## Forsyth County Shakerag WRF

## SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA)

The Shakerag Water Reclamation Facility is located in Suwanee, Georgia. The county constructed the plant to help the meet its growing need for increased sewer capacity in the southeast corner of Forsyth County. A new plant, construction included a headworks facility, biological basins, membrane tanks, operations and membrane equipment building, chemical facility, dewatering building, finished water facility and plant drain pump station.

PC Construction Company contracted with Southern Flow to provide the fully automated instrumentation and control system for the new wastewater treatment plant. The plant control network consists of a high speed fiber-optic ring connecting the IT rack to four Southern Flow provided PLC panels and various other vendor control panels. Each Southern Flow PLC panel is equipped with ControLogix PLCs, PanelView Plus OIT, fiber-optic ring switch, and other ancillary devices to make a complete control panel. Control strategy involves chemical pacing, closed loop flow and level control via VFDs or modulating valves, interfacing with a membrane filtration system. Other system monitored and/or controlled include motors, valves, plant analytical instrumentation. Plant flows and equipment runtime are monitored and recorded in a historical database. The plant HMI system is based on Intellution iFIX running on redundant server class computers with two clients. The system also includeds full reporting and remote web access for any internet enabled device.

Project: Forsyth County Shakerag Water Reclamation Facility

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Contractor: PC Construction Company, Inc.

Engineer: CH2M Hill, Inc.





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