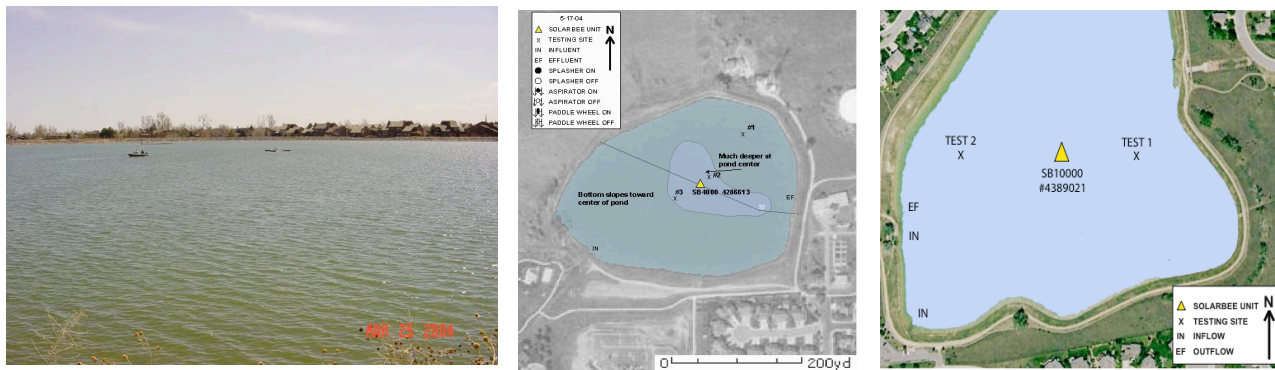


Key Words: RW reservoir, blue-green algae, taste and odor, short-circuiting, manganese, stagnation, chemical savings



Photos: First photo shows the SB4000 in the first reservoir; the second photo is an aerial photo of the first reservoir with SolarBee placement indicated; the third photo is an aerial photo of the second reservoir with SolarBee placement indicated.

Reservoir or Lake Use: Both reservoirs are raw water supply storage reservoirs for the city.

System Overview and Reservoir: The first reservoir covers 15 acres, with a maximum and mean depth of 22 feet and 14 feet, respectively. The second reservoir has a surface area of 33 acres, with a maximum depth of about 32 feet and an average depth of about 22 feet.

Reported Problem Before SolarBee Installation: The first reservoir reported problems with short-circuiting, algal blooms, excessive turbidity, and excessive manganese (Mn) concentrations. The second reservoir had a history of short-circuiting, stagnant water, and blue-green algae blooms that affected the quality of water entering the treatment plant.

SolarBee Installation: Date: April 2004, installed one (1) SB4000 with 24-hour kit in the first reservoir. April 2005, installed one (1) SB10000F unit in the second reservoir.

Results: Within a couple of months of installing the SolarBee in the first reservoir, the Mn concentrations dropped from 0.05 mg/L to 0.005 mg/L, and since then Mn has no longer been an issue. Also, the overall water quality and clarity have improved, and algae blooms have been controlled. Because of the good results in the first reservoir, the city purchased an additional SolarBee for the second reservoir in the spring of 2005. Since then, blue-green algae blooms have been eliminated from both reservoirs so that the city has not had to add chemicals and it has been easier to treat the water. The city is very happy with the SolarBees and the good water quality they have provided.

Last updated: 4-20-07