

# Recycling Water for Onsite Training Purposes

## Client:

Confidential

## Keywords:

Water Treatment, Process Engineering, Mechanical Design, Control and Instrumentation, Cost Estimation.

## Background:

Single purpose use of water is an unsustainable practice with the growing concern of fresh water.

We helped our client develop a water treatment system so they could repurpose water for other uses, decreasing potable water demand.

## Challenge

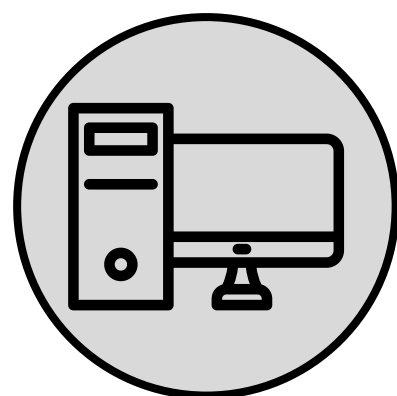
Water scarcity is a growing issue in Australia and Internationally with increased effects of climate change, global warming and human intervention reducing clean water resources. Our client had a similar issue with water supply and needed our assistance in developing a solution.



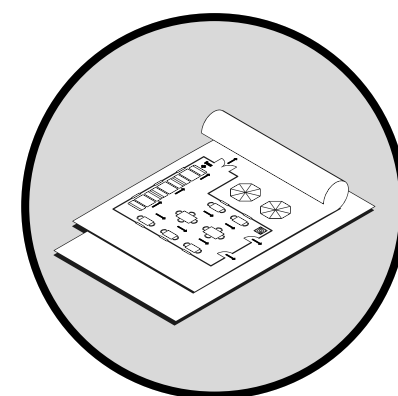
## What we did

We designed and constructed a water treatment system that they could use for recycling of water for training. The system incorporated recirculation pumps, an analysis circuit consisting of pH and free chlorine sensors, chlorine and acid dosing pumps and injection points and control and safety systems.

The control and safety systems were developed so they could be integrated into the onsite PLC system in the future with minimal interference. We manufactured and commissioned all components for the project with our extensive network of suppliers to keep the costs down and project on schedule.



Desktop Hydraulic Design



Mechanical Design and Drafting



Training of Operators and Technical Support

## Results

The process water treatment system we supplied, met the requirements of the client and exceeded all the onsite recycled water guidelines (Non-Potable Uses of Recycled Water Guidelines).

