



# Case Study:

## **NORTHERN FLORIDA EXTENDED AERATION WASTEWATER TREATMENT FACILITY**

**Challenge:**

To determine if Enviro-Tech of America, Inc. and **PX-700®** could accomplish the following:

- Due to low flow, increase nutrients for the biomass in the facility
- Improve water quality parameters (ie: BOD & TSS)
- Improve the overall plant efficiency

Facility personnel were used to gather and maintain records for the appropriate data.

**Background Data:**

Facility Type: Extended Aeration  
 Design Flow: 0.019 million gallons per day  
 Current Flow: 0.006 million gallons per day

As an extended aeration facility, the low flow resulted in reduced nutrients for the biomass in the treatment facility.

**Treatment Procedure:**

Product Used: **PX-700®**  
 Treatment Period: 6 weeks  
 Injection Points: Basin influent  
 Amount of Product Used: 12 ounces per day for a dosage rate of 0.25 mg/L

**Results:**

|              | <u>Start</u> | <u>End</u> | <u>Reduction</u> |
|--------------|--------------|------------|------------------|
| Influent BOD | 220 mg/L     | 220 mg/L   |                  |
| Influent TSS | 220 mg/L     | 220 mg/L   |                  |
| Effluent BOD | 28 mg/L      | 2 mg/L     | 93%              |
| Effluent TSS | 30 mg/L      | 2 mg/L     | 93%              |

The improvement in the levels of effluent TSS and BOD discharged each day at the facility dropped 93%. The treatment process allowed the plant biomass to normalize and to be maintained during the low flow periods. The operators had been utilizing dog food supplements to stimulate biomass production during low flows, and they had utilized powdered sugar and molasses to maintain the biomass.