



**AQUA-AEROBIC SYSTEMS, INC.**  
A Metawater Company

# SUCCESS STORIES

**PLANT TYPE AND LOCATION**  
MUNICIPALITY IN NORTHEASTERN TEXAS

**DESIGN DAILY FLOW / PEAK FLOW**  
1.75 MGD / 5.25 MGD

**AQUA-AEROBIC SOLUTION**  
(9) 30 HP OxyStar® ASPIRATING AERATORS

## Texas Municipality Improves Operation and Treatment Capacity with OxyStar® Aspirating Aerators

A municipality in Northeastern Texas treated an average of 0.9 million gallons of wastewater per day, with a design flow of 1.75 million gallons per day and peak flows up to 5.25 million gallons per day, using their oxidation ditch process.

In 2014, the City was faced with an aging disc rotor aeration system that required excessive maintenance which led to poor treatment, increased repair expenses, and increased electricity consumption. In response, the City worked with their design engineer, The Brannon Corporation, to review several aeration technologies to upgrade the system before selecting the OxyStar® Aspirating Aerator.

In January of 2015, the City installed nine 30 HP OxyStar aspirating aerators in the oxidation ditch. Due to the floating nature of the OxyStar aspirating aerator, the equipment was installed without the need to drain the tank, modify the basin infrastructure, or interrupt the treatment process.

The OxyStar aspirating aerators have provided superior aeration and mixing, while requiring less maintenance than the existing brush style rotors. Plant personnel have reported improvement in the overall wastewater treatment process, with a noticeable increase in effluent dissolved oxygen levels to 3.0mg/L, an average effluent cBOD5 of 2.2mg/L, an average effluent TSS of 6.7mg/L, and an average effluent NH3 of 0.1mg/L.



(3) of the (9) OxyStar® Aspirating Aerators in Texas

### AVERAGE OPERATING DATA

LOADING	PERMIT EFFLUENT	FINAL EFFLUENT
cBOD mg/L	10	2.19
TSS mg/L	15	6.7
NH <sub>3</sub> mg/L	2	0.1