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INDIANA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FISH AND WILDLIFE

LAKE AND RIVER ENHANCEMENT PROGRAM

Application for Grant Funds

**(Please complete and submit electronically
to lare@dnr.IN.gov by January 15)**

**Activities Related to
SEDIMENT REMOVAL FROM LAKES**

I. Applicant Information

A. Project sponsor (applicant):

Name Lake Tippecanoe Property Owners

Address PO Box 224

City, State, Zip Code Leesburg, IN 46538

B. Contact person for the sponsor organization:

Name Holly LaSalle

Title Chairman Aquatic Weed Control & Dredging

Address 67 EMS T49 A Lane

City, State, Zip Code Syracuse, Indiana 46567

Telephone (Day) 574-269-8395 (Evening) 574-834-2185

FAX 574-372-3898 E-Mail hlasalle@kch.com

C. Briefly describe the past and present activities of the sponsor organization. The Lake Tippecanoe Property Owners (LTPO) was formed in 1944 as the Lake Tippecanoe Protective Association. It was founded largely for the purpose of preserving the beauty and health of the lake. The LTPO have continued to update and expand the original goals and has developed a strategic plan to reach those goals. The LTPO has been active in LARE programs since 1997.

D. Describe the legal status of the sponsor organization, i.e., indicate what the sponsor has done to acquire official standing. State when the organization was established.

List current officers'/officials' names. The Lake Tippecanoe Property Owners was formed in 1944. President, Dan Drook; Vice President, David Swart; Secretary, Angela Drook; Treasurer, Susan Hayes.

- E. If the sponsor organization is a “property owners” or “lake” association, what percentage of the affected lake’s residents are members of the group? Membership in the LTPO is voluntary with 722 members, approximately 60% of the lake homeowners are members of the association.
- F. Are there other organizations also representing residents of the affected lake? What relationship do those organizations have with the sponsor/applicant on matters related to this application? LTPO is an active and supporting affiliate of the Tippecanoe Watershed Foundation.
- G. Briefly describe the financial resources available to the sponsor organization (e.g., dues, contributions, fund drives, taxes, etc.). Membership dues, contributions to dedicated funds and fund raisers.

II. Lake/Watershed Information

- A. Lake(s) name(s) Lake Tippecanoe
- B. County (ies) Kosciusko
- C. Lake size (acres) 880 acres, (1,133 including Lake James and Oswego Lake)
- D. Watershed (drainage basin) size (acres), if known 71,660 acres
- E. Describe how the general public can gain access to the lake(s) (i.e., the number and types of access sites, their location, ownership, and any fees charged). Tippecanoe Boat Company (fee), Pie-Eyed Petey's Marina and Restaurant (fee), Patona Bay Resort (fee), Tippy Dance Hall (fee), Grassy Creek (IDNR). Fees are \$3.00-5.00.

III. Project Information

- A. For what specific purpose is funding being sought? Sediment removal. Specifically, the removal of vast amounts of filamentous blue-green algae mats which have settled on the lake bottom.

Development of a sediment removal plan? Area included in previous study as recommended for sediment and algae removal. A formal sediment removal plan will be completed and approved, and all associated permits will be obtained prior to beginning any dredging activities within the specified project area. It is anticipated the sediment removal plan will be completed by the winning consultant/contractor for this project.

Actual removal of sediment? It is anticipated the area for sediment and algae removal is approximately 1.5 acres within the lake and associated inlet channel, totalling a surface area of approximately 65,340 square feet. Using the survey completed for previous sediment removal projects within the area, it is assumed the removal depth will be approximately 3 feet. Actual sediment removal totals are estimated to be in excess of approximately 6000 cubic yards which will require a disposal lagoon capacity of approximately 9000 cubic yards.

Purchase or lease of sediment removal equipment? No.

Other? (Explain) LTPO will put the project out for bid and award the sediment removal to the most financially qualified contractor.

B. Describe the need for the project. Hanna B Walker Drain was identified as contributing sediment to Lake Tippecanoe in the Lake Tippecanoe Diagnostic Study completed in 1997. In 2000, LTPO performed a floodplain restoration project including a relocation of failed portions of the Hanna B Walker Drain upstream of the channel inlet working with LARE staff and funds. Additionally, a sediment trap was constructed in the drain in 2000, a Design Summary report for Lake Tippecanoe Hanna B. Walker Drain Sediment Trap was filed with LARE, February 2000. The sediment trap has continued to be maintained by both LTPO and the adjacent property owner. The sediment has been removed on four separate occasions since its construction. The channel and inlet area has been dredged to maintain boat access to the three property owners living along the channel inlet.

While these projects have significantly lessened the inflow of sediment from the watershed, other factors have continued to cause this area to require additional dredging for long term water quality, fishery habitat and passive recreational value. It is the goal of this sediment removal project, to dredge the layers of filamentous algae which have accumulated due to 1) lack of hydrophytic vegetation, 2) increased boat activity moving through the channel between James Lake and Lake Tippecanoe, and 3) westerly winds to this area. The area has been examined by several consulting professionals and LARE staff, and it is a common understanding that the algae must be removed prior to re-establishment of native vegetation.

Once the vegetation is established it will provide a buffer from the westerly winds, water quality improvement through nutrient uptake, fishery habitat for spawning, sediment trapping of any upstream flow continuing to contribute to the problem area, and a visual no entry barrier to boating traffic. Also, this will be the first step towards developing a true EcoZone area with Lake Tippecanoe in accordance with the EcoZone Plan and IDNR approved location. It is critical to remove the filamentous algae in order to improve the water quality within one of the most undeveloped portions of Lake Tippecanoe.

C. Describe any studies or restoration measures that have been completed for the lake/watershed. Lake Tippecanoe Diagnostic Study, June 1997; Lake Tippecanoe Feasibility Study, Oct. 1998; Design Summary-Hanna B. Walker Drain Sediment Trap, Feb. 2000; Lake Tippecanoe Henwood Creek Restoration Project, Oct. 2000; Indian Creek Detention Basins, Oct. 2000; Design Summary-Kuhn Ditch Tributary: Lake Tippecanoe Watershed Warner Historical Farms Restoration, Feb. 2002; Lake Tippecanoe Palmer Design Build Report, May 2003; Langohr Sediment Trap Design Build Report-Lake Tippecanoe Watershed, April 2004; Lake Tippecanoe Aquatic Vegetation Management Plan, Feb. 2005; Lake

Tippecanoe Aquatic Vegetation Management Plan-2006 Update, Feb. 2006; Lake Tippecanoe Storm Drain Project, March 2006; Ecozone Feasibility-Lake Tippecanoe, Jan. 2007; Lake Tippecanoe Aquatic Vegetation Management Plan Update 2006, Feb. 2007; Lake Tippecanoe Aquatic Vegetation Management Plan Update 2007, Feb. 2008; Lake Tippecanoe Aquatic Vegetation Management Plan, Feb. 2008, Littoral Zone Restoration Research Project 2007-2009 Final Report Dec 2009; Lake Tippecanoe Aquatic Vegetation Management Plan, Feb. 2009.

- D. Describe here or on an attached sheet the activities for which funding is requested. (Include drawings or other support materials, as applicable.) Funding is requested for sediment and filamentous algae removal from approximately 1.5 acres near the mouth of the Hanna B. Walker Drain within the Ecozone Area. An estimated 3 feet of sediment and filamentous algae is proposed to be removed, resulting in an excess of approximately 6,000 cubic yards of material. *Please see Exhibit A for graphic representation of sediment removal area.
- E. What is the total estimated cost of the project? NTE \$88,550.00
Anticipated cost-share to be contributed by sponsor (\$ or %). 25%, in-kind
What was the basis for the estimate (e.g., diagnostic or feasibility study, preliminary estimate by consultant, formal bidding, etc.)? Preliminary Estimate by Consultant after site meeting with LTPO and IDNR LARE personnel. *Please see Exhibit B for detail of total estimated project cost.
- F. If a LARE grant were awarded for the activity, when would the effort realistically be expected to begin? Fall 2010
- G. If the funded activity would involve the use, lease, or purchase of land, indicate what the sponsor has done to secure permission to use the land. If necessary access/use rights have not been secured, indicate what will be done in that regard. Two likely areas exist for the sediment disposal lagoon. One is the borrow pit which is adjacent to the Hanna B Walker Drain inlet and is owned by Holly LaSalle (depicted as area A in Exhibit A). The second is the farm of Mr. Kevin Gilbert who has participated in all past dredging events and has express willingness to participate in this project as well (depicted as area B in Exhibit A). No land will be purchased as part of this project. *Please see Exhibit A for graphic representation of sediment disposal lagoon options.
- H. Indicate how the sponsor will oversee the contractor's work and participate in the effort. For actual sediment removal projects, indicate how the extent of the completed work will be verified and documented. (Post-project site mapping is a required element of sediment removal projects). The Board of Directors of the LTPO will provide supervision and in-kind efforts to assist in this project, including cost for post-project site mapping, as in all past sediment removal efforts.

This application for Lake and River Enhancement program assistance is hereby submitted as authorized by the sponsoring organization.

Sponsor organization Lake Tippecanoe Property Owners

Printed name of representative Holly LaSalle

Confirm-Signature of representative

(Note: The name in this box constitutes the signature on your organization's application)

Date 1/6/10

**Please e-mail this completed application
electronically to lare@dnr.IN.gov**

Lake and River Enhancement Section
Division of Fish and Wildlife
Indiana Department of Natural Resources
402 W. Washington Street, Room W273
Indianapolis, IN 46204
Telephone 317/233-1484

APPLICATION DEADLINE IS JANUARY 15th

EXHIBIT A



EXHIBIT A—Location Map
Lake Tippecanoe Proposed Dredging Area
2005 AERIAL PHOTOGRAPH
(Kosciusko County GIS)
Kosciusko County, Indiana

Lake Tippecanoe Property Owners
PO Box 224
Leesburg, IN 46538

Date:
January 2010

Exhibit B

Lake Tippecanoe Fall 2010 Sediment Removal Project

Description	Itemized Estimate
Sediment Removal Plan and Permit Obtainment	\$7,500.00
Contractor Mobilization	\$5,000.00
Total area of sediment removal ~ 1.5 acres or 65,340 square feet	\$54,000.00
Disposal Lagoon Construction	<u>\$14,000.00</u>
Sub-total	\$80,500.00
10% Contingency	<u>\$8,050.00</u>
TOTAL ESTIMATE	\$88,550.00
Grant Match (25%)	<u>\$22,137.50</u>
Total Grant Funds Requested	\$66,412.50