# 2024-34 Investment Planning and Advice

## South Wairarapa District Council

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

12 October 2023

Wellington Water

Our water, our future.

# Purpose and outcome sought

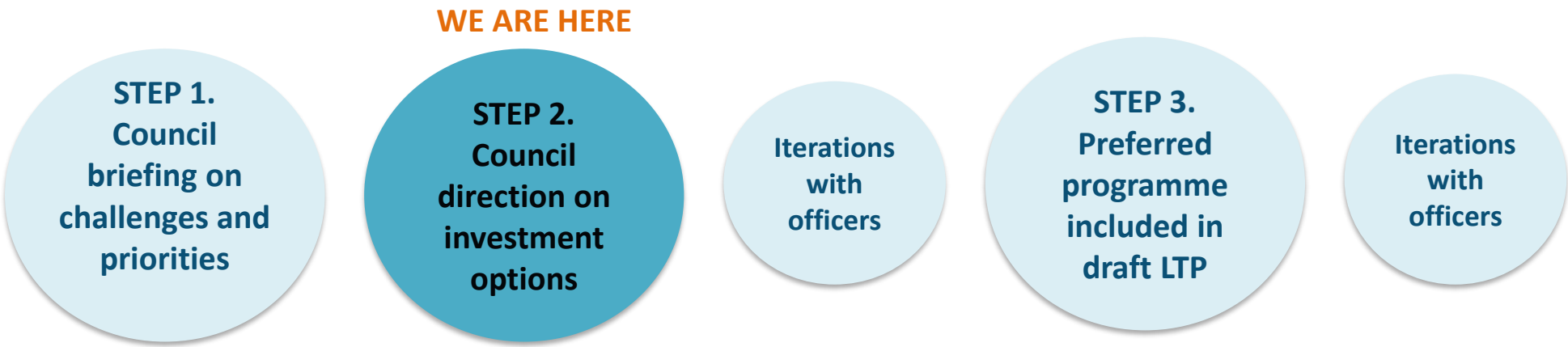
**Supporting South Wairarapa District Council's vision of being the 'best of country living with the community at the heart of everything we do'**

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 endorsed a set of regional strategic priorities for inclusion in the 2024-34 investment planning advice for each council. 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** | Predicted growth is likely to put pressure on existing and future water infrastructure and services, increasing the likelihood of network disruption and failure to meet performance expectations |
| **Sustainable water supply and demand** | Unreliable and insufficient supply of water in some areas to meet current and future needs |
| **Improving environmental water quality** | Leaking, blocked or directly discharging stormwater and wastewater networks risk returning unsafe, contaminated water to the environment |
| **Preparing for emergencies and climate change** | Risks from natural hazards (including higher flooding risk) and climate change are leaving communities and water assets vulnerable to disruption and economic loss |

# 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

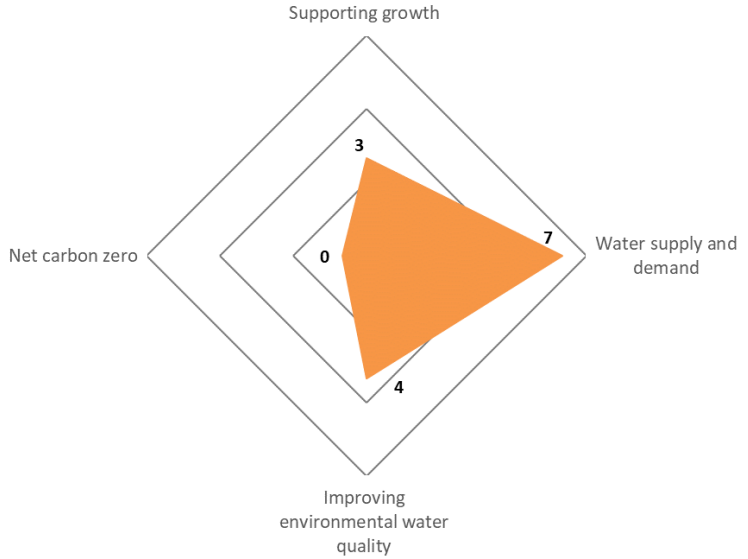
# What we have heard

**On 21 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. We have reflected your feedback into our options advice.**

Questions raised during the discussion noted:

- Recognition of the scale of the investment need and that budgets cannot be reduced
- Whether renewals investment should match depreciation to 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
- The importance of clear messaging to the community on the 'water story'
- New regulations are coming into effect and new consents are needed
- Guidance on what water services to focus on with value seen in modelling e.g. renewals, impact of growth, flooding and stormwater which can then be used to identify solutions
- With respect to reducing the impact of natural hazards and climate change, the need to work across the council (water and roading), the potential for private partnership to test ideas, and looking to other councils for solutions

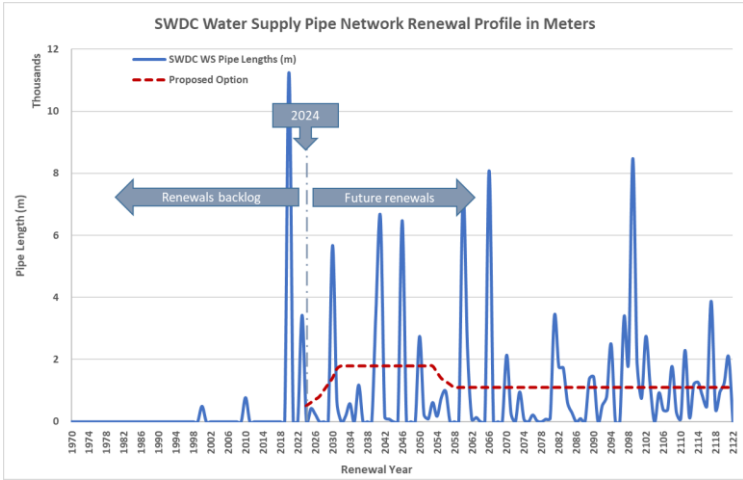
**Water supply and demand was identified as a priority, followed by improving environmental water quality and supporting growth**

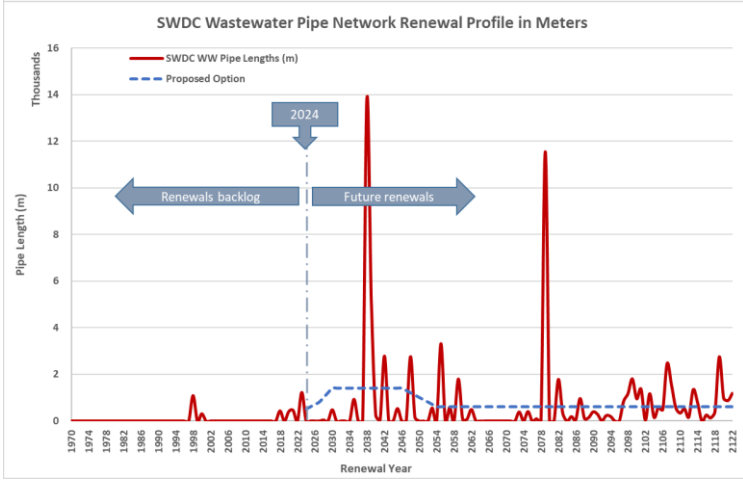


# Renewals

**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 are 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

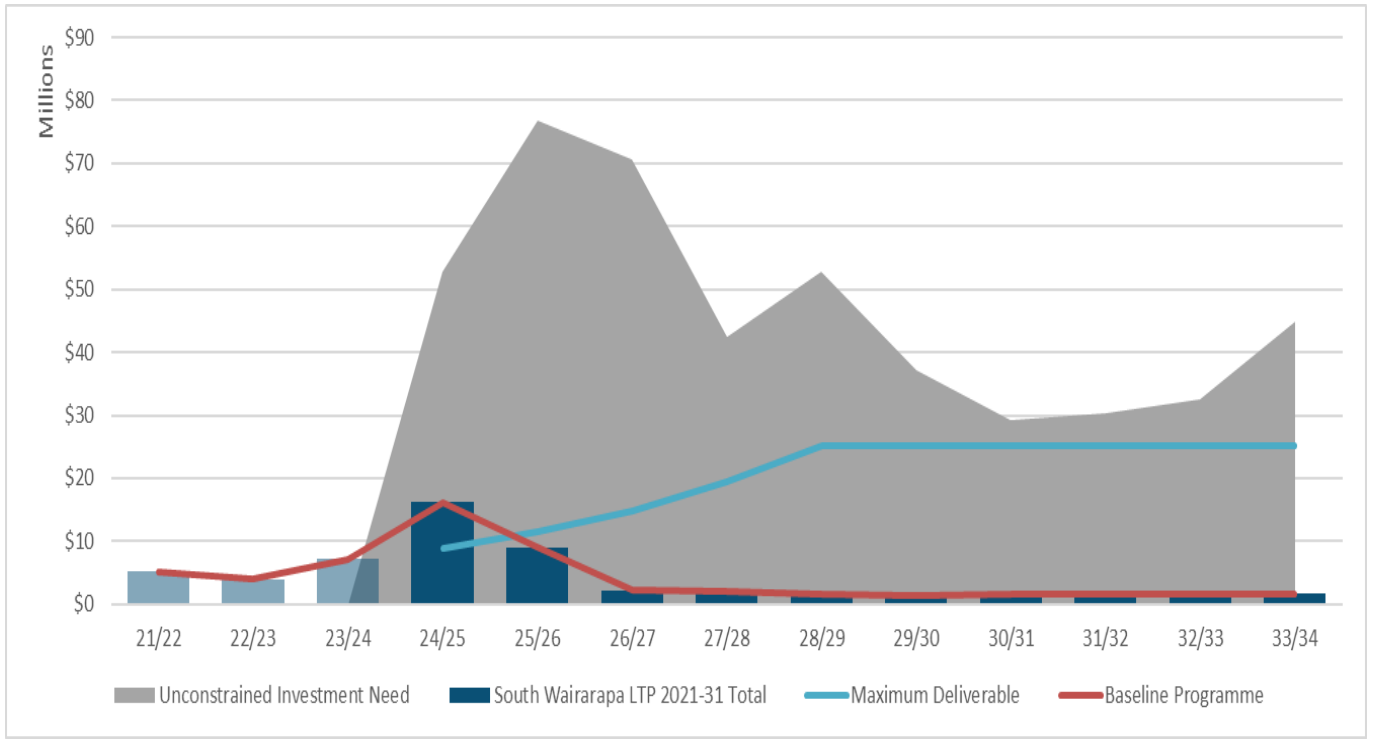


# Summary Overview

**The following table summaries Wellington Water's full investment story for South Wairarapa.**

- 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 continuation of current 21-31 LTP budget levels
- The maximum deliverable (blue line) is the level of investment Wellington Water considers it can deliver (SWDC's proportional share of a regional deliverability view)
- On top of this will be what is affordable to Council, which is currently not reflected.



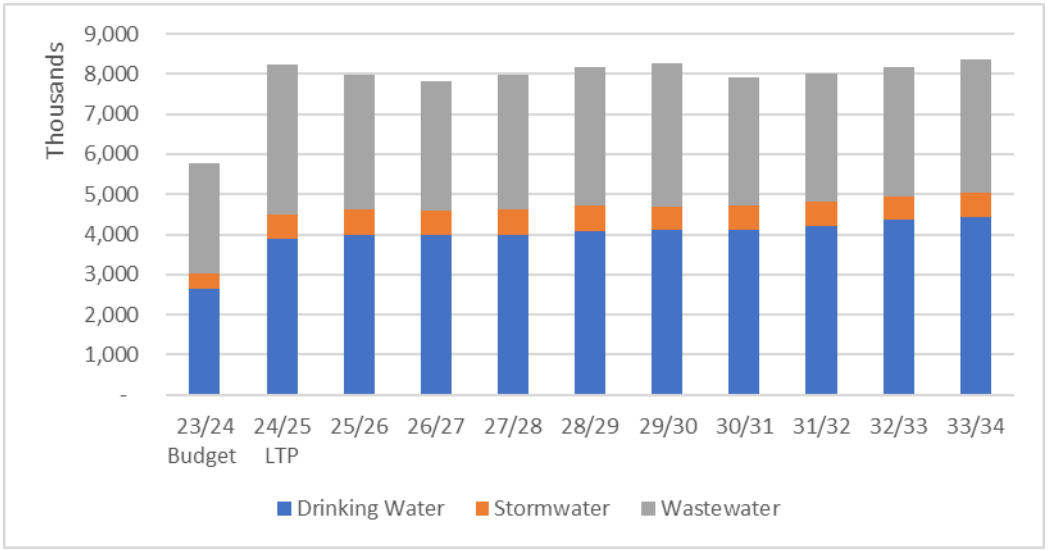
# Operating Expenditure

**Within OPEX budgets there are a number of activities considered critical 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 with any reductions or deferrals with expenditure likely to be required in the future.

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

- For 2023/2024, WWL's three waters OPEX budget was below the recommended level needed to deliver agreed levels of service. A large proportion of the reductions made were in investigations. This work is still required to inform future deliver programmes and is reflected in the uplift in the first year of the 24-34 LTP
- 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.




*Footnote added 31 January 2024.*
The above advice was subsequently modified to reflect the appropriate accounting treatment of the carry-over of opex budget for the waste water treatment plant desludging project. The result of this is all options reduced by $635k versus what was in this advice for Treatment Plant.

# 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** | $656K | $2,292K | $2,433K | $23,802K | 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. Uplift on 23/24 budget levels due to:<br>• Investigations deferred from 23/24 opex programme<br>• Sustainable Water Supply & Demand Strategy to ensure SWDC has access to sufficient water into the future<br>• Drinking water active leakage control work & water loss management<br>• Stormwater Global consent monitoring. Regulatory requirement to understand effect of discharges to the environment<br>• Wastewater Treatment Plant capacity study as follow-on from network growth study<br>• Increase in consent condition monitoring, sampling and testing and laboratory costs<br>• Reporting and monitoring of carbon to auditable standard<br>• Featherston (Stormwater and Wastewater) and Greytown (Drinking and Wastewater) Growth Planning |
| **Operations** | $553K | $636K | $636K | $6,361K | 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 due to:<br>• Improvement and resilience work occurring to reduce outages and non-compliance (data reporting)<br>• Allowances for growth |
| **Planned Maintenance** | $128K | $282K | $281K | $3,082K | Includes water and wastewater pump station, utility and network asset maintenance, and stormwater maintenance activities. Uplift on 23/24 budget levels largely to account for impact of inflation and to achieve required levels of service. |
| **Reactive Maintenance** | $1,507K | $1,602K | $1,663K | $18,737K | 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 increases have been reflected to account for ageing plant and previous year expenditure. |
| **Treatment Plant** | $2,561K | $3,030K | $2,584K | $25,144K | Covers all activities relating to the operation of Council's drinking and wastewater treatment plant assets. Uplift on 23/24 budget levels due to:<br>• Forecast chemical costs and<br>• Drinking Water - Increase in flow, change in weather patterns. Planned maintenance of aging plant.<br>• Half of BoF not spent in 23/24 on Martinborough & Greytown de-sludging<br>• Riparian planting at Greytown WWTP – consent condition |
| **Management & Advisory Services** | $376K | $376K | $376K | $3,760K | *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** | **$5,780K** | **$8,219K** | **$7,974K** | **$80,886K** | |

*Footnote added on 31 January 2024.*
The above advice was subsequently modified to reflect the appropriate accounting treatment of the carry-over of opex budget for the waste water treatment plant desludging project. The result of this is all options reduced by $635k versus what was in this advice for Treatment Plant.

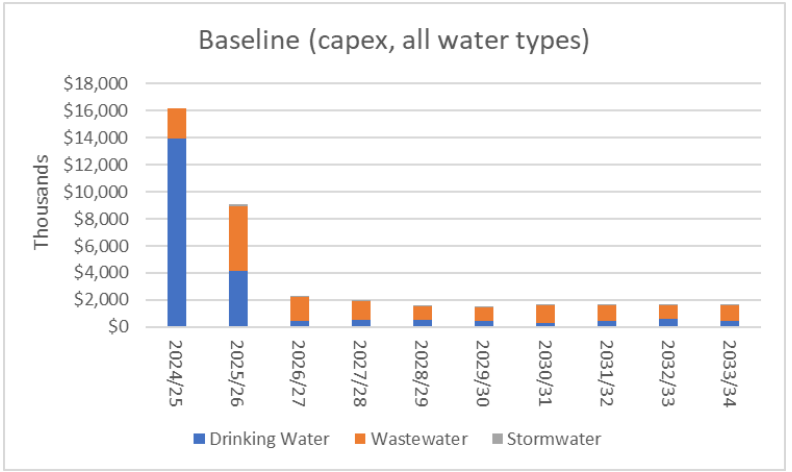
# Summary Overview: Option One (CAPEX) - Continuation of LTP baseline

**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* |
|---|---|---|---|---|
| Drinking Water | | $13,937K | $4,142K | $21,811K |
| Stormwater | | - | $108K | $177K |
| Wastewater | | $2,268K | $4,803K | $16,799K |
| **TOTAL** | **$6,325K** | **$16,205K** | **$9,052K** | **$38,788K** |

*Based on SWDC 2021-31 LTP




## Risks

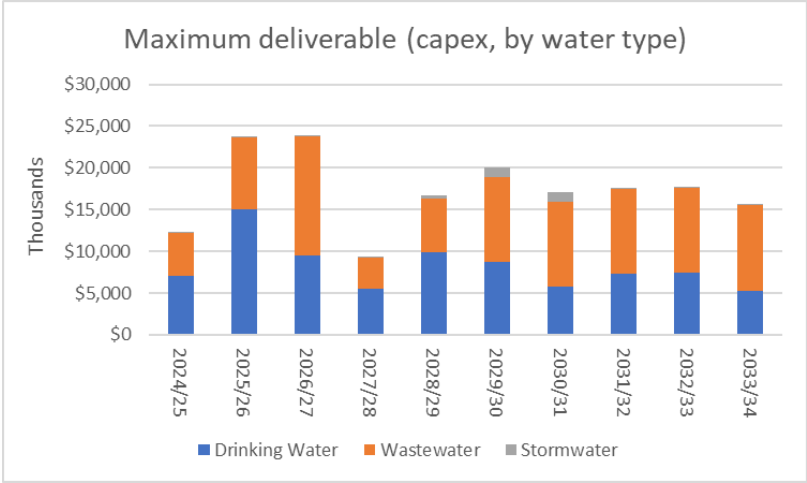
- Aging SWDC infrastructure is impacting delivery of safe drinking water as well as having environmental and cultural impacts. Unplanned spend is required to remediate critical three waters failures. All drinking water treatment plants are non-compliant with the WSE Act and Drinking Water Quality rules
- Insufficient water supply and contamination risks in some areas associated with source water
- WWTPs are at or under capacity and non-compliant with consents
- LTP budgets are not sufficient to maintain levels of service, maintenance, and compliance costs
- Significant increases in the costs of material and labour due to higher than anticipated inflation and market capacity pressures places 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 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 | | $7,020K | $15,074K | $81,435K |
| Stormwater | | $100K | $100K | $3,223K |
| Wastewater | | $5,150K | $8,600K | $89,218K |
| **TOTAL** | **$6,325K** | **$12,269K** | **$23,774K** | **$173,875K** |




## Risks

- As with option 1 but lower with increased focus in looking after existing infrastructure and investment focused at supporting growth
- 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

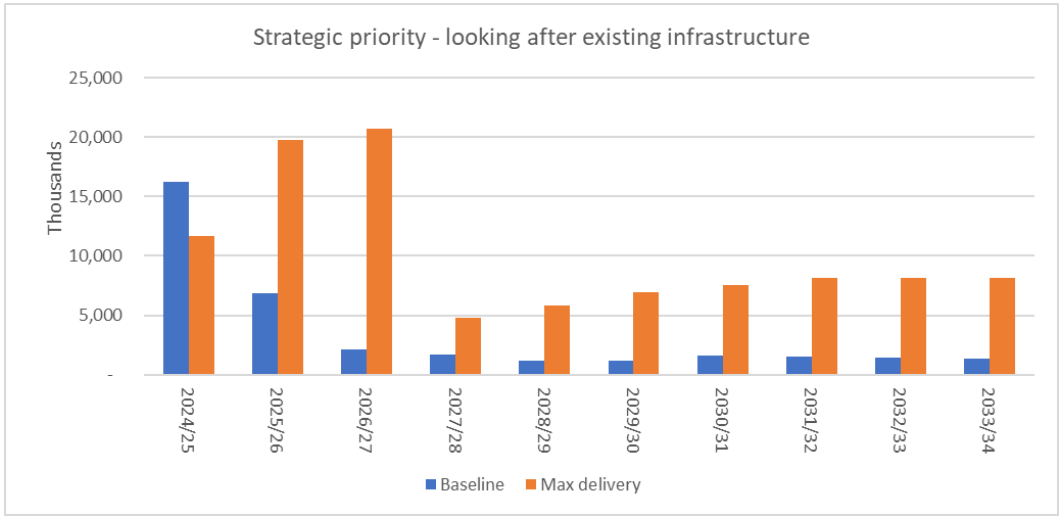
# Proposed investment by strategic priority: Looking after existing infrastructure

**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 ($000)**

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 | $13,937K | $2,139K | $18,830K |
| Stormwater | - | $30K | $47K |
| Wastewater | $2,270K | $4,690K | $16,143K |
| **TOTAL** | **$16,200K** | **$6,860K** | **$35,000K** |




**Option 2: Maximum deliverable ($000)**

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

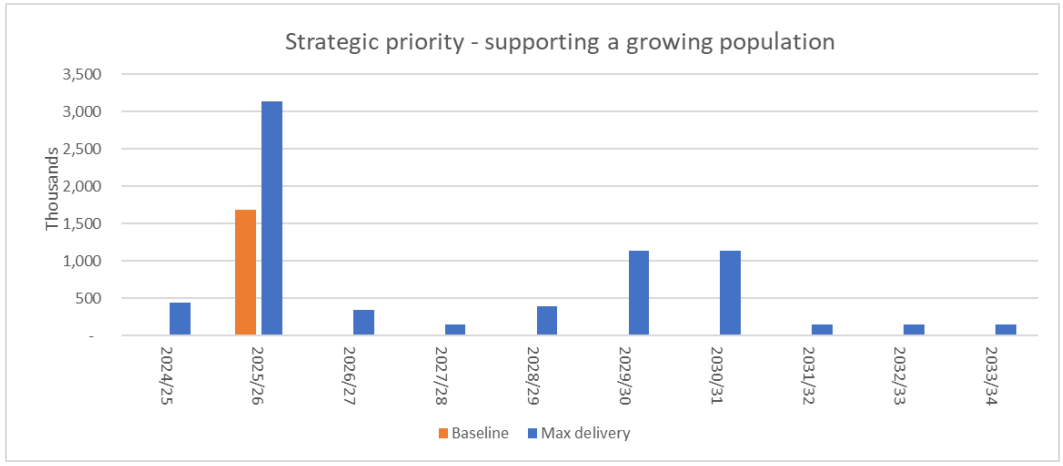
| | Year 1 24/25 | Year 2 25/26 | 10-year total |
|---|---|---|---|
| Drinking Water | $6,650K | $11,300K | $49,156K |
| Stormwater | - | - | - |
| Wastewater | $5,000K | $8,450K | $52,405K |
| **TOTAL** | **$11,650K** | **$19,750K** | **$101,561K** |

| Key projects: Option 1 | Option 2 |
|---|---|
| • Featherston WWTP upgrade ($15M)<br>• Upgrades to Martinborough WWTP (~$4.8M) | • Featherston WWTP consent – alternative disposal ($17.5M)<br>• Greytown WTP updgrades stage 3<br>• Tauwharenikau pipeline crossing<br>• Martinborough WWTP Compliance Upgrades ($4.5M)<br>• Greytown WWTP Compliance Upgrades<br>• Greytown Papawai Rd Wastewater Upgrade Stage 2<br>• Boar Bush Drinking Water Trunk Main |

# 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 ($000) | | | |
|---|---|---|---|
| Baseline budget does not allow for growth projects | | | |
| | **Year 1 24/25** | **Year 2 25/26** | **10-year total** |
| Drinking Water | - | $1,610K | $1,636K |
| Stormwater | - | $39K | $65K |
| Wastewater | - | $39K | $65K |
| **TOTAL** | **-** | **$1,689K** | **$1,765K** |




| Option 2: Maximum deliverable ($000) | | | |
|---|---|---|---|
| Key infrastructure is built to support district growth | | | |
| | **Year 1 24/25** | **Year 2 25/26** | **10-year total** |
| Drinking Water | $347K | $3,044K | $3,985K |
| Stormwater | $50K | $50K | $2,723K |
| Wastewater | $50K | $50K | $495K |
| **TOTAL** | **$446K** | **$3,143K** | **$7,202K** |

| Key projects: Option 1 | Option 2 |
|---|---|
| • District wastewater, stormwater and drinking water modelling | • Wastewater, stormwater and drinking water growth development projects<br>• Greytown Drinking water Mains (2.5km for Papawai Marae<br>• Greytown Humpries Street Upgrade |

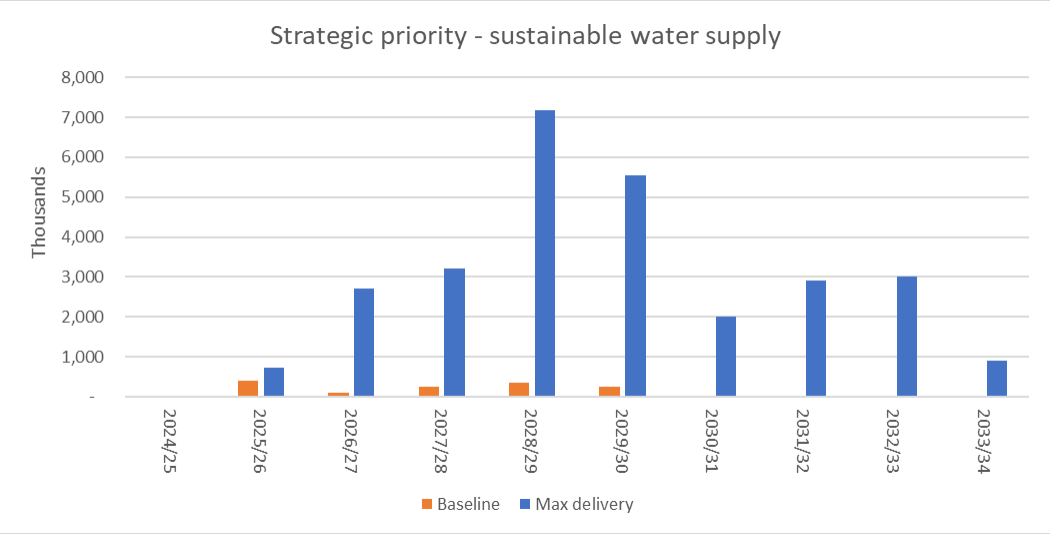
# Proposed investment by strategic priority: Sustainable water supply and demand

**Our communities want to have enough water when they need it, while Te Mana o te Wai is 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 ($000)**

Minimal activity to support sustainable water supply and demand

| | Year 1 24/25 | Year 2 25/26 | 10-year total |
|---|---|---|---|
| Drinking Water | - | $393K | $1,344K |
| **TOTAL** | **-** | **$393K** | **$1,344K** |




**Option 2: Maximum deliverable ($000)**

Activities to support meeting the water needs of communities while maintaining the health and mauri/mana of source water.

| | Year 1 24/25 | Year 2 25/26 | 10-year total |
|---|---|---|---|
| Drinking Water | $13K | $720K | $28,194K |
| **TOTAL** | **$13K** | **$720K** | **$28,194K** |

| Key projects: Option 1 | Option 2 |
|---|---|
| • Reservoir upgrades | • Featherston Reservoir Replacement and Upgrade<br>• Martinborough Reservoir Replacement and Upgrade<br>• Install Smart DMA Meters and network metering loggers (in response to water loss)<br>• Fluoridation across all Water Treatment Plants<br>• Authorised Tanker Fill Points |

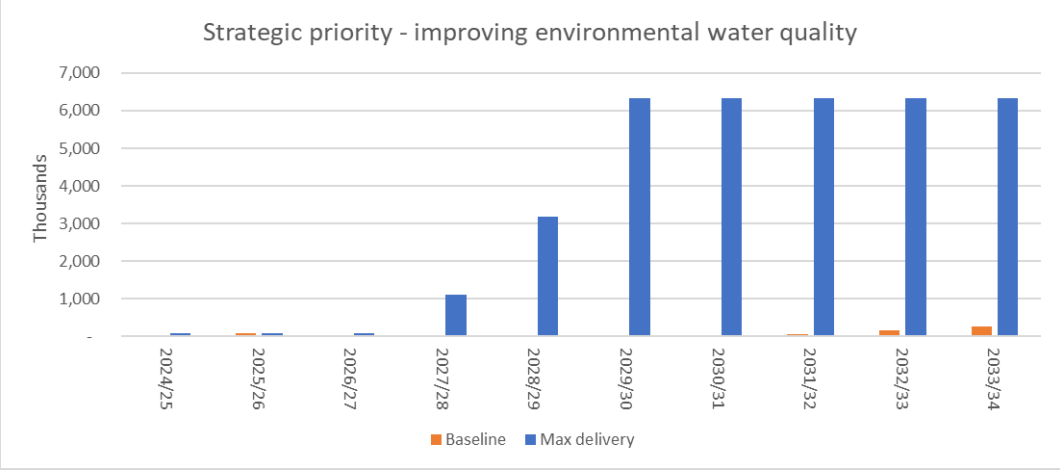
# Proposed investment by strategic priority: Improving environmental water quality

**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 ($000)**

Minimal activity to support improving environmental water quality. Some activities covered under Looking After Existing Infrastructure through renewals programme. WWTPs continue to deliver below expected environmental performance standards.

| | Year 1 24/25 | Year 2 25/26 | 10-year total |
|---|---|---|---|
| Wastewater | - | $72K | $589K |
| **TOTAL** | **-** | **$72K** | **$589K** |




**Option 2: Maximum deliverable ($000)**

WWTPs moving towards achieving expected environmental performance standards with a progressive move to land disposal. Better quality data collection and analysis to understand the impact the SWDC water network has on the natural environment

| | Year 1 24/25 | Year 2 25/26 | 10-year total |
|---|---|---|---|
| Wastewater | $91K | $91K | $36,168K |
| **TOTAL** | **$91K** | **$91K** | **$36,168K** |

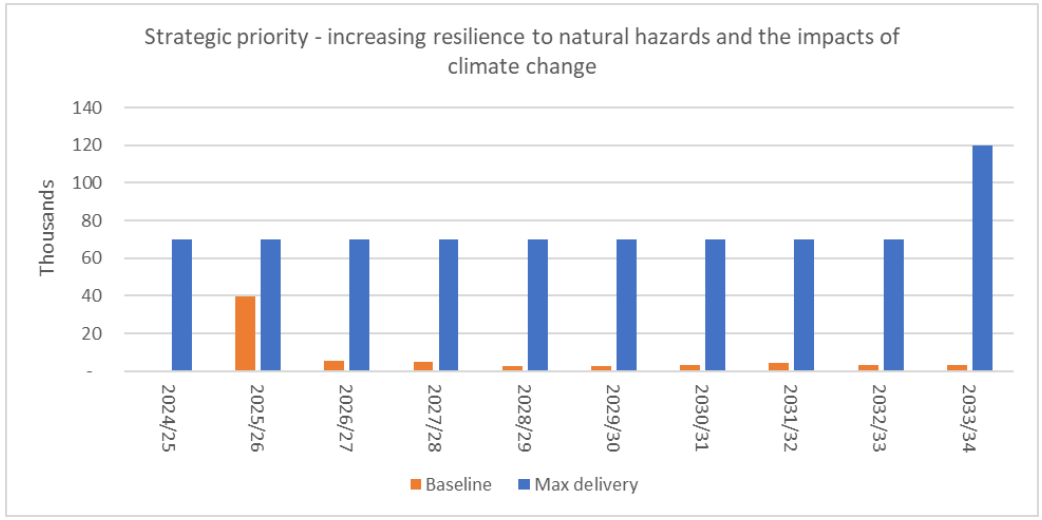
| Key projects: Option 1 | Key projects: Option 2 |
|---|---|
| • Wastewater modelling | • Featherston, Greytown and Martinborough wastewater modelling<br>• Featherston Pressure Sewer Implementation to enable Stage 2 of the Wastewater Treatment Plant upgrade and to address Inflow and Infiltration |

# 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 ($000) | | | |
|---|---|---|---|
| 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 | - | - | $2K |
| Stormwater | - | $40K | $65K |
| Wastewater | - | - | $2K |
| **TOTAL** | **-** | **$40K** | **$68K** |

| Option 2: Maximum deliverable ($000) | | | |
|---|---|---|---|
| Activities included aimed at improving network resilience | | | |
| | **Year 1 24/25** | **Year 2 25/26** | **10-year total** |
| Drinking Water | $10K | $10K | $100K |
| Stormwater | $50K | $50K | $500K |
| Wastewater | $10K | $10K | $150K |
| **TOTAL** | **$70K** | **$70K** | **$750K** |




| Key projects: Option 1 | Option 2 |
|---|---|
| • Stormwater modelling | • Greytown and Martinborough stormwater modelling<br>• Capital Carbon Monitoring<br>• Donald Creek Flooding (Featherston) (From Yr 10) |

# Next steps

## The process from here