

Staff Directory

Keith Andreu, Aquatic Technician
William Colon, Aquatic Technician
Jason Cull, Aquatic Field Supervisor
Jeremy Ford, Aquatic Technician
Dr. David Hoel, Executive Director
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 2019
(acres treated)

- 1. Spatterdock 516
- 2. Muskgrass 133
- 3. Tapegrass 63
- 4. Water Lettuce 39
- 5. Water Hyacinth 24
- 6. Cattail 23
- 7. Water Pennywort 16
- 8. Torpedograss 15
- 9. Floating Hearts 11
- 10. Rotala 8



Spatterdock



Water Hyacinth



Rotala



Muskgrass

Public Outreach

The Pond Watch Program is celebrating 28 years of service, providing education to approximately 50 active participants. The volunteer members, ranging from homeowner associations, golf course communities and private homes, have received advice on the management of their storm water ponds. The most serious issue they faced in 2019 was the presence of Harmful Toxic Algae. Pond Watch was involved with the monitoring of several technologies aimed to control blue-green algae blooms, providing evidence and examples for other communities experiencing similar problems.

The water quality laboratory provided the opportunity for FGCU students Savannah Berger (spring) and William Mullen (fall) to work in the chemical analysis of environmental waters, collection of samples in the Caloosahatchee River, and preparing reports to Pond Watch Volunteers.

Savannah Berger conducted an experiment determining the toxic concentration of copper on invasive exotic apple snails (*Pomacea maculata*). The study was presented at the Florida Lake Management Society and the Florida Aquatic Plant Management Society annual meetings.

Dr. Ernesto Lasso de la Vega was invited to speak at several professional gathering about the unintended consequences of the 2008 Fertilizer Ordinance in Lee County. The data collected by the Pond Watch Program has detected nitrogen input generated by the excessive use of fertilizers outside the “blackout” period (June 1 to September 30). However, the overall concentration of nitrogen in storm water ponds has been in decline since 2008.



Ernesto Lasso de la Vega representing the District at the Annual Wings of Water Festival in Lehigh Acres

2019 ANNUAL REPORT

Lee County Hyacinth Control District

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

Executive Director
Dr. David Hoel

2019 ANNUAL REPORT

Lee County Hyacinth Control District
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Lehigh Acres, FL 33971

Phone: 239-694-2174

WWW.LCHCD.ORG



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



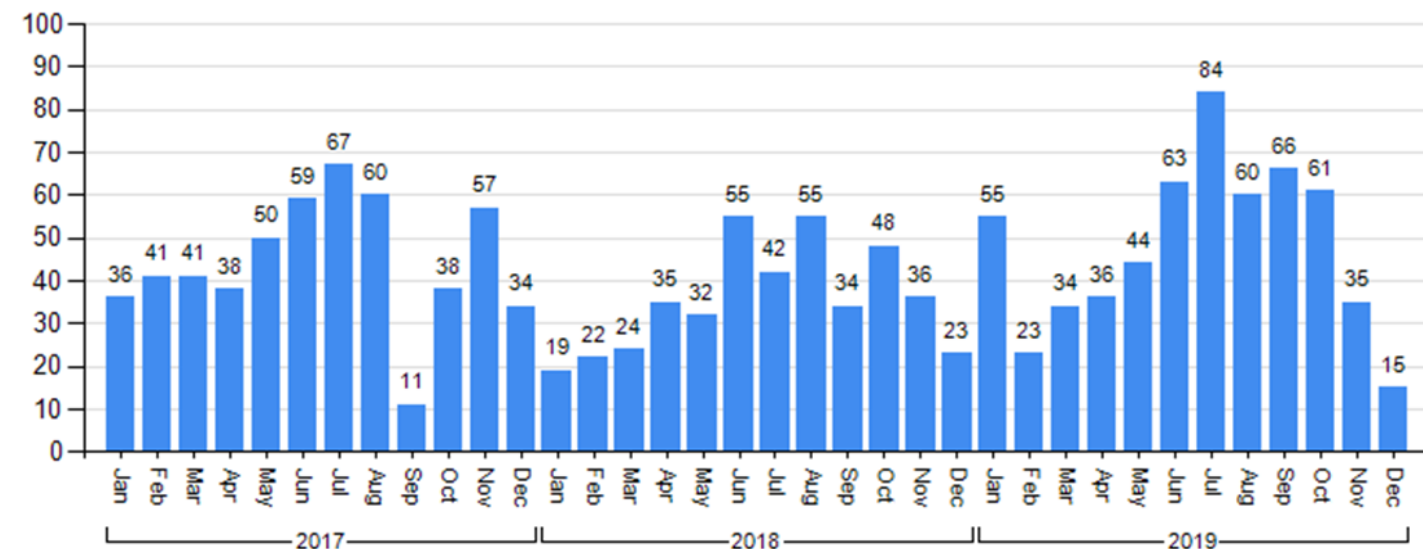
Aquatic vegetation is managed by the application of Environmental Protection Agency (EPA) labeled herbicides, mechanical harvesting and the use of triploid grass carp. 2019 summaries are as follows:

Service Requests 576
Acres Treated 866

LCHCD was very busy in 2019 with our primary aquatic plant culprit spatterdock (*Nuphar advena*) and other related issues associated with tapegrass (*Vallisneria spiralis*), of which the two species inhibited water flow, hindered navigation for watercraft, and becoming a general “eye sore” for residents living along the Cape Coral freshwater canal systems. The Cape’s urban engineered stormwater/irrigation canals were designed for the purpose of alleviating potential flooding from the surrounding landscape and providing a consistent water supply for residential irrigation demands. The shallow conveyance of the Cape’s canal system encourages aquatic plant

A man with a beard, wearing a light-colored button-down shirt and jeans, stands at the front of a room, gesturing with his hands as he presents. He is positioned in front of a large projection screen. The screen displays a green background with the title "Our Mission" in white. Below the title, there is a paragraph of text: "Lee County Hyacinth Control District strives to promote coastal and inland improvement through operations, research and outreach to surrounding integrated management techniques." Underneath the text is a photograph of a body of water with a dense growth of purple hyacinth flowers. Below the photo, the text "Water hyacinth, Eichhornia crassipes" is written. The audience, seen from behind, consists of several people seated at white tables. The room has a wooden door on the left, a ceiling fan, and a small round clock on the wall.

Monthly Service Calls by Year



LCHCD's Water Sampling Drone

SwellPro SplashDrone 3+

4K 16 megapixel camera
 Payload: 2.2 pounds
 Flight time: 15 – 20 minutes

Water Sampler

500mL bottle
 250mL bottle

Acres Stocked 790
Grass Carp Stocked 2,852
Cumulative Acres Managed 2,175

The ability to determine the effectiveness of triploid grass carp is monitored by the District's portable hydroacoustic echosounder. This device helps to measure and assess submergent macrophytic plant growth

density. This proven management method is conducted biannually measuring the overall effectiveness of the fish and their intended target. One of the focal objectives is to assess the plants height and it's tendency to restrict navigation and/or impede flood control structures. Determining how many grass carp are needed to control the targeted vegetation is calculated by analyzing bathymethtric data collected from this instrument. This is turn determines stocking rates for our biological control program. The following graph depicts the vegetation levels and corresponding triploid grass carp stockings.

