



LAKE TIDES

Summer 1989
Vol. 14, No. 3

Community Focus

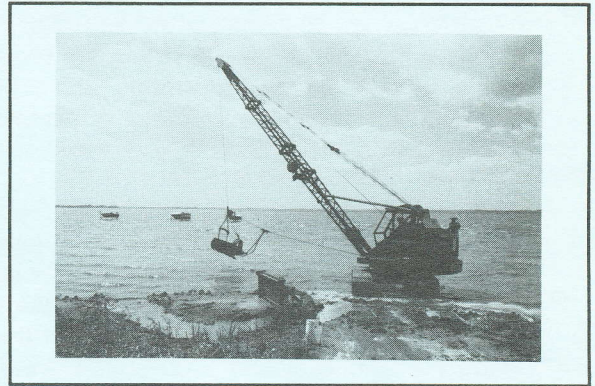
Rock River-Koshkonong Association: Watch Dog of Water Quality

by Harold Spencer

Lake Koshkonong covers over 10,000 acres and its 24 miles of shoreline touch Rock, Dane, and Jefferson Counties about 20 miles southeast of Madison. The Rock River-Koshkonong Association was granted a charter as a not-for-profit organization on October 23, 1972. Its mission is to promote the common good and general welfare of people living and using the Rock River and Lake Koshkonong.

The association has over 600 members, including 25 officers and members of the board of directors, and has been an active "watch dog" on the environmental and economic health of the lake. The association has been involved in numerous problems such as the possible effects of a sewage treatment plant and industrial pollution. It also oversees the removal of 2.5 million pounds of rough fish from Lake Koshkonong each year and was active in opposing the construction of a new prison on the lakeshore.

Rock River-Koshkonong Association is currently involved in decisions affecting the control of lake levels. Since 1917, the dam has been controlled by Rock County. The association would like to control the dam to maintain constant summer water levels and to help prevent spring flooding. Meetings and public hearings with town and county officials, legislators and Department of Natural Resources personnel have been held. The process has moved to



Rock River-Koshkonong Association dredged the lake for better navigation.

the courts, and we are presently involved in a frustrating waiting game.

The association has put over \$20,000 into lake and river projects. We installed channel and navigation buoys, completed a dredging project, and installed a new concrete launch at Vinna Ha Ha and Dallmans Landings. We planted 10,000 sago pond weeds and wild celery tubers to improve waterfowl and fishing habitat. Safety has been improved by the purchase of cold water rescue suits and diving equipment which we donated to the Jefferson County Dive and Recovery Team.

The first annual Great Koshkonong Bounty Hunt was held in February 1986. Money from the bounty hunt, \$10 annual dues and a summer fundraising picnic have been used to help operate the association.

The Rock River-Koshkonong Association is alive and well and working hard to reach its goals. We remain committed to keeping our lake a quality lake and river for everyone.

Harold Spencer is past-president of the Rock River-Koshkonong Association.

1989 Lakes Convention Wrap-Up

A record crowd of over 400 people attended the 1989 Wisconsin Lakes Convention in Stevens Point on April 7-8. The first speaker, State Senator Joseph Strohl (D-Racine), discussed the STEWARD proposals for increased state investment in natural resources. C.D. (Buzz) Besadny, DNR Secretary, followed with the keynote: a recognition of the importance of lakes and a strong commitment into the future. Internationally-renowned limnologist Dr. Charles Goldman from the University of California capped off the conference with a presentation on "Saving our Jewels: The Lake Tahoe Story."

Other topics ranged from community reports--a convention tradition--to research on lake-shore aesthetics to fish stocking to newsletters. A total of 21 sessions was held during the one and a half day conference. At the Saturday luncheon, the 1989 Lake Stewardship Award winners were announced: Lisa Conley from Lac LaBelle near Oconomowoc, and Delavan Town Lake Committee from Walworth County.



(L-R) Steve Skavronek, DNR; Lowell Klessig, UWEX; Lisa Conley, Lac LaBelle; Kevin MacKinnon, Delavan Lake; and Elmer Goetsch, WFL.

Photo by Doug Moore

The 1990 Wisconsin Lakes Convention will be held on March 30-31 at the Holiday Inn in Stevens Point. Be sure to set the date on your calendar and make your reservation early at the Holiday Inn (715/341-1340). Ask for the Wisconsin Lakes Convention block to get convention rates.

More details will follow in future issues of *Lake Tides*. 1990 Lake Stewardship Award nominations should be sent to Diane Lueck, College of Natural Resources, University of Wisconsin, Stevens Point WI 54481.

Editor's Note: *Lost at the convention--London Fog overcoat and a carousel slide projector. Can you help us track them down?*



(L-R) Lake Tides staff: Robert Korth, Diane Lueck, and Eric Macbeth.

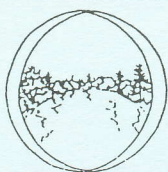
Photo by Jana M. Suchy

Farewell

by Eric Macbeth

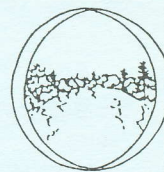
In this, my last issue as assistant editor, I send a fond farewell to all our *Lake Tides* readers. Thank you for the opportunity to share in this exchange of information about Wisconsin's inland lakes. The assistant editorial duties are being left in the very capable hands of Robert Korth. And with Dr. Lowell Klessig at the helm and Diane Lueck on the word processor, future issues will certainly be better than ever. A final note to all: Keep up the great lake stewardship work!

Eric Macbeth is completing his master's degree in natural resources at UW-Stevens Point this summer. He has accepted a position as Mississippi River Program Director with the Minnesota-Wisconsin Boundary Area Commission in Hudson, Wisconsin.



Eco-Note

Protecting Our Wetlands



Kis Balaton: The Mechanics of Wetland Restoration



This is the last of a three-part series on wetlands.

by Lowell Klessig

The best restoration policy is always protection. Whether applied to your teeth, your home, your lake, or the wetlands in your watershed, protection is less expensive and less risky than rehabilitation. However, many lake communities have already lost part or all of their wetlands.

This article focuses on the restoration of wetlands that have suffered disturbance but have not been converted to high-intensity uses. In particular, the article discusses a major effort to restore the natural upstream wetlands of Lake Balaton, Hungary.

History

The lake covers 147,000 acres, which is somewhat larger than Lake Winnebago. Like Winnebago, it is shallow, with an average depth of less than 10 feet. The sandy beaches, fisheries, attractive mountain topography, and expansive size have put it in the recreational spotlight for centuries. Lake Balaton was used as a summer resort area by the Romans two thousand years ago. At the peak of the season, one million people a day will recreate at the lake this summer.

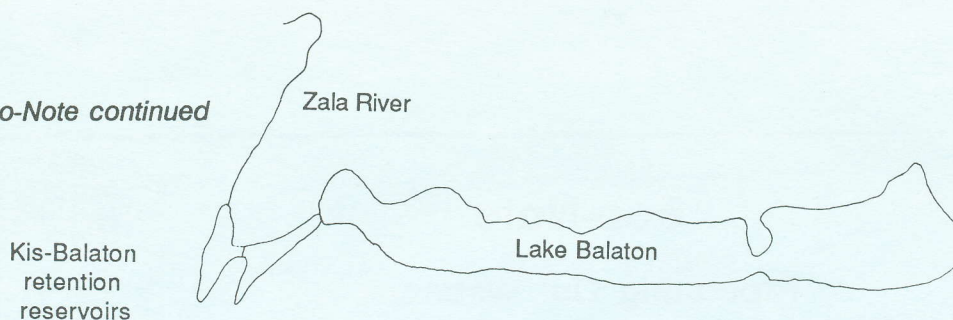
Land use in the 1.5 million-acre watershed consists of 308 communities with 420,000 permanent residents, vineyards on steeper slopes, and diversified agriculture on the flatter lands. Agricultural land use changed dramatically after WWII. Private farms were consolidated into state collectives. Small fields were combined to permit use of large equipment. Large-scale drainage projects increased the portion of the watershed in agriculture.

Water Quality

In 1960, the four basins of the lake were uniformly mesotrophic--productive of fish but still attractive for visual and body contact recreation. But by the 1970s, algal growth had doubled in the eastern outlet basin, had increased 3-4 times in the central basins, and was 8 times higher in the western headwaters basin of the lake. Phosphorus concentrations were three times higher at the headwaters end compared to the outlet end. Eutrophication was worst near the inlet and was gradually expanding along the 48-mile axis of the lake. Clearly, low quality water was entering the lake.

Loss of Wetlands

The Zala River drains the western part of the watershed where the soils are most conducive to agriculture. Major changes in land use in the Zala River drainage resulted from three changes over a 100-year period. In 1866, the construction of the Sio sluice and canal to control water levels and provide for commerce lowered the lake 10-15 feet and exposed 22,000 acres of lowlands to farming. In the 1920s, the river was dredged and the marsh was drained and diked. Finally in the 1960s, intensive agriculture was introduced by the Communist Party's industrial farms. The river, which once lazily surrendered its nutrients and sediments to the reeds in the 22,000-acre



The Kis Balaton reservoirs remove nutrients before they enter the lake.

marsh, now hurriedly conveyed them to the algae in the lake.

The algae damaged the in-lake reed beds by depositing soft sediment that inhibited reed rhizomes from rooting. Rotting algae also became trapped in the reeds and produced hydrogen sulfide, which damaged new shoots. Thus, reed beds that once lined the shoreline of the lake and provided roofing material for generations of Hungarians began to disappear. Those that survived the water quality changes were often removed by resort owners who wanted their guests to have a better view of the lake. Without these in-lake reed beds, lake water clarity further declined as wave action more easily stirred the sediments.

Kis Balaton: Wetland Restoration

In the 1980s, the Hungarian government decided to reverse the mistakes with a large project to reflood most of the original wetland, creating two large, shallow Kis reservoirs. The Zala River enters the first reservoir (4,500 acres) and spends 40 days weaving between dikes and through heavy vegetation. The vegetation is periodically harvested to remove the phosphorus stored in the plant biomass. This reservoir is removing 80 percent of the sediment and 50 percent of the phosphorus. Substantial further improvement in water quality is expected when the second reservoir (12,600 acres) is completed.

Creation of these reservoirs is not without controversy, however. The main conflict is centered around the fisheries of the new reservoirs. Some managers would like to manage the Kis reservoirs as recreational assets in their own right while other managers are focusing on Lake Balaton itself. Too many fish and too much open water will reduce the ability of the marsh to remove phosphorus. Heavy

fishing use will exert pressure to manage the water levels for fish production in Kis Balaton rather than nutrient removal. While wildlife are returning to the restored wetlands, the artificial system of dikes are not nearly as attractive as undisturbed wetlands.

Summary

In summary, many wetland functions can be restored if sufficient resources and political will are present. However, restoration is not likely to be cheap, may be controversial, and will not fully restore all functions, especially the beauty of natural open space.

Lowell Klessig is Professor of Resource Management and Extension Specialist at the College of Natural Resources, UW-Stevens Point. He presented a paper, co-authored by Dick Wedepohl, at a symposium at Lake Balaton, Hungary in 1988.

Smaller scale wetlands in and near lakes have been restored with intensive management. Such efforts often require site preparation to restore bottom contours, water levels, and soil quality. Plantings are done by hand with carefully selected species. This method has been successfully employed by Joyce Powers of CRM Ecosystems Inc. in Mount Horeb.

Many communities are considering establishing wetlands in upstream areas to take advantage of their natural ability to filter out sediment and nutrients. This method has been particularly attractive to artificial lakes such as Lake Redstone which have no natural wetlands but do face serious runoff problems.



Capitol Report

by Elmer Goetsch

Last summer, a group representing DNR, UW-Extension, the Wisconsin Federation of Lakes, and the Wisconsin Association of Lake Districts discussed the lake management portion of the next state budget. The group urged a long-term perspective and strengthening of information and education efforts.

The meeting resulted in a "lake initiative program" funded by motorboat fuel taxes transferred from the highway fuel tax fund under the formula change made in the last biennial budget. The initiative included five elements:

- Increased technical assistance/education
- Self-help monitoring efforts
- New "co-management" program
- Lake use research
- State funding of dam inspections.

In January, the Governor submitted his proposed budget to the Legislature, including a number of changes affecting lake management programs:

Technical assistance/education. This element, which had been reduced before being included in the DNR budget request, was further reduced in the Executive Budget proposal. The two UW-Extension positions were deleted, as were all funds for increased information and education work. Three DNR district positions survived, but at a low funding level.

Self-help lake monitoring. The Governor recommended the \$148,000 annual funding requested by the NR Board.

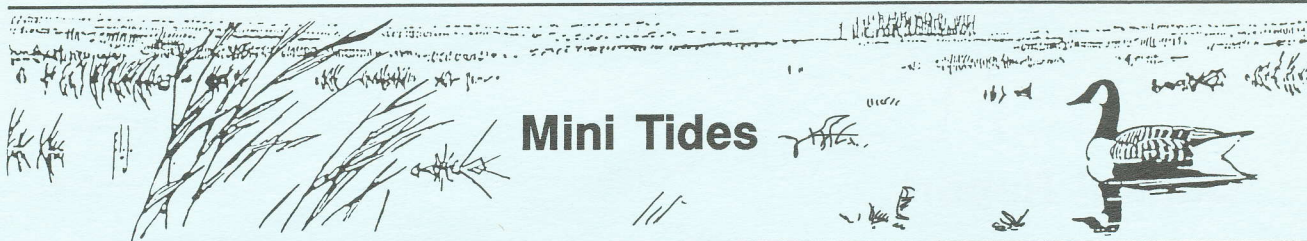
Co-management program. Omitted. Broadening of the non-point source program and support for priority lakes with \$750,000 in additional funding were recommended instead.

Wisconsin Waterways Commission. The Governor recommended an increase of \$1,600,000 for the Commission. Unfortunately, these grants are restricted by law to lake access and Great Lakes port projects, and have historically gone largely to major port projects on Lake Michigan.

The budget is identified as Senate Bill 32 and is now before the Legislative Joint Finance Committee. The DNR portion of the budget is under consideration by the Environmental Resources and Justice Discussion Group of the Joint Finance Committee, chaired jointly by Sen. Czarnecki and Rep. Holperin. The passage of the budget is due in June.

Citizen members of the budget group met at Stevens Point on April 8th following the Lakes Convention. They concluded that the original budget submission by the Natural Resources Board is still preferred over that of the Governor. First priority was restoration of the two UW-Extension positions and the \$100,000 for information and education. Next was to increase funding for the three DNR district level lake staff positions. While the co-management program was preferred to the non-point source and priority lakes proposal, the group accepted assurances that the Governor's proposal, with amendments, could be effective. The increased lake access/Great Lakes ports funding was viewed as at odds with the fact that about 85 percent of motorboat fuel taxes come from inland boating.

Elmer Goetsch is president of the Wisconsin Federation of Lakes.



Boaters--Don't Move the Plants

Did you know that two of the most troublesome plants in Wisconsin lakes, Eurasian watermilfoil and purple loosestrife, can be spread from lake to lake simply by boating equipment?

In fact, studies of nuisance aquatic plant problems in the southern U.S. showed that, in every case, the first infestation was at a boat ramp.

This summer, take a moment or two to clean off plant fragments and seeds from your boat and trailer before launching and after leaving the water. Hiding places for fragments include trailer axles, rollers, and hitches, live wells, boat propellers, and anchors--it only takes a fragment to regenerate a whole new plant and colony. Seeds from the mud of infested areas can also be transported on tires and footwear.

You can help prevent further spreading of nuisance aquatic plants. Leave the weeds at the lake!

Piers, Rafts, and Boat Shelters: How Much is Enough?

Construction in rivers and lakes, dredging, and the placement of structures in the water require evaluations and permits from DNR. Filling waterways to create new land is generally prohibited. But less intrusive construction can affect our waters too. Piers, wharves, swimming rafts, and boat shelters encroach into aquatic habitats such as fish spawning or feeding areas. They can also adversely affect natural shoreline aesthetics and water quality and lead to crowded waterways that are unenjoyable and unsafe. These problems

have surfaced statewide, but are most evident on lakes in southeastern Wisconsin.

A trend toward larger, more expensive boats on our inland waters has created a demand for commercial marina expansion and covered boat storage facilities. Also, lots away from lakeshores are being developed as residences and condominiums with access through a single lot or narrow corridor. Conflicts between the interests of adjacent property owners and the impacts on aquatic resources become obvious when owners want their own piers or docks on the water. Since frontage is limited, further expansion out into the waterway usually occurs, causing destruction of sensitive shallow-zone ecosystems.

DNR is proposing rules (a revision of NR 326) to resolve many of the conflicts about pier, raft, and boat shelter construction that are not effectively addressed by current guidelines. A review panel has been appointed by Secretary Besadny to represent commercial and residential development, boaters, lake property owners, and environmental groups. The Department hopes to have a proposal for DNR board approval by early summer after the panel finishes its work and after public hearings are held.

For further information, contact Mike Dresen, Shoreland Management Specialist, DNR Bureau of Water Regulations and Zoning, Box 7921, Madison WI 53707 (608/266-8032).

DNR Lake Management Launches I&E

The DNR's Lake Management Section filled their vacant position for an Information and Education (I&E) Specialist in mid-March by hiring Jana M. Suchy. Suchy brings a decade's experience in multi-media natural resource communications to the post. During a recent brainstorming session, representatives from DNR, Wisconsin Association of Lake Districts, Wisconsin Federation of Lakes, and UW-Extension generated 182 ideas to consider in determining both a short-term (two year) and long-range (ten year) priority plan for lakes information and education.

Meanwhile, a foreshortened plan looks to have distinct products on the three-month horizon. For example, by mid-summer, radio spots will hit your local airwaves.

If you have any ideas or comments, contact Jana at DNR Bureau of Water Resources, Box 7921, Madison WI 53707 (608/266-9262).

Calendar

July 16-19, 1989. Aquatic Plant Management Society Annual Meeting, Hyatt Regency, Scottsdale, AZ. For information: G. Douglas Pullman, PO Box 248, Linden MI 48451.

September 17-22, 1989. AWRA 25th Annual Conference, "Water Laws and Management" and Symposium "Wetlands: Concerns and Successes," Tampa, FL. For information: Kenneth Reid, 5410 Grosvenor Ln. #220, Bethesda MD 20814-2192 (301/493-8600)

October 7, 1989. Wisconsin Federation of Lakes Fall Meeting. Midway Motor Lodge, Green Bay WI. For information: Elmer Goetsch 7524 Island View, Three Lakes WI 54562 (715/546-2340).

November 7-11, 1989. "Multiple-Use Management of Reservoirs." North American Lake Management Society. For information: Charles Dvorsky, PO Box 220, Austin TX 78767 (512/473-3372).



Reflections

Will the day soon come when my grandchild will not know the cry of the loon, the flash of a trout, the song of the wind through the pines or the screech of the red-tail hawk? Will he make friends with any of these creatures? Or when his heart aches with longing, will he curse me?

Have I done all I could to keep the air clean? Have I cared enough about the water? Have I left the hawk to soar in freedom?

Have I done everything I could to earn my grandchild's fondness?

Adapted from Chief Dan George My Spirit Soars.

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-Mini Tides

-Capitol Report

-Mechanics of Wetland Restoration

-Convention Recap

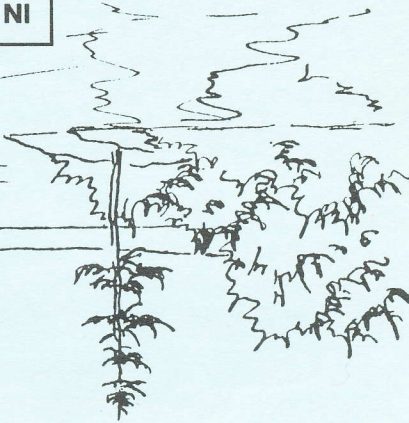
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