

Case Study: StormTech

Edinburgh Gardens, Fitzroy Victoria – Raingarden with Stormwater Harvesting

Installation date: October 2011

GENERAL PROJECT INFORMATION

- Edinburgh Gardens is a 24 hectare park located in North Fitzroy, Melbourne, Victoria.
- A raingarden project was initiated to provide a **sustainable source of treated stormwater for the parks mature trees and sporting fields**, whilst adding character to the existing landscape of the park.
- The **City of Yarra** selected GHD to design the raingarden and StormTech system.



DESIGN CONSIDERATIONS

- The raingarden was designed to remove **16,000 kg of total suspended solids (TSS)** each year. A further 160 kg of nutrients, phosphorus and nitrogen to be removed through vegetation growth thereby avoiding release of these pollutants into Melbourne's waterways.
- **200kL of filtered water to be collected in StormTech underground water storage** and used to irrigate existing trees. The raingarden is designed to reduce potable water by 4ML per annum.
- Source stormwater from the North Fitzroy main drain to be diverted to the newly designed terraced raingarden.
- **Filtered water to be harvested for irrigation of trees** within the park and local precinct.
- Main components of the project:
 - Diversion pipe with **gross pollutant trap**
 - Surcharge pit into 700 sq.m raingarden with **StormTech rainwater catchment chambers** providing storage structure
 - Terraced raingarden comprising StormTech chambers, appropriate planting and filter media to treat the stormwater
 - Overflow pit with underground pipe connected to **200 kL underground storage facility** using StormTech chambers.

