

Staff Directory

Keith Andreu, Aquatic Technician
William Colon, Aquatic Technician
Jason Cull, Operations Manager
Jeremy Ford, Aquatic Technician
Dr. David Hoel, Executive Director
Dr. Ernesto Lasso de la Vega, Water Quality Laboratory Manager
Colin Lewis, Aquatic Biologist
Lee Martin, Aquatic Biologist
Kevin Watts, Deputy Director

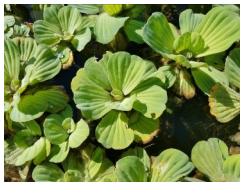


Top Ten Plant Species Treated
In 2022
(acres treated)

- 1. Spatterdock 457
- 2. Muskgrass 51
- 3. Water Lettuce 38
- 4. Tapegrass 38
- 5. Cattail 27
- 6. Torpedograss 24
- 7. Water Pennywort 16
- 8. Spike Rush 15
- 9. Water Hyacinth 11
- 10. Illinois Pondweed 7



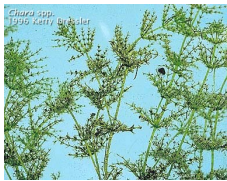
Spatterdock



Water Lettuce



Water Hyacinth



Muskgrass

Public Outreach

The Pond Watch Program joined efforts with the educational program Watershed Education Training Ponds, Lakes and Neighborhoods (WETPLAN) with a series of online webinars that provide information about managing stormwater ponds and water quality issues. The website WETPLAN.org is the central location to all the material generated by this alliance, such as: recorded webinars, educational videos and information provided by Pond Watch volunteers who have experience with topics ranging from littoral planting, aerators, erosion and water quality. Two communities were selected in the first Lee County’s Pond Competition as recipients of acknowledgement for the best pond in the county and the pond in need for a “make-over.” This was established to promote awareness within a community competition improving the function and value of the environment in their neighborhood.

Another outreach event was a collaborative workshop with the Florida Lake Management Society. The venue was part of the Society’s Annual Symposium held at the Coconut Regency Hotel in August, 2022. This event was attended by more than 60 representatives of communities in Southwest Florida ranging from Sarasota to Collier County. Topics of discussion included blue-green algae, erosion control, water quality and exotic frogs. All these events are evidence that Southwest Florida counties are in need of educational venues and expertise in management of stormwater ponds where local citizens can acquire this information. The District has provided this service for many years and will continue to help these programs as needed.

LCHCD staff administer support for university students who seek practical experience in their education. To date, 25 students have participated in our laboratory and field internship. Many of the students have applied for jobs referencing this part of their education and have been hired with no hesitation.



LCHCD student interns and part-time laboratory technicians who have participated in our program throughout the years.

2022 ANNUAL REPORT

Lee County Hyacinth Control District

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Executive Director
Dr. David Hoel

2022 ANNUAL REPORT

Lee County Hyacinth Control District
15191 Homestead Road
Lehigh Acres, FL 33971

Phone: 239-694-2174

WWW.LCHCD.ORG



Lee County Hyacinth Control District staff attending the 46th Annual Aquatic Short Course in Orlando, Florida this year. The 3-day course is designed to benefit those new to the industry with basic fundamentals and also experienced professionals seeking new strategies to their management programs.



Keith Andreu was nominated and selected for the prestigious award of “Plant Manager of the Year” at the 2022 Florida Plant Management Society Annual Conference.



The Pond Watch Program is 30 years old! We have grown to serve 115 residents and communities in Lee County who seek water quality and educational information regarding aquatic plant management.

The Lee County Hyacinth Control District was formed by an act of the Florida Legislature on June 12, 1961.



Operations

Aquatic vegetation is managed by the application of Environmental Protection Agency (EPA) approved herbicides, mechanical harvesting and the use of triploid grass carp. 2022 summaries are as follows:

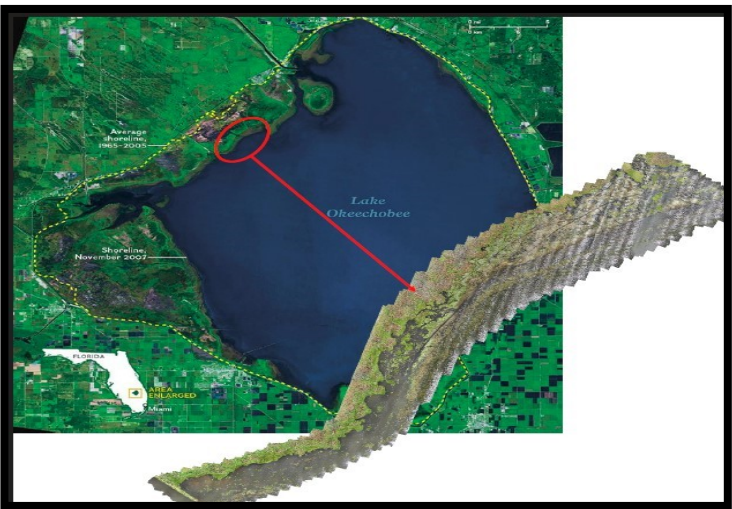
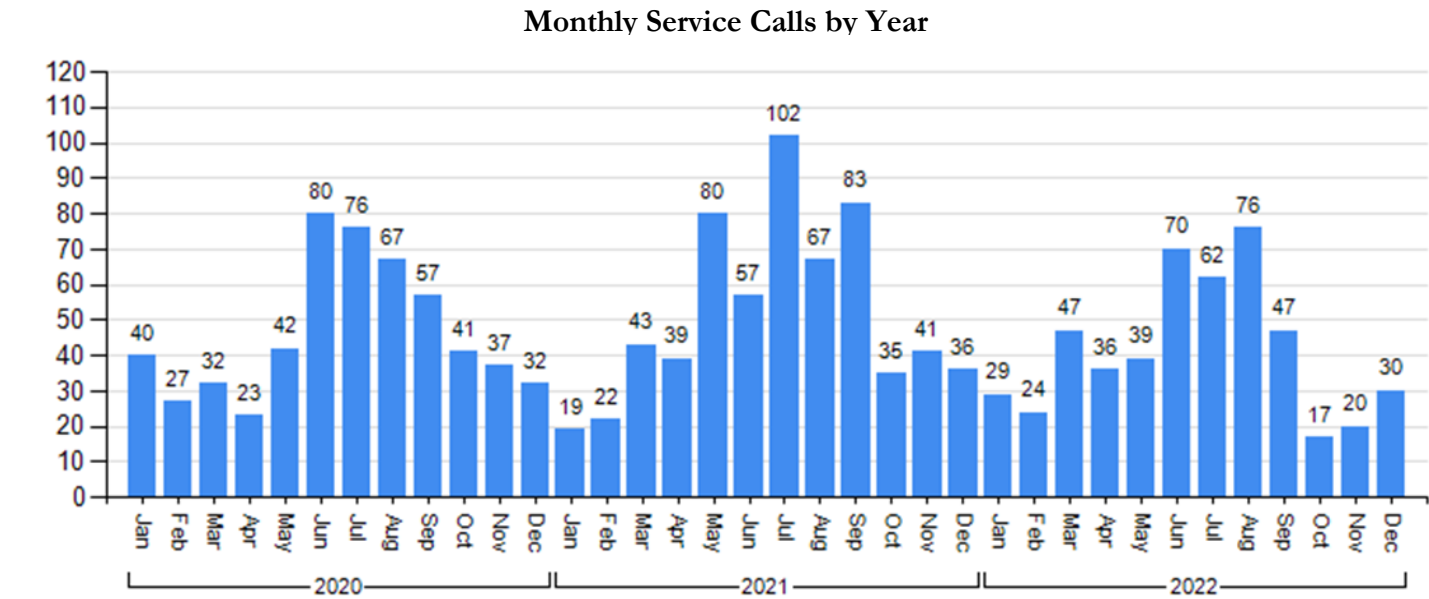
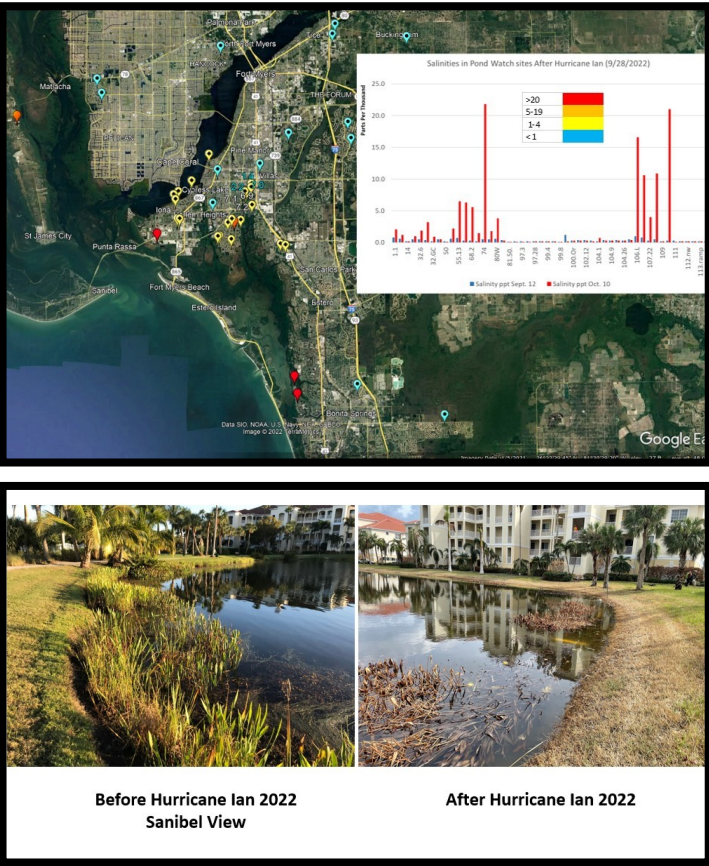
Chemical Control

Service Requests - 497
Acres Treated - 703

The geographical jurisdiction of LCHCD includes all of Lee County, the Caloosahatchee River and its tributaries up to the border of Lake Okeechobee in Glades County (28,529 acres managed). The District defines public waters as any waterbody accessible by the general public, or owned as a public resource. Uses of the water may include, but are not limited to, navigation, recreation, fishing, flood control and water supply.

Hurricane Ian impacted our region as the fifth-strongest hurricane to make landfall in the contiguous United States. Reeling from the wrath of devastation from this storm the District was a center point in the aftermath assessment and coordination for the recovery of much needed essential infrastructure services. The damage was quite extensive along our coastal communities, adversely impacting the ecological balance of South Florida’s aquatic ecosystems. The storm surge alone altered the salinity levels of numerous storm water ponds impacting the mortality of fish and aquatic macrophytes within these ecosystems.

LCHCD Pond Watch volunteers provided additional water sampling which clearly depicted the drastic salinity increases in their storm water catchment basins. The results are illustrated in the map below with geographical location markers and the correlating data graph provided in the upper right margin. The following pictures highlight the damaging and harmful effects of significant saltwater intrusion upon aquatic and landscape vegetation. Most of the freshwater plants species will need to be replaced due to the prolonged exposure time of significantly increased salinity levels.

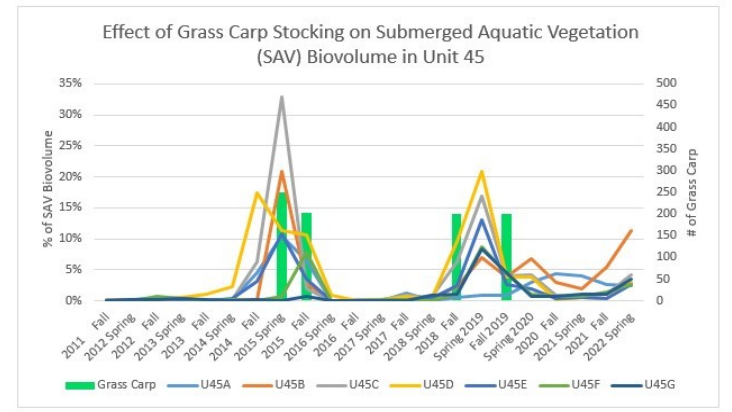


The District’s Unmanned Aircraft Systems (UAS) have become an intricate part of our overall program by providing the following contributions: mapping, surveillance and aquatic weed control applications. A highlighted project our staff worked on this year was a collaboration with The U.S. Army Corps of Engineers (USACE) mapping aquatic vegetation on Lake Okeechobee. This provided our staff an opportunity to test the limitations of our current drones’ capabilities with mapping large unoccupied areas with a high diversity of aquatic plants on Lake Okeechobee. We successfully mapped 882 acres in one day with good results. While

Biological Control

Acres stocked with TGC - 638
TGC stocked - 2,103

LCHCD manages the use of Triploid Grass Carp (TGC) (*Ctenopharyngodon idella*) for the purpose of maintaining optimal levels of submergent vegetation in conjunction with our integrated aquatic plant management program. Field data is collected and analyzed with a processed assessment program and depicted accordingly in the graph below.



we were able to accomplish our mission, one of the limiting factors was battery life and the charging abilities of our vessels. As our program continues to evolve to include mapping of all LCHCD managed water bodies one day, a larger more specialized UAS may be required.

The 46th Annual Florida Aquatic Plant Management Society training conference was held in Daytona Beach, Florida this year. This was a great opportunity for staff to share their knowledge with others and learn new aquatic weed control techniques within our industry. Once again, Lee Martin, Aquatic Biologist, placed 1st in the Applicator Paper category titled “Herbi-Pods: An Alternative Approach to Applying Herbicides” and the Poster Contest “Managing Native Nuisances in Multi-Use Systems.” Lee Martin is an excellent speaker and enjoys interacting with folks on the discussion of new ideas and methods in aquatic plant management.



LCHCD Aquatic Biologists executed a follow-up biological release of alligatorweed flea beetles (*Agasicles hygrophila*) in Lee County waterways for a second year in a row. These beetles are used for the exclusive control of invasive alligatorweed (*Alternanthera philoxeroides*) that engulfs our local stormwater waterways. This problematic plant species creates large obstructive mats dense enough to restrict water flow and cover entire ponds. Staff received this biological control agent from the Invasive Species Management branch of The U.S. Army Corps of Engineers (USACE). As of now, LCHCD is the only recipient of alligatorweed flea beetles from the USACE in Florida and we greatly appreciate the positive impacts this biological control provides.

