

This document provides a high-level summary of Upper Hutt City Council'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.

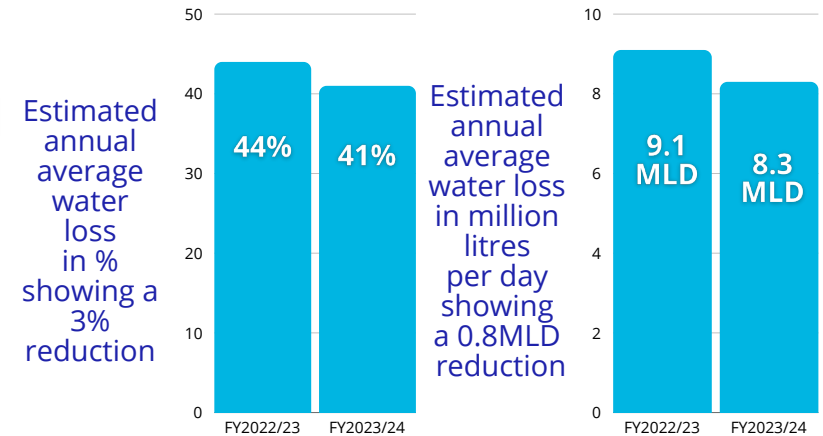
These two measures work together to help Wellington Water and our council owners better understand:

- *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.*

Upper Hutt water loss figures

The estimated annual average water loss on the Upper Hutt public network for FY23/24 is **41%***, down 3% from FY22/23 (44%).

In real terms, this equals a saving of about **800,000 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 0.8MLD 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.

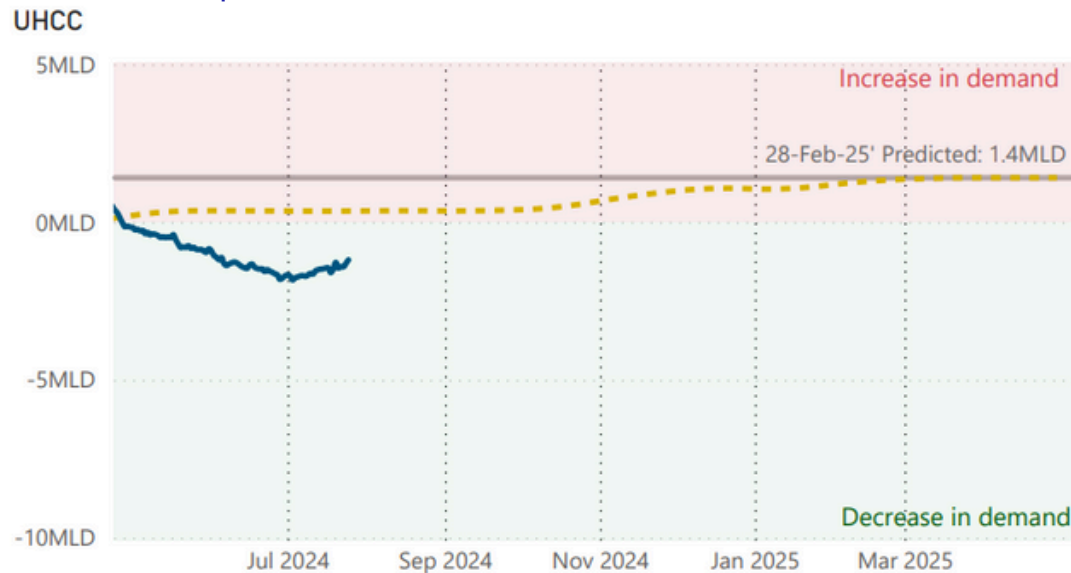
Increased funding wasn't made available until the second half of the year, and as a result increased leak repair work did not start until quarter 3 or later. This means the average annual water loss estimate may not have reduced as much as some may have anticipated.

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 28% and 55%.

Upper Hutt water demand figures

- A large increase in leaks at the end of FY2022/23 carried over to the beginning of FY2023/24. This has resulted in the overall per capita demand increasing 1.5% year-on-year, even though the 12-month rolling average has fallen consistently every month in FY2023/24 (down 2.9% from a peak in July 2023).
- A potential increase in leaks on private property may have offset some of the gains made, but due to the lack of residential metering it is hard for us to gauge to what extent.
- 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.



Overall demand continues to track below the target, which is positive. The number of leaks reported has increased, which has contributed to a slowdown in demand reduction.

Forecasts predict that current funding levels will not keep the leaks backlog at a sustainable level. This means that the forecast for Upper Hutt is of a demand **increase**, rather than demand reduction. The above graph shows how Upper Hutt is tracking towards the forecast demand increase of 1.4 million litres per day. The blue line shows a 4 week rolling average of demand, and the gold dotted line shows the projected 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.
- While the current leaks backlog is at a sustainable level, forecasts show that funding will not keep it at this level past the end of January 2025, and the backlog will begin to grow during the key summer risk period.