

Brief: Happy Valley and Myponga Reservoir South Australia

Client: S.A. Water & CRCWQT

Storages: Happy Valley & Myponga Reservoirs

Location: Happy Valley is in South Adelaide, SA

Myponga is 54 kilometres south of Adelaide. Three pontoon mounted reservoir units were designed, constructed and installed, to suit the respective reservoir conditions, and research requirements for the Collaborative Research Commission for Water Quality & Treatment (CRCWQT). This research project, supported by the CRCWQT was intended to confirm and establish the link between the WEARS reservoir system and the efficient control of Cyanobacteria. The study was conducted over a period of three years with a further PhD study running concurrently to modify the DYRESM model to include the WEARS to down circulation system.



The aim of the research is to improve water quality and minimize the growth of algae by reducing surface heating, circulating the storage, and in particular pumping the high DO surface water down into the hypolimnetic region.

These impellers are designed to provide about 7,000 litres per second using only 4 kilowatts of electrical power, which is less than 10% of the power required for the traditional bubble plume aerator.