

## CASE STUDY

### Cornish Creek WTP—Newton County, GA — SuperPulsator®

#### Plant Specs

Install Date	1991
Equipment	6 units- SuperPulsator® Clarifier
Peak Flow	18 MGD
Average Flow	12.5 MGD



In 1991, Newton County installed six of the SuperPulsator® Sludge Blanket Clarifier units. They have been installed for almost 25 years and are still achieving amazing results. The SuperP was originally chosen for its small footprint as the high flow rate of this plant would have required many large sedimentation basins and flocculators. They regularly achieve pre-filter turbidities of below 0.2 NTU even when water is drawn from the river which has a much higher turbidity. Newton County uses these clarifiers to reduce their turbidity, Manganese, and TOC levels before filtration. Since powder-activated carbon is used, they can readily see the color variations in the sludge blanket during blow down, and make small adjustments in time and carbon amounts to maximize their results. Mr. James Brown, the Interim Water Resources Manager, says the only maintenance required on these systems has to do with the vacuum pumps and valves that periodically need to be maintained. As well, the units are taken out of service once per year for a cleaning that he says only takes about 4-5 hours to complete. According to Mr. Brown, *“There is no doubt that these units do a great job at clarifying and removal of TOC.”*

Turbidity	Average Monthly Raw NTU	Average Monthly NTU After SuperPulsator®
Drawing from River (3/2015)	12.11	0.08
Drawing from Lake (7/2015)	1.36	0.08

**As seen in the Table above, the turbidity of the water does not seem to affect the results of the SuperPulsator®. It can handle extremely high turbidities and still turn out water that is below state levels for Turbidity even before filtration.**