

Medora Corporation

Active Mixing In A 7 Million Gallon Reservoir

Nitrification issues eliminated with use of solar powered mixing

Topics: potable, stratification, chloramine, nitrification, treatment savings



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: Reservoir #5 is part of a 20MG water storage system that includes Reservoirs #4 and #6.

Tank / Reservoir Build Information:

Tank Name: Reservoir #5
Tank Type: Below Ground Rectangular
Tank Size (gallons): 7,000,000
Width (ft.): 255
Height (ft.): 40
Length (ft.): 255

Disinfectant Type: Chloramine

Pre-Deployment Conditions: Poor circulation and uneven water age created water quality issues and significant nitrification following disinfection with chloramine. As a result, the City was unable to utilize approximately 15MG of their 20MG storage system, leaving them vulnerable to insufficient fire protection.

Project Objectives: Provide complete tank mixing to ensure uniform water age & prevent nitrification. Include chlorine injection capability to better manage chlorine residual.

Solution: One (1) SolarBee® SB Series Large Frame Mixer (September 2005)

Results: The operator reported they have not had any nitrification problems for the first time in 10 years! Complete mixing allowed them to reduce their disinfectant usage and they're now using their entire 20MG system. They are very satisfied with the all-round performance of their SolarBee® equipment.

Update (2007): Due to the success at Reservoir #5, additional SolarBees were purchased and deployed in Reservoir #4 and Reservoir #6.

Update (2018): Customer opted to upgrade their SB2500PW v12 unit to a new SB2500 v20 unit.