

Community Focus: Silver Lake

by Jim Valerius and Jim Merkowitz

On Monday, September 4, 1933, the Silver Lake Protective Association was formed. The charter of the association stated: "To protect the homes and preserve the natural beauty and wildlife at Silver Lake." In 54 years, the words may have changed a bit, but this association is still dedicated to the preservation of Silver Lake.

Silver Lake (Washington County) is a 120-acre spring fed lake with a maximum depth of 41 feet. It feeds a small creek which flows north into Hackbarth Lake, and then into Lucas Lake, before emptying into the Milwaukee River. Recent tests on the lake show high water quality, a factor of particular interest to the lake's 200 landowners.

Two years ago, the association took on the largest project in its history. The 1937 culvert carrying the ever-flowing water from Silver Lake needed to be replaced. The 50-year-old system had been creating problems for lake residents for 30 years. The culvert was set too high, making it impossible to regulate the lake water levels. During dry periods, the lake would recede to very low levels. During rainy times, water levels rose to flood lawns, docks, and septic fields. After years of discussion, the association wanted a new dam.

Investigation of the old culvert's ownership provided the association with some bad news. They owned the present structure and if they wanted a new one, they would have to pay for it. They decided to go ahead with the project. In two year's time, the board received estimates, applied for permits, hired the engineering firm, hired the excavating and concrete contractors, and obtained insurance and financing. The planning and paperwork for the project were as time consuming as preparations for a much larger dam project.

In order to hold down costs, the association board acted as general contractor for the dam construction. The association's efforts were coordinated with the township, which paid for the new culvert, repaving, and backfill. The total cost of the project was \$10,000. The association's share is about \$7,000. They expect to pay this off in less than five years through dues, fundraising activities, and special contributions. The dam is a self-regulating concrete structure that maintains a constant lake level agreed upon by both the lake residents and the DNR. It easily handled the heavy rains of last fall. The association is happy to have the project completed and to have helped ensure the water quality of Silver Lake for future generations.

Jim Valerius is President, and Jim Merkowitz is Secretary/Treasurer of the Silver Lake Protective Association.



Lake Tides Mailings to Increase

If you would like to add friends, neighbors, or members of your lake organization to the *Lake Tides* Mailing list, now is the time. Although in the past *Lake Tides* could only be sent to lake organization leaders, we are now able to enlarge our mailing list and hope to include all interested parties. Feel free to drop us names of individuals or lists of your lake organization members. Please let us know which individuals are officers, since we maintain a separate computer list of community leaders.

We also welcome comments, articles, and news items from our readers. Please send your lists or ideas to Diane Lueck, College of Natural Resources, Univ. of Wisconsin, Stevens Point WI 54481.

Making the Most of Your Annual Meeting

by Lowell Klessig

Most lake groups have one or more major meetings during the summer months. Some groups prefer to focus on business decisions at one meeting and concentrate on social activities at a second meeting. Other groups combine the business and social functions.

However, the educational opportunity provided by annual meetings is often overlooked. In many cases, a specific educational presentation by a neutral source is appropriate before the business meeting makes a decision on that particular issue. In other cases, more general topics might be presented after the business part of the meeting.

The educational component of the meeting can take the form of a speaker, a debate or panel discussion, displays, a movie, or a slide-tape program.

A new slide-tape set entitled WISCONSIN LAKE WATERS has just been produced by the Wisconsin Cooperative Extension Service, Wisconsin Department of Natural Resources, and University of Wisconsin Stevens Point. It is designed to motivate people to take an active role in managing their lake.

The slide-tape program is available from district offices of the DNR and UW-Extension. Contact your local Extension office or DNR inland lake coordinator. There is no charge for use of the slide-tape.

Speakers can usually be obtained without charge from public agencies such as local universities, county Extension offices, area/district DNR offices, soil conservation offices, zoning and planning offices, and sanitation/environmental health offices or from environmental groups.

In addition to an educational program, there are other ways to make an annual meeting interesting and productive. The following list should help avoid some of the common problems of lake meetings:

- 1. **Notice.** Make sure people know about the meeting in time to plan accordingly. Lake districts must meet minimum legal requirements. However, 10 days lead time is not sufficient for second home owners to plan their summer schedule. The recommended system is to hold the meeting the same day (e.g. first Saturday in August) each year and then remind folks 2-3 weeks before the event.
- 2. Agenda. A meeting without an agenda usually deteriorates into general discussion, griping, and frustration. Key agenda items should be noted on the notice. The chairperson should prepare a detailed agenda for the meeting and distribute it at the beginning of the meeting. Many effective leaders begin a meeting by asking if there are additional items that members would like to add



to the agenda. Participants with special concerns are less likely to attempt to disrupt the orderly flow of the meeting, by interjecting their issues into the discussion of other agenda items, if they know their topic will be covered later.

- 3. Length. A meeting that has little substance and lasts less than one hour will frustrate those people who made a special effort to attend. Meetings that drag on much beyond two hours become boring and usually indicate a lack of leadership. A short agenda can be enhanced with a substantive educational program. A long agenda can be efficiently handled through the use of committee reports that provide recommendations in the form of specific resolutions to be adopted or rejected.
- 4. Fairness. The chair or president has a duty to listen as well as to lead; to make sure people can voice their views while keeping the meeting from degenerating into repetitive discussion or hostile exchanges. The chair or president should understand and carefully observe the By-laws. He should not dominate the discussion, should not use the office to intimidate those with opposing views, and should vote only to break ties.
- 5. Leadership. The board of directors and the officers should be prepared to offer motions, stimulate discussions, and help develop consensus. The officers or the board should meet prior to the annual meeting to develop the agenda, recommend a budget, discuss a strategy to accomplish the major items of business, plan for an educational program, and make arrangements for a social activity, if any, that will follow the meeting.

Lowell Klessig is Professor of Resource Management at UW-Stevens Point and Cooperative Extension Service Specialist.

Report on Wisconsin's Water Quality

Wisconsin's overall water quality continues to improve, but non-point source pollution and toxic substances contamination remain serious problems, according to a recent Dept. of Natural Resources report.

"Wisconsin Water Quality: 1986 Report to Congress" assesses overall water quality and recommends how to improve and maintain water quality. The states began reporting water pollution control efforts in 1972, after the Federal Water Pollution Control Act was passed.

"Point source controls have led to significant improvements in Wisconsin's stream water quality, especially in the Fox and Wisconsin rivers," said Bruce Baker, director of the DNR's Bureau of Water Resources Management. "We need to direct our efforts now to the serious problems posed by nonpoint source pollution and toxic substances contamination."

Nearly 19,000 stream miles are used to dispose of point source wastewater. The DNR also tracks non-point source pollution on 43,000 stream miles, 970,000 acres of lakes, and 650 miles of Great Lakes shoreline.

Stream water quality has improved since 1972 due to municipal and industrial wastewater treatment controls. Six hundred seventy-six of 800 stream miles classified as degraded in 1972 have markedly improved, following significant drops in wastewater discharged from pulp and water mills and municipal sewage treatment plants.

Since 1972, \$744 million in federal funds and \$490 million in state funds have been spent to improve public wastewater treatment facilities.

Nonpoint sources of pollution are the predominant cause of water quality problems in Wisconsin's lakes and streams. An estimated 30 percent of Wisconsin stream miles, 75 percent of lake surface area (updated total since report was printed), and 23 percent of Great Lakes coastal miles are affected.

The major sources of nonpoint pollution are agricultural practices and urban runoff. The Nonpoint Source Pollution Abatement Program currently has 29 priority watersheds where runoff problems are identified and grants are provided to local landowners and communities to defray the cost of installing pollution control practices. The state has spent nearly \$19 million in priority watersheds since the program began in 1979.

Approximately 80 percent of Wisconsin's lakes show at least some loss of water quality, according to a survey using satellite imagery. Major lake pollutants are sediments from runoff and nutrients from phosphorus and nitrogen fertilizers. Only nine percent of lake water quality problems result from natural conditions such as winter kill.

Toxic contamination of fish and sediments is a major concern. Sixty-three lakes bear fish consumption health advisories due to mercury contamination. Additional consumption advisories exist on streams, rivers, and in the Great Lakes, due to PCB and pesticide contamination of fish.

The report offers recommendations to Congress regarding nonpoint source pollution, wastewater treatment, water quality monitoring, toxic substances control, groundwater protection, lake quality, and Great Lakes protection.

Copies of the report are available in all public libraries (or ask your librarian to request it from the person listed below). A free booklet summarizing the report is available from Ken Schreiber, Bureau of Water Resources Management, DNR, Box 7921, Madison, WI 53707 (608/267-9570).



Lakes Convention: A Recap

The Legislative Process was the topic of a preconvention seminar at the 1987 Wisconsin Lakes Convention. Harvey Stower, a former legislator and a board member of the Wisconsin Association of Lake Districts (WALD), spoke on the legislative agenda for lakes and gave a pep talk on effective lobbying. Following his presentation, conference participants met with individual legislators at the capitol and attended a reception.

The Lakes Convention on March 13-14 attracted 250 participants and 20 exhibits to the Concourse Hotel. Friday's agenda included presentations on applying Aldo Leopold's land ethic to lakes, the power of public participation, and three community reports. Lakes highlighted in these reports were Delavan Lake, Lac LaBelle, and Mayflower Lake. A panel discussion on watershed management concluded the day's activities. Saturday morning featured workshops on the Clean Water Act, weed control, volunteer monitoring, aeration, lake levels, zoning, and more. Senator Robert Kasten keynoted the convention with a luncheon address. He spoke on his role in passage of the Clean Water Act, liability reform, and upcoming acid rain legislation. Following the Senator's remarks, awards were given to the Rolling Stone Lake Protection and Rehabilitation District and to Elmer Goetsch, President of the Wisconsin Federation of Lakes. Look for more information on these awards in the summer issue of Lake Tides.

Thanks go out to all who attended and helped make this year's Lakes Convention a success.

Eco-note



Storm Water

by Richard Wedepohl

What is Storm Water Runoff?

Storm water runoff is water that falls upon the land surface during a rainstorm but does not infiltrate into the soil; rather it runs off in surface rivulets or small streams. This runoff water is important to the quality of lakes, as it picks up nutrients and sediments from the land's surface and carries them into lakes. There the sediments settle out, ultimately leading to a filledin lake. The nutrients carried in the storm water runoff provide food for the lake weeds and algae. When excessive, this vegetation can cause fish kills and unusable, aesthetically unpleasing lakes. Toxic materials can also be picked up by the runoff water, causing additional problems for the lake.

Although surface runoff occurs naturally even in forested or undisturbed areas, development or more intensive uses of the land increases the quantity and decreases the quality of this water. These undesirable changes are often quite large. For example, the quality of water can decrease by a factor of 10 during periods of construction. This process occurs both where agricultural land is cultivated and where land is developed for homes and businesses. Urban developments are often the most serious threat for lakes, because once completed they are virtually impossible or very expensive to change.

How is Storm Water Managed?

Newly-developed areas are usually provided with storm sewers to handle runoff water. Storm sewers are pipes laid underground, often below streets, that convey surface runoff water to a nearby stream or lake. Intakes, located along curbs or in parking areas, collect the runoff water into the pipes for quick transport into the receiving water. Conventional storm water management systems (underground pipes and curb and gutter) are not adequate for protection of water quality. A common misperception is that all water running off streets into a surface collector goes into a sewage treatment plant—it does not. Stormwater usually receives no treatment. Whatever runs off the lawns, streets, and parking lots goes directly to the stream or lake.

A more desirable situation is one where runoff water is directed to grass ditches or swales. In these ditches, water is allowed some opportunity to infiltrate and vegetation helps trap eroded soil. If water flows through wetlands, additional removal also occurs.

What Can You Do?

As an individual or in a group, you can help reduce the surface runoff problem. A first step might be to familiarize yourself with runoff problems and treatment in your area. When spring showers and snowmelt begins, observe where the runoff in your community goes.



Keep tabs on developments in your community that may have impacts on erosion and sediment loads. You can support any county or city zoning efforts directed at reducing surface runoff. Find out what regulations exist in your local area and support positive steps. Although there may be legislation introduced at the state level for management of storm water runoff, there are no current regulations; management steps are up to local governments and private owners.

You can contact local zoning officials to find out what regulations exist in your area and support efforts directed at reducing surface runoff. At the state level, you can sensitize your representative to the problem.

Richard Wedepohl is the DNR Lake Management Coordinator and President of the North American Lake Management Society.

Congress Renews Clean Water Act

Congress Renews Clean Water Act

Congress renewed their commitment to reducing water pollution nationwide by passing the Clean Water Act over President Reagan's veto in early February. The legislation was identical to that passed by the Congress last October and pocket vetoed by the President.

The winter edition of *Lake Tides* carried a summary of provisions of the new bill. Of particular importance to The winter edition of Lake Tides carried a summary of provisions of the new bill. Of particular importance to lake water quality are Sec. 314, authorizing cost-sharing for lake rehabilitation and requiring evaluation of lake water quality by states, and Sec. 319, authorizing funding for nonpoint source pollution projects.



Key Issues Affecting Lakes and Waterway Management in the 1987-89 Legislative Session*

- Boat Motor Fuel Tax: The Wisconsin Association of Lake Districts (WALD) supports establishment of a formula allocating state gas tax revenues from boats into a Water Resource Fund.
 - 1986 research (The "SCORP" Study) indicates that the average boat consumes 50 gallons of fuel annually.
 - 437,000 boats are registered in Wisconsin.
 - DNR estimates that 20% of boat gas use is by non-resident boaters.
 - Current gas tax level is 17.5 cents per gallon.
 - Total boat fuel tax revenue equals \$4.5 million annually.
 - Boat fuel users were barred from obtaining a gas tax rebate for boat fuel in the 1985-87 Budget Bill.
- Waterway Grants to Local Management Efforts: WALD supports expanded eligibility for local projects supported by boat fuel tax to include priority needs of inland lakes and waterways.
 - SCORP research proves that more than 75% of boat gas tax is generated by inland lake boaters. Less than 20% is generated on the Great Lakes.
 - Historically, nearly 75% of boat gas taxsupported grant funds to local communities have been awarded to Great Lakes harbor projects.
 - Local projects aimed at water quality protection, recreational improvement and lake management should be eligible for state support through grants from boat motor fuel tax revenue.
- 3. Nonpoint Pollution and Soil Erosion: Nonpoint pollution is the single greatest threat to Wisconsin's lakes. WALD supports consolidation of Department of Agriculture, Trade, and Consumer Protection programs affecting soil erosion (\$2 million) and the Department of Natural Resources nonpoint program (\$7 million). The new program should be focused to enhance progress in controlling nonpoint source pollution.
 - Local initiative should be fostered and supported.
 - A wide range of control strategies should be developed and tried.

4. Natural Resources, Tourism, and Economic Development: Natural resources support an enormous sector of the state's economy. WALD supports state efforts to "reinvest" some revenues stemming from natural resources into long term protection and development of the recreational and economic values of natural resources, including lakes, streams, wetlands, fish and wildlife habitat, agriculture, and forestry.

*Reprint of a Wisconsin Association of Lake Districts flyer, Bill O'Connor, Executive Secretary.



The DNR's Fish Future Plan

by Tim Eisele

Thirteen years from now, progeny from today's fish are likely to be swimming in state waters, and it's a safe bet there will be more anglers pursuing those lunkers. But what management paths should biologists take to provide the best-quality fishing in the year 2000?

The DNR has drafted a strategic plan and is seeking comments from the public. Jim Addis, director of the DNR's Bureau of Fish Management, stated "We will want to develop more access facilities for handicapped and less-mobile fishermen so that they can enjoy fishing. We will have to put more emphasis on aquatic education." Other critical trends identified in the plan include:

- A changing role of government away from enforcement and toward advising.
- The likelihood that DNR staff will not increase.
- An increasing demand for sport fishing.
- An increasing number of special-interest groups.
- Continued pollution and contamination of waters.
- Indian fishing rights which preempt state regulations.

The routes outlined in the DNR plan include changing their management approach to intensively manage a few waters in each geographic area and reducing single-species management efforts. A slide-tape program is available through the DNR titled "Fish 2000." Contact your local DNR fish manager for more information.

Tim Eisele is a free-lance outdoor writer.

Fertilizing Lawns on Lake Lots

by Gale L. Arent

Eutrophication—the process of nutrient enrichment of lakes, streams, and ponds—is often a lake's number one water quality problem. Wastes and fertilizers pour, seep, and erode into water, causing an unnatural concentration of nutrients. These nutrients produce a superabundance of algae and rooted plants.

Phosphorus is usually the key nutrient in eutrophication. Overabundant phosphorus commonly results from human activities. In kettle lakes with small watersheds, the main culprits are sewage discharges and overfertilization of lawns. In some lakes, excess nitrogen is also a problem.

Soils saturated with phosphorus from septic systems or fertilizers cannot remove phosphorus from septic tank effluents. Phosphorus from septic tanks passes as far as 300 feet through some soils.

Guidelines for minimizing nutrient loss from lakefront lawns:

- If possible, maintain a zone of natural vegetation between the lake and lawn. If you wish to plant a buffer strip, some trees you might consider are tamarack, red cedar, black willow, red oak, white oak, sugar maple, black ash, and balsam poplar. A buffer strip can help stabilize the shoreline and prevent runoff. Deeply rooted plants can take up nutrients from the soil, instead of allowing them to seep into the lake water.
- 2. If you are establishing a lawn, plant fescue rather than bluegrass. The annual nitrogen requirement of fescue is about 2 lbs. per 1000 sq. ft., while bluegrass needs 4 to 7 lbs. per 1000 sq. ft.
- 3. Use the smallest possible amount (this may be none at all) of nitrogen fertilizer to maintain a good grass cover. Fertilize with nitrogen in the spring using a small amount of a soluble form of nitrogen. The principle is to have the grass use the nitrogen so it will remain vigorous and minimize the amount of undissolved fertilizer on the lawn surface capable of washing into the lake. If the lawn is not growing well, apply a very small amount of nitrogen in early summer.
- 4. Do not use fertilizer containing phosphorus or potash unless a soil test indicates a need for these nutrients and the lawn is not growing well. In most cases, no phosphorus is needed on lawns.
- Water sparingly, especially on sandy soils, to reduce the possibility of leaching nitrogen and other nutrients as the water moves through the soil toward the lake.
- Avoid fertilizer-herbicide mixtures. Use herbicides only if weeds become a serious problem. If weeds are treated, apply the herbicide in the fall. This will minimize runoff and reduce the chances of injury to woody ornamental trees and shrubs.



- On lightly fertilized lawns, thatch will probably not need to be raked. It will decompose and provide part of the nutrients needed by the lawn.
- 8. Rake leaves in the fall. This will keep them from shading the lawn and from falling into the water where they will decompose and add to the nutrient load.
- 9. Do not cut the lawn too close. Cutting height should be 2 to 2 1/2 so an adequate green area remains on the turf.

Gale L. Arent is County Extension Director for Kalamazoo County in Michigan.

Fish Advisory

Fish consumption advisories enable anglers and other sport fish consumers to make intelligent choices about whether to include certain contaminated sport fish in their diet. Wisconsin has issued fish consumption advisories to the public since the early 1970s.

Beginning April 1, fish consumption advisories will be issued twice a year instead of once. The policy attempts to answer concerns expressed by a number of individuals: sport anglers, environmentalists, public health practitioners, resort owners, communicators, and others, including legislators.

Of importance to the tourism industry and peace of mind for many occasional anglers, this year's consumption advisory will again distinguish between someone who frequently eats listed fish, such as a year-round shoreline resident, and short-term vacationers, who only eat infrequent meals of fish.

The department will issue interim advice if routine fish sampling data indicate a potential human health emergency could exist in fish from a particular body of water. Under our new procedures, we will immediately collect additional samples, review results to confirm whether a problem exists, and promptly notify affected people with appropriate advise.

The new advisory is available from DNR offices upon request.

Excerpts from a letter by DNR Secretary C.D. Besadny to State Legislators.

Publications

Wisconsin Environmental Education Programs Catalog. Wisconsin Cooperative Extension Service produces a catalog listing short environmental education programs throughout Wisconsin. The semi-annual publication lists almost 100 programs scheduled by over 30 organizations. To be put on the mailing list (or to add a program to the listing), send a postcard to Environmental Resources Center, 216 Ag Hall, 1450 Linden Drive, Madison, WI 53706.

The Acid Test and *Acid Rain Study Guide* (for teachers). Help citizens, students, and teachers learn about—and explain—acid rain. (Introduce it to your local schools!) Available from Bureau of Information and Education, DNR, Box 7921, Madison, WI 53707.

The Bay Book. In our Autumn issue, we reprinted a landscaping how-to item from Bay Book. The book offers excellent materials you can reproduce simply by giving credit to the Bay Book. Single copies are available free from: Citizens Program for the Chesapeake Bay, Inc., 6600 York Road, Baltimore, MD 21212.

Wisconsin's Shoreline Zoning Program: Design and Direction. The Michigan Shore Property Owners Association asked our DNR for an explanation of Wisconsin's shoreland program, since it's one of the oldest in the nation. The article includes an explanation of the role of local organizations in shoreland zoning. Request "shoreland article reprint" from Mary Ellen Vollbrecht, Bureau of Water Resources Management, DNR, Box 7921, Madison, WI 53707.

Liability Insurance: The Purchasers Guide. This guide is a useful tool for insurance purchasers. It can help you take an active role in the insurance market by identifying possible steps for reducing premiums and outlining alternatives to traditional insurance policies. Available from the Center for Public Representation, 520 University Avenue, Madison, Wisconsin, 53703 (608/251-4008).

Wisconsin Beaver Damage Control Guidelines.

What are your options when beaver cause damage around your lake? Who can you call for help? This ten-page booklet includes diagrams for several beaver damage remedies. Available from your DNR District Office.

Acid Rain In Wisconsin: The Role of Soils and Geology. Third in a continuing series, this issue explains the sensitivity of various areas to acidic precipitation. Available from County Extension Offices.

Calendar

North American Lake Management Society and Ohio Lake Management Society Regional Symposium on Lake and Reservoir Management. For information contact: Ohio Lake Mgmt. Society, PO Box 14, Struthers, OH 44471 (216/673-8272).

May 4-5, 1987; Columbus, Ohio.

Aquatic Plant Management Society 27th Annual Meeting. International conference concerned with scientific or applied aspects of lake vegetation management. For information contact: G. Douglas Pullman, Publicity Committee APMS, The Dow Gardens, 1018 W. Main St., Midland, MI 48640.

July 12-15, 1987; Savannah, Georgia.

Applied Lake and Watershed Management: The Role of Standards in Water Resource Management Policy. North American Lake Management Society 7th Annual International Symposium. For information contact: NALMS, P.O. Box 217, Merrifield, VA 21116 (202/833-3382).

November 3-7, 1987; Orlando, Florida



Reflections

"The lakes are not yet open but ducks, herons, and shorebirds wing their way from open stream to stream and search the still brown marshes for likely nesting sites.

Insects bask on sun-warmed siding, a mourning cloak butterfly, emerging from winter quarters, flutters aimlessly by and, by night, an occasional moth flutters against a lighted window.

There will be days when spring turns her face away, but her feet are set firmly upon the path and she will progress at her own time. Who are we to insist that the weather meet our demands? We would appreciate the warmth and beauty less if we had not endured the harsher elements. To be aware of the joy and beauty of each day, each season, is the fulfillment of a rich and exciting life."

From Wayside Wanderings by Lois Nestel

Editor: Lowell Klessig DNR Coordinator: Mary Ellen Vollbrecht Assistant Editors: Scott Olson **Terry Daulton** Published quarterly by season. Subscription rate: No charge. Articles and news items are welcomed and should be sent by Dec. 1, Mar. 1, June 1, or Sept. 1 to: Diane Lueck College of Natural Resources University of Wisconsin Stevens Point, WI 54481 715/346-3783

LAKETIDES

College of Natural Resources University of Wisconsin Stevens Point, WI 54481

COOPERATIVE EXTENSION SERVICE UNIVERSITY OF WISCONSIN-EXTENSION

A newsletter for people interested in Wisconsin lakes

SACILL AN

Vol. 12, No. 2 **7861 Bring 2**

IN THIS ISSUE:

- Silver Lake Association
- Annual Meeting Guidelines
- Stormwater Runoff
- Fertilizing Lawns - Key Legislative Issues



of Natural Resources Wisconsin Department

Community, Natural Resource, and Economic Development Programs not not how to separate to Work for You Cooperative Extension Service..

> U. S. POSTAGE PAID PERMIT NO. 19 STEVENS POINT, WIS

nprofit Organization