

13 December 2019

Jamie Luke
Principal Analyst
IPART
PO Box K35
Haymarket Post Shop NSW 1240

RE: Applications by Flow Systems to vary Water Industry Competition Act (WIC Act) licences (Central Park, Shepherds Bay, Box Hill North and Green Square)

Dear Jamie

Thank you for your letters to Roch Cheroux on 24 October and 4 November notifying Sydney Water of Flow Systems' applications to vary several licences, for water recycling schemes at Central Park, Shepherds Bay, Box Hill North and Green Square.

Drinking water supplied by Sydney Water is used at each of these schemes to top-up the recycled water network when customer demand for recycled water exceeds the available supply. We also provide the following services:

- wholesale water and wastewater services at Central Park and Shepherds Bay
- retail water and wastewater services to all customers at Green Square
- retail water services to all customers at Box Hill North.

Our submission raises concerns about Flow Systems' lack of engagement and collaboration to mitigate public health risks, and the very high level of reliance on other water industry infrastructure for back-up under the proposed servicing strategy at Box Hill North.

We support the proposed additional end uses for recycled water

Flow Systems propose that the list of permitted uses for recycled water be expanded to include items such as landscape features, wash-down, car washing, street cleaning, and process water at the recycled water treatment plant. We support measures that help to reduce the demand for drinking water, subject to:

- conditions that may be needed to assure public health, safety and environmental outcomes (as determined by NSW Health, WorkCover, and the Environment Protection Authority)
- consistent definitions being used across licences for the same permitted uses
- an assessment of impacts on the overall water balance for each scheme, including changes to the supply of drinking water for top-up.

Requirements for a Code of Conduct should be strengthened

The WIC Act provides that the Minister may establish an Industry Code of Conduct (CoC), setting out the respective roles of private and public utilities. In the absence of an Industry CoC, WIC licences normally include a requirement to establish a CoC with the public water utility in their area, if there are interconnections between water industry infrastructure.

In March 2018, we asked Flow Systems to provide us with a draft co-ordination protocol for their scheme at Box Hill North. However, Flow Systems does not consider a co-ordination protocol is necessary under their licence, as there is no direct interconnection with our infrastructure. In our view, this is an unnecessarily narrow interpretation. In any situation where two different providers are delivering similar services to the same customer, it is important that timely communication occurs between all relevant parties and operational protocols are clear and understood. We are concerned about the on-going lack of engagement from Flow Systems, particularly where there may be potential risks to public health from cross connections, or we need to work collaboratively to manage changes to the network (for example, commissioning new assets) or to manage incidents.

It is our strong preference that all WIC Act Licence holders be required to develop a CoC with any other utility that provides services to or within their area of operations, regardless of whether there is a direct interconnection of infrastructure. This is particularly important at Box Hill North, but also applies to the Green Square scheme. As a minimum, these CoC should cover matters such as:

- data sharing (for example, water quality)
- incident management
- customer communication and complaint protocols
- how the risk of cross connections will be managed/mitigated.

Drinking water top-up should be minimised during drought restrictions

We consider water is a precious resource and should be used efficiently and responsibly regardless of the source.

Historically, recycled water has been exempted from water restrictions. However, recycled water demand in extended dry periods typically exceeds the available supply, requiring significant volumes of drinking water top-up. This may compromise pressure and flow in our drinking water system, which may lead to poor service outcomes for our customers and could also present a public safety risk to the community during incidents (for example, bushfires). We are currently experiencing these issues with another recycled water scheme operated by Flow Systems.

We would welcome the opportunity to work with Flow Systems to ensure the safety of customers is prioritised, including better understanding their approach to communicating with recycled water customers during drought.

The proposed expansion of Box Hill North may not represent a sustainable use of water resources

Flow Systems propose that recycled water could be made available for the irrigation of land adjoining their area of operations. The updated water balance suggests the expansion results in a self-sustaining scheme – defined as a scheme that has no excess volumes of recycled water during the year.

However, the water balance shows that the expanded area does not affect the volume of wastewater collection, and so does not change the level of recycled water available. This means any new irrigation demand will be largely met through the supply of extra drinking water, that is, by Sydney Water providing additional drinking water to top-up Flow Systems' recycled water facility. The revised water balance shows the additional drinking water required is around 400 kilolitres (kL) a day on average, and up to 800 kL a day during peak irrigation periods. This is equivalent to the average daily consumption of around 700 to 900 residential properties¹. This may not be a sustainable solution to the underlying issue, which appears to derive from a servicing strategy that does not adequately reflect the water balance for the area resulting in excess volumes of recycled water at various times of the year. We consider that other options should be explored, to ensure the beneficiaries of the scheme bear the true costs of providing recycled water.

It also appears that the updated water balance has revised several other key assumptions. In particular, the original water balance assumed significantly higher residential potable water use and peak day demand. For example, peak residential demand is 15% less in the revised report even though there are now 15% more residential dwellings than the previous version. Peak recycled water demand is also estimated to be 20% lower even though the area to be irrigated appears to be 15 times larger. The water balance report provides limited evidence to explain or justify the updated assumptions. As the report authors note, the modelling should be separately confirmed or verified.

Until the assumptions in the water balance report are confirmed, we consider the statements made in our previous response to Flow Systems Box Hill North Licence application still stand. That is, extensive tanker movements may be required to dispose of excess sewage / recycled water, and our potable water top-up capacity will need to be sized to meet peak day demand. This means that there may be little or no capacity reduction in other water industry infrastructure due to the servicing strategy adopted at this scheme.

[Redacted signature area]

Yours sincerely

[Redacted name]

Kate Beatty for Michael English

[Redacted contact information]

¹ Based on average water demand of residential houses and units in our area of operations.