2024-34 Investment Planning and Advice

Hutt City Council

Step 2: Council direction on detailed investment options

9 October 2023

Wellington Water

Our water, our future.

Purpose and outcome sought

Supporting Hutt City Council's vision of a 'connected, resilient and inclusive city where everyone thrives'

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

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 infrasdtructure 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 provide water services to their communities for the first two financial years of their 2024-34 LTPs. Decisions on ongoing funding and pricing will then be set by the new Water Services Entity (year 3 onwards)
- 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

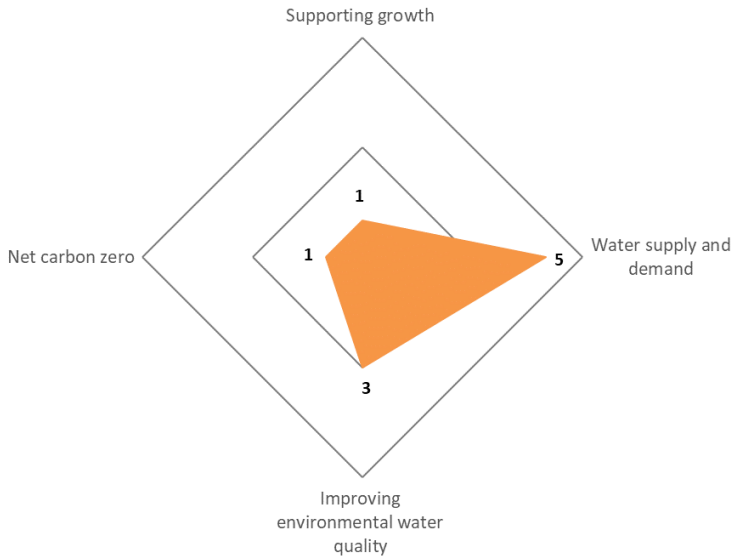
What we have heard

On 13 September 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.

During the discussion we heard:

- Council is running a parallel process to the Water Reform Programme, assuming delivery of three waters for the full 10-years of the LTP
- Support for water meters with questions around the value of delivering these sooner to address challenges with leaks
- Support for a regional approach to delivery to create efficiencies, particularly for large projects
- A targeted list of critical assets requiring renewals immediately and identifying where renewals can be added to the backlog
- The level of renewals investment should be targeted to match depreciation

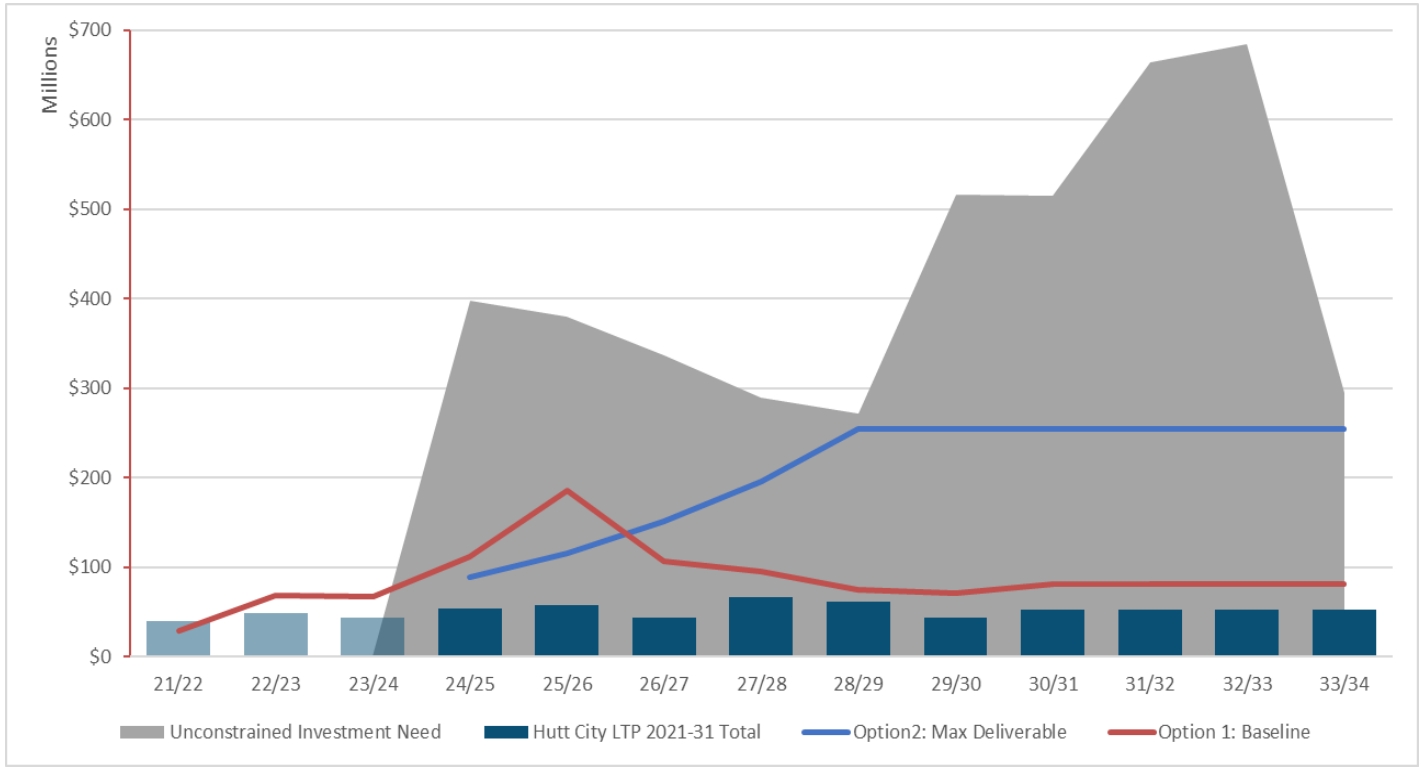
Water supply and demand was identified as a priority, followed by improving environmental water quality



Summary Overview

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

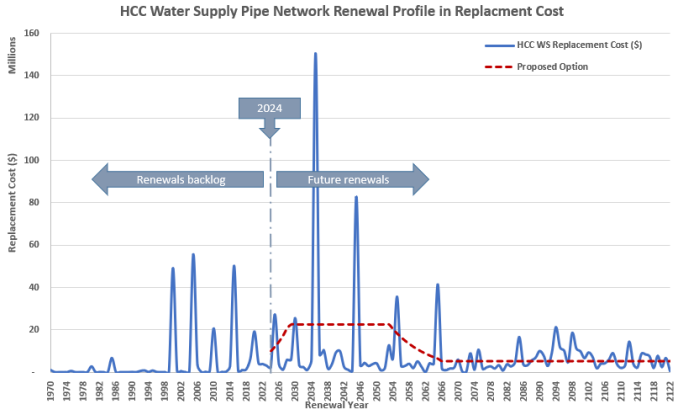
- The unconstrained investment need (grey) represents the total investment considered necessary for operating, maintaining and meeting current and future water services needs. This level is more than what Wellington Water can deliver and what is affordable to Council. Therefore, decisions are needed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

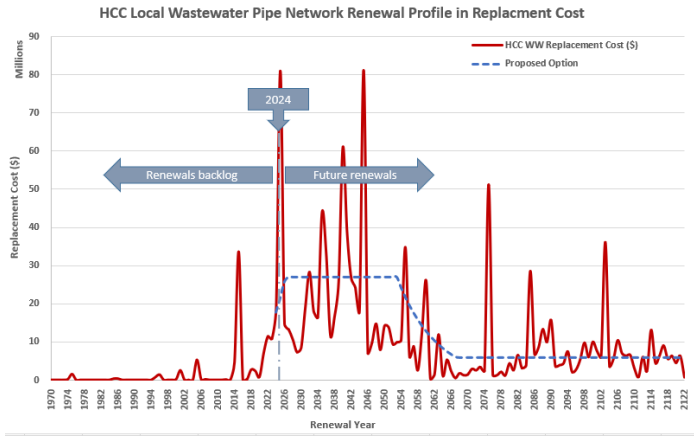


Renewals

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 are proposed aimed at achieving a sustainable asset base that is renewed at a pace that matches deterioration. These budgets have been built from:
  - Requirements for 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





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Operating Expenditure

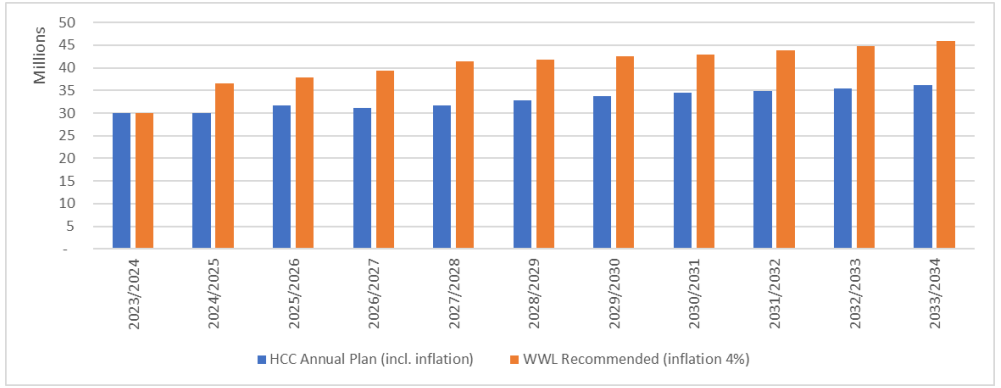
Within OPEX budgets there are a number of activities considered unavoidable that need to be covered by Council. These relate to activities that are mandatory or cannot be avoided or deferred as they are essential for the operation and maintenance of Councils assets. For example, costs required for the 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
- The need to urgently repair ageing infrastructure resulting in higher operational costs.
- Impact of the bulk water levy, which hasn't been included in our advice, but will need to factored into HCC considerations – we are speaking to the Greater Wellington LTP Committee late October.

Proposed 24-34 operating expenditure against baseline (from 23/24 annual plan)



Recommended 2024-34 Operating Expenditure

Proposed 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	$5,459M	$6.426M	$7.085M	$78.245M	Includes activities such as condition assessments, resource consent compliance monitoring, water sampling and monitoring, investigations, design studies, and asset management. Uplift on 23/24 budget levels due to: • Critical Asset Condition Assessments – physical pipe inspections and to pick up high criticality assets going forward, pump station asset management documentation and action and smart response plans, and testing of critical pumps • Increased active leakage control and water loss management – based on increased levels of service to get on top of growing leaks (7% yearly increase) • Catchment growth planning • WWJV Emissions monitoring (new activity) • Regional Biosolids management – strategy and plan for the beneficial reuse of wastewater biosolids
Operations	$0.202M	$0.238M	$0.238M	$2.523M	Includes the control systems covering the electrical, instrumentation and automation systems for Council's stormwater, wastewater, and potable water assets. Uplift on 23/24 budget levels to account for increased labour and plant allocations.
Planned Maintenance	$3.764M	$4.683M	$5.537M	$63.581M	Includes water and wastewater pump station, utility and network asset maintenance, and stormwater maintenance activities. Uplift on 23/24 budget levels due to: • Planned maintenance activities required across pump station, reservoir and network assets
Reactive Maintenance	$8.007M	$9.510M	$9.070M	$103.454M	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. For the 24-34 investment period, higher reactive maintenance budgets are anticipated due to ageing assets and to reduce the leakage rate.
Treatment Plant	$8.377M	$10.139M	$10.231M	$102.809M	Covers all activities relating to the operation of the wastewater treatment plant including planned and reactive maintenance, operations, and investigations. The majority of the recommended increase for the 24-34 period is from increased flows, a new gas contract starting in October 2023, anticipated increases in power costs, residuals disposal costs, and variation of Veolia contract conditions.
Management & Advisory Services	$4.164M	$4.164M	$4.164M	$41.643M	*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	**$29,974M**	**$35.159M**	**$36.325M**	**$392.255M**	

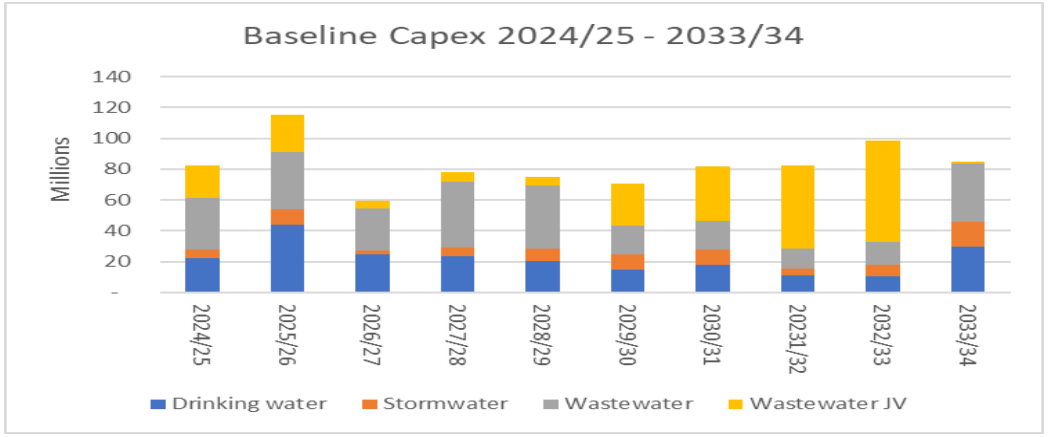
Summary Overview: Option 1 (CAPEX) – Continuation of LTP baseline

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	$25.771M	$46.866M	$45.953M	$238.049M
Stormwater	$-1.876M	$3.68M	$5.866M	$170.258M
Wastewater	$35.357M	$31.662M	$63.413M	$391.374M
Wastewater JV	TBC	TBC	TBC	TBC
WWL Subtotal	**$59.251M**	**$82.208M**	**$115.231M**	**$799.681M**
IAF projects*	$8.748M	$30.005M	$70.228M	$174.467M
TOTAL	**$67.999M**	**$112.213M**	**$185.459M**	**$973.548M**

**Funding for IAF projects are not included within WWL budgets*



Risks

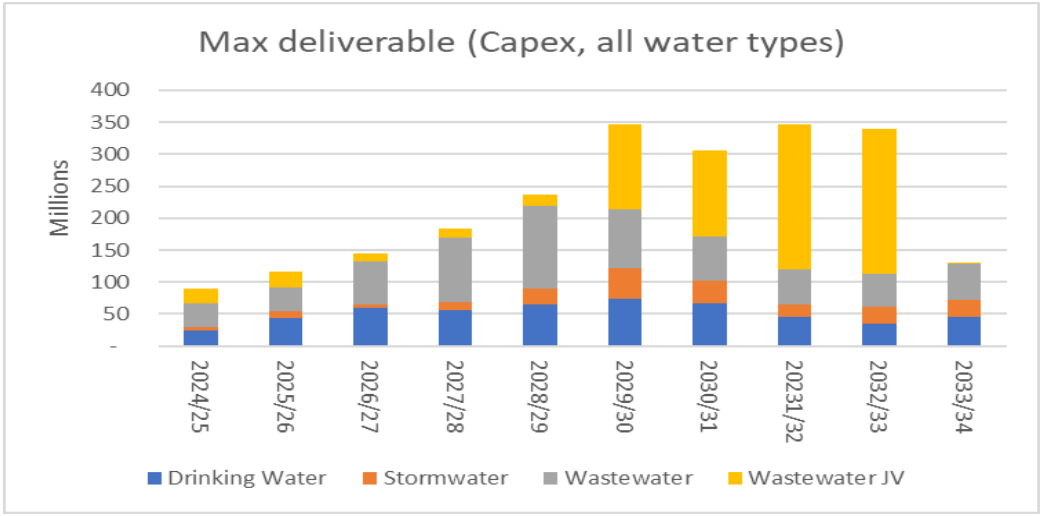
- Water demand outstrips supply due to water loss in the network and growth. Networks are not optimised in accordance with Te Mana o te Wai
- Ageing infrastructure impacting delivery of safe drinking water as well as having environmental and cultural impacts. Increased unplanned spend required to remediate critical failures
- 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 2 (CAPEX) – Maximum deliverable

Option Two represents the maximum programme WWL recommends 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	$24.771M	$24.318M	$44.231M	$514.937M
Stormwater	$5.730M	$10.153M	$5.420M	$217.640M
Wastewater	$38.085M	$36.436M	$37.249M	$692.098M
Wastewater JV	TBC	$23.086M	$24.555M	$813.645M
WWL subtotal	**$68.586M**	**$93.993M**	**$111.445M**	**$2,238.320M**
IAF projects	$8.748M	$30.005M	$70.228M	$174.467M
TOTAL	**$77.33M**	**$124.00M**	**$181.68M**	**$2,412.787M**



Risks

- As with option 1 but lower
- Inflationary pressures putting pressure on scoped project budgets resulting in potential for rescoping projects, reallocating budgets from lower priority projects, or increasing budgets
- Potential for resource and supply chain constraints of both materials and personnel impacting the delivery of projects.

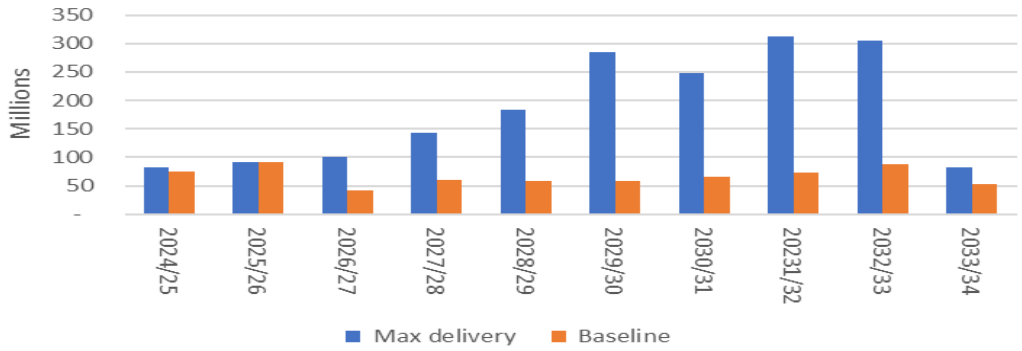
Proposed investment by strategic priority: Looking after existing infrastructure

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	$21.3M	$23.5M	$138.5M
Stormwater	$5.03M	$7.5M	$36.8M
Wastewater	$29.0M	$36.9M	$248.4M
Wastewater JV	$20.2M	$23.9M	$245.2M
TOTAL	**$75.3M**	**$91.8M**	**$668.9M**



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	$23.2M	$23.6M	$323.0M
Stormwater	$5.5M	$7.6M	$97.0M
Wastewater	$31.6M	$37.2M	$602.0M
Wastewater JV	$22M	$24.0M	$812.0M
TOTAL	**$82.3M**	**$92.6M**	**$1,834.0M**

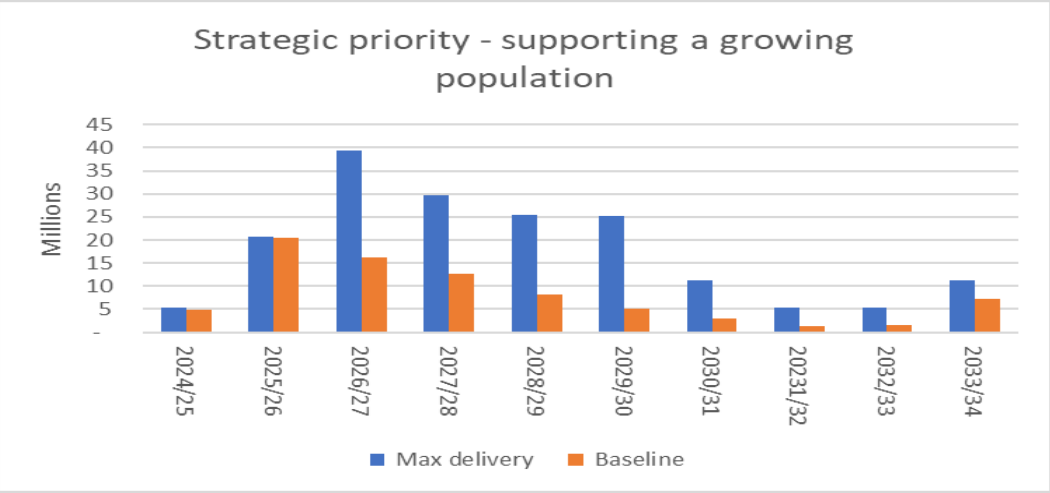
Key projects: Option 1	Option 2
• WW reactive renewals • SW reactive renewals and Te Mome Pump Station renewal • VHCA reservoir renewals • DW reactive renewals	• HVJV – upgrades to Seaview WW including Seaview dryer renewal and UV renewals and Petone Collecting WW upgrade and the main outfall pipe.

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 investment in growth projects.			
	Year 1 24/25	**Year 2 25/26**	**10-year total**
Drinking Water	$0.36M	$20.2M	$50.4M
Stormwater	$0.23M	$0.25M	$11.3M
Wastewater	$4.4M	-	$18.9M
Wastewater JV	-	-	-
TOTAL	**$4.99M**	**$20.5M**	**$80.7M**

Option 2: Maximum deliverable ($m)			
Significant investment in key infrastructure that supports growth in Lower Hutt			
	Year 1 24/25	**Year 2 25/26**	**10-year total**
Drinking Water	$0.39M	$20.4M	$95.6M
Stormwater	$0.25M	$0.25M	$37.6M
Wastewater	$4.8M	-	$45.9M
Wastewater JV	-	-	-
TOTAL	**$5.4M**	**$20.6M**	**$179.0M**



Key projects: Option 1	Option 2
• Naenae no.2 Reservoir and Outlet Main • Wainuiomata Black Creek SW	• Wainuiomata North Wastewater Trunk Network Upgrade

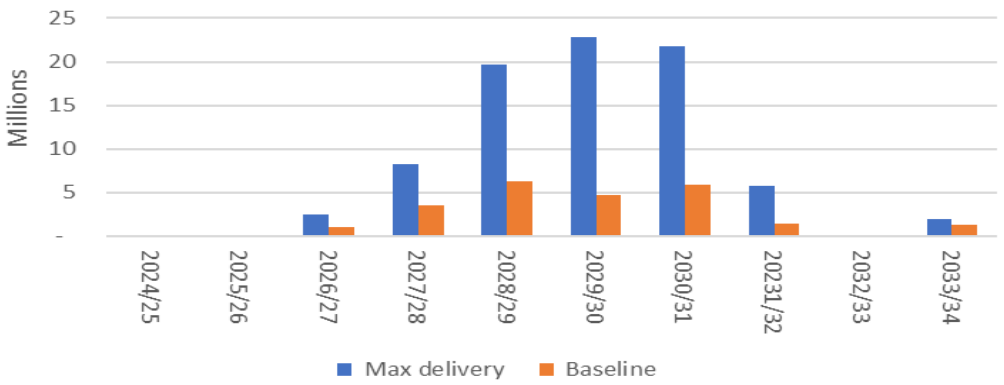
Proposed investment by strategic priority: Sustainable water supply and demand

Our communities want to have enough water when they need it, while Te Mana o te Wai is enhanced 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)

Provision for sustainable water supply and demand related activities.

	Year 1 24/25	Year 2 25/26	10-year total
Drinking Water	$0.021M	$0.149M	$24M
Stormwater	-	-	-
Wastewater	-	-	-
Wastewater JV	-	-	-
TOTAL	**$0.021M**	**$0.149M**	**$24M**



Option 2: Maximum deliverable ($m)

The water needs of communities are met while maintaining the health and mauri/mana of the source water. Predominant focus on supporting measures to reduce water demand and water leakage to address regional water shortage challenge. Reflects full suite of measures required and updated cost assumptions.

	Year 1 24/25	Year 2 25/26	10-year total
Drinking Water	$0.023M	$0.15M	$82M
Stormwater	-	-	-
Wastewater	-	-	-
Wastewater JV	-	-	-
TOTAL	**$0.02M**	**$0.15M**	**$82M**

Key projects: Option 1	Option 2
• Partial costs towards Smart Metering	• Universal Residential Smart Metering

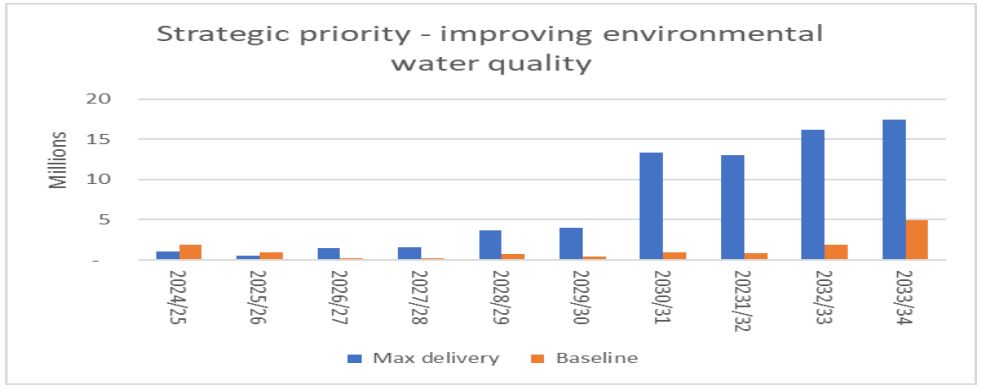
Proposed investment by strategic priority: Improving environmental water quality

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)

Provision for minimum level of activities to support improving environmental water quality. Does not reflect costs associated with global stormwater and wastewater consents. To note some activities delivering improved environmental water outcomes covered under Looking After Existing Infrastructure through renewals programme

	Year 1 24/25	Year 2 25/26	10-year total
Drinking Water	-	-	-
Stormwater	-	-	$10.3M
Wastewater	$0.03M	-	$15.7M
Wastewater JV	$0.93M	$0.49M	$1.4M
TOTAL	**$0.97M**	**$.049M**	**$27.4M**



Option 2: Maximum deliverable ($m)

Major projects aimed at improving environmental water quality. 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	-	-	$26.9M
Wastewater	$0.038M	-	$43.99M
Wastewater JV	$1.02M	$0.49M	$1.5M
TOTAL	**$1.06M**	**$0.49M**	**$72.4M**

Key projects: Option 1

- Stormwater and wastewater planning for future network improvements including:
- Wastewater overflow reductions programme
- Storm water quality improvements

Option 2

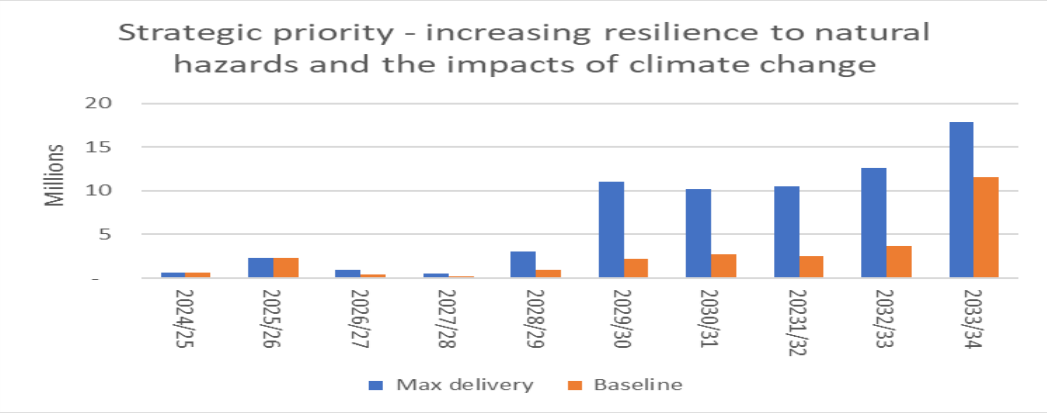
- Implementation of a sub catchment wastewater network overflow reduction plan.
- Stormwater Catchment Asset Management Plan – Implementation of water quality improvements

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	$0.6M	-	$5.6M
Stormwater	$0.005M	$2.3M	$21.6M
Wastewater	-	-	$0.03M
Wastewater JV	-	-	-
TOTAL	$0.62M	$2.3M	$27.2M

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	$0.68M	-	$13.3M
Stormwater	$0.005M	$2.3M	$56.3M
Wastewater	-	-	$0.08M
Wastewater JV	-	-	-
TOTAL	**$0.7M**	**$2.3M**	**$69.7M**



Key projects: Option 1	Option 2
• Stormwater modelling projects • Capital carbon modelling for three waters • Dowse Drive and Muritai Road SW upgrades • Fire Hydrant management and use project	• Stormwater Projects for Petone Flooding

Next steps

The process from here