



City of Riverside, CA Water SCADA System

Client: City of Riverside Department of Public Works

Location: Riverside, CA



System Features

- DYNAC® SCADA Software •
- Redundant Servers •
- Spread Spectrum Ethernet Radios •
- Remote RTU's with Ethernet PLC's •
- Remote Access •



The City of Riverside's water supply begins as pure rain and snow, which is naturally filtered through the sand and gravel of the Bunker Hill and Riverside Basins in San Bernardino and Riverside, CA. This water settles in pools deep in the earth and is then tapped for domestic use by forty-nine wells operated by Riverside Public Utilities. The water system is comprised of two parts: the first part is the City water production, treatment, storage and distribution facilities while the second part includes Gage Canal Company (GCC) facilities.

Transdyn was selected to replace the City's existing Supervisory Control And Data Acquisition (SCADA) and tone telemetry system with a fully integrated SCADA and communication system encompassing both of the aforementioned parts.

The new SCADA system is comprised of DYNAC® SCADA software running on dual redundant servers with workstations and one RAS server communicating over an Ethernet LAN located at the City's Utilities Operations Center (UOC). Additional workstations at the GCC sites are connected to the LAN via leased ADN lines. The City has remote access to the system via the RAS server using notebook computers which communicate to the system by direct dialup phone lines or through a secure VNC connection.

The system communicates with eighty-four remote sites by IP/Ethernet connectivity 900MHz spread spectrum radios. The radios at the operations center and at multiple repeater sites are also installed in a dual redundant configuration. Each remote site is equipped with an Ethernet PLC/RTU that communicates back to the UOC via the IP/Ethernet spread spectrum radio system. The RTU's at the remote sites are used to control pumps, valves and other equipment and to report information such as water flow and pressure etc. back to the UOC.