

**Lake Lemon Conservancy District  
Dredging Study Group (DSG)**  
Introductory Meeting  
LLCD Office  
April 13<sup>th</sup>, 2013

**DREDGING STUDY GROUP MEMBERS PRESENT: TIM SPECHT, DIRECTOR; PAM DUGAN, DIRECTOR; TINA THRASHER, DIRECTOR; NORM HOLY: FREEHOLDER; JEFF HARTMAN: FREEHOLDER; GREG MCATEE: FREEHOLDER; LES WADZINKSI: FREEHOLDER; BOB MADDEN, DISTRICT MANAGER; JAMES VAN TASSEL, LAKE BIOLOGIST. ABSENT: LEVI WARTHAN: DREDGER.**

**I. Introductions and Welcome (Thrasher)**

- a. Thrasher welcomed everyone to the study group.
- b. Members include:
  - i. Directors:
    - 1. Tim Specht (II), Pam Dugan (VI), Tina Thrasher (VII)
  - ii. Freeholders
    - 1. Norm Holy (I), Jeff Hartman (III), Greg McAtee (IV), Les Wadzinski (V)
  - iii. LLCD Staff
    - 1. Bob Madden: District Manager, James Van Tassel: Lake Biologist, Levi Warthan: Dredger

**II. LLCD Board of Directors' "Charge" to the Study Group**

- a. Study the current barge operation.
- b. Make recommendations to the board for future barge operations.

**III. Review brainstorming notes of February 23, 2013 meeting.**

**IV. History of LLCD dredging operations (Madden)**

- a. In 2006, the original study group studied different methodologies of sediment removal, soil probing and testing, and disposal site options.
- b. Currently, the LLCD is using a mechanical barge operation.

- i. The current operation is flexible and has multiple uses including:
  - 1. Shoreline erosion control (rip-rap)
  - 2. Debris and stump removal
  - 3. Sediment removal
- c. Dick Payne (private contractor) was hired from 2006-2008.
  - i. Sediment removal, debris removal, and shoreline-erosion control (rip-rap)
  - ii. LLCD determined we could manage the operation at a lesser cost.
- d. In 2009, there was no dredging. Special benefit taxes were increased to fund an in-house operation.
- e. In 2010, with the money saved from 2009, delinquent tax money, and increased special benefit taxes; a bank loan of \$207,425.00 was obtained plus a cash down payment of \$180,325.00 was used to purchase the barge equipment.
- f. The LLCD in house dredging operation has been in place since 2010.
- g. It's been three years, so its appropriate to study the operation again.
- h. Wadzinski asked if any dredging was done prior to 2006.
  - i. No government sponsored dredging had occurred, however some areas of the lake have been dredged years ago.
- i. Specht mentioned that once the equipment is paid off in the next year or so, the money available for LLCD dredging will increase approximately \$46,000.00/year.

**V. Review research of Study Group to date.**

- a. Bathymetric Map
  - i. A survey was done in 2003 that mapped sediment depth/type, water volume, and water depth.
  - ii. Should we have a new study done since ten years have past?
    - 1. Cost of previous study was around ~\$13,000.00.
    - 2. Private contractors prefer an exact cubic yardage for estimates.
      - a. This kind of study will give a decent estimate but not an exact number.

b. Private Contractor

- i. Contractors will want an exact cubic yardage to remove.
  1. If funds run out they will not finish a job without additional funds.
- ii. Disposal Site Issues
  1. Disposal Site usage not included in private contractor cost.
- iii. Mobilization/Demobilization Costs will always be included in a private contractor's estimate.

c. Sedimentation Issues

- i. Estimated 8,000 - 10,000 Y<sup>3</sup> of sediment enters the lake each year
- ii. The LLCD removes between 10,000 – 13,000 Y<sup>3</sup> a year
  1. Access Channels
  2. Boating Safety Issues.
- iii. Bean Blossom Creek
  1. Majority of the sediment coming into the lake is from Bean Blossom Creek.
  2. The BBC channel is still deep (~6ft), but sediment is being deposited into the bay West of Salmon Point.
  3. Trying to rip-rap (erosion control) up BBC into the watershed is not fiscally possible. The land is out of the conservancy district boundaries and is owned mostly by farmers and the state which are reluctant to have work done on their portions of the creek.
  4. IDEM/DNR Best Management Plan
    - a. Could assist land owner in erosion control along BBC.
- iv. East/West side of Point Idalawn
  1. Channels on the East side are holding up well.
  2. Channels on the West side are holding up, however input from Possom Trot Creek is creating some shallow areas.
  3. Maintenance on the channels will be necessary in the future.

v. Salmon Harbor

1. First on priority list for 2013 LLCD dredging.

**VI. Establish Short Term and Long Term Goals**

a. LLCD Private Dredging

- i. Will begin in 2013.

- ii. Cost per barge load

1. Current barge load capacity is ~100 Cubic Yards (Y<sup>#</sup>).
2. Current established fee by Board is \$500.00/barge load.
3. Our cost according to Watkins Accounting in a financial analysis report completed in December 2012 is \$8.91/Y<sup>3</sup>.
4. What should the Conservancy charge Freeholders for private dredging?

- iii. Private Dredging Service Agreement

1. Board will need to approve.

- iv. Contractual Private Dredging

1. Sediment Removal Services quoted the LLCD \$15.40/Y<sup>3</sup> using our disposal site.
2. Mobilization/Demobilization is an additional cost.

b. Things to Review

- i. Private Dredging Cost

- ii. New Bathymetries/Sedimentation Map

- iii. Potential New Disposal Sites

1. Pond South of Long Causeway
2. Little Africa

- iv. Current Barge Operation

1. Option of Small barge
2. Option of Hydraulic Dredging

**VII. Next Meeting: May 11, 2013 at LLCD Office at 11:00 A.M.**

**VIII. Adjournment**

**Submitted By:**

**James Van Tassel**

**Lake Biologist**