

To: Lake Lemon Conservancy District Board of Directors and Freeholders
From: Bob Madden, Manager
Subject: 2010 Annual Report
Date: February 4, 2011

This report is a summary of the most significant operational and administrative accomplishments LLCD addressed in 2010.

1. BOARD OF DIRECTORS:

Two (2) LLCD Board positions were filled in 2010. Tim Specht was elected to a four (4) year term in Sub Area II and Pam Dugan was elected to a four (4) year term in Sub Area VI. Both terms will expire in 2014. Board officers for 2010 were Marty Mann, Chairman; Dave Hobson, Vice-Chairman; and Dennis Friesel, Treasurer.

2. PERSONNEL:

Staff for 2010 included Brandon Cain, Jake Morrow, and Patrick Campbell, Gate Attendants; Adam Casey, Lake Biologist; Gary Clark, Maintenance Technician; Levi Warthan, Barge Operator; and Larry Hays, Push Boat/Truck Operator.

3. GATE HOUSE OPERATIONS:

The 2010 boating season started on Saturday, March 20th, and ended on Sunday, November 21st. Boat permits and launch fees collected in 2010 totaled \$118,557.50, which was a record high. The District hosted 31 fishing tournaments.

4. 2010 BOATING SAFETY/ENFORCEMENT:

- A. There were no boating accidents reported to LLCD or IDNR Law Enforcement in 2010.
- B. IDNR Law Enforcement had a visible presence on the reservoir in 2010. 47 citations and 64 warning tickets were issued.
- C. LLCD Lake Patrol issued no City of Bloomington Ordinance violation citations.

5. 2010 AQUATIC PLANT MANAGEMENT:

On May 24th and June 17th Aquatic Control, Inc., Seymour, IN. treated 96.6 and 12.5 acres of Eurasian water milfoil, respectively, around docks, boating lanes and in the lake proper. On July 21st, Aquatic Control treated 18.8 acres of lotus and spatter dock on the east end of the lake. Following the successful treatment of Eurasian milfoil a large growth of Brittle Naiad occurred encompassing approximately 18 acres of docking and shoreline areas. Treatment for the Brittle Naiad occurred on August 5th and September 9th. Total expenses for 2010 vegetation treatments were \$63,375.75.

6. 2010 WINTER DRAWDOWN:

Ice cover was beginning to develop on Lake Lemon at the beginning of the 2009-2010 drawdown. As a result, the majority of exposed shoreline maintained an insulating cover of ice. The ice cover insulation prevented a deep freeze of the lake bottom and potentially decreased the effectiveness of the lake drawdown. Studies have shown that a successful drawdown during extended periods of freezing temperatures decrease the abundance of aquatic vegetation, especially for rooted species such as Eurasian watermilfoil and Spatterdock that generally grow back from existent root structures. It is surmised that the ice cover insulation was partially responsible for the increase in vegetation abundance during the 2010 growing season. Though vegetation reduction was minimal, winter drawdown's do play a beneficial role in the health of fisheries. Decreasing the total volume of water helps to concentrate game fish such as bass with feeder fish during the drawdown.

7. 2010 INDIANA CLEAN LAKES PROGRAM:

LLCD continued its involvement with this program in a cooperative effort between LLCD, the Indiana Department of Environmental Management (IDEM), and School of Public and Environmental Affairs at Indiana University (IU-SPEA). This long-term monitoring program tests for water clarity/transparency and qualitative algae counts based on color readings. Monitoring is done multiple times a month during the boating season. The monitoring will help LLCD identify any changes in water quality over time. In 2010, 8 Secchi disk readings were taken, with an average clarity depth of 3.4 feet. This represents an increase in water turbidity and an average decrease in light penetration of approximately 2 inches. This is not necessarily a negative situation as decreases in light penetration are associated with reductions in aquatic vegetation growth.

8. 2010 WILDLIFE CONTROL:

On March 25th, the LLCD received permission from the IDNR, Fish and Wildlife Division to treat resident Canada goose nests and eggs. Similar to last year, IDNR did not require a permit to treat resident Canada goose nests and eggs.

IDNR only requires registration and a report on how many nests were treated. The primary nesting site for geese on Lake Lemon is Cemetery Islands located at the west end of the lake. On April 22nd, approximately 20 nests were treated on the islands, totaling 203 eggs. A follow up inspection showed that there were no new nests or eggs, and none of the treated eggs had hatched. This is an ongoing effort to help control the Canadian goose population on Lake Lemon

9. WEBSITE RECONSTRUCTION:

Beginning on April 21st, 2010, Blue Tide Productions, LLC, Indianapolis, IN, began designing a new website for the Lake Lemon Conservancy District. The entire project took approximately 3 months and turned out to be a much improved site. The over all aesthetics and navigability of *LakeLemon.org* has been greatly enhanced. The entire website redesign cost \$960.00.

10. 2010 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 2010 results are expected in May 2011 from SPEA.
- B.** The LLCDD 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.

11. RIDDLE POINT PARK:

- A.** The park opened on Saturday, May 29th. Park admissions were charged daily thru Monday, September 6th. The season vehicle pass was \$50.00; Monday thru Friday park admission was \$4.00 per vehicle; weekend/holiday park admission was \$5.00 per vehicle. Total park admissions collected were \$25,865.00, which was an all time record high.
- B.** The Riddle Point Park shelter was rented 15 times. The shelter rental fee was \$125.00/day. Total shelter rental fees collected were \$1,875.00.
- C.** Fees for two events hosted by the IU Women's Varsity Rowing Team; the Annual Lemonhead Regatta hosted by the Riddle Point Rowing Association; and the Lake Lemon Triathlon, hosted by Phi Kappa Psi fraternity from IU, generated an additional \$4,025.00 in revenues.
- D.** The LLCDD Board hosted the Independence Day Fireworks Show at Riddle Point Park on July 3rd. Sky Magic Pyrotechnics, Inc, Brazil, IN, conducted the show at a cost of \$6,500.00. Donations and contributions collected for the event totaled \$6,630.91.
- E.** Repairs to the Riddle Point Park boat ramp were completed in December. A new 24' long by 12' wide by 10" thick concrete pad was poured by Coffman Construction, Bloomington, IN. The cost of improvement was \$5,575.00

12. SHORELINE PROJECT PERMITS:

- A. Eight (8) permits were issued to lake freeholders in 2010. These projects dealt primarily with shoreline erosion control, sea wall construction, and minor shoreline improvements. Since 1996, 295 shoreline permits have been issued to Conservancy freeholders.

13. DAM, SPILLWAY, AND SLUICE GATE INSPECTION:

- A. On October 5th, DLZ Engineers, Indianapolis, IN, and C.D.S. Construction Co., Inc., Louisville, KY, inspected the dam, spillway, and sluice gate structures on the reservoir. Both companies were hired by the LLCDC Board to meet an Indiana Department of Natural Resources (IDNR) mandate requiring all high hazard dams be inspected every two years. In all areas of evaluation, the dam, spillway, and sluice gate received acceptable scores with an overall rating of satisfactory. Some repairs were recommended for action and will be addressed prior to the next inspection in two years.

14. LLCDC LAKE ENHANCEMENT PROGRAM:

2010 was a milestone year for the LLCDC Lake Enhancement initiative. In May, the Board purchased a barge, push boat, excavator, off-road articulated truck and a utility truck. Two seasonal staff members were hired and the District went into the business of reclaiming the reservoir. At Attachment "A", please find the 2010 Financial Summary for Dredging and Shoreline Stabilization and at Attachment "B", please find the totals for each operation.

In addition, the LLCDC Board of Directors obtained two (2) City of Bloomington Utilities parcels to be developed into sedimentation disposal sites on the east end of the lake. Portions of Little Africa on the south shore will be developed in the future with current efforts geared to the development of the Possom Trot site on the north shore. At Attachment "C", please find the Possom Trot development expenses through the end of 2010. The site is approximately 70% developed.

15. INSURANCE SERVICES:

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

16. ACCOUNTING SERVICES:

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

17. LEGAL SERVICES:

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

18. LLC'S FINANCIAL INSTITUTIONS:

Monroe Bank, Bloomington, IN. and Peoples State Bank, Ellettsville, IN.

19. 2011 MANAGEMENT GOALS:

- I. Apply for a \$45,000.00 Grant from IDNR Lake and River Enhancement Program (LARE) for treatment of exotic nuisance vegetation in the reservoir.
- II. Continue the process of developing the Possom Trot sedimentation disposal site on the east end of the reservoir so it is usable during the 2011 dredging season.
- III. During the 2011 winter drawdown, mark stumps for removal by the barge operation in the spring.
- IV. Start investigating a plan of action and costs associated with making repairs to the dam, spillway, and sluice gate as recommended by the 2010 Dam Inspection Report.

Attachment A

Final 2010 Financial Summary of LLCD Dredging and Shoreline Stabilization

Personnel Costs	Actual 2010	Budgeted 2010
Dredger 620.5 Hours @ \$30/Hr.	\$18,615.00	\$14,400.00
Push Boat/Truck Operator 611 Hours @ \$15/Hr.	\$9,165.00	\$7,200.00
Benefits (FICA/SUTA)	\$2,279.17	\$1,806.40
Total Personnel	\$30,059.17	\$23,406.40
Difference (-\$6,652.77)		

Supply Costs	Actual 2010	Budgeted 2010
Diesel Fuel	\$7,819.22	\$12,000.00
Dredging Supplies Oil, Grease, Torch/Tanks; welder/welding supplies; nuts/bolts; shop towels; socket; filters; grease gun; re-bar; cables; marking paint; batteries; shop-vac; clevis; lifting slings; driving tool; gps unit; depth sounder; hex set; range finder; drain spade; shovels; push brooms; chain; hooks; safety supplies.	\$4,780.99	\$4,000.00
Rip-Rap/Erosion Control Stone; Fabric filter	\$9,803.74	\$10,000.00
Total Supply Cost	\$22,403.95	\$26,000.00
Difference (+\$3,596.05)		

Services & Charges	Actual 2010	Budgeted 2010
Insurance	\$6,868.00	\$8,000.00
Repair/Maintenance Crane Service; Recondition Prop; Lettering on Truck	\$1,278.93	\$7,000.00
Loan Service	\$23,000.00	\$46,000.00
Total Services & Charges	\$31,146.93	\$61,000.00
Difference (+\$29,853.07)		

Capital Assets	Actual 2010	Budgeted 2010
New Prop (Used)	\$1,200.00	0.00
Total Capital Assets	\$1,200.00	0.00

Grand Total	Actual 2010	Budgeted 2010
	\$84,810.05	\$110,406.40
Grand Total Difference (+\$25,596.35)		

Attachment B

LLCD Final 2010 Dredging & Shore-Line Stabilization Summary

Final Dredging Summary

Service Zone (Sub-Area)	Barge Loads	Cubic Yards
116 (II) (Truck Transfer Site: Training)	5.5	550
108 (I) (Patrol Boat Cove: Barge mooring/Training)	11	1,100
133/134 (VI) (East Side Pt. Idalawn)	15	1,500
134 (VI) (East Side Pt. Idalwan)	39	3,900
302 (VI)	3	300
304 (VII)	12	1,190
Totals	85.5	8,540

Final Shoreline Stabilization Summary

Service Zone (Sub-Area)	Tons of Rip-Rap	Linear Feet
117 (II) ("Old" Barge Mooring Area: Training)	204.45	295'
116 (II) (Truck Transfer Site: Training)	100.4	170'
108 (I) (Patrol Boat Cove: Training)	39.48	62'
118 (II)	178.70	225'
115 (II)	202.11	323'
Totals	725.14	1,075'

Attachment C

Final 2010 Possom Trot Disposal Site Preparation Expenses

Category	Cost
Staff	\$32,939.20 (680 Hours @ \$48.44/hr) (34 Days)
	\$1,291.60 (40 Hours @ \$32.29) (4 Days)
	\$80.75 (5 Hours @ \$16.15) (1/2 Day)
Total Staff Costs	\$34,311.55
Supplies	
Security Gate	\$84.44
Silt Fencing	\$236.50
Equipment Repair	\$257.17
Hydraulic Fluid	\$177.80
Chain Saw & Parts	\$498.40
Diesel Fuel	\$4,539.00
Stone	\$14,419.65
Total Supply Costs	\$20,212.96
Contractual Services	
Transport Excavator	\$550.00
Equipment Rental	\$1,650.00
Engineering Rule 5 Permit (100%)	\$5,400.00
Attorney Fees	\$150.00
Rule 5 Review Fee	\$300.00
Total Contractual Services	\$8,050.00
Grand Total	\$62,574.51