Hurricane Aquatics, LLC

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Lake Maintenance Service Report

ACCOUNT:	Viewpoint Lake, Sun City Recreation
	10626 West Thunderbird Blvd, Sun City, AZ 85351
TO:	Barry Masloff
FROM:	Janet Scheffman / 950158
DATE:	Week of 29 January 2024
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The water levels remain at normal full levels after the lake was refilled in November (2023) and down slightly from last week.

With the coolest months of the year the rate of evaporation is much lower than the warmer months but with the recent (early warmup) the evaporation rate is increasing.

There were no floats currently on the Rec Center fountain, just the water line. The other fountains have floats and 2/3 are running (Cameo and 103rd Steet are running) and Bayside was not.

Average surface temp: 56.5 F Average bottom temp: 55.9 F Salinity: 0.2 ppt Dissolved oxygen: 7.88 (surface) / 7.01 mg/ L (bottom) Secchi: clarity to the lake bottom / pH: 8.2 Current water levels: +4.00

The lake still has clarity to the bottom and there is some slight bottom algae growth on the lake bottom. None of the bottom algae is floating on the surface so no treatments are currently needed. Bottom algae is not an issue until there is enough to start floating and then it forms thick mats on the surface. This is the most difficult algae to chemically control so the best way to keep it in check is with carp in the lake.

There is a slight green tint to the water from planktonic algae growth, but overall algae biomass remains very low and the lake still has visibility to the bottom sediments.

There was a resident complaint of a smell from the lake but nothing that I noticed when on site and there were no dead fish or algae mats to cause a foul smell.

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No fish mortality seen, or waterfowl losses seen.

The waterfall pump was off again this week and there is trimming and other structural work going on and around the lagoon. Having the waterfall off and no water flowing into the lake from the lagoon does not affect the lake conditions because the lake is so large.

Based on lake conditions and weather conditions my immediate concern for water quality issues in the upcoming weeks is bottom algae and midge flies.

The bottom algae thrive in clear water because of the sunlight that reaches the lake bottom and with longer days and warming temperatures the algae have ideal conditions for growth.

Midge flies may be worse this year (in all the valley lakes) because of a mild (and short) winter and now temperatures close to 80 while still in January. Midges usually hatch out in the spring (Late February or early March) but with the current condition they could hatch out earlier.

Midge flies can be treated with larvicide but the most effective (and cost effective) preventative measure is the use of goldfish. Goldfish do very well in the hot climate and grow quickly and they are effective at controlling midge fly and mosquito larvae and also are a forage fish for larger predator fish.

Some of the usual winter waterfowl such as Canadian geese have moved over the past weeks as the lake has filled back on. The population numbers of seasonal waterfowl remain low (around 45 - 50) and that is lower than most larger lakes.