

A journey back to water reliability – a focus on leaks

Background material for Wellington Water Committee Workshop held on 30 November 2022



Our water, our future.

We have a problem with leaks

- Water use has continued to rise over the past seven years & is now at an all time high due to population growth & water lost via leaks.
- This year we have seen an increase in usage of around 5% which suggests leakage is increasing.
- We don't have a metered water network so it's hard to get exact figures of water loss. But current estimates (21/22) show that on average 40% of the total amount of water we supply is being lost through leaks. Up to a third of this is expected to be on private property.
- This is due to aging infrastructure & a backlog of renewals – old pipes burst & leak more often.
- This is a poor outcome in the context of Te Mana o te Wai given the wastage of this precious taonga.
- Without increased investment into finding & fixing leaks & replacing old pipes, this trend will continue.



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So, what does this mean?

- Leaks are putting additional pressure on our councils' ability to supply water, especially in the summer months.
- We can only treat & supply a certain amount of water on any given day. This includes a buffer that allows for varying levels of water use, unplanned outages, or maintenance work.
- Increased leaks reduces this buffer & councils may have to put in place tighter water restrictions for longer periods over summer to avoid water shortages.
- This does not mean people will have no water. But it will have an impact on customers & their activities e.g. no outdoor water use or having to reduce their indoor water use.



Water Restrictions Level 1 – use sprinklers every other day



Water Restrictions Level 2 – limit residential outdoor use (no sprinklers)



Water Restrictions Level 3 – stop all residential outdoor water use (ban on all residential outdoor use)

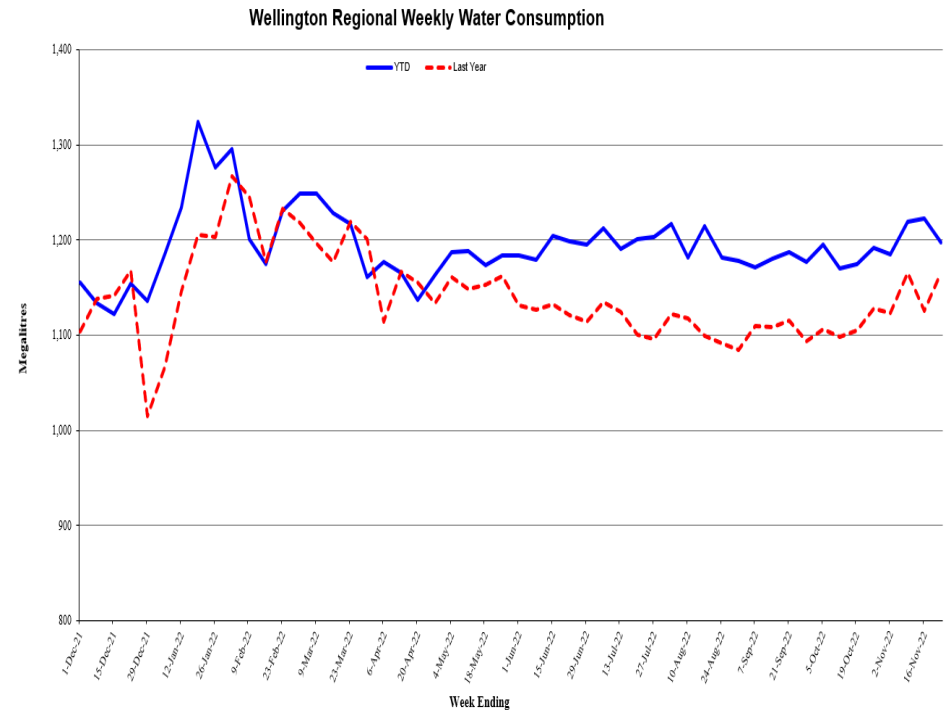


Water Restrictions Level 4 – drought conditions! Ban on outdoor water use, reduce indoor water use

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What are we doing about it?

- We have dedicated teams out finding & fixing leaks every day.
- WWL has reprioritised our operational funding & activity to find & fix more leaks.
- But there are a lot of leaks & we can't fix them all. So, we implemented a new framework to better prioritise our efforts & focus on the biggest leaks that have the most impact on water supply. Many of which are underground & not easy to spot.
- We've ramped up our communications to highlight the work we are doing & to educate people on how we prioritise.
- When we find leaks that are on private properties, we let homeowners know. We've updated the way we do this to make it more efficient so people can get onto fixing their private leaks faster.
- Looking at ways we can better manage the network to reduce water pressure, which will reduce the amount of water lost through leaks.
- We're having an impact: 6 weeks ago, we were using 7.2% more water than compared to the same period last year. Now we're using 5.4% more water than the same period last year – the trend is stabilising.



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Why can't we fix all the leaks?

- There are two main reasons why:
 1. The number & complexity of leaks are increasing all the time & we don't have funding to fix them all.
 2. Even if we had all the funding now, we don't have the capacity to keep up with the scale of the work.
- Our capacity to fix leaks has been controlled by recent years' funding & a tight labour market.
- It is costing more to find & fix leaks due to inflation, complexity of repairs & increasing number of incidents
- Our prioritisation process puts urgent leaks at the top of the list, but total number of jobs are increasing so there's a growing backlog of non-urgent jobs.
- We need (WWL, councils, Water Committee) to be honest about this, own it & communicate. If we do end up having to ask people to use less water, then we need their buy-in first.
- We also need to ask the public to do their bit by finding & fixing leaks on their properties.
- We can't increase our workforce overnight. We're working on attracting & training more people into the sector, but this needs to happen at a larger scale. If councils want to increase their investment, we can start to train more people to build up a larger pipeline of skilled workers over time – this will take a few years, but we have to start somewhere.



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Act now and plan for the future



Short term:

- We want to maintain the same level of work & communications over the next year or two.
- All of the councils that we have requested further funding from have committed funding to the level of work we can deliver in this financial year.
- For the next financial year our advice will be to continue to lift investment in finding & fixing leaks, because if we don't then the backlog will continue to grow.
- The cost to clear the current backlog & find & fix all the leaks is estimated at \$10M-\$15M. We would not recommend this option, which is a purely reactive approach. Instead, it's better to invest in proactive long-term solutions.

Medium to long term:

- In the 21/31 LTP, councils approved a “conserve before creating more storage” strategy. WWL is currently investigating meters, replacing as many pipes as we're funded to do & looking at more storage options.
- Councils should focus funding on strategic long-term activities that will address the issue. This will be a combination of increasing the number of old pipes that get replaced (this would help reduce the number of leaks), prioritise installing household water meters, & continuing investment in finding & fixing leaks (however we would expect the level of investment into leak fixing would go down over time).

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What can the Water Committee do?

- Own the issue with us.
- Help WWL to communicate, manage public expectations & lead a public campaign with us.
- Ramp up the pressure on people to fix their private leaks via compliance activities.



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