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OPEN Briefing from the Strategic Advisor and Wellington Water Ltd, concerning Our Water Supply System

Date of Briefing: 24 February 2021
4.38pm – 5.20pm

Attendees

Elected Members: Mayor Barry (from 4.51pm), Deputy Mayor Lewis (opened the Briefing), Cr Basset (from 4.44pm), Cr Briggs, Cr Dyer, Cr Hislop, Cr Mitchell, Cr Rasheed, Cr Sutton, Ms P Hanna, Ms V Horrocks

Staff: Ms J Miller, Chief Executive (from 4.43pm); Ms H Oram, Director Environment and Sustainability; Mr M Boggs, Director Strategy and Engagement (from 4.51pm); Mr Bruce Hodgins, Strategic Advisor; Ms Jenny Livschitz, Chief Financial Officer; Mrs H Clegg, Note Taker

Attendees: Wellington Water Ltd (WWL) Staff: Mr Fraser Clark, Principal Advisor Strategy, Mr Geoff Williams, Senior Advisor Strategy, Mr Laurence Edwards, Chief Advisor, Drinking Water

Apologies / Absences

Elected Member Apologies: Cr Brown, Cr Milne

Elected Members Absent: Cr Edwards, Cr Shaw

Key Objectives of the Briefing

The purpose of the briefing was to provide short- and long-term perspectives for the water supply system to the Wellington Region.

Discussion

WWL, led by Mr Clarke, used a slideshow presentation, to explain the water supply system to the region.

- Need to maintain a balance between water supply and demand, and sustainability and the environment.
- Catchment to Tap – complicated network and system, transporting up to 2 million litres of water per day in peak times, with up to 58000 million litres a year.
- Mr Williams explained the four water sources:
    - Te Awa Kairanga river (supplying 90% of region's water, and was currently over allocated);
    - Wainuiomata River;
    - the Te Marua storage lakes; and
    - the aquifer (vulnerable and at risk; working with GWRC and HCC officers to strengthen planning rules to provide better protection and minimise contamination risk.)

- Water supply was at risk with:

    - high growth;
    - high demand;
    - network reaching capacity limit;
    - climate change impacts on rainfall patterns;
    - sea level rise;
    - increased risks of saline contamination of the aquifer.

- WWL advised that doing nothing was not an option, that more efficiencies with water had to be found, and that a shift was required such that water should be drawn from the sources when it was plentiful, not when it was required.

- Mr Edwards detailed:

    - Bulk storage – Te Marua Lakes each hold 3.5M litres of water and were designed to be key in extended drought periods.

    - Reservoirs were designed to meet day to day demands, plus hold some additional storage for a 1:50yr drought event, and post disaster requirements.

    - Predicted growth data showed more water restrictions, especially during summer months, would be necessary.

    - Te Marua Treatment Plant would be upgraded to provide drought resilience standard compliance (currently the standard is not met), and to enable more water to be drawn from the lakes, more frequently, if required.

    - Bulk Transport was sufficient, with an upgrade to the Silverstream Bridge pipe planned to provide seismic compliance.

    - Network Storage - whole of network currently being assessed, with guestimates for total upgrade around $500M (with a 100% contingency amount provided).

Mr Clarke explained issues with the Distribution Network including aging water network, Increased risk of failure, increased number of leak reports, customer usage of water (Auckland - 170l per person/per day, Melbourne 150l per person/per day, Wellington - over 200l per person/per day); and unavailability of detailed information concerning the network, as no property meters.

WWL immediate future plans were to proceed with the Te Marua Water Treatment plant upgrade, to explore different supply options with timeframes (including investigating desalination plants), and to promote demand reductions (leak detection and customer behaviour change).

- The large expenditure item predicted was for another storage lake, at some stage in the future, however the team were currently assessing if this was the best option.

- There were many ways to reduce water demand, including grey water storage requirements, water sensitive design, hydraulic neutrality, bylaws requiring meters, MBiE review of Building Code looking at water efficiency methods and requiring a dwelling to be designed for low water consumption, desalination, amongst other things.

- Explained that WWL was requesting water meters be installed to provide for monitoring and information gathering purposes – quick identification of leaks, identification of high-water users etc. Business case conducted by WWL showed merit in charging for water via meters.

Experience from other councils showed reduced demand for water once meters were installed, and more efficiencies gained for leak detection and repair systems.

- Wellington region had traditionally relied on regular rainfall patterns to fill up reservoirs and storage lakes. This practice could not be relied on in the future, due to climate change.

- All figures used regarding water usage were for residential users and did not include industrial or commercial users.

Next Step

No officer actions were raised at the briefing.

Briefing Materials

Attachment 1 – Our Water Supply System – Long and Short-term Perspectives. Feb 2021, WWL