

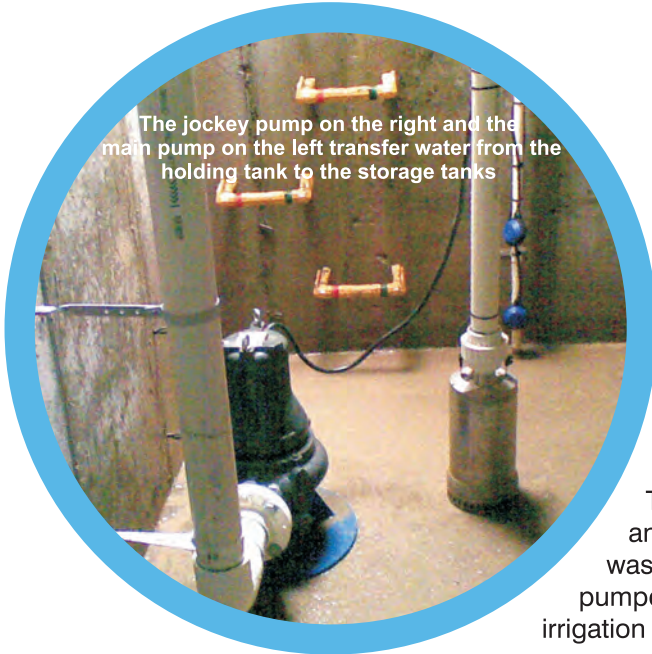
case study

COMMERCIAL STORMWATER RE-USE

Hornsby Shire Council

Greenway Park, Cherrybrook

Neil Keraunos, Water Cycle Project Manager, Phone: 02 9847 6752



The jockey pump on the right and the main pump on the left transfer water from the holding tank to the storage tanks

Clients Brief:

To design and install a pump and control system that will capture stormwater runoff, but work within the existing infrastructure which included; 400kL storage tanks, irrigation header tank, irrigation pump and the irrigation system which provides water for 3 ovals.

The Challenge:

The existing infrastructure and the geography of the land meant that an extra step in the process of supplying harvested water to the fields was required. The water was to be captured in an off-take tank and pumped up to the existing storage tanks before being used by the irrigation system via the irrigation header tank.

Our Solution:

We installed a 'Humes' Gross Pollutant Trap (GPT) which was placed within the existing storm water main. We then constructed a 5kL concrete off-take tank. This was gravity fed from the GPT. The off-take tank has two submersible pumps in it which pump to the storage tanks - a jockey pump and a main pump. Under base flow conditions the jockey pump operates most of the time. During peak flows the main pump keeps up with major inflows. Another submersible pump is housed in the storage tanks and supplies the stored water to the irrigation header tank on demand. The system is connected with metric poly pressure pipe. The three pumps are controlled by a custom designed control panel which logs and stores data on the system. A submersible pressure transducer monitors the level in the tank so the manager can see at a glance the available water.

Outcomes:

This installation will improve water quality down stream and potentially eliminate the reliance on town water for irrigation, saving over 3 000 000 litres per year.



The custom designed panel controls and monitors the system



watermaticirrigation
Leaders in Smart Water Management