

# Waycross Wastewater Treatment Plant Improvements Project

## City of Waycross, GA



*Constantine Engineering had 12 months to design, bid, and construct over \$3.5 million in improvements*

*Substantial completion of the project was achieved before the mandated EPD deadline; resulting in the City not having to pay a mandated EPD fine of \$75,000 .*

*Successful completion of this project also enabled the City to negotiate with EPD to eliminate more than \$2,000,000 in previously identified modifications to the project that were determined to be unnecessary.*

In the fall of 2003, Constantine Engineering began working with the City of Waycross, GA to evaluate the capability of the City's wastewater treatment plant to meet its rated design treatment capacity of 8 million gallons per day (mgd). Approximately 18 months earlier, the City completed construction of Phase I of a two phase improvements program designed to upgrade the existing 6.7 mgd trickling filter facility to meet new permit limits and to accept waste from a proposed poultry processing industry. The expansion included construction of new oxidation ditches, secondary clarifiers, and return activated sludge pumps. As of the fall of 2003, the new facilities had not been placed into service, and a number of issues and challenges were identified that impacted the implementation of the original facility plan and the startup of the expanded WWTP, including:

- The poultry industry abandon its plans to construct a new facility in Waycross.
- A number of construction and process related challenges were identified.

Constantine Engineering reviewed and evaluated existing and newly constructed major unit processes and identified challenges to meeting the facility's NPDES permit limits; developed alternative process treatment improvements to the existing unit processes and operating procedures to optimize performance, efficiency, and reliability to meet the NPDES permit limits.

We developed a plan to implement these recommendations and meet the Georgia EPD mandated deadline for completion of the Phase II improvements before the previously agreed to Consent Order date of March 1, 2005. This provided Constantine only 12 months to design, bid, contract, and construct and place into operation the required improvements.

Constantine designed and managed the construction of \$3.5 million dollars of improvements, including construction of a new 8 mgd effluent traveling bridge filter, a new 8 mgd RAS pump station, modifications to the RAS piping in the new clarifiers, construction of a new trickling filter effluent pump station, and other improvements.



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