2024-34 Investment Planning and Advice

Upper Hutt City Council

Step 2: Council direction on detailed investment options – pre reading

10 October 2023

Wellington Water

Our water, our future.

Purpose and outcome sought

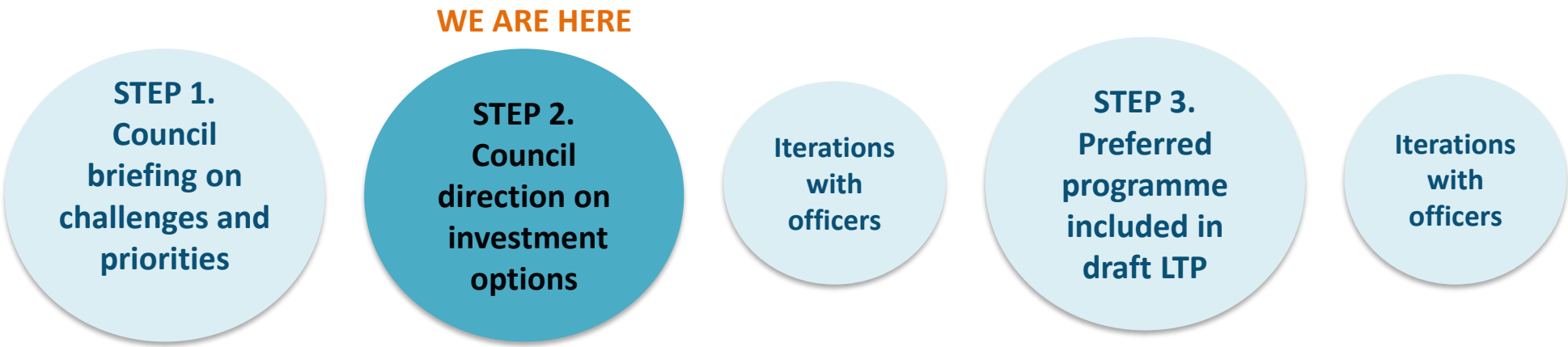
Supporting Upper Hutt City Council's vision for an outstanding natural environment, leisure and recreational opportunities, and being a great place for families to live, work, and play

This advice is to present options with indicative budget levels, high-level activities and risks, for investing in your three waters assets and services. It is intended to assist you, as part of a staged process, in developing and making decisions on your 2024-34 Long Term Plan.

Wellington Water seeks your direction on:

- Council's affordable funding level for three waters assets and services
- Council's preferred option for investing in three waters assets and services

Recap – Where we are at in the process:



Five priorities guide 2024-34 three waters investment

Wellington Water

The Wellington Water Committee has endorsed for inclusion in the 2024-34 investment planning advice for each council, the following regional strategic priorities. These priorities are a continuation of the investment direction for the region established in 2021-31 Long-Term Plans.

The region's three waters strategic priorities are:	Each presents major challenges:
Looking after existing infrastructure	Water assets are ageing faster than rate of renewals
Supporting a growing population	The extent and speed of growth is putting pressure on existing and future three waters infrastructure and services
Sustainable water supply and demand	We are facing acute water shortages, with demand increasing while supply is becoming more vulnerable
Improving environmental water quality	Blocked or directly discharging stormwater and wastewater networks risk returning unsafe, contaminated water to the environment
Achieving net zero carbon emissions	Risks from natural hazards and climate change are leaving communities and water assets vulnerable to disruption and economic loss

We also need to ensure resilience to natural hazards and the impacts of climate change are reflected.

Context and assumptions to investment options

We have framed our advice to reflect the maximum we consider can be delivered over the 24-34 investment period. This will be different to what is affordable to Council. We appreciate that Council will be facing financial pressures across all of its budgets and any increase in funding to your three waters assets and services will need to be considered alongside other Council priorities. The budgets proposed in this advice will be refined over the next stages of developing your LTP

- Under current legislation, Councils are required to fund the first two financial years of water services in their 2024-34 LTPs. Year three will be funded by the new Water Services Entity. Funding and pricing plans for year 4 onwards will be set by the new entity
- We have provided a 10-year view of investment to ensure consistency and alignment between your LTP and transition to the new entity – the investment programme we would recommend would be the same regardless of who was making the funding decision
- Work already in progress and contractually committed forms the basis of budgets for the first few years of this 10-year period. However, decisions made by Council will influence the work that is investigated, designed and delivered in the longer term through the new entity
- Since the previous long-term planning process, we have delivered year-on-year increases across Capex programmes. While inflationary pressures have driven some of this increase, past performance shows a very strong record of growth in delivery where funding has been made available by our owner Councils
- Our advice continues this growth trend. Based on previous growth and market responsiveness to increased investment across our client councils, it is considered feasible that we could deliver 30% year on year increases, or approximately $100m, over the next three years and beyond (subject to a number of assumptions). This represents the maximum we consider can be delivered across the region
- Despite the uplift in investment and delivery, there is more work than can be done even within a 30 year time frame.
- We have prioritised our recommended work programme based on:
    - The region's strategic priorities for water
    - Our recommendations on what is of most importance (in terms of risk) and is of highest criticality
    - What we have heard from you on your priorities
    - Compliance, consenting and regulatory requirements, as well as human health and safety needs that must be met
    - Increases needed to maintain current levels of service and to mitigate risks

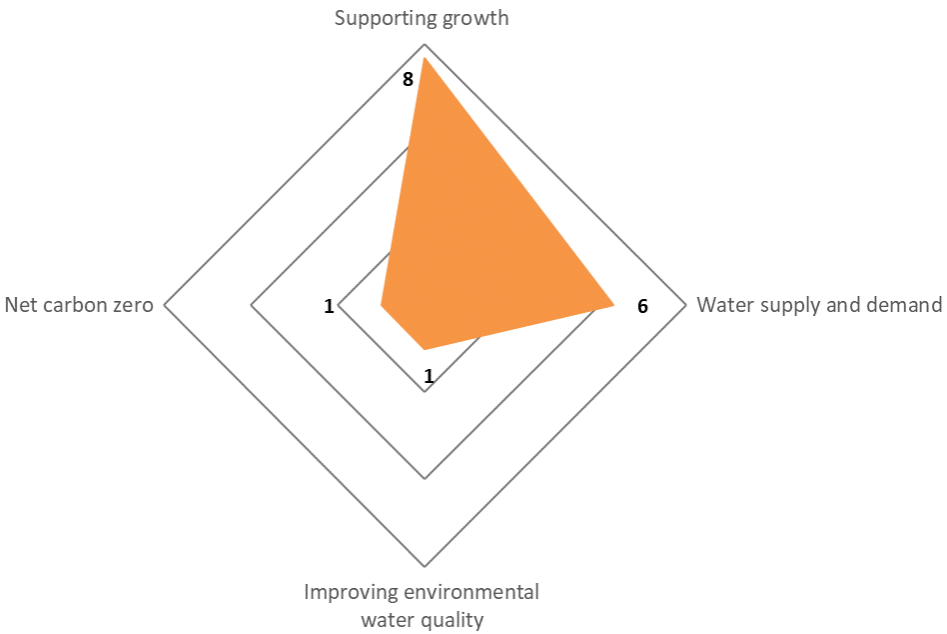
What we have heard

On 29 August 2023 we met with you to: outline the immediate long-term challenges facing your three water assets and services; understand the nature of investment needed over the next 10 years; and seek your direction on the desired outcomes for water in your community. We have reflected your feedback into our options advice.

Questions raised during the discussion signaled an interest in:

- the impact reforms will have on the future of water service funding in Upper Hutt and the region
- information on the bulk water levy
- the impact of growth, renewals, water quality and consents
- identifying where renewals can be added to the backlog
- whether renewals investment should match depreciation to the address backlog – feedback from the activity on where you would like to set your rate of renewals showed a preference for an increase on the current rate

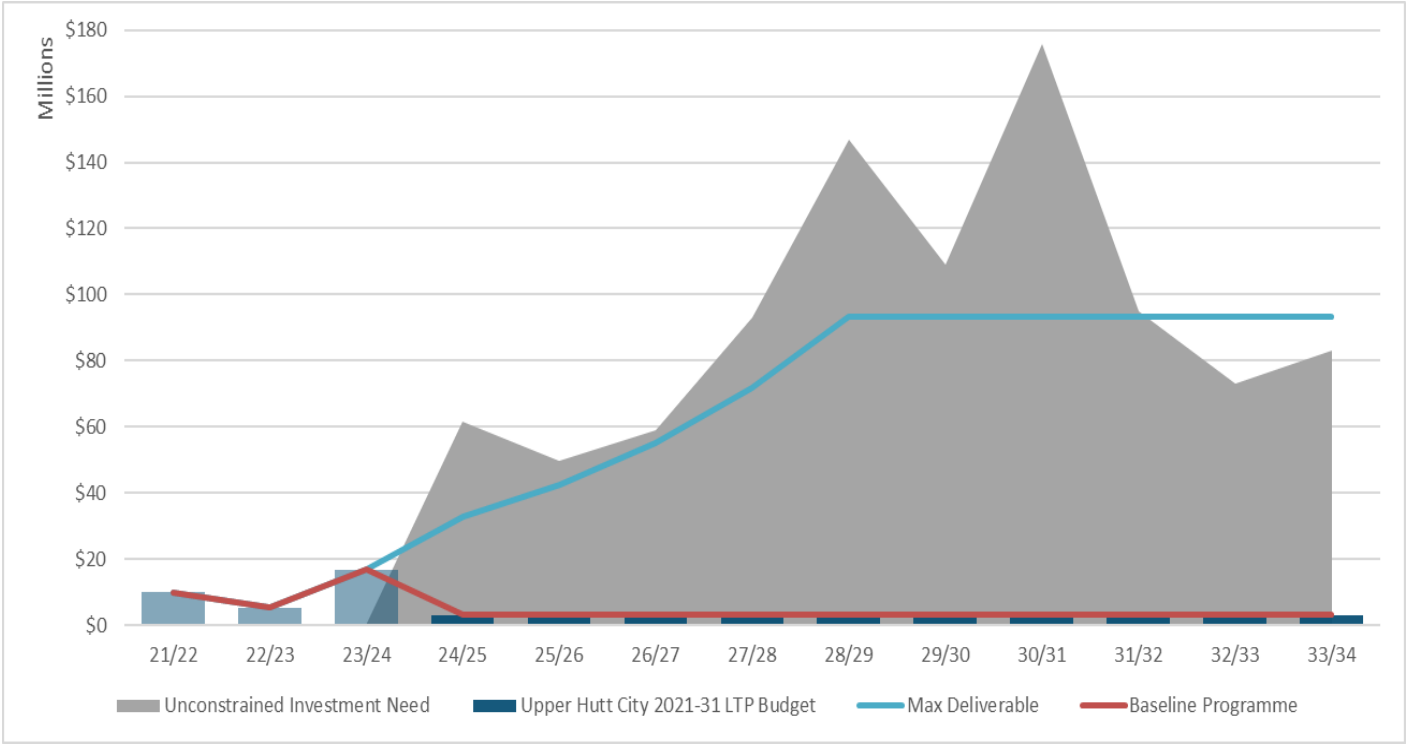
Supporting growth was identified as a priority, followed by focusing on water supply and demand



Summary Overview

The following table summaries Wellington Water's investment story for Upper Hutt City.

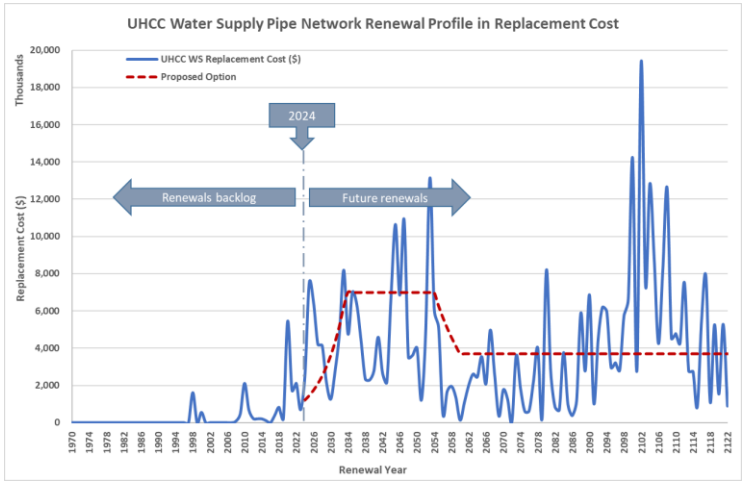
- The unconstrained investment need (grey) represents the total investment considered necessary for operating, maintaining and meeting current and future water services needs. This level is more than what Wellington Water can deliver and what is affordable to Council. Therefore, decisions are needed on what to prioritise. All Councils are facing this challenge.
- The baseline programme (red line) reflects a adjustments UHCC has made to the 21-31 LTP budget levels
- The maximum deliverable (blue line) is the level of investment Wellington Water considers it can deliver (UHCC's proportional share of a regional deliverability view)

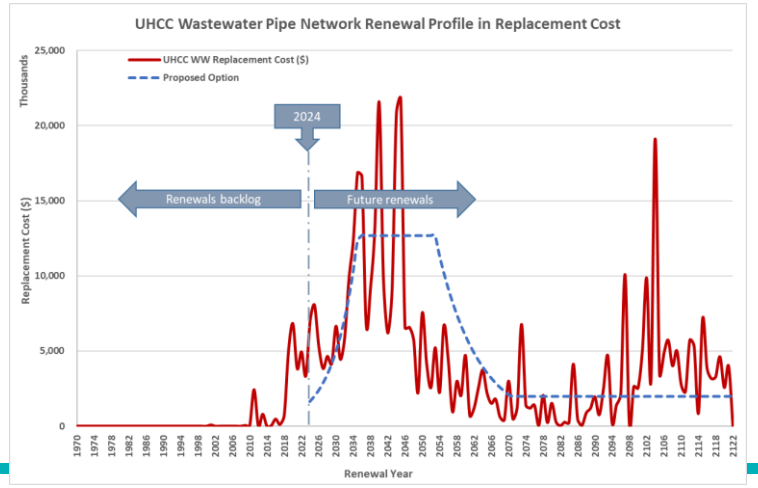


Renewals

Renewals are one solution to looking after existing infrastructure. Despite an uplift in renewals expenditure, the average age of the asset base continues to increase. To assure agreed levels of service and to operate within agreed risk tolerances, the required state is to continuously renew assets at the same rate as they deteriorate.

- Specific renewals budgets proposed aim at achieving a sustainable asset base that is renewed at a pace that matches deterioration. These budgets have been built from:
  - specific needs in treatment plants, reservoirs and storage, pump stations and pipe networks
  - looking at forward requirements over the lifecycle of the asset base
  - retain a level of budget for reactive renewals (based on history) to ensure that failed items can be replaced immediately
- To note:
  - Renewals needs are heavily dominated by pipe networks.
  - The recommended programme has been prioritised to achieve a balance between critical and non-critical assets
  - Deferral of renewal projects that make up the proposed budgets will lift the risk of increased service failures resulting in interrupted water supply and continued leakage, and unplanned overflows from wastewater pipes as well as elevated health and safety risks arising from collapsed or failed assets. Consequential rise in unplanned maintenance expenses.





Operating Expenditure

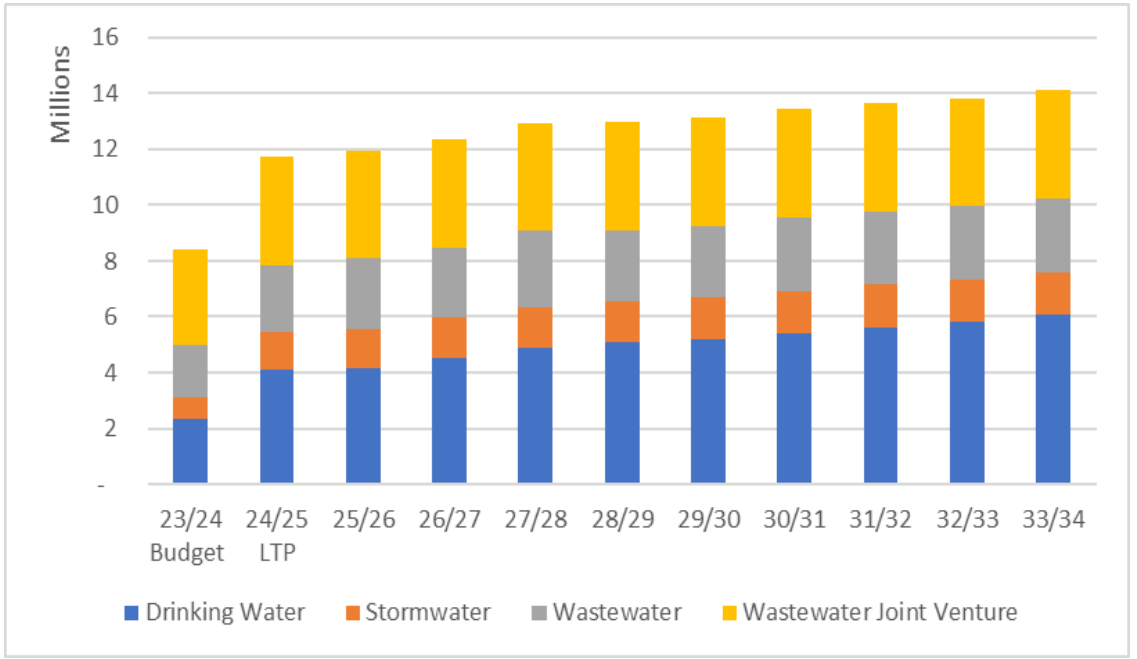
Within OPEX budgets there are a number of activities considered unavoidable that need to be covered by Council. These relate to activities that are mandatory or cannot be avoided or deferred as they are essential for the operation and maintenance of Councils assets. For example, costs required for the 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.

There is some discretion predominantly within the budgets for Investigations and planned and reactive maintenance investment categories, however there are risks in with any reductions or deferrals with expenditure likely be required in the future.

High-level factors influencing Council's recommended 24-34 OPEX budgets:

- Impact of inflationary factors driving up the cost of materials, labour, services, and utilities costs
- There are some unavoidable costs for activities relating to Treatment Plants, (incl. JV), operations & monitoring
- The 2023/24 Budget was below the recommended WWL levels & consequentially a significant reduction in maintenance, investigation and service delivery is likely to occur
- Impact of the bulk water levy, which hasn't been included in our advice, but will need to factored into UHCC considerations.

Proposed OPEX for 24-34 by water



Recommended 2024-34 Operating Expenditure

Wellington Waters recommended OPEX for 24-34 by investment category

	23/24 Baseline	Year 1 (24/25)	Year 2 (25/26)	10-year total	Drivers for investment
Monitoring & Investigations	$1.219M	$2.567M	$2.756M	$31.864M	Includes activities such as condition assessments, consent monitoring, water sampling and monitoring, flow and overflow monitoring, investigations including for inflow and infiltration and water quality, meter reading, growth modelling and planning, and general asset management. Increases in the proposed budget largely attributed to: • Growth studies to identify infrastructure required to support growth planning (greenfield and brownfields) and for unlocking growth in a systematic way • Ongoing activities required for compliance with new dam safety regulations • Interventions to achieve best practice water loss management and leakage control • Model stormwater maintenance improvements to assist with meeting consent conditions • Increased spend on wastewater Inflow and Infiltration roving crews to ensure meeting Global Stormwater consent conditions and to reduce contamination in water ways
Operations	$0.162M	$0.213M	$0.213M	$2.174M	Includes the control systems covering the electrical, instrumentation and automation systems for Council's stormwater, wastewater, and potable water assets.
Planned Maintenance	$0.814M	$1.034M	$1.340M	$16.267M	Includes water and wastewater pump station, utility and network asset maintenance, and stormwater maintenance activities. Increases in proposed budget largely attributed to: • Drinking Water Residential and Non-Residential Demand Management: Response initiative to support raw water take reconsenting in 2035
Reactive Maintenance	$1.237M	$2.493M	$2.241M	$25.727M	Reactive maintenance costs have been increasing based on failure trends experienced to date, the average age of assets and the anticipated resulting rates of renewal/replacement. Higher reactive maintenance budgets are needed to reduce the leakage rate.
Treatment Plant	$3.437M	$3.874M	$3.874M	$38.741M	Covers all activities relating to the operation of wastewater treatment plants, covering UHCC's share of the wastewater joint venture with the HCC and includes planned and reactive maintenance, operations, and investigations. • Have applied an adjustment of 10% on NTU 24/25 figures to account for inflation
Management & Advisory Services	$1.533M	$1.533M	$1.533M	$15.326M	*NB. Does not include allowances for required investments in WWL systems and people in the event that transition to Entity G does not occur.*
TOTAL	**$8.402M**	**$11.713M**	**$11.956M**	**$130.098M**	

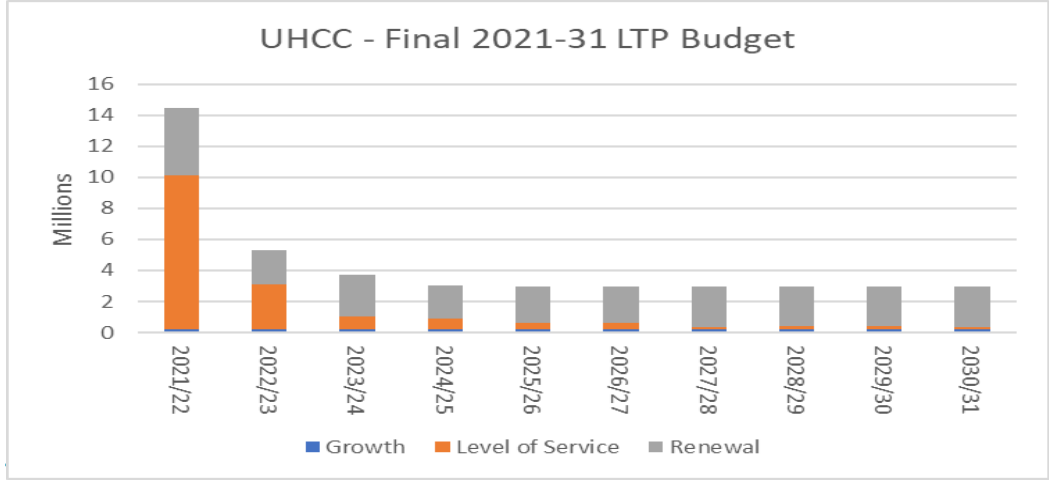
Summary Overview: Option One (CAPEX) - Continuation of LTP baseline

Option One represents a continuation of the current 2021-31 LTP, including any additions or adjustments made since.

Option One: Baseline

	23/24 Budget	Year 1 24/25	Year 2 25/26	10-year total ($m)
Drinking Water	$4.017M	$2.021M	$1.929M	$18.240M
Stormwater	$9.037M	$0.178M	$0.139M	$1.518M
Wastewater	$3.653M	$0.810M	$0.902M	$10.068M
Wastewater JV*	$9.190M	$2.887M	$1.496M	$45.664M
TOTAL				**$75.49M**

*Based on HCC LTP 2021-31 LTP



Risks

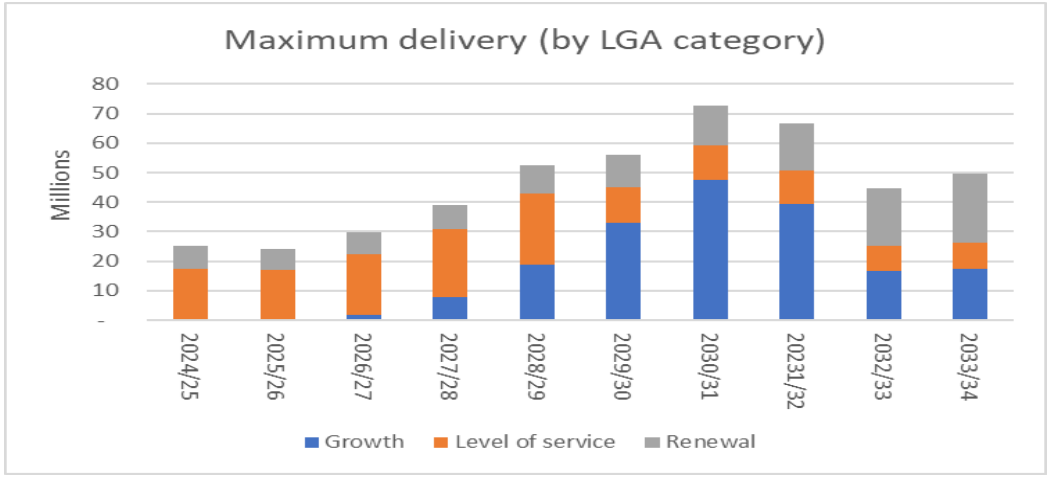
- Water demand for Upper Hutt City is outstripping supply due to water loss in the network and growth. Networks are not optimised in accordance with Te Mana o te Wai
- Upper Hutt's infrastructure is aging impacting delivery of safe drinking water as well as having environmental and cultural impacts. Unplanned spend is required to remediate critical three waters failures
- Wellington Water is experiencing significant increases in the costs of material and labour due to higher than anticipated inflation and market capacity pressures. This has placed pressure on Council's capital delivery plan, meaning fewer projects may be delivered than initially planned
- Not maintaining baseline increases the likelihood of not meeting WSE Act 2021 obligations, health and safety standards, and impacting works already in progress

Summary Overview: Option Two (CAPEX) – Maximum deliverable

Option Two represents the maximum programme we recommend can be delivered irrespective of total investment need, affordability and other constraints outside of WWL's control.

Option Two: Maximum deliverable

	23/24 Budget	Year 1 24/25	Year 2 25/26	10-year total ($m)
Drinking Water	$4.017M	$9.655M	$7.645M	$221.895M
Stormwater	$11.037M	$11.288M	$12.874M	$90.271M
Wastewater	$3.653M	$4.174M	$3.567M	$147.940M
Wastewater JV	$9.190M	TBC	TBC	TBC
TOTAL				**$442.339M**



Risks

- As with option 1
- Inflationary pressures continue to put pressure on project budgets as currently scoped, Council may need to make decisions around rescoping projects, reallocating budgets from lower priority projects, or increasing budgets throughout the year.
- Industry-wide resource and supply chain constraints of both materials and personnel continue to impact the delivery of projects. To mitigate the likelihood and impact of this risk, we will continue to work with consultants and contractors to only propose projects in the overprogrammed capital delivery plan that we are confident of delivering within the approved budgets

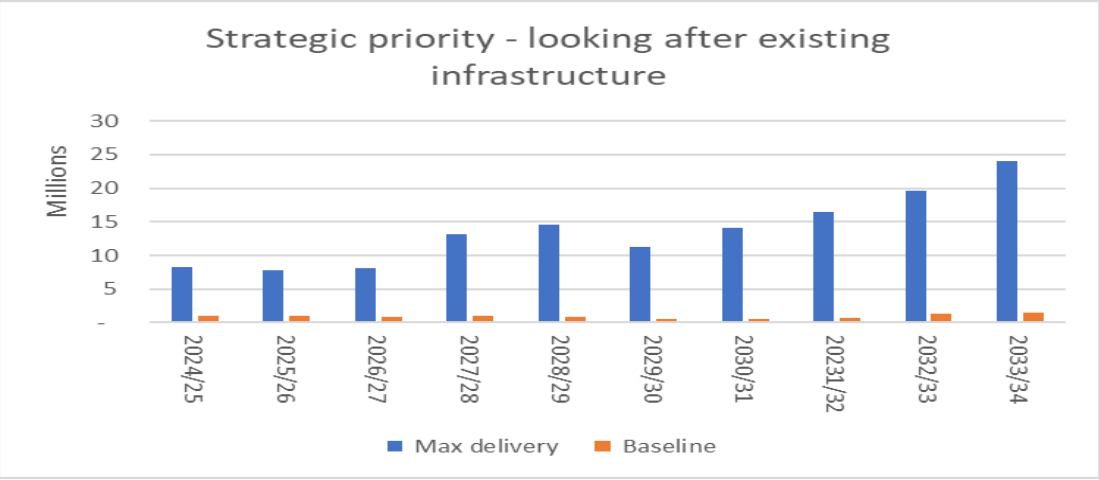
Proposed investment by strategic priority: Looking after existing infrastructure

Existing assets and services need to be operated, maintained, and replaced to ensure they deliver the services expected by customers. The desired state is where the reliability of the network improves and customers receive agreed levels of service across all three waters.

Option 1: Baseline ($m)

Focuses on immediate risk where high likelihood of critical failure only. Partial lift in renewals to work towards elimination of backlog of end of life assets within 30 years

	Year 1 24/25	Year 2 25/26	10-year total
Drinking Water	$0.46M	$0.48M	$3.5M
Stormwater	$0.095M	$0.12M	$0.93M
Wastewater	$0.44M	$0.37M	$4.8M
Wastewater JV	TBC	TBC	TBC
TOTAL	**$0.99M**	**$0.96M**	**$9.3M**



Option 2: Maximum deliverable ($m)

Replacement of assets with known failure history or poor condition only within first 10 years, looks to replace waterpipes in high leakage areas, and seeks to lift renewals to achieve elimination of backlog of end-of-life assets within 30 years

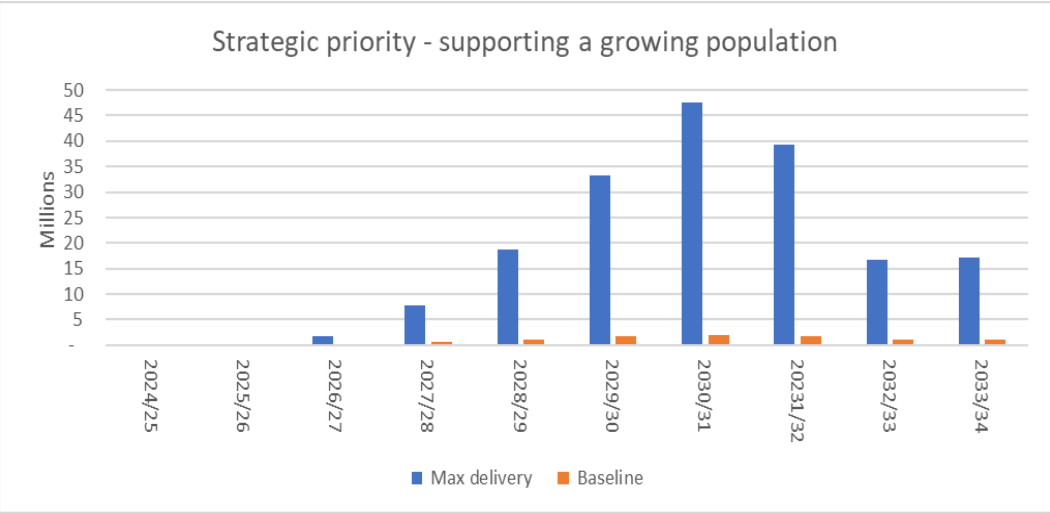
	Year 1 24/25	Year 2 25/26	10-year total
Drinking Water	$3.817M	$3.869M	$50.374M
Stormwater	$0.796M	$0.974M	$13.419M
Wastewater	$3.648M	$2.973M	$73.458M
Wastewater JV	TBC	TBC	TBC
TOTAL	**$8.261M**	**$7.816M**	**$137.25M**

Key projects: Option 1	Option 2
• Predominantly reactive renewals	• Watermains replaced in nominated streets with history of failures and/or high leakage • SW pipe network reactive renewals • WW pump renewals • Network renewals • TBC Replacement of dryer and UV unit at Seaview (JV) • TBC Complete design work on outfall replacement and commence construction in year 6 (JV)

Proposed investment by strategic priority: Supporting a growing population

Water services exist to serve communities. As the number of people in towns and cities increases, the extent of water services must grow with them. The desired state is where growth can be achieved while ensuring target levels of service are met or exceeded

Option 1: Baseline ($m)			
Minimal provision for growth related projects			
	Year 1 24/25	**Year 2 25/26**	**10-year total**
Drinking Water	$0.006M	$0.006M	$6.4M
Stormwater	$0.006M	$0.006M	$0.99M
Wastewater	$0.006M	$0.006M	$2.15M
Wastewater JV	TBC	TBC	TBC
TOTAL	**$0.018M**	**$0.018M**	**$9.5M**



Option 2: Maximum deliverable ($m)			
Significant investment in key infrastructure that supports growth in Upper Hutt			
	Year 1 24/25	**Year 2 25/26**	**10-year total**
Drinking Water	$0.050M	$0.050M	$129.188M
Stormwater	$0.050M	$0.050M	$15.548M
Wastewater	$0.050M	$0.050M	$37.855M
Wastewater JV	TBC	TBC	TBC
TOTAL	**$0.149M**	**$0.149M**	**$182.59M**

Key projects: Option 1	**Option 2**
	• In the first 3 years provision for only reactive growth development projects • Major projects on DW water supply reservoirs between 2027 to 2034 including Emerald Hill and Maidstone Reservoirs • WW upgrades: Trentham (2027-33), Pinehaven (2032-34)

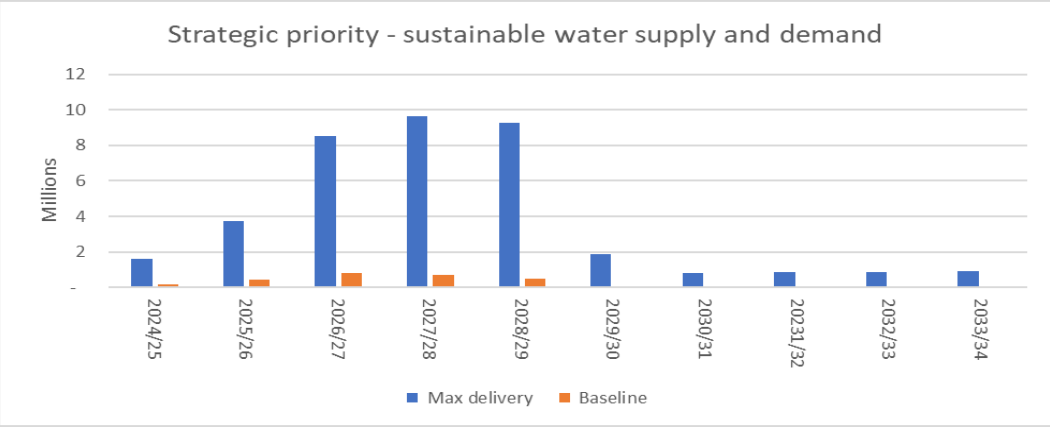
Proposed investment by strategic priority: Sustainable water supply and demand

Our communities want to have enough water when they need it, while Te Mana o te Wai is implemented by using it efficiently and leaving enough water in the rivers to sustain freshwater ecosystems. The desired state is where water isn't wasted, supply meets demand, and customers and the network are more resilient in times of shortage

Option 1: Baseline ($m)

Minimal activity provided to support sustainable water supply and demand

	Year 1 24/25	Year 2 25/26	10-year total
Drinking Water	$0.19M	$0.46M	$3.03M
Stormwater	-	-	-
Wastewater	$0.004	$0.004	$0.013
Wastewater JV	-	-	-
TOTAL	**$0.19M**	**$0.46M**	**$3.05M**



Option 2: Maximum deliverable ($m)

Contributes to UHCC's sustainability strategy goals to have a good quality and sufficient water supply. The water needs of communities are met while maintaining the health and mauri/mana of the source water. Supports measures to reduce water demand and water leakage to address regional water shortage challenge

	Year 1 24/25	Year 2 25/26	10-year total
Drinking Water	$1.578M	$3.707M	$38.023M
Stormwater	-	-	-
Wastewater	$0.033M	$0.039M	$0.110M
Wastewater JV	-	-	-
TOTAL	**$1.612M**	**$3.746M**	**$38.133M**

Key projects: Option 1	Option 2
	• Universal residential Smart Metering (based on estimated $1772 per meter) • Smart DNA Actuated Boundary Shut Valves

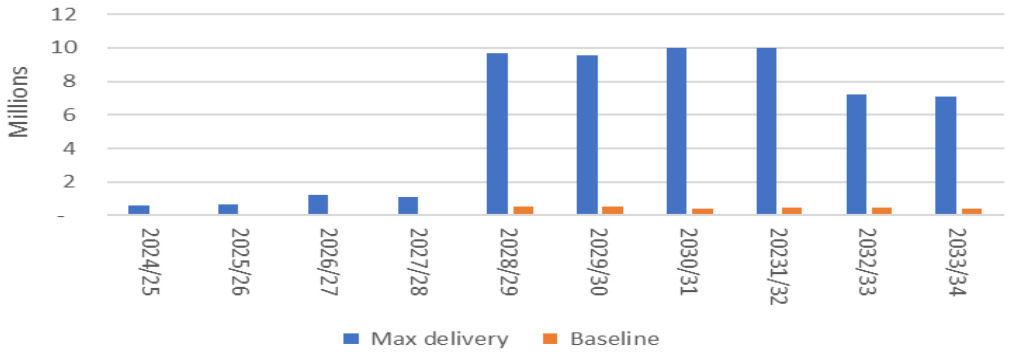
Proposed investment by strategic priority: Improving environmental water quality

Stormwater and treated wastewater are returned to the environment. Pollutants enter the water, making it unsafe for people and ecosystems. Stormwater management can also significantly modify the natural characteristics of creeks and streams. The desired state is improved water quality, Te Mana o Te Wai is implemented, mahinga kai regenerates, and regulatory requirements are met.

Option 1: Baseline ($m)

Minimal provision for activities supporting improving environmental water quality. Some activities covered under Looking After Existing Infrastructure through renewals programme

	Year 1 24/25	Year 2 25/26	10-year total
Drinking Water	-	-	-
Stormwater	$0.017M	$0.019M	$1.2M
Wastewater	$0.05M	$0.06M	$1.9M
Wastewater JV			
TOTAL	**$0.069M**	**$0.08M**	**$3.2M**



Option 2: Maximum deliverable ($m)

Contributes to UHCC's sustainability strategy goals to protect the natural environment and have a good quality and sufficient water supply. The current consent process will result in changes to how SW and WW is managed. This programme supports UHCC in meeting new requirements.

	Year 1 24/25	Year 2 25/26	10-year total
Drinking Water	-	-	-
Stormwater	$0.140M	$0.157M	$20.677M
Wastewater	$0.432M	$0.496M	$36.417M
Wastewater JV	TBC	TBC	TBC
TOTAL	**$0.573M**	**$0.653M**	**$57.094M**

Key projects: Option 1	Option 2
	• Planning and implementing SW upgrades to implement new resource consent requirements • Drainage Investigations to improve Inflow and Infiltration and Water Quality Smart Manhole sensors • Hulls Creek Subcatchment Management Plan and Reduction Plan

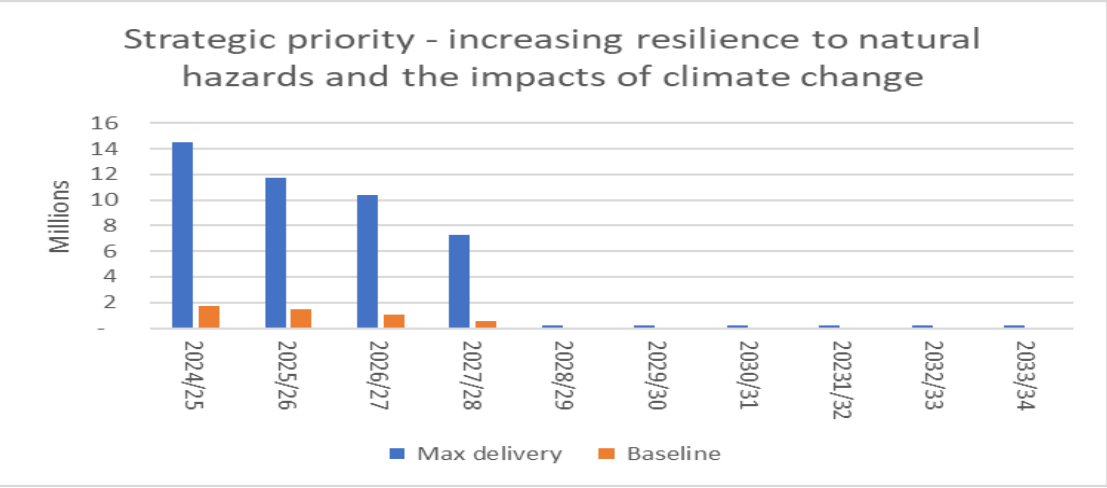
Increasing resilience to natural hazards and the impacts of climate change

Water services are at risk from natural hazards such as earthquakes and landslides and from more intense rainfall events and sea level rise caused by climate change. The desired state is resilient infrastructure that provides essential water services safely during an emergency event.

Option 1: Baseline ($m)

Minimal activities aimed at ensuring resilience of water services following a major emergency

	Year 1 24/25	Year 2 25/26	10-year total
Drinking Water	$0.5M	$0.002M	$0.512M
Stormwater	$1.23M	$1.44M	$4.3M
Wastewater	$0.001M	$0.001M	$0.007M
Wastewater JV	TBC	TBC	TBC
TOTAL	**$1.7M**	**$1.4M**	**$4.8M**



Option 2: Maximum deliverable ($m)

Activities included aimed at improving network resilience

	Year 1 24/25	Year 2 25/26	10-year total
Drinking Water	$4.210M	$0.019M	$4.310M
Stormwater	$10.303M	$11.694M	$40.628M
Wastewater	$0.010M	$0.010M	$0.100M
Wastewater JV	TBC	TBC	TBC
TOTAL	**$14.523M**	**$11.723M**	**$45.038M**

Key projects: Option 1	Option 2
• Modelling work	• Pinehaven Stream phases 2-4 • Totara Park Road - Bridge Pipework Seismic Strengthening phase 6

Next steps

The process from here