

Project Description

An upstate South Carolina water district with a single water treatment plant rated for 2 million gallons per day (MGD) was experiencing demand increases which exceeded the SCDHEC maximum of 80% of capacity. The water district investigated the alternatives of either installing a water main to allow purchasing water from a neighboring water district or expanding the capacity of their existing water treatment plant.



Rogers & Callcott Services and Results

Plant Expansion Study – Rogers and Callcott was enlisted to study the feasibility of upgrading the existing water treatment plant to increase capacity to 3 MGD while a separate engineering firm studied the water main addition alternative. R&C evaluated existing facility configuration and source limitations to develop a workable concept for plant expansion, resulting in a Preliminary Engineering Report that was submitted for SCDHEC review. The concept report was approved and the District elected to pursue the plant expansion option.

Plant Expansion Design – Work included generating Plans and Specifications detailing all areas of new facilities work required to expand plant capacity sufficient for submittal to SCDHEC for construction permitting. Scope of work included modification of river pump station intake pumping facilities, new influent control, yard piping changes, new chemical feed and first stage flocculation facilities, replacement of existing flocculator mixers, addition of a second high-rate filter unit, control building expansion and appurtenances. Plant control upgrade design was coordinated with separate instrumentation/control vendor.

Regulatory Review Coordination – Submittal of Plans and Specifications for SCDHEC was accomplished, and coordination with review staff was performed to address agency comments. Efforts resulted in regulatory approval and issuance of a Permit to Construct.

Project Bid – R&C assembled bid packages and coordinated advertising for bidding the project. During the bid phase, R&C responded to bidder questions, conducted a pre-bid meeting and assisted in review of bids received. A recommendation of award was made to the District, resulting in Contractor selection.

Construction Phase – Construction services provided include review of shop drawings, construction observation and resolving issues/conflicts encountered by the Contractor in execution of the work. The completion of this project allows full function of the plant at 3.0 MGD with improved control, monitoring, and finished water quality.

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Cost: \$2.9M