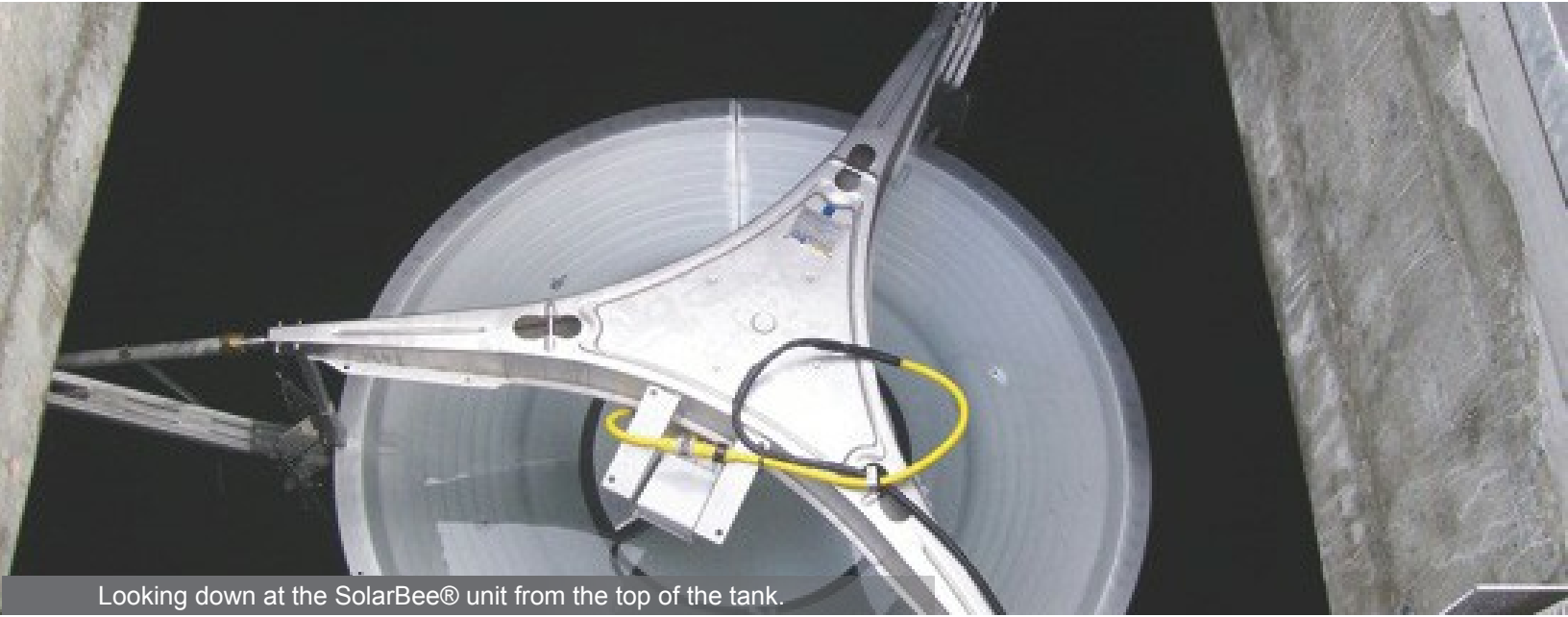


Medora Corporation

Potable Water District

USNVPW-LOC19.003

Topics: Potable, stratification/water age, short-circuiting, chlorine, treatment savings, economic savings



Looking down at the SolarBee® unit from the top of the tank.

Customer: Information is available upon request from Medora Corporation. 866-437-8076 info@medoraco.com

Overview: The original installation was in one of 30 underground water storage tanks used for potable water by the the Customer. This particular tank is a 24.5 MG underground reservoir that is divided in half internally by a barrier. Total dimensions of the reservoir are 3 acres in area and about 25 ft deep.

Conditions / Objectives: Objectives were to thoroughly mix the water in the tanks to eliminate thermal stratification, short-circuiting and stagnant water conditions, and to provide a uniform 2 to 3-day water age. The Customer tried some submersible high HP large banana-blade mixers and found them to have serious problems, including major failures and extensive maintenance requirements associated with corrosion through the motor housing and the gearbox.

Solution: Two (2) SolarBee SB10000PW mixers were deployed March 2004, one in each compartment of the tank. The significant success of these initial units installed

is documented in the results below. As their potable water systems have grown and their budget has allowed, The Customer has continued to add SolarBee® mixers every year to the point where they currently have over fifty (50) SolarBee® and GridBee mixers in their tanks ranging from 3MG to 27MG in size.

Results: The SolarBees significantly improved mixing and resolved the maintenance issues with corrosion. The Owner reported that improved mixing resulted in a significant reduction in the amount of chlorine needed for boosting, from about 1,000 down to about 200 gallons per month. Based on the performance of the two units tested, and comparing the SolarBee performance results to the other types of equipment tried in the past, the Customer is in the process of adding SolarBees to all their potable water storage tanks, as well as specifying SolarBees for all new and future tanks. They report that Medora Corporation has the best installation and safety procedures they have seen with any vendor. The Customer is also very pleased with the consistent, whole-tank mixing and the energy and economic savings achieved by using solar-powered circulators.