

MIROMAR LAKES
COMMUNITY DEVELOPMENT DISTRICT

Monthly Asset Manager's Report
November 2024

Prepared For:

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Prepared By:



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A SAFEbuilt® COMPANY

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**MIROMAR LAKES
COMMUNITY DEVELOPMENT DISTRICT**

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**MIROMAR LAKES
COMMUNITY DEVELOPMENT DISTRICT**

I. PURPOSE

The purpose of this report is to provide the District Manager with an update on recent inspection-related activities. We will continue to provide updated monthly inspection reports on the status of ongoing field activities.

II. CURRENT ASSET UPDATES

1. Lake Maintenance
2. Landscaping – Retention Area and Vegetative Buffer
3. Fishery
4. Storm System Management
5. Cane Toad Program
6. Corrective Actions

1. Lake Maintenance

- Lake 6D aeration system hasn't been operation properly recently and that is due to the cabinet where the motor and other operating parts are located had been submerged due to the recent storm activity. Causing rusting and corrosion, new cabinets have been ordered.
- Lakes 1A, 6B/6C and 6G are all receiving new motors due to aging of the equipment, and not performing properly.
- Torpedo Grass, Thalia, alligator weed, bacopa, water sprite and other invasive weeds were treated this month in lakes #1A, 1B, 1C, 2A, 3A, 3B, 3C, 6A, 6G, 6k, 6L, 6M, 6N, 6O, 6P, preserve side (Esplanade border) of lake 5/6 and the canal between Vivaldi and Isola Bella peninsula.
- Surface algae was treated successfully in lake #6L. Planktonic algae was treated in 6R. Lake dye was added to both these lakes for algae control and to improve aesthetics.
- Submerged aquatic vegetation (Southern Naiad/Hydrilla) was treated in the canal between Vivaldi and the Isola Bella peninsula. Treatment will be monitored to determine effectiveness. Follow up treatment may be needed.
- Water levels were still above average for this time of year.
- New cabinets were ordered for lakes 6D and 6E, which are rusted and been submerged due to recent hurricane activity. Lakes 1A, 6B/6C, and 6G are all receiving new motors due to aging and not performing properly.



Rip Rap repair completed after hurricane Milton



Cabinet on lake 6D



Landscape retention area that has dried up and needs required enhancements

2. Landscaping - Retention Area and Vegetative Buffer

- With heavy rainfall and Hurricane Milton from the previous month, the areas have dried up from not having as much rainfall.
- Wetland areas on Isola Bella bridge have been well maintained thus far. During frequent site visits during the month, there has been no debris, or overgrowth in any of the vegetation. Asset Manager will visit more frequently after Hurricane Milton to make sure everything is in proper standing.
- Retention areas in Lugano, south of Verona Lago Dr, and south of Visconti Cir are being maintained properly. Frequent site visits have shown no debris lingering in the area. The areas were trimmed this month to keep from overgrowth.

3. Fishery

- Asset manager is working on procuring proposal from various vendors. The first is for Grass Carp. The vendor have modeled out the existing Grass Carp population to be approximately 470 carp in the lake currently. Based on the November vegetation growth, the vegetation has expanded at least 20-30 acres in the past few months. Based on this new growth/expansion data, the vendor strongly encourage stocking another 300, 12-14 inch Grass Carp, bringing the population up to approximately 770. This is still a conservative number Grass Carp based on the existing vegetation growth (less than 7 carp per vegetative acre) and does not risk overstocking/eradicating all vegetation, yet should help to slow the vegetation growth/expansion.
- The second thing that will be formally proposed this week from the vendor is a plan to better

map the vegetation growth (as outlined in last month's update). Having a better idea on vegetation growth and the changes will be critical to making correct/accurate decisions. Vegetation currently growing in water greater than six feet deep is hard monitor/stay ahead of. The goal is to map the vegetation asap and use that data to inform the remaining fiscal years Fisheries/Lake Management budget.

- Vegetation Management Update: The vendor is working to treat or remove a fair amount of aquatic vegetation in the month of December. This will help hold back some of the vegetation growth/expansion, but overall, the growth is greater than desired and runs the risk of continuing to expand, which is the primary reason why to stock additional Grass Carp.

4. Storm System Management

- Due to this year's recent and very active hurricane season, Miramar Lakes community saw an extreme amount of rain and wind activity. This prompted the CDD to move forward with a proactive approach and inspect all inlets, drainage pipes, and outfalls throughout the CDD owned and maintained drainage system to determine the systems overall condition. See attached map and inspection report for reference. It is recommended to inspect and clean system inlets and pipes at least every 3 years. Our previous program was designed to clean and inspect the drainage system in 3 phases to allow us to comply with the 3-year recommendation with a constant annual budget. Three hurricane events in one year has impacted the existing drainage system leaving significant sediment in the pipes and inlet structures. The average rainfall for Lee County is 53", and as of November 17th, we have already experienced over 61" during only the months of July through November. This has caused the system to be over-worked. We are recommending a system wide initial cleaning to address a majority of the outstanding maintenance issues. In addition to the cleaning, we are also recommending additional inspection and maintenance to keep the system functioning as originally permitted.

5. Cane Toad Program

- There has been a significant drop in numbers towards the end of the month and will continue with temps dropping below 60s. Traps were fairly successful since they are packing in to avoid the cold. 193 removed this month.
- 11/1 - 5 hours - Bellini Lake 6L - Many tadpoles and small toads removed. 32 removed from traps.
- 11/7- 4 hours - Bella Mare Lake 6J - baby toads sprayed.
- 11/8 - 4 Hours - Lakes 6k Castelli & 6H Montebello - baby toad removal. Removed a few adult males. 49 removed from traps this week.
- 11/14- 3 Hours - Lakes 6k Castelli & 6H Montebello - Tadpoles and baby toad removal.
- 11/15 - 4 Hours - Lakes 6F & 6E Siena - small toads sprayed and late-stage tadpole removal. 61 toads removed in traps

- 11/21- 3 Hours - Lake 6b main gate (owner had me remove a toad from a bucket & Lake 6C Montelago - late-stage tadpoles removed. Most dying from cold. Baby toads sprayed.
- 11/22 - 4 hours - Lake Bellini - Adult toads removed from roadside bushes. 51 removed from trap boxes this week.
- Tad pole/baby toad removal and larvae- tadpoles/larvae present will be skimmed and removed. Once skimmed, baby toads will be sprayed with all-natural solution and removed.

6. Corrective Actions

- Spike rush, grasses, and other invasive weeds are routinely observed along lake shorelines and within littoral areas. Although aquatic vendor has been administering treatment regularly, overgrowth needs to continue to be properly managed.
- Washouts near FGCU, Asset Manager spoke with engineer, working on plans for repair options.
- Water levels will begin to subside, Asset Manager will have extra attention to lake banks to check for erosion and wash outs as they can become more visible.
- Asset Manager seeking a proposal for the FY25 lake bank restoration.
- The asset manager had notice apple snail eggs along the boating docks and will notify aquatic vendor to spray them.

