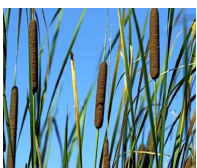


Staff Directory

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
Kenneth Sonne, Aquatic Technician
Kevin Watts, Deputy Director

Top Ten Plant Species Treated In 2020 (acres treated)		
1. Spatterdock	528	 Spatterdock
2. Muskgrass	150	
3. Water Lettuce	74	 Muskgrass
4. Torpedograss	27	
5. Water Pennywort	20	 Water Hyacinth
6. Tapegrass	17	
7. Water Hyacinth	15	 Cattail
8. Spike Rush	13	
9. Cattail	9	
10. Bladderwort	5	



Dr. Ernesto Lasso de la Vega explaining the process of aquatic plant nutrient analysis to NBC- 2 news in July.

Public Outreach

The Pond Watch Program (PWP) was able to continue its monthly activities throughout the year, even with the implementation of the District’s COVID-19 pandemic plan activated in March. Water samples were received outside the building at a station tent in our parking area. Volunteers were able to drop off their sample bottles and pick up clean disinfected containers in a drive-in fashion. Reports were delivered via online and conversations were limited to phone and emails. Our Annual meeting took place a week before the District’s plan was implemented. This was before virus cases escalated in our region. The PWP has collected more than 100 samples per month and 110 volunteer sites since our beginning in 1993. Also this year, we were recognized with having the distinction of being awarded the Dan Canfield Voluntarism Award by the Florida Lake Management Society in the annual virtual meeting in October.

Pond Watch has participated actively in the WETPLAN (Watershed Education Training Ponds Lakes and Neighborhoods), an initiative of public and private entities in Lee County to educate the public on issues related to storm water ponds. We have been conducting a series of webinars the first Wednesday of the month since October. The website www.wetplan.org presents the announcements and schedules of these webinars in addition to archiving the recorded sessions.

The Water Quality Laboratory (WQL) has expanded the sampling of the Caloosahatchee River by collecting from tributaries (creeks and canals) that discharge into the river around LaBelle and Fort Denaud identifying point sources of nutrients impacts. Information is shared with the Coastal and Heartland National Estuary Partnership (CHNEP) since this entity has expanded its territory to include all Caloosahatchee River, from Lake Okeechobee to the Franklin Locks.

The WQL has continued hiring students from the universities to provide opportunities in the form of internships. Last year, Savannah Berger and Molly Hunter, senior graduates from FGCU finished their 5 months part time employment by working in the laboratory and experiencing field work with the rest of the LCHCD staff. In addition, we have been accepting students from FGCU needing service learning hours as part of their requirements. Sheyenne Mastro, Abigale LeBlank, Daniel Talamas, worked on laboratory data organization and water quality projects which helped the District in their two months of service.

2020 ANNUAL REPORT

Lee County Hyacinth Control District

Board of Commissioners

Bruce C. Scott, Chairman
Stephen Bowen, Vice Chairman
Brian Farrar, Secretary - Treasurer
Michael W. Ellis
Thomas B. Hart
George T. Mann, Jr.
Ed Brantley

Executive Director
Dr. David Hoel

2020 ANNUAL REPORT

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

Phone: 239-694-2174

WWW.LCHCD.ORG



Colin Lewis received the honorary FAPMS Plant Manager of the Year Award for 2020

LCHCD in the Edison Festival of Lights Grand Parade 2020

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

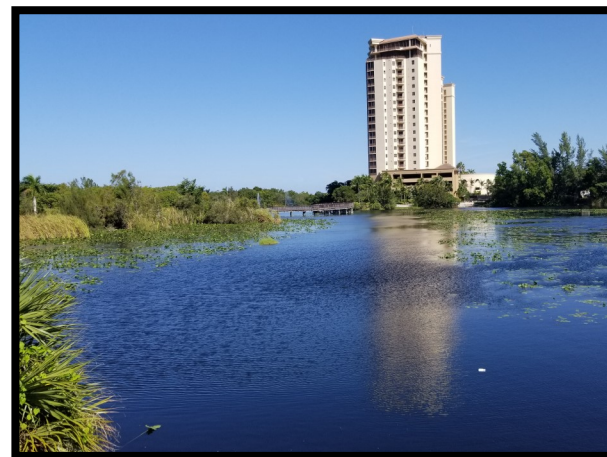


Aquatic vegetation is managed by the application of Environmental Protection Agency (EPA) labeled herbicides, mechanical harvesting and the use of triploid grass carp. 2020 summaries are as follows:

Service Requests 554
Acres Treated 898

LCHCD continued to provide uninterrupted service throughout 2020 with our District COVID-19 pandemic plan set in place. Safety protocols were followed and employees adhered to the rules with imposing minimum safe distancing practices and wearing masks. Aquatic plants kept growing and our staff remained diligent with their efforts to keep our local waterways vegetation maintained. Changes were incorporated to insure safety protocols were followed, but still allowed staff to conduct normal day to day operations.

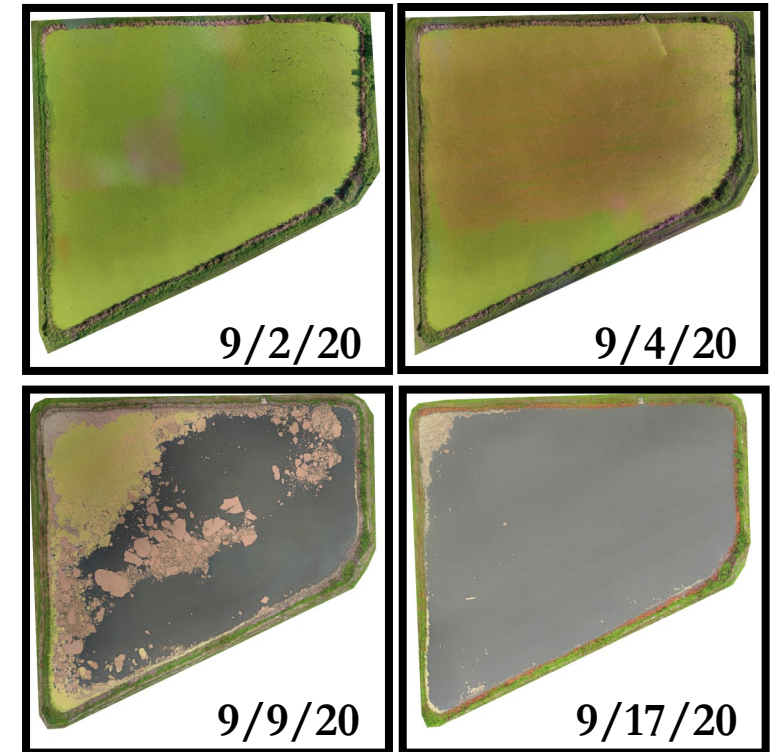
tious aquatic plant species throughout our area seven years running. Spatterdock is an excellent aquatic plant for natural waterways as it provides superior fishing habitat, nutrient sequestration, enhanced water clarity and in fact is a very aesthetically pleasing water lily. Unfortunately, it can become invasive and displace other native species within our local waterways impacting flood control and recreational activities.



The LCHCD aquatic herbicide Unmanned Aircraft System (UAS) program has officially taken flight as of September 1, 2020. It was a long arduous process before finally receiving our Public Operations Certificate of Authorization (COA) approval from the Federal Aviation Administration granting us permission to utilize application drones for government purposes. As of right now, the District is one of few legal entities approved to perform aquatic herbicide applications via a UAS in the State of Florida.

Our first treatment mission was a promising success targeting water lettuce at the Lee County Utilities wastewater settling ponds off Summerlin Road and Pine Ridge Road. In the last few years, *Mansonia* mosquitoes have been quite prevalent in this area of Lee County. With this added component to our plant management program, LCHCD staff now are able to treat areas that were previously inaccessible with better efficacy and reduced amounts of chemical, which saves the District money. It's still a bit early, but we believe this is going to be an integral and effective instrument to the continued success and innovation of our program.

Demonstrated in the following drone aerial photos are the pre/post treatment application results with a successive timeline. The initial operation was a foliar ap-



Acres Stocked 1,014
Grass Carp Stocked 3,415
Cumulative Acres Managed 2,174

LCHCD incorporates the use of triploid grass carp (*Ctenopharyngodon idella*) as an effective biological tool for our integrated aquatic plant management program. The District maintains a selective threshold of stocked grass carp in permitted waterbodies to achieve desired results on targeted invasive aquatic plant species.

The assessment of triploid grass carp efficiency is monitored by the District's portable Biosonic hydroacoustic echosounder. This instrument helps to measure and estimate the submergent macrophytic plant growth density in our local waterways on a biannual basis. Incorporating this technological equipment with our integrated program has proven to be an excellent management tool. The portable unit is supported by a boat to

plied technique using an emergent rate which allows the product to translocate evenly through the water column slowly impacting the desired target species water lettuce. This method limited any non-target damage to the ponds perimeter and focused efforts on eliminating the host for the mosquito problems at this location.

record and process field validation data to determine the effects of triploid grass carp controlling invasive submergent aquatic vegetation (SAV).

A combination of management techniques may be utilized to achieve optimum results without relying exclusively on just one tool. Implementation of a sustainable approach can successfully yield a long term optimum outcome in a balanced management plan. The following graph depicts the vegetation levels and corresponding triploid grass carp stockings.

