of an ECI contract.

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 the last investigations were completed in 2021
- design to a consenting level to better understand scope, costs and consent requirements
- Remediate two existing balance chambers and construct one new one to allow for flow control in the event of the pipe collapsing.

Additional budget recommendation years 1-3:

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

Bell Road and Moe-i-te-Ra Reservoirs

Drinking water storage is critical for the provision of safe and healthy drinking water. 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.

Outstanding risks

- Bell Road water reservoir is 112 years old, serving around 3,000 people in Mt Cook and Brooklyn.
- It provides limited but strategically important back up supply to the Low-Level Supply Zone (including the CBD area).
- Moe-i-te-Ra reservoir is needed to allow replacement of the Bell Road reservoir, in addition to providing supply to the Aro supply zone which services around 6,000 people in Kelburn, Highbury, Aro Valley, and parts of Victoria University.
- Existing storage for the Aro zone is insufficient for current demand, relying on supply directly from the bulk water main via a pressure reducing valve. This is a significant operational risk should the bulk supply be contaminated or disrupted for any reason.
- Forecast population growth in the Aro supply zone is to increase by 35-40% in the next 30 years, and more than double in 100 years. This will further increase the operational risk.
- Replacement of the Bell Road reservoir first requires construction of the Moe-i-te-Ra reservoir in Upper Bell Road to provide an alternative means of supply to the Bell Road zone while the reservoir is replaced.
- The existing Bell Road reservoir condition is very poor and is deteriorating. This poses an increasing risk to safe and healthy drinking water to the community it serves.
- Both reservoirs are needed to provide critical storage volume to the Bell Road and Aro supply zones. Without them, safe and healthy drinking water to the communities served is at risk.
- Deferring construction of these reservoirs brings increased public health risk as a result.

There is no lower cost mitigation option to address the risks with the storage for the Bell Road and Aro supply zones.

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.

Note, Option 1: Council LTP Baseline budget does not include any reservoir renewals (Highland Park and Brooklyn No.2)

Pumpstation and network renewals

The Council Baseline budget prioritises investment on looking after existing infrastructure in the first three years – 75% of the Council Baseline budget is put towards critical renewals activity. However, this is still insufficient to meet minimum requirements to deliver reliable, safe and compliant three waters services.

Pumpstation Renewals

Pump stations are critical assets that have relatively short lives. It's important to replace these assets before they fail to reduce the risk of; wastewater overflows impacting the environment and public health, and water supply issues 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. The following budget has been excluded from Option 1: Council LTP Baseline budget :

- $47.92M wastewater pumpstation renewals. $31.2M over the first three years (FY2024/25-2027/28)
- $6.70M drinking water pumpstation renewals: $3.1M over the first three years (FY2024/25-2027/28)

Network Renewals

Network renewal levels need to be increased significantly to around 41km per year across all three waters to address the backlog of pipes overdue for renewal and the bow wave of future works. In total 43% of the total network is estimated to require renewal over the next 30 years.

Option 1: Council LTP Baseline budget only allows for 37% of the WWL recommended level of network renewals over the 10-year LTP. At this rate, Council's network assets will continue to age and deteriorate. This is expected to result in increased:

- bursts, wastewater overflows, seepage, and flooding events
- continued and increasing water loss from leakage
- unavoidable reactive 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. Any additional funding would be prioritised to the most critical assets.

Other projects not included in Option 1: Council LTP Baseline budget

The following Council driven projects are excluded from Option 1: Council LTP Baseline budget:

Golden Mile Opportunistic Renewals

- The Golden Mile Opportunistic Renewals will renew critical stormwater, drinking water and wastewater pipes along the Golden Mile (Lambton Quay, Courtney Place and Willis Street) in line with the Let's Get Wellington Moving transport improvements.
- These assets have a history of failure and are due for renewal. Without the Let's Get Wellington Moving transport improvements going ahead, WWL would not prioritise these assets for renewal over other critical assets overdue for renewal. However, Council has a 'dig once' policy to create efficiencies across portfolios and is seeking to bring renewal of these assets forward.
- To date, Council has provided funding for LGWM opportunistic renewals design work.

Houghton Bay Stormwater Pipe

- The legacy landfill near Houghton Bay closed in 1971, however leachate from the old landfill gets into the stormwater culvert below the landfill. There is a dry weather diversion to wastewater, however this frequently overtops in light rainfall and results in leachate discharging to Houghton Bay with associated environmental and aesthetic harm (orange discharge, foam and hydrocarbon odour).
- As a first step it is proposed to seal the stormwater culvert. This will minimise leachate infiltration to the stormwater pipe however may require further work on the closed landfill.

Options for additional investment (WWL prioritised list)

The following projects and programmes should be considered by Council for additional budget above the DRAFT Option 1: Council LTP Baseline budget. 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 and other reservoir renewals**	$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

OPEX Option 1: Council Baseline budget - Risks

There is insufficient budget under Option 1 to undertake core operational activity. This is a high-risk strategy that could result in non-compliance with regulations, legal consequences, public health requirements and will ultimately place greater pressure on reactive maintenance budgets, which too would be reduced below current levels.

Expenditure on the following activity would be reduced under Option 1: Council Baseline budget:

Activity	Risks
No planned network maintenance will be carried out	• A 'run to failure' approach will be adopted for core assets, excluding the treatment plants • Increased number of service failures, sewage overflows, leaks, flooding etc will be inevitable with a run to failure approach.
Reactive maintenance on all assets significantly reduced	• Only urgent 'priority 1' reactive maintenance jobs will be addressed, e.g. bursts, loss of service or blockages. • There will be insufficient budget to complete permanent reinstatements. • Reactive maintenance budget will be exhausted within six months. There will be no budget left to complete any reactive maintenance in the second half of the financial year. • Backlog of leaks likely to increase from current backlog of 1,500 to approximately 7,000-8,000 by the end of FY2024/25 • Small leaks will lead to larger leaks with an increased likelihood of service failures, increased water loss, and greater risk of water shortages in summer.
No ability to respond to unforeseen events	• Budget for any unforeseen, urgent, emergency works will need to be sought from Council prior to addressing the issues. This would cause delay in fixing problems. • Emergency reactive operational costs are unavoidable without appropriate proactive maintenance activity and are inevitably more expensive.
Limited number of investigations	• Investigations such as condition assessments, strategic studies, some emergency investigations and growth planning will not be undertaken • Limited knowledge of the network, inability to respond to emerging risks including water quality incidents