

CASE STUDY

MERRIDAN PUMPING STATION DOSING IMPROVEMENTS

PROJECT PROFILE

The Merredin pumping station delivers water to Merredin's town reticulation and various other extension lines.

Re-chloramination and pH adjustment is applied on the Merredin reservoir inlet, and the chlorine residual is adjusted on the reservoir outlet.

Improvements to the dosing control system were required to assist with the management of water quality and water quality incidents, such as monochloramine degradation, in the Goldfield's and Agricultural Water Supply (GAWs).

PRODUCTS HANDLED

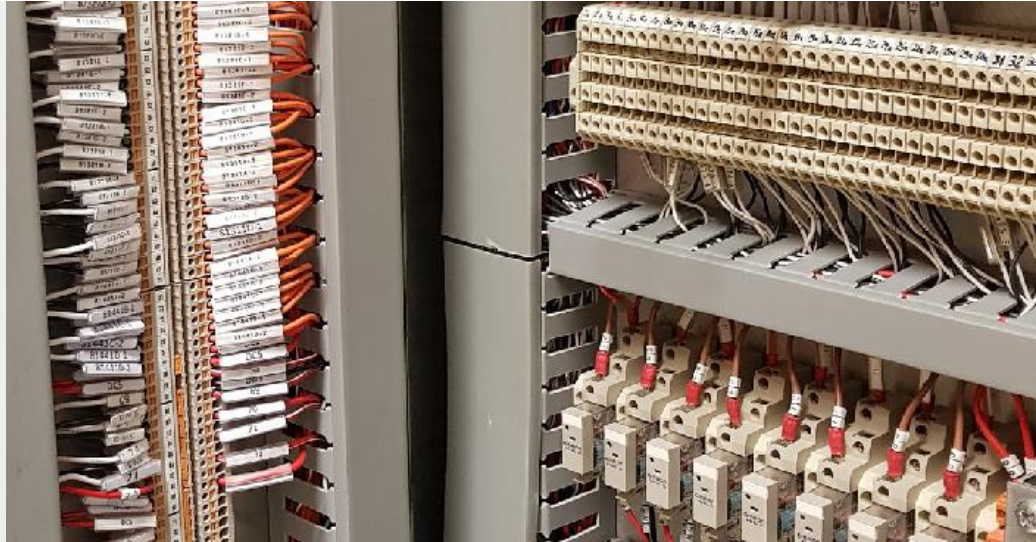
- Water

WATERCORP STANDARDS

- DS 42-03 - SCADA Radio Equipment and Installation
- DS 42-04 - Communications Power Supplies
- DS 80 - WCX CAD Standard
- DS 20 - Design Process for Electrical Works
- DS 24 - Electrical Drafting
- DS 26-09 - Type Specification for Low Voltage Switchboards - General Requirements

PRODUCTS USED

- Schneider Motion M580 PLC
- C-More OIP
- ChemScan Analysers
- Powerware 15kVA UPS



SCOPE OF WORKS

- Replacement of Two Hach Analysers with three (3) ChemScan Analysers
- Installation of a Pressure Transducer on the Chlorine Drum Vacuum Manifold
- Installation of Flow Switches
- Consolidation of Critical Power Loads to the existing 15kVA UPS
- Sample Output Return System
- Replacement of the existing Koyo 405 PLCs with a Modicon M580 PLC
- Replacement of GE QuickPanel OIPs with C-More OIPs
- Upgrade of software in PLC and SCADA screens

OUR INVOLVEMENT

- Site Audits
- Electrical design to Water Corporation Standards
- Replacement of existing Koyo PLCs with Schneider Electric Modicon M580 PLCs
- Upgrade of IO to latest Water Corporation Standards
- Switchboard modifications to suit new equipment
- Upgrade OIP's
- Installation of new Instrumentation
- Installation of new Fibre and Ethernet Communications
- Installation of new UPS Distribution Board and consolidating of critical loads to new UPS Distribution Board
- Installation of new MCC Feeder Module
- Onsite commissioning
- As Built Documentation