

**Lake Lemon Conservancy District
Dredging Study Group (DSG)
LLCD Office
August 24, 2013**

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

I. Call Meeting to Order/Chairpersons Remarks

II. Approval of July 20, 2013 Meeting Minutes

THE DREDGING STUDY GROUP BY CONSENSUS APPROVED THE JULY 20, 2013 DREDGING STUDY GROUP MINUTES.

III. Review of DSG Recommendations to LLCD Board of Directors

a. Bathymetric Study/Map

- i. The Board budgeted \$15,000.00 for a new Bathymetric Study Map in the 2014 Proposed Budget.
- ii. The DSG discussed bidding out the bathymetric study to other contractors.
 1. The DSG believes it is wise to use the local company Image Matters, LLC (Dr. Jeff Ehman) whom produced the sediment map in 2006.

IV. Continue Discussion of LLCD Dredging Equipment

a. Current Big Barge

- i. Instrumental in debris removal and shoreline erosion control (rip-rap).
- ii. Still the best option for sediment removal if the barge can access the service zone.
- iii. Loan will be paid off early 2015.

b. Smaller Barge

- i. The DSG discussed building a smaller barge for areas the big barge is not capable of accessing.

ii. The barge would be ~18'x36' powered by two outboard motors and a smaller excavator. Capacity would be ~ 50 Y³.

1. Exact size and capacity is undecided.

iii. Efficiency

1. Smaller barge should be faster on the water.

2. Channels would be smaller 20' vs 40' allowing for less material to be removed and potentially quicker digs.

c. Digging in the Dry (Ideas for Bay East of Reed Point)

i. The DSG discussed the dredging operation occurring at Lake Griffy.

1. Griffy was drained for 2-3 years and the sediment dried ~4 feet down. The lake is currently covered in terrestrial vegetation.

2. The dredging operator could not reach hard pan and was forced to build a road and dig/load from the road. Small timber mats were used to assist the foundation of the road. Water also began to pool in the channel being dug.

3. The main expense for the Griffy operation was trucking the material to an outside location.

4. The LLCD would experience similar issues:

a. Not feasible to dig to hard pan

i. Too much excess material

ii. Cost in wages and fuel

b. Getting the equipment on site to dig

i. Timber Mats

c. Water Level

i. Lemon's large watershed is capable of filling the lake to normal pool with a few inches of rain.

ii. Yellowwood Field Trip

V. Fund Raising (Donation) Options for Dredging (Dugan)

- a. The late Tom Kelly, Director Sub-Area VI, worked on establishing a fundraising entity for the Lake Lemon Conservancy District.
- b. After Kelly's passing no further action was taken.
- c. Donations would be able to go towards barge operations, (dredging, debris, rip-rap) park operations, etc.
- d. The DSG concluded a study group should be formed to research and establish a fundraising entity.

VI. Field Trip: Yellowwood State Forest

- a. September 9, 2013, 6:30 PM, Visitor Center

VII. For the Good of the Order

VIII. Recommendations

- a. Bathymetric Map
 - i. The DSG discussed bidding out the bathymetric map/study. The DSG unanimously agreed that the best option is to use a local GIS Company, Image Matters, LLC. The DSG recommends to the Board to contract with Dr. Jeff Ehman of Image Matters, LLC for the bathymetric study and subsequent map.
- b. Barge Operation
 - i. The DSG determined the most fiscally efficient method for sediment removal is an in-house operation rather than outside contractors. Some areas around the reservoir are in need of the sediment removal service that our current operation can not access.
 - 1. In House Cost: \$8.98/Y³ (based on report by Shirley Watkins, LLC/D Accountant).
 - 2. Outside Contractor
 - a. Dick Payne's average cost: \$18.86/Y³
 - b. Sediment Removal Services: \$15.40/Y³
 - i. This includes using our disposal site and does not include mobilization/demobilization cost.
 - ii. A smaller barge (~ 36'x18') powered by two outboards and a smaller excavator would be capable of dredging the areas not accessible by the big barge. The current dredging loan can be paid off in early 2015.

- iii. The current barge operation has many advantages besides sediment removal. The big barge is instrumental in debris removal and is ideal for shoreline erosion control (rip/rap). The equipment can be paid off in early 2015.
- iv. If and when the Board decides to sell the big barge, it is anticipated that a sale could occur fairly quickly based on Dick Payne's success in selling his barges.
- v. The DSG recommends to the Board to consider budgeting for a smaller barge in the 2015 Budget and working on plans to build a smaller barge.
- vi. The DSG recommends keeping the big barge for a year or two along with the smaller barge.

c. Lake Lemon Foundation

- i. The LLCD looked into establishing an investment study group under the late Tom Kelly, Director Sub-Area VI. The DSG recommends to the Board to form a study group to look into re-establishing a Fundraising Entity for the LLCD.

IX. Next Meeting

- a. The LLCD Office will send out an email with a proposed meeting date for sometime after the September 18, 2013 Board of Directors Meeting.

X. Adjournment

SUBMITTED BY,

JAMES VAN TASSEL

LAKE BIOLOGIST