



Blacktown City Council: Getting the Most out of Stormwater Pollution Control Devices

Russell Cadman¹, Charles Coathup², Ben Penhallurick²

¹*Blacktown City Council, NSW, Australia*, ²*Renew Solutions Pty Ltd, QLD, Australia*

The presentation will report on a Council-wide audit and analysis of over 300 gross pollution control devices (PCDs) installed within the Blacktown City Council local government area (LGA) and outcomes that have informed its new PCD maintenance contract.

Blacktown City Council has a strong commitment to its natural environments and people, including the management of its stormwater PCDs to minimise stormwater pollution and maximise the recreational and social values of its receiving water environments. As part of this commitment, Council engaged Renew Solutions Pty Ltd to undertake an audit and analysis of its over 300 structural stormwater PCDs. The project took place between May and November 2016, with both the audit and analysis stages taking three months each.

Through investigations including on-the-ground auditing, GIS, stormwater quality modelling, and other analyses, the project sought to understand PCDs in terms of their:

- Physical attributes including internal dimensions and storage component capacities;
- Upstream, downstream, and contributing catchment characteristics, including flows and pollutant loads;
- Condition and functionality (e.g. stormwater quality and quantity management);
- Maintenance requirements and costs to rectify defects and other issues; and
- Immediate through to long-term management requirements and costs, including optimal cleaning and inspection frequencies.

The results of the project served to inform important asset management decisions including:

1. A capital works program to cost-effectively rectify defects and issues affecting device condition and functionality, including recommendations to improve asset performance where necessary;
2. Adjustments to a city-wide PCD maintenance contract based on optimal maintenance requirement estimates calibrated with stormwater quality modelling (i.e. MUSIC) and real-world historical maintenance data;

Immediate outcomes of the project include:

1. Significant cost savings to Council through prioritised maintenance (e.g. cleans and inspections) and rectification works to get the best bang for buck out of their assets;
2. A costed schedule of works to improve the condition and functionality of the entire

asset portfolio; and

3. An improved maintenance contract to maintain devices in good condition and at a desired level of service.

The successful completion of the project represents an important step in the direction of sustainable management of this type of infrastructure and enables council to maximise the benefits from this new digital age of real-time asset management reporting for future PCD maintenance contracts.