



## **Multiple Benefit Stormwater Harvesting Project by the City of Ryde**

Kylie McMahon<sup>1</sup>, Hugh Williamson<sup>1,2</sup>

<sup>1</sup>*City of Ryde Council, Ryde, NSW, Australia,* <sup>2</sup>*Optimal Stormwater, Sydney, NSW, Australia*

The City of Ryde has identified LGA wide locations suitable to implement stormwater quality and harvesting projects as part of their commitment towards water quality improvement. Works locations were derived utilising findings from ongoing water quality monitoring programs across 5 catchment areas, pollution monitoring, WSUD strategic review studies and involvement as contributing partners in Parramatta River Catchment Group, under the Lane Cove and Parramatta Rivers Coastal Zone Management Plans and Sydney Harbour Catchment Water Quality Improvement Plan.

This paper and presentation focuses on the story of the City of Ryde planning, designing and implementing stormwater quality improvement projects, with a particular focus on the Bill Mitchell Park site which combines stormwater quality and stormwater harvesting.

Bill Mitchell Park is located on Morrison Road, Gladesville and discharges into Glades Bay. The upstream Peel Park was identified for a WSUD system in two previous studies for gross pollutant capture in the Parramatta River Estuary Coastal Zone Management Plan to investigate the potential for installing bioretention systems to provide improved treatment of stormwater flows entering the estuary at the site as well as installing irrigation.

Optimal Stormwater undertook a feasibility study for the City of Ryde and it was identified with Council, that the Peel Park site would have to operate under a pumped system due to site constraints and the installation of a bio retention system could subject restrictions on the area which was presently used by sports groups as a training area.

It was identified that the downstream Bill Mitchell Park contained a higher catchment area and extremely feasible location for the installation of a high quality SQID followed by a gravity offtake into a large underground stormwater harvesting system and Optimal Stormwater provided designs for these as well as concepts for a stormwater harvesting system for a new irrigation system at the site.

The City of Ryde subsequently went out to open tender for the construction of this system and Optimal Stormwater won the construction project. The second Bill Mitchell Park Stormwater harvesting is presently out for tender and the results will be available at the time of presentation.

The City of Ryde has a target to reduce pollutants and increase stormwater harvesting around the LGA and this presentation focuses on the stormwater quality management through telling the story of the planning, design, construction and operation and maintenance of the Bill Mitchell Park GPT and Stormwater Harvesting System.