Waterworks

FEDERATION OF

Spring 1990 Volume 6 Number 2

Congestion and Overuse -

A Growing Problem on New York State Lakes

Congestion and overuse are major problems for many of New York's popular lakes. There are the obvious consequences such as boat collisions, but crowding conditions may be more subtle. Noise or the wakes from high performance power boats may annoy shoreline property owners, or prevent anglers from catching fish.

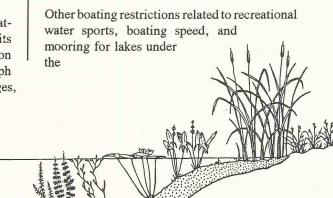
State Navigation Law applies to all navigable fresh waters of the state, and their navigable or non-navigable tributaries and outlets. The most important parts of the law for lake managers, sections 33 through 73, deal with regulations for pleasure boats. These rules can be used to govern boating activity related to boating safety, motor size and speed, recreational uses, and noise control.

The Navigation Law deals with regulating excessive boating speed; however, the law imposes specific speed limits only for a few lakes in New York State. For example, on Canandaigua or Keuka Lakes, boats cannot exceed 45 mph during the day, or 25 mph during the night. Towns, villages, and counties (through the Town Law, Village Law, or County Law) may have the authority to impose speed limits near the shoreline (usually within 1,000 - 1,500 feet of the mean low water mark), provided that they maintain jurisdiction of the lake and that existing state or federal laws do not impose stricter limits.

The number of boats can be addressed through restrictions of docks, moorings, or available access.

Many lake associations address the problem of excessive boating speed not by speed limits, but through limitations of motor size. Some of these associations have restricted motors to under 10 horsepower, while other lake associations have banned power boating all together. The Navigation Law authorizes restrictions on boat horsepower only for Saratoga, Warren, Suffolk, and Nassau Counties. However, as with regulating boating speed, towns, villages, and counties may have the jurisdiction to impose stricter limits.

Noise from pleasure boats has also been limited on Canandaigua and Keuka Lakes through the Navigation Law. The law also governs the discharge of wastes from pleasure boats and restricts the sale or use of quick-release tributyltin (TBT) antifouling bottom paint for boats (since January 1, 1988). TBT has been determined to be toxic to aquatic life at very low concentrations.



Congestion (continued from page 1)

jurisdiction of the Office of Parks, Recreation, and Historic Preservation or any other state agency are derived from the Parks and Recreation Law.

Under Section 128, the Vehicle and Traffic Law helps reduce boat theft by requiring proof of boat ownership in the form of a title, similar to that required for automobiles. The law authorizes a portion of the registration fees to help pay for enforcement. It also allows an authorization of State aid to counties, cities, towns, or villages for boating enforcement up to three quarters of the total expenditures as approved by the Office of Parks, Recreation and Historic Preservation.

Costs associated with implementing laws related to navigation controls are mostly administrative in nature. Application of some specific aspects of the laws, such as speed limit or noise controls, may involve a significant expenditure for policing or enforcement.

Navigation laws can be difficult to pass, and even more difficult to enforce. Some active lake associations and communities have been successful in passing legislation authorizing boating control. However, the Navigation Law is limited in providing statewide control of boating and other on-lake recreational activities.

The Navigation Law, Parks and Recreation Law, and Town, Village, and County laws can be difficult to understand. Lake associations interested in the regulatory approach to boating restrictions should elicit the help of an attorney to determine which laws may apply to their lake.

Perhaps the best method for controlling boating-related activities is a community-based voluntary program. Through education, all pertinent recreational groups can become aware of the potentially significant effects excessive boating may have on the lake ecosystem, and the recreational interests of the other user groups. This may involve restricting horsepower on motors, providing specific blocks of time and/or locations in the lake for specific recreational uses, and "common courtesy" noise limits and curfews on lake usage. Regulatory and voluntary programs have been successful at several lakes across the state.

excerpts from Diet For A Small Lake - A New Yorker's Guide To Lake Management

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Waterworks is published four times a year. Individuals who wish to submit articles, calendar items, artwork, or photography to Waterworks are welcome to contact the editor, Anne B. Saltman, 2175 Ten Eyck Avenue, Cazenovia, New York 13035 (315) 655-2236. For additional copies of Waterworks and address changes, contact John Colgan, FOLA President, 273 Hollywood Avenue, Rochester, New York 14618 (716) 271-0372. Permission to reprint articles is granted with credit.

Now Available...

Diet for a Small Lake - A New Yorker's Guide to Lake Management

This book was written and published as a joint effort between the Federation of Lake Associations (FOLA) and the Department of Environmental Conservation. It provides a step by step approach to the development of a lake management plan, and includes detailed descriptions of in-lake and watershed restoration techniques, a comprehensive discussion of lake ecology, a special section on New York State surface water laws and regulations, methods of organizing a lake community for action, line drawings and color photographs for the identification of aquatic plants, and much more.

A complementary copy will be sent to each FOLA member in early June and books will also be distributed at the FOLA annual and regional conferences. Additional copies will be available for \$10.00 each (plus \$2.00 for postage and handling) by writing to Holly Ioset, Federation of Lake Associations, Inc., 33 Albany Street, Cazenovia, New York 13035.

Federation of Lake Associations, Inc.

General Membership Meeting

4:30 PM

Saturday, June 9, 1990 Paul Smith's College, Paul Smith, New York

NEW YORK STATE FEDERATION OF LAKE ASSOCIATIONS SCIENTIFIC ADVISORY BOARD Dr. John Peverly, Chairman Cornell University Ithaca, NY Mr. Michael Gann NYSDEC Inland Fisheries Section Albany, NY Mr. Robert Canfield **FOLA** Dundee, NY Dr. Ed Mills Cornell University Bridgeport, NY Dr. Jay Bloomfield NYSDEC Lake Services Section Albany, NY Ms. Anne Saltman **FOLA** Cazenovia, NY Dr. R. Warren Flint Great Lakes Program Buffalo, NY Dr. Herman Forest SUNY Geneseo Geneseo, NY Mr. Russell James Ecoscience Moscow, PA Dr. Thomas Storch SUNY Fredonia Fredonia, NY Dr. Thomas Young USEPA Clarkson University Potsdam, NY Mr. Robert Brower Cayuga County Plan. Bd & EMC Auburn, NY Mr. Charles Morrison NYSDEC Land Resources Planning Albany, NY Mr. William Morton NYSDEC Bureau of Water Quality Mgmt Albany, NY Mr. Scott Sherwood Center for Govt'l Research Rochester, NY Dr. Ken Mantai SUNY Fredonia Fredonia, NY Mr. Dean Long LA Partnership Saratoga Springs, NY Dr. Francis W. Smith Comm. Coll. Finger Lakes Canandaigua, NY Mr. Bruce Gilman Comm. Coll. of the Finger Lakes, Canandaigua, NY

What Boat Owners Can Do To Keep Lakes Clean

In addition to the laws regulating recreational boating, there are many "good housekeeping" techniques that boat users can practice to improve or protect the quality of their lakes.

Fuel

Be very careful in handling oil, gasoline and cleaning products around your boat. Avoid overfilling the fuel tank. Even small spills can make the water unusable for drinking and can kill fish.

Sewage Disposal

Larger boats should install self-contained marine toilets that can be pumped out or carried ashore to be emptied into sewage treatment systems. In Class AA waters, through-hull sewage lines must be sealed.

Trash disposal

Exert control over your passengers - make sure that no one throws food or trash overboard. Styrofoam cups and bottles not only make the lake unattractive, they can also injure or kill aquatic life. Collect garbage in a bag and discard in an appropriate place on shore.

Speed Limits

Speed limits exist for a reason. Speeding boats disrupt the peace and tranquility of other lake users and their wakes can contribute to shoreline erosion. The posted speed limits should therefore be observed at all times. Motor boats should stay away from shallow water whenever possible, since propellers create weed fragments, stir up mud from the lake bottom, and cloud the water. The chemical compounds which accumulate in the sediments are also stirred up and can recirculate in the water column, making more nutrients available to spur weed growth.

Cleaning Your Boat

Scrape and clean your boat well away from the water's edge to prevent paint chips from entering the water. Use only approved anti-fouling bottom paints. To avoid adding soap or other cleaning agents to the lake water, try washing your boat with water alone. Check all boats for weeds before putting them in the lake or leaving them on shore. The unintended transporting of aquatic plants when moving a boat from one lake to another is a common way of introducing new and potentially problem-causing plant species into your lake.

Source: Diet for a Small Lake — a New Yorker's Guide to Lake Management

Directors and Officers Liability Insurance Update

In January of this year, each member association of the Federation of Lake Associations, Inc. was sent information concerning a proposal for directors and officers liability insurance.

The Federation was recently notified that the Chubb Group can no longer offer a group directors and officers liability insurance policy to our members because of a change in the New York State Insurance Law relating to group policies. As a result of this change in the law, a group insurance policy may only be issued if each member of the group has a separate limit and a separate contract. The insurance policy as originally proposed would have provided for a single aggregate limit for the group and a single contract. The reason for the change in the law was that the New York State Insurance



Department felt that a single limit on a group policy could result in a claim against one member of the group, thus exhausting the entire limit and leaving the remainder of the members of the group without insurance.

For additional information, contact John E. Blyth, Harter, Secrest and Emery, 700 Midtown Tower, Rochester, New York 14604 (716) 232-6500.

1990 FEDERATION OF LAKE ASSOCIATIONS, INC. ANNUAL CONFERENCE

PAUL SMITH'S COLLEGE

Paul Smith, NY

Co-Sponsored by the Water Resources Board of the Finger Lakes Association and the EPA

Diet for a Small Lake -An Educational Basis for Action

Conference Agenda

Friday, June 8

5:00 PM Registration

6:00 PM Federation of Lake Association Board of Directors Meeting

8:00 PM OPEN FORUM for FOLA membership and the FOLA Scientific Advisory Board

Saturday, June 9

7:30 AM Breakfast - Registration

8:30 AM Exhibitor Displays Open

9:00 AM Introductory Comments - Colgan/Peverly Welcome - Dr. David Chamberlain, President, Paul Smith's College

9:15 AM Citizens' Statewide Lake Assessment Program, Scott Kishbaugh, Division of Water, DEC

9:30 AM Stormwater Management Guidelines, William Morton, Assoc. Environmental Analyst, DEC

10:00 AM Break

10:30 AM PANEL: Lakeshore Owners and the Integrity of Adirondack Lakes - Moderator, Dr. David Chamberlain, President, Paul Smith's College

-Balancing Recreational Uses, Jim Sempere, Cambridge Systematics

-Innovative Waste Systems for Lakeside Residences, Dean R. Long, LA Group

-Natural Shoreline Landscaping, Jim Hotaling - Adirondack Park Agency Planner

12:00 Noon The Lake George Milfoil Project, Dr. Jim Sutherland, Research Scientist, DEC

12:30 PM Luncheon, Speaker - Laurie Marr, Executive Director, Save the River

2:00 PM PANEL: Pesticide Use and Safety in Watersheds. Moderator - John Peverly, Scientific Advisory Board - Household and Garden Use of Everyday Chemicals, Jim Biggs, Hamilton County Cooperative Extension

- Gypsy Moth Control, Larry Abrahamson, ESF, Syracuse University
- Aquatic Herbicide Use and Regulation, Marilyn DuBois, Chief, Bureau of Pesticide Management, DEC

2:45 PM Break

3:15 PM Continue Panel Discussion

4:00 PM Adirondack Park in the 21st Centure: Our Last Clear Chance, George Davis, Executive Director, Commission for the 21st Century of the Adirondacks.

4:30 PM Annual Membership Meeting

5:00 PM Social Hour

6:00 PM "Adirondack Steak Bake"

7:30 PM Keynote Address: Salvatore Pagano, Chief, Bureau of Water, Department of Environmental Conservation.

Sunday, June 10th

9:00 AM Baseline Data Collection in Lakes of the Saranac and St. Regis River Watersheds, Mike DiAngelo, Paul Smith's College

9:30 AM Domestic Waste, James Howell, Jr., Schuyler County Senior Sanatarian

10:00 AM Break

10:30 AM Alum Treatment as a Lake Restoration Technique, Gerald Smith, Aquatic Biologist, Aquatic Control Technology

11:00 AM Can Insect Herbivory Control Milfoil? David Smith, RPI Freshwater Institute

11:30 AM Bog and Wetland Preservation, Karen Roy, Adirondack Pagk Agency Resource Specialist, and Don Spada, Adirondack Park Agency Wetlands Specialist.

12:00 PM Conference Conclusion

Snapshot of New York's Water Resources

PRECIPITATION AND WHAT HAPPENS TO IT

Average precipitation in New York State: 90 billion gallons per day (40 inches per year). Of this, one-half (45 billion gallons per day) is lost by evapotransporation. Approximately 27-31 billion gallons per day runs off into surface waters; 14-18 billion gallons per day seeps into and recharges the groundwater.

THE COMMUNITY SERVED

State Population (1985): 17,735,200

Number of Counties: 62 State Area: 49,576 sq. mi. Number of Towns: 932 Number of River Basins: 17 Number of Cities: 62 Number of Villages: 553

HOW THE WATER IS USED

1989 State Estimates in million gallons per day (mgd)

Withdrawals	Amount	% of Total
	d) 130 10,408 1,558	18 0.4 6 0.8 64 9.5 1 0.3
TOTAL	16,289 mgd	100%

Federation of Lake Associations, Inc. **Board of Director's Meeting**6:00 PM

Friday, June 8, 1990 Paul Smith's College, Paul Smith, New York

Consumptive Use	<u>Amount</u>	% of Total			
(water not returned t	o river basin due to	evaporation,			
incorporation in products, or other processes)					

Public Supply	326 mgd	62 %	
Agriculture	42	8	
Industrial (Self-Supplied)	102	20	
Thermoelectric Power	37	7	
Nuclear Power	10	2	
Mining	<u>50</u>	<u>1</u>	
TOTAL	522 mgd	100%	

WHERE THE WATER OCCURS

On the Surface

Miles of rivers and streams: 70,000 miles

Miles of rivers bordering other states and Canada: 242

mile

Miles of coastline: 3,100 miles

Number of lakes and ponds: 7,500 (over 5,300 square

miles)

Square miles of marshes/wetlands: 1,477 square miles Volume of surface waters: 22,164 billion gallons or 68

million acre feet

Number of reservoirs: 324

Volume of reservoir storage capacity: 4,074 billion

gallons or 12.5 million acre feet

Under the Ground

Percent of New York State land underlain by sand and gravel aquifers: 11.2%

Percent of New York State land underlain by primary

public water supply aquifers: 3.9%

New York State population served by groundwater:

6.2 million

Formally designated "Sole Source" Aquifers:
Binghamton-Endicott-Johnson City and Tioga-Waverly
Aquifer Systems; Cattaraugus Creek Aquifer System;
Cortland Aquifer System; Highlands Aquifer System;
Long Island Aquifer Systems, including Nassau, Suffolk,
Kings & Queens Counties; New Jersey Coastal Plain
Aquifer System (Delaware River Basin); Schenectady
Aquifer System

Wind Power Solves Water Quality Problems

arnessing the wind to improve the quality of a number of lakes sounded almost too good to be true for Clint Smallridge of the Royal Poinciana Golf Club.

"I guess my problems were similar to a lot of golf course superintendents," said Clint, CGCS and superintendent of the prestigious Royal Poinciana Golf Club in Naples, Florida. "Our lakes had become stratified with an oxygen depletion that was causing algae bloom, fish kills, odor and general water stagnation problems."

The Search For A Solution

"We didn't want to use chemicals because we are over an aquifer, and I'm extremely careful about what I put in these lakes," continued Clint. "Mechanical devices required expensive electrical runs, tough installation, costly maintenance, and high operating costs. Our lakes are on virtual solid rock, and running electricity would have cost us more than \$200,000. That's when I found out about wind powered aerator/circulators manufactured by Lake Aid Systems, a company based in Bismarck, North Dakota."

A Simple and Environmentally Friendly Answer

Clint installed a small Pond 1 wind powered unit in February of 1989, followed by a second unit in May of the same year. Two of his eight lakes, each about 10 acres in size, were now receiving beneficial aeration and circulation.

In November of that year a cold storm passed through, chilling and turning over all the lakes. Nearly every lake in the area experienced fish kill and a thorough mess from various debris brought up from the bottom — all except the two lakes with the wind powered aerator/circulators.

"We had a few sceptics when we first installed these units," said Smallridge. "They wondered if they were really doing anything. After that storm, we had nothing but believers. My board told me to immediately order units for all nine of our lakes. The next time a storm comes through, our lakes will be in great shape. And that means a savings in money and costly manpower."

Clint checks the lake temperatures and oxygen content regularly, and says that now water near the bottom of the average 15' depth lakes is almost identiated to water on the surface.

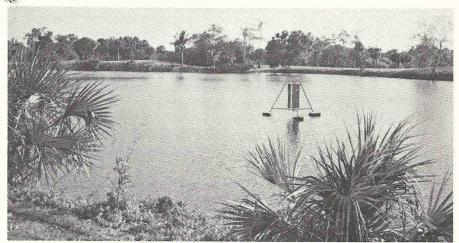
"We also had a tremendous algae problem. When the water gets out of balance, doesn't circulate, and becomes oxygen depleted, algae blooms. Since I've begun aeration, I've only had one lake that has turned cloudy."

"The club members love the units. They will watch them turning slowly in the wind and smile, knowing we are using energy-free windpower to help keep our water clean. It only takes about a four to eight mile per hour wind to move water; and it doesn't have to turn all the time to help restore the water to good condition. A few days of wind is about all

that's needed in most cases," said Small-ridge.

The company's aerator/circulators are available in wind-driven, electric or combination units in several sizes, with a single large unit able to cover up to about 35-40 acres each. They work by bringing water from the bottom of the pond to the top where it can be oxygenated naturally, then circulating the oxygen rich water back down to the bottom and venting any noxious gases in the process. Through constant circulation of the water, odor, algae and other quality problems are significantly reduced — all without costly outside energy sources, dangerous chemicals or expensive maintenance. Algae that super breeds and flocculates on the surface of warm, buoyant summer water, is kept in suspension, while cooler water is brought to the surface to slow the process. And by drawing the photosynthetic zone down, oxygen production from sunlight is increased.

The fact that all this can be accomplished with silent, clean, energy-free wind power makes lake treatment practical in places where other options just wouldn't work. The aerator/circulators have proven themselves, having been in use continuously in a variety of applications for over nine years, including use with the U.S. Forest Service. This year, perhaps, it is even more fitting to be talking wind power with the celebration of the twentieth anniversary of Earth Day.



Controlling algae, oxygen depletion and other water quality problems proved to be as easy as harnassing the wind. Wind powered aerator/circulators provide noise-free, energy-free treatment for the Roya! Poinciana's lakes.

Water Conservation In Your Home

Why should homeowners in New York State be concerned about water conservation? Even in years when there is an abundant water supply, limited water usage in your household can save money, reduce pollution, and conserve energy.

Water conservation measures can be especially helpful in a lake community by reducing unnecessary stress on septic systems or on-site wastewater disposal systems. By conserving water, you minimize the likelihood of unwanted nutrients flowing into the lake, thereby reducing the rate of eutrophication.

Conserving water also saves money in areas with a municipal water supply and sewage disposal. If less water is used in homes throughout the community, fewer chemicals are needed for purification, and operating costs are lower in the long-run for both water distribution systems and sewage treatment plants.

The following list from the EPA/NALMS Lake and Reservoir Restoration Guidance Manual, outlines some simple steps you can take to help conserve water. Many of these practical conservation tips can be comfortably incorporated into your daily activities without causing a significant change in lifestyle. When you think about maintaining the beauty of New York State lakes, these relatively simple, straightforward changes are well worth the effort!

WATER CONSERVATION TECHNIQUES

- * Inspect the plumbing system for leaks.
- * Install flow control devices in showers.
- * Turn off all water during vacations or long periods of absence.
- * Check the frequency with which home water softening equipment regenerates and backwashes. It can use as much as 100 gallons of water each time it does this.
- * Insulate hot water pipes to avoid having to clear the "hot" line of cold water during use.
- * Check all faucets, inside and out, for drips. Make repairs promptly. These problems get worse -- never better.
- * Reduce the volume of water in the toilet flush tank with a quart plastic bottle filled with water (bricks lose particles, which can damage the valve).
- * Never use the toilet as a trash basket for facial tissues, etc. Each flush uses 5 to 7 gallons of water. Items carelessly thrown in could clog the sewage disposal system.
- * Accumulate a full laundry load before washing, or use a lower water level setting.

- * Take showers instead of baths.
- * Turn off shower water while soaping body, lathering hair, and massaging scalp.
- * Bottle and refrigerate water to avoid running excess water from the lines to get cold water for meals. Shake bottle before serving to incorporate air in the water so that it doesn't taste flat.
- * To get warm water, turn hot water on first; then add cold water as needed. This is quicker this way and saves water, too.
- * Wash only full loads of dishes. A dishwasher uses about 9 to 13 gallons of water per cycle.
- * When washing dishes by hand, use one pan of soapy water for washing and a second pan of hot water for rinsing. Rinsing in a pan requires less water than rinsing under a running faucet.
- * Use rinse water -- "gray water" -- saved from bathing or clothes washing to water indoor plants. Do not use soapy water on indoor plants. It could damage them.
- * Vegetables requiring more water should be grouped together in the garden to make maximum use of water applications.
- * Mulch shrubs and other plants to retain moisture in the soil longer. Spread leaves, lawn clippings, chopped bark or cobs, or plastic around the plants. Mulching also controls weeds that compete with garden plants for water. Mulches should permit water to soak into the soil.
- * Try "trickle" or "drip" irrigation systems in outdoor gardens. These methods use 25 to 50 percent less water than hose or sprinkler methods. The tube for the trickle system has many tiny holes to water closely spaced plants. The drip system tubing contains holes or openings at strategic places for tomatoes and other plants that are more widely spaced.
- * Less frequent but heavier lawn watering encourages a deeper root system to better withstand dry weather.
- * Plan landscaping and gardening to minimize watering requirements.
- * When building or remodeling, consider:
 - -Installing smaller than standard bath tubs to save water.
 - -Locating the water heater near area where hottest water is needed -usually in the kitchen/laundry area.

ETCETERA

Welcome Holly!

The Federation of Lake Associations extends a warm welcome to Holly H. Ioset. Holly, a Cazenovia NY resident with a background in industrial hygiene, is providing part-time assistance with a variety of administrative and technical jobs.

A FOLA member writes...

"I have done considerable work on the detection and elimination of Eurasian watermilfoil and would like very much to have the name and address of lake associations who have similar problems. I will send you a package of material that may be helpful". Wilbur E. Dow, Jr., 2 Pine Point, Lake George, New York 12845.

Environmental Education Camps

Applications for 12 to 17 year old boys and girls interested in taking part in New York's Environmental Education Summer Camp Program are now being accepted on a first-come, first-serve basis.

DEC operates four environmental education camps. Camp Colby in the Adirondacks, Camp DeBruce in the Catskills and Camp Rushford in the southwestern New York State offer an excellent environmental education experience for young people ages 12 to 14. The Rogers Ecology Workshop in central New York offers a more advanced program

for teenagers 15 to 17 years old. Week-long camp sessions at Colby, DeBruce and Rushford begin July 2 and run through August 26. There will be five one-week ecology workshop sessions beginning July 2. The cost of the week-long program is \$140, which includes room and board.

A limited number of camperships will again be available this year at Camp Colby, Camp DeBruce and Camp Rushford so that minority or economically disadvantaged girls and boys can attend at no cost.

For more information and applications, write to DEC Camps, Room 504, 50 Wolf Road, Albany, New York 12233-4500.

Small Flows Clearinghouse

Brochures, handbooks, manuals, videos, films and other information on small community wastewater systems is available from the EPA's National Small Flows Clearinghouse. Call (800) 624-8301.

Acid Precipitation

Drafts of 28 State of Science and Technology Reports on acidic deposition causes, effects and control options are available from the National Acid Precipitation Assessment Program. For copies and more information contact Charles Herrick, (202) 395-5771.

Address Correction Requested

PLEASE HELP US UPDATE OUR FILES. SEND THIS FORM WITH ANY ADDRESS CORRECTIONS TO THE FEDERATION OF LAKE ASSOCIATIONS, INC., 273 HOLLYWOOD AVENUE, ROCHESTER, NEW YORK 14618

NAME:

LAKE ASSOCIATION:

ADDRESS:

PHONE NUMBER:

Many Thanks...

Summer Phone (

Total number of newsletters requested of each issue: .

to Kurt Weiskotten, graduate student at the SUNY College of Environmental Science and Forestry, for providing the artwork in this issue of *Waterworks*. Kurt is doing graduate work on wetlands and environmental education. He lives in Tully, New York with his wife, Martha.

Confused by the Political Framework in New York State?

The NYS League of Women Voters provides a Citizen Information Service that offers answers on the status of bills, the courts, elections and ballot proposals, the budget, taxes, and much more. Telephone toll free: 1-800-836-NYSL (in the Capitol district: 465-4162). Weekdays, 10:00 AM to 4:00 PM.

Recycling Wheel Available

A recycling wheel has been developed by the Environmental Hazards Management Institute (EHMI) commemorating the 20th anniversary of Earth Day.

The colorful cardboard wheel rotates to offer information about recycling, including reducing and reusing, the status of recycling markets, and uses for recycled products. The reverse side of the wheel exhibits the roles individuals, businesses, institutions, governments, and other can play to reduce waste, promote recycling, and educate others in their communities.

The wheels are available for \$3.75 each or \$2.75 for 10 or more. For information, contact: EHMI, P.O. Box 932, Durham, NH 03824. (603) 868-1496.

The Federation of Lake Associations

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We are a coalition of organizar State. We welcome and encourage individuals. The Federation is inco	the membership	os of lake associations, propert	y owner groups, fish	and game clubs, co	orporations and
The Federation of Lake Associatio * to provide a clearinghouse * to promote by education the * to provide a pool of technic * to establish liaison with othe * to provide a coordinating second	of environmenta ne wise use and cal knowledge a ner environmenta	al information and expertise in appreciation of the lakes in N nd expertise to advise and as al groups and agencies.	New York State.		
* to monitor and report to m * to support and lobby for le State. Associations with up to 99 memb Associations with 100 to 199 mem	embers on legisl gislation and adr	mistrative actions which pron	note the sound man	agement of the wate	ers of New York
Associations with 200 or more me Individual					
Additional Copies of Waterworks		.,.,			\$.50 each
Membership dues over \$5.00 are to and public information activities of	f the Federation.				ional, scientific
THE FEDERATION		APPLICATION FOR MEMBER CLATIONS, INC., 273 HOLLY		CHESTER, NY 14618	
Type of Membership (please	check)	☐ Association	☐ Indiv	idual	☐ Corporate
Association Name:					
Assoc. Address: Street	City	State	Zip	County _	
President/Contact Person:					

Winter Phone (

MARK YOUR CALENDARS!

June 7 - 9, 1990 Lake Management Conference, Pennsylvania Lake Management Society, Holiday Inn, Mechanicsburg, PA Contact Elinor Eberhardt (215) 253-9510

June 7 - 9, 1990 The Environment: Global Problems - Local Solutions, Interdisciplinary Conference, Hofstra University, Hempstead, New York. Contact Athelene A. Collins (516) 560-5669 or 5670

June 8,9,10, 1990 Federation of Lake Associations Annual Scientific Conference, co-sponsored by the Environmental Protection Agency and the Water Resources Board of the Finger Lakes Association, Paul Smith's College, Paul Smith, New York

June 10 - 14, 1990 Annual Meeting, American Society of Limnology and Oceanography, College of William and Mary, Williamsburg, VA Contact Winifred Baumeister (414) 377-4871

July 14, 1990 Federation of Lake Associations Regional Conference, co-sponsored by the Environmental Protection Agency. Community College of the Finger Lakes, Canandaigua, New York. Limited seating will be available. For reservations, contact Erin Mulligan at the Water Resources Board (315) 536-7488

July 28, 1990 Federation of Lake Associations Regional Conference, co-sponsored by the Environmental Protection Agency. Dutchess County Farm and Home Center, Millbrook, New York. For registration information, contact Anne Saltman at the Federation of Lake Associations (315) 655-2236

August 27 - 31, 1990 American Fisheries Society 120th Annual Meeting, Pittsburgh Hilton, Pittsburgh, PA. Contact Carl Sullivan (301) 897-8616

November 6 - 10, 1990 North American Lake Management Society 10th Annual International Symposium, Sheraton Tara Hotel, Springfield, MA Contact NALMS office (202) 466-8550

Federation Of Lake Associations, Inc. 273 Hollywood Avenue
Rochester, New York 14618

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