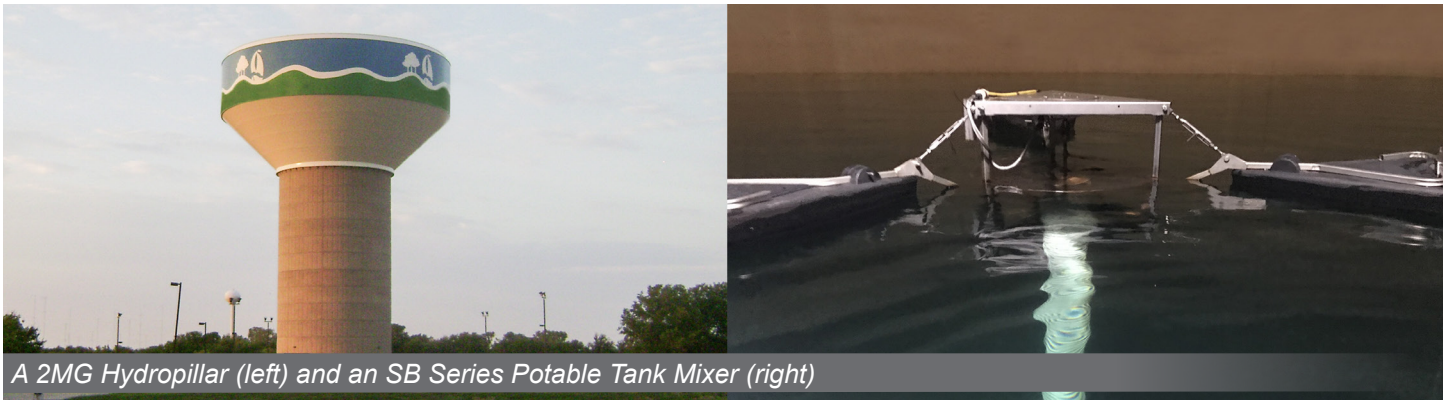
Medora Corporation

Case Study
USTXPW-747.001

Mixing A 2MG Hydropillar Potable Tank

Solving disinfectant residual problems and adding boosting capability.

Topics: SolarBee® SB Series, solar-powered, chloramine, disinfectant boosting



A 2MG Hydropillar (left) and an SB Series Potable Tank Mixer (right)

Location & Contact Information:
Further information may be available upon request. Please contact Medora Corporation by phone at 866-437-8076 or by e-mail, info@medoraco.com

System Overview: Serves ~38,000 City residents.

Disinfectant Type: Chloramine

Tank Build Information:
Tank Volume (gallons): 2,000,000
Tank Type: Hydropillar, welded steel
Total Tower Height (ft): 149
Tank Dimensions (ft): 54H X 98D

Pre-Deployment Conditions:
Loss of disinfectant residual. Previous mitigation strategies included adding chlorine, flushing, and a 16-inch circulation line (removed when the SolarBee® was deployed).

Project Objectives:
Maintain & stabilize disinfectant residuals. Reduce stratification & stagnation. Mix to create uniform water column and representative sampling.

Solution: One (1) SolarBee® SB Series Solar-Powered Potable Tank Mixer (2010).

Results: Tank water quality problems related to insufficient mixing have been resolved. The City is now has been able to maintain sufficient chlorine residuals at or above ~2.5 mg/L during the fill cycle and not less than 1.2 mg/L during the drain cycle.

Update: (2011) Added Fast Response Early Boost (FREB) chemical injection assembly to machine fluid intake. The City now has the capability to respond quickly if chlorine boosting ever becomes necessary; however, this has not been needed due to thorough tank mixing and stabilized disinfectant residuals.

The City is very happy with their Medora Corporation equipment and the sustainable water quality benefits obtained