

# 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 08 April 2024  
**FAX #:** (623) 876-8341

The water levels remain at normal full levels after the lake was refilled in November (2023) and no change from last week.

All four of the fountains are now installed and operational; 103<sup>rd</sup> Av, Bayside, Cameo Bridge and the Rec Center.

Average surface temp: 68.8 F  
Average bottom temp: 68.2 F  
Salinity: 0.2 ppt  
Dissolved oxygen: 7.15 mg/L (surface) / 6.31 mg/ L (bottom)  
Secchi: 6 feet 0 inches  
pH: 8.2  
Current water levels: +2.0

It was an unusually cool and rainy March, so water temperatures have remained lower than in previous years, but the water temperatures will likely be in the 70s next week.

The lake clarity was slightly reduced from last month; some from turbidity after the last rainfall and some from planktonic algae in the water column but there was improved clarity this week.

No new growth of filamentous algae seen this week and no floating bottom algae seen. There was an increase in bottom algae growth on the lake bottom and that is one of the reasons for the addition of white amur.

There was some foam / scum in the lake where the lagoon runs into the main lake last week, but none was seen after the treatment last week.

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No fish mortality seen but the oxygen levels and water temperatures are stressful for the trout but it is likely they have been fished out.

I removed one dead bird that was floating on the lake (it was decomposed but it was not a duck or coot)

The waterfall pump was turned back in March and was running today. The volume of water over the falls then over the streams into the main lake seem lower (less volume and slower flow rate) than before the lake was drained.

The fountain and the aeration in the lagoon are running normally.

Some of the usual winter waterfowl such as Canadian geese moved in when the lake was refilled. The population numbers of seasonal waterfowl remain low (around 45 - 50) and that is lower than most larger lakes. The few coots seen around the lake will migrate out over the next few weeks.

There were some midge flies seen around the lagoon area like last week, but some were seen in the main lake as well so the population have increased.

The delivery of the white amur (grass carp) and goldfish was done on Thursday (April 11<sup>th</sup>) afternoon. A total of 1320 amur and 85,000 goldfish were stocked. The amur all looked healthy with only fish having a small wound near its head and none showed indications of stress when put into the lake. They all swam away within minutes of being transferred into the lake.

There were no issues seen with the goldfish, after stocking only 2-3 fish were found dead on the boat ramp and the other fish swam off into the lake.

Because there were no fish in the lake (for biological control) after the lake was refilled a medium to heavy stocking was done initially to build up numbers.

Viewpoint is a larger lake with very clear water, often with clarity over 6 feet. Because of this the threat of bottom algae, filamentous algae and aquatic weed infestation is high. The treatment of algae and weeds in such a large lake is cost prohibitive and using fish to mitigate the risk is much more cost effective. In addition, it is clearly better to try to prevent weed and algae issues instead of trying to control them chemically later. The white amur are proven to be effective in control of weeds, bottom algae and filamentous algae growth.

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The goldfish are stocked to control aquatic insects like midge flies and mosquitoes. The goldfish are also an excellent forage fish if sport fish like bass are added later. The goldfish eat the larval stages of the insects before they can hatch out and help prevent large clouds of insects coming from the lake. Viewpoint has many homes directly on the lake and an infestation of midges would swarm into the back yards and boat docks.

Goldfish are a favorite (easy) snack of predator birds (like heron and cormorants) because of their coloration so enough fish are added to compensate for loss due to predation.

The grass carp (white amur) added to the lake are large enough to have more protection from predator birds but small enough to be efficient consumers of algae and weeds.

Goldfish and amur have been used very successfully in valley lakes for decades; they do well in the water chemistry and hot weather common in this area.