



*Advancing Water Treatment With  
Responsible Innovation™*

## **Case Study: Wastewater Lagoon – Extreme Sludge Accumulation**

### **INTRODUCTION:**

A wastewater lagoon system located in southern Alabama was originally designed to treat a flow of 500,000 gallons per day. The actual flow averages 350,000 gallons per day. The problem they were experiencing was high TSS in the effluent.

### **INVESTIGATION:**

One of the lagoons used for sludge storage measured 40' x 100' with a design depth of 7.5'. This lagoon had a varying sludge depth of 3–7' averaging 4.24'. The high sludge volume was causing "short circuiting" which allowed excessive TSS to pass through the plant.

### **IMPLEMENTATION:**

The cost of dredging the lagoon was prohibitive to the small town. A considerably less expensive solution was offered by United. United provided a specialized bacterial treatment program designed specifically to reduce sludge. The program utilized **United 890 Sludge Sharks** which release bacteria directly into the accumulated sludge.

### **RESULTS:**

The program was instituted in early July 2012. The sludge level prior to treatment was 7.5 feet. In October 2012, the sludge level was measured at 3.5 feet. The program provided an over 50% reduction in the sludge level in the 4 month time period.

### **CONCLUSION:**

Reducing sludge levels by 50% in only 4 months saved this municipality thousands of dollars of dredging cost in addition to the other problems associated with dredging such as transportation cost to haul away and odor problems that would have resulted from the dredging process. The United solution was quick, unnoticeable by the community, odor free and much less expensive. United Waste Water Technologies proved once again the value of their products to the Waste Water Treatment industry.



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