





Grassed swale for car park



Stormwater inlets and 30kL tank

For supplementary technical information about this project go to [www.parramattariver.org.au](http://www.parramattariver.org.au)

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The water collected reaches an underground pump station that is connected to a 30kL above ground storage tank. This tops up the main 100kL above ground irrigation tank which is used for irrigation of the playing fields.

A sign has been installed to explain the stormwater treatment system and increase public awareness about the components of Water Sensitive Urban Design.

## Results & Outcomes

- The system aims to collect and reuse 2ML of stormwater runoff from the carpark, representing an estimated saving of over \$3,000 per year.
- By harvesting and reusing the stormwater, there has been a predicted 50% reduction in the reliance of potable water needed for irrigating the playing fields each year.
- Water quality modeling of the system indicates that it is working and predicts that it is capable of significantly reducing water pollutants flowing into the River: a 90% reduction of Nitrogen, a 95% reduction of Phosphorus and a 99% reduction of Total Suspended Solids (inorganic particles suspended in the water).
- The increased supply of (reused) water for irrigation has improved the quality and usability of the playing fields. The playing field surface has been enhanced by the regular watering. Reducing the dryness and hardness of the surface has in turn reduced the chance of injuries to the users.
- The construction work was mostly undertaken in-house by council's staff. This built capacity of the staff members and encouraged a sense of ownership of the project site.

## Lessons learnt

The car park component needed some redesign, as the original estimate for car park levelling proved to be too low. A more thorough design review before the start of construction would have helped ensure the maximum and most efficient collection of run-off water. This highlighted the importance of explicit specifications for contractors, to achieve the intended outcome and prevent budget overruns.