

IPWEA
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Powells Creek Reserve Stormwater Harvesting Project

City of Canada Bay Council

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Category 7 Environmental Enhancement Project

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1. Concept

The Technical Services Division of Council developed the Powells Creek Reserve Stormwater Harvesting System with a focus on a Water Sensitive Urban Design (WSUD) to harvest stormwater for sports field irrigation.

The northern half of Powells Creek Reserve Carpark provided the location/catchment for this WSUD design as an opportunity to supplement irrigation demand for the adjacent playing fields. The concept of this innovative design allows for the harvesting of runoff from the carpark and treatment with the assistance of Hydrocon Pipes. This results in ensuring Council provides a well grassed, safe playable sports field for the enjoyment of the community. It also reduces Councils costs in purchasing potable water.

2. Objectives

The following objectives were achieved:

- Save approximately 2 million litres of water each year;
- Enable the reuse of collected and treated water for irrigation purposes;
- Reducing the volume of run off entering the water ways (Parramatta River), reducing the sediment loads in Powells Creek and improving the water quality;
- Enhancing the quality and useability of Powells Creek Reserve playing fields by increasing the playing surface condition by reducing the dryness of the fields and in turn reducing the injury to users;
- Providing the community with an example of Water Sensitive Urban Design,
- Increasing awareness of catchment management and wise water usage;
- Improving public safety;
- Increase awareness of water management issues.

3. Project Planning/Development

The project saw collaboration from several areas of Council. Further review of the design allowed the incorporation of innovative products - Hydrocon pipes, to reduce the requirement for above ground storage.

The project was delivered in-house enhancing Councils project management skills and building work skills and capabilities of work areas. The project resulted in greater ownership and understanding. An Operations and Management plan was also developed in-house to ensure the long-term success of the project and system.

4. Project Achievements

As result of this project through collection and filtration of stormwater from the carpark adjacent to Powells Creek Reserve is able to be reused for irrigation of Powells Creek Reserve playing fields.

The Stormwater Harvesting and stormwater reuse irrigation has been successfully utilised for the past year. The consistency of grass coverage has been lifted to an excellent standard.

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5. External Related Organisations

Powells Creek reserve stormwater harvesting project was designed by the Engineers of the Technical Services Division of Council. This project was funded with a \$200,000 grant awarded by the State Government, Department of Environment and Conservation (DEC) as part of the Urban Sustainability Grants Program. This money was part of a total grant "Working to Sustain the Parramatta River" worth \$1.9 million split between 7 Parramatta River Catchment Group (PRCG) Councils in total.

This PRCG was awarded the grant to focus on Water Sensitive Urban Design projects that would be showcased to the communities along the Parramatta River Catchment to share experiences, from partnerships and deliver demonstration WSUD projects.