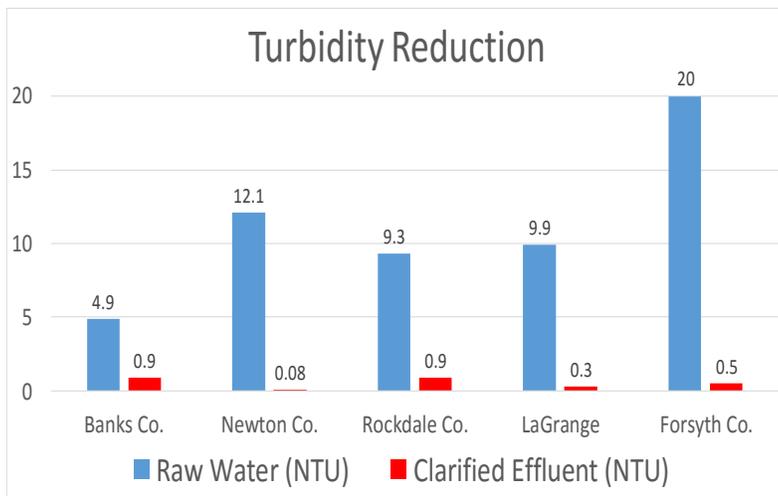


## GEORGIA SUPERPULSATOR® PERFORMANCE

*Unique capability to achieve greater TOC, taste and odor and turbidity reduction than conventional sedimentation basins*

*Less expensive on an overall, installed basis*



### What do the owners have to say?

*“There is no doubt that these units do a great job of clarifying and removal of TOC.”*

- James Brown, Interim Water Resources Manager, Newton County

*“There are no real major repairs.”*

- Keith Hester, Water Superintendent, LaGrange

*“I wouldn’t trade it for anything.”*

- Tim Check, Lead Operator, Rockdale County

*“It is easy to maintain the sludge blanket.”*

- Andrew Strickland, Plant Manager, Banks County

### Georgia Plant Specs

Location	Install Date	Plant Capacity	Contact Info
Banks County	1995—1 unit	22	Andrew Strickland -- (706) 778-3095— <a href="mailto:bcwater@co.banks.ga.us">bcwater@co.banks.ga.us</a>
Rockdale County	2002—2 units	13	Timothy Check — (770) 278-7477— <a href="mailto:tim.check@rockdalecounty.org">tim.check@rockdalecounty.org</a>
LaGrange	1992—1 unit	16	Brett Whaley — (706) 957-3857— <a href="mailto:bwhaley@lagrangega.org">bwhaley@lagrangega.org</a>
Newton County	1991—6 units	25	James Brown — (770) 784-2125— <a href="mailto:jabrown@co.newton.ga.us">jabrown@co.newton.ga.us</a>
Forsyth County		28	John Marshall—(678) 776-5611— <a href="mailto:JWMarshall@forsythco.com">JWMarshall@forsythco.com</a>

## Performance Advantages

Unique capability to achieve greater TOC, taste and odor and turbidity reduction than conventional sedimentation basins

Less expensive on an overall, installed basis

Ability to handle high raw solids (0 to 2000+ NTU)

Better use of powdered activated carbon

Low energy requirement (~1 HP per MGD)

No submerged moving parts

Integrated flocculation/clarification in one unit

Ability to add settling tubes for increased capacity at minimal expansion cost

Simple sludge evacuation, no moving sludge collectors

Very high net water production

## Technical Features

Flexible layout options

Simple construction

Four times smaller footprint than conventional sedimentation basins

Minimal or no polymer

Easily expanded

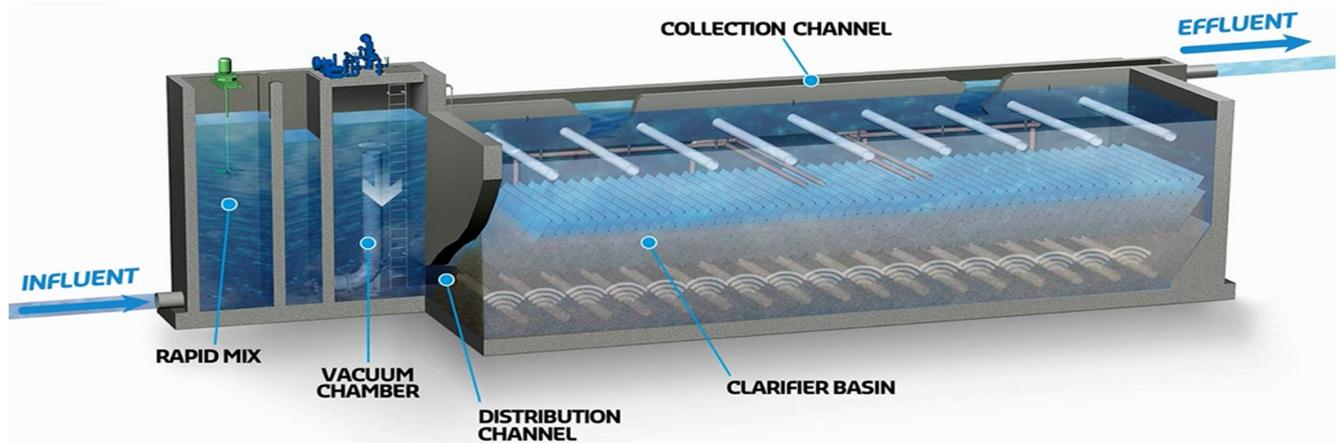
Retrofit existing sedimentation basins

Common-wall layout with our Greenleaf® Filter

## SUPERPULSATOR® - Process Description

Raw water, following rapid mixing and chemical addition, flows into a sealed vacuum chamber that controls flow into the basin distribution channel. The coagulated water flows to distribution laterals that are evenly spaced across the clarifier floor. An air blower creates a vacuum in the vacuum chamber and causes the water level to rise and fall or "pulse" on a prescribed cycle. A timer-actuated valve vents the vacuum chamber to atmosphere.

As the water level rises in the vacuum chamber ("vacuum applied"), the entire surface area of the sludge blanket is simultaneously compressed or is settling. As the water level falls in the vacuum chamber ("vacuum vented"), a pulse of water uniformly expands the entire surface area of the sludge blanket, which is comprised of previously formed solids.



The continuous pulsation contact within the blanket drives the flocculation reactions towards completion. The clarified effluent is collected in evenly spaced laterals that span the clarifier surface and connect to the effluent collection channel. Sludge concentrators, which also act as internal weirs, control the height of the sludge blanket and collect sludge. The concentrators are periodically emptied via sludge collection piping that is controlled by timed openings of sludge blowdown valves.