



Fact File

Myponga Water Treatment Plant SCADA and Control System Upgrade

Facts

- Upgrade completed May 2016.
- 6 Filter Panels.
- 8 Control Panels (Caustic, Alum, Fluoride, Polymer Dosing, Chlorine, Main Switchboard, Pot Perm, Filtered Water Pump Station).

Scope:

The Myponga Water Treatment Plant (WTP) is located 60 km's south of Adelaide. The plant was commissioned in 1993 and currently serves an area from McLaren Vale to Victor Harbor. The Myponga WTP is supplied with raw water from the Myponga Reservoir. Flow through the WTP is via gravity, with plant flow controlled by a two inlet valve.

Scope of works included the supply and installation of a new plant communications network at each plant area (Main Network, Filtered Water Pump Station and Dam Wall), In addition, work included the replacement and refurbishment of nominated existing electrical switchboards and modifications to wiring, installation of battery backed 24Vdc power supplies and new instrumentation, as well as the installation and termination of all required LV and ELV connections and power supplies.

Upgrade Control Room

- Existing Control Room was outdated and modifications were required to facilitate the new enclosures.
- Work included; demolishing existing mimic panel and reconstructing a new blank wall, installation of a new Control Panel and flat screen TV onto the blank wall, and re-wiring existing Raw and Demand Water Flow Selection and Simulation systems to the new panel.

Main Plant to Dam Wall Fibre Communications

- The existing multi-core communication cable from the Main Plant to the Dam Wall Dosing Building were replaced with a new 24 core fibre optic cable.
- The new fibre optic cable was run throughout the Main Plant on cable trays and outside in underground conduits, accessible via cable pits. The length of the run was approximately 1 km.

Modifications to Control Circuits and Control Panels

- For all existing equipment and systems where 230Vac control circuits were fed into the field as part of the process switch circuits, modifications to convert the field voltage to 24Vdc were undertaken.

Myponga Tank (EL278) Communication Link Upgrade

- A new outdoor control panel, battery box and solar array were installed at the Myponga Tank.
- Work included; removing existing EL278 Tank Panel from the tank, relocating and permanently mounting existing Two Tank Level Transmitters and ELPRO radio in the new panel, and ensuring all RF connections were correct.
- Decommission and remove existing Kingfisher RTU, re-align antenna on the top of the tank and install new solar array and battery system.

