Q1 summary report

What this document does: The purpose of this summary report is to provide an overview of three waters services activity, performance and issues based on the previous quarter, with a view to what we will be focusing on in the coming quarter.

Who it's for: It is intended for our shareholding councillors, to get an early look at what will be coming to council through our formal reporting channels

The headlines: A solid start on the year's $200m-plus programme for core renewals and upgrades; a backlog of repairs and an increase in leakage means that in the event of a dry summer customers may face increased water use restrictions ; our people are overall in good spirits, engaged with their work and curious about the progress of water reform.

Titahi Bay, Porirua

How the document works: It follows the structure of our company story and provides a plain English commentary on key matters relating to:

1. We are trusted by key stakeholders – council shareholders, iwi partners, customers and community, and our regulators
2. We build trust through progress towards the aspirational goal of Te Ika Ro Wai – restoring the balance of water, the environment and people, and the five regional priorities: looking after the three waters assets owned by our shareholders; enabling growth; sustainable water supply; improving the quality of water in the environment; and reducing carbon outputs
3. The four key focus areas of the company, of: delivering core services; delivering council investment programmes; planning for the future; looking after our people and providing a good transition experience over the coming years
4. And doing all this underpinned by our values; tangata tiaki, we care; whanau, we work as a team; mana, we do what we say we'll do.

NB: Some data featured here are provisional and may be subject to change.

1. We seek to earn the trust of key stakeholders to deliver their water services

Our shareholding councils – We've been developing investment and delivery snapshots for each council. These are one page summaries designed to provide clarity on council investment decisions made in their 2021-31 Long Term plan and annual budgets, and the outcomes of those decisions in network performance, customer experience and other aspects of our service.

We're also thinking about ways to bring new councillors up to speed quickly on three waters issues (some of the content of this report is designed to do that).

Councillors may also see a new report on operational expenditure that links budgets with level of service. This work, and the report, will cover reactive responses to leaks, bursts, overflows and other breakdowns, as well as running costs and planned maintenance and repairs.

Iwi/ Mana whenua partners – We're working to incorporate the vision and priorities of our mana whenua partners as we get under way with the next round of investment advice that will inform council 10 year plans (2024-34). We also have work to do to build connections to support planning with South Wairarapa iwi. This work will feed into the investment advice that councils will provide to the new water entity. Internally, we have been running Te tiriti o Waitangi and te reo Maori courses to improve our competency in this critical area

Customers and Community – We have restored reliable fluoridation at all four treatment plants. Customer satisfaction for the quarter was **69%.** In the quarter, **2,185** new leaks were reported or detected, and we fixed **1,866.** The steadily increasing backlog is being made larger through our proactive detection of underground leakage. The upshot is that we'll increasingly need to prioritise repairs by volume of water being lost, and impact on service. To assist in addressing the increasing loss through leaks, we will be launching a specific leaks marketing campaign in November.

Bursts and leaks are reactive events that can have a significant impact on operational budgets

Trusted by Regulators – We're compiling the first of our full quarterly reports for Taumata Arowai. As the water services regulator established to give effect to new water legislation, Taumata Arowai has a wide ambit of authority. Through our reporting, we'll aim to demonstrate how we can provide assurance on water catchment protection, drinking water treatment and network management. We'll also cover key resource consents, which are managed by Greater Wellington Regional Council, and fluoridation, monitored by the Ministry of Health. These reports will be published on our website.

We also responded to over 40 official information act requests and supported councils in responding to another nine.

2. Te Ika ro wai and the five strategic priorities

(Sustainable water supply; improving the quality of water in the environment; enabling growth; reducing carbon outputs; and looking after the three waters assets owned by our shareholders)

a. We have completed the programme of assessment of Very High Criticality Assets (those assets which have the most significant impact on customers), and are finalising reports for each owner. Our programme of asset condition assessment will help make renewal decisions on better information than age alone, or the evidence found from a few inspections. We've found that there has been good correlation between what the structured programme revealed and our desktop assessments, and assets found to be in very poor condition have been programmed to be fixed.

   We will continue to carry out condition assessments but to a lesser degree than the previous two years (when a bigger programme was funded by central Government fiscal stimulus). This year we will complete all Very High Criticality Assets and make a start on High Criticality Assets.

b. Growth. The region continues to grow, as does the need for infrastructure to support it. Recent studies completed on network capacity in areas targeted for growth are now being expanded with more detailed investigations on constraints in specific suburbs. The work we've done to support council and regional spatial planning is a good example of information that will feed into the 2024-34 LTP investment decisions.

c. Sustainable water supply: We are gaining a better understanding of the extent to which leaking pipes are affecting the risk to supply in the event of a dry summer. Our current estimate is around 40% water loss through leakage, with a ratio of about 3:1 public to private leaks. Our focus will be to prioritise leaks by volume, and to work with councils to help explain the situation to customers better, using the knowledge we're building from the metering we have in place, and active detection programmes we have launched.

d. Improving environmental water quality: We're working with SWDC to develop a proposal for a new consent for the Featherston wastewater treatment plant. This type of consenting is complex and challenging, and will be a future focus for Taumata Arowai and consenting authorities. This specific project has seen iwi and community engagement since 2020, with the goal of providing a fit-for-purpose solution for mana whenua and local ratepayers. The consent renewal for the PCC-WCC-owned plant at Porirua is still in progress, with commissioners seeking further expert advice after hearing initial submissions.

The image above shows where the bearing track inside a clarifier at Moa Point has worn away. Below, new blowers installed at the Porirua treatment plant, to provide oxygen for effective treatment processes. Replacing key assets before they fail is a key outcome of proactive asset condition assessment

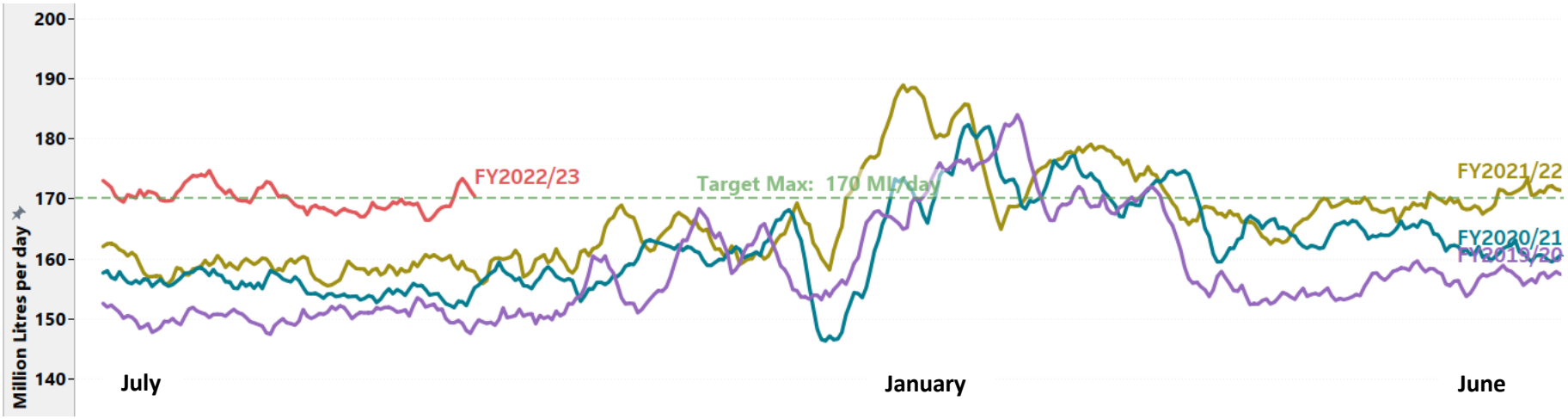
We expect to be coming to councils this quarter for initial discussions on the cost implications of wastewater network discharge consents, a requirement of the natural resources plan informed by Te Mahere Wai o te Kāhui Taiao Whaitua implementation plan.

e. Net Carbon Zero Councils decided in their 2021-31 deliberations to invest at a very low level in terms of decarbonising our operations. In preparation for more investment to meet 2050 targets we have been benchmarking greenhouse gas emissions from our operations and capital works programme.

3. Wellington Water's key focus areas

3.1 Delivering core services

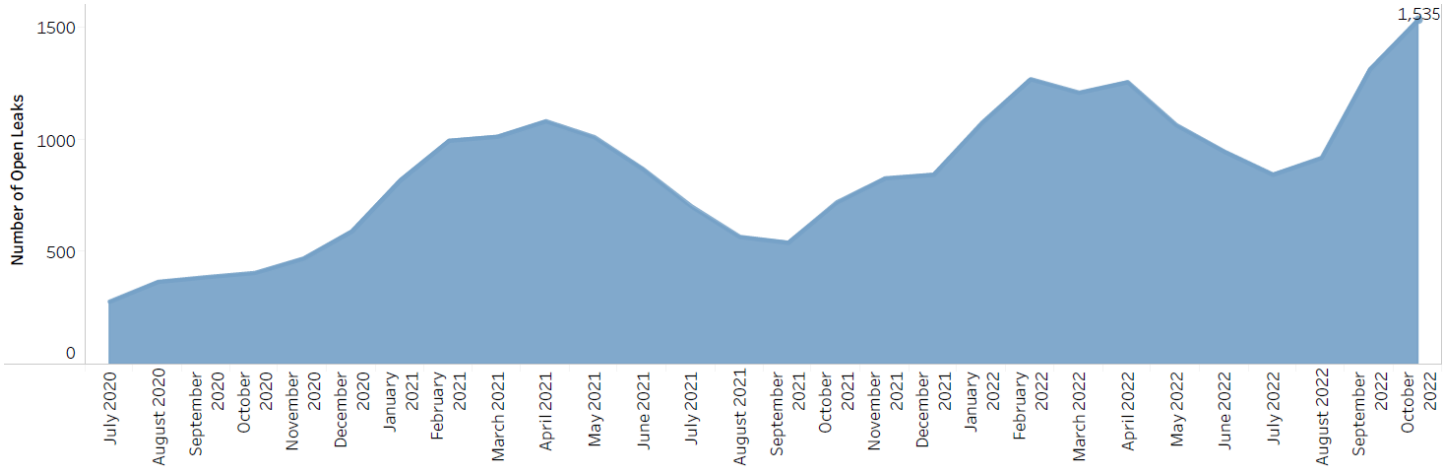
Quarter 1 2022-23 – total water supplied was 16,000 megalitres (16 billion litres) to the four cities and South Wairarapa. The quarter 1 figure last year was 15,000 megaliters – a difference of a billion litres.



The amount of water we've been consuming has been steadily increasing since 2016. Although we don't have universal metering in place, the meters we do have tell us that only about a fifth of that increase is due to growth. The rest is disappearing in water loss from the public and private networks.

We estimate 35%-40% of all water currently supplied never gets used – it gets lost through leakage – with about a 60:40 split between loss from leaking council-owned pipes and fittings, vs from private pipes and taps. Based on average household use, the water we're treating and losing could supply another 125,000 households. (Bear in mind there's a wide range to those numbers because the network is not metered)

Our current sustainable daily supply limit, based on treatment capacity and other network constraints, is around 200 million litres a day. During summer, however, we are limited by the availability of water from source rivers and the aquifer, rather than treatment capacity. In summer, household usage (that's the water actually used) increases about 10%. This goes into garden and lawn watering and general summer activity. If usage exceeds our ability to supply, watering restrictions will increase. Last year we were lucky with the weather – it wasn't a great summer for outdoor activity, the lawns and gardens stayed green, and we only needed alternate day watering restrictions. But if that 190MLD peak (on the FY2021/22 line above) turned into a plateau, for example over a long dry spell, we would activate our drought management plan.



Water leaks repaired

This graph shows the number of leaks waiting to be repaired, over the past three years.

Target timeframes to attend non-ugent leaks – ones that are not affecting customer supply – are about 20 days. So the story that the graph is telling is that we currently have around a month's worth of leaks waiting to be fixed, with more coming in than we can repair, including those we are proactively detecting.

We should emphasise that urgent leaks – where service to customers is affected – are being attended and resolved within target timeframes

Taking into account the point on the previous page, about the limited amount of water we can treat and deliver, the story here is the we have to prioritise leaks that are losing the greatest amount of water. Not all leaks show above ground. Recently we've found and fixed some major leaks, including one that had been running for years (we can tell this based on the impact on the total amount of water being supplied to that zone) that was losing a million litres a day. The latest increase in the backlog figures above is partly due to the leaks we are finding in our detection programme, and the early signs from this work are that it is making a difference to total leakage volume.

So what is being done about this?

Some people might think the best thing to do is get on and build a new supply or storage facility as soon as possible. After all, sooner or later we will grow to the point we need a new source anyway. This is a bit like buying more water to put into a leaky bucket. The new supply or facility would be expensive to build, and would require extra work to connect it to the existing network, as well as maintain it. And you'd still be left with the problem of the under-performing network. If we can bring and keep leakage down to a more acceptable level – around 15 per cent – we would not need the new facility for at least 15 years, even based on the current strong level of growth.

It's true that we would eventually need it and work is being done to identify options. But we would also need to fix the leaky bucket eventually. Underlying this is the role of Taumata Arowai, which is charged with ensuring we are using resources responsibly and giving effect to te mana o te wai. Unnecessary extraction due to excess leakage will not pass this test.

Wastewater treatment and plant compliance

Treated wastewater effluent must comply with certain standards before it is discharged to the environment. All council treatment plants discharge to water – to sea for the metropolitan plants, and to rivers in South Wairarapa. This is a major element of restoring te mana o te wai and the balance between water, people and the environment – particularly as generally amongst mana whenua, the discharge of any treated or used water (wai hangarua) into natural water (wai ora or wai māori) is culturally unacceptable.

During wet periods, the volume of wastewater we are treating is more than the drinking water we produce. Most of the difference is rainwater, entering pipes through flooding, or leaks. With a reasonable amount of pipe-work beneath either groundwater or tidal water levels, this external water enters into the pipes and is transported to treatment plant along with the rest of the used water that households and businesses generate.

Plant	***Million litres treated***
Moa Point	8,594
Western	675
Seaview	7,629
Porirua	3,328

Treatment plant performace

One of the three clarifiers at the Moa Point is still waiting on new parts to arrive from the United States, and the drop in treatment capacity has had an effect on discharge quality in high rainfall, as we warned WCC and GW it would. One of the many slips affecting Wellington also set us back with the work in progress to repair the outfall pipe that runs

from the Karori plant to the coast near Makara. This means the treated effluent is effectively discharging into Karori stream rather than the coastal waters of Cook Strait. We are working with WCC on how to address this.

Network overflows

In the quarter, there were **328** dry-weather overflows from the network. These are mainly caused by material being flushed that shouldn't be, and roots clogging pipes. There were also **211** wet weather overflows. These are typically caused by stormwater entering the network and overwhelming it. Read more about work we've been doing in one catchment to reduce these impacts.

As noted above, we are beginning the process of gaining a consent for network discharges, which will help with the long term management of these overflows and their impacts.

3.2 Delivering council investment programmes

As well as fixing bursts and leaks, councils invest in replacing pipes and enlarging or building new ones.

2021-22 renewals metres of completed pipe = approx. 15km. About 40% is drinking water, 40% wastewater, and 20% stormwater.

At councils' current level of investment, we're putting about 15km of new pipe in the ground a year. Altogether, that 15km is about the distance from downtown Wellington to Porirua. In order to reverse the aging process of the network, and make headway against the leaky bucket, we need to be getting to just north of Levin – about 100km. Every year, for the next 30 years.

That would clear the overdue renewals and those falling due for renewal, and bring us to a point where the network could be managed in a proactive and efficient manner. This will be an area of focus for us as part of your 2024-34 LTP deliberations.

As with the leak backlog, the renewal backlog means prioritising. To prioritise renewals more effectively, we need to keep improving the information we have about the state of the pipes. Asset condition information is a gap we are slowly filling, as noted above, so as well as working on the pipes that need replacing, we are continually looking at ways we can speed up and keep growing the renewals programme year on year.

We'll continue to promote awareness about the role people can play in improving network outcomes.

Pipeline renewal rates

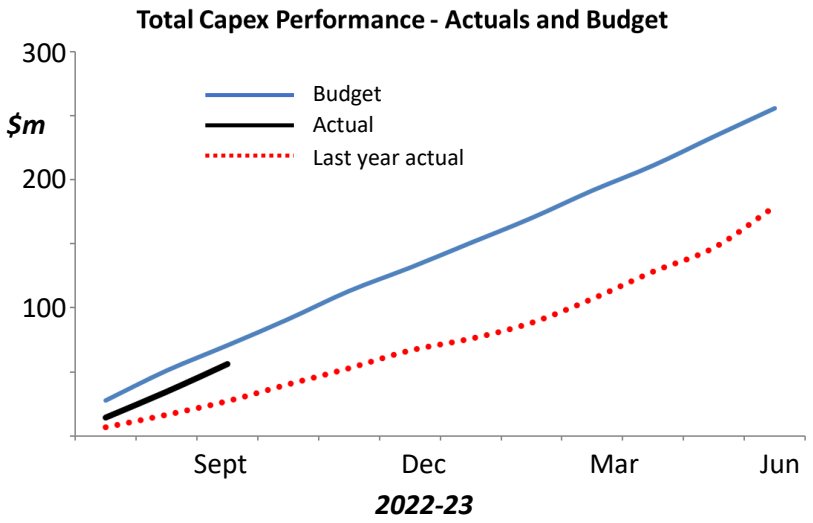
***15km** – current level of pipe renewals per year*

***100 km** – renewals required to reverse age trend*

The 15km level is an increase on what was being funded previously.

Record programme off to a solid start

This is the first quarter of the second year of the three-year budget prepared for the 2021-31 long term planning period. As we agreed with the Water Committee last year, when council decisions confirmed we would be delivering the largest capital investment programme to date, it was important to delivery that we work with our supply chain to manage the increase in a sustainable way. So last year's total actual expenditure of $179m was a significant jump from the previous year's $140m; and this year we're forecasting a figure at the mid-point of a range between $175m and $270m (the range is large because there are a number of large projects whose timing can have a big impact on actual numbers). Our suppliers have done an excellent job in scaling up to meet the three-year programme, although they too are affected by the tight labour market and international supply constraints.



3.3 Planning for future investment

We are getting under way with our usual three-year cycle of providing advice to councils on your next long term plans (2024-34). This process includes three stages: early signals (an unconstrained view, due early next year); investment options (June 2023) and then final advice based on council funding envelopes ahead of public consultation on the new LTP. Due to the water reform work led by the Department of Internal Affairs, we have begun the process earlier than we normally would. The National Transition Unit is asking all councils for information about their three waters renewal and growth plans, although in a different format, and we are preparing this material for council signoffs now. Operational expenditure information will be next.

At the same time, we are preparing investment advice for each council for you 2023-24 annual plans. Over the past year we've experienced the same pressures as councils in terms of the increases in costs of material and labour, which has put pressure on the ability to deliver all the work and levels of service, so it's important to update those budgets and expectations.

3.4 Our people

We're pleased to see our Position in Post rate continues to grow, with an additional 14 staff joining in Quarter 1, and we're seeing positive signs of our turnover rate (20.5%) slowly declining. We recently completed our annual remuneration review and our gender pay equity review. Gender pay equity is reasonably well balanced in the company. On average across all pay grades (most of which have very wide ranges), females are paid 2.9% less than males. When averaged out over the whole company, independently of grade, females in the company are paid 0.7% more than males.

Helping staff stay in touch with the National Transition Unit's work is important to help manage uncertainty, and we are watching this closely. The NTU's "Staff Room" website has been set up and over 90% of people at Wellington Water have registered on it.