

Mr Rob O'Neill
General Manager, Licensing and Compliance
IPART NSW
PO Box K35
HAYMARKET POST SHOP NSW 1240

Dear Mr O'Neill

I refer to your request for comments on an application by Flow Systems for a new development in Shepherds Bay under the *Water Industry Competition Act 2006*. Flow Systems has requested a new network operator licence to develop drinking water, recycled water and sewerage infrastructure. Flow Systems has also applied for variation to their existing retail licence to provide drinking water retail services, recycled water retail services and sewerage services.

NSW Health supports the application provided that the matters raised below are addressed and NSW Health is consulted by IPART during the detailed risk assessments for drinking and recycled water, technology assessments and the development of management plans for drinking and recycled water. I request NSW Health is also consulted following the final compliance audit and before retail supply commences to ensure that all relevant public health matters have been considered. NSW Health also requests that Flow Systems develop an *Incident Notification Protocol* for incidents including, but not limited to, water quality issues, treatment plant critical control point limit exceedances, algae, recycled water issues, cross connections, and contact details of all stakeholders involved in this scheme. At this stage of the application, NSW Health does not request any specific licence conditions.

The drinking water system is inconsistently described. The application form does not identify any treatment process for drinking water and states drinking water will be bulk supplied from Sydney Water. However, the risk register identifies drinking water risks due to storage, chlorine dosing and contamination from treatment chemicals. NSW Health notes that it is the proponent's responsibility as the water supplier to ensure that all potential public health risks are adequately managed.

The proposed water recycling scheme lists sewage and stormwater as identified sources but indicates groundwater and rainwater may be used to supplement supply. However the source water has not been adequately characterised and the resulting risks are not identified or addressed in the risk assessment. NSW Health recommends further characterisation of the source water quality is undertaken as recommended by the *Australian Guidelines for Water Recycling: Managing Health and Environmental Risks (2006)* and *Australian Guidelines for Water Recycling: Stormwater Harvesting and Reuse (2009)*. The risk assessment should be updated to reflect any additional information on the source water.

The applicant claims that the scheme will achieve 100% effluent disposal through reuse or losses and that no environmental discharge licence is required at this stage. It is unclear how recycled water will be managed during periods of wet weather or before the retail supply commences.

The risk from consumption of recycled water due to unauthorised uses has been inconsistently addressed in the risk assessment and requires careful attention. There is some confusion in the document regarding the water utility supplying drinking water, with both Hunter Water and Sydney Water mentioned. Flow Systems should implement effective controls to protect against cross-connection, including sharing the location of assets with the relevant utility. The applicant must ensure that all plumbing and reticulation is designed, constructed, installed and maintained in accordance with the Plumbing Code of Australia.

The application states the recycled water will also be used in cooling towers. Treatment and monitoring is required to ensure the water quality is suitable for use in cooling towers. There is potential for residential areas adjacent to the development site to be adversely impacted by noise. The applicant should engage a suitably qualified acoustic consultant to prepare a report demonstrating that the operation of all plant and equipment associated with the recycled water facility complies with the *Protection of the Environment Operations Act 1997* and NSW Industrial Noise Policy.

NSW Health recommends that verification monitoring of both the drinking water and recycled water systems be required at a frequency recommended by the *Australian Drinking Water Guidelines 2011* and the *Australian Guidelines for Water Recycling: Managing Health and Environmental Risks 2006*. The Public Health Unit and Flow Systems should be notified immediately of any verification results that are outside of *Australian Drinking Water Guidelines* or *Australian Guidelines for Water Recycling* values and in accordance with NSW Health protocols.

NSW Health's response should not be considered an approval or endorsement of the applicant's documentation. NSW Health's review has focused on potential public health issues. NSW Health expects that the audit process will confirm the adequacy of the drinking and recycled water management plans and compliance with the *Australian Drinking Water Guidelines* and *Australian Guidelines for Water Recycling*.

The granting of a licence under the Water Industry Competition Act 2006 does not automatically exempt the applicant from the requirement under the *Public Health Act 2010* and Public Health Regulation 2012 to develop and adhere to a drinking water management system.

Thank you for the opportunity to make a submission. Should officers of IPART require further information, please contact Dr Paul Byleveld, Manager Water Unit on [REDACTED]. Should the applicant require further information they may contact Geoff Prendergast, Senior Environmental Health Officer, Northern Sydney Public Health Unit on [REDACTED].

Yours sincerely

[REDACTED]

9/12/16

Dr Ben Scalley
Director Environmental Health Branch