

# **MIROMAR LAKES COMMUNITY DEVELOPMENT DISTRICT**

**Monthly Asset Manager's Report  
December 2023**

Prepared For:  
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**District Manager**

Prepared By:



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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. Fishery
3. Corrective Actions

## ***1. Lake Maintenance***

- Treated grasses, brushes, and invasive weeds along the southern shoreline of lakes 1B, 6D, 6B, 6C, 6E, 6I, 6K, 6M, 6N, 6O, 6R, 3D, 3E, and the Isola Bella peninsulas. Lake 6I was also treated for cattails and floating aquatic vegetation (giant duckweed).
- After sampling lake 3D and properly identifying the type of algae, the vendor was able to determine what type of treatment was needed to mitigate the bloom. Treatment was determined to be effective, and the overall aesthetic of the lake has improved. Lake dye and bioaugmentation (bacteria) was added as a precautionary measure to prevent future algae blooms. Lake 6R received lake dye for algae control.
- New growth of submersed vegetation (hydrilla) was observed and treated at the beach club cabanas. Treatment appeared to be effective. This area will continue to be monitored and any new growth will be treated as needed. Dead floating vegetation was netted out along the sea wall of the peninsula marina.
- Due to high winds on 12/15 our regular scheduled service (20-30mph), a thorough site inspection was done on all lakes. Emergent aquatic vegetation (Bladderwort) in lake 6K was hand pulled during this visit and more floating dead submersed vegetation was physically removed from the peninsula marina.
- Water levels were normal but have risen slightly due to recent rain.

## ***2. Fishery***

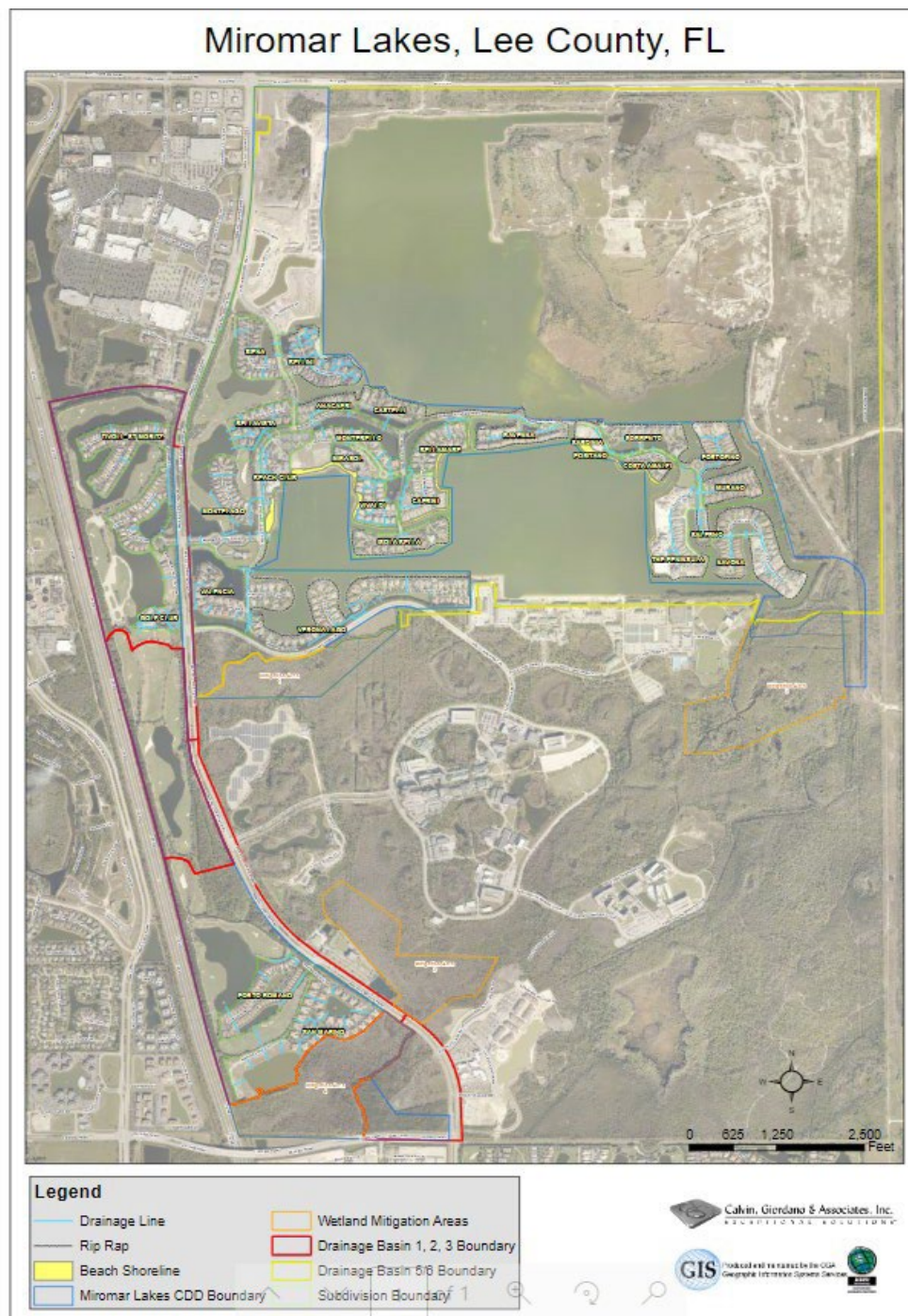
- Overall, the lake is trending in a positive direction. A balance of patience, active management and good communication are necessary over the next few years as the lake continues to shift back towards a favorable state.
- The recently installed emergent vegetation has done well over the past year and is currently filling in and maturing. The best approach (at this time) for these shallow water emergent species is to let them continue to grow and establish on their own rather than adding more. The reason for this is because they have been planted in most of the areas where they can grow and will be tolerated. Adding more to the existing areas will increase their overall footprint by less than one acre, and it does not justify spending \$40,000 or more to establish such a small area that may fill in naturally. In another 12 months we can revisit this action and verify if this decision should be reconsidered.
- There are still 20-25 acres of open water less than 5 feet deep along the west, southwest and south side of the preserve that would serve as an ideal area for fragrant white-water lilies to establish. The reason for this species of plant is because it can grow in deeper water than the other emergent plants that have been installed, and because Grass Carp will not attack it once it matures. These 25 acres of water teamed with the other 10+ acres of shallow-water emergent species will provide 33-50% of the vegetative cover needed to maintain a healthy ecosystem. The key here is that these vegetation species are easy to control with herbicides, and Grass Carp do not eat them.

- Based on the rapid establishment of the submersed vegetation throughout the lake, the vendor is recommending electrofishing the lake this January to better understand how the fishery has responded to the improvement in habitat. Following electrofishing in January, we would be in a position to verify the need for, as well as prioritize next steps related to improving fish cover, reducing undesired fish species, stocking key fish species that are currently lacking (Bluegill and Redear Sunfish), etc.
- Other items for consideration in 2024 are to make longer-term improvements to the outflow weir barrier, possibly increase vegetation monitoring efforts to ensure fast growing plants are treated prior to becoming problematic (reducing the number of complaints as well as reducing the risk of blue-green algae blooms), and possibly stocking a low number of Grass Carp (approximately 150 fish) to help keep submersed vegetation species in check. Also, CDD staff will check artificial reef pricing and installation locations.

### 3. *Corrective Actions*

- The riprap vendor has completed the installation in Ravenna and is currently working on bank sod restoration.
- The aquatic vendor needs to stay on top of floating weeds and vegetation.

### III. LOCATION MAP



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#### IV. DISTRICT ASSET MANAGERS PHOTOS



Rip Rap restoration in Ravenna.



Rip Rap restoration in Ravenna.



Rip Rap restoration in Ravenna.



Rip Rap restoration in Ravenna.





Rip Rap restoration in Ravenna.



Rip Rap restoration in Ravenna.