

**Lake Lemon Conservancy District
Dredging Study Group (DSG)
LLCD Office
September 13, 2014**

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

I. Call Meeting to Order/Chairpersons Remarks

a. Additional Freeholders Present:

- i. David Kehoe (III)
- ii. Marty Mann (III)
- iii. John Schell (IV)
- iv. Ron Thrasher (VII)

II. Soft Sediment Depths, Bathymetry and Volumetric Updates of Lake Lemon, IN prepared by ReMetrix LLC.

- a. The DSG reviewed the draft copy of the report prepared by ReMetrix.
- b. Jeff Ehman (Image Matters) is currently reviewing the technical data and will have his report by the end of September.
- c. Image Matters will provide several maps giving a vast comparison of the bathymetry from 2003 to 2014. These maps will help the LLCD in better determining the effects of sedimentation over the past ten years, and help facilitate updating a long term dredging plan.

III. Barge Designer

- a. Payne excavation is no longer interested in working with the LLCD in building/designing a smaller barge.
- b. The DSG has contacted a few barge designers/builders and received a quote from Waterways on a used barge that is similar to our desired specifications. Buying a used barge was discussed as an option rather than paying someone to design and build a brand new barge.

IV. Hydraulic Dredge

- a. The bay East of Reed Point is shallowing. In order to combat the sediment coming into this bay and the rest of the lake a more expansive operation is needed. Hydraulic dredging is an option that may be best suited for this job. However several issues arise with hydraulic dredging – cost of implementation (equipment/staff), disposal site (size limits/permitting), stump removal (mechanical dredging required).
- b. The DSG discussed getting a request for proposal detailing a sediment removal management plan in order to determine a ball park cost to return the lake to a previous state. The value of this management plan may not outweigh the cost to have a plan updated/developed. This plan would however give us a worst case scenario for what the cost/process would be to restore the lake.

V. Disposal Sites

- a. The biggest issue the LLCDC is currently facing is limited disposal site space on the East end of the lake. Possum Trot Disposal Site has not reached capacity, but is becoming more limited in dumping space each year.
- b. The LLCDC has permission from the CBU to develop a disposal site at Little Africa. This would be a ~2 acre disposal site that would be beneficial for east end digging.
 - i. The DSG discussed using the dredged material to expand Little Africa. One obstacle with this approach is permission/permits for in-lake disposal from DNR and/or IDEM.
 - ii. There would be significant cost associated with turning Little Africa into a disposal site. An access road and dumping ramp would be needed along with privacy fencing and other intricacies. The access road and ramp could exceed \$50,000.00.
- c. The DSG discussed the option of selling or giving away the material at our current possum trot disposal site. The dredged material has a slightly elevated arsenic level and can not be used for crop uptake by humans/livestock. The CBU owns the dredged material and would have to sign off on the LLCDC giving away the material. A waiver/permit would be required by the LLCDC prior to a person removing any dredged material.

This waiver/permit would indemnify the CBU and LLCDC of any incident/injury.

- d. The DSG discussed a second option for creating space at the possum trot disposal site. The CBU owns a ~9 acre parcel on the North East corner of possum trot road and north shore drive. The DSG thinks roughly half of this site would be eligible for depositing sediment. The LLCDC would move semi-dry sediment, most likely in the winter months, to this new site and level the area creating a 1-2 foot deep area of sediment. This 1-2 foot depth would allow the sediment to fully dry permitting the use of heavy equipment. The LLCDC would need permission from the CBU to begin a plan to develop this site.

VI. DNR LARE Grant for Possum Trot Weir Feasibility Study

- a. Scope of Services
 - i. The DSG reviewed the SOS. The SOS has many additional requirements that were not covered in our feasibility study proposal from Bledsoe Riggert & Guerrettaz. BRG's estimate was for \$7,200.00, after review of the SOS, the cost may be close to double BRG's estimate.
- b. The LLCDC has two years to use the grant funding from DNR-LARE (\$6,400.00) for a feasibility study. It was discussed that a cheaper alternative would be to bring the barge down the channel and reform the channel close to north shore drive every few years. The sediment weir feasibility study would provide the estimated cost in design, construction, maintenance, permitting, etc.

VII. Private Weir Systems: Update

- a. The salmon harbor neighborhood installed three separate shelves of rip-rap on the creek entering the harbor. The system appears to be working and holding up well.
- b. The chitwood neighborhood installed a sediment weir in the creek near walker lane. This also appears to be working and holding up well.
- c. Some members of the DSG discussed these weirs on site after the meeting.

VIII. Long Term Dredging Plan

- a. The first issue in the long term dredging plan is to remedy the disposal site issues described earlier.

- b. The second issue is trying to get ahead of the sediment coming in. According to the draft bathymetry/sediment report, more sediment is entering the lake than we are removing. The DSG discussed increasing the dredging budget. Currently the dredging budget is ~100,000.00. In order to appease those paying conservancy taxes without the need for dredged access channels a flat tax was discussed. This would be a ~\$200.00 annual flat tax associated with each freehold on top of the special benefits tax which is based on appraised value. This would increase the dredging budget to ~200,000.00. Hypothetically, twice as much material could be removed each year with an option for two crews working. Increasing the number of cubic yards removed re-emphasizes the need of a plan to continually remove dredged sediment from our current disposal site at possum trot.
- c. A \$100,000.00 general fund certificate of deposit is up for renewal at the next LLCB Board of Directors Meeting. After discussion of funds available to the LLCB in CD's (general and maintenance fund) and the surplus in the checking account, it was deemed more beneficial to use ~\$100,000.00 of CD funds, earning low interest rates, as a loan down payment on any future purchase of dredging equipment.

IX. Recommendations

- a. The DSG recommends the board ask LLCB Staff to check with Angela Parker, LLCB Attorney, about the process of implementing a flat tax and exploring other revenue streams in addition to the current special benefits tax.
- b. The DSG recommends to the Board to have LLCB Staff discuss with the CBU the possibility of giving away the dredged material and utilizing the property on the North East corner of possum trot road and north shore drive as a disposal site.
- c. In the event the Board decides to purchase additional dredging equipment, the DSG recommends using ~100,000.00 from general CD funds as a down payment on the loan. The DSG recommends renewing the \$100,000.00 general fund CD for three months.

X. Adjournment

Submitted by:

James Van Tassel, Lake Biologist