

## City of Jefferson I-85 Wastewater Treatment Facility Expansion Jackson County, Georgia

### Services Provided:

Preliminary Planning  
Funding Procurement  
Design and Permitting  
Program Management  
Bid Phase Management  
Construction Observation  
Interagency Coordination

### Project Data:

Sludge removal and mechanical dewatering equipment  
Removal and disposal of approximately 370 dry tons of accumulated sludge from storage ponds  
Installation of four (4) new floating aerators, relocation of two existing aerators, installation of a pond baffle, and all related items.

Total Project Cost:  
\$710,000

Date of Completion:  
March 2019

### Contact:

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The City of Jefferson's I-85 Wastewater treatment facility was first constructed in 1988 and consisted of three land application spray fields, an aeration pond, and a holding/storage pond. The initial system served six sewer customers and was designed for .0287 MGD. Over time, the I-85 commercial and Industrial Corridor had expanded dramatically with over 120 businesses and industries served in the area. As this customer base grew, the influent characteristics of the water stream has strengthened as could be expected, and the hydraulic flow capacity was nearing the limits in 2017.

EMI was retained to analyze, plan, and organize a three-step process to economically expand the facility in an expedient manner. Moreover, the City had received industrial and commercial expansion plans from several firms in the corridor.

EMI performed an extensive wastewater characterization study and modeled the existing facility, followed by the preparation of a design development report and an environmental Information document as required by the Georgia EPD. IN addition, funding applications were prepared by EMI resulting in the award of a \$300,000 ARC grant and a \$410,000 low interest loan from GEFA.

Following approval of Construction Plans, three specific contracts were advertised, bid, and awarded and included- Excessive Sludge Removal and Disposal from the existing ponds; addition aeration, pond baffles and electrical upgrades, and expansion of one 10.2-acre sprayfield. The resultant project provided substantial improvements to the water quality effluent, which was actually far below permit limits. In addition, the treatment capacity permit was increased from 0.287 to 0.386 MGD, at a very economical cost of \$7.17 per gallon of capacity.