

## Darien, GA

### MUNICIPALITY OVERVIEW:

The municipality of Darien is located in McIntosh County, GA with a population of approximately 2,000 people and is located 50 miles south of Savannah. Darien has close to 20 waste water pump stations and has a wastewater treatment plant with a 0.6 MGD capacity. The municipality was experiencing consistent pump clogging issues at the Shoe Factory pump station. The Shoe Factory pump station was the most problematic station for the city as its traditional solids handling non clog pumps were clogging every couple of weeks.

### LIFT STATION DETAILS:

The Shoe Factory pump station is a duplex station with two 10 HP submersible solids handling non clog pumps. The station receives inflow from a nearby law enforcement facility and various motels, and discharges directly to the waste water treatment plant. Both pumps in the station were frequently clogging due to non-flushable solids including bedsheets, clothes, towels, deodorant bottles and shampoo bottles.

Clogs up to 3 feet in size were often found clogging the pumps. Solids loading was so severe that according to Wayne Johnson, Darien's Public Works Supervisor, "the well looked like a garbage dump and that a person can literally walk over the waste water". There were instances when both pumps in the station would clog and the city had to bypass the station completely. This persistent clogging problem required the city maintenance team to monitor the station continuously to keep the pumps running.

### INSTALLATION:

Darien worked with Pump & Process Equipment, Barnes' municipal distributor in Georgia, to install a 4" 10HP SITHE Chopper pump in the station in June 2018. The pump has not clogged since installation. The municipality is so impressed with the SITHE Chopper solution that they are planning to replace other problematic pump stations with SITHE Chopper pumps.

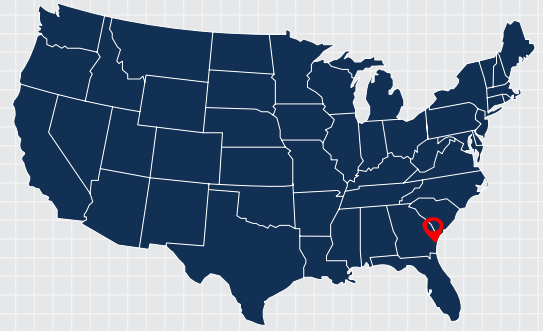
## KEY TAKEAWAYS

### PAIN POINTS:

- The pumps in Darien's Shoe Factory pump station were clogging every two weeks
- Non-flushable solids including bedsheets and deodorant bottles were clogging the pumps
- Sometimes, both pumps would clog at the same time requiring expensive bypasses

### SOLUTION:

- Darien installed a 4" 10HP Barnes SITHE Chopper pump in the station in June 2018
- The SITHE pump has not clogged once since installation
- Darien plans to replace other problematic pumps with SITHE Choppers in the future



**PUMP**  
Barnes SITHE Chopper



**OPERATIONAL IMPROVEMENT**  
Decreased Clogging & Bypass Costs



**MUNICIPALITY POPULATION**  
1,850



**INSTALL DATE**  
June 2018



SITHE  
installation

Solids that  
clogged  
the old  
non clog  
pumps in  
the station

