

This document provides a high-level summary of the Wellington Metropolitan Region’s estimated annual water loss and total demand (water lost through leaks and customer use). It also includes information on the key factors that have impacted water loss and demand, and what we can expect moving forward.

## How do we measure water loss and demand?

To measure **water loss**, we use the Minimum Night Flow methodology that aligns with the Water NZ Water Loss Guidelines for areas with low water meters.

We also track average daily **demand** (use and water loss) on a weekly basis, to gain an overall picture of water demand per capita and how it compares to previous years. Demand is measured by meters which show the total volume of water supplied by Water Treatment Plants.

Unfortunately, we cannot accurately track current, or ‘live’ water loss or water use without universal metering.

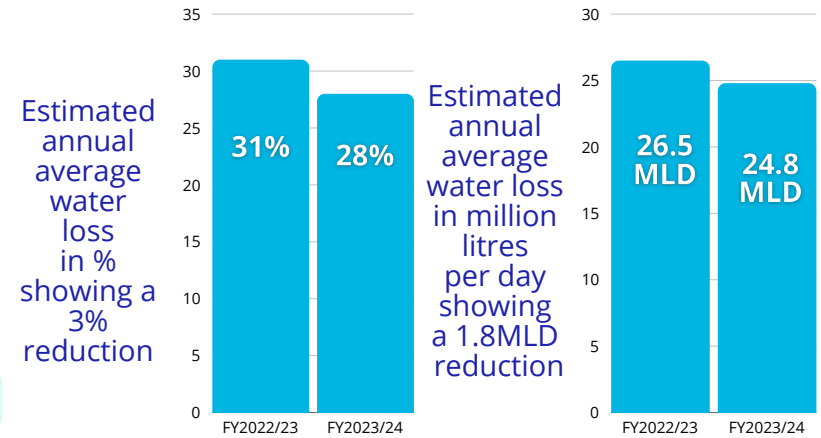
These two measures work together to help Wellington Water and our council owners better understand:

- *past financial years’ water use and loss*
- *identify any high-level trends*
- *gauge if councils’ investment and Wellington Water’s efforts are having the desired impact, and*
- *guide future investment decisions.*

## Wellington City water loss figures

The estimated annual average water loss on the Wellington City public network for FY23/24 is **28%\***, down 3% from FY22/23 (31%).

In real terms, this equals a saving of about **1.8 million litres per day**.



Estimated annual average water loss in % showing a 3% reduction

Estimated annual average water loss in million litres per day showing a 1.8MLD reduction

In the first half of FY2023/24, we experienced the **highest level of leaks** seen across the network in many years. To tackle this, council increased their investment in finding and fixing leaks. This enabled more leak repairs, and a corresponding reduction in the annual average water loss estimate.

The **methodology** used is the same as the previous year so we have confidence that there has been a genuine reduction in water loss, although there remains significant uncertainty with the true extent of water loss due to the lack of universal metering.

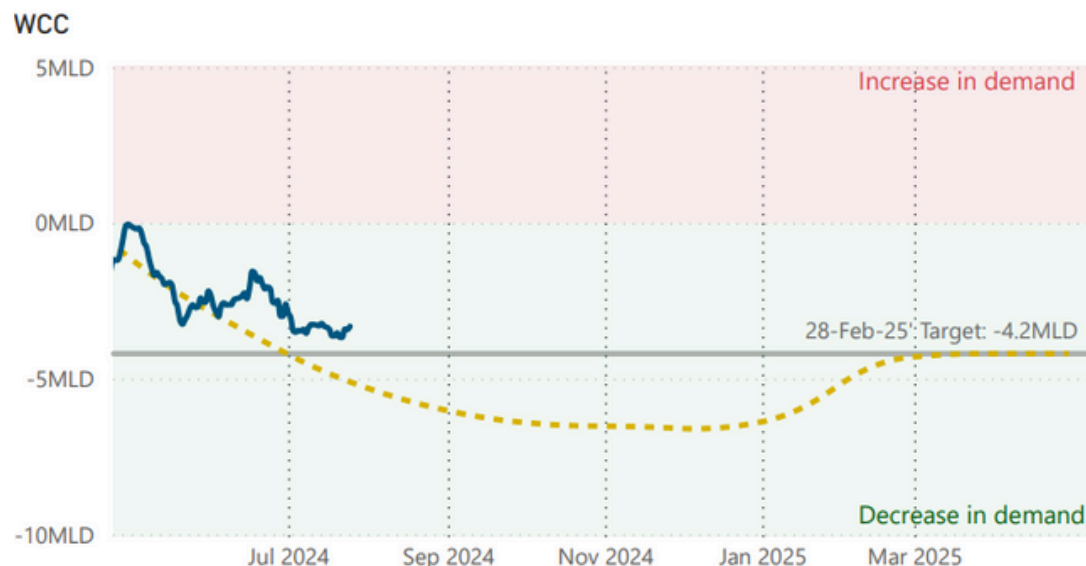
**Increased funding** wasn’t made available until the second half of the year, and as a result increased leak repair work did not start until quarter 3 or later. This means the average annual water loss estimate may not have reduced as much as some may have anticipated.

As these water loss figures are a retrospective average of the entire past financial year (1 July 2023 to 30 June 2024) and leak repairs and water loss reduction work continues, we expect water loss to continue to reduce into this financial year. This estimate is a **good initial indicator** of the impact that council’s increased investment into finding and fixing leaks has had.

\*95% confidence intervals of between 12% and 44%.

## Wellington City water demand figures

- Council's increased funding to address leaks and efforts from residents and businesses to manage and reduce water use through the peak summer period saw the first monthly improvement in demand per capita (use and loss) in over three years in March 2024. This has been followed by continuous improvement in each following month.
- Overall, we have seen a 1.5% reduction in demand over the final four months of FY2023/24, which shows the importance of continued investment in water loss reduction. Year-on-year, per capita demand has increased 4%.
- Council's focus on reducing water loss and managing the acute summer risk has contributed to the improved results, as well as the effort from residents and businesses to manage and reduce water use through the peak summer period.



*Demand draws close to the goal, and we expect this trend to continue in the new financial year as water loss reduction activities are accelerated.*

*The above graph shows how Wellington City is tracking towards its demand reduction goal of 4.2 million litres per day. The blue line shows a 4 week rolling average of demand, and the gold dotted line shows the goal pathway. This is reported on monthly to Taumata Arowai.*

## Moving forward

- While progress is being made on leaks as we work towards driving down the backlog to a sustainable level, it's important to note that leak repairs are a 'band-aid' rather than a long-term solution. Fixing leaks doesn't prevent new leaks from occurring or the backlog from rising if ongoing investment in leak repairs is not maintained.
- The increasing age and deteriorating condition of the network means that we expect the cost of ongoing leak repairs to continue to increase, and significantly increased investment in proactive pipe renewals is needed to prevent leaks occurring in the first instance. Currently, pipe renewals are funded well below the recommended level across the region.
- The current short-term investment level is working well to drive down the backlog, however forecasting shows it won't maintain water loss reduction activities in the longer-term, with the bulk of the investment in leaks ending in the first year of the current Long-Term Plan.