Lake Amory, Thursday, May 10th, 2007

Status Meeting

List of county participants:
Dean Barber, Gloria Eby, Kathy Moore, Marianne Pluchino, Paula Seigler.

List of lake resident participants:
Bob Bledsoe, Rodger Bowen, Dan Folendore, Nancy Irish, Philip Lee, Amy Lockhart, Tim Lockhart, Dan Saunders.

Purpose:
The site meeting was scheduled for the purpose of reviewing project status and direction with the liaison group.

Lake Improvements - Summary

Phase I: The initial phase of the Lake Amory Project began in October 2006, and was funded by the Board of County Commissioners. County funding for the initial renovation was contingent upon the establishment of an MSBU to provide maintenance responsibility for the lake. Mechanical removal of the lake’s invasive/nuisance aquatic plants was acknowledged as the most cost-effective method for addressing the vegetative mass and nutrient level for this TMDL-associated waterbody. The Phase I activities were completed in March 2007. The County-funded Phase I activities, as listed below, included the removal of vegetation and associated organic matter, debris removal/hauling, re-seeding/sodding, and landfill tipping fees.

Cost Breakdown for Phase I
$3,500 – Lake Analysis
$75,000 – McLane Excavating (Aquatic weed harvesting)
$5,300 – Landfill Tipping Fees
$21,600 – In-house activities (debris removal/hauling, additional organic matter excavation/removal, final dressing, re-seeding/re-sodding)

$105,400 – Total

Phase II: The second phase of the Lake Amory project, designated for lake management and maintenance includes monthly herbicide treatments, stocking of grass carp, constructing a grass carp barrier (to retain fish in waterbody, as required by state permit) and replanting of key areas within the lake to inhibit invasive/nuisance plants from returning. The MSBU-funded Phase II expenditures thus far this first year have totaled $7,099.00 and have included the following:

- $644 - County Administrative fee
- $35 - Tax Collector fee
- $5,600 - Monthly herbicide contract
  (7 months @ $800.00/month, funded through September 30th, 2007)
- $170 – Grass Carp (20 fish @ $8.50/fish)
- $650 – Grass Carp barrier
Additional lake management recommendation and the respective cost estimates are listed:

- $2,200  Plants
- $2,800  Planting labor
- $9,885  Aeration system installation (one time cost)
  - $3,875  Aeration Utility (Electric) – annual expense
  - $300  Aeration system maintenance – annual expense

Developing a contingency reserve for addressing future needs is also recommended
- $2,500  Contingency Reserve

As listed above, the expenditure associated with the lake management recommendations, even if limited to the annual herbicide contract (which is the result of the competitive bidding process) will exceed the MSBU assessment cap of $300 per parcel which generates an annual budget of $5,845.00 (net administrative fees and debt installment payment). These budget concerns were conveyed to the liaisons and residents in attendance at the meeting. [Refer to the “MSBU Funding Perspective” attachment for additional information.]

The need to increase the available funds to meet the residents’ desires & lake management recommendations OR to scale back services to include basic herbicide treatments only was highlighted. The MSBU Program recommended the distribution of a petition to pursue increase to the per parcel cap so that the lake needs of Lake Amory would be appropriately funded. Liaison members and residents present at meeting did not support the recommendation from the MSBU Program. The primary spokesperson of the group conveyed expectations for services to be provided within the current assessment parameters.

What the Lake Amory Community Can Do:

The current funding assessed through the MSBU, as previously noted, will not cover desired activities. The responsibility will remain with the lakefront residents to expand their practice of good stewardship for their lake in order to maintain the restoration of open water and aquatic plant removal achieved by the BCC funded Phase I activities. These recommendations are feasible and can be accomplished with dedication. Seminole County Lake Management Program (LMP) will continue to provide the residents with technical direction and support for the Phase II recommendations as follows:

- Provide planting schematic with desired plant species to specific areas.
- Research donor site (alternate location source) option to provide free plant material.
- Provide volunteers to assist community organized event.
- Contact City of Sanford for greater funding/ support of desired aeration system.

LMP has stressed from the initiation of the project, how important it is for the residents to fulfill the recommended Phase II activities to ensure the success of this project. Through a collaborative community effort, re-planting beneficial natives in the recommend areas and continuing to think creatively to acquire additional funding for the needs of Lake Amory outside of the community assessment (MSBU) cap of $300.00 per parcel, the long term restoration of the lake can be achieved.

Several examples of other successful lake communities (Spring, Mirror, Seminary, and Myrtle) were discussed with the residents. It was emphasized that additional activity from the Lake
Amory residents needs to take place (in lieu of paying for services) to ensure that the re-vegetation (with beneficial natives) is accomplished.

**What Individual Lake Amory Residents Can Do:**

Attached is a map of the lake indicating key planting areas with specific plant species appropriate for the growing conditions. Several of these areas are along individual parcel shorelines in need of a stable native plant community. These areas are:

- Cove to the north
- 3 exposed “islands”
- Bank along golf course
- Bank along peninsula

Individual residents associated with these parcels are encouraged to plant these areas to provide greater stability of shoreline and inhibit invasive/nuisance plants from reestablishing thus insuring the overall health of the lake.

**Long Term Impacts/Recommendations:**

Long term impacts of not accomplishing Phase II activities recommended by LMP can include high monthly maintenance costs, continued growth of undesirable invasive/nuisance plant species including hydrilla and aesthetically unappealing results. Activities highly recommended by LMP are:

1. Plant cove area with existing pickerel weed. Add additional plants such as duck potato (*Sagittaria lancifolia*) and bulrush (*Scirpus californicus*). LMP will research whether duck potato can be transplanted from a different lake (donor location). This requires a permit to do so and volunteers to dig/transport plants to Lake Amory. This will reduce costs associated with having to buy duck potato. Bulrush will need to be purchased.
2. Plant “islands” with existing pickerel weed. Add additional plants such as duck potato for largest island.
3. Purchase additional plants, cord grass (*Spartina sp.*), to stabilize the plant biomass along golf course and around the peninsula and aid in the uptake of nutrient runoff.
4. Organize planting days to accomplish recommendations #1-3. Contact LMP to assist with outside volunteers, donor material, educational workshops, etc.
5. Submit application to Florida Lake Management Society-Love Your Lake Grant.
6. Aeration system for Lake Amory.

**Prioritized Activities Established:**

The cost of the monthly aquatic maintenance contract has exceeded the estimate calculated prior to the allocation of lake management funding for Phase I. In addition, several bids (four) were requested of which only one company submitted a quotation. The initial quotation had greatly exceeded the annual costs for maintenance and negotiations were conducted to reduce costs through September 30th, 2007. October 1st, 2007, a new contract will be negotiated and additional bids will be requested, however, costs are not likely to decrease based upon needs of the lake.
This was discussed with the residents and it was agreed that in order to afford the monthly costs, several months would not be chemically treated in order to reduce the annual budget. These months were identified as winter months due to the slow growing season. It was advised at the meeting that these “exclusion months” would need to be negotiated with the new contract to be effective October 1st, 2007. Again, LMP has emphasized the importance of replanting in key areas in order to reduce the need for chemical treatment and to stabilize the growth in Lake Amory.

It was also addressed by MSBU and LMP that there are no funds within the current assessment for additional grass carp (should this be needed to control hydrilla in the future), to repair to the carp barrier, as needed, to provide additional plant material, for plant installation, or for the aeration system. Residents will need to independently secure funding for these activities.

With the prioritization of activities established at the May 10th meeting, and the assessment of funding options, it is understood that the long term success of Lake Amory requires that the residents will have to become more active in the restoration efforts.
Duck potato:

Bulrush:

Pickerel weed:

Cord grass:

Reference obtained from:  http://plants.ifas.ufl.edu/plants&animals.html
Planting Schematic:

In the Cove, plant 20 clusters with 4 plants/clusters of pickerelweed (Pontederia cordata) and/or duck potato (Sagittaria lancifolia).

Adjacent to swimming pool and along its entire waterfront plant bullrush (Scirpus californicus or S. validus) on 4 foot centers in 3 rows.

Plant cord grass (Spartina spp.) along golf course and adjacent peninsula on 4 foot center in 3 rows.

Blue ovals represent the "islands" that have some existing pickerelweed (Pontederia cordata) which need additional planting of duck potato (Sagittaria lancifolia) and pickerelweed.

Planting on center and rows - this is planting one plant in the case, every 4 foot with 4 feet between rows of additional plants. This allows room for plants to expand and take over the area and inhibiting other invasive plants from establishing. This also allows application of herbicides on invasive plants trying to establish within the area.

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**MSBU Funding Perspective**

In support of the lake improvements accomplished in Phase I, and the recommended lake management activities for Lake Amory, the following funding scenarios have been offered for review and consideration. The financial impact to the MSBU of implementing the remaining recommendations would be as follows:

One-time Cost:
- **A. Plants & Aeration System**
  - $2,200 Plants
  - $2,800 Planting labor
  - $9,885 Aeration system installation (one time cost)

  Total $ 14,885  [$650 per parcel]

- **B. Plants & Labor Only**
  - $2,200 Plants
  - $2,800 Planting labor
  - $9,885 Aeration system installation (one time cost)

  Total $ 5,000  [$220 per parcel]

- **C. Aeration System Only**
  - $9,885 Aeration system installation (one time cost)

  Total $ 9,885  [$430 per parcel]

Recommended Annual Budget after implementation (excluding Administrative & TC fees)
- $9,600 Herbicide Contract (Annualized)
- $3,875 Aeration Utility (Electric) – annual expense
- $  300 Aeration system maintenance – annual expense
- $  200 Barrier Maintenance
- $  220 Carp
- $1,250 Contingency Reserve Provisions (1 of 2 years)

  Total $ 15,445  [$675 per parcel]

Recommended Annual Budget without aeration system (excluding Administrative & TC fees)
- $9,600 Herbicide Contract (Annualized)
- $1,250 Contingency Reserve Provisions (1 of 2 years)
- $  200 Barrier Maintenance
- $  220 Carp
- $1,250 Contingency Reserve Provisions (1 of 2 years)

  Total $ 12,520  [$545 per parcel]