

Lake Mills MSBU
Report for Fiscal Year 2011-2012
October 1, 2011 through September 30, 2012
Lake Meeting Held: July 11, 2012

County Staff: Gloria Eby, Thomas Calhoun, Carol Watral

Community Liaison: Dave Axel via conference call

Purpose: To review status of waterbody management and to discuss with the liaison group the recommendation and plans for the next fiscal year.

Routine updates of inspections/results are provided to the community liaison members via email. To be included in these updates, please notify Gloria Eby, Manager, Lake Management Program (LMP) at geby@seminolecountyfl.gov.

We are looking forward to the **1st Lake Mills Shoreline Restoration Event** scheduled for **Saturday, November 3, from 9am-1pm**. On this date, the Seminole County Lake Management and SERV Programs will bring in community volunteers **and beautiful FREE aquatic plants** to plant along designated shorelines to help improve the water quality of your lake. Due to bad weather last year, the initial event was cancelled. The designated sites that have volunteered for the 2011 event will be the primary sites for this year. We are always looking for new sites, so if you are interested in becoming a designated site, please contact me for further details.

Annual Meeting Synopsis

Meeting discussion points covered a variety of topics including hydrilla management strategies (both biological and chemical), contracted services performance, budget/cost, assessment levels, broadening native aquatic plantings, grass carp fish and barriers, the November 3, 2012 lake restoration event, FWC contracted treatment pricing/rates, and liaison involvement.

Maintenance services for FY 2011-2012 were performed on a bi-monthly basis and will continue on this schedule in the next FY 2012-2013. Treatments (including hydrilla) in the 2 canals on west shoreline are included in bi-monthly maintenance services.

MSBU funds otherwise designated for supplemental services were applied towards the costly (greater than \$100,000.00) whole-lake hydrilla treatment conducted in January 2012. Irrigation precaution/advisories were issued to the community via *reverse 911* calls, email, and posting to the MSBU website.

Grass carp stocking data was reviewed resulting in a total of 486 new fish being stocked in FY 2011-2012. This stocking has depleted the remaining carp available on the Florida Fish and Wildlife Conservation Commission (FWC) permit. Permit amendment for additional fish will not be submitted until after January 2013 and full effects of this stocking have been evaluated by LMP.

Beginning with FY 2011-2012, Seminole County Leisure Services Department accepted responsibility for routine cleaning of the inflow fish barrier located within Lake Mills Park providing a savings to the MSBU funds. The outflow Mills Creek barrier continues to be cleaned by a contracted service provider via the MSBU funds. Before and after photos of the cleanings are routinely provided by the vendor.

LMP will supply and install “aquatic hitchhiker” signs at 3 boat ramps on Lake Mills to remind everyone how critical it is to inspect their boat and trailer and to remove pieces of vegetation that may be “hitchhiking”. This will help to prevent the spread of invasive and aggressive vegetation such as hydrilla.

Due to inclement weather, the first planting restoration event scheduled for October 8, 2011 was rescheduled to November 3, 2012.

Non-ad valorem assessments for tax year 2012 remain at \$650.00 per parcel.

The budget projections for future years include certain assumptions regarding future treatments in terms of herbicide (systemic vs. contact) usage, as well as treatment frequency and total acreage requiring treatment. Should the grass carp fail to sufficiently control hydrilla growth, and the need for spot treatments increase, or if systemic treatment is required more frequently than assumed, rate increase may become a necessity.

October 1, 2011 – September 30, 2012 Lake Management Activities

Important to Note: *When herbicides are applied along the shoreline to invasive plants (such as torpedo grass), overspray onto adjacent desirable vegetation may occur. In order to avoid damage to desired vegetation, manual (by hand) removal (by property owner) of the undesirable species from among the desirable species is advised. If the invasive plants are removed by this method, spraying the area can be eliminated, thereby offering greater protection to the desirable species. The physical removal of /dead/decaying aquatic plant material will reduce the volume of decomposing vegetation on the lake bottom (muck layer) and will increase the success of the efforts to limit the re-growth of the invasive plants.*

Lake Management Recommendations

Lake Management Program recommendations for the upcoming fiscal year [FY2012-2013] are as follows:

- 1) Continued intense monitoring of hydrilla and grass carp activity,**
- 2) Continued aquatic herbicide maintenance for exotics such as torpedo grass and water hyacinth,**
- 3) Future grass carp stockings, if required,**
- 4) Shoreline re-vegetation with native emergent plants (by the lakefront community and potentially volunteers),**
- 5) Establishing a Lake Association and having at least one annual meeting with topics relevant to Lake Mills, and**

- 6) Implement educational outreach programs i.e. Shoreline Restoration Workshops (planting days), Florida Yards and Neighborhoods (FYN) presentations, Lake Management Video mail-outs, and reduction of residential pollution by using low fertilizer use; phosphorous free fertilizers; keeping a functional shoreline with beneficial native aquatic plants; keeping grass clippings out of your storm drains leading to the lake. All these activities aid in protecting your lake! Contact Gloria Eby (407) 665-2439 or Marie Lackey (407) 665-2424 for more information and assistance,**

LMP continues to recommend/encourage residents to become involved in establishing native plantings along the shoreline. The first event is scheduled for November 3, 2012. The intention of such an event is to plant beneficial native aquatic plants in key areas along the shoreline. Residents should organize planting days to accomplish this recommendation and contact LMP to assist the residents in creating a beneficial shoreline for Lake Mills. It is especially important that as aquatic invasive plants (such as torpedo grass) are being treated, native aquatic plants should be established within these areas. The presence of the recommended native plant species along the shoreline provides habitat for fish and wildlife, helps impede invasive exotics plants from re-establishing, helps to absorb nutrients (pollution) from run-off, and reduces sedimentation into the lake due to erosion of the shoreline. All of these best management practices are essential to providing the conditions that promote an environmentally stable habitat to be enjoyed by generations to come

As more property owners become aware and responsive to appropriate care of their lakes, the greater the reward in terms of healthy lakes! The County offers a variety of educational materials and opportunities that are readily available to anyone interested in initiating or promoting lakefront stewardship.

County Funding

Given the presence of a county maintained park (Lake Mills Park) on Lake Mills, the Seminole County Leisure Services Department contributes a portion [10%] to the annual aquatic weed control expenditures. Additionally, the Parks & Recreation Division provides for the repair/maintenance of the grass carp barrier within Lake Mills Park.

While the MSBU assessment includes a nominal charge for administering the MSBU, the administrative fee does not cover the full cost of all support services provided by Seminole County.

Lake Mills is extensively monitored by LMP to assess the aquatic plant growth. This includes oversight of the aquatic herbicide contract for the treatment of submersed non-native vegetation (such as hydrilla), emergent non-native vegetation (such as torpedo grass), and floating vegetation (such as water hyacinth) that may impede boat access, as well as shoreline grass and brush control. LMP provides continued evaluation of grass carp mortality and stocking rates and provides community updates on the status of all treatments and waterbody assessments, and provides watershed outreach/educational opportunities to the surrounding citizens. In addition, LMP can provide free aquatic plant material (as available) for sponsored restoration events and local community volunteers coordinated through the county's Seminole Education and Restoration Volunteer (SERV) Program. Many of the services provided by the LMP are made

available to support community riparian stewardship without additional charges being assigned to the MSBU budget.

Cost of Aquatic Weed Control

The financial management goal of administering the Lake Mills Aquatic Weed Control MSBU is to assess property at a funding level providing reasonable control for hydrilla and other aquatic weeds in a manner that minimizes significant fluctuations in the assessment amount. Having reserves in place for years requiring more extensive treatments (such as the 2012 whole-lake treatment) assists in avoiding wide swings in rates and/or potential delays in essential treatment.

Please note that the product for the 2012 Lake Mills hydrilla treatment was funded in fiscal year 2010-2011 by contributions from LMP and product vendor SePRO in addition to MSBU funding as shown below.

MSBU	\$ 56,034	(Lake Mills MSBU Contingency Fund)
LMP	\$ 13,584	(Product provided at no cost to MSBU by LMP)
SePRO	<u>\$ 35,000</u>	(Product provided at no cost to MSBU by SePRO)
Total	<u>\$ 104,618</u>	

The financial performance for FY2011/2012 and projection for FY2012/2013 are as follows:

October 2011 - September 2012

Funding sources:

1)	\$ 46,793	Assessment Revenue (per early payment discounts)+ Interest
2)	\$ 3,856	Seminole County Contribution (Parks)
3)	\$ 840	Seminole County (Parks) In Kind Services – Barrier Cleaning
4)	\$ <u>2,035</u>	Reserve & Contingency (beginning fund balance)
	\$ <u>53,524</u>	Total Revenue

Expenditures:

1)	\$ 3,900	Contracted Services – 6 months (bi-monthly)
2)	\$ 798	Labor – Herbicide Application
3)	\$ 1,020	Mills Creek Barrier Cleaning/Maintenance
4)	\$ 840	Lake Mills Park Barrier Cleaning- Seminole County (Parks) In Kind
5)		Services
6)	\$ 150	Mills Creek Barrier Repair
7)	\$ 3,888	Carp Stockings (486 fish)
8)	\$ 2,145	Installment Payment (Prior Fund Advance)
9)	\$ 1,075	County Administrative Fee
10)	\$ <u>39,708</u>	Contingency Reserve (carried forward to next year if not required)
	\$ <u>53,524</u>	Total Expenditures

Projected: October 2012 - September 2013

Budgeted Revenue:

1)	\$ 46,800	Assessment Revenue (per early payment discounts)
2)	\$ 5,017	Seminole County Contribution (Parks)
3)	\$ 840	Seminole County (Parks) In Kind Services – Barrier Cleaning
4)	\$ <u>39,708</u>	Reserve & Contingency (carried forward from prior year)
	\$ <u>92,365</u>	Total Revenue

Budgeted Expenditures:

1)	\$ 3,900	Contracted Services – 6 months (bi-monthly)
2)	\$ 1,020	Mills Creek Barrier Cleaning/Maintenance
3)	\$ 840	Lake Mills Park Barrier Cleaning-- Seminole County (Parks) In Kind
4)		Services
5)	\$ 12,000	Additional Herbicide Treatment
6)	\$ 825	Application Labor (15 hours)
7)	\$ 16,885	Final Payment of All Prior Fund Advances
8)	\$ 1,075	County Administrative Fee
9)	\$ <u>55,820</u>	Contingency Reserve (carried forward to next year if not required)
	\$ <u>92,365</u>	Total Expenditures

Note 1: Financial activity from prior years is available upon request.

MSBU Background

In December 2004, an application to create an MSBU for aquatic weed control in Lake Mills was received. In association with the processing of the application, the MSBU Program was asked to assist (in advance of finalizing the MSBU creation process) with the coordination of continued aquatic weed control recommendations which included the introduction of triploid grass carp fish and the continuance of an existing aquatic weed control contract. Through an advanced funding agreement, the requested services were initiated and provided in 2005. The advanced services included the installation of several fish barriers, the introduction of triploid grass carp, and three months of specific aquatic weed control services.

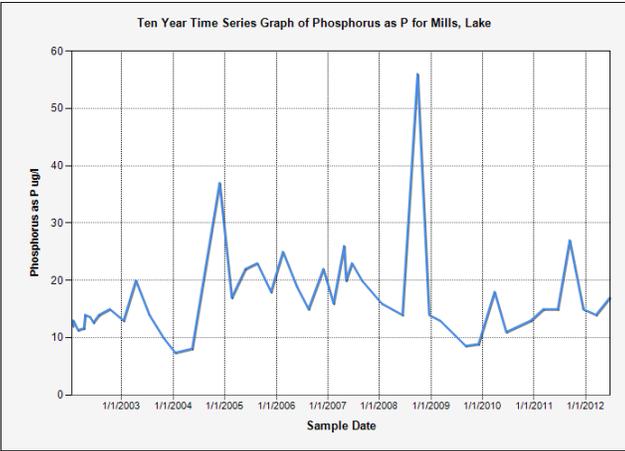
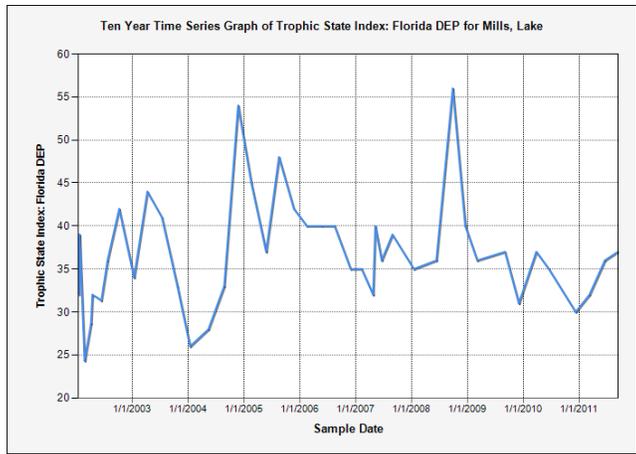
Following completion of the prepaid action items, the continuation of service was on hold until the MSBU petition process was completed, the MSBU created, and assessment schedule was established [aquatic weed control treatments were on hold from September 2005 to October 2006 awaiting the availability of the assessment funding.]

On January 24, 2006, at the request of the Lake Mills community, the Lake Mills Aquatic Weed Control MSBU was created by Ordinance 06-06 to provide assessment funding for lake management and aquatic weed control for Howell Creek. Per the governing ordinance, the contracted services rendered via the MSBU were initiated in October 2006. The assessments assigned for the first year included recoupment of prefunded services.

Lake Mills 2011 Water Quality Report: How Does the TSI of My Lake Rank? 37 GOOD

The Trophic State Index (TSI) is a classification system designed to "rate" individual lakes, ponds and reservoirs based on the amount of biological productivity occurring in the water. Using the index, one can gain a quick idea about how productive a lake is by its assigned TSI number. A "Good" quality lake is one that meets all lake use criteria (swimmable, fishable and supports healthy habitat).

The two graphs below indicates nutrient levels (measured by TSI and/or Total Phosphorous [TP]) for your lake. A TSI score of 60 or above is considered impaired (or polluted) lake. For Lake Mills, there was a significant loading of TP attributed to storm events (2004 and 2008) that correlates to the large increase in TP. Reduction of TP sources (personal pollution, run-off, landscaping practices, shoreline erosion) can help reduce phosphorous in your lake that is abundantly available, potentially creating algae blooms.



You can find this information and much more by accessing the following website at: <http://www.seminole.wateratlas.usf.edu/lake/waterquality.asp?wbodyid=7613&wbodyatlas=lake>

Lake Vegetation Index Bioassessment (LVI): How Does My Lake Rank? 58 HEALTHY

The Lake Vegetation Index is a rapid bioassessment tool created by the Florida Department of Environmental Protection (FDEP) to assess the biological condition of aquatic plant communities in Florida lakes. The recent LVI assessment for Lake Mills scores a **58** which is an increase from **30 (Category 3- Impaired)** since inception of our lake management efforts in 2008.

Aquatic life use category	LVI Range	Description
Category 1 “exceptional”	78–100	Nearly every macrophyte present is a species native to Florida, invasive taxa typically not found. About 30% of taxa present are identified as sensitive to disturbance and most taxa have C of C values >5.
Category 2 “healthy”	38–77	About 85% of macrophyte taxa are native to Florida; invasive taxa present. Sensitive taxa have declined to about 15% and C of C values average about 5.
Category 3 “impaired”	0–37	About 70% of macrophyte taxa are native to Florida. Invasive taxa may represent up to 1/3 of total taxa. Less than 10% of the taxa are sensitive and C of C values of most taxa are <4.

Lake Mills Inspections FY 2011-2012

Summary of the September 19, 2012, inspection/report: Surviving hydrilla was present along the northern shore of the lake. The plant was small, frail and mostly found along the northern shore of the lake. These areas will be heavily monitored during the next several months. Hydrilla was also found in both the north and south entrances to the canal as well as two spots along the northern shore will be targeted for a “spot” treatment in the fall. The native SAV is expanding around the lake. This SAV includes; lemon bacopa, coontail, roadgrass, baby’s tears and eelgrass. Coontail was the most abundant species within the lake and continues to expand lake wide. Coontail will play an important role competing for space with hydrilla in the upcoming months. In the canal along northwest side of the lake parrot feather, hydrilla and salvinia will be targeted during the next treatment. The Secchi (water clarity) was 5.4 feet. The grass carp barrier was free from debris and operational. The water elevation at the time of inspection was 41.24 feet above sea level.

Summary of the August 23 , 2012, inspection/report: On August, 23rd, 2012, SCLMP staff, joined with FWC and SePRO product representative, surveyed the aquatic plants in Lake Mills. Hydrilla was present along the northern shore to a depth of 4 feet and found in portions within the two western canals in which the canals are scheduled to be treated this month. Additionally observed was the potato- like tubers generating these new hydrilla plants. Hydrilla tubers can remain viable in lake sediments for over 4 years. These areas will be heavily monitored during the next several months assessing the need for chemical treatments. On July 6th, 2012, 468 triploid (sterile) grass carp fish were stocked into Lake Mills as part of continued efforts and integrated plans (use of both chemical and biological controls) in managing hydrilla. Working with FWC during these inspections, and additional 486 fish will be requested for stocking into Lake Mills this fall (2012). Native SAV is continuing to expand and is a good sign for the health of your lake. Native SAV will play an important role competing for space with hydrilla in the coming months. The SAV observed during this assessment includes; eelgrass to 4 feet, lemon bacopa to 4 feet, nitella to 4 feet, chara to 4 feet, coontail to 6 feet, roadgrass to 6 feet, and baby tears.

In efforts to reduce transportation of exotics in/out of your lake, SCLMP will be installing educational campaign signs at the HOA boat ramps in Lake Mills. These signs are designed to educate boaters on the potential of transporting nuisance species that can be costly to manage. Image of sign is below.

Photo: Image of educational campaign sign provided by SCLMP.



STOP AQUATIC HITCHHIKERS!™

Prevent the transport of nuisance species.

Clean all recreational equipment.

When you leave a body of water:

- Remove any visible mud, plants, fish or animals before transporting equipment.
- Eliminate water from equipment before transporting.
- Clean and dry anything that comes in contact with the water (boats, trailers, equipment, clothing, dogs, etc.).
- Never release plants, fish or animals into a body of water unless they came out of that body of water.



The Secchi reading (water clarity measurement) was 6.9 feet out of 7.9 feet as compared to 8.4 feet in prior assessment. The grass carp barrier was inspected and found free from debris and operational. The water elevation at the time of inspection was 41.04 feet above sea level which is up from 40.55 feet in prior assessment.

Summary of the July 24, 2012 inspection/report: Surviving hydrilla was present along the northern shore of the lake. The plant was small, frail, and mostly found along the northern shore of the lake. These areas will be heavily monitored during the next several months. Hydrilla was also found in both the north and south entrances to the canal and will be targeted during the next herbicide treatment of which no irrigation advisory is required. On July 6th, 468 triploid (sterile) grass carp fish were stocked into Lake Mills as part of continued efforts and integrated plans (use of both chemical and biological controls) in managing hydrilla. The native SAV is expanding around the lake and is a good sign for the health of your lake. Native SAV will play an important role competing for space with hydrilla in the coming months. This SAV includes; lemon bacopa, coontail, roadgrass, baby tears, and eelgrass. In efforts to reduce transportation of exotics in/out of your lake, SCLMP will be installing an educational campaign sign at the boat ramp off Lake Destiny Trail. These signs are designed to educate boaters on the potential of transporting nuisance species that can be costly to manage. The Secchi reading (water clarity measurement) was visible on the bottom at 8.4 feet. The grass carp barrier was free from debris and operational. The water elevation at the time of inspection was 40.55 feet above sea level.

Summary of the June 13, 2012, inspection/report: Gloria Eby (Seminole County [SC] Senior Environmental Scientist), Marianne Pluchino (SC Senior Environmental Scientist), Thomas Lake Mills FY 2011-2012 Inspections

Calhoun (SC Contracted Scientist), and Dave Scharr (FDEP biologist) surveyed the aquatic plants and conducted a Lake Vegetation Index (LVI) assessment of Lake Mills. Hydrilla was observed to be in decomposition stage and is breaking apart, rising to the surface in several locations. Most of the plant is fragile, discolored, and easily breaks apart when handled. There is hydrilla biomass remaining but we do anticipate the remaining plant to continue to decompose and fall out as we have already observed in large areas of the lake. In efforts for continued integrated hydrilla lake management strategies (use of chemical and biological control methods combined), we have been pursuing amendment to the Lake Mills grass carp fish permit which was granted by FWC. A total of 486 fish are tentatively scheduled to be stocked into the lake on July 6th. In addition to our inspection, a Lake Vegetation Index (LVI) assessment was conducted. The LVI was created by the Florida Department of Environmental Protection as a rapid screening tool (bioassessment) for ecological condition; it determines how closely a lake's flora (aquatic plants) resembles that of an undisturbed lake. Historical LVI scores for Lake Mills range from 30 to 73 with the most current score being 58; within the Healthy range.

Summary of the May 18, 2012 inspection/report: Hydrilla is continuing to decompose with greater portions of the lake observed as free and clear of hydrilla. Visible signs of this decomposition include algae present on the plant and much of the remaining plant material found brittle and brown in color. We anticipate for more areas to be free and clear of the decomposing hydrilla within the next few weeks as we have noted this upon each of our weekly inspections. Our next inspection is scheduled for June 20th (weather permitting) and we will be providing you with an email update shortly thereafter. No additional treatments are anticipated for this project. Additionally, as part of our continued long term management plan for hydrilla, we are in the process of amending the Lake Mills grass carp fish permit with FWC to add an additional 2 fish per acre totaling 486 fish.

Summary of the May 10, 2012 inspection/report: We have been tracking how the treatments have been progressing now that the hydrilla is entering the decomposition stage. Given that the treatment had an unexpected drop in concentrations beginning in April, this has delayed the overall treatment plan beyond the originally anticipated 90-100 days. Due to these circumstances and working relationship with SePRO (product manufacture/representative), they have provided the additional product necessary to assure a successful treatment for Lake Mills. This product provided is of no cost to the MSBU funds. Lake Mills was treated Friday, May 11. We anticipate an approximate 14 day irrigation advisory for this bump treatment. Much of the existing biomass of hydrilla will continue to fall-out (decompose) without the planned treatment scheduled. The plant is very well impacted and brittle and several areas are absent of hydrilla. The decomposition will continue to progress as the impacted plant breaks apart from wind/wave action (as we observed during our inspection today) and we will continue to monitor this progression on a weekly basis. However, the additional treatment scheduled is a result of our observations and recent testing indicating that, without prolonged concentrations elevated within the lake, some of the impacted plant has potential for recovery from the treatment.

Summary of the April 19, 2012 inspection/report: The precautionary irrigation advisory was lifted. Observations from our assessment Thursday shows all new growth as being impacted (chlorosis present). Hydrilla is anticipated to enter the decomposition stage as its final stage. Greater biomass of hydrilla does take more time for a systemic herbicide to impact the plant and decompose.

Summary of the April 11, 2012 inspection/report: Lake Mills was treated yesterday for hydrilla as part of a third treatment using the systemic herbicide Sonar. Irrigation advisory was put in place for those that use lake water for irrigation purposes only.

Summary of the April 6, 2012 inspection/report: Hydrilla is impacted from the initial treatments; however, in the last 21 days, new growth is noted (although impacted). We are seeing this growth on the very tips of the plant and with the concentrations at the current level; this does warrant an additional treatment. We are currently at day 71 of the treatment; Sonar treatments can take upwards of 90 days. A bump treatment was scheduled for April 11. The precautionary irrigation advisory is lifted from now until Wednesday, April 11.

Summary of the March 8, 2012 inspection/report: Lake Mills was treated for hydrilla as part of the planned second treatment. Effects of the product thus far are showing good treatment results. There has been no change in the irrigation status and it remains in effects until further notice. We will return in approximately 21 days to inspect treatment status providing you an update on our findings.

Summary of the February 14, 2012 inspection/report: Concentrations of product are still above the precautionary advisory level of 10ppb; therefore, the precautionary irrigation advisory is still in effect until further notice. Retreat is scheduled within 3 weeks. We will advise if there is an irrigation window available prior to the next treatment scheduled tentatively for March 9. The treatment plan for hydrilla is based on splitting the treatment to maintain product at elevated concentrations within the lake for a longer period of time (hence, 2nd treatment). The visible effects are the white tips on the plant. Through a process called chlorosis (a condition where the loss of green pigmentation in plants occurs), the new growth is losing its food storage supply (carbohydrates) and dying off. During our inspections this was important to observe. Additionally, there is no new growth on the plant that is green (this would indicate that the plant was growing in presence of the product). These new growth tips will soon fall off the main stem of the plant in which the main stem plant will then begin to decay (we observed this already in one sample). Algae are present in portions of the lake due to the die-back of the plant. This should clear up once the plant biomass (hydrilla) is gone.

Summary of the January 17, 2012 inspection/report: Based upon the recent lake inspection, we have determined that the hydrilla is actively growing and we will schedule the initial treatment for **January 25, 2012** (weather permitting).

As in prior treatments, here are the details:

- Initial Application: January 25 Sonar applied to whole lake.
- Day 28: Lake survey to take 3 water samples to measure concentration of product in water (FasTest); plan 2nd treatment according to test results.
- Day 49: Apply 2nd treatment according to test results.

- Day 56 or 21 days following 2nd treatment: Lake survey taking 3 water samples to measure concentration of product in water (FasTest).
- Day 77: Final lake survey as determined by tests/progress of treatment.

Use of Sonar does require a precautionary irrigation advisory above 10ppb. This is specific to those who use lake water for irrigation purposes only. The precautionary advisory is based upon studies demonstrating that Sonar can damage turf grass if using treated lake water for irrigation purposes above concentration levels of 10ppb. The hydrilla treatment will take upward of 90 days for full treatment; there is a potential that the irrigation advisory can be in effect during that duration. We will notify you via these emails & reverse 911 calls once the levels are at or under 10ppb. Since dependent on water chemistry, plant biology, and weather, we will be testing the concentrations at the suggested schedule above and following up accordingly with you. A community message will be distributed via our reverse 911 calling system this Friday, January 20, as a reminder.

Summary of the December 21, 2011 inspection/report: Treatment for hydrilla will not commence until January when the plant is actively growing after winter dormancy. We are unable to treat in advance (November-December months) as the plant becomes dormant and ineffectively absorbs the herbicides. This poses the greatest risk of hydrilla surviving this costly treatment. Seminole County, together with SePRO's aquatic specialist, Dan Bergeson, and FWC Regional Biologist, CJ Greene, collected plants samples on November 23. This genetic testing determines if resistant strands of hydrilla exist within the lake and provides important information that determines the susceptibility of plants to aquatic herbicides. The pre-treatment plant samples were gathered from the lakes and processed at a specialized lab. These specialized results assist in developing specific treatment prescriptions for the lakes enhancing the success of the treatment. The results of the tests have shown that the plants within Lake Mills are "classically susceptible" to fluridone herbicide, which is great news. Once we have determined treatment start date, we will notify properties by both email and reverse 911 calling system and will advise of our findings from the January 17 survey.

Summary of the October 19, 2011 inspection/report: Seminole County Lake Management Program (SCLMP) staff Thomas Calhoun and Gloria Eby surveyed the aquatic plants of Lake Mills. The invasive exotic hydrilla has continued to expand throughout the lake to a depth of 9 feet and is now the dominant species around the lake. In water less than 7 feet, hydrilla is beginning to top out. As the water elevation drops the plant could be topping out along the whole perimeter of the lake however cooler temperatures and cold fronts will aid in reducing hydrilla off from the surface. On November 22 SCLMP staff, FWC, and SePro representatives are scheduled to collect hydrilla plant material for genetic testing in preparation for the whole-lake hydrilla treatment in January. Five other submersed aquatic vegetation (SAV) was observed during the inspection. These five plant species were all native and included: coontail to 9 feet, road grass to 9 feet, southern naiad to 8 feet, lemon bacopa to 2 feet, and eelgrass to 4 feet. This is a good diversity of submersed native plants! The north canal treatment for lily pads and hydrilla was successful. In the south canal, lilies still need to be treated for access. Around the lake, torpedo grass and cattail continue to be successfully treated by the Seminole County herbicide contractor. Elephant ear, an invasive exotic aquatic plant, has recently been added to the lake wide aquatic plant permit issued by FWC and will be targeted by herbicide contractor upon next treatment. Both grass carp barriers were observed to be in good condition and free of

debris as it was recently maintained. The water level was 41.78 feet above sea level compared to the previous month of 40.49 feet. The secchi (water clarity) was 7.3 feet in a depth of 17.9 feet.