



### Purpose of installation

Awarded a 5-Star Green Star rating, the Economics and Commerce Building at the University of Melbourne incorporates a number of innovative features into its design, making this unique building both environmentally friendly and technologically advanced.

Late in the construction phase it was decided that a blackwater treatment plant would be the best solution to wastewater recycling, also assisting in achieving the buildings 5-Star rating.

### Use for treated water

Treated water is produced and supplied in two continuous streams. The first stream, used for toilet flushing, treats water to Class A quality.

The second stream of product water is further treated by reverse osmosis (RO), producing desalinated water fit for use in the closed circuit cooling system.

### WJP Solutions' role

WJP Solutions was engaged as a specialist supplier working closely with the client to integrate a solution that best suited the needs of the university, providing engineering design, installation and commissioning of the plant, which it now also maintains.

### Technical specifications

Integrated in-building plant

System design capacity - 25,000 litres per day

### Principal elements of the treatment process:

- inlet / screening system (GSS)
- balance tank (FRP)
- bio-reactor aerobic tanks (FRP)
- membrane operating system (stainless-steel)
- chlorine disinfection system
- Other chemical dosing systems
- reverse osmosis
- treated water storage tank/s (Metal Panel tank)
- full PLC / SCADA automation system inc. remote monitoring and BA interface
- automated sludge removal system (to sewer)

