

Calendar year 2014 Aquatic Plant Management Plan for Lake Seminole

This report will list the target plant and any planned activities associated with management operations.

I. SUBMERSED

The Record of Decision for the Lake Seminole Hydrilla Action Plan GA-FL dated June 1998 is the controlling document for management activities associated with hydrilla. This document and the associated Final Supplement to the Master Plan and Final Supplement to the Environmental Impact Statement define a general plan for hydrilla management activities on Lake Seminole. All hydrilla control activities for 2014 will be within the guidelines of this document. The Final Supplement to the Master Plan and Final Supplement to the Environmental Impact Statement (EIS) did not address other nuisance aquatic plant management activities, e.g., water hyacinths, giant cutgrass, Cuban bulrush, American lotus, fanwort, etc, other than in general terms of acceptable percent coverage for the four management compartments on the lake. Management of these types of invasive aquatic plants was addressed in two earlier EISs – 1) Lake Seminole and Jim Woodruff Lock and Dam, AL-FL, and GA, Operation and

Maintenance Final Environmental Impact Statement, 1976, and 2) Aquatic Plant Control Program, Mobile District, Final Environmental Impact Statement, 1978.

Two primary methods of control will continue to be used to manage the submersed vegetation levels (chemical and biological). In the chemical arena, the primary herbicides used will be endothall, diquat dibromide, fluridone, penoxsulam, triclopyr, imazapyr, 2,4-D, flumioxazin, and copper compounds. In the biological arena there will be continued vigilance on monitoring the past releases of triploid grass carp, hydrilla flies, and hydrilla weevils. Alligator weed flea beetle continues to keep alligator weed under a maintenance level in most areas. No additional triploid grass carp will be released into the Fish Pond Drain or Cypress Pond confinement area in 2014. The hydrilla fly appeared to have sporadic impacts on the hydrilla population over the past few years.

The following actions will be undertaken to help manage submersed aquatic vegetation levels on Lake Seminole.

a. CHEMICAL:

A table with the areas listed including acreage, target plant, and map plate number can be found at the end of this section.

1. **Fluridone/Penoxsulam:** There no plans to treat with fluridone/penoxsulam.
2. **Endothall:** Plans are to treat approximately 200 acres.
3. **Diquat:** Plans are to treat approximately 200 acres.
4. **Triclopyr / 2, 4-D Combination:** Plans are to treat approximately 20 acres.
5. **Flumioxazin / Diquat Combination:** Plans are to treat approximately 400 acres.

6. **Endothall / Diquat Combination:** Plans are to treat approximately 150 acres.
7. **Endothall / Penoxsulam Combination:** Plans are to treat approximately 150 acres.

Table containing list of areas scheduled for treatment in 2014. The map plate number refers to the attached set of map plates.

Area Name	Acreage	Map Plate	Target Plant	Comments
Brockett's Slough	48	23&24	Hydrilla	Recreation, channel access
Buena Vista Upper	25	46&55	Hydrilla	Recreation, fisheries habitat
Buena Vista West	16	46	Hydrilla	Recreation, fishery habitat
Bully Arnold North Lower	11	29	Hydrilla	Recreation, boat ramp access to river
Bully Arnold North Upper	9	29	Hydrilla	Recreation, boat ramp access to river
Bully Arnold Ramp	3	29	Hydrilla, Cabomba	Recreation, boat ramp
Bully Arnold River	11	29	Hydrilla, Limnophila	Boat ramp access to river, fisheries habitat
Corps Boat Basin	3	3	Hydrilla	Operations, Corps boat house
Corps Boat Basin Channel	2	3	Hydrilla	Operations, Boat Basin access
Cypress Pond	35	21	Watermilfoil, Limnophila	Channel, fisheries habitat
Cypress Pond Barrier	4	21	Hydrilla, Cabomba, Limnophila, pondweed	Operations, electric barrier
Desser	2	47	Hydrilla, Cabomba, Limnophila	Recreation, boat ramp
Desser Lower Westside	24	47	Hydrilla	Fisheries habitat

Area Name	Acres	Map Plate	Herbicide	Comments
Desser Upper	20	47	Hydrilla	Fisheries habitat
Faceville Landing	5	25	Hydrilla	Recreation, Ramp, Campground, Fisheries habitat
Fairchild's Ramp	13	29	Hydrilla	Recreation, fisheries habitat, boat ramp
Fireman's Cut	26	22&23	Hydrilla, Cabomba	Recreation, channel access from Flint river to Spring Creek
FPD Barrier	5	30	Hydrilla, Limnophila	Operations, electric barrier, Limnophila
FPD Lower Section 1	11	21	Hydrilla	Recreation, Fish Pond Drain channel Access to main lake body
FPD Lower Section 2	11	21	Hydrilla	Recreation, Fish Pond Drain channel Access to main lake body
FPD Lower Section 3	13	21	Hydrilla	Recreation, Fish Pond Drain channel access to main lake body
FPD Lower Section 4	11	21	Hydrilla	Recreation, Fish Pond Drain channel Access to main lake body
FPD Lower Section 5	11	21	Hydrilla	Recreation, Fish Pond Drain channel Access to main lake body
FPD Lower Section 6	21	21	Hydrilla	Recreation, Fish Pond Drain channel Access to main lake body
FPD Upper Section 1	6	30	Hydrilla	Recreation, channel access from Rays Lake to State Park
FPD Upper Section 2	27	21&30	Hydrilla	Recreation, channel access from Rays Lake to State Park
Frog Pond Channel	6	21	Limnophila	Recreation, Fisheries Habitat
Hickory Pond	6	21	Limnophila	Recreation, Fisheries Habitat
Hickory Pond Barrier	6	22	Hydrilla	Operations, electric barrier

Area Name	Acres	Map Plate	Herbicide	Comments
Holly Isles Canal	10	21	Limnophila	Limnophila, channel access
Kelly's Slough	12	23	Cabomba	Subdivision, fisheries
Lewis Pond	275	30	Limnophila	Channel, recreation, fisheries habitat
Little Dothan	3	38	Hydrilla	Channel, access to subdivision
Parramore Run	9	38	Hydrilla	Recreation, boat ramp access
Pear Orchard Head	14	10	Hydrilla	Recreation, fisheries habitat
Pear Orchard Lower	11	11	Hydrilla	Recreation, fisheries habitat, subdivision access
Pear Orchard Middle	10	11	Hydrilla, Cabomba	Recreation, fisheries habitat, subdivision access
Pear Orchard Upper	8	11	Hydrilla, Cabomba, Naiad	Recreation, fisheries habitat, subdivision access
Pickle Slough	23	30	Limnophila	Fisheries habitat, access to Lewis Pond
Ranger Station Inner	4	20	Hydrilla	Operations, access to Ranger Station
Ranger Station Outer	5	20	Hydrilla	Operations, access to Ranger Station
Sealy Ramp	2	21	Hydrilla	Recreation, channel to boat ramp
Sealy Run	8	12&21	Hydrilla	Recreation, channel for River to Sealy Ramp
Seminole Lodge Channel	9	11	Hydrilla	Recreation, marina, boat ramp, channel
Seminole State Park	25	21&30	Hydrilla, Limnophila	Seminole State Park

Area Name	Acres	Map Plate	Herbicide	Comments
Sneads Park	22	11	Hydrilla	Recreation, swimming, bank fishing
Spring Creek Park Channel	6	22&31	Hydrilla, Cabomba	Recreation, marina
Spring Creek Park East	6	31	Hydrilla, Cabomba	Recreation, marina
Spring Creek Park Marina	4	31	Hydrilla, Cabomba	Recreation, marina
Spring Creek Park West	8	31	Hydrilla	Recreation, marina
Spring Creek Run	114	12, 21,22, 31,32, 41	Hydrilla	Recreation, channel
Trails End Marina	8	20	Hydrilla, Cabomba, Limnophila	Recreation, marina
Turkey Pond	21	21	Limnophila	Recreation, fisheries habitat
Turkey Pond Drain	34	21	Limnophila	Recreation, channel
Wingate's Marina	20	23	Hydrilla, Cabomba	Recreation, marina, channel

b. BIOLOGICAL:

1. **Triploid Grass Carp (*Ctenopharyngodon idella*):**

The triploid grass carp are confined within two areas, known as Fish Pond Drain and Turkey Pond Drain with low voltage electric barriers. Monitoring of the submersed vegetation within the confinement areas will continue. Hydrilla within the Fish Pond Drain area has been eliminated. *Limnophila sessiliflora* has expanded and herbicide treatments will occur inside the barriers for this plant. Native vegetation within the Turkey Pond Drain area has not been reduced as significantly as in the Lewis Pond area. The electronics for the low voltage electric barriers are inspected once a year by Smith-Root, Inc. in February. There are no current plans to release triploid grass carp this year.

2. **Hydrilla Leaf-mining Fly (*Hydreillia pakistanae*):**

There will not be new releases of the Indian hydrilla fly within the confines of Lake Seminole 2014. We do expect the existing hydrilla fly population to have some impact on the hydrilla.

c. MECHANICAL:

At the present time, there are no plans to utilize mechanical harvesters.

d. PHYSICAL:

There are no plans by the Corps to perform any physical removal of submersed aquatic plants; however specified acts permits may be given to shoreline permit holders for physical removal.

II. FLOATING

a. WATER HYACINTH (*Eichhornia crassipes*):

The Corps anticipates treating approximately 600 acres of during 2014 with glyphosate / 2,4-D combination. Treatments will start in early April and continue into November. This early start to the treatment will assist in the reduction of herbicide needed for control in late summer.

III. EMERGENT

a. GIANT CUTGRASS (*Zizaniopsis miliacea*):

We expect to treat approximately 1000 acres of giant cutgrass using glyphosate and imazapyr. A large portion of the treatments will be in the Chattahoochee River and Spring Creek arms of the lake. The treatments will consist of treating the outer edges of the cutgrass beds; this will be a continuing program attempting to reduce the surface acreage of giant cutgrass to the shoreline. In an effort to reduce the biomass, prescribed fire may be used where appropriate.

b. PHRAGMITES (*Phragmites australis*):

Approximately 10 acres of phragmites are scheduled for treatment. These areas will be treated twice, once in the spring and again in mid-summer using glyphosate. Phragmites continues to expand with small isolated pockets becoming established in the Chattahoochee River arm of Lake Seminole from Fairchild's to Three Rivers. In an effort to reduce the biomass, prescribed fire may be used where appropriate.

c. AMERICAN LOTUS (*Nelumbo lutea*):

The American lotus populations have steadily expanded and are causing recreational navigation problems in parts of the lake. The Chattahoochee River arm of the lake has the highest infestation. Early summer treatments of American lotus have been successful. If the American lotus is prevalent again this year, treatments will start in early summer, probably during June. Treatments will start near Parramore's and extend down the Chattahoochee River to include the Howells Landing area. The anticipated treatment area will be approximately 25 acres with a glyphosate-based herbicide.

d. **CUBAN BULRUSH** (*Oxycaryum cubense*)

Cuban bulrush is steadily expanding along the margins of Lake Seminole and is reducing open water area. Treatment with a combination of 2,4-D/Diquat appear to be having positive effect.