

Staff Directory

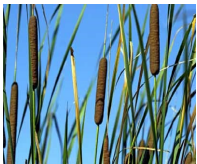
Keith Andreu, Aquatic Technician
William Colon, Aquatic Technician
Jason Cull, Aquatic Field Supervisor
Jeremy Ford, Aquatic Technician
T. Wayne Gale, Executive Director
Ernesto Lasso de la Vega, Water Quality Laboratory Manager
Kenneth Sonne, Aquatic Technician
Linda Walstrum, Administrative Assistant
Kevin Watts, Deputy Director

Top Ten Plant Species Treated
In 2018
(acres treated)

- 1. Spatterdock 489
- 2. Muskgrass 47
- 3. Torpedograss 46
- 4. Illinois Pondweed 36
- 5. Spikerush 33
- 6. Cattail 27
- 7. Water Lettuce 25
- 8. Southern Naiad 24
- 9. Water Pennywort 12
- 10. Tapegrass 11



Spatterdock



Cattail



Water Lettuce



Muskgrass

Public Outreach

The Lee County Hyacinth Control District's (LCHCD) Pond Watch (PW) Program celebrated 25 years of service. Since its inception in 1993, the program has been providing residential pond owners throughout Lee County with information on water quality analysis and best management practices to lessen their problems in stormwater ponds. The PW program has helped more than 100 sites, ranging from a single home to large gated communities that have included golf courses as well. This program has identified ways to control pollution from fertilizers and harmful algae blooms alleviating environmental stress to our waterways. LCHCD has joined efforts with other private and public organizations in the development of the WETPLAN initiative. The Watershed Education Training Ponds Lakes and Neighborhoods group has organized workshops directed to residents that experience problems, such as erosion, water quality and invasive exotic plants in their community storm water ponds.

The District's Water Quality Laboratory has provided opportunities for professional training to FGCU students Sarah Stauring and Luka Ndungu. These internships are paid temporary positions (5 months) that involve sampling ponds, canals and rivers; water quality analysis in the laboratory; and biological assessment of underwater vegetation using the a Biosonic Eco-sounder. Students participating in this program have utilized this opportunity to enhance their resumes and bring this experience forward with future employment.

The Caloosahatchee River has experienced one of the worst environmental conditions in decades. The nutrients flowing from Lake Okeechobee and adjoining watersheds have contributed to the proliferation of (*Microcystis aeruginosa*), a blue-green algae that carries toxic effects in the water and air. The District has been monitoring the nutrients and presence of algae from the Franklin Lock in Lee County to the Moore Haven Lock in Glades County. The results of the analysis are published in the USF Water Atlas website under the Charlotte Harbor National Estuary Program Water Atlas.

2018 ANNUAL REPORT

Lee County Hyacinth Control District

Board of Commissioners

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

Executive Director

T. Wayne Gale

2018 ANNUAL REPORT

Lee County Hyacinth Control District
15191 Homestead Road
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.



Operations

Aquatic vegetation is managed by the application of Environmental Protection Agency (EPA) labeled herbicides, mechanical harvesting and the use of triploid grass carp. 2018 summaries are as follows:

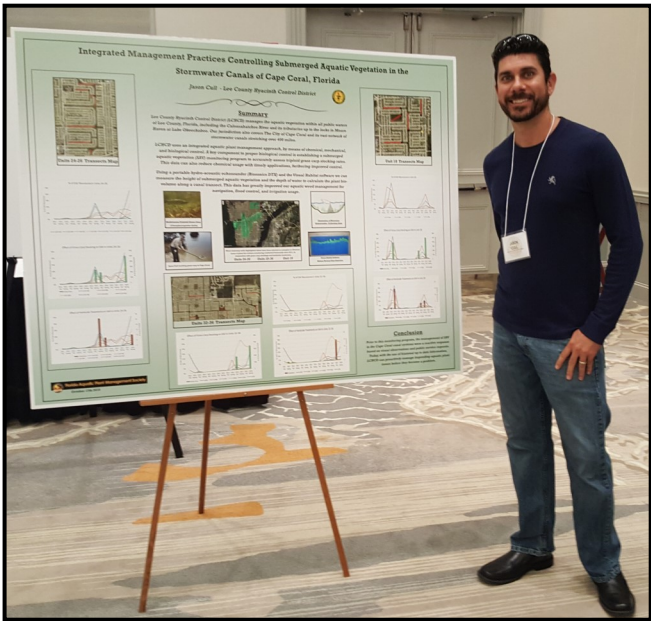
Chemical Control

Service Requests 425
Acres Treated 786

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 (28,409 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.

LCHCD had a very interesting year in 2018 with reoccurring blue-green algae issues in the Caloosahatchee River. In the past, microscopic algae floating on the surface would be swirled with duckweed in the canal basins along the river. Treatments were designed to target the duckweed, but the algae was effected as well. Residents could see results from District’s applications and the diminishing signs of algae problems, but this past year there were no signs of vascular aquatic plants accompanying the planktonic algae. Therefore, treatments were unable to be administered because of E.P.A. label requirements in Florida State waters.

The District continues to utilize aquatic plant training and educational venues to enhance our professional knowledge. Staff attended the Annual Aquatic Weed Control Short Course in Coral Springs, Florida and the 42nd Florida Aquatic Plant Management Society (FAPMS) conference held in Daytona Beach this year. Jason Cull presented an applicator’s paper titled “Early field application results using ProcellaCOR on various aquatic plants” at the FAPMS meeting. He also exhibited a poster displaying LCHCD’s integrated management in Cape Coral canals using an echo sounder. These opportunities offer our personnel to contribute as well as learn new methods and products introduced each year. The emphasis of our program revolves around education for our team and thus providing the most current knowledge to be conveyed to residents inquiring about our aquatic plant management program.



A seasonal project with great benefits for water quality has involved the collaboration efforts of the Lee County Natural Resources Department and the LCHCD’s mini-harvester in removing the over abundance of spatterdock (*Nuphar advena*) within the Lakes Park filter marsh. Removing vegetation promotes improved water quality by means of physically extracting nutrients sequestered within plant tissue and allowing the native macrophytes to revegetate. Essentially, a path is cut through the filter marsh’s meandering flow way to allow fishermen and residents to explore the waterway system. This annual activity is conducted in the Fall of each year when water levels are typically lower after the normal rainfall wet season. Spatterdock leaves and stems protrude above the water’s surface making it easier for mechanical harvesting of the plant material when these conditions exist. In some cases, as observed after this year’s operation, a native water-lily leaf beetle (*Galernucella nymphaeae*), which is already present in the marsh, will move over to the lush native spatterdock to feed on this species. Visible damage is incurred at the leaf’s surface, stem and flower. Rarely does this endemic biological control agent eliminate spatterdock, but only curbs the plants vegetative propagation.



Biological Control / Grass Carp

Acres Stocked 1,165
Grass Carp Stocked 3,411
Cumulative Acres Managed 2,331

The Districts biological program maintains its use of triploid grass carp throughout Lee County’s waters where permit restrictions are followed. Grass carp prove to be an effective mechanism commonly utilized throughout the State’s storm-water impoundments for aquatic weed problems. There are various non-indigenous species of grass carp throughout the U.S., but only Florida allows the use of certified triploids (*Ctenopharyngodon idella*) for stocking in Florida waters with the required permit issued from Florida Fish and Wildlife Conservation Commission.

LCHCD administers the use of an integrated plant management strategy, by the means of chemical, mechanical, and biological control of aquatic vegetation.

Measuring the effectiveness of this balanced approach, the District incorporates the use of a portable hydroacoustic echosounder. This instrument effectively maps a waterbody’s substrate and measures the percentage of submergent aquatic vegetation biovolume within the water column. Below is a graph, illustrating the plant density in a series of recorded transects of a Cape Coral waterway system managed with the use of triploid grass carp.

