



Knowing Your Shoreline

Erosion Prevention and Control

Best Practices

By Patrick Goggin, Lake Specialist, Extension Lakes

Have you noticed erosion along your shoreline? This is a challenge that many shoreland property owners face, we would like to share some tips on how to keep your shoreland property in place! It is important to note that the most natural form of erosion control is typically your best option when it comes to finances, aesthetics, and the health of the waterbody and critters that live there.

Erosion is the process by which soil, rock, or other material is moved from one location to another, typically through the action of water or wind.

Signs of Trouble

The best way to identify and assess erosion problems is to check your shoreline regularly and monitor changing conditions. Warning signs of accelerated erosion problems include:

- A large area of bare soil along the shore (especially on a steep/high shoreline bank).
- Nearshore gullies caused by overland runoff from rooftops, driveways, and access roads.
- A noticeable recession of the shoreline over time.
- Leaning or downed trees with exposed roots on the shoreline.
- Large patches of unusually cloudy (turbid) water near a lakeshore, or unusually high stream turbidity (especially during periods of high water).
- Excessive deposits of sand or other sediments on the streambed, or very wide, shallow areas of a stream.

Amy Kowalski

(Continued on page 2)



This lakeshore edge has degraded from erosive forces over time; notice the irregular edge along the shore, evidence of soil loss, and recession.



Evidence of overland runoff erosion coupled with heavy foot traffic.

Erosion evidence in irregular shoreline edge and loss of soil over time.

Best Practices

Best practices are standard and efficient ways of tackling conservation challenges like erosion control. Choosing the best fit for your shoreland property depends on the quantity and speed of runoff from hard surfaces toward the water's edge, and the amount of energy along the shore. This energy is the force hitting your shoreline from the culmination of prevailing wind patterns, fluctuating water levels, ice push tendencies, wave action, human use patterns from boat or foot traffic, and the fetch (the distance traveled by wind or waves across open water).

Low Energy Sites

Shoreline erosion on low energy sites can frequently be addressed by limiting the amount of foot traffic to, and along, the water's edge. For example, you can create a purposeful path that meanders to the lake. You can also restore (or leave) native plants along the shore to create a no-mow zone. Further, you can allow aquatic plants to re-establish in the nearshore area.

Healthy Lakes and Rivers best practices are also a good fit for less developed parcels that are relatively flat (less than 20% slope),

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Healthy Lakes and Rivers Best Practices

-  **Fish sticks** are strategically placed groups of whole, dead trees that are partially or fully submerged and anchored to the shore to create fish and wildlife habitat. These large woody structures also help prevent bank erosion by reducing the energy to your shoreline.
-  **350 ft² native plantings** stabilize banks with trees, shrubs, grasses, and wildflowers that improve wildlife habitat, slow runoff, and promote natural beauty.
-  **Diversion practices** prevent runoff from getting into your lake or stream by redirecting water to areas (like a rain garden or rock infiltration pit) where it can soak into the ground instead.
-  **Rock infiltration pits** fit nicely along roof drip lines and driveways, or at the end of a diversion practice, and provide space to capture and clean runoff that would otherwise move downhill to your lake or stream. Best for sandy or loamy soils (not clay).
-  **Rain gardens** create wildlife habitat and natural beauty while capturing and cleaning runoff.



drain less than two acres, and have some natural areas. The Department of Natural Resources Surface Water Grant Program includes Healthy Lakes and Rivers grants that offer a 75% (state)/25% (landowner) cost share! Check out healthylakeswi.com for more information on this grant opportunity and choosing the best practice(s) for your property.

Soil bioengineering uses live native plant materials like plugs, brush bundles, and live stakes in addition to natural products like straw mats, erosion control blankets, and fiber logs. The correct placement of these materials provides erosion control, slope and shoreline bank stabilization, landscape restoration, and wildlife habitat. Check out the Wisconsin Lakeshore Restoration Project web portal for example techniques and resources. Go to uwsp.edu/uwexlakes and click on “Lakeshore Restoration” under *Resources*.

High Energy Sites

Resloping the bank and rock riprap in combination with native plantings are practices used to control erosion at high energy sites. Resloping is just what it sounds like, regrading an eroded bank to a moderate, more natural slope. This allows the flow of water to slow down, spread out, and filter into the ground. If you add a native planting at the water's edge, this just adds another area for nutrients and sediments to soak into the ground instead of draining straight into the lake or stream, not to mention the amazing wildlife value.

Did you know...

A 2:1 slope (two feet horizontally to one foot vertically) or less can generally be stabilized with just native vegetation.

Rock toes are low structures of rock placed along the water's edge of a shoreline; they often occur naturally along many Wisconsin shorelines. Rock toes add a structural reinforcement to the bank, helping to lessen the impact of wave and ice action.



Riprap is a permanent layer of large, angular stone, cobbles, or boulders typically used to armor, stabilize, and protect the soil surface against erosion in areas of concentrated flow or wave energy. These large stones are placed along graded ditches, channels, and shoreline banks. Riprap is useful in areas in which the powers of erosion outweigh the stabilization capacity of other erosion control practices.

However, riprap does have its drawbacks; it deters and interferes with wildlife movement along the shoreline, is difficult to vegetate, looks aesthetically unnatural, is expensive, and requires routine maintenance.

Many of these erosion control best practices are beneficial to water quality because they reduce the amount of sediment and excess nutrients entering the waterbody. The natural options also create habitat for critters, and enhance the enjoyment of your shoreland property.

Looking for more? Check out the publication titled, “Understanding, Living With, & Controlling Shoreline Erosion: A Guidebook for Shoreline Property Owners,” developed by Tip of the Mitt Watershed Council. 💧

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Get Started

Before starting your erosion control project, consult with your county zoning department for local shoreland rules. It is also important to connect with the WDNR Water Management Specialist in your area.

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Capacity Corner #9

Taking a Look at Membership in 20/20

By Eric Olson, Director and Lake Specialist, Extension Lakes



district conducts its internal affairs, and organizations develop relational capacity by collaborating and networking with external people and groups. Lake groups leverage these three types of capacity to boost their ability to accomplish things in their community: what we're referring to as programmatic capacity.

These four dimensions of capacity serve as quarterly guideposts for our efforts to share ideas, tips and stories about capacity development in *Lake Tides*. We'll kick off each year with a closer look at membership capacity. Any local organization should attend to the needs and goals of the people that they are seeking to recruit and maintain as members. How can a lake organization's leadership learn what their constituency wants?

Tell Me What You Want

Surveys are a common method to elicit the views and opinions of both current and potential members. Leaders may want to know where members stand on specific issues or controversies, or they may be just checking to see if the members are satisfied with the

organization's work. There is an art and a science to developing survey questions in a way that minimizes bias and maximizes the chance that the respondent has accurately interpreted the question. A search of "membership surveys" online will provide you with a number of useful starting points.

A single survey will provide a snapshot of a lake group's leadership constituency, but leaders can gain a more powerful perspective by tracking member perspectives over time. Consider surveying your members every two or three years and comparing results over time. This can be particularly helpful if the group leadership has launched a new initiative or made changes to how the organization operates.

There are a number of ways to obtain member and non-member perspectives that are somewhat less involved than formal member surveys. These include:

- Open houses
- Informal conversations with community members
- Internet polls and discussions
- Discussion sessions at annual meetings

Lake Districts Differ

The membership concept does not directly relate to lake districts, where all property owners in the district are compelled to "participate" in this special purpose unit of local government. A lake district's annual meeting provides a regular and formal opportunity for taxpayers to convey their satisfaction with the district's performance. This is because each year's budget must be presented to and approved by the residents and property owners in the district.



Information to Education

Once the views, issues, and ideas of members (and possible members) have been collected, the leaders of a lake organization must sort through what they want to do with this new information. They may want to examine whether their goals and strategies are in line with the members. Where leadership and membership diverge, there is both a chance of conflict and an opportunity for learning.

When it comes to lakes, it's not uncommon for an organization's leadership to have a deeper and possibly more accurate assessment of their lake's condition and what it takes to improve or protect it. Often, they are the ones going to conferences and meetings, or connecting with resource experts, or simply taking the time to educate themselves about lake and watershed science. Leadership is uniquely positioned to share this lake knowledge with the members; newsletters, annual meetings, and the internet all provide ways to broadcast this information in an educational format.

Working Together

The learning should flow in both directions. If a lake group's leadership tracks away from their members, they run the risk of losing the very support the group depends on. One way to short circuit this issue is to consistently and widely share involvement opportunities to members, from board positions to committee roles to volunteer needs at events. When leadership communicates and advertises their openings, members and potential members can more readily assume that the leadership is not "closed off" to only a select few.

Has your lake organization recently completed a member survey? What did you take away from the experience? Share your story with us – we are always looking for good examples of (or lessons learned from) lake membership capacity!

Read more: Find links and articles about capacity development on our Extension Lakes webpage at uwsp.edu/uwexplakes. 💧

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Practicing What We Preach

Lake Org Capacity Survey Goes Statewide This Spring

Extension Lakes has received support this year from Extension's Natural Resources Institute, now part of the Division of Extension at UW-Madison, to roll out our lake organization capacity self-assessment survey to every lake district board member and lake association leader. Kadi Row, an evaluation project coordinator at UW-Madison, will be working with Eric Olson and others to refine the assessment tool and create a useful online format for board members to complete. We will also snail-mail copies to board members where we do not have emails. Lake organization responses will be summarized and analyzed to provide the Wisconsin Lakes Partnership with a snapshot of lake organization capacity levels across Wisconsin. We plan to use these survey responses and your input to develop a new organizational capacity enhancement program to start in 2021. This project is a collaboration among Extension Lakes, Wisconsin Lakes, Division of Extension at UW-Madison, and the Wisconsin Department of Natural Resources.

YOU CAN HELP!

If you are a board member of a lake district or lake association, please take a moment to look up your group on the Extension Lakes online directory. You can then email us updates if they are needed. We are particularly interested in gathering email addresses for contacts where they are available. We do not sell or share your email contacts, but having them will make this capacity assessment survey much more efficient. To find the online directory, go to www.uwsp.edu/uwexplakes and click on "Lake Organization Search." Email your updates and corrections to uwexplakes@uwsp.edu.

Speaking of
Surveys...





We Speak for Lakes!

Meet Wisconsin Lakes' Current Board of Directors

By Mike Engleson, Executive Director, Wisconsin Lakes

As the citizen wing of the Wisconsin Lakes Partnership, the organization depends on individuals to help it meet [its] mission.

For over twenty-five years, Wisconsin Lakes has served as the non-profit association of lake associations and districts in Wisconsin, working to conserve, enhance, and restore the state's lake and water resources. As the citizen wing of the Wisconsin Lakes Partnership, the organization depends on individuals to help it meet that mission, and it would not be where it is today if not for the dedicated directors that have served on its board. These volunteers help shape its policies and strategic direction, oversee its staff, and serve as important connections from the organization to the individual region of the state they serve and vice versa.

The Board of Directors currently seats ten dedicated volunteers from all regions of the state and various walks of life. Wisconsin Lakes strives to maintain a majority of directors who are waterfront property owners and active participants in their local lake organization, as a reflection of its history of representing the lake organizations of Wisconsin. But the board also includes professionals from government agencies and conservation organizations, lake-related businesses, folks with experience in nonprofit management, and even individuals who simply care about clean, safe lakes. You can learn more about these dedicated directors at wisconsinlakes.org, but here's a quick introduction:



Cathie Erickson (President), NW REGION: Cathie, a waterfront property owner in Washburn County, maintains the tradition of strong leadership and dedicated service to Wisconsin Lakes as board president. She also works on issues in her region including the recent discovery of zebra mussels in the northwest.



Derek Kavanaugh (Vice-President), NE REGION: Derek, a conservationist with Green Lake County, helps drive the strategic planning process and also works to improve communication between

directors and lake groups in their respective regions.



Kristin Charlton (Secretary) WC REGION: A waterfront property owner in the Eau Claire area, Kristin is in her second stint as a Wisconsin Lakes director.



Jim Horn (Treasurer) SC REGION: The longtime treasurer of Wisconsin Lakes, Jim applies his financial acumen professionally as Chief Financial Officer of the Urban League of Greater Madison.



Jill Bedford, SE REGION: As the newest member of the board, Jill works for Tall Pines Conservancy in southeastern Wisconsin and is instrumental in the area's Healthy Lakes Conference each year.





Dan Butkus, NC REGION: Dan helped to convert his Oneida County lake’s association into a district, while also using the Healthy Lakes program to restore his shoreline.

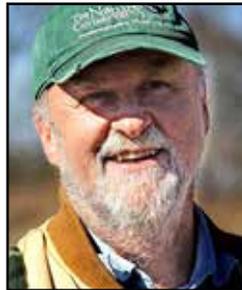


Carolyn Scholl, NC REGION: Carolyn works to protect lakes in the north as the Vilas County Conservationist and as a private consultant.

Think you might be interested in serving on the Wisconsin Lakes board?
info@wisconsinlakes.org
 608-661-4313



Nick Homan, NE REGION: Nick’s business, Lakescape Solutions, is a recent winner of a Wisconsin Lake Stewardship Award.



Jerry Ziegler, SE REGION: As an employee of the Nature Conservancy, Jerry manages several waterfront properties including Lulu Lake in southern Wisconsin.

Think you might be interested in serving on the Wisconsin Lakes board? We can always use folks who are dedicated to conserving, enhancing, and restoring our state’s lakes. To get more information, send an email to info@wisconsinlakes.org or call (608) 661-4313. 💧

Your Opportunity to Speak for Lakes: Lake Leaders Crew 13

Nomination Deadline: February 21, 2020

The Lake Leaders Institute is now seeking nominations for Crew 13, our luckiest crew since 2008’s Crew 7! This intensive leadership and learning experience features three focused, two-day retreats in May, September, and October. We are seeking nominations for people who can help the Wisconsin Lakes Partnership carry out our statewide effort to “protect in partnership our legacy of lakes.” You may nominate yourself or someone you know. Nominations are due by February 21, and we will ask nominees to complete a full application by March 20. Fortunate participants will be selected in time for the Lakes and Rivers Convention (page 12), which is another great venue for collaborating with folks who care about Wisconsin waters. The nomination form is on the Extension Lakes webpage at uwsp.edu/uwexlakes under “Lake Leaders.”



Amy Kowalski

Mary Baas and Tom Margotto, Crew 11 Lake Leaders graduates, share a laugh (and reading glasses) during the final retreat in 2018.



Lake Bottom Mysteries

Tremendous Tufa

By Emma Schmidt, UW-Stevens Point Student and Paul Skawinski, Extension Lakes



Pedro Szekely - Flickr Creative Commons

Tufa towers at Mono Lake in California tell the story of how deep this lake used to be.

Tufa can be found all over the world in caves, around hot springs, and even in our own backyard!

This mystery begins at the bottom of some lakes and streams where groundwater flows into surface waters. As these waters meet, sometimes a mass of limestone called tufa (TOO-fuh) is created. This formation occurs when calcium carbonate falls out of the water and builds up on itself. Depending on what other minerals are locked into place, tufa can range in color from white to red to

brown to yellow! In some places, like Mono Lake in California, the tufa may even look similar to the stalagmites formed in caves.

Like stalagmites, tufa is made of limestone, but unlike the towers found in caves, the tufa deposits found in lakes are formed underwater, and create a variety of shapes.

Underwater deposits near springs that come to the surface are the most common locations for tufa deposits. The water in these springs has traveled underground through bedrock rich in calcite or dolomite minerals, dissolving calcium from them. When it later flows into lakes or streams that are rich in carbonates, some of the calcium is released as a solid calcium carbonate, resulting in the formation of limestone. Over time, enough limestone accumulates and creates tufa. These formations can look like towers, shelves, or coatings

Paul Skawinski

on other objects such as rocks, plants, or other debris in the water.

The formation of tufa only occurs at a rate of up to one inch per year, so it takes decades or centuries to accumulate into the astonishing features we see today! However, because it can only grow until it reaches the surface of the water, tufa formations are limited by water depth and minerals in the area.

Additionally, tufa is not just a pretty landform to appreciate – it is also used in gardening. Tufa is sold commercially for use in rock gardens, planters, and even aquariums. Because tufa is rich in calcium, it can also be used to add minerals to the soil or adjust the pH.

Tufa can even tell us a story. In the Driftless area, tufa-depositing springs have been used to assess how shallow and underground waterways have transformed as the climate has changed during the last 3,000 years.

The magnificent tufa towers of Mono Lake, California tell the story of the lowering of the lake's water level. Previously submerged tufa towers are now exposed, reaching heights of more than 30 feet!

Tufa can be found all over the world in caves, around hot springs, and even in our own backyard! Crystal Lake in Marquette County, Lake Beulah in Walworth County, and Tufa Falls in Grant County are three Wisconsin locations known to have tufa deposits. Have you observed tufa mounds, shelves, or towers in your lake? We would love to hear about it! 💧

The formation of tufa only occurs at a rate of up to one inch per year, so it takes decades or centuries to accumulate into the astonishing features we see today!

Is your lake a CLMN lake?

Volunteers from all over Wisconsin participate in the Citizen Lake Monitoring Network (CLMN), observing and recording lake conditions such as water clarity, water chemistry, ice cover, and even detecting early populations of aquatic invasive species before they can cause significant ecological or financial damage. Does your lake participate in CLMN? If you don't know, go to dnr.wi.gov/lakes/clmn to find out! Click on your county, then click on "Details" next to your lake name. If your lake has multiple lines in the table, choose the line labeled "Deep Hole." The annual reports are listed for each year that data have been collected for the Citizen Lake Monitoring Network, and on the right side of the page is a link to the *Interpretive Guide to CLMN Water Quality Reports*, which will help you understand the data shown in the annual Report. Clicking on a year will show you all of the data that were collected, and the names of the volunteers and staff that have helped collect the data. Some CLMN volunteers have contributed over 30 years of data, requiring hundreds of hours of sample collection and processing! Please take time to thank your friends and neighbors that have collected these data to aid in the understanding and management of your lake.

If you are interested in becoming a citizen lake monitor, please contact Paul Skawinski at paul.skawinski@uwsp.edu or 715-346-4853.



Bob McVety

Pam McVety measures water she collected from Lake George to measure phosphorus levels and chlorophyll-A concentrations (a measure of algae growth in the water).



Lakes and Rivers Convention

Wisconsin Waters 2020: Focusing on Resilient Lakes and Rivers

Agenda *...at a glance*

Wednesday, April 1

Agenda subject to change.

Pre-Convention Workshops/Sessions

8:00 am	Registration opens
9:00 am-Noon	Morning Workshops (details on pg 13)
Noon-1:00 pm	Lunch on your own (pre-register for on-site)
Noon-6:00 pm	Exhibits/Educational Tables open
1:00-4:00 pm	Afternoon Workshops (details on pg 13)
4:45-5:45 pm	Special Technical Sessions
5:45-7:00 pm	Networking time - Dinner on your own
7:00-11:00 pm	Welcome Reception (details on pg 11)

Thursday, April 2

6:45-7:30 am	Sunrise Yoga
7:30 am	Registration opens
8:00 am	Exhibits open (until 6:00 pm)
8:00-8:50 am	Concurrent Sessions 1
9:00-10:30 am	Welcome & Speaker Dr. Douglas Beard
10:40 am-Noon	Concurrent Sessions 2
12:15-1:30 pm	Lunch
1:45-2:25 pm	Concurrent Sessions 3
2:35-3:15 pm	Concurrent Sessions 4
3:30-4:30 pm	Lightning Presentations (details on pg 12)
3:30-5:00 pm	Poster Presentations (details on pg 12)
	Visit Business and Educational Displays
5:00-6:00 pm	Networking time
6:00-8:00 pm	Awards Banquet/Ceremony
8:00-11:00 pm	Lakes Partnership After Hours

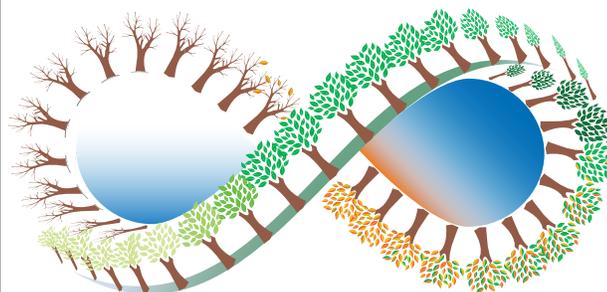
Friday, April 3

6:45-7:30 am	Sunrise Yoga
7:30 am	Registration opens
8:00 am	Exhibits open
8:00-8:50 am	Concurrent Sessions 5
9:00-10:15 am	Friday Speaker Lauren Salvato
10:45-11:45 am	Concurrent Sessions 6
Noon-1:15 pm	Closing Lunch
1:30-2:30 pm	Concurrent Sessions 7
2:45-3:45 pm	Concurrent Sessions 8

This year's Convention logo combines the familiar "infinity" loop with the adaptive cycle common to many social and ecological systems. The spring transitioning to summer represents a period of growth and resource accumulation, transitioning to maturation and loss (fall), senescence (winter), and then back to rebirth (spring).

Each and every spring since the 1980s, water advocates, scientists, managers, and educators have gathered for our annual convention. It is another sort of rebirth, a testament to the resilience of individual people and our collective partnership that works so hard to care for lakes. In 2020, we are proud to be broadening our effort to include river stakeholders, and we continue to embrace a full watershed approach to caring for rivers, lakes, and streams. Leaders from Extension, the Department of Natural Resources, Wisconsin Lakes, and many local partners have put tremendous time and effort into creating this year's program.

Wisconsin Waters 2020



Focusing on Resilient Lakes and Rivers

Wisconsin Lakes and Rivers Convention

April 1-3, 2020

Holiday Inn Convention Center, Stevens Point

www.uwsp.edu/uwexplakes



We always seek to keep enough of the familiar threads to give our gathering an identity while weaving in new strands to keep things interesting. This year, we'll be looking back at the Year of Clean Drinking Water and the work of the Speaker's Water Quality Task Force. We will also be dedicating a stream of presentations to climate change impacts and how we can address them in Wisconsin.

Keynote Speakers

The Thursday keynote, Doug Beard, will share his personal interpretation of the resiliency concept. He has worked on river and watershed issues around the globe, and he oversees the United States Geological Survey's National Climate Adaptation Science Center. USGS sponsors path-breaking collaborative science to help communities understand and prepare for climate impacts. For example, they recently sponsored an effort based out of the College of Menominee Nation's Sustainable Development Institute to create *Dibaginjigaadeg Anishinaabe Ezhitwaad: A Tribal Adaptation Menu* which provides a framework for integrating Indigenous knowledge, history, and language into climate adaptation planning.

Friday we will hear from Lauren Salvato from the Upper Mississippi River Basin Association. The wetter than normal weather has been placing tremendous stress on the entire Mississippi River, and Lauren will share insights into how states are working together to build the resilience needed to keep the river a robust economic and ecological resource.

We also will feature pre-Convention workshops on Wednesday April 1, and the Wisconsin Lake Stewardship and Water Action Volunteer Monitoring Awards Ceremony and Banquet on Thursday evening. Looking forward to seeing you in Point! 💧

Don't miss these Convention deadlines!

March 4: Early-bird Registration

March 11: Call for Posters (see details on page 14)

March 11: Photo Contest (see details on page 14)

www.uwsp.edu/uwexplakes

Rare Kernza Beer On Tap for Convention Reception Wednesday, April 1, 7:00 PM

If a conservationist could wind back the clock a few millennia to the period when humans were first choosing plants to breed for cultivation, she might have suggested that we consider adding some perennials to the mix. This way, farmers would not have to plow up fields and replant every year. This constant tilling of the land generates tremendous runoff and gradually erodes soil, the critical base of our food system. Humans are now largely wed to annual crops like corn, rice, and wheat. Researchers at a number of universities, however, are looking at ways to rapidly develop perennial grains that can be harvested numerous times on a single planting. Wes Jackson and the Land Institute in Kansas have developed a new grain called Kernza by selectively breeding perennial intermediate wheatgrass. Though only a few thousand acres have been planted into Kernza, farmers and researchers are developing markets for the grain that include cereals, breads, and, of course, beer. 56 Brewing, a Minneapolis microbrewery, was one of a select set of businesses given access to Kernza grains for developing recipes. Wisconsin Lakes was able to secure one of the last barrels of their 2019 Kernza Harvest, a dunkelweissen-style amber lager that is barely sweetened by honey from Minnesota's Bare Honey. We'll be sampling Kernza Harvest and reconnecting at the Wednesday night reception at the Lakes and Rivers Convention, which is included in your Thursday registration. Come join us and taste a sustainable future!



(Convention, cont.)

Call for Posters and Lightning Talks

Doug Moore

Including your poster in the Wisconsin Lakes Partnership Convention and Water Action Volunteers Symposium is a great way to share your research, project or success story! In 2020, our Convention focus is on resilient lakes and rivers, so we would like posters to highlight resiliency.

Resiliency is the capacity of natural and human systems to “bounce back” from stressful events through self-organization, learning, and adaptation.

NEW IN 2020: Lightning Talks!

We are including a short period of lightning talks to coincide with a portion of the poster session. These will be brief (5-minute) talks that quickly get to the major results or impact from a recent project. Poster presenters may choose to also give a lightning talk, and the two should compliment each other (for example, the presenter can use their time at the poster



answering questions about their lightning talk, making reference to their poster). We have a limited number of lightning talk slots and will be working from your submissions to develop a curated program; we will notify you in mid-March regarding both acceptance of the poster and lightning talks. For more information and to submit a proposal, go to the Convention website at www.uwsp.edu/uwexplakes.

Digital Update to 2020 Photo Contest

We know you see your lake or river’s beautiful sunrises and sunsets, the amazing flora and fauna that call it home, and its resiliency throughout the seasons. If you have captured some of these treasured views, we would love for you to share them with us by entering your TWO BEST PHOTOS into the Lakes and Rivers Photo Contest - you could win \$100!

Photo by Devon Rockola from Pexels

NEW This Year

With the age of cell phone cameras that have amazing clarity (and are super portable), we are changing our photo contest rules! Instead of sending us printed, mounted photos, you can now just send us digital photos, and we will take care of printing them on full-color, 13x19 paper and mounting them for you! This means we will ONLY be accepting digital photos this year, and your image file size MUST be at least 3 MB (megabytes) in order to look good after printing. Go to www.uwsp.edu/uwexplakes and click on “Convention 2020” under *Events* to get more details and to submit your photos.



Deadline: March 11, 2020

Questions? Call or email Amy at amy.kowalski@uwsp.edu or 715-346-4744



Hands-on Workshops - Wednesday, April 1

Your 2020 Lakes and River Convention will include several interactive workshop opportunities. Get all the details and pre-register at uwww.uwsp.edu/uwexlakes before all the spots are taken!

Morning Workshops ~ 9:00 am-12:00 pm

Writing and Securing Grants Under the New Surface Water Grant Program (Limit 25)

Alison Mikulyuk, Lakes/Rivers Team Lead, Wisconsin DNR

Lake District Commissioner Introduction (Limit 40)

Patrick Nehring, UW-Madison Division of Extension

Everything You Wanted to Know about Conservation Agriculture (But Were Afraid to Ask) (Limit 25)

Jacob Grace, Center for Integrated Agricultural Systems, UW-Madison

Streams and Rivers: Aquatic Plants and Invasive Species (Limit 20, Additional Fee \$25)

Amanda Smith, AIS Specialist, Wisconsin DNR and Paul Skawinski, statewide CLMN Educator, Extension Lakes

Citizen Lake Monitoring Network Refresher (Limit 40)

Wisconsin DNR Water Resource Management Specialists: Brian Zalay, Rachel Sabre, Kris Larsen, and Sandy Wickman (also with Extension Lakes)

Lakes In Action - Lake and River Organization Advocacy Training (Limit 20)

Mike Engleson, Executive Director, Wisconsin Lakes

Climate Adaptation Training for Lake Stewards and Managers (Limit 20)

Wisconsin DNR Water Resource Management Specialists: Madeline Magee, Katie Hein and Danielle Shannon, Northern Institute of Applied Climate Science

Volunteer Management for Water Organizations (Limit 20)

Michele Miller, Student Employment and Volunteer Coordinator, UW-Stevens Point

Healthy Lakes & Rivers: Building Resilient Shorelands with Relatively Simple Best Practices (Limit 25)

Pamela Toshner, Wisconsin DNR and Patrick Goggin, Extension Lakes

Afternoon Workshops ~ 1:00-4:00 pm

Post-Award Grant Administration and Seeking Reimbursement

Alison Mikulyuk, Lakes/Rivers Team Lead, Wisconsin DNR

Lake District Treasurers Workshop (Limit 12)

Eric Olson, Director and Lake Specialist, Extension Lakes

Advanced Lake District Commissioners Workshop: Open Meetings and Ethics (Limit 40)

Philip Freeburg and Daniel Foth, Extension Local Government Center

Aquatic Plant Ecology & Identification

(Limit 25, Additional Fee \$25)

Susan Knight, Interim Director, Trout Lake Station, Paul Skawinski, Statewide Citizen Lake Monitoring Network Educator, Extension Lakes and Michelle Nault, Statewide Lakes & Reservoir Ecologist, Wisconsin DNR

Designing Road-Stream Crossings for Resilient Waterways (Limit 20)

Chris Collier, Trout Unlimited

Planning to Plan: Getting Your Ducks in a Row for Lake Org Strategic Planning (Limit 20)

Mindy Habecker, Dane County Extension Educator and Michelle Scarpace, Extension Natural Resource Educator

Water Action Volunteers for New Coordinators, Trainers and Mentors (Limit 12)

Peggy Compton, WAV Coordinator, UW-Madison Division of Extension

Introduction to Cyanobacteria: Identification, Ecology, Health Effects, and Tracking (Limit 25)

Gina LaLiberte, Statewide Blue-green Algae Coordinator, Wisconsin DNR

Countywide and Regional Lake and River Groups: Coordination, Communication, and Capacity (Limit 20)

Moderator: Mike Engleson, Executive Director, Wisconsin Lakes

Loon Ranger Workshop (Limit 20)

Erica LeMoine and Gavin Fountaine, LoonWatch

Only
\$30

AIS Campaign Updates



We know it's the middle of winter, but now is the time to start planning for open water season! Make sure to save the dates for our 2020 statewide Clean Boats, Clean Waters (CBCW) Campaigns!

Ice packs for the *Drain Campaign* and boat towels for the *Landing Blitz* will be distributed through our Wisconsin Department of Natural Resources (WDNR) AIS coordinators and AIS Partnership coordinators. Visit <https://dnr.wi.gov/lakes/invasives/topics.aspx> to find your coordinator and let them know you're interested (supplies are limited).

- ✓ INSPECT
- ✓ REMOVE
- ✓ DRAIN
- ✓ NEVER MOVE



[Drain Campaign - June 5-7](#)

Volunteers and staff across the state will give fishermen ice packs with the reminder to “Drain your Catch” and always dump water from buckets and livewells before leaving the lake or river.

[Landing Blitz - July 2-5](#)

CBCW watercraft inspectors will be out at landings this year helping to prevent the spread of aquatic invasive species.

In addition to ice packs and towels, many of you are probably already thinking about updating your publication library for this year. Please send your orders to DNRAISinfo@wisconsin.gov.

If you have questions about the campaigns or publications, please contact Jeanne.Scherer@wisc.edu or 608-266-0061.

Q&A

Lake Districts

We often get phone calls and emails from Lake Tides readers with a variety of questions about lake districts. Do you have a question about lake districts that you would like to see answered in Lake Tides? Send it to uwexlakes@uwsp.edu so we can include it in a future issue.

Q: What are the quorum requirements for a lake district annual meeting?

A. There are no quorum requirements for annual and special meetings for lake districts in Wisconsin. Lake districts vary tremendously in size, from those with only a few dozen properties to those with well over a thousand. This makes it difficult to use a firm number of voters (such as 50) as a threshold for establishing a quorum. One might think that a percentage would work, something like “10% of eligible electors and property owners,” but the problem arises in fixing what the denominator would be (10% of what?). This is because voting at an annual or special meeting is open to both residents of the district and anyone who owns property within the district. A single property may have fractional ownership among siblings, allowing for 4, 5, 6 or more owners who are legally eligible to participate. The only way to know the number of owners for certain would involve title searches on properties in the district. It is less complicated to simply not have a quorum requirement. However, we encourage lake district commissioners to find ways to increase attendance and participation at their annual meetings. Guest speakers and refreshments are common inducements. What other ideas do you have for generating involvement? Send them our way!

For more information on lake districts, see *People of the Lakes: A Guide for Wisconsin Lake Organizations*, under *Highlights* at www.uwsp.edu/cnr/uwexlakes/districts.



Greener Pastures for Kim Becken

For almost 15 years, Kim Becken has been an integral part of the Extension Lakes team and Wisconsin Lakes Partnership. As “Convention Queen,” she made sure your statewide Lakes and Rivers Convention went off without a hitch, and also took the lead on the national award winning Wisconsin Lake Leaders Institute. On top of that, Kim managed the Extension Lakes office, budgets, and students. Here are some of what her colleagues and students had to say to Kim when she retired:

I will forever be grateful for your guidance and kindness.

You have been an inspiration for us all ~ what a legacy you leave!

If only I could tell you how much you mean to me. I'd tell you how in awe I am of your kindness, your strength, and your ability to love.

I was so wildly blessed by your mentorship during my time at UWSP.

It has been an absolute pleasure working along side all of you! I won't be far away and will be your cheerleader, always. I look forward to our paths crossing again and again. In the meantime, plant a tree or two or thousands AND protect our wonderful waters.

I always valued our conversations and your wise words.

It's an understatement to say that you served as the glue holding Extension Lakes together.

You are one of the brightest, warmest, kindest people I have ever known - and when I think of your work, words, and wisdom, all I can visualize is light. What an absolute honor it was to work with you!

You were the classic mom-away-from-home, and constantly a ray of sunshine when we needed it most. Everyone deserves to have a Kim in their life.

Thank you so much for your daily patience, reassurance, and therapeutic listening skills! I hope to one day embody a few of these kindnesses enough to pass them on.

Because of your hard work, the future of Wisconsin's lakes is bright.

I don't think I've ever met a more adventurous, caring, and high-spirited person.



CALENDAR

February 18-20 – Wetland Science Conference, Elkhart Lake, WI

For more information: <https://conference.wisconsinwetlands.org/>

March 3-4 – Fox-Wolf Watershed Alliance Conference, Appleton, WI

For more information: <http://fwwa.org/conference/>

March 3-4 – St. Louis River Summit, Duluth, MN

This year's theme is “10 Years and Counting - Collaborating for Success.”

For more information: <https://lakesuperiorreserve.org/event/st-louis-river-summit-2020>

March 4-6 – Wisconsin Land + Water Conference, Lake Geneva, WI

For more information: <https://wisconsinlandwater.org/events/annual-conference>

March 12-13 – AWRA Annual Meeting - Wisconsin Chapter, Wisconsin Dells, WI

For more information: <https://wisconsinawra.org>

March 12 – Red Cedar Watershed Conference, Menomonie, WI

For more information: <https://www.uwstout.edu/outreach-engagement/lifelong-learning/other-opportunities/red-cedar-watershed-conference>

March 26 – Fox River Summit, Burlington, WI

For more information: <http://foxriverecosystem.org/summit.htm>

April 1-3 – Wisconsin Lakes and Rivers Convention, Stevens Point, WI

For more information: <http://www.wisconsinlakes.org/>



Lake Tides -- PRJ85HZ

College of Natural Resources
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800 Reserve Street
Stevens Point, WI 54481

NON-PROFIT ORG
U.S. POSTAGE
PAID
MILWAUKEE, WI
PERMIT NO. 530

Volume 45, No. 1
Winter/Spring 2020



Extension
UNIVERSITY OF WISCONSIN-MADISON



College of Natural Resources
University of Wisconsin-Stevens Point

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A quarterly publication of the Wisconsin Lakes Partnership

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Printed on recycled paper with vegetable-based ink.

Reflections

Be Like Water: Bruce Lee's Metaphor for Resilience

I struck it but it did not suffer hurt.
Again I struck it with all of my might
— yet it was not wounded! I then
tried to grasp a handful of it but this
proved impossible. This water, the
softest substance in the world, which
could be contained in the smallest jar,
only seemed weak. In reality, it could
penetrate the hardest substance in the
world. That was it! I wanted to be like
the nature of water.

~ Bruce Lee
Bruce Lee: Artist of Life

