

Item 3.3

Investing in Sydney's Water Security

File No: S051491

Minute by the Lord Mayor

To Council:

Securing the City's Water Supplies

Australia is the driest inhabited continent on earth, and currently over 90 per cent of NSW is in drought, or is drought affected.

Sydney Water has said that Greater Sydney is in drought. Sydney's dams are 48 per cent full, down more than 10 billion litres over the past week. Sydney is seeing some of the lowest inflows since the 1940s, with dam levels dropping faster than they have in decades.

In response to the climate emergency, governments must put in place responsible policies to supply water to the growing number of people living in our towns and cities.

We know that, without intervention, population growth and global heating will drive up water demand across our city by approximately 30 per cent by 2030. Planting more trees to combat the urban heat island effect, and engaging in innovative urban greening projects will further increase the city's water consumption.

We must resolve not to allow Sydney to get to a critical state, where emergency powers must be rushed through at the eleventh hour to ensure our water security. We must invest in long-term, responsible water infrastructure solutions such as recycled water, now.

Experts say that treating wastewater to drinking standard is thirty to fifty percent cheaper than desalination, and uses only one quarter to a third of the energy. For these reasons, water recycling, along with water efficiency, must be the priority policy responses for ensuring Sydney's water security.

It is scandalous that we still use precious drinking water to flush our toilets, water our gardens and wash our clothes. More recycled water systems throughout the city and the state would relieve pressure on existing water infrastructure and reduce the amount of drinking water we waste every day. **The City's Decentralised Water Master Plan** highlighted that more than half of the water demand in the local government area could be provided by recycled water. Every kilolitre of recycled water used in the city is one less kilolitre that has to be supplied from Warragamba dam.

Green Square Water Recycling

The City has made significant investments in recycled water already. **We have already switched on Australia's largest urban stormwater recycling facility in Green Square.** This \$8 million facility can treat up to 900,000 litres of stormwater every day – diverting up to 320 million litres of polluted stormwater from waterways each year.

Now we want to commence stage two of our plans for recycled water in Green Square, which would treat wastewater and deliver it to residential, commercial and community buildings across all of the \$13 billion, 278 hectare Green Square area. However, construction is yet to commence because the Independent Pricing and Regulatory Tribunal (IPART) 'retail minus' determination used by Sydney Water is creating a financial disincentive.

This ruling, introduced by IPART in January 2018, enables Sydney Water to overcharge for the removal of waste – a by-product of wastewater recycling – through the sewerage system. The result is a financial disincentive for commercial water recycling operators to provide recycled water in residential developments.

New South Wales should follow the lead of Victorian Water Minister Lisa Neville, who is looking to drive the price of recycled water down so that it can be used for sporting grounds, for gardens, for industry, for irrigation and for agriculture, and so that dam water can be protected for drinking.

For the recycled water market to develop in Sydney, IPART must scrap the surcharge ('retail minus' methodology) for provision of recycled water in residential development and revert to the 'non-residential prices' that other businesses are charged.

Green Square is developing rapidly; we are expecting 70,000 people to have moved into the area by 2036. We must ensure that all buildings in Green Square are ready for a future with recycled water by requiring dual plumbing in all new buildings. Dual plumbing of buildings enables water to be used for a range of purposes beyond cooling, like toilet flushing, clothes washing, irrigation of green roofs and walls, and car washing.

The most cost effective time to dual plumb a building is during construction. Every new building constructed in the city without dual plumbing is an opportunity lost.

A Recycled Water Network along George Street

Capital has been allocated for further water recycling projects in the City's long term financial plan because much more can be achieved. As part of the CBD and South East Light Rail project, the City of Sydney ensured that a recycled water pipe has been laid down George Street from Circular Quay to beyond Central Station. The work is almost complete and the end result will be a continuous network of pipe along the street. There is also a newly installed recycled water pipeline running within the wall of the Wynyard Walk tunnel across the road from Barangaroo, where there is an existing water recycling facility, to Wynyard Station. This pipeline could be connected to the George Street pipes.

If the existing recycled water facilities that currently operate in the CBD, such as the ones in Barangaroo and Central Park, were connected to the two kilometre network of pipe along George Street, their surplus water treatment capacity could be used as a water source. Connecting these facilities would only require an additional five hundred metres of pipeline.

In the longer term, if additional sources of recycled water are needed, existing water recycling facilities in the CBD could tap into other wastewater sources and expand their operations, or new treatment plants could be developed that tap wastewater sources running under the City.

Water from this network could be used in existing commercial buildings as a cost effective source of water for cooling towers. Connecting commercial buildings for this purpose would usually only require installation of a single pipe to the rooftop, and connecting one building alone could save ten million litres of drinking water every year.

The City could also encourage members of the Better Buildings Partnership and Sustainable Destination Partnership to connect to the network. Members of these partnerships have water use objectives linked to the SS2030 targets, and the Better Buildings Partnership has already published guidelines for recycled water use in commercial buildings, including a review of the quality of water required for cooling towers.

The installation of a further three hundred metres of pipe could connect the network to Hyde Park and allow the City to use recycled water for park maintenance. Parks currently account for 40 per cent of the City's water consumption.

A feasible business model might involve the City leasing access to the George Street pipelines to a suitably licenced business to enable it to deliver water to customers. Potentially one of the existing water recycling schemes could expand to provide this service.

Recommendation

It is resolved that:

- (A) Council request that the Chief Executive Officer develop an implementation plan in preparation for going to market for suitably qualified private water companies to:
 - (i) deliver a recycled water scheme in the central business district that utilises the George Street, Wynyard Walk, and other pipelines that may be required to make the scheme viable; and
 - (ii) provide cost estimates for dual plumbing the City's major properties along George Street and connecting them to the network;
- (B) Council request that the Chief Executive Officer explore setting citywide targets for recycled water use as part of the next Environmental Strategy and Action Plan; and
- (C) the Lord Mayor be requested to write to:
 - (i) the Hon. Premier, Gladys Berejiklian; The Hon. Melinda Pavey, Minister for Water; The Hon. Matt Kean, Minister for Energy and the Environment; and Alex Greenwich, Member for Sydney, requesting that IPART scrap the 'retail minus' methodology for private operators providing recycled water in residential developments and revert to the 'non-residential prices' that other businesses are charged; and
 - (ii) the Hon. Rob Stokes, Minister for Planning and Public Spaces requesting that he mandate that new developments within urban renewal areas to install dual plumbing to future proof for recycled water supply.

COUNCILLOR CLOVER MOORE

Lord Mayor