



Wellington Water Committee | Komiti Ngā Wai Hangarua

06 September 2022

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Actions to Manage Metropolitan Wellington's Water Supply and Usage Risk

Purpose of Report

1. To update the Wellington Water Committee on metropolitan Wellington's water supply and usage risk and next steps as we head into the summer months.

Recommendations

That the Committee:

- (1) notes that water usage in metropolitan Wellington continues to be at an all-time high due to a recent sharp rise in leakage in both councils' public network and customers' private properties as per Wellington Water Limited's earlier advice to the Committee in July 2022;
- (2) notes that councils as the asset owner and funder, and Wellington Water Limited as the water services provider, have regulatory obligations under the Water Services Act 2021 (Taumata Arowai) to ensure that a sufficient quantity of drinking water is provided to consumers;
- (3) notes that Wellington Water Limited will be activating our Drought Management Plan for metropolitan Wellington, which includes putting in place residential water restrictions (on behalf of councils) and standing up emergency responses if water usage in local areas exceeds ability to treat and supply water in the summer months;

- (4) notes that immediate interventions to water leakage are needed to reduce the impact on customers and to reduce the severity of water restrictions required this summer;
- (5) notes that Wellington Water Limited has reprioritised its allocated operational funding and activities to focus on the highest priority interventions such as identifying and fixing the most significant leaks on the public network. We will advise councils of the impacts of this as it is likely other operational activities on the network will need to be delayed or not completed, and this will have an impact on customers;
- (6) endorses all metropolitan councils to play an active role with Wellington Water Limited in the communications and engagement around these risks;
- (7) endorses all metropolitan councils to be prepared to use existing bylaws to address unresolved non-compliances associated with significant leaks and water wastage on private properties; and
- (8) notes that Wellington Water Limited will provide the Wellington Water Committee and councils with regular updates on the effectiveness of our interventions and provide advice at the December meeting if further support and more aggressive interventions are needed from councils.

Overview

2. Water use in metropolitan Wellington is at an all-time high due to a combination of population growth and leakage.
3. This has been a rising trend since 2015 and every year Wellington Water Limited (WWL) closely monitors the situation and advises councils (as the asset owner and funder) of the increasing risk of water shortages and what intervention measures are needed. This activity is part of our Drought Management Plan (DMP), a copy of which can be found on [our website](#).
4. WWL's DMP outlines how we, on behalf of our council owners, will manage the water supply and usage during the summer months using a risk-based approach. This includes changes to how we will manage the network and resources as well as being able to put in place restrictions on water usage to address current levels of risk to the water supply (for example low levels of water storage or a significantly reduced ability to treat and supply water to customers).
5. At the last Committee meeting in July, WWL advised councils that the metropolitan Wellington area has seen a sharp rise in leakage in both the councils' public network and on private properties.
6. This means that our councils' ability to keep up with water usage in the coming months is getting harder to achieve. If left unaddressed, it's likely that councils will need to increase the level of water restrictions this summer and/or have us stand up emergency responses to ask customers to significantly reduce their usage at short notice.

7. WWL are doing all it can within our allocated funding and resources to actively manage these risks. WWL will be implementing a range of immediate interventions (refer to list below) and will be providing the Committee and councils with regular updates on the effectiveness of this work.
8. However, it's important to note that if WWL's interventions do not reduce the risk sufficiently, councils will need to provide further support (for example - further resources and investment) to allow for more aggressive interventions. This may have to be done at short notice.
9. Councils, as the owner and funder of the region's water assets, and WWL, as the region's water services provider, both have obligations under the Water Services Act to ensure that a sufficient quantity of drinking water is provided to customers.
10. Under the Act, councils and WWL must also give effect to Te Mana o te Wai through making the wellbeing of the water the highest priority.
11. WWL are already in discussions with Taumata Arowai about these risks and will provide them with regular updates on how we are tracking.

Increasing levels of usage puts pressure on the ability to treat and supply water

12. Our region's drinking water supply system has a finite capacity. This means that we can only treat and supply a certain amount of safe drinking water on any given day. Normally this capacity includes a buffer that allows for varying levels in daily water usage, unplanned outages, or planned maintenance work.
13. However, the recent sharp rise in leakage means that the available buffer is becoming increasingly tight. This situation will worsen further as overall water usage increases over the summer months.
14. If immediate interventions are not undertaken to reduce water use, then we may not be able to supply enough water to certain suburbs or areas during times of high usage, which tends to be on the hottest days in summer.
15. In this scenario, councils and WWL may have to pre-emptively ask customers to significantly reduce their water usage in the affected areas, potentially at short notice.

Customers should prepare for the risk of significant restrictions this summer

16. The recent sharp increase in leakage has increased the risk of councils needing to bring forward water restrictions this summer to avoid the levels of water in storage from getting too low.
17. The immediate interventions that we are implementing are intended to help reduce this risk. Again, WWL will be closely monitoring the situation and providing the Committee and councils with regular updates.

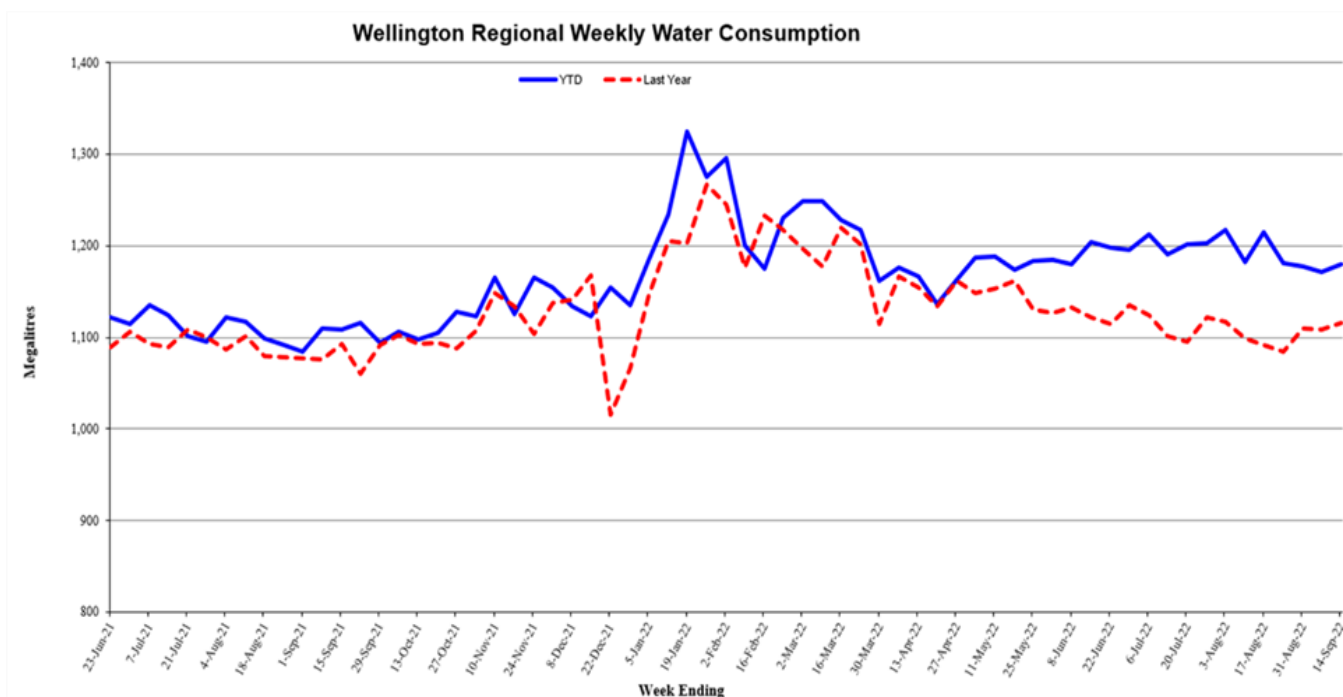
If our interventions are not effective in sufficiently reducing the risk, then councils may need to increase the levels of water restrictions.

18. If tighter restrictions are required, WWL would need the local mayors to publicly lead the communications around this to ensure the public understand the issues and restrictions and respond accordingly. We are all in this together.
19. It is important that we are open with the public about these risks and how our interventions may or may not be reducing the likelihood of further restrictions. Being transparent about this will allow us to properly manage public expectations and increase understanding on what people need to do to help out.
20. WWL's communications over the next few months will be focused on ensuring that we are clear on this as well as letting the public know what is required of them if an increase of restrictions is required.
21. More information on the water restrictions levels can be found on [our website](#). This includes information on what is required under each restriction level from 1 - 4.
22. Note that Level 4 water restrictions mean asking the public to restrict their indoor water use. As outlined, in our [DMP](#) this would be considered an emergency situation, which would again require the local mayors to publicly lead communications.

Interventions Wellington Water has underway

23. **Established a new dedicated team to deal with these risks and ensure that it is given the highest priority.**
24. **Commissioned an external review of our approach to managing leaks on the public network.** The review set out to see if any improvements can be made to our approach and a number of key areas have been identified for us to take a closer look at, for example - pressure management in the network. This has been conducted by Richard Taylor of Thomas Consultants, a nationally recognised expert in water loss management.
25. **Reprioritised operational activities to redirect allocated funding to the highest priority operational interventions.** This work includes:
 - (i) Increasing the activity on identifying and repairing the high priority / significant leaks on both the councils' public network and private properties is currently the most effective short-term mitigation available to us and our councils. Reducing water wastage is also in line with the principles of Te Mana o te Wai.

- (ii) Optimising how WWL operate the councils' water treatment plants and networks including:
- Reviewing the configuration of the water treatment plants to identify whether there are any further opportunities to optimise the outputs from the plants or improvements for efficiency.
 - Reviewing and where possible reducing the pressure in the network, which will help to reduce usage and some water loss.
- (iii) Increasing WWL communications, education and engagement activities including:
- Proactively communicate about risks and the need to reduce water usage. We have reprioritised our usual summer demand marketing campaign budget to focus on a communications and education campaign on encouraging people to look for and fix leaks on their private properties. It should be noted however that this campaign can only increase awareness of the issue and other interventions by councils (for example - compliance activities under the council bylaws to address non-compliances) are also needed to effectively drive behaviour change.
 - Working with the largest commercial customers to reduce usage. This includes working with councils who use water for parks, pools, and gardens to investigate ways to reduce their water use, particularly during periods where supply is low.
26. **Looking at how we can target some of the capital investment to address risks.** This includes targeting the renewal programme at areas with elevated leakage, and various trials of new equipment and technology.
27. **Preparing to respond to water shortages and emergency response.** WWL are working through our DMP and associated activities to ensure we have the systems, processes and resources in place to response when water shortages occur.
28. Operational reprioritisation will mean that other work in the network will need to be delayed or not done at all. WWL will advise each council of the impacts of this prioritisation for wider service levels and provide other options for councils to consider.
29. The below graph compares the level of water usage from June 2020-September 2021 (red line) with the same period this year (blue line). WWL will use these figures as a baseline for measuring the effectiveness of the interventions we've implemented and will report back on these numbers at the next Committee meeting in December.



Support needed from councils in the short term

30. **Be prepared to undertake compliance activities under the existing bylaws to address unresolved non-compliances associated with significant leaks and water wastage on private properties.** Councils have a range of actions they can take to reduce the leaks on private properties. This includes requesting customers to undertake repairs, repair ongoing leaks and charge the customer for the cost of the repair, and restricting or prohibiting the use of water for any specific reason.
31. **Councils need to be aligned with WWL and give the same messages.** Councils need to support our communication efforts to extend the reach of the messages. Communications will focus on leaks on private properties but also include communications about water restrictions and immediate calls for people to conserve water in areas facing the risk of acute water shortages. Councils need to ensure their channels are also pushing / sharing the same messages to achieve a higher level of public engagement. As previously mentioned, if Level 3 or Level 4 restrictions are required then local mayors will also need to lead communications.
32. **Plan for water restrictions on council operations.** It is likely the councils' operations and water use will be scrutinised by the public during periods of water restrictions. Councils should start to consider what the impacts water restrictions will have on council services and plan ahead for this coming summer.

Next Steps

33. Subsequent to this Committee meeting, WWL will engage with all metropolitan councils on the above actions and talk through the support that is needed from our council owners.

34. WWL will provide regular updates to councils and the Committee on the progress of this work and report back to the Committee at the December 2022 meeting.

Appendices

There are no appendices for this report.

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