

2013 NALMS Notes



May 2013

President's Message

It was great to spend the weekend in Chicago at the Botanical Gardens (thank you Bob Kirschner for hosting!) with the entire Board of Directors and editors of our publications.

We worked hard on the business of the Society, but also had time to relax and have some fun. In these busy and resource-constrained times, it is sometimes difficult to travel, but we had 100% attendance – success in anyone's book!



Some of our most productive time was spent in afternoon workshops. Three topics with some overlapping items resulted in fruitful discussions. These topics included implementation of our updated Strategic Plan, Affiliate Communications, and Committee Organization. We will be posting our updated Strategic Plan to the NALMS website in the coming weeks. Please take a peek when you have a chance. You will find a renewed emphasis on education and communication, and strengthening relationships with affiliates.

The Workshop group on strategic plan implementation spent time organizing tasks and action items from the plan within the current NALMS committee framework. The Affiliates workgroup spent valuable time brainstorming what is and isn't working regarding communications with our affiliates and produced some significant actions to implement to improve and strengthen these bonds and the value of NALMS to the regional and local lake organizations.

The workgroup on committee revitalization first defined NALMS programs and strategic initiatives and framed these within the current committee structure. It was determined that some committees are functional (generally those with a strong link to a NALMS program or initiative) while others are necessary on an ad hoc basis, or might function better with a different approach.

Interestingly, the hour long discussion with everyone back together saw many similar creative ideas coming forth from more than one workgroup. Thus energized, the groups are continuing their efforts with the ultimate goal of implementing the Strategic Plan for the benefit of an engaged and informed membership, including affiliates. Stay tuned and please consider volunteering to help in this effort! See you in San Diego!

Ann Shortelle
President - NALMS
abs@srwmd.org

WITHIN NALMS

Membership in Motion

Over the last month NALMS membership has begun to rebound from our March 31st expiration date to a total 960 members. I've sent renewal reminders to members whose memberships will expire on June 30th and have gotten a great response. Here's a big thank you to the 60 out of 232 members who have renewed their memberships early!

If your membership is coming due on June 30th you can renew [here on the NALMS website](#) or [fill out a Membership Registration Form](#) and send it to our office. Call me at 608.233.2836 or email me at garenz@nalms.org if you have any questions.

Here is a list of members that renewed their memberships or joined NALMS during the last month.

New NALMS Individual Members: David Cacka, Farshid Felfelani, Lillian Gehres, Brian Ginn, Adam Kleven, John McDonald, Toby Michelena, Douglas Pickard, Nihar Samal, David Stewart, Eric Welling

Renewing NALMS Individual Members: Cindy Adams, Matt Albright, Jesse Anderson, Terry Anderson, John Beaver, Christopher Berry, Victor Bierman, Connie Bozarth, Glenn Buckley, Phillip Cernera, Rose Colby, Timothy Cross, John-Mark Davies, Paul DeAngelis, Paul Dearlove, Pam Dinkle, Robert Doyle, Wendy Dunaway, Daniel Engstrom, Kenneth Ersbak, David Ferris, Lizanne Garcia, Jennifer Graham, Reed Green, Terry Gronwall, Ray Hanowell, Elisabeth Harrahy, Glenn Harrington, Elizabeth Herron, Russ Hoffman, Gregory Howick, Mark Hoyer, John Hudak, Seshadri Iyer, Robert Johnson, Leopold Keffler, Josette LaHee, Barbara Lathrop, Walt Lender, Jesse Lepak, Steve Lundt, Michael Mallin, Michelle Marko, Janis Markusic, Laurence Marsicano, Brian Mattax, John Moore, Ed Neff, Mike Nelson, Terry Noonan, Ted Peters, Isabel Ragland, Mary Reuder, Bruce Richards, Robert Robinson, Mark Rosenkranz, Lois Roth-Johnson, Casey Schoenebeck, Matthew Scott, Stephen Shore, Jason Smith, Mary Szafraniec, Pam Tynning, Patricia Vanderland, Dreux Watermolen, Richard Wedepohl, Anne Weinberg, Paul Weisser, Thomas Wimpy, Paul Zillig

Renewing NALMS Affiliate Members: Alberta Lake Management Society, Florida Lake Management Society

Renewing NALMS Nonprofit Members: Lycott Environmental, Inc., Pentair Aquatic Eco-Systems, Inc., Phoslock Water Solutions Ltd., Tennessee Valley Authority, Vertex Water Features, Water Resource Services

Renewing NALMS Corporate Members: Federation of Ontario Cottagers' Associations, Northern Water

This month I'd like to highlight the Sponsorship opportunities that we offer to our members. If you're looking for a great way to gain more exposure for your organization you might consider the visibility that this year's Symposium in San Diego, California offers. Sponsorship is a great way to partner with NALMS in our mission, connect with our attendees, enhance your organization's image, and is especially useful for those who are unable to attend the conference. [To learn more about our sponsorship opportunities please click here.](#)

As always please contact me with any questions.

Greg Arenz
Membership Services Coordinator
garenz@nalms.org

NALMS Office Notes

Where is NALMS' "legal residence?" Most of you would probably answer Madison, Wisconsin, where our home office is located. Those of you, who attended the Annual Membership Meeting last November in Madison, know that the correct answer is Maine and that's been the case for 32 years ever since NALMS was originally incorporated in the State of Maine in 1981.

When NALMS was founded in 1980, we didn't have a business office, just a post office box in East Winthrop, Maine. Why Maine? That was where founding member and NALMS' 2nd president, Tom Gordon, lived and he volunteered to check the mail.



Our first actual office wouldn't be established until 1983 with an office sharing agreement with JT&A in Washington, DC. This agreement lasted until a hasty move of the office to Alachua, Florida in 1991. Three years later, NALMS hired an executive director and settled down in Madison, Wisconsin which we've called home ever since.

Moving our state of incorporation has never been a priority item on our to do list, obviously, but after being in Wisconsin for almost 20 years the NALMS Board of Directors decided that it was time to take care of this and during that membership meeting in Madison, the members present approved a key change to our Bylaws that allowed us to begin the process.

One of the reasons we haven't taken care of this until now is that it's not a simple process and if you screw it up, there can be significant ramifications. In a nutshell, we'll be creating a new corporation in Wisconsin and merging the existing Maine corporation into it. There are forms to fill out and file with both Wisconsin and Maine, new articles of incorporation to draft and we will be re-applying for tax-exempt status with the IRS, just to be safe. The timing of each of the

steps along the way is important and there are a lot of little details that need to be addressed, so we've hired a lawyer who specializes in this sort of thing and consulted with our accountants to guide us through the process and make sure everything goes smoothly. Hopefully, by the time the next Annual Membership Meeting rolls around (October 30 in San Diego), this process will have been completed.

Philip Forsberg
Program Manager

Applications for Student Sponsorships are due on May 31, 2013

The deadline is fast approaching and we have a number of student sponsorships available. If you are a student, or know of one, please fill out our [Sponsored Student Questionnaire](#) today. To be eligible student applicants must be enrolled in a College or University degree program related to lake and watershed management (Biology, Ecology, Environmental Chemistry, Environmental Engineering, Environmental Studies, Geology, Geoscience, Limnology, Natural Resource Management, Phycology, Water Resources Engineering, Wildlife Management, etc.).

Priority will be given based upon the following hierarchy:

1. First time applicants will be given first priority and will be ranked as first come, first served.
2. Current student members of NALMS that have not applied for sponsorship before will be given second priority and will be ranked from the least to the greatest amount of years that they have been a NALMS member.
3. Current student members of NALMS who have received a sponsorship before will be given third priority and will be ranked from the least to the greatest amount of times that they have been awarded.

Application Deadlines:

There are four deadlines for applications throughout the year that correspond with each of NALMS membership periods, these are:

- February 28 for the Spring membership period
- **May 31 for the Summer membership period**
- August 31 for the Fall membership period
- and November 30 for the Winter membership period

Award Dates:

NALMS will award sponsorships at the beginning of each membership period.

- March 31 - Spring membership period
- **June 30 - Summer membership period**
- September 30 - Fall membership period
- December 31 - Winter membership period

Student applicants must fill out a [Sponsored Student Questionnaire](#) to be considered. NALMS will place student applicants on a waiting list until we have fully reviewed all applications for the period.

Upon acceptance the student must fill out a membership application to activate their membership if they are not already a NALMS member.

Complimentary membership is subject to the availability of sponsorship funds and application does not guarantee membership.

Summer 2013 *LakeLine* Pre-Orders

The North American Lake Management Society (NALMS) is now accepting pre-orders for the Summer 2013 issue of *LakeLine Magazine*, which will focus on the theme of “Water Education.”

The logo for LAKELINE is displayed in a large, blue, serif font. The letters are bold and have a slight shadow effect, giving it a three-dimensional appearance. The word "LAKELINE" is written in all capital letters.

Bulk orders of 20 or more copies will be available to NALMS members and article authors for **\$5.00 per copy + shipping**. Non-members may purchase copies for \$6.00 per copy + shipping. The issue will be mailed in bulk to a single address. Shipping cannot be calculated until after the issue has been printed.

Topics covered in this issue include:

- Seven habits of highly effective lake science communicators.
- Catfish fisheries pose threat to Amazon River dolphins – changing local customs through targeted education.
- Improving environmental literacy in U.S. National Parks through NatureBridge
- Fun and Educational: Rio Rancho (NM) Children’s Water Festival
- Re-visiting middle school: My experience as a science mentor
- Nitrogen game: Successfully bridging the gap between educational learning and fun
- Using service learning to teach college limnology: benefits for students, community partners and aquatic resources
- Social marketing – making clear choices for clean water
- How an outdoor education effort, People Respecting Individuality and Diversity in Everyone (P.R.I.D.E.), helps improve race relations and develops respect for the environment.

To order copies of this issue at the discounted rate or for more information, please contact the NALMS office at 608.233.2836 or lakeline@nalms.org by June 10.

Minimum order of 20 copies. Supplies are limited.

UPCOMING CONFERENCES & EVENTS

NALMS 33rd Annual Symposium Information

October 30 - November 1, 2013

San Diego, California

Lake Management in an Era of Uncertainty



- [Call for Abstracts](#)
- [Submit an abstract here](#)
- Registration coming soon!
- Exhibitor information coming soon!
- [Sponsorship Packet](#)
- [Past Symposia](#)

Important Dates

- **May 17, 2013** - Abstracts are due
- **August 16, 2013** - Registration and payment from presenters of accepted abstracts due.
- **September 27, 2013** - Last day conference hotel rate available.
- Early bird registration ends - date coming soon!
- Regular registration ends - date coming soon!

Contact Information

- **Todd Tietjen** - Symposium Co-Chair - todd.teitjen@snwa.com
- **Imad Hannoun** - Symposium Co-Chair & Sponsor/Exhibitor Chair - imadhannoun@aol.com
- **Bill Taylor** - Program Chair - lakefixer@yahoo.com
- **Jeff Pasek** - Local Arrangements Chair - JPasek@sandiego.gov
- **Jeff Schloss** - NALMS Conference Advisory Chair - jeff.schloss@unh.edu
- **Greg Arenz** - NALMS Office Sponsor Support - garenz@nalms.org
- **Philip Forsberg** - NALMS Office Exhibitor Support - forsberg@nalms.org

“Voice of Experience” Session at NALMS 2013

The Voice of Experience to be heard again

Three times now we have had a Voice of Experience session at the annual NALMS symposium, in which retired or career-changed members speak about their experiences, what they learned, what they wished they knew earlier, how they got where they are, and where they think lake management is going. Every single presentation has been insightful, and most were pretty funny too! Well, we want to do it again, but not enough baby boomers are retiring to make it easy to pick speakers, so this is your opportunity to sign up. If you have retired or changed your career, such that you are now in a position to reflect on your lake management experiences, contact Ken Wagner at kjwagner@charter.net about speaking at the 2013 NALMS symposium in San Diego, CA.

NALMS 2013 Golf Tournament

As if you didn't need another reason to travel to San Diego this fall, the City is a golf mecca and NALMS will be hosting a golf tournament for those interested during our annual conference. We will be working with Riverside Golf Course directly adjacent to the Town and Country Hotel. NALMS attendees can book tee times with the hotel concierge and post scores with the local conference committee. At the end of the week we will announce and award prizes for low net and low handicap winners. We are in the process of organizing prizes and will have more on that as we get closer to the conference so think about showing up a day early and taking advantage of this opportunity to play a really fun course, have some good times with fellow NALMS members and win some prizes. For more information please contact Terry McNabb at tmcnabb@aquatechnex.com.



Grand Canyon Rafting Expedition Space Available 6/26-7/3, 2014

Want to get to Lake Mead from the Colorado River? Care to run 200 rapids in 280 miles, all on a big raft you don't have to paddle while getting fed gourmet meals? Want to see the Grand Canyon from the water, end to end, over 8 days? A 28 person rafting expedition is being planned for June 26-July 3, 2014, and there are a few spaces available. If you want to check out the trip, look at GCEX.com. If you are interested in going, contact Ken Wagner at kjwagner@charter.net.

LAKE NEWS & INFORMATION

Lake Managers Get New Tool to Combat Algae

By: Tom Banse

Source: Northwest Public Radio at Washington State University

Nothing spoils a summer swim in your favorite lake like an algae bloom. These become more common as the weather warms up. Earlier this week, aquatic biologists treated a lake near Seattle with a new product to prevent toxic blooms.

Most every summer until last summer, Lake Lorene would turn pea soup green.

“I was really disappointed come July, August when I noticed all the algae, and ultimately the blue-green algae and the stench associated with that,” Greg Darcey says. “Then the toxicity, the (warning) signs. It was ugly.”



Darcey serves on the Twin Lakes Homeowner's Association board. Last year, the homeowners group gambled on a new approach to restore water quality at the lake in suburban Federal Way, Wash.

“It’s night and day. No blue-green algae this year,” Darcey says. “Clarity was amazing. We had people fishing again, which we didn’t before, and you could actually start enjoying the lake.”

Darcey and his neighbors are the first in the Northwest to hire a company to apply a new algae treatment. The problem here is similar to so many other built up lakes. Stormwater, goose poop, fertilizer runoff, all carry phosphorus into the lake. That dissolved phosphorus is the key nutrient for algae growth. Left unchecked, blue-green algae can turn toxic. It can make people sick and kill pets and livestock.

Earlier this week, aquatic biologists treated the lake with a new product to prevent toxic blooms. A three man crew in a small work boat crisscrossed the lake and a brownish plume spread out behind the boat's stern.

AquaTechnex aquatic biologist Adam Kleven explained that the crew injected the eight acre lake with a follow up dose of the new mineral treatment, called Phoslock. He says the slurry is a combination of the element lanthanum and powdered clay.

“What this product does is drift through the water column, binding with the phosphorus and permanently locking it down in towards the sediment,” Kleven says.

Nigel Traill of Phoslock Water Solutions says the treatment was invented in Australia in the mid-1990s. His company exported it first to Europe, found success there, and now is coming to North America.

“Phoslock is a more natural product with less negative effects on the ecosystem than aluminum sulfate (a current, cheaper way to tie up phosphorus),” Traill says. “So in that respect, the U.S. provides good possibilities, I think, for Phoslock.”

Traill’s company points to a list of studies that show their product doesn't hurt fish or contaminate drinking water.

It is expensive, which could limit sales. Terry McNabb of Bellingham runs the lake management company AquaTechnex. McNabb gave a price range of \$1,900 to \$4,000 per surface acre treated. The two Phoslock injections at Lake Lorene cost the homeowners association there around \$40,000, which includes some ancillary permitting and monitoring fees.

McNabb calls Phoslock an “important expansion” of the tools available to control algae.

“I think people are in the learning curve,” McNabb says. “They want to see examples. The database is building. So I kind of see this in the next few years as really being a tool that is more widely used and widely understood and maybe even gets to be the ‘go to’ thing for solving this problem.”

McNabb says the new lake treatment is cleared for use in California and Idaho. He's still waiting to hear from Oregon.

Washington's Department of Ecology is keeping Phoslock on an experimental permit. It's watching for any negative effects. An agency spokesperson says the state would rather people living around lakes take measures to contain sources of phosphorus on land. That way they wouldn't have to put any chemicals in the water in the first place.

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<http://nwpr.org/post/lake-managers-get-new-tool-combat-algae>

Seeking Stellar “Citizen Scientists” as White House Champions of Change

Posted on the White House Blog, April 23, 2013 at 11:46 AM EDT

Every day, across the country, ordinary Americans known as “citizen scientists” make critical contributions to the fields of science, technology, engineering and math (STEM) by collecting, analyzing, and sharing a wide range of data—from weather phenomena, to sightings of migrating birds, to the timing of flower blooms at different latitudes. Now, the White House is preparing to honor some of the Nation’s most effective contributors to these important but sometimes-overlooked public servants.

Public participation in scientific research, also known as citizen science, is not a new phenomenon. In fact, before the establishment of discipline-specific training programs in the 18th and 19th centuries, most scientific research was carried out by amateurs. Many of our country’s most prominent scientists got their first taste of science by participating in citizen-science projects, and even today—despite the ascendance of a professional scientific corps—society has much to gain by including non-experts in the scientific enterprise. Among other benefits, public engagement in science can help citizens critically consider science-related public policy questions, make more informed decisions regarding the pros and cons of new technologies, and provide knowledgeable input about how tax dollars should be spent.

Today, advances such as Internet-based social media platforms and other information technology resources are increasingly allowing individuals to share information over large distances, enabling like-minded citizens to participate in research projects at unprecedented levels. Many practicing scientists today are discovering that citizen scientists play an indispensable role, by helping to collect and analyze data at unparalleled rates and over wide geographical distances.

To recognize the substantial contributions and achievements of citizen scientists across the Nation, the White House will host a Champions of Change event on Citizen Science on June 4, 2013. The White House Champions of Change program highlights the stories and examples of ordinary citizens who are doing extraordinary things for their communities, their country, and their fellow citizens. This event will focus on individuals or organizations that have demonstrated exemplary leadership in engaging the broader, non-expert community in science, technology, engineering, or mathematics (STEM) research. Of particular interest are efforts by

individuals or organizations to include women, the economically disadvantaged, persons with disabilities, and racial and ethnic minorities underrepresented in STEM.

Do you know a citizen science leader who is using citizen science to help catalyze positive change in his or her community? Members of the public are invited to nominate candidates for consideration.

Joan M. Frye is a Senior Policy Analyst at OSTP

<http://m.whitehouse.gov/blog/2013/04/23/seeking-stellar-citizen-scientists-white-house-champions-change>

Ontario Supporting the Experimental Lakes Area

By The Office of the Premier – April 24, 2013 9:00 a.m.

Ontario is working collaboratively with the federal government, the Government of Manitoba and other partners to keep the Experimental Lakes Area (ELA) operational in 2013 and ensure sustained longer-term operations.

Ontario will provide operating support and work toward an agreement with the International Institute for Sustainable Development (IISD) and other partners so that the important science conducted in the ELA can continue.

Experimental Lakes Area is a one-of-a-kind, freshwater research region in northwestern Ontario that attracts scientists from across Canada and around the world.

The important science and research performed in this area informs our pollution reduction strategies, our understanding of climate change and how we can protect our lakes and rivers here in Ontario, across Canada and around the world.

Supporting science and research is part of the new Ontario government's plan to build a fair, prosperous Ontario for the benefit of all.

Quick Facts

- The Experimental Lakes Area was established in 1968 and is located approximately 50 kilometres southeast of Kenora, Ont., in the Lake of the Woods watershed.
- On May 17, 2012, the Department of Fisheries and Oceans announced that the federal government was cutting funding for research and operations in the ELA on March 31, 2013.

<http://news.ontario.ca/opo/en/2013/04/ontario-supporting-the-experimental-lakes-area.html?>

Sale of Contraband Walleyes from Red Lake, Leech Lake Persists

By Dennis Anderson, Star Tribune, May 3, 2013 – 1:03 PM

A bust, years in the making, shows that buying off the Red Lake and Leech Lake reservations continues, despite tribal, state and federal laws.

Now 90 years old, John Falk can still remember Red Lake Indians peddling fish to his family's home when he was a kid.

"It wasn't illegal back then," said Falk, who with his wife, Tina, lives near Blackduck, Minn., not far from where he grew up. "The Indians have always been our friends, and off and on, we've bought a few fish from them."

For generations, Red Lake and Leech Lake tribal members have illegally sold walleyes to eager off-reservation buyers, according to the Department of Natural Resources.

And despite a bust last month that ensnared more than 40 people and was the biggest in 20 years, the bootlegging continues, according to three retired DNR conservation officers who spent their careers in the region.

The illegal fish trade breaks tribal laws, as well as state and in some cases federal laws, and Red Lake and Leech Lake reservation officials condemn the long-running practice.

"But it's a tradition up here," said Greg Spaulding, a 27-year DNR conservation officer who retired in 2007. The recent takedown, he said, "just scratched the surface. And the walleyes aren't just moving off Red Lake. They're also coming off Winnie [Lake Winnibigoshish] and Leech Lake."

Most contraband walleyes from the two reservations are dealt secretly, house to house, to trusted non-band members, conservation officers say.

Occasionally, some of the fish are hawked to community groups planning big fish fries. Relatively rarely, the officers say, are fish sold to businesses such as restaurants.

Lured by easy money

For decades, DNR, U.S. Fish and Wildlife Service, and tribal officers have targeted fish traffickers, some of whom are motivated by high poverty and unemployment on the Red Lake and Leech Lake reservations.

In 1993, for example, 45 people were charged with criminal conspiracy to illegally transport, take, sell and buy walleyes from the Red Lake and Leech Lake reservations. Now, 21 people face more than 40 state misdemeanor and/or gross misdemeanor charges, and 10 band members have been charged with felonies under the federal Lacey Act. Charges against others are expected in tribal courts.

"We do not condone the sale of game fish," Leech Lake chief conservation officer Jamie Mitchell said April 15 in announcing the bust.

But the lure of easy money is tempting, as are the savings realized by off-reservation buyers: Illegal walleyes confiscated in the recent investigation traded for up to \$3 a pound, far less than the \$10 to \$17 per pound walleyes fetch in grocery stores.

“The problem isn’t just tribal members,” Spaulding said. “It’s like drugs. There’s a market for fish because people off the reservation want them and can buy them cheaper illegally than they can in grocery stores.”

The illicit catch and sale of Leech Lake Reservation and Red Lake walleyes have been massive at times, the officers say, perhaps totaling as much as 1 million pounds a year from Red Lake alone.

“In the early ‘80s we found piles of fish carcasses 3 feet high and 20 feet across on the shores of Red Lake,” Spaulding said. That booty, combined at the time with walleye poaching by sport anglers, contributed to the collapse of Red Lake walleyes in the mid-1990s.

The lake’s walleyes have since been restored, thanks to a cooperative effort by the state and tribe. And fish selling and buying have been reduced, DNR northwest regional enforcement Capt. Stacey Sharp said.

<http://www.startribune.com/local/205903751.html>

Protecting the Great Lakes

*Source: JSOnline – Journal Sentinel Milwaukee, Wisconsin
By Maude Barlow May 1, 2013*

The Great Lakes are in serious trouble. Lake Huron and Lake Michigan are at their lowest levels since record keeping began in 1918, and the levels of Lakes Superior, Ontario and Erie are also well below average.

Lake levels in Milwaukee are creating uncertainty for residents who are unsure how lower levels will affect storm water runoff, the shipping and fishing industry and their livelihoods. The situation could be exacerbated by a proposal to transport water from Lake Michigan via pipeline to Waukesha residents, which requires approval under the Great Lakes compact.

Pollution, climate change, over-extraction and invasive species are all taking their toll on the watershed that provides life and livelihood to more than 40 million people and thousands of species that live around it. The Great Lakes are a source of increasing concern as residents watch their shorelines recede, their beaches close and their fisheries decline.

Adding to these concerns is a Wisconsin bill aimed at streamlining the mining permitting process, which was signed last month, reducing environmental standards for iron mining and threatening water sources.

The story of the global water crisis sets the stage all over the world: to feed the increasing demands of a consumer-based system. We have built our economic and development policies

based on a human-centric model and assumed that nature would never fail to provide or that, where it does fail, technology will save the day.

What might happen if the citizens living around the Great Lakes, including in Milwaukee, decided to collectively protect them based on some of the very principles and practices that informed the first peoples of the region, namely that the Great Lakes must be shared equitably by all who live around them and protected for seven generations into the future? What if governments managed the lakes based on the human right to water, incorporated public input and prioritized public and indigenous rights over private interests?

These ideas form the basis of an emerging new vision for the Great Lakes, one that is based on the notion of the "Commons" and Public Trust Doctrine.

A group of legal experts from Canada and the United States have described a Commons approach as one which requires that “we envision water as a shared resource and so recognize our shared responsibility to carefully steward our water resources. The goal of a Commons approach to water is to ensure that there is sufficient water to meet human and ecological and community needs for many generations to come.”

The Public Trust Doctrine holds that certain natural resources, including groundwater, belong to the community and cannot be privately owned or controlled. This means that governments, as trustees, are obliged to protect these resources for the common good and ensure that they are not appropriated for private gain.

Unless we shift the current “business as usual” model and create real sustainable jobs, the Great Lakes will remain in peril and we as a generation will have failed future generations in protecting the region's largest and most precious watershed. Protecting the future of the Great Lakes is in all of our hands. When communities come together with passion and purpose, they can change political priorities and shape a better future for these precious lakes.

Maude Barlow is the national chairwoman of the Council of Canadians and chairs the board of Washington-based Food and Water Watch.

<http://www.jsonline.com/news/opinion/barlow02-nb9plg0-205674041.html>

CSU's Colorado Natural Heritage Program Releases New Field Guide to Colorado's Wetland Plants

Source – Colorado State University – Jennifer Dimas May 2, 2013

FORT COLLINS - The Colorado Natural Heritage Program, a research unit in Colorado State University's Warner College of Natural Resources, has just released the “Field Guide to Colorado's Wetland Plants: Identification, Ecology and Conservation.” Although only about 2 percent of Colorado is made up of wetlands, they support almost 90 percent of Colorado's ecosystems and wildlife, making wetlands an overlooked but valuable natural resource.

The field guide contains detailed descriptions, photos, and professional illustrations of more than 600 wetland plants as well as information regarding the wildlife species that are dependent on them. In addition to providing identification information, this guide contains information on wetland indicator status, classification, conservation status, rarity, and ecology, for a comprehensive field guide perfect for wetland ecologists, amateur botanists, or anyone who enjoys learning about Colorado's plants and ecosystems.

"The book was developed to provide both professionals and amateur botanists with all of the currently available information on Colorado wetlands, compiled into one, easy-to-use field guide," says co-author Denise Culver. "We hope it will be a very useful and informative guide for anyone recreating or working in wetland areas, and also hope it will help educate others about the importance of conserving Colorado wetlands."

The culmination of 20 years of wetland research, the field guide is co-authored by Culver and Joanna M. Lemly, who are wetland ecologists with the CNHP. The book development was funded by an Environmental Protection Agency Wetland Grant, and is the first complete wetland field guide of its kind for Colorado.

Culver has spent the majority of her career studying wetland ecology and wetland plant adaptation in Colorado. "Wetlands are often overlooked in a state that gets less than 12 inches of rain a year, but it is all the more reason why it is so important to understand more about these powerful keys to ecosystem health," she said.

CNHP is also working on developing additional wetland tools including a pocket guide to wetland plants and a Colorado Wetland Field Guide Mobile App. The "Field Guide to Colorado's Wetland Plants: Identification, Ecology and Conservation" is available now for online purchase on the [CNHP website](#) for \$39.95 plus tax and shipping.

The Colorado Natural Heritage Program is part of CSU's Warner College of Natural Resources. Established in 1979, the CNHP is a nonprofit scientific organization that tracks and ranks rare species and threatened plant communities in Colorado with the goal of ensuring that Colorado's biodiversity resources are preserved. For more information on the CNHP visit the [website](#).
<http://www.news.colostate.edu/Release/6843>

Website of the Month

National Geographic

Pictures: Extreme Algae Blooms Expanding Worldwide

<http://bit.ly/14c6ZKQ>



Lake Photo of the Month

By Little_Karen

The Red Side of a Lily Pad

Image can be found at

<http://www.flickr.com/photos/41995153@N08/8675983311/in/pool-nalms>

To be considered for NALMS' Lake Photo of the Month please submit your photo to the North American Lake Management Society (NALMS) Flickr Group. Be sure to include the name or location of the lake in the title.



NALMS Professional Certification Program

Looking for a Certified Lake Manager (CLM) or Professional (CLP) in your area?

Browse our list of CLM's and CLP's at <http://www.nalms.org/home/members/certified-lake-managers-and-professionals/certified-lake-managers-and-professionals.cmsx>

Interested in becoming a CLM or CLP?

Find out how to establish yourself as an expert in the field of lake management at <https://www.nalms.org/home/programs/professional-certification/professional-certification.cmsx>

NALMS on Yahoo Groups!, Facebook, Linkedin and flickr

To learn more about these and other NALMS social and discussion groups navigate to the following links!

http://tech.groups.yahoo.com/group/lake_management/
<http://www.facebook.com/pages/North-American-Lake-Management-Society/159923186867>
http://www.linkedin.com/groups/North-American-Lake-Management-Society-3809234?gid=3809234&trk=hb_side_g
<http://www.flickr.com/groups/nalms>

NALMS Bookstore

If you're looking for some great Lake Management Resources check out the NALMS Bookstore!

<https://www.nalms.org/home/publications/bookstore/book-store-and-subscriptions.cmsx>

NALMS Affiliate Member Newsletters

Looking for information on your local NALMS Affiliate member organization? Check for local news you can use on our Affiliate Newsletter Page at

<https://www.nalms.org/home/publications/affiliate-newsletters/newsletters.cmsx>

To submit a Newsletter please send a PDF version to Greg Arenz at membershipservices@nalms.org

Looking for a Job or have a Job to post?

NALMS maintains an online Job Board for job seekers at

<https://www.nalms.org/home/programs/job-board/job-board-home.cmsx>

Do you have a job that you would like to post on the NALMS Job Board?

Simply fill out the Job Posting Form found at <https://www.nalms.org/media.acux/98e37b01-3af1-4557-a2bd-610cdc244a1d> and fax it to 608.233.2836, mail it to PO Box 5443 Madison, WI 53705, or email it to info@nalms.org.

Post an Event

Do you have an event that you would like to share on the "Upcoming Events" page on the NALMS website? Let us know at events@nalms.org

Update Contact information

NALMS members can now go online to correct their own contact information and are encouraged to do so. Please tell your friends and colleagues who are NALMS members to check and update their records. If they are not getting LakeLine, the Lake and Reservoir Management journal, or NALMS Notes something is wrong. If they don't have access to fix their own contact info, they can call the NALMS office at 608.233.2836 or email Greg Arenz at (garenz@nalms.org) to get changes made. This goes for postal service mail as well.

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. The newsletter goes out electronically monthly.