And just like that, another Wisconsin winter is at the door. The holidays are upon us, lakes are frozen, and gun deer season has come and gone. But yet, amazingly, some counties around Wisconsin are still recovering from the extreme weather and flooding that affected vast regions of the state this past summer. Picking up the pieces from these destructive events takes months, if not years, with cleanup costs far exceeding the lean budgets most counties have available for the task—especially when the ramifications are so extensive.

This past June, a series of storms dumped between 7-12 inches of rain across northwestern Wisconsin over a four-day period, flooding highways, washing away bridges, blowing out culverts, and ultimately leaving approximately $13.1 million in damages to public infrastructure in its wake. Federal disaster areas were declared in Ashland, Bayfield, Burnett, Clark, Douglas, and Iron counties. Three-day rainfall totals of 15 inches in areas of Bayfield County approached the 1,000-year rainfall mark. All of this on top of the fact that the region never fully recovered from a similarly catastrophic storm in July of 2016.

Two months later in southern Wisconsin, another volley of extreme weather slammed the region with thunderstorms, tornados, and flooding that caused approximately $234 million in damages to homes, businesses, and infrastructure. The 11.63 inches of rain that fell over west Madison nearly broke the state’s 24-hour rainfall record that has stood since the 1940s. Federal disaster areas were declared in 18 counties in southern Wisconsin, as communities struggled with the widespread damages.

In the aftermath of these storms, we hear the same recycled words describing their impacts: “catastrophic,” “devastating,” and “unbelievable.” Unfortunately, as we experience storms of this magnitude every few years, with their effects amplified by climate change, the resonance of this language is diminished. Furthermore, metrics based on historical data like the “500-year rainfall event” are not as useful as they once were for predicting the frequency and severity of current or future storms.

That is not to say that our communities are not truly devastated by these storms, as they unquestionably are; it is to say that these storms are occurring with increasingly familiar destruction, more and more frequently. This past summer, coupled with the last decade of extreme weather, suggest we should be shifting our thinking from if the next event will occur to when it occurs. To confront such challenges, we must reevaluate our approach to these storms in our thinking, metrics, and preparedness.

As our efforts shift from assessing the damages to planning for the next storm, there is another term that should be our focus – resilience. The definition of resilience is the ability to recover from or adjust easily to misfortune or change. Working to build resilient landscapes and communities that will more easily adjust to misfortune or change will not be an easy task, bounded by serious financial restraints and maybe even by conflicting worldviews. However, this is not reason for inaction.

As we work to advance conservation, there is extensive opportunity to build resilience through projects, practices, plans, budgets, and even conversations that are perhaps overdue. In this issue of The Note, you’ll hear how WI Land+Water is building resilience through education and training programs, standards development, and through the hard work of our membership. We don’t pretend to have all the answers, but we are actively working towards lasting solutions – and those are important and necessary steps.
WHO WE ARE
WI Land+Water is a 501(c)3 nonprofit that uniquely serves Wisconsin - its lands, waters, and people - through our membership, trainings, programs, advocacy, and resources.

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Conservation Training & Membership Services Coordinator
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Training & Outreach Program Coordinator
Kim Warkentin
Operations Manager & Youth Education Director
Elliot Meyer
Communications & Media Coordinator

THE NOTE
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KEYNOTE SPEAKER
TIA NELSON
MANAGING DIRECTOR, CLIMATE | OUTRIDER FOUNDATION

Lake Michigan Area Association meeting
Lake Winnebago Area Association meeting
North Central Association meeting
Wisconsin Land & Water Conservation Board (LWCB) meeting
Northwestern Association meeting
West Central Association meeting

Upcoming Events
January 11
Wisconsin Cover Crops Conference
February 20
March 13-15
January 25
WI Land+Water 66th Annual Conference
February 1
• Annual business meeting
February 5
• Area Association meetings
• WI Land+Water Board of Directors meeting
February 7
• Youth Education Poster & Speaking Contests*
February 11
*For area association poster and speaking contest dates, visit: www.wisconsinlandwater.org/events/youth-poster-speaking-contest

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Our conference is made possible by the generous support from our sponsors. We offer a range of sponsorship levels and benefits, including recognition in conference promotional materials, newsletters, and social media. All opportunities directly support WI Land+Water and are customizable to fit your needs.

Contact Matt Krueger about sponsoring our conference.
matt@wisconsinlandwater.org

66TH ANNUAL CONFERENCE
MARCH 13-15 AT THE LAKE GENEVA RESORT

This issue: a year of flooding, building resilient communities, 2019 annual conference & more.

The Note is WI Land+Water’s biweekly newsletter, providing program updates and highlighting conservation successes across our network. The Note first began 27 years ago as a weekly update for our association, formerly representing only County Land Conservation Department staff.

Please send address changes to WI Land+Water, Attn: The Note 131 W. Wilson Street, 4601 Madison, WI 53703 or call (608) 441-2677
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All images are property of WI Land+Water, unless otherwise specified as public domain. CC Attribution 3.0 Unported License. Specified credit to: Erik Daul, La Crosse Tribune via AP (cover); The Outrider Foundation (page 3); data from the Wisconsin State Climatology Office (page 5).
This year will be remembered as one of the rainiest in Wisconsin’s history. With towns underwater and acres of crops ruined, communities across the state are still reeling from the damages intense storms left behind. At least 23 counties were declared federal disaster areas, with multiple fatalities and millions of dollars in damages attributed to the storm’s effects.

From an environmental standpoint, there are many crises caused by extreme weather that don’t command headlines. With so much rain, massive amounts of sediment wash into surface waters, polluting streams and severely crippling ecosystems. Conversely, water that is absorbed into overly-saturated, unhealthy soils washes huge amounts of nitrate and bacteria down into underground aquifers, resulting in contaminated drinking water for thousands of people.

Our County Conservation Departments are a frontline defense for our communities before the storms and the in-the-field experts helping landowners pick up the pieces long after the storms are gone. From helping plant cover crops on a field to testing drinking water, our conservationists facilitate an array of projects and programs for landowners across the state.

Displayed right is a small snapshot of all the various tactics our local conservationists use to effectively mitigate the impacts of extreme weather. Collectively, all those projects and programs builds resiliency across Wisconsin.

MEMBERSHIP TRAINING

W1 Land+Water is working with county staff, Trout Unlimited, WDNR, The Nature Conservancy, U.S. Forest Service, NRCS, and others to offer workshops and training programs builds resiliency across Wisconsin.

Buffalo County Land Conservation Resource Management worked with a local beef cattle farmer to restore highly-eroded stream banks meandering through his property. This project complemented prior upstream restoration efforts along the Swinns Valley Creek. The project significantly decreased soil loss and improved water quality. The project was a multi-organizational partnership that included NRCS, DNR, and Trout Unlimited.

Public health concerns arose over high nitrate levels in the drinking water across the county. Juneau and Wood Counties are tackling the drinking water issue head-on, in partnerships with the county health and conservation departments, as well as cooperation with the DNR and EPA.

Juneau County Land & Water Resource Department organized a team of county staff to sample 104 private wells across the county in a single day. Results showed that more than 40 percent of tested wells have nitrate levels exceeding the federal safety limit of 10 mg/L.

W1 Land+Water and DATCP are pleased to announce a webinar series designed specifically for county conservation staff and supervisors. The series is designed to be watched either individually or incorporated into a Land Conservation Committee meeting agenda. The webinars provide an opportunity to gain a deeper understanding of local conservation programs in Wisconsin.

New webinars available:

- Land & Water Resource Management Plans
  Presented by Lisa Trumble, DATCP

- Soil & Water Resource Management Grants
  Presented by Susan Muskat, DATCP

Webinars are posted on our website:

www.wislandwatermedia.org/webinars

Elliot Meyer
Communications & Media Coordinator
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The changes in the average amount of precipitation in Wisconsin are compared to last 30-year normal (zero). The deviation from zero is an unexpected change in precipitation. Extreme fluctuation across the state, especially over an eight-year period, poses a real challenge to the stability of farmers and communities.
Homes and fields flooded, dams breached, rivers swelled, sewage systems overtaxed – weather this summer spared no mercy on our aging infrastructure, designed for storms that were once thought to be so rare, they’d only hit once every 100, 500, or even 1,000 years. Yet across the state, Wisconsinites are sinking into the realization that these intensified rain events are becoming increasingly common, underscoring our readiness, especially with local drinking water sources.

In the aftermath of heavy rains, many communities confront freshwater sources finshed with contamination, intersecting an already rising public health issue. Whether nitrate and bacteria leach into the groundwater and compromise safe drinking water or phosphorus in soil runs off fields intonearby streams and contributes to harmful algal blooms, it is clear we need conservation solutions that remedy the problems at the source.

To view some of the collaborative resources such as Wet Types flow chart. Working Together to Protect Drinking Water handle UWEX’s Guide to Buying and Managing Rural Property, and the recorded four-part Groundwater Webinar Series, visit the Source Water Protection program webpages.

www.wisconsinlandwater.org/programs/groundwater-protection

STANDARDS OVERSIGHT COUNCIL PROGRAM
MITIGATING EFFECTS OF STORMWATER WITH STANDARDS

Kate Brunner
Standards Oversight Council Program Manager kate@wisconsinlandwater.org

Heavy storms this past summer challenged the functionality and pushed the limitations of many conservation practices across Wisconsin. These practices provide necessary storm mitigation, through measures like diversion or channeling and erosion control or detention. However, some particularly hard-hit areas of the state saw culverts, diversion channels, dams, and bridges destroyed (even those designed to a technical standard) by the additional volume and flow-rate of water.

Although there are no immediate changes to standards anticipated in response to recent flooding, future standard revision teams or programs that implement standards may need to incorporate new information as increases in the frequency and severity of storms are documented by the Standards Oversight Council (SOC) teams are currently working on developing a new DNRC Standard 1019 – Proprietary Filtration Device and updating DNRC Standard 1061 – Dewatering. Soon, we expect to begin working on Modified Process revisions to NRCS standards, a Full Process update to DNR Standard 1057 – Trackout Control Devices, and Modified Process updates to NRCS Standard 382 Open Channel and DNR Standard 1009 – Rain Garden.

STAY IN-THE-KNOW ON STANDARDS

If you’d like to receive updates about standards, be alerted when new teams are being developed, or when drafts are released for public comment, you can add to the SOC urban or agricultural email list - contact Kate Brunner if you’re interested!
Know your Conservation Members

Read the full interviews at wislandwatermedia.org

Mike Hofberger
Calumet County Supervisor

What drew you to work in conservation?
I grew up near the Mississippi River in Vernon County. I always spent a lot of time outdoors camping, fishing, and exploring the ponds and streams around my uncle’s farm. I always knew I wanted to work in natural resources, but didn’t really have it all figured out until after college. Since then, all of my jobs have involved working with landowners on conservation or wildlife habitat restoration. I really enjoy the interactions with landowners and helping them navigate a complex project or cost share program.

What part of your job is the most rewarding?
The most rewarding aspect of my job is seeing management changes on a farm that not only benefit the surrounding natural resources, but also improves the sustainability and profitability of a farm. This is often achieved through educating farmers about nutrient management best practices, but more recently, it has been expanded to incorporate soil health principles into a farm.

What are some of the flooding challenges confronting your county?
This past August and September, we experienced historic flooding along the Baraboo River after weeks of rain. At least one of the storms approached the 500-year rainfall mark. Fortunately, most of the flood damages were isolated along the floodplain areas, but we did have some fields that were unharvestable this year.

What is the role of county-led conservation in building resilience to extreme weather events?
I think our department is vital in starting the dialogue between rural landowners and municipalities about increasing resiliency in our watersheds to help mitigate flooding impacts. It is a simple concept that many people don’t always connect – if you can help the water infiltrate down into our crop fields and pastures instead of running off into nearby streams, you can really reduce some of the downstream flooding.

What’s one interesting fact about Sauk County?
Devil’s Lake State Park is visited by over 3 million visitors each year. It is the most visited state park in Wisconsin. When compared to national parks, it would rank in the top ten amongst the most visited national parks.

Melissa Keenan

Melissa Keenan is the Conservation Manager for Sauk County. She’s served in the county office for the past six years, and previously served with multiple environmental organizations. When Melissa isn’t getting her hands dirty working at a CSA farm in the summer, she’s hiking with her dogs, kayaking, or making her own wine.

MELISSA KEENAN
Sauk County Conservation Manager

What previous experiences prepared you to serve on your County Conservation Committee?
Most of my career was with the Farm Service Agency, working with farmers through USDA programs. One part of those programs was cost-sharing conservation practices. I understand how expensive conservation can be, but I also see the necessity of and passion for conservation efforts by farmers, government, and local leaders.

Why do you think it is important to be active on the Conservation Committee?
Growing up on a dairy farm, I learned from an early age that care needed to consistently be given to the cows, machines, and land. But back then on our farm, land stewardship consisted of weed control, drainage, and tillage. We applied manure to wherever we thought it was needed, without taking groundwater into consideration.

But as human population grows, so does the need for more food. And as farming intensified, so did the need for more conservation practices. Every one of us wants to drink clean water every day. It is important to me to be a proactive member to ensure clean water is available to all.

What are some challenges your committee is faced with as a result of extreme weather?
This year, excessive spring rains caused brown water events in local wells. We were and still are challenged with what we need to do to stop this from happening in the future. It’s tough to know when the public is best served through education or land use restrictions.

What are some interesting facts about Calumet County that few people may know?
Calumet County is ranked first in Wisconsin as the best value for property tax dollars. We also ranked second in population increase, unemployment, and new construction. Also, the county current has about 18,000 milking goats.

What are some of your favorite outdoor activities?
I enjoy working in my woods, hunting, playing golf and pickleball, and spending time with my family.