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File Ref. No: FRN17/2286 TRIM Ref. No: D17/82383

Independent Pricing and Regulatory Tribunal PO Box K35 HAYMARKET POST SHOP NSW 1240

28 November 2017

Dear Sir / Madam

RE: Review of Northern Water Solutions Pty Ltd application, under the *Water Industry Competition Act 2006*, to the Independent Pricing and Regulatory Tribunal

Fire & Rescue NSW (FRNSW) has reviewed the Water Industry Competition Act (WICA) application made by Northern Water Solutions to construct, operate and maintain the reticulated water supply and waste services infrastructure for the proposed Kings Forest development. FRNSW understands that the Kings Forest development will consist primarily of residential housing (Class 1a buildings). However, it is noted that the development will also include larger buildings, such as the golf club (Class 9b), a retail precinct (Class 6) and community/education facilities (Class 9b).

Under the provisions of Section 6 of the *Fire Brigades Act*, it is the duty of the Commissioner of Fire & Rescue NSW to take all practicable measures for preventing and extinguishing fires and protecting and saving life and property in case of fire in any fire district.

In relation to fighting fires in Class 1a buildings, as the National Construction Code Series (NCC), Building Code of Australia (BCA) Volume 2 has no requirement to provide private on-site fire hydrants to this class of building, the provision of a reticulated water supply system that has sufficient pressure and flow for firefighting is critical to extinguishing fires in these buildings and in the shortest possible time frame. Additionally, although FRNSW pumping appliances are fitted with an on-board water tank, the 2000 litres carried only allows for initial firefighting intervention and does not provide a sufficient volume of water for sustained firefighting operations or the protection of adjoining properties. As such, a reticulated water supply with sufficient pressure and flow is crucial to the saving of life and property in residential housing developments, such as Kings Forest.

Unlike fires in Class 1a buildings, fighting fires in Class 2 to 9 buildings is typically dependent on the provision of an on-site fire hydrant system that complies with the requirements of AS 2419.1. Depending on the building class and size of the largest fire compartment, these systems could consist of a single on-site feed fire hydrant or

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a system that incorporates on-site tanks with large bore suction connections, on-site pumps, a fire brigade booster assembly and many attack fire hydrants.

In relation to the design of an on-site fire hydrant system, the type of on-site system provided is typically determined by the characteristics of the nearest available reticulated water supply. If the nearest available reticulated water supply has sufficient pressure and flow to provide the unassisted pressure and flow for any required on-site feed fire hydrant (including those at any required fire brigade booster assembly), on-site tanks with large bore suction connections can be avoided.

For the Class 6 and 9b buildings proposed for the Kings Park development, FRNSW recommends that the reticulated water supply is designed to ensure that on-site tanks with large bore suction connections are not required to be installed. The avoidance of on-site tanks will ensure that fire brigade intervention activities are not delayed, while the Class 6 and 9b buildings proposed are provided with the most appropriate fire hydrant design to address the fire and life risks associated with these buildings.

To conclude, FRNSW strongly recommends that the operating licence of Northern Water Solutions incorporate an ongoing community safety obligation and requirement to provide minimum pressures and flows across its network to facilitate fire brigade invention should a fire occur in any building within the development. It is also recommended that hydrants are placed at distances of not more than 120 metre intervals to facilitate fire brigade access.

Yours sincerely



Mark Whybro Assistant Commissioner Community Safety