



Office of Water Management  
 Indiana Department of  
 Environmental Management

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 1992  
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## Federal Clean Lakes Funding for 1993

The U.S. Environmental Protection Agency's (USEPA) Region 5 office in Chicago estimates that Section 314 Clean Lakes funding for the nation will be \$4.5 million in 1993, \$800,000 of which will be allocated for Region 5 (which includes Indiana). Funding will be available for the following three phases of the Clean Lakes Program:

1. Phase I (Diagnostic/Feasibility Study)
2. Phase II (Implementation Grants)
3. Phase III (Post-restoration Monitoring)

Phase I projects which are considered as priority projects by the USEPA will be those which require \$50,000 (or less) federal funds and a local match equal to the federal funds requested. Grant applications requesting \$100,000 federal funds (the maximum allowed) are considered if accompanied by a commitment of local funds equal to at least 30% of the total project cost; however, these projects have not traditionally been given as high a priority.

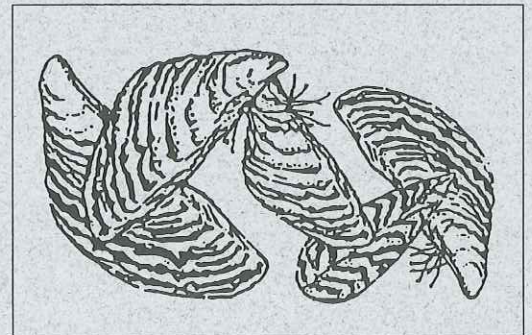
Guidance from USEPA for the FY 1993 grant process will be available sometime in November. Completed applications, which must be submitted through the Indiana Department of Environmental Management, will be due at the USEPA regional office in Chicago during the first week of January 1993.

Application for these funds is very competitive in the Region and requires submitting a large amount of information in a relatively short time. Consequently, if you are interested in applying for these funds this year, you should immediately contact the Indiana Department of Environmental Management. The agency staff will send you all pertinent material which you will need to prepare the application. Contact: Sharen Jarzen at 317/243-5145 for more information or for a grant packet.

## Many Zebra Mussels in Lake Wawasee

A three-man study team, led by Dr. Ladd Johnson, a marine biologist associated with the Mystic Seaport Marine Studies Program in Mystic, Connecticut, reports that Lake Wawasee (Kosciusko County) is teeming with zebra mussel adults and larvae. The group used SCUBA to search the lake this past summer. They estimated that there is one adult zebra mussel per two or three square yards. The exotic invaders from eastern Europe were first discovered in Lake Wawasee, the largest natural lake in Indiana, in 1991. The study team also discovered the mussels in nearby Lake Syracuse this summer.

Zebra mussels are small mollusks that grow to 1.5 to 2 inches in size. Adults produce 30,000 to 40,000 very small eggs annually. They are believed to have entered the Great Lakes system in water ballast on ocean-going ships



*(Continued on page 2)*

*(ZEBRA MUSSELS. . .  
Continued from page 1)*

from Europe. They have spread to inland lakes by hitchhiking on boats and trailers. Adults or their smaller larvae may also be found in bilges, bait buckets, engine cooling units, vegetation attached to boats, and possibly on migrating waterfowl.

The Indiana Department of Natural Resources recommends inspecting watercraft, buckets, or anything else that may have come in contact with water bodies known to be infested with the zebra mussel before placing it in another body of water.

The organisms are undesirable because they multiply so rapidly, compete with native species, disrupt food chains, and clog water intakes.

## Sierra Club Initiates Wetlands Project

The Hoosier Chapter of the Sierra Club has initiated a wetlands project to work with private landowners, citizen groups, natural resource organizations, community leaders, planners, schools, youth groups, and government agencies to protect and restore the environmental integrity of wetlands in Indiana. The two main aspects of the program are a statewide *wetlands education program* and an *Adopt-a-Wetland program*.


The following approaches are proposed for The Wetlands Project:

- collaborations with educators, corporations, government agencies, and natural resource organizations to provide wetland educational opportunities
- working with communities to assess local wetland resources and develop protection strategies
- individual, group, and community assistance in organizing and advocacy
- public policy research, analysis, and development

For additional information, contact: Patricia Werner, Wetlands Project Director, at 317/231-1908. *(Sierra Club news release.)*

## Zebra Mussel Warnings in Monroe County

Although there have been no reports of zebra mussels in Monroe County, the City of Bloomington isn't taking any chances. This spring, the City, in cooperation with the Indiana DNR, posted warning signs (see below) at all public and marina boat ramps on Lake Monroe, Lake Lemon and Griffy Lake. All three reservoirs are drinking water supplies for the city's water utility. The steel signs were made at a reasonable cost by a local sign company. The postings are intended to educate visitors to the reservoirs and warn them about the potential for spreading zebra mussels to uninfected waters.




### ZEBRA MUSSEL WARNING

**IF YOUR BOAT WAS LAST USED ON A DIFFERENT LAKE (OR RIVER), PLEASE READ THIS NOTICE BEFORE PUTTING YOUR BOAT INTO LAKE MONROE !!!!**

**ZEBRA MUSSELS DAMAGE BOATS, BOAT MOTORS, BEACHES, FISH HABITATS, PIERS AND OTHER LAKE STRUCTURES. THEY ARE TRANSPORTED BY BOATS AND TRAILERS FROM ONE BODY OF WATER TO ANOTHER.**

**PLEASE HELP PREVENT THE SPREAD OF ZEBRA MUSSELS BY TAKING THE FOLLOWING PRECAUTIONS.**

- 1) VISUALLY INSPECT YOUR BOAT HULL, OUTDRIVES AND TRAILER FOR THE DIME SIZED MOLLUSK (THEY LOOK LIKE SMALL STRIPED CLAMS). REMOVE THEM AND THROW THEM INTO THE TRASH CAN. DO NOT LEAVE THEM WHERE THEY CAN WASH INTO THE LAKE



- 2) DISCHARGE YOUR BILGE WATER AND LIVE TANKS INTO A BUCKET BEFORE LAUNCHING. DISPOSE OF THE BILGE WATER BY DUMPING THE BUCKET INTO THE LATRINE OR OTHER LOCATION WHERE IT WILL DRY UP BEFORE ENTERING THE LAKE
- 3) DO NOT TRANSPORT BAIT FISH OR WATER FROM OTHER WATERS. MUSSELS IN LARVAL STAGES MAY BE INVISIBLE
- 4) WHEN POSSIBLE, WASH THE HULL, OUTDRIVES AND TRAILER WITH HOT (140 deg) WATER
- 5) YOUR BOAT SHOULD BE DRY AT LEAST 24 HOURS BEFORE PUTTING IT IN THE LAKE.

**IF YOU ENCOUNTER THESE MUSSELS AT LAKE MONROE OR WOULD LIKE FURTHER INFORMATION ABOUT THEM AND ABOUT HOW TO PROTECT YOUR BOAT FROM THEM PLEASE CONTACT JIM ROACH (PAYNETOWN OFFICE) AT 812-937-9546**

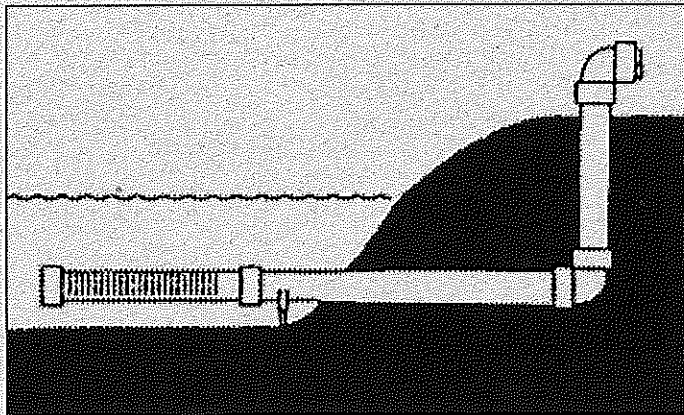
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## Dry Hydrants for Rural Fire Protection

Dry hydrants can provide improved fire protection for homes and businesses in rural areas where water lines do not exist. A dry hydrant is a non-pressurized pipe system permanently installed in existing lakes, farm ponds, or streams that provides a ready water supply to be tapped for fighting rural fires. Where a regular fire hydrant is tied into and must be located on an established drinking water system, dry hydrants can be located anywhere there is a lake or pond with an adequate supply of water that could be used in a fire emergency.

The Resource Conservation and Development Council of South Carolina has applied for a grant to install 690 dry hydrants in all 46 counties in that state.

There are several Indiana lakes with dry hydrants installed. Dry hydrants require a permit from the Indiana Department of Natural Resources Division of Water because the intake structure is installed on the lake bed, below the legal shoreline. The DNR may also require a permit if the potential pumping rate of the hydrant qualifies it as a significant water withdrawal facility. In all cases, the dry hydrant may be used for emergency fire fighting only and its use must not lower the lake level significantly.



## Preapplication Meetings for the Lake and River Enhancement Program

The Division of Soil Conservation will be conducting public information meetings for anyone interested in applying for "T by 2000" Lake and River Enhancement funds. The meetings will be held:

Monday, November 9, 1992

6:30-8:30 p.m.

Room 315 Monroe County Courthouse  
Courthouse Square (Between Walnut and  
College)  
Bloomington, Indiana

Monday, November 23, 1992

6:30-8:30 p.m.

Room B Justice Building  
121 N. Lake Street  
Warsaw, Indiana

Information regarding the Lake and River Enhancement Program and the associated application procedure will be available. The deadline for filing the Preapplication for "T by 2000" Lake and River Enhancement Program Assistance is Monday, February 1, 1993.

The Lake and River Enhancement Program provides technical and financial assistance for projects to control sediment and associated nutrient problems in public access lakes and rivers throughout Indiana. For further information contact Barbara Curry, Lake and River Enhancement Program Specialist, 317/233-3870. (Division of Soil Conservation release.)

## Contributions Requested

Do you have news to report about your lake or lake association's activities that other *Water Column* readers would be interested in? Have you ever considered writing a lake-related article, story, anecdote, or poem for the *Water Column*? If so, please contact us. We are looking for contributions from our talented readers. Write to us in care of the *Water Column*.

### WATER COLUMN

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## Questions from Readers

Q. *Can I dump sand on my shoreline to make a beach?*

A. Perhaps, but a permit is required. Any construction or depositing of any material below the legal shoreline of a public freshwater lake in Indiana requires a permit from the Indiana DNR Division of Water and possibly a Section 404 Permit from the U.S. Army Corps of Engineers. Underwater beaches cannot occupy more than one-half the shoreline length of the property. They may not extend more than 50 feet into the lake or below a depth of six feet, whichever comes first. Only clean sand or peagravel may be used for beaches. During the permit review process, the DNR considers effects the beach may have on wetland vegetation, the natural and scenic beauty of the lake, endangered species, and other factors.

If the beach is constructed and contained entirely above the legal shoreline, a permit is not required. In these cases, a retaining wall must be constructed such that none of the beach material washes into the lake. The retaining wall must also be located entirely above the legal shoreline.

Contact the Indiana Department of Natural Resources Division of Water at (317) 232-5661 for more information.

## Declining Cisco Populations Prompt DNR to Protect Three Northern Indiana Lakes

To save a declining sport fish species, the Indiana Department of Natural Resources will severely restrict the permitting of shoreline alterations or chemical treatments of aquatic plants at Crooked Lake in Whitley County, Lawrence Lake in Marshall County and South Twin Lake in LaGrange County. This step is necessary to protect Ciscoes, a deepwater sport fish which depends upon clean, undisturbed water.

Gary D. Doxtater, DNR deputy director for the Bureau of Water and Mineral Resources, says the DNR will no longer allow lake residents to build seawalls, boatwells, or beaches that will adversely impact Cisco populations at the three northern Indiana lakes. However, the DNR will permit lake residents to maintain existing shoreline structures.

Doxtater says that Ciscoes have suffered due to lake development. "Ciscoes have declined tremendously in Indiana's lakes over the past 35 years," Doxtater said. "If we don't take a tougher stand now to maintain good water quality for these fish, we could lose Ciscoes altogether."

Ciscoes, silver-colored fish that measure 10 to 12 inches long, require clean water with plenty of oxygen. They school 30 feet deep where water temperatures are cool. If water quality declines, oxygen in the deepwater "Cisco layer" disappears and the fish suffocate.

Ciscoes were common in 42 Indiana lakes in 1955. They now are common in fewer than 10 lakes. The DNR says the Cisco decline is a result of the aging process (eutrophication) of lakes. Through this aging process, a lake slowly gathers nutrients and sediments that reduce levels of dissolved oxygen that fish need to survive. Eutrophication eventually alters fish habitat to such a degree that some fish species fail. Man-made changes in a lake's watershed and along the shore can speed up the aging process by hundreds of years. Despite the accelerated aging process, Crooked Lake, Lawrence Lake, and South Twin Lake still have the best water quality and the most Ciscoes. To maintain Cisco numbers, the DNR has targeted these lakes for protection.

For more information, call the Division of Fish and Wildlife at 317/232-4080. (*FOCUS*, June 1992.)

## Lawn Care Brochure Available

EPA has published *Healthy Lawn, Healthy Environment—Caring for Your Lawn in an Environmentally Friendly Way*, a 20-page brochure for consumers.

The brochure describes a health care program for lawns and covers subjects such as mowing heights, watering, using integrated pest management to control pests, and tips on how to use pesticides properly. Copies can be obtained by calling 202/260-7751, or writing the Public Information Center (PM-211B), US EPA, 401 M Street, SW, Washington, D.C. 20460. (EPA Activities Update, July 27, 1992.)

## Acid Down—Precipitously (?)

According to *Water Newsletter*, a study in Nova Scotia and Newfoundland has shown "significant" declines in acidity in 29 out of 72 lakes studied for

acid rain effects. In regular tests of water samples from the lakes, another 42 showed no change, and only one showed a slight increase in acidity. The lower acidity is said to be due to reductions in industrial emissions made by the United States and Canada in joint agreements to cut emissions. (Hydata 11(4).)

## Fast Phosphorous

U.S. Department of Agriculture scientists report the development of a new litmus-like test for phosphorous. The test will measure phosphorous levels within 24 hours—at least seven times faster than current methods. The technique tests for bioavailable phosphorous using treated paper strips which have been soaked in runoff water. The speed and relatively simple testing method will make it easier to test for bioavailable phosphorous in remote areas, and may eventually lead to more widespread measurement of bioavailable phosphorous in water. According to soil scientist Andrew N. Sharpley, "This new technology is so simple that farmers and eventually home gardeners will use it." Sharpley is working on developing a prepackaged chemical reagent and color chart that will make the new method even simpler to use. (Hydata 11(4).)

## Meetings

**November 2-7, 1992. 12th Annual Symposium on Lake and Reservoir Management.** Cincinnati, Ohio. Sponsored by the North American Lake Management Society and U.S. EPA. Contact Bob Mason, 513/521-7275.

**November 4-6, 1992. Partnership for Clean Water: Making Nonpoint Projects Work in the Year of Clean Water.** Angola, Indiana. Contact: Randall Seelbrede, USDA, SCS, 219 Paw Paw St., Paw Paw, Michigan 49079, 616/657-4220.

**December 14-15, 1992. 6th National Drainage Symposium.** Nashville, Tennessee. Contact: ASAE, 2959 Niles Rd., St Joseph, Michigan 49085-9659.

**March 7-10, 1993. Symposium on Geographic Information Systems & Water Resources, AWRA.** Mobile, Alabama. Contact: AWRA, Suite 220, 5410 Grosvenor Lane, Bethesda, Maryland 20814-2192, 301/493-8600.

# PERSPECTIVES

My notes tell me I have seen a thousand geese this fall. Every one of these in the course of their epic journey from the arctic to the gulf has on one occasion or another probably served man in some equivalent of paid entertainment. One flock perhaps has thrilled a score of schoolboys, and sent them scurrying home with tales of high adventure. Another, passing overhead on a dark night, had serenaded a whole city with goose music, and awakened who knows what questionings and memories and hopes. A third perhaps has given pause to some farmer at his plow, and brought new thoughts of far lands and journeyings and peoples, where before was only drudgery, barren of any thought at all. I am sure those thousand geese are paying human dividends on a dollar value.

Supposing there were no longer any painting, or poetry, or goose music? . . . In dire necessity somebody might write another *Iliad*, or paint an "Angelus," but fashion a goose?

From: Aldo Leopold's  
*Round River*



**WATER COLUMN**

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