

Staff Directory

Keith Andreu, Aquatic Technician
 John Cassani, Deputy Director
 William Colon, Aquaculture Technician
 Donald Doggett, Chemical Control Supervisor
 Jeremy Ford, Aquatic Technician
 T. Wayne Gale, Executive Director
 Ernesto Lasso de la Vega, Pond Watch Coordinator
 Kenneth Sonne, Aquatic Technician
 Kevin Watts, Biological Control Supervisor
 Linda Willard, Administrative Assistant



District staff participating in an IFAS aquatic plant seminar.

LCHCD Research and Outreach Education





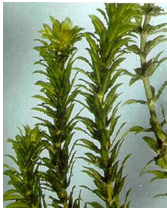
As in the past, LCHCD staff have been actively engaged in learning and teaching about aquatic plant control. LCHCD personnel have taken a leadership role on a variety of issues in 2012. A popular effort has been the perennial aquatic plant identification seminar generally offered in conjunction with various state programs and venues. The proper identification of aquatic plant species is important for compliance with herbicide label restrictions and guidelines. In addition, many native aquatic plants are purposely planted for various mitigation activities and it is important to be able to identify the difference between the target species for control and those that are considered beneficial.

LCHCD ongoing applied research projects continue to provide our staff and others with guidance on Best Management Practices. In 2012 District staff completed a multi-year study investigating the relationship of lake depth to hypoxia or low dissolved oxygen conditions (WWW.lchcd.org/lchcd-publications-reports/). A frequent problem associated with aquatic weed control is dissolved oxygen depression which restricts where and when aquatic plants can be safely managed without negative effects to non-target organisms and water law. Recent changes to water quality regulations now subject aquatic weed control activities to Clean Water Act provisions. These changes require aquatic plant managers to address broader objectives related to multi-use waterways.

The LCHCD Pond Watch Program involved an average of 30 communities in the volunteer water monitoring program in 2012. Pond Watch cooperates with other agencies toward better stormwater management and provides learning opportunities to student volunteers.

Top Ten Plant Species Treated In 2012

(acres treated)

1. Torpedograss	248		
2. Cattails	200		Cattail
3. Nuphar	147		Nuphar
4. Southern naiad	129		Southern naiad
5. Water lettuce	123		
6. Water hyacinth	90		
7. Alligatorweed	86		
8. Nymphoides	75		
9. Hydrilla	54		Hydrilla
10. Algae	9		

2012 ANNUAL REPORT

Lee County Hyacinth Control District

Board of Commissioners

Thomas B. Hart, Chairman
Melissa Dortch, Vice Chairman
William M. Ellis, Secretary - Treasurer
George T. Mann, Jr.
Richard H. Pritchett, III
Bruce C. Scott

Executive Director

T. Wayne Gale

2012 ANNUAL REPORT

Mailing Address

Post Office Box 60005
 Fort Myers, FL 33906

Physical Address

15191 Homestead Road
 Lehigh Acres, FL 33971

Phone: 239-694-2174

WWW.LCHCD.ORG



Our Mission - *Lee County Hyacinth Control District promotes sound aquatic plant management through operations, research and outreach education emphasizing integrated management techniques.*

Operations

Aquatic vegetation is managed by the application of EPA labeled herbicides and with the use of a herbivorous fish species known as grass carp. 2012 summaries are as follows:

Chemical Control

Service Requests 614
Acres Treated 580

Aquatic Plant Resistance to Herbicides

In recent years, aquatic plant managers have been presented with a new challenge—herbicide resistance. In Florida, *Hydrilla verticillata* has developed resistance to the systemic herbicide fluridone; diquat, a contact herbicide, has become less effective on a species of duckweed, *Landolita punctata*; glyphosate, a systemic herbicide which is labeled for the control of several emergent aquatic plants, has demonstrated less efficacy on some terrestrial weeds. Recently, endothall resistant hydrilla has been reported.

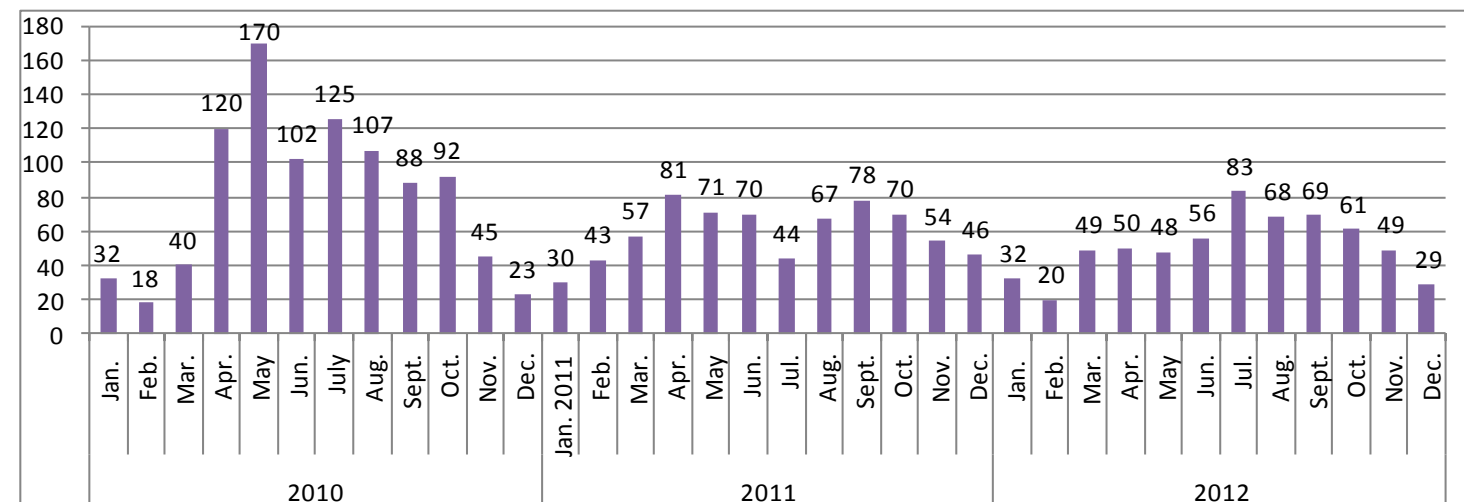
To reduce the chances of resistant populations of aquatic plants, the District employs the following integrated control strategies: 1) utilize chemical, biological and mechanical control options when available, 2) do not use herbicides with the same mode of action repeatedly, and 3) treat weeds when infestations are low.

The District has not experienced a large-scale resistance problem to date with their chemical control program,

control is conducted with very few herbicide choices, primarily because herbicide manufacturers invest less in minor use products such as aquatic herbicides. It is imperative that a proactive management plan is followed to prevent target plant resistance.



Mackinac Canal in Cape Coral (Before and After).



Service requests 2010 - 2012.

Operations Cont.

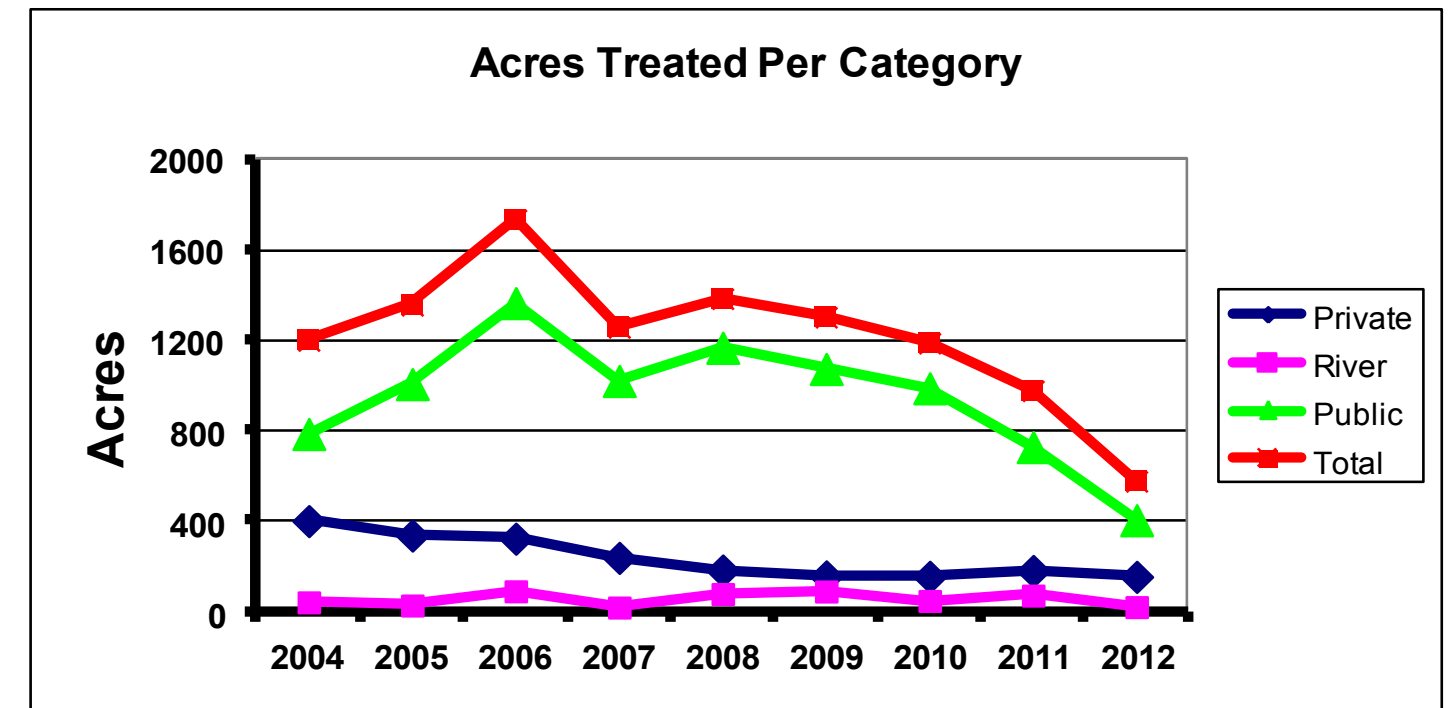
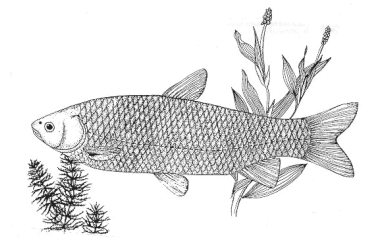
Biological Control / Grass Carp

The District's biological control program has successfully utilized triploid grass carp for almost 30 years. In 2012, the use of sterile grass carp has continued to help with our goal of managing nuisance aquatic weed growth in Lee County waters. Utilizing grass carp in contained local water bodies has been immensely effective, and has reduced our overall control costs. Implementing an incremental grass carp restocking strategy and continued improvements for new grass carp barrier designs have fine-tuned the District's integrated control program. The District's primary aquatic weed focus has and continues to be on Lee County's public water bodies. This past year has yielded very successful results in managing submersed vegetation due to the high retention and survival rate of the previous year's grass carp incremental stocking.

The District's method for monitoring grass carp effectiveness is measured by the collection of data from on-site transect monitoring, field inspections, and collaborative work projects with other government agencies. Analyzing the results from these data helps to determine future grass carp required and stocking rates for the District's jurisdictional waters. Our approach to managing aquatic plant abundance is constantly challenged due to the difficulties from introduced exotic plant species, seasonal influxes of water, a favorable climate for plant growth, continued enrichment of public waters with nutrients, and aquatic habitat manipulation. District personnel have evolved to meet these challenges with improvements in educational training, community outreach, and license certification for aquatic vegetation management.

Biological Control / Grass Carp

Acres Stocked 129
Grass Carp Stocked 1106
Cumulative Acres Managed 2208



Chemical control summary of aquatic vegetation acreage treated per general category.