



Purpose of installation

WJP Solutions have installed a storm water treatment plant at Melbourne Zoo. The plant processes water from the gravity storm-water system, to produce Class A recycled water for re-use within the Zoo for irrigation, wash-down and exhibit top-up.

WJP Solutions' role

WJP Solutions provided engineering design services prior to installing and commissioning the plant.

Technical specifications

The plant is designed to cope with two distinct inflows -

- dry weather flow of varying salinity (influenced by seal pool and backwash cycles)
- wet weather flow comprised predominantly of rainwater and surface run-off

Water enters a diversion pit and passes through a trap to remove debris, rubbish and other material which is collected for subsequent removal.

The cleaned water then passes through a pit designed to direct the dry weather flows directly into the raw water tank and wet weather flows into the tank via a 600 dia. drain, equipped with a penstock valve which can be used to control inflow of water during storm events.

System design capacity – 1,000,000 litres per day

Treatment process:

- Gross solids separator
- balance tank (Concrete in-situ)
- In line screening
- CMF-S Micro-filtration plant
- Pre R/O conditioning system
- Reverse Osmosis system
- UV System
- chlorine disinfection system
- treated water storage tank/s (Concrete in-situ)
- full PLC / SCADA automation system and BA interface

