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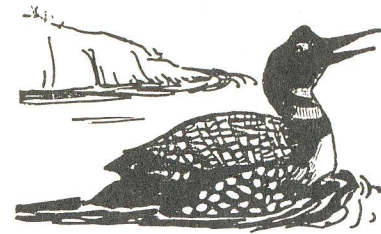


*A Newsletter for People
Interested in Wisconsin
Lakes*

Lake Tides

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IN THE WAKE OF A LOON : KEEPING IN TOUCH

"Community" is sometimes defined as a specific geographic area where people interact with each other in a variety of ways. "Community" is also defined as a group of people with shared goals--a common interest. Either definition of community requires communication between members.

Lakeshore property owners live around a specific lake and they share goals about the quality of lake and the quality of life in the area. Thus, lakeshore property owners constitute a community by both the geographic and the commonality of interest definitions. However, communication is usually the weak link.

To some extent, the water itself is a barrier to communication. Lakeshore homes are strung out for miles rather than grouped around a community center. The migratory habits of seasonal residents also inhibit communication.

Many lake associations, lake districts, and civic clubs have overcome these hurdles with regular meetings and newsletters.

If your group has neither regular meetings nor a newsletter, it will be very difficult to develop a sense of community. You should not expect a high sense of belonging and involvement from a member who only hears from the group once a year--in a notice announcing the annual meeting or asking for membership renewal.

If you have a newsletter or develop one, it's a good idea to also keep in touch with professionals with whom you work. At a minimum, I would suggest sending copies of your newsletter and annual meeting agenda to your DNR District Inland Lake Coordinator, your County Extension Resource Agent, and Dick Wedepohl (DNR, Box 7921, Madison, WI 53707).

Please also send me a copy at the College of Natural Resources, University of Wisconsin-Stevens Point, Stevens Point, WI 54481.

Sincerely,

Lowell L. Klessig
Cooperative Extension
Service Specialist
Professor

LAKE MONITORING: WHAT CAN LOCAL PEOPLE DO?

Several people have called about the variety of monitoring programs available. All lake districts should have received information on a Trend Monitoring program offered by the U.S. Geological Survey. The Wisconsin Association of Lake Districts sent its members information on a special program to measure lake levels and algae concentrations. Professor Byron Shaw of the Environmental Task Force at UW-Stevens Point has sent a letter to lake districts and other communities offering certain laboratory analyses of water chemistry. Various private consultants have offered monitoring contracts to potential clients.

Most of these programs depend on some degree of data collection by local residents. The more expensive programs provide for professionals to take water samples and for more frequent sampling.

The following list describes activities that local residents can undertake to monitor their lake. In all cases, they should carefully follow instructions provided by professionals. For each activity that a community decides to undertake, one local resident must accept long-term responsibility for the task.

Four types of information can be gathered by local residents:

1. Secchi disc to determine algae concentrations. This simple test for water clarity is performed weekly by lowering a black and white disc into the water until it disappears. The only cost is to purchase or make a Secchi disc. The test does not distinguish between algae and other material (e.g., soil particles) suspended in the water.
2. Lake level to determine water fluctuations. Reading a staff gauge on a weekly basis is a routine matter. However, a qualified professional should install and periodically check the gauge. If a DNR benchmark exists, the gauge should be referenced to the benchmark. Where a suitable structure does not exist to protect the gauge from ice damage, a pipe might be installed in the lake bed and the water level measured up from the top of the pipe.
3. Water chemistry to determine nutrient levels. Obtaining accurate information on water chemistry is more difficult than taking Secchi disc or lake level readings. A sophisticated effort requires that professionals take the samples several times during the year and analyze the water in a certified laboratory.

If the community is willing to accept less rigor in data quality, local residents can take the samples to reduce costs. Following specific instructions, the samples are taken and then sent to a laboratory for phosphorus and nitrogen analysis. Other tests such as chlorides (from road salt or septic systems) and alkalinity (acid rain susceptibility) can also be run for a modest fee. Testing for pesticides, however, is expensive.

4. Dissolved oxygen to determine conditions for fish.

This test is performed monthly; more often if the previous test indicated that oxygen levels were dropping dangerously low for sport fish to survive. The test can be performed at the site with a dissolved oxygen sampler and test kit that costs \$90 (Hach Company, P.O. Box 389, Loveland, CO 80539). While the precision of this test is not high, it does provide an acceptable estimate for local purposes.

Any of the four tests can be done independently of the others. However, interpretation of the results is improved if data are available from all the tests.

The topic of self-help monitoring will be discussed in detail at the March Convention. Training in conducting each of the tests will be included. Ultimately, each community must decide what tests to run themselves and what tests to pay professionals to do for them. Hopefully, this discussion has served to clarify those options.

* * *



POLK COUNTY ASSOCIATION OF LAKES

Lake organizations in several regions have cooperated by sponsoring joint educational programs (example: Waukesha County program on aquatic weeds) or presenting a united front on a local issue (example: revision of Vilas County zoning ordinance). However, Polk County has the first county association of lake organizations.

Shirley Hanson (Amery) of the Lake Wapogasset and Bear Trap Association organized the initial meeting. Representatives from 10 lake associations and lake districts attended. Topics discussed included weeds, algae, lake patrol, back-lotting, nutrients from the watershed, septic systems, internal nutrients from the lake sediments, beach erosion, chemicals, and fish stocking.

Polk County contains the most lake districts in the state (17 lakes in 13 districts) and numerous voluntary lake associations. The group plans to meet regularly to share experiences and information.

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SURPLUS FEDERAL PROPERTY

Lake districts are eligible for surplus property. An application form (AD-EA-55) must be completed and sent to the Federal Property Program, Wisconsin Department of Administration, P.O. Box 1585, Madison, WI 53701. A copy of the resolution creating the district should be included.

Distribution centers are located in Little Chute, Camp Douglas, Menomonie, Milwaukee, and Madison.

Property includes office equipment, vehicles, lab equipment, clothing, chemicals, and more. A monthly magazine provides pictures, descriptions, location, and price. Call 608/266-0942 to be put on the list for free magazine or write to the address above.

* * *

TRI-LAKES ORGANIZE COMMON DISTRICT

Robert L. Minnick, Chairman
Committee to form a Tri-Lakes
Management District

Organizing one of the largest lake management districts in the State of Wisconsin was a multifaceted project which required the efforts of many people over an extended period of time. The Tri-Lakes Management District, located in the Town of Rome, Adams County (central Wisconsin), involves approximately 4,500 property owners, 75% of whom are not local residents. The first annual meeting of this newly formed district was held on September 1, 1984; but, of course, much transpired before this.

The first developer of our lakes, Isaacson Corporation, was required to establish a Trust to ensure a long-term program of maintaining clean recreational waters. This Trust was given \$125,000 by the developer for the program. With part of that money, the Trust arranged for a feasibility study which was completed and published in 1979. The recommendation of this inquiry was that a long-term plan for clean water should be developed. Local members of the Trust then formed the Committee to Form a Lake Management District. Officers were chosen and plans laid to begin the formation of a District. The signing of petitions was under way when the chairman became ill and work ceased.

When I took over as chairman in January of 1981, the project had lain dormant for about a year; but foundations had been laid, and we began our work by building on those foundations. There was, for example, the nucleus of a committee already in place, several of whom were knowledgeable as to preceding events. We were also fortunate in that two of the lakes, Sherwood and Camelot, had well-established property owner associations to supply our committee with personnel and advice. The third lake, Arrowhead, was in the process of development at this time. Our liaison there, the new developer (East Briar Corporation), was completely supportive of our project. The Town of Rome had provided us with property ownership records and the Trust had made some monies available to the committee.

The new committee, numbering ten persons, decided at this point to acquire signatures to cover at least 51% of the land in our District rather than 51% of the owners because it was felt that subdivided properties were simpler to trace than to count number of ownerships. Also, there was still a considerable amount of un-subdivided property involved in the Lake Arrowhead area which was still under one ownership.

We began our work in the community by reintroducing the idea of lake management wherever it was possible for us to do so. We wrote articles for the newsletters of the property owners' associations; we spoke to gatherings of all types where we also dispensed petitions. We placed booths manned by committee members to secure signatures and give information at all local picnics, dances, and other festivities. During this time, we educated ourselves as well by attending the lake management seminars held at the University of Wisconsin-Stevens Point each March. We were receiving petitions from our efforts, but not rapidly enough.

In November of 1982, we recruited a crew of volunteers and mailed petitions, informational material, and self-addressed return envelopes to 2,600 property owners. From this effort, we received about 550 signed petitions, 15 dissenting letters, many letters returned "Address Unknown," and no response from the remainder. With the support of the people developing Lake Arrowhead, who signed for their unsold property, we now had approximately 45% of the signatures needed.

At this stage, we enlarged our volunteer work force, strategically chosen for their location in the area, to about 50 people. With this large group, we began to scrub the records to identify unresponding local owners and owners who were known personally to our volunteers. We held biweekly meetings to sustain this effort. At the last of these meetings in November of 1983, there was indeed cause for celebration. We had secured enough signatures to cover approximately 65% of the land in our proposed District.

In January of 1984, we delivered all necessary documents to the Adams County Board. We had followed "A Guide to Wisconsin's Lake Management Law" carefully, and thus far we had not encountered major problems. Our only real difficulty arose when we too hurriedly developed our boundary lines. The County Board questioned the lines because we had involved parcels of Arrowhead properties which, though they benefited from the amenities of the Lake Arrowhead Association membership, were not contiguous to the main body of our District. The County Board contacted Mr. Lowell Klessig and he advised that the noncontiguous properties be removed from the District.

A committee from the County Board arranged for a hearing on April 7, 1984, at the Rome Town Hall. Our committee, eager for a good attendance at this meeting, established a telephone tree throughout the community reminding people of the importance of the hearing and urging them to attend. We were pleased to have over 300 persons in attendance. After three years of educational effort, we were dismayed when the first question from the floor was: "What is this all about?" Most participants were well aware of our purpose and the committee answered many informed questions. The County Board committee must certainly have felt that they had been given a positive mandate for the formation of a lake management district. The entire Board created the district by resolution in May, 1984. They also named temporary commissioners with the advice of our committee.

At this point, we held an informational and transitional meeting of our organizing committee, the new temporary commissioners, and Mr. Lowell Klessig. Five additional meetings of the temporary commission ensued at which time by-laws were developed, a proposed budget was designed after consultation with aquatic experts, and candidates were recruited to sit on the permanent commission.

Again, our corps of volunteers went into action to assist in mailing an announcement and agenda of the first annual meeting, a copy of the proposed by-laws and budget, and a slate of prospective commissioners to each property owner in the District.

The first annual meeting of the Tri-Lakes Management District was held on September 1, 1984, a Labor Day weekend, when we hoped to attract non-resident property owners to the meeting. Approximately 150 persons attended. They listened to Mr. Klessig explain the functions of the annual meeting, they approved the by-laws and the budget, and they elected the permanent commissioners for the District. A week later, the Committee to Form a Tri-Lakes Management District was dissolved and we turned our records and monies over to the new Commission.

Throughout this narrative, I'm sure it has been obvious that many, many people were involved in this effort. Our property owners' associations and large numbers of volunteers have been mentioned. I should state, too, that the Rome Town Board and officers who provided records from which we operated were important facets in our success. The close proximity of the University of Wisconsin-Stevens Point and the availability of Mr. Klessig proved invaluable to us. Important, too, was the attitude of our committee who continued to believe in its own eventual success. Above all, for me personally, was the sustained effort of a capable wife who was at all times my willing assistant.

EDITOR'S NOTE: Mr. Roy Ustby, Chairman of Tri-Lakes District, passed away as this issue was being prepared for printing. Roy worked for the future of his lake community over many years as a member of the Fourteen Mile Creek Watershed Trust.

* * *

TAX TIPS FOR LAKE ORGANIZATIONS

Paying State Sales Taxes

If tangible personal property is purchased by any organization for resale, a Resale Certificate is signed and no sales tax is paid.

Tangible personal property purchased for use by a lake association is subject to state sales tax. As public units of government, lake districts do not pay state sales taxes.

Collecting State Sales Taxes

Non-profit organizations (lake associations) and public bodies (lake districts) do not need to collect state sales tax on items or services they sell if they are only engaged in "occasional sales."

Admission tickets are not taxed if the event does not involve professional entertainment, no more than 3 events are conducted per year, and no more than 9 days are involved per year.

Meals, food, and beverage sales are not taxed if the organization holds no more than 3 events that involve no more than 9 days per year.

Other sales are exempt from sales tax if total receipts do not exceed \$1000. Examples include light bulbs, cards, Christmas trees, T-shirts, and parking. (The Wisconsin Department of Revenue has requested that this limit be raised to \$2,500 effective January 1, 1985.)

Raffle tickets are not subject to state sales tax.

If an organization exceeds the above limits, it loses its "occasional sales exemption," must obtain a sellers permit, and must collect state sales tax on subsequent sales in that calendar year and in succeeding calendar years.

Reporting Income

Most lake associations are non-profit organizations organized under Chapter 181 Wisconsin Statutes. Such organizations are not required to make annual income reports to the Wisconsin Department of Revenue. They are, however, required to annually file Form 990 with the U.S. Internal Revenue Service. Initially, the IRS also requires Form 1024 to establish tax-exempt status for the association's income.

Lake districts are treated like other units of government. They are automatically exempt from paying income taxes.

Individual Deductions For Contributions or Taxes Paid

Contributions made to certain types of non-profit organizations are deductible when the individual files his personal income tax statement. If the lake association wants to assure members that they can deduct their contributions, the organizations should file Form 1023 (instead of Form 1024) to apply for status as a "Section 501(c)(3) organization." A non-profit organization should not advertise that contributions are deductible unless such an application as a "Section 501(c)(3) organization" has been approved.

Contributions made to a lake district can be used as charitable deductions. Taxes paid to a lake district through a general mill levy can be deducted as part of real estate taxes.

However, special charges or special assessments may be directly related to services or improvements to the property and may not be accepted by the IRS as a legitimate deduction.

For further information on any of these tax issues, please contact the Wisconsin Department of Revenue at P.O. Box 8902, Madison, WI 53708; or call the Sales and Tax Section (608/266-2776).

* * *

COPPER SULFATE VS. ALGAL BLOOMS? THERE ARE BETTER WAYS

Dick Gray

As soon as a lake is born, it starts to die. This fact is fundamental to the understanding of what has happened, is happening, and will happen to any natural body of water. The first grain of sand, the first speck of dirt that enters a newly-formed body of water starts the process of lake aging.

It may take a few thousand years, but, sooner or later, a lake does die. It may not seem so, but the major process involved in lake aging and dying is a chemical one. The waters become fertile with elements essential for growth such as nitrogen, phosphorus, potassium and trace elements. Plants and animals abound, die, and gradually fill the depression.

Among the plants are the algae. Of the algae, the blue-greens are a nuisance as they are not generally eaten by the fish and have the nasty habit of occasionally overpowering the other algae to bloom in excessive quantities, then to die in a smelly and unsightly scum along the shore before joining other sediments in the lake bottom.

To reduce these nuisance blue-green algal blooms in reservoirs, ponds and lakes, the chemical compound copper sulfate has historically been used as one of the forms of control.

In recent years, I have been asked many times whether or not I think the use of copper sulfate in water is a good idea. In every instance, I have replied, "I don't think it's a good idea to use it. It doesn't do any lasting good, and there are some viable alternatives."

Dr. John Wood, of the Gray Freshwater Biological Institute, is an expert on metals in water and their effects on living matter. Recently, I had a long and informative talk with him regarding copper sulfate in water. He describes its use as "an apparent short-term solution with severe long-term problems."

Wood explained that when copper sulfate is applied to the water, ionized copper is freed quickly to become available to plants. When this ionized copper is available in "super quantities," the algae take up an excessive amount, killing them quickly.

But not enough copper sulfate should or can be legally applied to control algae for any great length of time. The algae multiply and return to previous or greater numbers once the excess copper has been used up, usually within a few days.

The copper added to the water is there forever, as it does not degrade. And the repeated use of copper sulfate may trigger a "brand" of algae resistant to the chemical.

It has been demonstrated time and again that copper accumulates in the sediments of a treated pond or lake. Such bodies of water, treated constantly over a period of ten years, can have a concentration of copper in their sediments which exceeds that in a commercial copper mine.

There are better ways to counteract algae problems than using copper sulfate. In seeking answers to water problems, it is helpful to understand just what that body of water really is. A certain lake will support only a defined poundage of fish per acre; weeds of only a certain kind.

Lakes are like people--no two are alike. And if a body of water is ailing or is not as usable as is wished, then a water "doctor" can be of help.

Because the possibilities for control of water problems are changing constantly, up-to-date controls must be considered before choosing one or more for action.

To help understand some of the choices, I asked the staff at the Institute to construct a simple outline of the major, practical ways to control water quality in lakes. The following is the outline as presented. I wish to thank Beth Ellerby and her coworkers for this information.

A lake's character is the result of thousands of years of natural and unnatural use and abuse. It is unrealistic and impossible to reverse the results of these years by a "quick fix." What we have to do is figure out ways to approach the special problems, and try to counteract these problems.

METHODS OF LAKE WATER QUALITY CONTROL

CHEMICAL CONTROL:

Direct nutrient control--making existing chemicals unavailable by using other chemicals
Herbicides--using chemicals toxic or poisonous to plants
Pesticides--using chemicals toxic to undesirable fish

BIOLOGICAL CONTROL:

(Population control through a predator-prey relationship)
Niche manipulation--making it possible for desirable species to flourish over undesirable species
Pathological control--using parasites or reproductive inhibitors
Bacterial control--using certain species that are lethal to other species

PHYSICAL CONTROL:

Aeration and circulation--supplying oxygen for decomposition and fish survival
Dredging--removing sediments contaminated with nutrients or poisons
Dilution and flushing--raising and lowering water levels
Harvesting--cutting and removing weeds, fish and algae
Bottom sealing--coating the lake bottom with materials, cutting off nutrient sources
Explosives--rupturing cells of living matter by pressure

WATERSHED CONTROL:

Better agricultural practices
Soil conservation
Marshland management
Shoreline management
Private ownership practices
Creation of holding ponds

Dick Gray is Chairman of the Board of the Freshwater Foundation. This article is reprinted with permission from Facets of Freshwater, Vol. 9, 1984.

NEW STATE LAKE PROGRAM PROPOSED

Representatives Jim Holperin, Cal Potter, and Harvey Stower have been collaborating in an effort to rebuild a formal state lake management program. Several proposals have been reviewed by DNR officials, the Governor, UW professors, and the Wisconsin Association of Lake Districts.

A four part program is being proposed:

- I. Technical assistance
- II. Monitoring
- III. Lake demonstration projects
- IV. Lake management information center

DNR has now submitted its budget request for the 1985-87 biennium. The lakes program segment of the budget contains about \$500,000 for each year in the biennium. Grant funds to lake districts are not included. The new staff would assist communities in applying for federal grants. (Congress has appropriated \$5,000,000 for Clean Lakes Projects.)

Dick Wedepohl will provide more information in the next Lake Tides and at the March convention.

* * *

CONVENTION '85

The 1985 Wisconsin Lakes Convention will be held March 29-30 in Stevens Point. PLEASE MARK YOUR CALENDAR! The planning committee is in the process of arranging the program. If you have particular topics that you would like covered, please drop a note to:

*Lowell Klessig
College of Natural Resources
UW-Stevens Point
Stevens Point, WI 54481*

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