

Hurricane Aquatics, LLC

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I5746 E-1

Lake Maintenance Service Report

ACCOUNT: Viewpoint Lake, Sun City Recreation
10626 West Thunderbird Blvd, Sun City, AZ 85351

TO: Brian Duthu

FROM: Janet Scheffman / 950158

DATE: Week of 10 June 2024

FAX #: (623) 876-8341

The water levels remain at normal full levels after the lake was refilled in November (2023) and down from last week.

All four of the fountains are operational as of April; 103rd Av, Bayside, Cameo Bridge and the Rec Center. Cameo Bridge fountain is running but the nozzle is getting clogged.

Average surface temp: 83.2 F
Average bottom temp: 82.5 F
Salinity: 0.2 ppt
Dissolved oxygen: 5.51 mg/L (surface) / 5.30 (bottom)
Secchi: 5 feet 08 inches
pH: 8.2
Current water levels: +1.5

With the extreme summer heat here now the water temperatures will stay more stable over the next few months. It remains very hot but the weather is consistent, so water temperatures are as well. There has been no monsoon action and no wind movement, so the lake is more stratified and oxygen levels are lower. Water movement and wind action can help to increase oxygen levels in the water column.

The average lake clarity remains high, especially for the warmer months. There is some planktonic algae in the water column which give the lake a green tint but the coloration is appreciably improved after the dye applications last week. The lake is now clear with a blue/black tint.

I recommended prior to the dry up and strongly recommend again now the installation of an aeration system. Viewpoint is one of the few (or maybe the only) lake of its size that does not have an aeration system. There was an aeration system many years ago but it consisted of just 3 small compressors and 3 diffuser heads and it made no difference at all so when the compressors broke down they were not repaired.

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In the summer months the oxygen levels are always much lower than in the cooler months and the fish can be stressed and die from lack of oxygen. When I check the water chemistry and oxygen levels it is the heat of the day with hours of sunlight and photosynthesis, so the oxygen levels are at their highest levels. Fish kills usually occur when the oxygen levels crash at night (usually just before sunrise). The algae biomass in the water column or the lake bottom are using oxygen for decomposition and not creating oxygen and there has been hours of no sunlight so no photosynthesis. An effective aeration system keeps the water column mixed top to bottom and helps keep the oxygen levels consistent and aids in decomposition of materials on the lake bottom.

The planktonic growth in the water column has reduced the clarity slightly since last month but close to 6 feet of clarity in the summer months is unusual for most valley lakes.

The past 3-4 weeks there has been bottom algae growth that is floating to the surface in the daylight hours. This type of algae is only very marginally controlled with algaecide, so the lake was treated with 45 gallons of lake dye last week.

There were still some bottom algae floating up (in the same places as before) but a reduction of 60-70%. The Cameo cove and the Bayside cove have the bad luck of the wind pushing most of the bottom algae (and most of the trash) into those two areas.

The mats of filamentous algae that were treated earlier last month has died back.

The waterfall is running normally as is the fountain and aeration in the lagoon area.

Periodic treatments (usually 1-2 times a month) with algaecide are in the warmer months on the ramp are done as a safety precaution.

No waterfowl mortality seen.

I am seeing some bass in the lake so they survived in the lagoon over the dry up and have now moved into the main lake body.

Warning: X

Pesticides can be hazardous. Please keep children and pets away until applications are dry, dissipated, or aerated. For additional information contact Hurricane Aquatics (license # 5746) at (602) 619-8492.