



# St Aloysius' College

ECS cutting edge design maximises water savings at St Aloysius' College

## CASE STUDY

## ST ALOYSIUS' COLLEGE

### NEW SOUTH WALES

The specialist water team at Energy Conservation Systems (ECS) has helped St Aloysius' College reduce the demand on potable water supply by investigating, designing and installing an extensive range of water conservation measures.

St Aloysius' College, one of Sydney's leading private schools appointed ECS to install a number of water conservation measures designed to reduce the demand on potable water supply.

The College is among a growing number of organisations who are recognising the importance of water conservation and their impact on the economic and social environment.

The long term sustainable water strategies implemented at St Aloysius' College include the installation of waterless urinals and reduction of water used through cooling towers and for trough flushing.

As part of the College's commitment to sustainability, a water monitoring program was also installed to assist in the early detection of leaks and to quantify water savings. The program enables the daily monitoring of water consumption in a number of high water use areas across the site.

### KEY OUTCOMES

WATER SAVINGS (KL)  
**1,300 KILOLITRES PER ANNUM**

OLYMPIC SWIMMING POOLS EQUIVALENT  
**APPROXIMATELY 1**

### KEY SOLUTIONS

- INSTALLATION OF WATERLESS URINALS
- OPTIMISATION OF WATER CONSUMPTION THROUGH COOLING TOWERS
- WATER MONITORING PROGRAM TO ASSIST IN EARLY LEAK DETECTION AND REPAIR AND QUANTIFY WATER SAVINGS
- FLOW REDUCTION THROUGH EFFICIENT TAPWARE



## Lessons & Outcomes

Significant water savings have been realised throughout St Aloysius' College with the implementation of an integrated water management system.

The College has reduced potable water consumption by over 20%

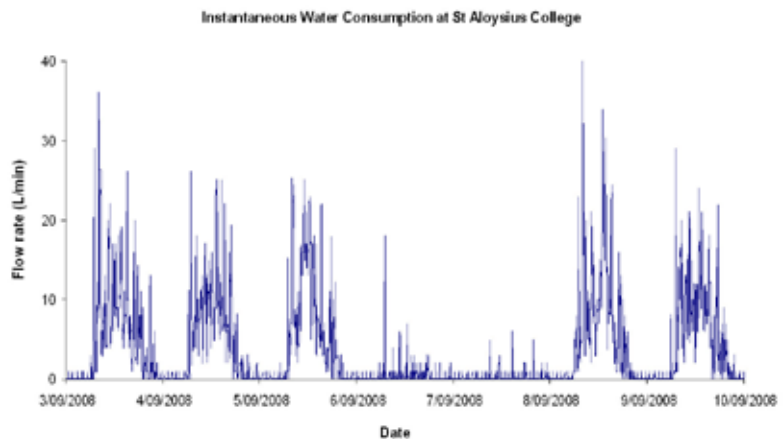


Figure 1 Instantaneous Water Consumption at St Aloysius' College over a 7day period.

### Water Conservation Measures

ECS installed a number of innovative water conservation measures at St Aloysius College to improve the College's sustainability for future water use. Taps in basins were retrofitted with flow regulators, while water inefficient urinals were replaced with waterless urinals. To prevent potential corrosion problems copper sewer pipes were replaced with PVC waste pipes.

Cooling towers were also optimised to enhance water efficiency. These features along with adjusting the performance of trough flushing have all contributed to the success of minimising water usage at St Aloysius College.

### Monitoring and Verification

ECS installed a Monitoring System on site to assist in early leak detection and monitor water consumption. Site water consumption is monitored in "real time" with an alarm being set to notify the College of any atypical water usage patterns on the site. Ongoing monitoring ensures a continuous focus on water consumption – a key factor in the College's water conservation strategy.

### Overall Savings

The implementation of an integrated water management system has allowed St Aloysius College to achieve substantial water savings. The college has saved over 20% of potable water.