HCC – Proposed FY2023/24 Annual Plan CAPEX & OPEX

8 February 2023

Wellington Water

Our water, our future.

Contents

- CAPEX Update
  - Active Risk Dashboard
  - Summary Financials
  - Questions
- OPEX Update
  - Bulk Water
  - Summary Financials
  - FY2023/24 Annual Plan OPEX by investment category
  - Questions

Active Risk Dashboard

Item	Issue	Circumstances
1	**Reservoirs condition means they are vulnerable to contamination.**	Ageing reservoir assets require increasing levels of operational maintenance in a constrained operational funding environment. This increases the risk of contamination of water supply. Programme of works identified for remediation, funded through reprioritisation of other work. This will potentially have impacts on other assets i.e. deferring proactive operational maintenance and capital pipe renewals.
2	**Significant and growing renewals back log in water and wastewater due to age profile of pipe materials.**	Aging infrastructure, leakage, blockages / overflows, seepage. Increased capex spend but this still not address the backlog.
4	**Water demand for Hutt City is outstripping supply due to water loss in the network and growth.** **High proportion of high-risk materials for ongoing leakage (Likely to either be leaking or leaking in the near future.) i.e., >90% of the galvanised watermains in the region. ~ 110km of galvanised pipe.** **Networks are not optimised in accordance with Te Mana o te Wai.**	Demand driven by network age and condition, water loss, private side waterloos and growth. Resourcing constraints are impacting our ability to mitigate / reduce the loss (metering, data, backlog ,etc.). Operational funding for finding and fixing leaks is constrained. Aging network and increasing renewals backlog is compounding the leakage issue. Despite increasing funding for leak repairs the issue will be ongoing because of the growing leak backlog.
5	**Coastal stormwater outfalls experiencing sea level rise resulting in increased sedimentation and need for more frequent clearing.** **Coastal outfalls are causing flooding on Jackson Street with no physical solution to fix.**	The OPEX budgeted provided by HCC does not include adequate allowance for the costs of responding to sea level rise. Response to maintain levels of service are not optional and result in un-forecasted pressures on the OPEX budget.
6	**Seaview long outfall pipe - the frequency of joint leaks / failures is increasing leading to increased OPEX spend and environmental impact.**	There is an increase in frequency of joint failure on the outfall pipe leading to treated discharges to Waiwhetu Stream during dry weather. This means that the CAPEX spend for the outfall pipe may need to come forward.

Active Risk Dashboard continued

Item	Issue	Circumstances
7	**Sludge dryer at Seaview WWTP is nearing end of life.** **It is causing increased maintenance costs and the maintenance regime is meaning it is getting close to not being able to meet the demand for sludge drying.**	Dryer replacement options are being looked at. Capital investment is planned in this LTP. Early signals are that it will be more than currently forecast. Sludge has had to be disposed of at the landfill twice already in 2022. This caused odour issues and is not preferred by the landfill operator. This increased OPEX costs. This compromises the production capacity of the plant.
8	**Erosion occurring on the Hutt River potentially undermining 825mm bulk wastewater pipeline adjacent Taita rock.**	River bank is eroding away and is potentially going to undermine the wastewater main that services Upper Hutt, Manor Park and part of Stokes Valley. Requested GWRC take the lead on remediating the erosion.
9	**Reconsenting the overflow from Seaview to Waiwhetu Stream is more complex due to changes in the PNRP and the increased frequency of discharges both wet and dry weather (joint failures).**	There has been an increased frequency of wet weather discharges due to changes in the network operation combined with growth and rainfall patterns. Changes in the network operations are focussed on reducing environmental impact through network overflows which has re-directed the impact to the treatment plant. The cumulative number of discharges from Seaview is exceeding the consentable number and is forecast to increase due to growth. There is an increase in frequency of joint failure on the outfall pipe leading to treated discharges to Waiwhetu Stream during dry weather. This means that the CAPEX spend for the outfall pipe may need to come forward.
10	**The redundancy of Seaview WWTP is inadequate for major maintenance while ensuring compliance can be met.**	Operating plant at or near capacity results in an increased likelihood of breakdowns and/or compliance failure. We are working with Veolia on updating asset management planning and condition assessment. Early signals are that more than double the existing expenditure is required to maintain the level of service. The Seaview plant has come to a time in its asset life where major renewals and operational intervention is required to ensure it meets both capacity and compliance requirements. This means investment will be required in the sh5.5ort term. The lack of redundancy means that any maintenance and renewal is complex and risks compliance because treatment capacity is not available.

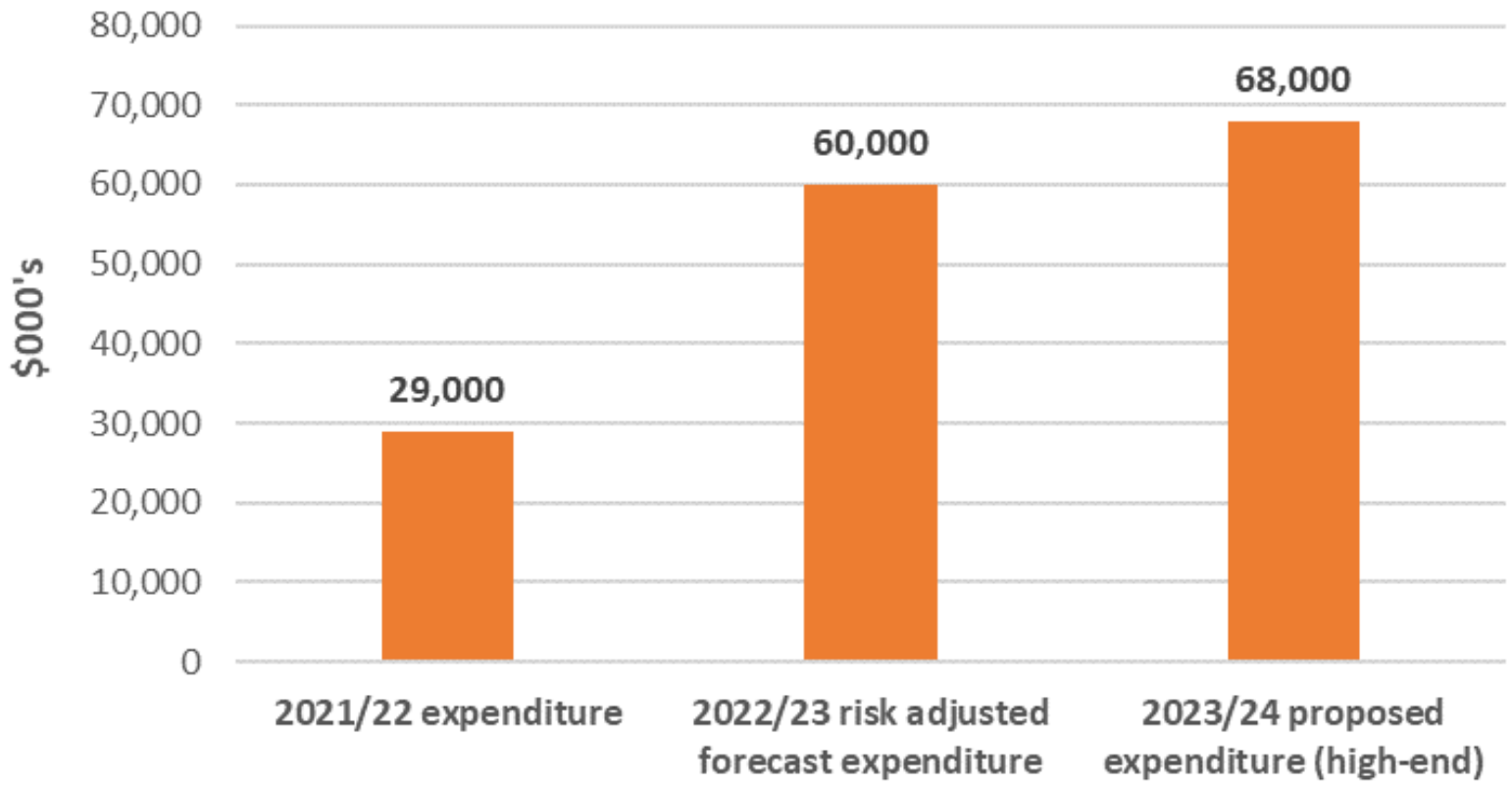
Summary Financials

Water	Investment Category	FY2023/24 WWL Recommended Overprogrammed Budgeted ($000s)
Drinking Water	Growth	6,025
	Level of Service	2,110
	Renewal	14,940
	Total	**23,075**
Stormwater	Growth	350
	Level of Service	3,193
	Renewal	6,947
	Total	**10,490**
Wastewater	Growth	188
	Level of Service	415
	Renewal	28,640
	Total	**29,243**
Wastewater JV	Level of Service	2,410
	Renewal	12,960
	Total	**15,370**
Total		**78,177**

Summary

- Wellington Water over programs capital investment activity by around 20-25% to allow for some flexibility in managing the programme where some projects could be delayed.
- The values provided here are indicative, while the programme for FY2023/24 is being finalised with the design and delivery teams.
- A significant portion of the FY2023/24 programme is in renewals activity, valued at $63.487m (81%) of the total budget of $78.177m.
- The main driver is that there is a significant backlog of renewals required, and that investment in renewals reduces the risk of asset failures.
- Across the water types, wastewater holds the largest renewals budget, with the Avalon wastewater renewal programme worth $12m alone.
- The most significant budgeted cost in the Growth category is the Naenae No.2 reservoir and outlet main, totalling $6m.
- In the Levels of Service category, stormwater upgrades at Muritai Road, Rona St and Marine Parade total $2.5m

HCC CAPEX - Sustained Growth 2021/22 – 2023/24



CAPEX Advice

- WWL recommending a doable range of $65-$68M
- Continue with stepped-up investment approach
- Encouraging continued development of resources within the industry
- Large renewals backlog needs addressing
- Galvanised water pipe renewal an example of this
  -109 kilometres estimated to cost $125M
- Current budget for 2023/24 is $45M ($64.5M-$19.5M brought forward to this year)
- Recommend an additional $23M be added to the capital budget
- Will have further info on 2023/24 renewal lengths for 23 Feb meeting

Questions?

Bulk Water

- Provided by Greater Wellington to four Metro Councils
- Increase is 24.15% for next year - $13.9M – built into draft budget ($1.6M increase)
- Debt servicing and operational cost increases
- HCC use increasing proportionally higher than other Cities
- Increase to be shared between user charges and rates
- Recommend user charge up to $3.35/cubic metre (25% or $0.9M increase)
- Refinement in methodology for user charge to take into account share of water loss
- Recommend do away with metered water charge discount rate (over 100,000m3)

WWL OPEX Advice - Introduction

- Updates previous advice from WWL in Nov and Dec 2022
- WWL recommending just under $30M be budgeted (uplift of 17%)
- Figures are presented by water and investment category.
- We have asked WWL to identify as best able all unavoidable costs.
- Risks associated with lower investment identified

FY2023/24 Annual Plan OPEX Budget

Water Type	Investment category	FY22/23 Budget ($000s)	FY23/24 Current approved Budget ($000s)	WWL FY22/23 Proposed Budget ($000s)	Variance FY23/24 Approved vs Proposed ($000s)	Variance FY23/24 Approved vs Proposed Budget %
DW	Monitoring & Investigations	1,736	1,578	2,014	436	28%
	Operations	56	55	66	11	20%
	Planned Maintenance	923	1,205	1,564	359	30%
	Reactive Maintenance	3,055	3,788	4,927	1139	30%
DW Total		**5,769**	**6,626**	**8,571**	**1,944**	**29%**
SW	Monitoring & Investigations	977	635	965	330	52%
	Operations	26	26	30	4	15%
	Planned Maintenance	770	781	1,025	245	31%
	Reactive Maintenance	759	699	975	276	39%
SW Total		**2,532**	**2,141**	**2,995**	**854**	**40%**
WW	Monitoring & Investigations	1,237	1,276	1,655	379	30%
	Operations	98	107	110	3	3%
	Planned Maintenance	598	672	749	77	11%
	Reactive Maintenance	1,664	1,538	1,665	127	8%
	Treatment Plant	344	315	249	(65)	(21%)
WW Total		**3,941**	**3,907**	**4,428**	**520**	**13%**
WWJV	Monitoring & Investigations	2847	231	435	203	88%
	Operations	20	20	23	3	15%
	Planned Maintenance	501	867	646	(221)	(25%)
	Reactive Maintenance	366	500	593	93	19%
	Treatment Plant	6,197	7,002	8,119	1,117	16%
WWJV Total		**7,367**	**8,620**	**9,816**	**1,196**	**14%**
Management and Advisory Services Fee		**3,354**	**4,308**	**4,164**	**(144)**	**(3%)**
Grand Total		**22,963**	**25,602**	**29,974**	**4,372**	**17%**

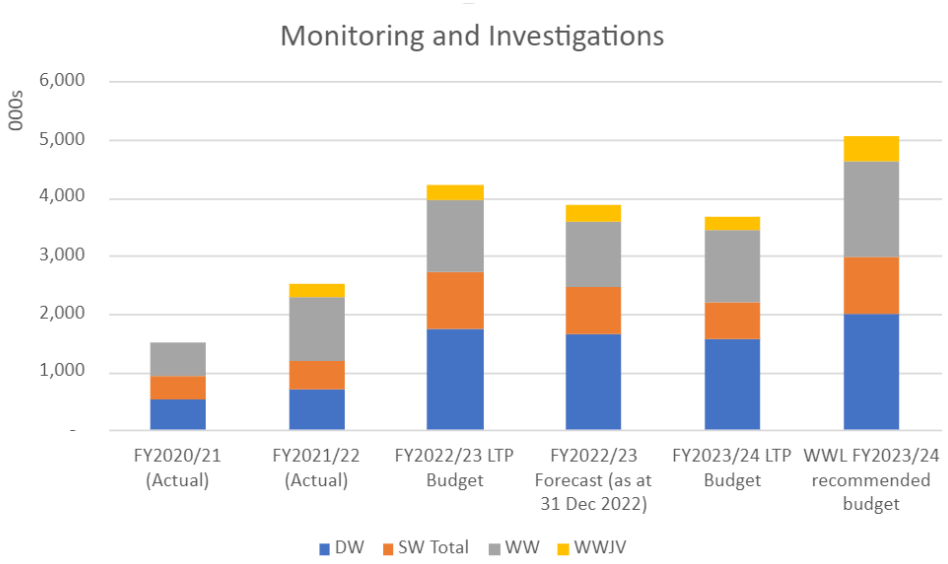
Summary

- With current and ongoing inflationary pressures, the current FY2023/24 budget risks:
  - a reduction in Levels of Service
  - an increase in asset failures and potential Health and Safety impacts
  - an increase in the backlog of reactive and planned maintenance
  - new and emerging issues not being addressed
  - delays to the future capital work programme that relies on opex funded modelling and investigations.
- Emergency Event funding is excluded being covered via other funding mechanisms
- Any financial benefits from reform are over 18 months away and are omitted from WWL's budget assumptions.

FY2023/24 Annual Plan OPEX: Monitoring and Investigations

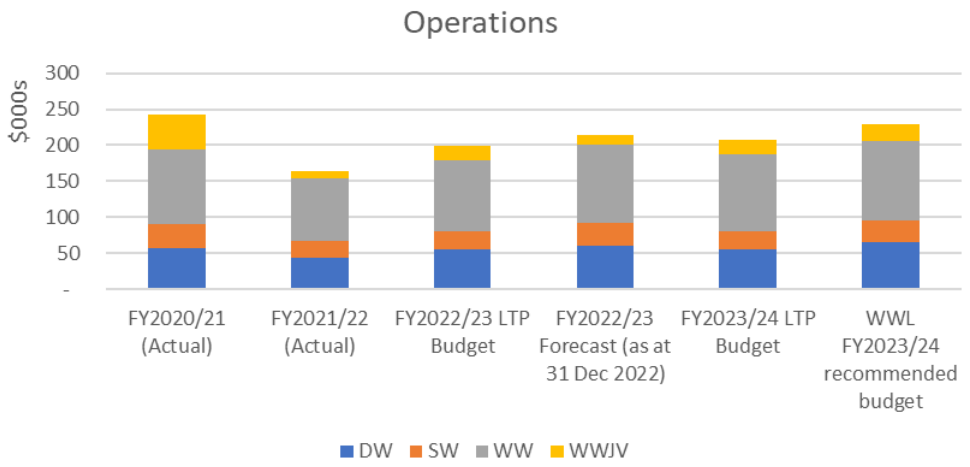
Wellington Water proposes a budget of $5.069m to meet forecast monitoring and investigations costs. Of this, Wellington Water advises that $0.960m for monitoring activities is unavoidable being required to undertake sampling and testing activity or monitoring to meet consent requirements and $0.242m for wastewater investigations necessary for human health monitoring. Some $1.790m could be deferred within investigations but there are risks in doing so.

Actual, budget, forecast and recommended budget FY2020/21 – FY 2023/24	Rationale for proposed OPEX increase	Risks in adopting a budget below the proposed level

	• Investigations, including for inflow and infiltration studies, stormwater plans, growth modelling, active leak control programme, pressure management, and reservoir structural assessments.
	• Condition assessments – to complete condition assessment on High Criticality Assets (HCA) assets, physical pipe inspections, testing of critical pumps, wastewater treatment plant pump and blower performance testing and the development of pump station asset management documents
	• Increased laboratory costs and new sampling programmes required to meet changing water regulation and new resource consent requirements.
		• If investigations funding is reduced,
		  • Renewals investigations will be deferred;
		  • Less capacity to respond to, and recover from, natural disasters or other emergencies
		  • Less ability to improve the overall quality and reliability of the water supply for consumers.
		• If insufficient budget is provided to complete condition:
		  • maintenance efforts will be increasingly reactive.
		  • the frequency of repairs required and duration of outages impacting consumers are likely to increase.
		  • the capital works programme may not address the most critical issues
		  • unnecessary repairs may be made,
		• If investigations funding is reduced, Wellington Water's ability to prepare for future climate change (modelling), report emission reductions, and to understand how we can achieve 2050 emissions targets will be limited.

FY2023/24 Annual Plan OPEX: Operations

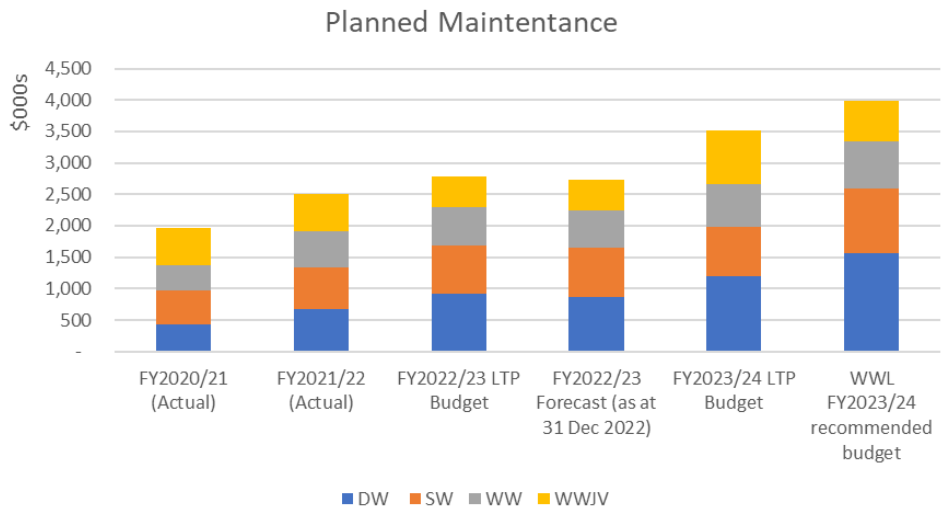
Wellington Water advises that the majority of the proposed budget of $0.229m for Operations is unavoidable, being necessary to cover the costs essential for the running of Council control system assets. $0.046m for control system preventative maintenance could be reduced but could result in significant risks.

Actual, budget, forecast and recommended budget FY2020/21 – FY 2023/24	Rationale for proposed OPEX increase	Risks in adopting a budget below the proposed level
	• Labour and plant allocations – 10% uplift applied over the FY2022/23 budget across all water types • Software licences for Scada and hardware maintenance • Additional preventative maintenance to maintain the capacity and capability of control system assets.	• Equipment failure – without proper maintenance, control system assets such as valves, pumps, and control panels can malfunction or break down in some cases resulting in immediate loss of service, leading to disruptions in water supply and potential safety hazards • System downtime – if control system assets are not maintained, they may require more frequent repairs or replacements, leading to extended downtime and decreased efficiency • Increased costs – neglecting preventative maintenance can lead to more costly repairs and replacements in the long run, as well as increased energy consumption and labour costs • Environmental risks – poorly maintained control systems can lead to leaks or spills, which can have negative impacts on the environment and local communities.

FY2023/24 Annual Plan OPEX: Planned Maintenance

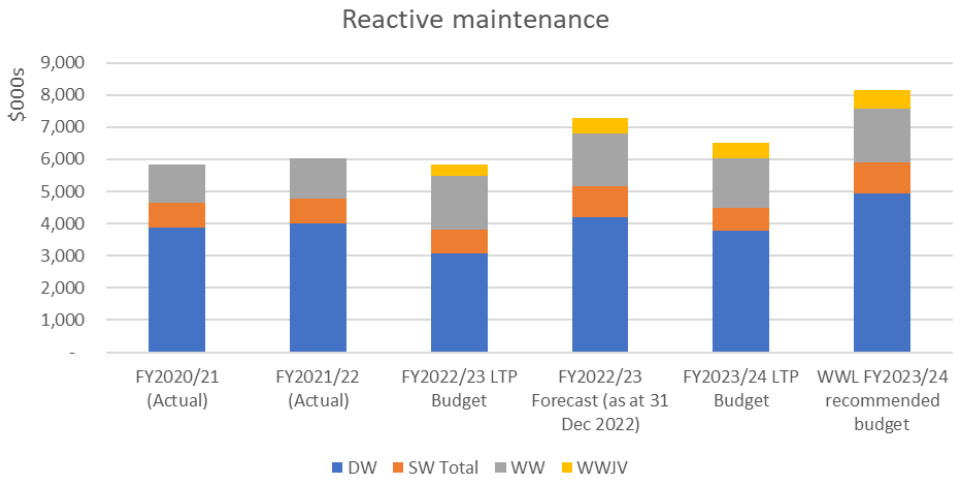
Wellington Water proposes a budget of $3.984m to meet forecast planned maintenance costs. Of this, Wellington Water advises that it is possible for some reductions to be made but there are risks in doing so.

Actual, budget, forecast and recommended budget FY2020/21 – FY 2023/24	Rationale for proposed OPEX increase	Risks in adopting a budget below the proposed level

	• Growth and water demand is putting pressure on maintenance programmes to ensure pump stations and other assets across the network are being maintained to required operational service levels
	• Additional funding required for non-residential demand management to support the focus on Sustainable Water Supply and Demand
	• Reservoir maintenance, pump station maintenance and area water meters and flushing wastewater pipe activities.
		• If funding for drainage investigations is reduced, Wellington Water will have reduced capacity to respond to pollution events in waterways and will not be able to:
		  • respond to environmental impacts in accordance with global stormwater consents
		  • fully plan or deliver a structured infiltration and inflow investigation programme to increase asset capability, capacity and life.
		• If there is any reduction to work on water loss management, Wellington Water's ability to triage leaks and complete repairs will be limited, restricting high-priority efforts to manage leakage through the water loss programme.
		• If network planned maintenance is reduced, Wellington Water will have limited ability to deliver planned activities across linear assets, impacting on asset life, and therefore levels of service (failures would occur sooner, and could be more expensive to repair if they have not had sufficient planned maintenance).
		• If pump station inspections are reduced, the potential for overflows increases, potentially leading to enforcement action. Odour complaints would likely increase, and Wellington Water would have to adopt a 'run to failure' asset management approach.
		• If non-critical valve maintenance is reduced, maintenance backlogs will further increase, risking the potential for assets to not operate when required, particularly in response to mains failures.

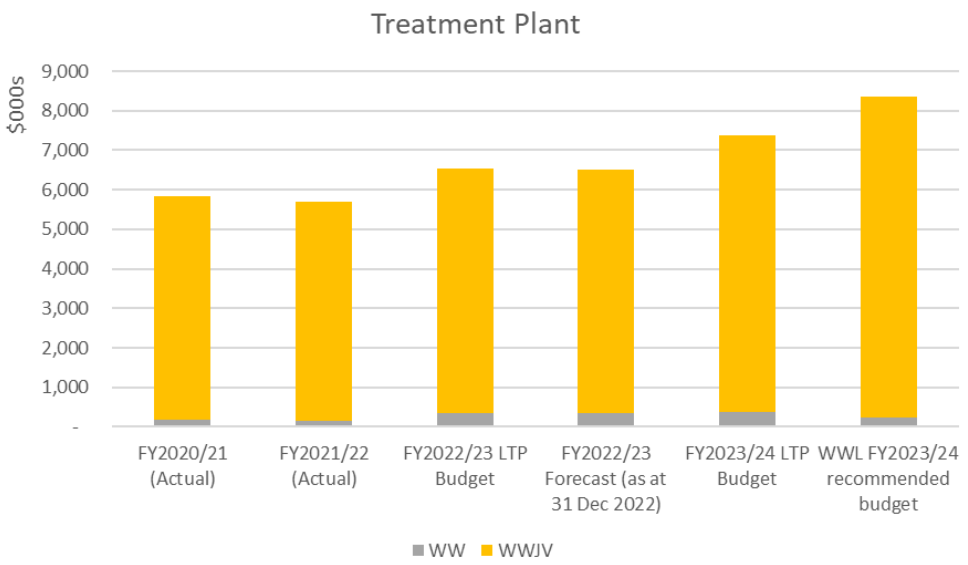
FY2023/24 Annual Plan OPEX: Reactive Maintenance

Wellington Water proposes a budget of $8.161m for FY2023/24 reactive maintenance. Of this, Wellington Water advises that it is possible for reductions to be made by deferring strategic leak repair and carbon reduction works, and actively choosing reduce or stop responding to certain unplanned network maintenance jobs for all water types, including the joint venture.

Actual, budget, forecast and recommended budget FY2020/21 – FY 2023/24	Rationale for proposed OPEX increase	Risks in adopting a budget below the proposed level
	• Significant cost increases associated with higher labour, consultant, contractor and material costs • To reduce the backlog in stormwater and potable water network maintenance including leak repairs • Leaks are more expensive to detect and repair given the uplift of 20% in contractor costs • Leaks are becoming increasingly more complex to repair.	• Any additional pressure on the reactive maintenance budget is likely to have a significant impact on Wellington Water's ability to provide appropriate levels of service in FY2023/24. • A reduction or a complete stop of non-urgent instructed works, such as the installation of new valves to reduce the size of a shutdown area. • A reduction in targeted subcontractor spend would reduce the available resources to attend to customer calls by only attending to high priority or medium priority (P1 and P2) work requests. This means that the non-urgent work backlog will grow. • A reduction in subcontractor spend will likely drive skilled workers elsewhere and securing them back, if additional funding becomes available, will take time. • A reduction in after-hours working could reduce costs given the penal rates applied, however there could be a greater impacts to customers / businesses with this approach, as water supplies may be cut during the working day to address issues that could otherwise be addressed at night.

FY2023/24 Annual Plan OPEX: Treatment Plant

Wellington Water advises that the proposed budget of $8.368m for Treatment Plants is considered to be unavoidable, covering activities essential in delivering this service.

Actual, budget, forecast and recommended budget FY2020/21 – FY 2023/24	Rationale for proposed OPEX increase	Risks in adopting a budget below the proposed level
	• 15% increase assumed over projected costs for FY2022/23 for gas • 55% increase in the cost of power is expected in FY2023/24 over the current FY2022/23 budget • Sludge disposal tariff is increasing from $207/tonne in FY2022/23 to $347/tonne for FY2023/24 (including GST and the plant operator's 9% markup) • 20% CPI has been assumed impacting management and overhead costs (not included within Wellington Water's general Management and Advisory Services fee), and maintenance and operational costs • Variation in the contract with the Plant Manager, Veolia, which is under negotiation • Increase in outfall pipe maintenance.	• If treatment plant planned maintenance is reduced, the likelihood of equipment malfunction and failure is increased with the potential for severe disruption to treatment plant operations, impacting service levels from decreased efficiency in the treatment of wastewater and potential environmental degradation associated with the release of untreated wastewater.

FY2023/24 Annual Plan OPEX: Management and Advisory Services

Wellington Water advises that the proposed budget of $4.164m for the Management and Advisory Services fee is unavoidable, covering activities required to sustain Wellington Water's core business functions.

Rationale for proposed OPEX increase	Risks in adopting a budget below the proposed level
• Inflation running at a higher rate than forecast when developing the LTP • An increase in wages to match market rates and an increase in the proportion of contractors and consultants being used across the industry • Increases in staff numbers due to larger CAPEX and OPEX programmes Wellington Water is delivering on behalf of Councils and increased regulatory and compliance activity.	• Wellington Water will need to reallocate funds from other OPEX budgets to make up for any deficit in management fee.

FY2023/24 Annual Plan OPEX: Summary

Investment category	FY22/23 Budget ($000s)	FY23/24 Current approved Budget ($000s)	WWL FY22/23 Proposed Budget ($000s)	Variance FY23/24 Approved vs Proposed ($000s)
Management & Advisory Services	3,354	4,308	4,164	-144
Monitoring & Investigations	4,234	3,720	5,068	1,348
Operations	200	208	228	21
Planned Maintenance	2,792	3,525	3,984	460
Reactive Maintenance	5,844	6,526	8,161	1,635
Treatment Plant	6,540	7,316	8,368	1,052
TOTAL	**22,963**	**25,602**	**29,974**	**4,372**

- Significant uplift is required to address a number of historical, current and emerging risks
- A large proportion of the funding requested is essential/unavoidable
- Not funding activities carries a level of risk/consequence.

Options

a. Minimal additional investment that effectively picks up all unavoidable costs – ($0.9M)

b. Additional investment be budgeted to meet all costs requested (an increase of $4.372M) This is the recommended option and has been modelled

c. Additional investment that is somewhere between options (a) and (b)

Example - Increase of $2.7M to $28.3M

Planned maintenance – +$400k
Monitoring & investigations -+$500k
Reactive Maintenance +$800k

Questions?