

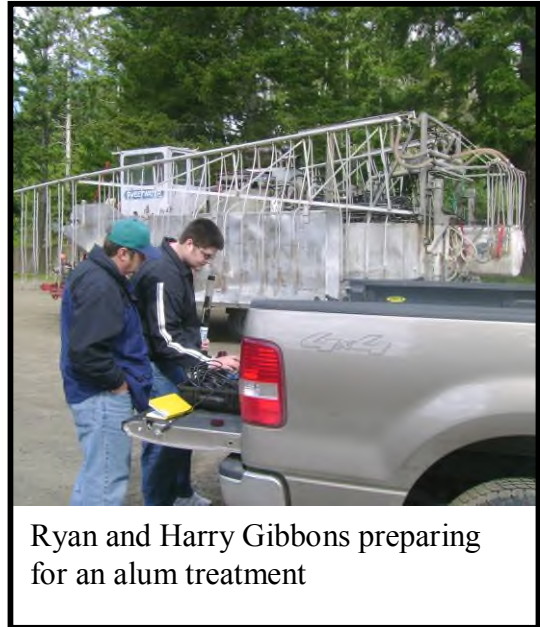
2009 NALMS e-Newsletter



March

President's Message – NALMS is all about information sharing and lake management

These are truly exciting times for NALMS. We are growing daily in our abilities to serve our membership and reach out to current and potential partners to enhance the understanding of lakes and reservoirs while managing those resources. You have seen the start-up of our e-journal in January and that is growing in distribution and technical content importance with each edition. Our website is still being re-built, but significant progress has been made and by next year www.nalms.org will be the most sought out website for lake and reservoir management information in the world. NALMS is also starting on a new campaign to expand our membership at all levels. We have just welcomed SNOWS as our latest affiliate member; please see below for more details. We are re-energizing our certificate program and our education/outreach committees so that NALMS can continue to provide leadership and information on lake and reservoir issues. Within days we will launch a new and expanded program to work with our sponsors to help them while they help NALMS work toward gathering lake management information to citizens, governments, non-profits, businesses, and universities.



Ryan and Harry Gibbons preparing for an alum treatment

Relative to information gathering and exchange the picture of Ryan and I, (yes, the same Ryan of last months newsletter, although a bit older), calibrating instruments in preparation for collecting water quality data prior to the successful phosphorus inactivation treatment of Long Lake in Kitsap, County Washington, reminds me of some of the interesting physical, biological, and chemical happenings in and around lakes.

Specifically, even though it snowed again today, (very late in the winter for us in the Puget Sound area), we observed that thermal stratification of some of the lakes in the region was beginning to set-up. Interestingly, we found thermal stratification defined in February, on a lake that "normally" (last 20 years) does not stratify until May. In fact, some lakes in the region are yielding similar data, while others are not. At the very least this should stimulate us into asking questions and seeking the answers for these questions. It is the why, what, how, and when environmental changes/shift occur, or lack there of that provides us with the drive to find the answers. NALMS not only is an organization that brings us together to ask the questions, but it allows us to exchange information so that we know that there is a need to ask questions. In addition, and perhaps more

importantly, NALMS is the organization that promotes finding and applying the means to maintain, enhance, or solve environmental problems.

Communication is the keystone to information exchange, and NALMS is building itself an organization that is there to help with communication about lake and reservoirs. I encourage all of you to reach out to members and to get involved with NALMS. In the mean time, watch us grow and take on more in our efforts to provide you with a plethora of up to date and reliable information about lake and reservoir management. I implore all of us to get involved through committee work and other activities. Just contact me or your regional director and ask how you can get more involved with the many NALMS activities. Go to www.nalms.org to find contact information for NALMS officers and directors.

Harry Gibbons
President, NALMS

WITHIN NALMS

Word from the Executive Director – Susan Urbas

Website. At the end of February you should have received a message from the NALMS office conveying your user name and password for access to the members-only area of the website. We have to date withheld the announcement stating that the member-only access area of the website has been activated for your use, due to unexpected additional delays on the part of the web developer. We do, however, expect that functionality to be implemented very shortly. Please continue to watch for the “all systems are go” announcement.

Invasive Species Cards for Lake Users Available Soon. Thanks to support provided under a Clean Water Grant NALMS received from BoatU.S. Foundation, this spring NALMS is producing a series of baseball size cards focusing on different invasive aquatic species, their identification and simple steps that recreational boaters can take to prevent their spread to other lakes. The four species featured are Curly-Leaf Pondweed, Eurasian Watermilfoil, Hydrilla, and Zebra Mussels. We expect the cards to be available for distribution free of charge to our affiliates, and, as long as supplies last, to other organizational and individual members who can demonstrate the ability to get these cards in the hands of lake users, by mid-April. An announcement about how to order the cards from the NALMS office will appear in the April Newsletter and on the website.

Membership Recruitment. NALMS Membership Services Coordinator, Sarah Unz, will be participating in the upcoming Wisconsin Lakes Convention, March 18-20, in Green Bay, to promote membership in NALMS in the home state. Experience has shown that simply being headquartered in Madison and having a long history of working with academic and agency personnel across the state, has not been enough to create broad recognition of NALMS among Wisconsinites interested in lake management. A concerted recruitment effort is required.

New NALMS Membership Brochures Available Soon. As part of NALMS' quest to increase its membership ranks significantly in 2009, a new series of three membership brochures has been created, each targeted to a specific type of membership and the benefits associated with it: individual, affiliates and non-profit organizations, and corporate. We expect these brochures to be available for use by mid-April. An announcement about how to order the brochures from the NALMS office will appear in the April Newsletter and on the website. Please consider how you can help increase membership in NALMS by handing them out at your local and Lake Appreciation Month events, or to agencies and companies that you work with in the lake business. The active participation of current members in helping to get the word out about NALMS is an absolutely critical component of this year's membership recruitment goals.

NALMS Goes Global? With the growth of worldwide concern about protection of water resources, NALMS is increasingly being approached to take its place in the global debate and planning regarding the management and protection of lakes and other water bodies. There is an expectation based on its name that NALMS can bring to the table, and can effectively represent, the expertise and interests of the North American continent. At some point very soon, NALMS has to begin in earnest to accept and pursue that mantle with vigor, or those reaching out to NALMS to fill this role will begin to look and find it elsewhere.

In this vein, there is an effort afoot internationally to find effective ways to weave the protection of lakes and other water bodies into the fabric of community level conservation and improvements; to get the protection and restoration of lakes and other bodies of water included as integral part of county, municipal and other local planning and funding agendas. Put another way, the inquiry is how most effectively to convert the requisite scientific expertise into powerful information capable of persuading local decision-makers to invest in lake stewardship. Apparently, ground-breaking work on such "cultural" approaches is being done in some eastern European countries, and in England.

In its capacity as representative of the North American continent, NALMS has been asked to help garner attendees from North America for an upcoming conference, "Lakes for Living, Lakes for Life" that is scheduled to take place May 18-21, 2009 in the English Lake District, on the shores of its largest lake, Lake Windemere. (See <http://www.lakesforliving.com>). According to the conference contact, John Pinder, the conference format emphasizes learning resulting from interaction among the participants during workshops and site visits over presentations by speakers. Due to that emphasis, the conference is most interested in attracting delegates who are in positions of professional responsibility for a lake or lakes.

Welcome to our Newest Affiliate Member – SNOWS

The Saskatchewan Network of Watershed Stewards (SNOWS) is a partnership involving provincial, federal and non-government organizations who want to improve and protect the water and land around Saskatchewan.

SNOWS has been established to co-ordinate and support watershed stewardship programs in Saskatchewan. Their mission is to build a cooperative network that strengthens Saskatchewan's watershed stewardship ethic for the betterment of people and the environment.

Goals include: 1. Promote stewardship as a means to protect, restore and enhance aquatic ecosystems, 2. Foster better communication, co-ordination and cooperation among stewardship groups, and 3. Promote interaction and partnerships among and between local groups, government, non-government organizations, and the scientific community.

To learn more about our new Affiliate, go to <http://www.snows.sk.ca/>. Contact information for this organization is:

Terry Kotyk
SNOWS Executive Director
snows@sasktel.net

UPCOMING CONFERENCES & EVENTS

New York Affiliate's 26th Annual Conference

The NYS Federation of Lake Associations, Inc. (NYSFOLA) will be holding its 26th annual conference May 1-3, 2009 at the White Eagle Conference Center in Hamilton, NY. This year's conference is titled "*Invasive Species in New York State: 1609-2009--Celebrating the Hudson-Champlain Quadricentennial.*" Registration & exhibitor information is on the web at www.nysfola.org.

AWWA Webcast: Water Shortages – Finding a Solution

For many reasons, utilities should consider diversifying their water supplies. This webcast on April 8th will focus on surface water supplies, water reuse, and aquifer storage and recovery. For an overview of the program and to sign up, go to <http://www.awwa.org/Conferences/WebcastsDetail.cfm?ItemNumber=46259>.

Freshwater Mollusk Conservation Society's 2009 International Symposium

The Freshwater Mollusk Conservation Society would like to invite you to the Marriott Waterfront in Baltimore, Maryland on April 19-24, 2009. The theme for the 2009 symposium is: Healthy Mollusks = Healthy Rivers = Healthy People. Conference information can be found at <http://www.cpe.vt.edu/fmcs2009/>.

5th National Conference for Nonpoint Source and Stormwater Outreach: Achieving Results with Tight Budgets

The 5th National Conference for Nonpoint Source and Stormwater Outreach will provide practitioners from around the country the opportunity to learn and share ideas on developing and implementing nonpoint source and stormwater outreach strategies that produce positive, measurable outcomes, comply with NPDES requirements, and can be successfully implemented with modest budgets. The conference will explore practical, current examples of successful outreach programs and projects through facilitated training sessions, workshops, presentations with interactive discussion, group exercises and networking events. The conference will serve local, regional, state and federal professionals tasked with educating various audiences on nonpoint source pollution,

stormwater pollution, watershed protection and promoting sustainable behavior changes in challenging economic times. More information can be found at <http://www.epa.gov/nps/outreach2009/>.

Geological Society of America's Annual Meeting

From Volcanoes to Vineyards: Living with Dynamic Landscape, October 18-21, 2009. The meeting will be held at the Oregon Convention Center in Portland, Oregon. Abstracts can be submitted starting in April and a list of topics can be seen at www.geosociety.org/meetings/2009/. Registration deadline will be open between June 1 and September 14.



AFFILIATE TALK

To foster better communication amongst the diverse group of NALMS Affiliates, this section will feature a monthly topic or question which may be of interest to many affiliates. The goal is to help affiliate groups learn from each other, be more efficient with their time and resources, and better manage our lakes and reservoirs.

Removal of marl sediments – Does anyone have any experience with removing them from a lake?

This question comes from the Eagle Spring Lake Management District, Wisconsin. Please send your comments and suggestions to Thomas Day, Chairperson, at eagleslmd@yahoo.com.

Eagle Spring Lake – A shallow 250 acre impoundment in Southeastern Wisconsin is experiencing a “marl” turbidity problem during warm weather and pHs above 8.2. During late 1980’s and until about 1998 we had an extensive infestation of Eurasian Water Milfoil that may have been the catalyst for precipitating about 12 inches of marl in various areas of our lake. Other than dredging, have there been any successes by lake managers in the removal of marl sediments?

LakeLine Magazine Special for Affiliates

Thanks to the generous support of the US Environmental Protection Agency, NALMS is pleased to be able to offer the Spring 2009 issue of *LakeLine* Magazine to its affiliates at a discounted price of \$5.00 per copy + shipping. The issue will be mailed in bulk to a single address and it will be the recipient’s responsibility to distribute them as they see fit.

This issue of *LakeLine* is focused on the theme of shoreline management and the articles focus on the benefits of a natural shoreline to humans, to lake quality and to aquatic biota; and how to convert a hardened shoreline into a soft one. The articles in this issue include: “Littoral Habitat at Developed and Undeveloped Sites in Vermont” – Kellie Merrill & Eric Howe, “Effects of shoreline urbanization on aquatic-terrestrial coupling in lakes” – Tessa Francis, “Experiences to Convert Hardened Shoreline Surfaces in Reston, VA” – Larry Butler, “Wisconsin Shoreline Restoration Project” – Patrick Goggin et al., “Workhorse species” – Patrick Goggin, “Policies (and results) to Encourage Shoreline Management in Indiana” – Jeremy Price, and “Measuring Bathymetry and Aquatic Plant Abundance” – Mark Hoyer.

To order copies of this issue at the discounted rate or for more information, please contact the NALMS office at 608.233.2836 or <info@nalms.org> by March 23. Minimum order of 20 copies. Supplies are limited.

LAKE NEWS & INFORMATION

Diet for a Small Lake

The long-awaited 2nd edition of "Diet for a Small Lake: The Expanded Guide to New York State Lake and Watershed Management" will make its debut at the conference. The second edition is another joint effort between NYSFOLA and the NYS Department of Environmental Conservation. It will be published by Forager Press, LLC in Cleveland, NY in both hardcover and paperback editions. If you would like more information on the publication, contact Nancy Mueller, Manager, fola@nysfola.org

Lake Mead Update

The first quagga mussel west of the Continental Divide was discovered on Jan. 6, 2007. It was likely a stowaway hiding on the hull or in the bilge water of a Midwestern pleasure boat pulled across the Great Plains, over the Rockies and down a boat ramp at Lake Mead near Las Vegas, where a marina worker found some suspicious shells clinging to an anchor.

When the find was confirmed to be quaggas, biologists knew it meant big trouble for an arid region of the country that would wither without its complex plumbing system of hydroelectric dams, reservoirs, irrigation tunnels, pump stations, canals and aqueducts.

What took decades to unfold in the Great Lakes has played out in a matter of months in Lake Mead. Quaggas can lay eggs six or seven times a year in the warmer water, compared with once or twice a year in the Great Lakes.

If you drained Lake Mead above Hoover Dam, says National Park Service biologist Bryan Moore, it would reveal that brown canyon walls that were mussel-free just two years ago are now black with quaggas at densities of up to 55,000 per square meter. Recently, divers reported them smothering everything on the lake bottom, from beer cans to a downed B-29 bomber. And they're spreading. As of early February 2009, zebra and quagga mussels have turned up in 33 bodies of water across Nevada, Arizona, California, Colorado, and Utah.

This year, the Southern Nevada Water System is looking at spending up to \$20 million to build a chemical system to keep the waterworks mussel-free, and that excludes annual operation and maintenance costs that will include sending divers to plunge more than 100 feet below the Lake Mead surface to periodically scrape mussels off the water intakes.



Boat ramp signage at Lake Mead

Compared to the \$100 million annually pipe-clogging costs in the Great Lakes area, it is predicted that costs in the West could exceed \$250 million annually because of the extensive waterway networks lacing the drier side of the continent. There are approximately 1,800 public water systems in the West drawing on surface water to serve 47.5 million people.

Guides for Volunteer Monitoring Programs

In Wisconsin, they have recently posted three new fact sheet learning modules related to volunteer monitoring (yet applicable to many fields beyond volunteer monitoring as well). These and other guides can be downloaded from the Volunteer Monitoring Network website (<http://www.usawaterquality.org/volunteer/>).

The three new modules are as follows: "*From the Trenches – Tips and Tools for Better Presentations*", "*Tools for Effective Outreach*", and "*Fundraising for Volunteer Monitoring*". As with all of our Guide for Growing Volunteer Monitoring Program learning modules, these fact sheets are intended not to reinvent the wheel but to be a clearinghouse for accessing useful information about these topics from sources across the nation. Each module includes multiple links to valuable resources that can help you with developing, managing, and growing a program.

Featured Lake – Ancient Lakes of the World - Lake Biwa

Starting with this newsletter, we will explore the 18 oldest lakes in the world. We will start in Japan with Lake Biwa. By no surprise, North America is not the only place where valuable lakes have problems with invasive plants, mussels, and eutrophication.

Lake Biwa is one of less than 20 ancient lakes in the world. Biwa's ancient beginnings mean species have had millions of years to evolve into new & unique species that exist nowhere else in the world. Lake Biwa is home to 12 indigenous fish species and 20 indigenous types of shellfish. Biwa has 16 species of phytoplankton and 16 species of zooplankton. Biwa is the largest lake in Japan.

Lake Biwa is located in the upper reaches of the Yodo River Basin. More than 400 tributaries flow into the lake; only the Seta River flows out. The lake volume is 27 km³, surface area is 670 km², mean depth is 43 m, maximum depth is 104 m, origin is tectonic, catchment size is 3,848,000 km², and the catchment/surface area ratio is 6:1.





Lake Biwa is a source of drinking water for 14 million people. The annual fish catch from Biwa is about 3,320 tons (1997). Over 37 million people visit the lake each year. According to the Environment Agency of Japan, 7.8 million people and US\$50,000 million worth of assets would be under the threat of flooding without Lake Biwa to act as flood control.

Lake Biwa is one of ten lakes designated under the Clean Lakes Law that must put together water quality conservation works and policies and gain the prime minister's approval for a management

plan. The prefecture government has 43 people netting invasive fish eight hours a day; in addition, commercial fishermen are paid by the weight of their invasive catch.

Invasive black bass and bluegill fish threaten native crucian carp and eels. Large outbreaks of Elodea and Egeria have occurred in Biwa from the 1960's onward. Since 1992 a freshwater mussel (Kawahibari-gai) has been found in the Biwa-Yodo River system. These mussels are known to attach to the inside of water pipes, interfering with water flow. Black bass are another invasive species threatening Biwa's native fauna.

Launched as a resolution to the conflicts as well as a tool for local economic and water resources development, the Lake Biwa Comprehensive Development Project (LBCDP) was formed. This project is the largest water resources development project in Japan.

Meanwhile, the environmental administration, particularly on water environment, of Shiga Prefecture, for which the conservation of Lake Biwa is the top-priority, has always led the one of the central government. Environmental consciousness of Shiga people for the lake gave birth to the Soap Movement, the most successful citizens' movement in Japan, and enabled the prefectural government to enact the Eutrophication Control Ordinance, the very first act for eutrophication control in Japan.

USEPA New Handbook on Pond and Wetland Management

EPA just released a new guidebook that describes maintenance and inspection practices for existing wet ponds and wetlands. The guide includes checklists for use during construction and routine maintenance of ponds/wetlands, and also includes a home owner pond inspection checklist. Maintenance profile sheets describe how to address eight different common maintenance issues.

To get a free electronic copy, go to

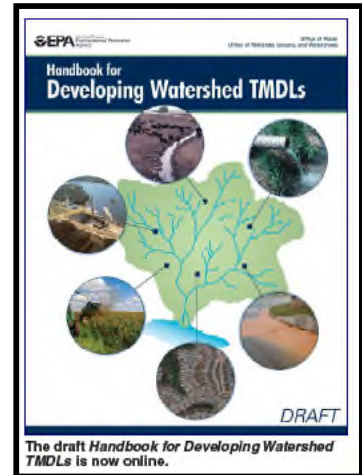
<http://www.epa.gov/npdes/pubs/pondmgmtguide.pdf>



USEPA New Handbook on Watershed TMDLs

A **watershed TMDL** is the result of a holistic approach to the simultaneous development of multiple TMDLs for hydrologically linked impaired segments. A watershed TMDL will address one of the following: Same pollutant in multiple segments (e.g., fecal coliform bacteria), Different but similar pollutants in multiple segments (e.g., nitrogen and phosphorus), Different and unrelated pollutants in multiple segments (e.g., chromium and bacteria).

A **single-segment TMDL** is one that addresses only a single impaired waterbody, whether for a single or multiple impairments. While a watershed TMDL evaluates multiple segments and impairments in an integrated analysis, a TMDL calculation with associated LAs and WLAs is needed for each waterbody pollutant combination included on the 303(d) list.



To get a free electronic copy, go to http://www.epa.gov/owow/tmdl/pdf/draft_handbook.pdf.

Websites of the Month – <http://portlandbes.projectdx.com>

ProjectDX was created to help all residents of Portland, Oregon to learn about the actions they can take on their properties to build a more sustainable city. This site gives you the tools to explore solutions that are specific to your property and then connect you with local service providers to get those projects done. This website is a great example and tool to motivate watershed residents to get more involved and educated about how they impact downstream lakes and waters.

Recent Partnership Limits Phosphorus in New Jersey Fertilizer

New Jersey Department of Environmental Protection (NJDEP) has joined forces with representatives of the fertilizer industry to improve the health of the state's waterbodies. In April 2008, NJDEP signed a Memorandum of Understanding (MOU) with two major fertilizer producers to address phosphorus use in lawn fertilizers. By signing the MOU, the fertilizer producers have agreed to reduce the amount of phosphorus in their lawn fertilizer products, distribute these products in garden centers statewide and work with the NJDEP to develop strategies to educate the public about proper selection and use of lawn fertilizer.

Under the MOU, Lebanon Seaboard and United Industries agreed to make low-phosphorus or no-phosphorus lawn fertilizer available in garden centers throughout the state starting in spring 2008, with a commitment to reduce the amount of phosphorus in their lawn fertilizer products by 50 percent by 2010. Scotts Miracle-Gro, which already has a similar program in place nationwide, is also an active participant in the effort. To measure progress toward this commitment, all three manufacturers will provide DEP with an annual report of the pounds of phosphorus sold at the retail level in the state. These three companies account for more than 90 percent of all fertilizer sold in retail centers across the state.

As part of the agreement, the partners are establishing two Fertilizer Initiative Workgroups consisting of representatives from Rutgers Cooperative Extension, NJDEP, New Jersey Water Supply Authority, New Jersey Green Industry Council, watershed stakeholder groups, Lebanon Seaboard,

United Industries and Scotts Miracle-Gro. The first, a stewardship program workgroup, will develop a statewide outreach plan for phosphorous education that includes consistent information and messages about how everyone can help reduce nonpoint source pollution. The group plans to have recommendations in place by the middle of 2009. The second, a technical workgroup, will evaluate whether reduction of other nutrients in fertilizer product, such as nitrogen, is warranted. More information about the Fertilizer Initiative Workgroups is available at <http://nj.gov/dep/fiw>.

Concentrated Animal Feeding Operations under New Manure Wastewater Rule

EPA has finalized a rule to help protect the nation's water quality by requiring concentrated animal feeding operations (CAFOs) to more safely manage manure. This is the first time EPA has required a nutrient management plan (NMP) for manure to be submitted as part of a CAFO's Clean Water Act permit application. EPA estimates CAFO regulations will prevent 56 million pounds of phosphorus, 110 million pounds of nitrogen and two billion pounds of sediment from entering streams, lakes and other waters annually. Previous rules required CAFO operators to use NMPs for controlling manure, but the regulation builds on that by requiring NMPs to be submitted with permit applications. Each NMP will be reviewed by the permitting authority and conditions based on it will be incorporated as enforceable terms of each operator's permit. Each proposed NMP and permit will be available for public review and comment before going final. The deadline for newly defined facilities to apply for permits is February 27, 2009. More CAFO information is available at www.epa.gov/npdes/caforule.

Open Invitation to Add to the Next E-newsletter

If you are having a conference, have a lake-related question, need advice, looking for similar lake problems/solutions, have an interesting story to share, or just want to be heard throughout NALMS, please send your material to Steve Lundt at slundt@mwr.dst.co.us.

All e-newsletter material is due to Steve Lundt by the first Friday of each month to be considered for inclusion in that month's e-newsletter.