Looking Back – Looking Forward
Sara Peel, President | speel@arionconsultants.com

As the sun sets, or maybe better for those here in the Midwest – as the snow falls on 2018, we look back at key highlights of NALMS’ accomplishments over the past year. A more in depth review of our efforts on behalf of lakes and watersheds across the continent will follow in our inaugural annual report, which will land in your inbox early in 2019!

2018 Accomplishments:

- Created an early career membership option to transition our student members into their first full-time, professional lake and watershed management position.

- Created an ethics committee – in 2017, NALMS approved our professional code of conduct and in 2018, the NALMS board created an ethics committee to highlight the importance of professional ethics within NALMS publications and our annual symposium. The committee combines current and past board members to review any ethical issues of concern to NALMS and our members.

- Launched our Subject Matter Experts List – do you have a question or need help with a lake management topic? Our SMEs can help! This group of Certified Lake Managers, Certified Lake Professionals and Associate Editors for Lake and Reservoir Management can help.

More importantly, the NALMS staff and board are working to roll into 2019 on a high note. What can you expect to see from NALMS in the new year?

- Calendar year membership renewals – Many of you received an email from our Director of Membership and Marketing, Alyssa (Schulte) Anderson, which detailed the January membership renewal period; highlighted revised, or should we say refined, membership categories including our new early career membership level to assist with transitioning our student members into their first full-time, professional lake and watershed management positions; and documented steps you can take to renew your membership using our new membership database.

- LakeLine is going digital! NALMS is conservation-focused and with that in mind, we are transitioning LakeLine into a fully digital format. You’ll see all the same great lake and reservoir-related content, but in digital format. The publications committee and LakeLine Editor, Amy Smagula, are reviewing options for on-
If you are having a conference, have a lake-related question, need advice, are 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 Philip Forsberg at nalmsnotes@nalms.org. All material is due by the 15th of February, April, June, August, October and December for consideration in the next issue of NALMS Notes & Lake News.

*A Little Levity at Lake Louise* by Bob Kirschner.

Bob’s photo was an entry in the 2017 NALMS Photo Contest held at the Denver Symposium and was the recipient of the People’s Choice Award. The 2019 contest will be held at the Burlington Symposium. Look for your opportunity to enter this summer.

Do you have an item you’d like to see in NALMS Notes & Lake News?

Send it to us by the 15th of February, April, June, August, October and December for consideration in the next issue of NALMS Notes & Lake News.
Looking Back – Looking Forward

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demand printing for LakeLine so you can print and enjoy flipping through LakeLine long into the future. Look for the final print version of LakeLine in early January and details for on-demand printing options early in 2019.

• **A new look for the Secchi Dip-In!** In partnership with the Oklahoma Water Resources Board, the OWRB and NALMS received a USEPA Exchange Network grant to update the Secchi Dip-In database and the GLEON Lake Observer app using the Ambient Water Quality Monitoring System (AWQMS). The Secchi Dip-In and Lakes Appreciation Month committees are hard at work developing efforts to roll out a more user friendly data entry interface for the Secchi Dip-In in 2019.

• **Symposiums and conferences** in Denver and Vermont will focus on regional, statewide and national efforts to protect and improve water resources across the nation and around the globe.

  • The National Water Quality Monitoring Council in partnership with NALMS, will host the 11th National Water Quality Monitoring Conference in Denver on March 25–29, 2019. Registration is open for the NMC and a detailed program will be available soon!

  • NALMS Annual Symposium – *Watershed Moments: Harnessing Data, Science, and Local Knowledge to Protect Lakes* – will occur November 11–15, 2019 in Burlington Vermont. A special session announcement, call for papers and workshops, and details about local field trips and workshops will be available soon. Watch this space for more information!

  • And finally, **new ways to get engaged with NALMS!** NALMS is looking for our next *Lake and Reservoir Management* Editor. Details about the position and associated efforts are included in this edition of *NALMS Notes and Lake News*. NALMS also highlights a new team for the Interstate Technology Regulatory Council focused on Strategies for Preventing and Managing Harmful Cyanobacterial Blooms in this edition. This team led by NALMS members has an open call for anyone interested in joining their effort. We encourage local lake associations, environmental professionals and technical experts to review the call and join a team. And of course, NALMS is always looking to engage your efforts with our committees which focus on everything from LakeLine and LRM publications; NALMS communications efforts; developing policies and position statements with our policy committee; and more. Learn more about NALMS committee efforts and volunteer today!

News From Our Affiliates

**New York State Federation of Lake Associations, Inc. (NYSFOLA)**

[www.nysfola.org](http://www.nysfola.org)

The New York State Federation of Lake Associations is planning for their 36th Annual Conference May 3–4, 2019 at the Fort William Henry Conference Center in Lake George. Abstracts are due January 19, and NALMS members are welcome to join us. Contact Nancy Mueller ([fola@nysfola.org](mailto:fola@nysfola.org)) for more information.

We would like to extend our thanks to outgoing NALMS Region 2 Director Kiyoko Yokota and welcome Chris Doyle to the NALMS Board of Directors. Both Kiyoko and Chris are longtime supporters of NYSFOLA, and we are thankful for their service.

Submit Your Affiliate News

Let us know what your NALMS affiliate is up to! State and provincial lake management groups do fun and interesting things. Let NALMS and others know what you are up to. You spend a large amount of volunteer time to put on great events, might as well share them. Send your news to us at nalmsnotes@nalms.org.
The Illinois Lake Management Association’s 34th annual lake conference is being held at the Holiday Inn Conference Center in Crystal Lake on March 14-16, 2019. This conference will feature over 30 experts presenting on various lake and watershed topics. The technical presentations will occur over two full days; the workshops will be split between the second and third day. Come take advantage of the opportunity to learn and network with persons throughout the industry. For full registration information please see our website at: www.ilma-lakes.org

This year’s keynote speaker is Dr. Gerould Wilhelm. Dr. Wilhelm’s career has included 22 years as a researcher at the Morton Arboretum and 20+ years as the owner of the Conservation Design Forum. Additionally, he is a founding member of the Conservation Research Institute (CRI). The CRI is a private, 501(c)(3) organization established in 1997 and is dedicated to the promotion of planning, design, installation restoration, and long-term management of sustainable ecological systems in built and natural environments through applied research, education, and outreach. Dr. Wilhelm is a renowned botanist and is the ‘Wilhelm’ in the duo of Swink & Wilhelm (a reference for any amateur or professional botanists working in the Chicagoland area). Come hear his talk on the influence of water within our landscape, how it has the power to both physically shape our environmental and the perception of our living spaces.

The registration fee for this year’s conference includes lunch on Thursday and Friday, an exhibitor reception and dinner on Thursday evening, as well as all conference materials. The registration fee is $150 for current ILMA members or $170 for non-members. Special rates: $120 for representatives of home owner associations and to full time students. The Saturday workshops can be attended with or without registration to the full conference at a fee of only $30.

Be sure to register soon as conference/workshop and hotel availability are limited. Payment can be made by check (mail) or via PayPal through the website. Cancellations will be subject to a $20 service fee up until March 1, 2019, after which no refund will be available. See our website for the most up-to-date information: www.ilma-lakes.org.

Conference attendees will be provided a special rate of $92 per night at the Holiday Inn (815-477-7000) 800 South Route 31, Crystal Lake, Illinois. be sure to notify the hotel when making a reservation.

Professional Development Hours (PDHs) will be provided for those guests who attend either the 2-day conference sessions and/or the workshops; 10 PDHs for the conference sessions, 4 for attending one of the workshops. IEPA Class ID numbers will be provided for operator certification.

Technical sessions, including Dr. Wilhelm’s keynote address, will be held on Thursday and Friday. All workshops will be on Saturday. Most sessions will run in concurrent pairs. The sessions are 90 minutes long, typically with three separate presenters; however, some will be in a panel format. A full program guide with presentation times will be released soon.
Call for Abstracts

36th New York State Federation of Lake Associations
Annual Conference
May 3-4, 2019
Fort William Henry Conference Center · Lake George, NY

Empowering Lake Associations in Challenging Times

The New York State Federation of Lake Associations, Inc. is excited to return for a second year to the “Queen of American Lakes” to celebrate our 36th annual gathering of lakefront property owners, lake management professionals, researchers, policy makers and students. Lake George is home to America’s first lake association, and the charming village is perfectly situated for a gathering of lake-minded people.

Preliminary Session Topics

We encourage the submission of abstracts on any of the topics listed below, or abstracts that address topics of broad interest to the lake association and lake management community.

- Aquatic Plant Identification and Management
- Harmful Algal Blooms
- Citizen Science
- Invasive Species Detection and Control
- Watershed Protection Strategies & Watershed Forestry
- Wetlands Restoration
- Nutrient and Water Quality Management
- Dam Safety
- Lake Association Management
- Lake Ecology
- Local Government Actions to Protect Water Quality

Important Dates

January 19 - Abstracts Due

On or before February 1 - Abstract acceptance notices

January 2019 (date TBA) Registration opens

April 19 - Last Day of Registration (Note: hotel block room deadline with Fort William Henry is April 13th.)

To Submit - Email abstract in .pdf form to fola@nysfola.org

Conference Chair - Nancy Mueller, Manager
fola@nysfola.org (800)796-3652
NALMS News

Notice of Membership Changes

Membership Dues Cycle - Anniversary to Calendar
As we detailed our plan to membership last year at this time, we are in the process of switching from our old anniversary cycle (membership expires one year to the date after you joined or renewed) to the new calendar cycle (members will renew on a fixed date each year, which the Board of Directors has set for January 1). Why did we implement this change?:

1. To re-distribute and even out our annual cash flow.

2. To provide a consistent renewal date for our members, making it easier to remember and renew.

3. To provide more time for staff to focus on other tasks, such as fundraising, grants, programs, and conference-related projects.

This has been a year-long transition, and many of you will have noticed that your dues were prorated to get you onto this new cycle. We sincerely appreciate your patience and understanding during this time of transition. In the long run, we believe this switch will have a very positive impact on both our members and staff, as well as the Society as a whole.

Membership Categories Update
To coincide with this switch to a calendar cycle, our Board has also been working hard to make updates to our membership categories, to both: 1) Simplify the currently-offered categories; and 2) Add much-needed options to help grow our membership. We are happy to announce that, effective January 1, 2019, these will be the offered membership categories (as approved by the Board of Directors on October 29, 2018).

The individual categories offered will include:

- College Student
- Early Career
- Lake Leader
- Professional

The organizational categories offered will include:

- Affiliate
- Corporate
- Lake or Watershed Association
- Nonprofit

More information about the membership categories, and what benefits are included, can be found on the NALMS website here.

Jim Vennie, Longtime NALMS Member and Secchi Disk Award Recipient Passes Away

Jim Vennie, longtime chair of NALMS’ Technology Transfer Committee, passed away on November 4.

As chair of the Technology Transfer Committee, Jim was responsible for creating NALMS’ first website and organized and maintained a collection of technical and public information publications on a wide range of lake management topics from agencies and organizations around the country that could be found at the NALMS symposium.

Jim was awarded the Society’s highest honor, the Secchi Disk Award, in 1997 for his tireless service to NALMS.

Those of us who had the pleasure of working with him, will remember him as extremely talented, yet extremely humble, and one of the most cheerful people we’ve known. He will be missed.

A full obituary may be found at www.pmmfh.com/Obits2018/aaobitVennieJames.html.

Find NALMS Online
Website • Facebook • Twitter
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Find the Secchi Dip-In Online
Website • Facebook • Twitter
NALMS Seeks Editor-in-Chief for Lake and Reservoir Management

The Board of Directors of the North American Lake Management Society (NALMS) seeks letters of interest from individuals wishing to serve as the next Editor-in-Chief (EIC) of the society’s peer-reviewed publication, Lake and Reservoir Management (LRM).

LRM publishes original, previously-unpublished studies relevant to lake and reservoir management. LRM addresses the management of lakes and reservoirs, their watersheds and tributaries, along with the limnological and ecological analyses needed for the sound management of such systems. LRM addresses scientific, economic, social, and regulatory aspects of water resource management. LRM also serves as a resource for lake managers, researchers and policy makers. Journal papers demonstrate strong relevance to lake management, integrate findings with current knowledge, apply sound study design and data analysis, and convey messages in a clear and concise manner. The EIC oversees all aspects of the publication process and works with an editorial board of approximately 25 highly-qualified associate editors that have expertise spanning all aspects of lake and reservoir management.

The duration of the assignment is negotiable, with a range of 2 to 5 years, commencing in January 2020, with training beginning several months earlier. NALMS offers a stipend for the position.

Interested individuals should:

• possess a wide range of experience in lake management and the breadth of topics that come under the umbrella of LRM;
• have experience with LRM, or a similar journal, as an associate editor or editor-in-chief;
• be familiar with electronic manuscript management systems, such as ScholarOne or similar;
• have participated in NALMS or a similar society as a member, officer, or volunteer;
• possess tact and diplomacy;
• demonstrate excellent project and schedule management skills, and attention to detail;
• have excellent English writing and editing skills;

Interested individuals should send an application package including a letter of interest, CV/resume, and a list of three references by Sunday February 17, 2019 via email to:

Imad Hannoun; Ph.D., P.E.
NALMS Publications Committee Chair
President, Water Quality Solutions Incorporated
ihannoun@wqsinc.com
(phone) 1-540-421-2102

The letter should express the individual’s interest in the position and outline how they meet the above qualifications. Application materials will be reviewed by the Publications committee, and may be followed by a phone interview.
As we reflect on the past year, we are so grateful for all of the support and partnerships we’ve enjoyed. We have a lot of plans to grow and strengthen our important programs in 2019 (and beyond), but need your help! Will you consider NALMS for your end-of-year giving? Why donate to NALMS?

• To show your support for clean lakes, reservoirs, and watersheds, and their management and protection.

• To encourage student enrichment and education through travel grants, mentorship, and unique educational opportunities.

• To facilitate the exchange of information on managing lakes and watersheds through themed sessions and plenary speakers at our annual symposia.

• To demonstrate the power of citizen science and the importance of gathering environmentally-important information on our freshwater resources through support of the Secchi Dip-In.

For a limited time, if you donate $10 or more to any of NALMS programs, we will send you a fun, full-color “Save our Lakes” bumper sticker! We hope you will sport this sticker on your vehicle or bicycle (or wherever you choose!) with pride. Show your support for clean and healthy lakes … consider a donation to NALMS today!

To donate online, please visit our website at www.nalms.org/donate-to-nalms/. NALMS is a 501(c)(3) tax-exempt nonprofit. We strive to be good stewards of the fiscal gifts made by members, donors, and partners like you.

Do You Have a Conference or Workshop You’d Like to See Listed in NALMS Notes & Lake News? Email the details to us at NALMSNotes@nalms.org. You can also add your event to our online calendar of events by visiting www.nalms.org/events/community/add/
You’re invited...

39th International Symposium of the North American Lake Management Society

WATERSHED MOMENTS
Harnessing Data, Science, and Local Knowledge to Protect Lakes

November 11-15, 2019
Double Tree Hotel
Burlington, VT

Sponsored by the New England Chapter of NALMS

Vermont is home to more than 800 stunning lakes and ponds, including Lake Champlain, an aquatic gem we are fortunate to share with New York and Quebec. There is no better place to celebrate the partnership between local knowledge and scientific innovation than this lake that unites three borders. Burlington is a thriving and progressive small city, home to the University of Vermont, endless locally-sourced dining options, and a pedestrian-friendly waterfront. Visitors will enjoy scenic beauty and a wide variety of outdoor recreational opportunities.

For other details, visit www.nalms.org or contact one of the conference coordinators: Meg Modley (mmodley@lcbp.org), Jeff Schloss (jeff.schloss@unh.edu), and Perry Thomas (perry.thomas@vermont.gov).

- atmospheric deposition
- impacts of climate change
- citizen science
- water level management
- lake remote sensing
- sentinel lakes
- regional monitoring
- lake bioindicators
- cyanobacteria and algal blooms
- nutrient pollution
- flooding and extreme events
- aquatic invasive species
The 2019 North American Lake Management Society (NALMS) symposium will be held in Burlington, Vermont on November 10-15. This symposium traditionally brings together a wide spectrum of lake researchers, managers and enthusiasts. Presentations cover the range of limnological and watershed topics, addressing science, economics and institutional aspects of lake management. Groups of 3-4 presentations are given sequentially in a session of 90 minutes, with 3-4 sessions in a daily track and 5 concurrent tracks. Topics may extend through multiple sessions on one or more days, targeting November 12-14, 2019.

**Technical Sessions:** Topics are not restricted, but there is strong interest in sessions related to information on northeastern lake topics, updates and emerging information in remote sensing technologies and applications, harmful algal blooms, aquatic invasive species, lake browning, nutrient and salt impacts, effects of extreme events, watershed management successes, fishery management, water supply management, assessment of large lakes, paleolimnology, use of long-term data sets, regional lake monitoring network development, source water protection, volunteer monitoring and the role of protected species in lake and watershed management decisions.

**Volunteer/Layperson Sessions:** We are also interested in developing tracks of more general lake and watershed management topics, as we plan to include registration options for volunteer monitors and those looking for useful information relayed in a less technical manner over a condensed timeframe (one session day and one workshop day). Sessions could include the basics of monitoring, what my data mean, lake and watershed management options, and topics related to formation of lake/watershed associations.

**Workshops:** Workshops are normally held before and/or after the 3 days of contributed concurrent sessions and may be full or half day. Workshop topics address practical issues such as algae identification and control, internal phosphorus recycling, phosphorus interception and inactivation, water quality modeling, and specific monitoring or management techniques. Workshops may involve classroom, lab and/or field activities and provide more in-depth coverage of a topic in a manner that equips participants to be more effective in lake management. Workshops may target lay or technical audiences and would likely be held on November 10, 11 and/or 15, 2019.

Organizers of special sessions or workshops take the lead in organizing the session, soliciting specific presentations to round out the topic(s) of their choice, and often will serve as session chair/moderator for the sessions on site during the conference (and also designate additional moderators, as appropriate based on number of session).

If you wish to organize a special session or workshop, please send specific information to the 2019 Symposium Program Co-Chairs Amy Smagula (Amy.Smagula@des.nh.gov) and Ken Wagner (kjwagner@charter.net). Be sure to include the title of the session for presentations or the workshop, name(s) of the organizer(s), contact information for organizer(s), and a brief description of the topic. Include an anticipated number of presentations and any specific presentations and presenters you might target. For workshops, indicate full (8am to 5pm) or half day (8am to 12pm and/or 1pm to 5pm) duration and any restrictions on the number of attendees.

*A call for presentations is normally issued by NALMS in late January of the year of the symposium, so proposals to organize special sessions should be received by January 15, 2019.*

Sincerely,

Ken Wagner and Amy Smagula, NALMS 2019 Program Committee Co-Chairs
NALMS and the 38th International Symposium Host Committee would like to thank the following for their generous support and assistance in ensuring the success of our program:

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Turner Designs
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White River Alliance
YSI, a Xylem brand
NALMS Achievement Awards

NALMS awarded its annual achievement awards at the 38th International Symposium held in Cincinnati, Ohio. Congratulations to all of the award recipients!

**The Secchi Disk Award**
Gertrud Nürnberg

**Friends of NALMS Award**
Dr. Robert Carlson
Amina Pollard and the EPA NLA Team

**Lake Management Success Stories**
Columbia Association
Deal Lake Commission
Deep Creek Lake POA & partners
Rice Creek Watershed District & Wenck Associates

**Jim LaBounty Best Paper Award**
Historical phosphorus dynamics in Lake of the Woods (USA-Canada) – does legacy phosphorus still affect the southern basin?

Mark Edlund, Shawn Shottler, Euan Reavie, Dan Engstrom, Nolan Baratono, Peter Leavitt, Adam Heathcote, Bruce Wilson and Andrew Paterson

**Leadership & Service Awards**

**Community Education & Outreach**
Clear Lake Township Land Conservancy
Holly Hudson
Michigan Shoreline Stewards Program

**Lake Management Advancements**
William (Bill) James

**Volunteer**
Friends of Deep Creek Lake
Stephen McCord

**Jody Connor Student Awards**
Some Stormwater Ponds Release Phosphorus (Presentation)

Vinicius Taguchi

Neither Wolf nor Dog: P-Management in a Quasi Polymictic Lake (Poster)

Hayden Henderson

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**Grant Opportunity**
The US Endowment for Forestry and Communities seeks applications for the 2019 Healthy Watersheds Consortium Grant Program. The Healthy Watersheds Consortium Grant Program is a partnership that includes the US Environmental Protection Agency’s Office of Water's Office of Wetlands, Oceans, and Watersheds, the Natural Resources Conservation Service (NRCS), and the Endowment.


This opportunity closes Monday, February 4, 2019.

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**2018 Friends of Reservoirs Awards Winners**
The Reservoir Fisheries Habitat Partnership (RFHP) and Friends of Reservoirs (FOR) announced the winners of the Friends of Reservoirs Award on October 6. The awards were presented at the awards banquet at the 9th annual RFHP meeting hosted by Texas Parks and Wildlife. See: [www.friendsofreservoirs.com/project-update/2018-friend-of-reservoirs-award-winners/](http://www.friendsofreservoirs.com/project-update/2018-friend-of-reservoirs-award-winners/)
CASS/Policy Updates: WOTUS, Mussels, Mercury

Diane Lauritsen, CASS Liaison | ddlauritsen@comcast.net

One of the CASS members made us aware of HR 6668, a bill to amend the Endangered Species Act of 1973 to remove freshwater mussels from the list of endangered and threatened species. It was introduced by an Indiana Congressman in response to a constituent’s concerns about a specific lake with a protected mussel population. While the bill has no co-sponsors and has not been assigned to a committee for action (and there will likely be none), it is worth noting that there are a lot of proposals “under the radar” these days. This makes our affiliation with CASS and the larger organizations who do have dedicated policy staff to research and communicate about issues invaluable. Please use the opportunities to comment on proposed actions and regulations when you can.

The Trump Administration recently completed a proposal to significantly weaken an environmental regulation covering mercury, a toxic chemical emitted from coal-burning power plants. Many streams and lakes, particularly in the Southeast, have elevated levels of mercury, resulting in fish consumption advisories. The proposal would repeal a 2011 finding made by the EPA that “co-benefits” of regulations be included in assessing the economic impact of a regulation. Technology to reduce emissions of mercury are quite costly, but they also have created the side benefit of reducing pollution of soot and nitrogen oxide, pollutants that are linked to asthma and lung disease, a very significant health benefit. If this proposal becomes final, the mercury rule would, on paper, incur greater economic cost than the benefit of mercury reductions alone, making it easier to challenge—a similar strategy to what is in play with WOTUS and the realistic valuation of wetlands.

In August, a South Carolina Federal District Court Judge issued a rule which made the Waters of the United States (WOTUS) Rule take effect in twenty-six states. The decision overturned the Suspension Rule (which was to delay the effective date of the WOTUS Rule by two years), and also determined that the Trump Administration improperly abbreviated the length of the public comment period for the Suspension Rule. While the Judge held that his ruling was effective nationwide, Federal District Courts in Georgia and North Dakota have issued orders prohibiting the implementation of the WOTUS Rule in twenty-four states as the legality of the WOTUS Rule goes to full trials. The WOTUS Rule becomes effective in the twenty-six states falling outside these decisions.

Webinar on WOTUS

This month the EPA and Army Corps announced they were proceeding with the next step in revising the 2015 WOTUS Rule. This is the process begun in 2017 with the repeal of the 2015 Rule. An informational webinar regarding the proposed rule revision will be held on January 10, 2019. See www.epa.gov/wotus-rule for webinar details as well as general information about the rulemaking process.

WOTUS is in effect in the states shaded in blue.
Greetings from Region 2. One of the recent developments in the lake science and management community in our region undoubtedly has been the unexpected late summer/early fall harmful algal blooms (HABs) in multiple waterbodies within the Finger Lakes Region in New York State (NYS) last year. While HABs have been a regular occurrence in many waterbodies within NYS and New Jersey, the unusual HABs in larger lakes that have long considered relatively “clean” and deemed appropriate as drinking water sources and contact recreation (swimming, diving, etc.) was a wake-up call for a wide variety of lake stakeholders.

This heightened awareness and concerns regarding HABs ultimately lead to the NYS Governor’s initiative to create an expert panel and local steering committees to host regional HAB Summits and develop HAB action plans for each of the twelve HAB-affected lakes in four geographical regions across NYS. The lake-specific HAB action plans are now available at [www.dec.ny.gov/chemical/113733.html](http://www.dec.ny.gov/chemical/113733.html). The same web page also lists possible funding opportunities for various water quality improvement projects from septic system or wastewater treatment facility upgrade or repair to agricultural non-point source pollution control. These funding opportunities are not necessarily limited to the twelve lakes. The action plans are the results of intensive collaborative effort of local stakeholders, regulatory agencies, and researchers and can serve as a starting point for stakeholder discussion of HAB control and mitigation at other HAB-affected lakes in Region 2.

The New York State Federation of Lake Association (NYSFOLA) is growing, and it has outgrown the traditional venue of its annual meetings. I was excited to attend the 2018 NYSFOLA meeting in early May at Lake George. The Citizens Statewide Lake Assessment Program (CSLAP), a water quality monitoring by citizen scientists, collaboratively lead by NYS Department of Environmental Conservation and NYSFOLA, is getting bigger and stronger. I would like to specially thank Scott Kishbaugh for his decades-long effort (summarized at [www.dec.ny.gov/chemical/79219.html](http://www.dec.ny.gov/chemical/79219.html)) to grow CSLAP to its current stage, which is widely recognized as one of the best in the country. Two field technicians, Selene Muñoz and Joelee Tooley (pictured at right) are assisting CSLAPers in the field this summer.

Separate from the NYS HAB initiative above, academic and agency scientists from across NYS had an opportunity to share their HAB research ideas and expertise through the HABs Consortium, organized by researchers from Cornell University.

HABs are one of the major tangible threats for our freshwater resources. It is important that we all work together to collect data for better understanding of their mechanism, which in turn helps us develop effective prediction, control and prevention strategies.

Very dense late summer HAB samples collected last summer from DeRuyter Reservoir, New York. When I opened the sample jars the mucus-irritating volatile cyanotoxins spread through the lab, and I had to vacate and ventilate the room for a while.
News From Region 10
Shannon Brattebo, Former Region 10 Director | Shannon.Brattebo@tetratech.com

As I looked back on the news from Region 10 from the fall of 2017, I realized that the region is in the exact same situation as we were last year at this time; Finally getting some relief from the exceptionally dry and hot summer! I woke up to rain (I had forgotten what that was) this morning and some cooler fall temperatures. Yeah! Once again, it has been a year of extremes in our region. A wet winter with lots of snowpack, a warmer than usual spring which led to early peak flows in the local rivers and a quick melt of our snowpack, followed by a hot dry summer coupled with a huge (and scary) wildfire season. Yup, the same as last year.

Fall is also the season for conferences in our Region, and this year the Oregon Lakes Association (OLA) and the Washington State Lakes Protection Association (WALPA) held a joint conference in Portland, OR during the last week of September. The theme for the joint conference was “Pacific Northwest Lakes in a Changing World”. Conference proceedings kicked off with a series of afternoon workshops on aquatic plants, cyanobacteria identification, and water resources modeling; all held at Portland State University. The main conference agenda started with a plenary presentation by Dr. Daniel Schindler from the School of Aquatic Fishery Science at the University of Washington titled “Climate change and water quality in western US lakes: how can we plan for an uncertain future?”. Dr. Schindler used examples of the long-term dataset from Lake Washington and Lake Sammamish as well as long-term fisheries studies from Alaska to emphasize the importance of viewing changes on a larger landscape scale to help plan for the uncertain future.

Joint conference proceedings also included a full session discussion on harmful algal bloom (HAB) science and management led by a group of experts from Oregon and Washington. This session was led by Dr. Theo Dreher (Oregon State University) in hopes of moving towards a more comprehensive Oregon Freshwater HAB Monitoring and Research Program. Oregon experienced a horrific HAB toxicity event last summer when 32 cattle died from ingesting water from a reservoir with a toxic cyanobacteria bloom in Lake County, Oregon. Dr. Dreher and multiple colleagues from Oregon State University, Oregon State University Extension, California Animal Health & Food Safety Laboratory, and the Lakeview Animal Hospital were able to determine that Anabaena/Dolichospermum was the source of microcystin that was responsible for the cattle deaths.

During the joint conference, OLA and WALPA also recognized several student scholarship winners. Most which were present and gave presentations and/or posters on their undergraduate and graduate level work. There was a large presence of students at the conference from multiple different universities including: Washington State University, University of Washington, University of Idaho, Oregon State University, Portland State University, University of Puget Sound, and the University of Oregon.

WALPA’s highest honor, the Secchi Disk Award, went to none other than Dr. Frank Wilhelm, current NALMS past president! Frank was a member of the WALPA board for 7 years, 2008–2015, starting the year after he moved to Idaho. He then took a break from WALPA to serve NALMS for 3 years as the President Elect, President, and Past President. Frank has always been a strong advocate for student involvement at WALPA (and NALMS) and he always brings a large

NALMS Region 10 includes members in Alaska, Idaho, Oregon, and Washington.

Dr. Frank Wilhelm with the 2018 Secchi Disk Award and traveling hat!
group of students with him each year to the conference. Frank’s dedication to mentoring the next generation of limnologist is evident from the fact that he has been awarded local, regional, and national student advising awards over the last decade. Frank has always been generous with his time for WALPA (and NALMS) and is most deserving of this award! We in Region 10 are proud, and very lucky, to have Frank as part of our community.

Dr. Frank Wilhelm presenting at joint OLA/WALPA 2018 conference. "Dye tracing surveys with consumer-grade drones to estimate water & nutrient exchange between a littoral wetland & adjacent lake"

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11th NATIONAL MONITORING CONFERENCE

Working Together for Clean Water

March 25-29, 2019 Denver, Colorado

The National Water Quality Monitoring Council will host its 11th National Water Monitoring Conference on March 25–29, 2019 at the Sheraton Denver Downtown Hotel, in Denver, Colorado. All water stakeholders—including federal, state, tribal and local water professionals, nonprofits, academia, and volunteer citizen scientists—are welcome at this important national forum.

http://acwi.gov/monitoring/

2019 Conference Themes Include:

- Monitoring Water Across a Changing Hydrologic Cycle
- Innovative Designs and Technology for Water Quality Monitoring and Assessment
- Monitoring and Assessment to Protect Human and Ecosystem Health
- Holistic Water Quality Monitoring: Exploring Chemical, Physical and Biological Integrity
- Tools to Mine, Share, and Visualize Water Quality Data
- Effective Monitoring Collaborations and Partnerships
- Emerging Risks in Water Quality
- Measuring Effectiveness of Management Actions, Improvement, and Restoration Activities
- Water Quality Prediction: State of the Art and Future Directions
**Latest Articles From LRM**

NALMS Student, Professional, Life and organizational memberships include full online access to *Lake and Reservoir Management* articles.

**Influence of land use and rainfall variability on nutrient concentrations in Florida Lakes**
Chao Xiong & Mark V. Hoyer  
*Published online: 05 Nov 2018*

**The effects of infiltration-based stormwater best management practices on the hydrology and phosphorus budget of a eutrophic urban lake**
Gaston E. Small, Elizabeth Q. Niederluecke, Paliza Shrestha, Benjamin D. Janke & Jacques C. Finlay  
*Published online: 05 Nov 2018*

**The unfulfilled promise of urban Lake Kleine Melanen (The Netherlands): Diagnostics, experiment on reduction of sediment P-release and in-lake restoration**
Guido Waajen, Miquel Lürling & René van de Sande  
*Published online: 02 Nov 2018*

**Reducing surface accumulation of Aphanizomenon flos-aquae using wetland water to increase cellular turgor pressure and interfere with buoyancy regulation**
Arick C. Rouhe & John G. Rueter  
*Published online: 02 Oct 2018*

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**Lake News & Information**

**Forget ‘Needle in a Haystack’; Try Finding an Invasive Species in a Lake**
*Source: Science Daily*  
*www.sciencedaily.com/releases/2018/12/181204183707.htm*

Lake Mendota is one of the most studied lakes in the world. How did the spiny water flea go from undetected in the lake to an infestation overnight?

**The Fine Art of Thin Ice**
*Source: Pacific Standard*  
*psmag.com/environment/the-fine-art-of-thin-ice-julia-christensen*

Multimedia artist Julia Christensen took video cameras to Lake Erie to document the ice that keeps the lake healthy—and what its absence could mean in the future.

**Lingering Live Algae Cells on Lake Erie Floor Jumpstart Harmful Algal Blooms**
*Source: Great Lakes Now*  

According to research conducted at the Cooperative Institute for Great Lakes Research (CIGLR) at the University of Michigan, algae cells have been able to overwinter in Lake Erie, providing a jumpstart to the next year’s blooms.

**Climate Change Is Already Shaping the Way We Race**
*Source: Outside*  
*www.outsideonline.com/2346316/how-climate-change-changing-racing*

Climate change is impacting the sports world in all seasons. Not enough snow in the winter, too much heat in the summer. Triathlons are having to skip the swim portion of their races due to algal blooms.

**Economic Analysis Provides Watershed Moment for Environmental Groups**
*Source: Science Daily*  
*www.sciencedaily.com/releases/2018/10/181015084630.htm*

Working for a nonprofit can sometimes feel futile, but economists at Oregon State have “determined that the presence of water groups in a watershed resulted in improved water quality and higher proportions of swimmable and fishable water bodies.”