Second Indiana Lake Management Conference

On April 27-28, over 160 people attended the Indiana Lake Management Conference held this year at the Culver Academies in Culver, Indiana. The conference, sponsored by the Indiana Department of Environmental Management and co-hosted locally by the Culver Academies and the Lake Maxinkuckee Environmental Fund, Inc., was expanded this year to one-and-one-half days.

At the Technical Session held Friday afternoon, conference attendees heard nine presentations about research on Indiana lakes. Topics included: designing lake assessment programs, using models in lake assessments, results of fish stocking and toxic monitoring programs, aquatic vegetation management, and using wetlands for lake enhancement.

At Saturday's General Session held in the Eppley Auditorium, speakers discussed results of the statewide lake assessment program, the Volunteer Monitoring Program, and the Lake Enhancement Program; described the new state water quality standards and non-point source pollution control programs; and discussed the new emphasis and funding for the U.S. EPA Clean Lakes Program. Following lunch in the Culver Inn, a Lake Shoreline Management Workshop included presentations on managing on-site septic systems, shoreline erosion control techniques, and permit requirements for lakeshore and lake bed structures. This was followed by a lively discussion between the audience and the presenters.

Exhibits from nine lake consulting and

(See CONFERENCE, continued on page 2)
Lakes Program staff and are given their own Secchi disk to use following training. For more information on becoming a Volunteer Monitor, contact Mark Plaster at SPEA 340, Indiana University, Bloomington, IN 47405, (312) 855-4556.

CLP to Assess More Lakes in 1990

Clean Lakes Program staff from Indiana University's School of Public and Environmental Affairs (SPEA) will again be assessing the water quality of Indiana lakes under the final year of a two-year contract with the Indiana Department of Environmental Management. Funds for the sampling program were made available through a U.S. EPA water quality assessment grant to IDEM. During July and August 1989, 96 lakes were sampled. An additional 100 lakes will be sampled this summer. CLP staff will use data from each lake sampled to calculate the lake's trophic state index (TSI), a numerical indicator of eutrophication. The current TSI will be compared to TSI's from previous years to assess whether water quality in the lakes is improving or degrading.

Volunteer Lake Monitoring Program

If you would like to join 60 other Hoosier citizens in monitoring water clarity on Indiana lakes, become a Volunteer Monitor. If you are interested in helping manage your lake, have access to a boat, and the time to spend one hour every two weeks on your lake, you have what it takes to be a Volunteer Monitor. Volunteers use a Secchi disk to measure water clarity, which is affected by algal growth, suspended silt, and dissolved color. Changes in Secchi disk transparency give lake managers an indication of seasonal and long-term changes in lake conditions.

Volunteers are trained by Indiana Clean Lakes Program staff and are given their own Secchi disk to use following training. For more information on becoming a Volunteer Monitor, contact Mark Plaster at SPEA 340, Indiana University, Bloomington, IN 47405, (312) 855-4556.

DNR Fisheries Surveys Scheduled for 1990

The Indiana Department of Natural Resources plans to conduct fisheries surveys at 98 lakes and ponds during 1990. A survey uses electroshocking, gill nets, traps, and shoreline seining to collect fish data. The following water-quality data are collected for many of the lakes as well: temperature, dissolved oxygen, pH, alkalinity, total phosphorus, nitrates, and ammonia. The results of the surveys are used to evaluate fish growth and reproduction rates, which the fisheries biologists use in assessing restocking needs. Lakes to be surveyed are listed below by DNR District.

District 1
- Freeman
- Knop
- Worster
- Hudson
- Lawrence
- Myers
- Bass
- Fish
- Cedar
- Pleasant-Riddles

District 2
- Crooked
- Ball
- Adams
- Fox
- Cedar
- Fish
- Atwood
- Fish
- Emma
- Nasby
- South Twin
- Green
- Falling
- Gooseneck
- Seven Sisters
- Clear
- Hamilton

District 3
- Webster
- Skinner
- Crane
- Big Crossroads
- ponds
- Everett
- Knapp
- Irish
- Gordy
- Muncie's Pit
- Hurshorn

District 4
- Blue
- Kokomo
- Honey Ridge
- Kunkel
- Palestine
- Coldwell
- Kekionga
- Belmont
- Wash-bir-gah
- Winona
- Pike

District 5
- Manlove
- Summit
- Westwood
- Lilly
- Cherry
- Springwood
- Shades St. Pl. Pond
- Eagle Creek
- Reservoir
- Martinsdale
- Soldiers & Sailors
- Home Pond
- Rockville
- Boones
- Krammert
- Brookville

District 6
- Hiawatha Pit
- J.L. Case
- Dobbs Pl. Pond
- Goose Hollow
- Reserve #28
- Spring Mill
- Dove Hollow
- Goose Pond
- Hardwood Lake
- Old Shalumak
- West Boggs
- Monroe

Stop the Spread of Aquatic Weeds

Eurasian watermilfoil (Myriophyllum spicatum) is an aggressive, non-native water weed which is flourishing in many Indiana lakes. Because it's not a native species, watermilfoil has few natural controls. By midsummer it can form mats so dense it restricts swimming, boating and fishing in infested lakes.

Watermilfoil resembles our native coontail (Ceratophyllum sp.). Like coontail and some other native aquatic plants, watermilfoil can reproduce by a process called fragmentation. A small piece or fragment of the plant can form roots and develop into a new plant. A single wriggle can multiply into 250 million new plants in one year. Boaters can help prevent the spread of Eurasian watermilfoil and other aquatic weed species by removing all aquatic weeds from the trailer, boat, motor/propeller, and anchors before

AQUATIC WEEDS... (continued on page 4)
leaving an infested lake and before launching at a noninfested lake. Special care should be taken to remove aquatic weeds from the wet walls of trailer boats and the interior of cartop boats and canoes.

Studies have shown that dried milfoil, after being out of the water for a week, can survive if reconstituted in water. In this way, the weekend boater can unintentionally infect lakes with the aquatic weeds if they are not removed from the trailer and boat.

Source: Ministry of Environment, Province of British Columbia

Use Caution When Fertilizing Lakeshore Lawns and Gardens

It is a common practice to add fertilizer to our lawns and gardens during the growing season to enhance their growth. Green plants have a need for three primary nutrients—nitrogen, phosphorus, and potassium (N-P-K) in chemical symbols. A fertilizer's content is expressed as a series of three numbers such as 6-12-6 or 20-4-4 on the label. These numbers represent the ratio of N-P-K in the formula.

Green plants in lakes, from algae to rooted macrophytes, also need these same nutrients. However, there are usually more than enough nutrients already available in our lakes. In fact, excess nutrients are viewed as one of the main causes of algal blooms (excessive plant production) in lakes. Most lake management programs include plans to reduce the amount of nutrients entering the water. Careful use of fertilizers on lakeshore lawns and gardens is an important part of a nutrient management program for lakes.

If you use chemical fertilizers, you should be careful to apply only as much as your lawn or garden needs. More will just get washed away, possibly into your lake. You'll then be wasting your money as well as polluting the water. Be sure grass has a high need for nitrogen, and because phosphorus is the nutrient which most often causes algal blooms in lakes, use lawn fertilizer formulas low in phosphorus. For example, fertilizers should contain less than 1/2% phosphorus if in liquid form or 3% if in granular form. It is best to have the soil tested before applying fertilizer on your lawn or garden. Contact your county extension agent for instructions or a simple kit for taking a soil sample. Soil samples can be mailed to Purdue University for analysis for a modest fee.

Follow these guidelines for wise fertilizer management on the lakeshores:

1. Use fertilizers containing less than 1/2% phosphorus if in liquid form or 3% if in granular form.
2. Use organic fertilizers whenever possible. They release their nutrients slowly as the plants need them.
3. Make and use your own compost on your garden. It serves as a valuable weed-controlling mulch and an organic fertilizer. By using grass clippings and leaves in compost, they won't wash into the lake either.
4. Make sure that your soil is rich in organic matter (particles of leaves and other rotted material). Nutrients in fertilizers stick to organic matter until needed by plants.
5. Do not apply fertilizers to your lawn or garden between November 15 and April 15. The plants can't use them during this period and the ground may be frozen, allowing the fertilizer to run off into your lake.

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Lake Shoreline Modifications: Division of Water, Robert Durfus (317) 232-5661

Conservation Officers Gear up to Get Drunk Boaters out of the Water

This summer, conservation officers in the DNR's Division of Law Enforcement will be conducting a new anti-drunk watercraft operation campaign, the Governor's Task Force Against Operating Watercraft While Intoxicated (OWWI). The OWWI Task Force is composed of 40 Indiana Conservation Officers, who will spend extra time to make certain that people who operate boats on Hoosier waterways are sober.

Throughout the summer, OWWI Task Force members, in clearly marked boats and vehicles, will conduct OWWI sobriety checkpoints/boating stops on Indiana lakes. During 1986, 13 people died in Indiana boating accidents. Ten of these deaths (66% of total) were alcohol-related.

Have a Safe Boating Summer!

To help you have a safer, more enjoyable summer of boating, the National Safe Boating Council, Inc. has the following tips:

- Know your boat's load limit, and don't exceed it. A safe boat is a well-equipped boat. Always carry the necessary safety gear... and know how to use it.
- Knowing how to swim just makes good sense if you spend time on the water. If you don't know how, LEARN.
- Keep life jackets visible and accessible... and never make someone feel uncomfortable if they choose to wear a life jacket.
- Learn "the rules of the road"... and obey them!
- Don't overdo your boating fun. In 3 hours of normal boating, the noise, motion, sun, wind, and glare can frequently double an individual's reaction time.
Wetland Restoration Available

Beginning in 1988, Indiana landowners in cooperation with the U.S. Fish and Wildlife Service (Indianapolis, Indiana), Division of Fish and Wildlife, and United States Department of Agriculture restored the first of hundreds of drained wetlands in the state. The service is now beginning its third year of this national program to restore drained wetlands. Through the Wetland Restoration Program over 4,500 wetlands have been restored across the midwest since 1988 at no cost to the landowners. Indiana’s wetland resources have been reduced by 86% through drainage and development over the years. The loss of wetlands affects everyone because wetlands are valuable in controlling flooding, recharging groundwater, purifying ground and surface waters, and providing wildlife habitat.

The Wetland Restoration Program is handled out of the U.S. Fish and Wildlife Service office in Bloomington. In order to qualify, landowners must have a drained or partially drained wetland on their property. Service biologists will make a site visit at the landowner’s request to evaluate the property for wetland restoration opportunities. The biologists will be looking for depressional areas that contain hydric soils and evidence of drainage ditches or open ditches. The service will restore areas identified as drained wetlands at no cost to the landowner. Restored wetlands are not farm ponds. Wetlands are usually one to four feet in depth and because of their shallow nature, they are not able to support viable populations of large sport fish. Wetlands are a valuable and beautiful natural resource that should be protected and restored, not only for the obvious fish and wildlife values, but for flood control and water purification purposes as well.

To obtain more information about the Service’s Wetland Restoration Program, please contact the U.S. Fish and Wildlife Service at 718 North Walnut Street, Bloomington, IN 47401 or call (812) 334-4261.

Lake Enhancement Program AD, Program Specialist, Engineer Now on Board

Staff for the Division of Soil Conservation’s growing T-by-2000 lake enhancement program is almost at full strength with the hiring of an assistant director (AD), program specialist, and hydraulic engineer.

Extension Area II T-by-2000 soil conservation education specialist James E. Lake has accepted the AD position. The new program specialist is Kelly M. Bechtman, a recent IU masters degree graduate. The hydraulic engineer is Paul E. Lucas, who held a similar position with the Division of Water.

Lake and Boatman began duties in mid-June. Lucas in May. Lake management biologist Paul Glander and a secretarial position yet to be filled complete the lake enhancement staff, which works out of the Division office at West Lafayette.

Lake, 42, has served as Area II T-by-2000 education specialist since 1986. Prior to that, the 1970 Purdue ag education graduate held positions with NACD (National Association of Conservation Districts) as water quality program specialist, CTIC (Conservation Technology Information Center) field office coordinator, and then CTIC executive director. Earlier, he had been Allen Co. SWCD manager and an SCS soil conservationist.

As AD, Lake will head up the Division’s lake enhancement section, providing program leadership, staff supervision, and coordination of services. He assumes those responsibilities from Bob Bollman, who continues as AD in charge of field operations in Area III and Division activities related to non-point source pollution.

Boatman, 33, earned a B.S. in biology from Hope College in 1988 then completed her M.S. in environmental science at IU only last month. While there, she worked as a research assistant in the Indiana Clean Lakes Program and was coordinator for Keep America Beautiful, Bloomington. As program specialist, Boatman will provide technical support for specific lake enhancement efforts as assigned.

Lucas, 38, a 1993 Purdue ag engineering graduate, was an SCS engineer for a total of 26 years before joining the Division of Water’s lakes and dams section in 1988. While with SCS, he served in Indiana, Tennessee, and Nebraska. As lake enhancement engineer, Paul will work with various agencies, local entities, and consultants on matters dealing with project design and construction.

Can You Do This?

This sign, found along Crystal Lake in Kosciusko County, might apply to lakes with heavy aquatic plant infestation, but luckily this is not a problem at most Indiana lakes.

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