

## Survey of the Nation's Lakes

The U.S. Environmental Protection Agency (EPA), states, and tribes are conducting a nationwide survey this summer of the condition of the nation's lakes. The survey will help citizens and governments measure the health of our waters, take actions to prevent pollution, and evaluate the effectiveness of protection and restoration efforts.

Designed to estimate the percentage of lakes that are in good, fair, or poor condition, the survey will serve as a scientific report card on America's lakes. It will examine ecological, water quality, and recreational indicators, and assess how widespread key stressors (such as nitrogen, phosphorus, and acidification) are across the country.

The survey is a collaborative effort that involves dozens of state environmental and natural resource agencies, federal agencies, universities, and other organizations. In Indiana, the effort is being coordinated through the Indiana Department of Environmental Management (IDEM). Students and faculty at Indiana University's School of Public and Environmental Affairs (IU-SPEA) will conduct the field analysis and sampling.

### *How were the lakes selected?*

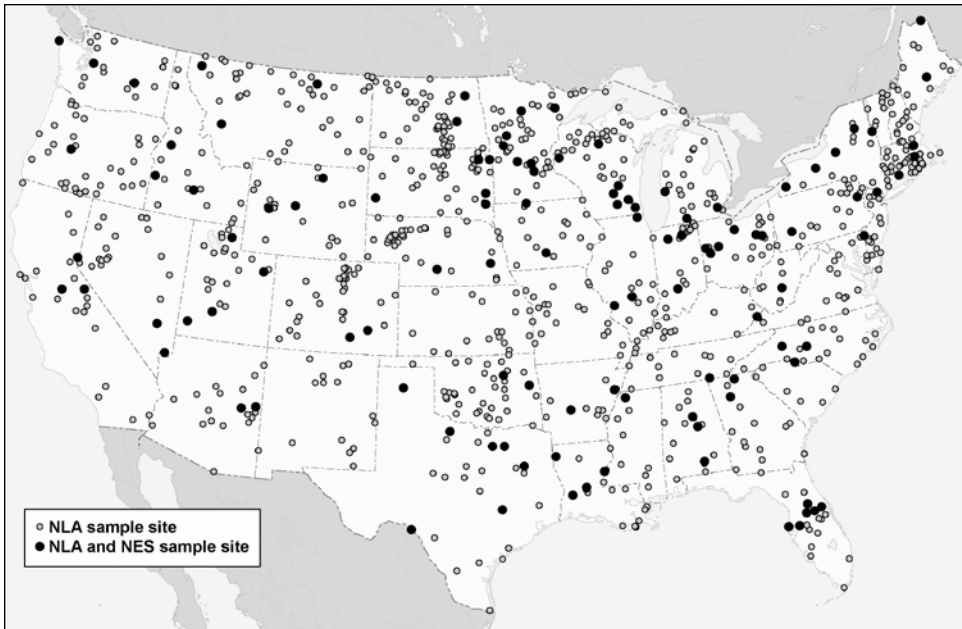
A total of 909 lakes – representing five size classes and distributed relatively evenly across the lower 48 states – are included in the survey. EPA selected the lakes from the nation's natural and man-made freshwater lakes, ponds, and reservoirs. Lakes must be at least one meter deep and over ten acres in size. The survey does not include the Great Lakes or the Great Salt Lake. Lakes were selected randomly using a statistical survey design to represent the population of lakes in their ecological region – the geographic area in which climate, ecological features, and plant and animal communities are similar.

In Indiana, 21 lakes were selected in the initial draw for the national survey. These include lakes and reservoirs, both public and private. An additional 29 "overdraw" lakes will also be sampled by IU-SPEA. The total of 50 Indiana lakes sampled will be a large enough sample size to allow IDEM to statistically analyze lake conditions within Indiana.

### *What about my lake?*

If your lake is being sampled for this survey, it was selected randomly from the population of lakes in Indiana. Your lake was not selected because it exhibits any particular problem or water quality condition, or because it was recommended for sampling by an agency or organization. When the final report on the "Survey of the Nation's Lakes" is written, data from your lake will contribute to the regional and national picture of lake condition.

If your lake is not being sampled for this survey, it was not omitted for any particular reason, but rather because it was not randomly selected or did not fit into the target population of lakes (e.g., those greater than ten acres in area and at least one meter deep).



## Indiana Lakes Management Conference Returns to the Woodlands of Southern Indiana

By: Scott Banfield

The glaciers were kind to the northern part of the state of Indiana, leaving their mark by dotting the landscape with hundreds of natural lakes and marshes, while the southern part of the state emerged from the ice age slightly more “lentically challenged.” Of course, not to be deprived of the natural, recreational, and aesthetic wonders lakes provide, those in the southern part of state have stepped up and graced the landscape with hundreds of their own bodies of water in the form of numerous impoundments and ponds large and small. These two geographies present their own lake lovers and managers with challenges and concerns unique to each respective type of water. With this Hoosier state duality in mind, this year’s conference held at Four Winds Resort on the shores of beautiful Lake Monroe, just south of Bloomington, was themed “Man vs. Nature: Managing Manmade Impoundments and Natural Lakes.”

The March 30<sup>th</sup> and 31<sup>st</sup> event marked the 19<sup>th</sup> annual Indiana Lakes Management Conference and the beginning of ILMS’ 16<sup>th</sup> year as an official society. We strived to offer attendees a wide variety of topics by running two presenter sessions simultaneously and allowing attendees to gravitate toward the topic matter that piqued their interest. The conference was attended by 140 people this year, and hosted 27 exhibitors and 39 speakers. The reservoir-related

Many volunteer monitoring groups and lake associations have years of sampling data for their lakes, data vital to local lake management activities. This survey will provide a regional and national – and in Indiana and some other states, statewide – assessment of lake condition. It will also allow those with sampling data on their lake to compare the condition of their lake to the range of lakes in their region or state.

### What will researchers measure?

IU-SPEA field crews will be taking many measurements at each selected lake. They will be using consistent procedures at all sites so that results can be compared across the country. They will be measuring such things as:

- temperature, dissolved oxygen, nutrients, chlorophyll-*a*, water clarity, turbidity, and color;
- condition of the habitat along the shoreline;
- zooplankton and phytoplankton – microscopic animals and plants in the water that are an important part of the food chain;
- aquatic macroinvertebrates – small animals such as insects and snails that are a source of food for fish and birds; and

- bacteria – indicators of fecal contamination from animals or humans.

They will also be taking sediment cores from the bottom of each lake.

### What happens next?

Sampling will be conducted during the summer of 2007. EPA intends to issue a report on the findings in 2009. Between the time lakes are sampled and the national report is published, samples will be analyzed in EPA-certified labs, the data will be entered into a database and analyzed, and a draft report will be written and reviewed. The public will have the opportunity to review and comment on the draft report.

### Where can I find out more?

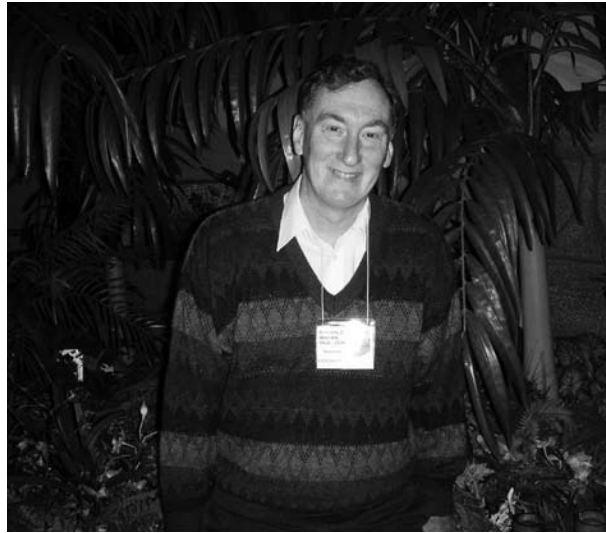
For more information on the overall program, visit: [www.epa.gov/owow/lakes/lakessurvey](http://www.epa.gov/owow/lakes/lakessurvey). To view a list of lakes being sampled in Indiana, visit the Indiana Clean Lakes Program Web site at: <http://www.spea.indiana.edu/clp/> and click on “Lake News”.

**Have you checked out the Indiana Clean Lakes Program Web page lately? Take a look at <http://www.spea.indiana.edu/clp/> and see what’s new and happening with the program and with Indiana lakes!**

topics of the conference featured such speakers as David Nance, from the Indiana Department of Natural Resources Division of Water, who highlighted some typical Division of Water outlet control structure repair and reconstruction projects. Bill Schmidt, from the Steuben County Lakes Council, shared his findings from a carrying capacity study underway to examine boating usage/over-usage on some of the glacial lakes in the northern part of the state. With *Brazilian elodea* and now *hydrilla* presenting an invasive threat to our waterways we were glad to have Doug Keller, the Indiana Department of Natural Resources Aquatic Invasive Species Coordinator, on the roster. Doug updated attendees on the Department of Natural Resources' plans for dealing with these potentially destructive invasions and appealed to lake managers and residents to aid in early detection by recognizing these plants where they occur.

Realizing that the Indiana Lakes Management Society should be working to provide the same guidance, educational opportunities, and networking assistance to pond owners that we do to residents and managers of large lakes, a session specifically geared toward pond management was held. Featured speakers included Bob Atkins, of The Pond Doctors, Inc., who pointed out the importance of understanding the dynamics of our ponds and lakes as a precursor to improving and protecting water quality. Also included was Debbie King, District Six IDNR Assistant Fisheries Biologist, who discussed proper planning and design of ponds to prevent future management frustrations, and touched on such common pond-related problems as stunted fish populations and vegetation management.

The Friday evening activities were highlighted by our keynote speaker, current North American Lakes Management Society (NALMS) President Ken Wagner.



*NALMS President Ken Wagner kept spirits light as the keynote speaker at the 2007 ILMS conference.*

Ken was kind enough to share with us some of the keys to successful lake management in a way that kept us laughing. Some of us forget to stop and see the humor in the day-to-day trials and tribulations in this sometimes too-serious business of managing lakes. We would like to thank Ken for helping make the conference banquet fun and memorable.

We were proud to be able to present Robert Myers, current Ecology Committee chairman and past chairman of the Wawasee Area Conservancy Foundation, with the 2007 ILMS Volunteer of

the Year Award for his many years of service and dedication at Lake Wawasee.

We would like to thank all our presenters, exhibitors, and attendees for helping us put on a successful 2007 conference. It's our goal that as we all leave the annual conference and go back to our lake communities or jobs within the lake management community, we take something away with us that will help us continue to build

upon a tradition of water quality protection and improvement in the Hoosier state. We're confident we've been able to accomplish that in 2007.

Next year the conference returns again to the natural lakes region of the North. We hope many of you will join us for conference number 20 in 2008 at the Ramada Inn in Warsaw, Indiana, March 28-29. We welcome your input and ideas as we strive to offer an ever-improving annual event, so please feel free to contact us through the Web site at [www.indianalakes.org](http://www.indianalakes.org).



*ILMS President Mark Mongin presents Bob Myers of the Wawasee Area Conservancy Foundation with a much-deserved ILMS Volunteer of the Year Award at the 2007 Conference.*



## WATER COLUMN

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## 2007 LARE Grants for Aquatic Plant Management and Sediment Removal

By: *Gwen White*

Unfortunately, for the second year in a row, the Lake and River Enhancement Program (LARE) was not able to provide funding for aquatic plant control to all of the lakes that requested it. The program received applications for over \$1.3 million in plant control projects. Approximately \$900,000 was allocated for grants, including multi-year projects to eradicate two new invasive plant species at Griffy Lake (*Brazilian elodea*) and Lake Manitou (*hydrilla*). A large amount of funding (at least \$400,000 additional) will have to come from several other sources for treatment of *hydrilla* at Lake Manitou. The plant control funding also comes from the same source as the dredging projects, which will require prioritization this year.

Lakes that did not receive funding this year will remain eligible for funding next year, even if they do not do new plant surveys or plan updates in 2007.

These lakes are in a maintenance mode and have several years of data – enough to remain eligible for treatment funding in 2008. They have already received one or more years of funding for plans and herbicide treatment.

A number of new lakes were added, several more are following up on very expensive fluridone treatments, and lakes that completed a plan but have not yet received any herbicide funding received higher priority. Unfortunately, that left 11 of the 55 lake associations without funding.

At this point, it is impossible to know how much funding will be available next year, especially given the long-term project to eradicate *hydrilla* at Lake Manitou.

The other type of grant, for sediment removal projects, will help make Hoosier lakes more enjoyable and accessible for boating, fishing, and swimming. The projects will provide positive recreational and economic benefits to both users and residents of the affected lakes. A total of \$455,712 will be distributed in six counties to 11 sediment removal projects in 14 Indiana lakes.

Funding for these targeted projects comes from the LARE fee paid by boat owners. In 2003 the legislature initiated a variable fee

based on the value of each boat, which provides approximately \$3.3 million each year for LARE.

One-third of the money must be used by the DNR for lake projects that remove sediment or control exotic or invasive plants or animals. The remaining two-thirds must be split between the DNR's Division of Law Enforcement and the traditional LARE projects.

Law enforcement uses its share to help fund local boating safety programs. LARE continues its use of the funds for a variety of local grants, which will be announced in mid-summer.

A listing of the counties, lakes, grant amounts awarded, and types of projects can be found at <http://www.in.gov/apps/utlils/calendar/presscal?PF=dnr&Clist=11&Elist=88769>.

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Published quarterly  
by the Indiana Clean Lakes Program  
as a medium for open exchange of  
information regarding lake and  
watershed management in Indiana

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