



Lake Lemon Conservancy District

To: Lake Lemon Conservancy District Board of Directors and Freeholders
From: Bob Madden, District Manager
Subject: 2013 Annual Report
Date: February 19, 2014

This report is a summary of the most significant operational objectives the LLCD addressed in 2013.

1. BOARD OF DIRECTORS:

Two (2) LLCD Board positions were filled in 2013. Lance Eberle ran unopposed and was elected to a four (4) year term in Sub Area I. Term will expire in 2017. John Schell ran unopposed and was re-elected for another four (4) year term in Sub Area IV. Term will expire in 2017. Board officers for 2013 were John Schell, Chairman; Pam Dugan, Vice-Chairman; and Lance Eberle, Treasurer. Director Kristin Spickelmier (Deceased) resigned her Director's position in 2013 due to health concerns. The LLCD Board of Directors appointed Kim Mayer to fill the vacancy until the 2014 annual meeting.

2. PERSONNEL:

Key staff for 2013 included Joe Hopkins, Chris Nguyen, and Connor Creek, Gate Attendants; James Van Tassel, Lake Biologist; Levi Warthan, Barge Operator;

3. GATE HOUSE OPERATIONS:

The 2013 boating season started on Saturday, March 16th, and ended on Sunday, December 1st. Boat permits and launch fees collected in 2013 totaled \$136,392.00. The District hosted 29 fishing tournaments in 2013.

4. 2013 BOATING SAFETY/ENFORCEMENT:

- A.** There were no boating accidents reported to LLCD or IDNR Law Enforcement in 2013. However, there was an ambulance run to Riddle Point Beach for a woman who had become unconscious. She awoke, refused additional treatment and vacated the park.
- B.** IDNR Law Enforcement had a visible presence on the reservoir in 2013. Thirty (30) citations and forty one (41) warning tickets were issued.

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5. 2013 AQUATIC PLANT MANAGEMENT:

Vegetation started growing later in the season compared to 2012. The spring of 2013 had more rain and milder temperatures compared to the high heat and drought in 2012. Eurasian watermilfoil's growing season begins earlier than most species. Our first treatment in early June focused mainly on milfoil with a few areas of other submersed vegetation. A systemic herbicide, Renovate, was used for treatment of the milfoil which is a very effective chemical and provides up to a two year kill. In 2012, milfoil covered a significant amount of the bay East of Reed Point. Expecting this to be an issue in 2013, the LLCDC applied for a vegetation control grant from DNR – Lake and River Enhancement Program. The LLCDC received \$5,000.00 for control of milfoil in the lake proper. The LLCDC matched the \$5,000.00 and treated 20.04 acres of milfoil in the east bay totaling \$9,999.96. A “channel” was treated in the bay east of Reed Point to help allow the residents of Pt. Idalwan to gain easier access to the rest of the lake. This “channel” along with treatments on the shorelines of Reed Point and Pt. Idalawn resulted in significant residual control and effectively eradicated all the milfoil in the east bay.

The reservoir was treated five times between June and September 2013. Overall the treatments were very successful. Little to no re-treatments were done except for some spatterdock that may have been treated too early and three acres of submersed vegetation. Lotus is an emergent species that must reach a certain maturity before it can successfully be treated. In late July, 16.8 acres of lotus were treated including the maintenance lines on the East end of the reservoir. The LLCDC spent a total of \$59,118.96 in vegetation treatments including the \$5,000.00 received from DNR-LARE resulting in a net expenditure of \$54,118.96 (\$50,000.00 Budgeted).

6. 2012/2013 WINTER DRAWDOWN:

The sluice gate was opened on November 26th, 2012 to commence the draw down. The lake was 8 inches below normal pool at the start of the draw down. An early dry and mild December achieved a 78 inch draw down, and the sluice gate was closed on December 17th. Between December 25th and December 29th the lake experienced a 13 inch snow fall. By January 11, 2013 the lake was 51 inches down and the gate was re-opened. On January 14th the lake received a 3 inch rain melting the remaining snow and bringing the lake back to normal pool. The gate was kept open until February 14th. The lake was 36 inches below normal pool when the gate was closed for the drawdown.

The drawdown provides an opportunity to freeze and destroy the root structure of nuisance vegetation while parts of the lake bed are exposed. The lake reached a successful draw down level, but the snow cover insulated the ground before the cold temperatures could destroy the root structures. Once the rain and melting snow filled the lake to normal pool, there was little to no exposed lake bed the remainder of the season

7. 2013 WILDLIFE CONTROL:

The LLCDC received permission from the IDNR, Fish and Wildlife Division to treat resident Canada Goose nests and eggs. IDNR only requires registration and a final report on how many nests were treated. In the spring, James Van Tassel, the LLCDC Lake Biologist, treated 22 nests totaling 175 eggs on Cemetery Island in Monroe County. No other accessible nesting areas were treated around the lake. It appears the treatment was effective as little to no goslings were seen around Cemetery Island. The LLCDC will continue its efforts in treating resident Canada Geese in 2014.

8. 2013 WATER TESTING:

- A.** Indiana University's School of Public and Environmental Affairs (SPEA) conducted the tests. The tests included a review of such parameters as clarity, nutrients, algae, dissolved oxygen, and fecal coliform bacteria. The 2013 results are expected in May 2014 from SPEA. All previous reports may be found on our website.
- B.** The LLCDC Biologist monitored E. coli concentrations at Riddle Point Park beach once a week starting in May and ending in September. All tests were well below the risk threshold established by the State of Indiana.

9. RIDDLE POINT PARK:

- A.** The park opened on Saturday, May 25th. Park admissions were charged daily thru Monday, September 2nd. The season vehicle pass was \$60.00; daily park admission was \$5.00 per vehicle. Total park admissions collected was \$26,655.00.
- B.** The Riddle Point Park shelter was rented 12 times. The shelter rental fee was \$125.00/day. Total shelter rental fees collected were \$1,500.00.
- C.** Events hosted by the IU Women's Varsity Rowing Team, and the Lake Lemon Triathlon, hosted by Phi Kappa Psi fraternity from IU, generated an additional \$4,275.00 in revenues.
- D.** The LLCDC Board hosted the Independence Day Fireworks Show at Riddle Point Park on July 5th. Sky Magic Pyrotechnics, Inc, Brazil, IN, conducted the show at a cost of \$6,500.00. Donations and contributions collected for the event totaled \$6,942.28.

10. SHORELINE PROJECT PERMITS:

- A.** Thirteen (13) permits were issued to lake freeholders in 2013. These projects dealt primarily with shoreline erosion control, sea wall construction, and minor shore-line improvements. Since 1996, 334 shoreline permits have been issued to Conservancy freeholders.

11. 2013 LLCD LAKE ENHANCEMENT PROGRAM:

The Lake Enhancement Program consists of four primary maintenance functions: lake debris and stump removal; shore-line erosion control stabilization (rip-rap stone); lake dredging (sediment removal); and sediment/debris disposal site(s) development and maintenance.

These functions are accomplished through LLCD's self managed barge operation. Operation consists of two (2) seasonal employees and the following pieces of equipment: A. 66 foot long x 36 foot wide steel barge; B. Excavator; C. Push boat; D. Bulldozer; E. Articulated off road truck; and F. Maintenance Utility Truck.

A Summary of 2013 Maintenance Functions are as follows:

- I. ATTACHMENT A- 2013 LAKE DEBRIS/STUMP REMOVAL: FINAL FINANCIAL SUMMARY**
- II. ATTACHMENT B- FINAL FINANCIAL 2013 SHORE-LINE STABILIZATION (RIP-RAP) SUMMARY**
- III. ATTACHMENT C- 2013 FINAL FINANCIAL SUMMARY OF LLCD DREDGING (SEDIMENT REMOVAL)**
- IV. ATTACHMENT D- 2013 FINAL POSSOM TROT DISPOSAL SITE PREPARATION EXPENSES**

12. INSURANCE SERVICES:

Provided by First Insurance Group, Bloomington, IN. (Lance Eberle).

13. ACCOUNTING SERVICES:

Provided by Watkins Accounting, Bloomington, IN. (Shirley Watkins).

14. LEGAL SERVICES:

Provided by Andrews, Harrell, Mann, Carmin, & Parker, Attorneys at Law, Bloomington, IN. (Angela Parker).

15. LLCD'S FINANCIAL INSTITUTION:

The Peoples State Bank, Ellettsville, IN. (Johnny Lindsey)

Attachment "A"

2013 Lake Debris

Financial Summary

EXPENSES	
Staff Costs: Dredger 72.5 hours @ \$35/hr	\$2,537.50
Assistant Dredger 68 hours @ \$17.50/hr	\$1,190.00
Fuel (Estimated)	7 Gallons/hour @ \$3.38/gallon x 60 hours= \$1,419.60
Contractual Services	\$3,000.00
Grand Total	\$8,147.10

Attachment "B"

2013 Shore-Line Stabilization (Rip-Rap)

Financial Summary

Service Zone (District)	Total Tons (Rip-Rap) Stone	Total Linear Feet
107 (I)* (Boys & Girls Club)	366.44*	80'
108 (I)* (Riddle Point Cove)		345'

*: CBU Shore-line

Total Cost of Rip-Rap Stone: \$5,679.82
Total Staff Costs: \$1,080.63 (21 Hours @ \$35/hour),
(19.75 Hours @ \$17.50/hour)
Total Fuel (estimated): \$473.20
(7 Gallons/hour @ \$3.38/gallon x 20 hours)

Total Cost: \$7,233.65

Note: One (1) private rip rap job was performed in service zone 111, totaling 117.10 tons of rip rap stone totaling 55 lineal feet.

Attachment “C”

2013 Sediment Removal

Financial Summary

Personnel Costs	Actual 2013	Budgeted 2013
Dredger 592 Hours @ \$35/Hr.	\$20,720.00	\$21,000.00
Assistant Dredger 480.5 Hours @ \$17.50/Hr.	\$8,408.75	\$10,500.00
Total Personnel	\$29,128.75	\$31,500.00

Supply Costs	Actual 2013	Budgeted 2013
Diesel Fuel	\$7,199.77	\$12,500.00
Dredging Supplies	\$6,373.86	\$8,000.00
Total Supply Cost	\$13,573.63	\$20,500.00

Services & Charges	Actual 2013	Budgeted 2013
Insurance	\$8,556.00	\$8,556.00
Repair/Maintenance	\$1,992.58	\$7,000.00
Loan Service	\$46,000.02	\$46,000.00
Total Services & Charges	\$56,548.60	\$61,556.00

Grand Total	Actual 2013	Budgeted 2013
	\$99,250.98	\$113,556.00

Note: Lake Biologist worked 120 hours as Assistant Dredger totaling \$1,680.00
(120 hours @ \$14/hour)

2013 Sediment Removal Program Summary				
Priority	Service Area	Y3 Removed	Description	% Completed
1	139	4,800	Salmon Harbor (VII)	100%
2	304	8,400	Little Africa - Chitwood Entrance (VII)	100%
3	130	0	East Side of Reed Point (VI)	0%
4	114	0	East of Spillway (II)	0%
n/a	139 (Private)	100	Freeholder Shoreline (VII)	100%
n/a	139 (Private)	200	Freeholder Shoreline (VII)	100%
n/a	139 (Private)	300	Freeholder Shoreline (VII)	100%

Cubic Yard Cost

Cost per Cubic Yard based on 2013 Sediment Removal Financial Summary

$(\$99,250.98 \div 13,200 \text{ Y3}) = \mathbf{\$7.52}$ per Cubic Yard

Cost per Cubic Yard based on 2013 Sediment Removal Financial Summary plus Disposal Site Preparation

$[(\$99,250.98 + \$18,305.47) \div 13,200 \text{ Y3}] = \mathbf{\$8.91}$ per Cubic Yard

Attachment "D"

2013 Possom Trot Disposal Site Preparation

Financial Summary

Category	Cost
2013 Expenses	
Staff Dredger	\$9,975.00 (285 Hours @ \$35.00/hr)
Assistant Dredger	\$2,266.25 (129.5 Hours @ \$17.50/hr)
Total Staff Costs	\$12,241.25
Supplies Stone	\$2,673.34
Diesel (estimated) (7 gal/hr @ \$3.38/gal x 118 hrs)	\$2,791.88
Contractual Equipment Rental	\$599.00
Total Supply/Contractual Costs	\$6,064.22
2013 Grand Total	\$18,305.47