



SCADA upgrade allows Bolivar plant to seamlessly move into future

Client SA Water

Project SCADA Upgrade

Location Bolivar, South Australia

Bolivar Wastewater Treatment Plant (WWTP) treats approximately 70% of metropolitan Adelaide's wastewater (approximately 150ML/d – 440ML/d during peak wet weather flows).

The original parts of the plant, such as the pumping and power stations and inlet works, were built approximately 45 years ago with much of the existing PLC/HMI/RTU equipment is either no longer supported by the manufacturer, or soon will be. As such, a comprehensive and staged upgrade of the SCADA, PLC and communications networks is ultimately required for the entire WWTP.

The brown field waste water treatment plant upgrade required a staged approach, which first began in November 2014.

SA Water program manager Shan Bala, *"The changing of the SCADA system has also made plant optimisation possible thus improving the process of the plant which goes a long way in terms of energy saving and long term business improvements."*



SAGE Automation has been contracted by SA Water to upgrade the site facilities based around a redundant ControlLogix platform for the Master PLC system, Hirschman RS40 switches for the networks and CompactLogix platform for the field PLCs.

Capabilities Demonstrated

- Turnkey Solution within tight project time lines
- Stakeholder and subcontractor management
- Estimation and cost planning
- Safety assessment and management
- Risk mitigation planning and management
- Environmental assessment
- Subcontractor management
- SCADA and PLC system design
- CAD drafting
- Low/medium voltage electrical design
- SCADA integration
- Control Panel manufacture/wiring
- HMI
- System Integration
- PLC networking
- Low/medium voltage electrical installation
- FAT and SAT testing
- Provision of final, as built, documentation, MAXIMO – Asset Management and maintenance

"SAGE were a valued partner from the inception of the project – they did risk assessments of various sections of the plant and were involved in assisting with the delivery strategy which was fundamental to getting the necessary approvals for the project."

Shan Bala, program manager, SA Water

Technology Utilised

- SCADA – Citect merging to iFix
- PLCs – Allen Bradley CompactLogix, Allen Bradley ControlLogix
- Network Protocols – Ethernet
- Prophecy Historian

Project Highlights

- Collaborative project between SA Water and SAGE
- No incidents of EPA reporting
- Project delivered on time and on budget



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