A Sneak Peek

2023 CONFERENCE SCHEDULE PREVIEW

MINNESOTA WATERSHEDS

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NOVEMBER
28- DEC 1

ARROWWOOD
CONFERENCE
CENTER
Alexandria, MN

Tentative CONFERENCE SCHEDULE

TUESDAY, NOV 28

10 A-3 P	Minnesota Association of Watersheds Administrators (MAWA) Meeting
12-1 P	Lunch for MAWA
3-4 P	Partner Updates
4-6 P	Minnesota Watersheds Board of Directors Meeting

WEDNESDAY, NOV 29

8 A-4 P	Choose Your Workshop — See Page 4-6
12-1 P	Lunch
4-9 P	Trade Show – Opening Night
5-8 P	Night at the Movies

THURSDAY, NOV 30

7-9 A	Regional Caucuses
8 A-4 P	Choose your Concurrent Sessions — See Page 7-15
12-1:30 P	Lunch, Awards and Mark Seeley Keynote **Break from 12-3 for lunch and Trade Show networking**
8 A-3 P	Trade Show
5-7 P	Happy Hour, Banquet + Awards

FRIDAY, DEC 1

7-9 A	Breakfast
9 A-Noon	Business Meeting (resolutions)
Noon-1 P	Minnesota Watersheds Board of Directors Meeting

PLAN YOUR WEDNESDAY
CHOOSE YOUR WORKSHOP

1 MN WATERSHEDS DRAINAGE WORKSHOP 9 A - 4 P

8 – 9 A Registration & Continental Breakfast

9 A Welcome & Agenda Overview

9:05 A Multi-Purpose Drainage Management

Jacob Rischmiller, ISG
This presentation focuses on improving and protecting downstream water quality from the impacts of agricultural drainage. Utilizing technology such as hydrologic/hydraulic modeling software, drone technology, and experience leads to successful implementation of multi-purpose drainage management practices throughout the rural landscape.

10:05 – 11:05 A #Triggered

Chris Otterness, Houston Engineering
Tom Gile, Board of Water and Soil Resources (BWSR)
Communication is critically important to public drainage system management. Due to the specificity of laws and statutes pertinent to public drainage, some words that have broad meanings in everyday use have very specific meanings and implications within the MS 103E lexicon. Improperly using these terms, such as "repair", "project", and "benefits" may at best confuse your audience, and at worst, turn an advocate into an adversary. The purpose of this presentation is to explore some of these "trigger" words and their proper and improper uses. Included in this session will be simulations of everyday conversations that have the potential to derail effective communication, and a debrief on how to avoid these scenarios.

15-MINUTE COFFEE AND SNACK BREAK

11:20 – 12 P DRAINAGE MANAGER'S HINDSIGHT AND FORESIGHT ON DRAINAGE APPEALS

Merissa Lore, Drainage Manager, Faribault County
This presentation will provide insight on drainage appeals and the reality of facing appeals. A local drainage manager will explain ways to avoid appeals, how to be prepared for appeals, and lessons learned from firsthand experience.

60-MINUTE LUNCH BREAK (PROVIDED)

1 – 2 P DRAINAGE WORK GROUP UPDATE

Tom Gile – BWSR
Tom Gile will explain what the Drainage Work Group (DWG) is and give an overview of topics discussed at this year's DWG meetings. Topics likely to take center stage are legislative directives for notification requirements as well as outlet adequacy.

2 – 2:45 P ROSEAU RIVER WATERSHED DISTRICT AND COUNTY FINANCING

Tracy Halstensgard – Roseau River Watershed District
Watershed district boards serve as drainage authorities. What roles do the county and county staff play in drainage system management and financing?

15-MINUTE COFFEE AND SNACK BREAK

3 – 4 P UPDATE ON CASE LAW IMPACTING DRAINAGE AUTHORITIES

John Kolb – Rinke Noonan Law Firm
John Kolb will provide a case law update focusing on cases released in the last several years that impact public drainage authorities, their staff, and their consultants and guide public drainage projects, repairs, and proceedings.

4 – 4:05 P WRAP UP

WEDNESDAY, NOVEMBER 29, 9A - 4P*

1

2

3

2 STAFF DEVELOPMENT WORKSHOP *9 A - 4:20 P

8 – 9 A Registration and Continental Breakfast

9 – 9:05 A Welcome and Agenda Overview

Mark Doneux, District Administrator, Capitol Region Watershed District
Mark will review the agenda and provide an overview of the day.

9:05 – 10:35 A Strike the Right Chord with Your Board

Jamie Beyer, District Administrator, Bois de Sioux Watershed District
Attendees will discuss methods for local board communication, approaches for board engagement, and how to keep board members abreast of the organization's progress toward its mission and goals.

15-MINUTE COFFEE AND SNACK BREAK

10:35 – 12 P Knowing How They Are Doing: Performance Appraisals (Part 1)

Ann Goering & Timothy Sullivan – Ratwik, Roszak & Maloney, P.A.
Your employees are hired to do a job. Are you happy with how you are evaluating how they are doing their job? What is your process for correcting deficiencies? Performance appraisals are a critical aspect of human resource management, but it can also be one of the most uncomfortable conversations an administrator will have with employees. These two sessions will provide administrators with the tools to develop a formal employee appraisal program that meets the needs of the employee, administrator, and the organization.

60-MINUTE LUNCH BREAK (PROVIDED) & NETWORKING

1– 2:30 P What Happens After the Performance Appraisals (Part 2)

Ann Goering & Timothy Sullivan – Ratwik, Roszak & Maloney, P.A.
If the appraisal doesn't work, what happens next? In this session, attendees will also learn how to improve employee performance in a way that is meaningful, understandable, and legal.

15-MINUTE COFFEE AND SNACK BREAK

2:45 – 4:15 PM Hard Conversations

Jenny Gieseke – Board of Water and Soil Resources
Whether it's a coworker whose perfume is too strong or a staff member who isn't meeting expectations, we often put off or avoid having conversations that make us uncomfortable. However, the earlier situations like these are addressed the better. In this session you will learn steps that can make your own difficult conversations less stressful. We will cover how assumptions can interfere with solutions, how to manage strong emotions, how to spot the ways we might be sabotaging our own best efforts at managing the conversation, and how to stay focused on your end goal. Difficult conversations are never easy, but this session will help you tackle them with less anxiety and fewer antacids.

4:15 – 4:20 PM Wrap Up

3 WATERSHED MANAGEMENT WORKSHOP 9 A - 4 P

8 – 9 A Registration & Continental Breakfast

9 A Welcome & Agenda Overview

9:05-10:30 A Your Role in Watershed Management

WATERSHED MANAGEMENT IN MINNESOTA—Minnesota has adopted a watershed-based management approach that promotes increased collaboration and a common vision for planning and implementation activities. This session will describe how watershed organizations and other state and local entities are involved in this approach.

UNDERSTANDING WATERSHED PURPOSES AND POWERS—Watershed districts have their own compact chapter of law—Minnesota Chapter 103D. Metro watershed districts and watershed management organizations also have Chapter 103B. This legal overview will provide insight into why watershed organizations were created and their legal authorities to pursue their missions.

15-MINUTE COFFEE AND SNACK BREAK

11:20 – 12 P Your Role in Watershed Planning

Watershed planning is process that results in a watershed plan that sets priorities, outlines strategies, and identifies targeted and measurable goals. This session will explain the process to develop or update your plan.

60-MINUTE LUNCH BREAK (PROVIDED)

1 – 1:45 P Your Role in Watershed Plan Implementation

What happens after your watershed plan is developed? To meet the established priorities and goals, education and on-the-ground efforts are necessary. This session will explore the options available to fund projects and programs to meet the targeted and measurable goals in your plan.

1:45 – 2:45 P Your Role as a Government Official

Watershed boards are subject to important laws that govern how and when they can meet, the access anyone may have to the data this is created or received, or the deadlines within which the board must act on a permit application. This session will provide an understanding of the Open Meeting Law, Data Practices Act, and other governance policies and obligations.

15-MINUTE COFFEE AND SNACK BREAK

3 – 4 P Tying it all Together

This session will provide real-world examples from Cedar River Watershed District, Red Lake Watershed District, and Mississippi Watershed Management Organization that have successfully implemented on-the-ground projects combining watershed statutory funding mechanisms, as well as watershed-based implementation funding, and other granting mechanisms.

4 – 4:05 P WRAP UP

INSTRUCTORS:
Julie Westerlund and Justin Hanson, Minnesota Board of Water and Soil Resources
Louis Smith, Smith Partners, PLLP
Michelle Overholser, Yellow Medicine River Watershed District

PLAN YOUR THURSDAY
CHOOSE YOUR SESSIONS

THURSDAY, NOVEMBER 30, 2023

8 AM

MOVING LOW SALT DESIGN INTO EDEN PRAIRIE

Winter salt use has moved chloride to a pollutant of top concern in Minnesota. Connie Fortin, low salt strategist at Bolton & Menk, has spent decades working with winter maintenance professionals to improve efficiency. Now is the time to drive down salt use by improving the design of our "saltable" surfaces. In this presentation, a Low Salt Design pilot city, the City of Eden Prairie, will briefly layout their chloride concerns. Bolton & Menk will explain some of the Low Salt Design basics that are applicable to everyone in cold climate places. The City of Eden Prairie will present what they hope to accomplish by learning more about these strategies as a Low Salt Design pilot city. As source reduction is the fastest and most cost-effective solution to pollution, Low Salt Design brings us a new strategy to get on top of the chloride problem.

LOCATION
LAKE MILTONA

PRESENTED BY

Connie Fortin
Bolton & Menk, Inc.

Lori Haak
City of Eden Prairie

LESSONS LEARNED FROM 10 YEARS OF MINNESOTA WATER STEWARDS

Want to accomplish in-ground projects and community engagement at the same time? Minnesota Water Stewards, Freshwater's volunteer leadership development program, engages residents who are passionate about caring for water, providing the necessary information, connections, and practices to equip and build confidence, and support growing a community of active water steward leaders. This approach develops and deepens community connections to grow community capacity and build resilience. Ten years in, with a Steward community more than 500 strong, Freshwater will share what has been working well, what has been tweaked, and observations on how the program is helping. We will also consider the gaps and explore future initiatives and opportunities.

LOCATION
LAKE OSAKIS

PRESENTED BY

Alex Van Loh &
Kris Meyer
Freshwater Society

DEVELOPING STRATEGIES FOR ECOSYSTEM PROTECTION AND ENHANCEMENT WITHIN RPBCWD

A distinct link exists between the loss of hydrologic function, natural waterbodies, and upland ecosystem issues such as soil health, biodiversity, habitat quality, urban heat island effect, urban forest degradation, and climate change. RPBCWD has worked for decades to protect its natural waterbodies through directing management of stormwater runoff from hard surfaces. We have now developed an Ecosystem Health Action Plan that expands this mission to directly address green space runoff – runoff from lawns, woodlands, abandoned agricultural fields, and a few remaining patches of agriculture - to take the next step to protect and restore water resources and reach towards a healthy urban ecosystem. Through a series of workshops with municipalities within the District and other local and state agencies, strategies for improving the urban ecosystem were identified. The purpose of this plan has been to identify strategies, programs, and projects that can be undertaken to initiate ecosystem recovery to protect and restore water resources.

LOCATION
LAKE MINNEWASKA

PRESENTED BY

Fred Rozumalkski &
Scott Sobiech
Barr Engineering

Terry Jeffery
Riley Purgatory Bluff Creek Watershed District

THURSDAY, NOVEMBER 30, 2023

9 AM

ENHANCED WATERSHED ENGAGEMENT

Plunging into the Diversity of our Residents (Experiential Learning)

Are you reaching out to your residents, but only getting the same cast of characters participating? The mission of the Watershed Diversity, Equity, Inclusion, and Access (DEIA) Workgroup is to share experiences, better understand, and advocate for the incorporation of equity in watershed management. At their 2nd annual summer retreat, the DEIA workgroup conducted an experiential learning activity where they assumed the roles of diverse community members (age, disability, religion, income) and role-played various beliefs, opinions, and perspectives of someone other than themselves. In this experiential learning activity, we learned that having diverse perspectives represented in your watershed may change how you think about diversity, equity, and inclusion, and how you interact with your watershed community. Explore the diversity of our cast of watershed residents in this role-playing activity. You may choose to participate or simply observe.

LOCATION
LAKE MILTONA

PRESENTED BY

Bassett Creek, Brown's Creek, Capitol Region, Comfort Lake-Forest Lake, EOR, Hennepin County, Minnehaha Creek, Mississippi, Nine Mile, Ramsey-Washington-Metro, Riley-Purgatory-Bluff Creek, Rosie Russell

REDUCING SEDIMENT LOADING AND CREATING HABITAT USING LARGE WOOD IN SAND CREEK

Sand Creek is a tributary to the Minnesota River that flows through an eroding bluff zone. Land use practices and increased precipitation resulting from climatic changes have exacerbated ongoing natural erosion. Scott WMO has worked with Inter-Fluve since 2007 to assess Sand Creek's watershed and implement bluff-toe and ravine stabilization projects. The bluff-toe stabilization measures use large wood structures along outer meander bends to redirect velocity flow vectors, promote aggradation of sloughed bluff material at the toe, and improve instream habitat. Inter-Fluve uses two-dimensional hydraulic modeling to determine appropriate size, spacing, and orientation of large wood structures. Modeling large wood structures is an efficient and robust way to iterate design alternatives, identify local zones of high shear stress or velocity, and increase confidence in stability and ballast calculations. Stabilization efforts in Sand Creek have been successful, with sediment aggradation at the toe and vegetated, stable bluffs soon after construction.

LOCATION
LAKE OSAKIS

PRESENTED BY

Nick Jordan
Inter-Fluve

Ryan Holzer
Scott Watershed Management Organization

CEDAR RIVER WATERSHED WATER STORAGE AND CLIMATE RESILIENCY

The Cedar River Watershed District (CRWD) is investing in long-term solutions to complex water resource management. With current climate trends and more frequent heavy rains, the CRWD has concerns about the resilience of the existing infrastructure projects as well as what other potential projects may be available to help curb the effects of climate change. In 2022, the CRWD was awarded a grant by the Minnesota Pollution Control Agency to identify how future extreme precipitation events may impact communities in the CRWD with a focus on the City of Austin. Our presentation will highlight the existing projects and their benefits, and present the results from the 2022 study, which included identification of 18 additional water storage sites. Cody will also highlight the challenges and successes in collaborating with local landowners and farmers to implement these projects.

LOCATION
LAKE MINNEWASKA

PRESENTED BY

Cody Fox
Cedar River Watershed District

Bret Zimmerman
Houston Engineering Inc.

THURSDAY, NOVEMBER 30, 2023

10 AM

RESIDENTIAL SOIL TESTING FOR WATER QUALITY: PILOT OUTREACH PROGRAM

LOCATION
LAKE MILTONA

PRESENTED BY

Gael Zembal
Nine Mile Creek Watershed District

In 2023, the Nine Mile Creek Watershed District piloted a soil testing program in the subwatersheds of three lakes in Minnetonka: Lake Holiday, Wing Lake and Lake Rose. Some lakes in the Nine Mile Creek watershed have been identified as nitrogen limited or co-limited. Lawn fertilizer, which contains nitrogen and other nutrients, is a source of pollution to urban lakes. A water quality study identified soil testing as one strategy to reduce nutrient inputs to the lakes. The soil testing pilot program aimed to improve knowledge of lawn nutrient needs among homeowners and reduce over-fertilization of residential lawns. **This pilot aimed to address four questions:**

1. What are the current lawn fertilization practices of homeowners in these three subwatersheds?

2. What levels of nutrients are already in the soil?

3. Do individualized fertilization recommendations from the University of Minnesota encourage people to change lawn fertilization practices?

4. Does assistance with the soil sampling process reduce barriers to participation? Education staff will explain working with the UMN Soil Testing Lab, participant recruitment strategies, costs, and preliminary behavior change results. Staff are using this information to assess the feasibility of expanding the program in 2024.

USING HAND-PULLING, PARTNERSHIPS, AND GRANT OPPORTUNITIES TO EFFECTIVELY REDUCE AQUATIC INVASIVE SPECIES IN A LAKE WITH A HEALTHY NATIVE PLANT COMMUNITY

LOCATION
LAKE OSAKIS

PRESENTED BY

Dawn Tanner & Phil Belfiori
Vadnais Lake Area Watershed Management Orgnaization

Birch Lake, in White Bear Lake, is a healthy lake with a diverse native plant community that is also infested with Eurasian watermilfoil (EWM). In 2019, a delineation identified 11.4 infested acres. VLAWMO and the Birch Lake Improvement District (BLID) partnered on a 2-year, MN DNR AIS removal grant. During a pre-treatment survey, the extent of EWM was smaller than previously detected, and plants were fairly sparse. MN DNR allowed a switch in the treatment plan to hand-pulling. A new detection of Curly-leaf pondweed (CLP) was also made, reported, and CLP is also being removed as part of the current project. After 2 years, the post-survey detected only 2 EWM and 0 CLP plants. The project is ongoing to maintain gains. VLAWMO works with Ramsey County Soil and Water Conservation Division to conduct surveys, and BLID funds treatment with divers. Hand-pulling may offer an effective alternative to chemical treatment in some lakes and should be considered when developing an AIS treatment plan.

IMPLEMENTING THE ONE WATERSHED, ONE PLAN: CONNECTING WATERSHED-BASED IMPLEMENTATION FUNDING TO PROJECTS

LOCATION
LAKE MINNEWASKA

PRESENTED BY

Jon Roeschlein & Steve Zeece III
Sauk River Watershed District

Corey Hanson
Red Lake Watershed District

Rachel Olm
Houston Engineering, Inc.

Upon adoption of a Comprehensive Watershed Management Plan (CWMP) completed as part of the One Watershed, One Plan (1W1P) program, local planning partnerships are eligible to receive non-competitive Watershed-Based Implementation Funding (WBIF) to implement projects and initiatives prioritized in the plan. Funds may be used to conduct feasibility studies to get projects shovel-ready and fund water quality components of larger, capital improvement projects. This presentation will provide two case studies—the Sauk River and Red Lake Watershed Districts—to showcase how WBIF funding has been used during plan implementation to increase collaboration between watershed district and soil and waters conservation districts, queue up shovel-ready projects, and support implementation of capital projects connected to local priorities.

THURSDAY, NOVEMBER 30, 2023

11 AM

1 LOW SALT, NO SALT MINNESOTA: A RESOURCE FOR LOCAL GOVERNMENT UNITS

Chloride pollution is a growing problem across the State. To assist local governments with outreach and education efforts, the Hennepin County Chloride Initiative, a collaboration among watershed organizations, cities, and Stop Over Salting volunteers, developed an outreach toolbox called Low Salt, No Salt Minnesota. A team of water resource professionals led the development of and provided expertise for the campaign. The team worked with a Minnesota marketing firm to establish a brand, interview target audiences, identify key messages, and develop a presentation, videos, pledge card, and other materials. This session will describe the outreach campaign and describe the tools that can be used to guide conversations and technical outreach with residents, businesses, and property managers about winter maintenance best practices. *Learn more at low-salt-no-salt-mn.org*. Funded through a Clean Water Fund grant.

LOCATION
LAKE MILTONA

PRESENTED BY

Laura Jester
Bassett Creek Watershed Management Commission

Liz Forbes
Riley Purgatory Bluff Creek Watershed District

2 DRAINAGE RIGHTS IN THE BULLSEYE OF ENVIRONMENTAL REVIEW—DRAINAGE WORKSHOP

Recent citizen petitions for environmental assessment worksheets (EAWs) on drainage improvement projects have resulted in the evaluation of the rigor of existing statute 103E.015 in evaluating the environmental, land use, and multipurpose drainage water management requirements. During this session ISG will compare the statutory requirements for drainage as they relate to the criteria for determining potential for significant environmental effects outlined in Minnesota Rules 4410 using the evidence presented by citizen petitioners for specific projects. The perceived gap between the drainage project requirements, drainage rights, and downstream impacts will be explored. Remedies, including public infrastructure investments to obtain greater environmental benefits, will be presented with recommendations on how to meet drainage rights afforded the benefited property owners as well as the increased societal demands from these infrastructure investments. Lastly, we will discuss who should be the responsible governmental unit and who should bear the costs of a citizen's petition for environmental review.

LOCATION
LAKE OSAKIS

PRESENTED BY

Julie Blackburn &
Jacob Rischmiller
ISG, Inc.

3 RICE CREEK WATERSHED DISTRICT CLIMATE RESILIENCY PLANNING

The Rice Creek Watershed District recently completed a study to assess how vulnerable its communities are to increased rainfall depths and intensities due to climate change. By looking at future conditions and rainfall events, the District is taking a proactive approach to reduce flood damage rather than reacting to flooding concerns after a damaging event. The project team used H&H modeling to simulate estimated future conditions rainfall events, map the estimated future conditions rainfall floodplain, and identify capital improvement projects that would reduce the risk to increasingly vulnerable areas. The study identified a number of capital improvement storage projects to reduce flood damage. As part of the study, the District facilitated two planning meetings to engage community members and leaders in climate adaptation and resilience planning.

LOCATION
LAKE MINNEWASKA

PRESENTED BY

Kendra Sommerfeld
Rice Creek Watershed District

Bret Zimmerman
Houston Engineering Inc

THURSDAY, NOVEMBER 30, 2023

2:30 PM

MINNESOTA WATER WORKFORCE PILOT WHAT IT IS AND HOW IT CAN HELP YOU

The water industry is struggling with workforce. The Minnesota Water Workforce Pilot is a new pilot program to collaborate on workforce strategies and tactics to encourage more people to join the water industry and more diverse candidates. We started convening a cross-sector group of water organizations across the state to help with this effort in 2019 and our roster includes watershed districts, cities, utilities, consulting firms, technical and community colleges, workforce consultants, Minnesota Rural Water, Minnesota AWWA, Central States Water Environment Association, and Minnesota Department of Employment and Economic Development (MN DEED). We have met for the past year to identify shared strategies and tools we can all use across our organizations, and now these tools are available for your use and feedback.

LOCATION
LAKE MILTONA (A)

PRESENTED BY

Mary Fitzgerald
Ramsey-Washington Metro Watershed District

Michelle Stockness
Freshwater Society

CORPS REGULATORY UPDATES IN MINNESOTA

The U.S. Army Corps of Engineers (Corps) St Paul District Regulatory Division proposes to give a brief overview of jurisdictional determinations, stream mitigation, and permitting processes in our Section 404 Clean Water Act and Section 10 Rivers and Harbors Act Regulatory Program. We plan to share information on current practices for determining Corps 404 jurisdiction in Minnesota including when project proponents should request a jurisdictional determination and an overview of the factors the Corps considers when making jurisdictional determinations. We will provide information on our Stream Mitigation Procedures and briefly describe the information permit applicants should submit when proposing impacts to streams along with the information bank sponsors should consider submitting if they are proposing to generate functional stream lift at a compensatory mitigation bank site. We will also highlight our permitting processes including information requirements and timelines for review processes and provide suggestions for how permit applicants can work to provide complete applications and information needed for permit decisions.

LOCATION
LAKE MILTONA (B)

PRESENTED BY

Brian Yagle
Army Corps of Engineers, St. Paul

RESULTS FROM AN INNOVATIVE MULTI-YEAR CARP MANAGEMENT PROGRAM

The Rice Creek Watershed District (RCWD) has implemented an innovative, multi-year program to manage common carp in the Long Lake / Lino Chain of Lakes system. Pre-project carp density was 670 kg/ha – nearly seven times the ecological damage threshold. Water quality in Long Lake and the Lino Chain was poor, with frequent algae blooms. The RCWD and Carp Solutions embarked on a multi-year comprehensive program to reduce carp density. New and innovative tools and technologies were developed. A consistent, but flexible management approach was used, paying close attention to changing efficiencies of various management tools. Over 400,000 pounds of carp were removed from the system, and density was reduced by 88% to 80 kg/ha. In 2022, phosphorus concentrations in Long Lake were the lowest on record (38 yrs.). We will present details on program methods and water quality response to a successful, long-term carp management program.

LOCATION
LAKE MINNEWASKA

PRESENTED BY

Matt Kocian
Rice Creek Watershed District

Przemek Bajer
Carp Solutions, LLC

THURSDAY, NOVEMBER 30, 2023

2:30 PM (CONTINUED)

STAKEHOLDER INPUT—OPPORTUNITY OR OBSTACLE?

The value of public outreach and civic engagement are sometimes overlooked in developing water management projects and reducing overall project timelines. A holistic approach of creating connections between people and the project facilitate moving communities forward. In the Roseau River Watershed District, public and agency outreach has proven critical to constructing flood damage reduction, water quality, habitat restoration and drainage projects. Often initial outreach meetings can be tense, as multiple interests are presented around a single location or small catchment. Seeking to understand one another's perspective may not get all parties in favor of a project, however it can result in a future project that everyone can "live with". Facilitating discussions so that all individuals or interest groups feel heard and understand how their input can sculpt an eventual project is paramount to reduce project risk, including social and permitting constraints, that could be realized later in the project process.

LOCATION
LAKE OSAKIS

PRESENTED BY

Tracy Halstensgard
Roseau River Watershed District

Nate Dalager
HDR Inc.

3:15 PM

FOR STORMWATER PROFESSIONALS AND THE PUBLIC

This project fills a key need for an online resource allowing stormwater professionals as well as the general public to easily choose appropriate and successful native plant species and seed mixes for vegetated stormwater practices in different site conditions and state regions. We are updating the Minnesota native plant search tool Blue Thumb Plant Finder to include more commonly planted native species and information about them, and pull in other available and relevant data (drought tolerance, erosion susceptibility, etc.) where possible. Upon completion, the tool will be linked to vegetated stormwater practice information in the Minnesota Stormwater Manual, a comprehensive and still growing collection of background and design information about stormwater Best Management Practices for stormwater practitioners across the state. The plant finder's database will be structured so that it can be searched with a variety of filters and tags, so that practitioners can "describe" a site that needs planting, including adverse site conditions and special parameters, and be given a detailed list of plant species and/or seed mixes that are most likely to succeed on the site.

LOCATION
LAKE MILTONA (A)

PRESENTED BY

Megan Reich
Metro Blooms

Rich Harrison
Metro Blooms, Design and Build

THURSDAY, NOVEMBER 30, 2023

3:15 PM (CONTINUED)

CONSERVATION AGRICULTURE: BENEFITING WATER QUALITY & FARMERS' BOTTOM LINES

LOCATION
LAKE MILTONA (B)

PRESENTED BY

Brad Jordahl Redlin
Minnesota Department of Agriculture

The Minnesota Agricultural Water Quality Certification Program (MAWQCP), AgCentric and Minnesota State Agricultural Centers of Excellence are working together to demonstrate the economic value of conservation agriculture and meet Minnesota's water quality goals. These partners started in 2019 to compare Water Quality certified producers to non-certified producers in the Farm Business Management program. In the first four years of data comparisons, the Water Quality certified farms averaged 23 percent higher net income than non-MAWQCP certified farms. The MAWQCP and partners will share this financial analysis as an example of how economic data can demonstrate the benefits of conservation agriculture, specifically water quality best practices, and help convince more producers and landowners to adopt the practices needed to protect Minnesota's waters. Presenters will further share how the MAWQCP is a tool to mitigate water quality risks from agriculture through its whole farm conservation planning approach.

LESSONS LEARNED THROUGH 20 YEARS OF STREAM RESTORATION WITHIN THE BUFFALO-RED RIVER WATERSHED DISTRICT

LOCATION
LAKE MINNEWASKA

PRESENTED BY

Kristine Altrichter
Buffalo-Red River Watershed District

Bennett Uhler
Houston Engineering, Inc.

The Buffalo-Red River Watershed District, in partnership with local, state, and federal agencies, has restored more than 50 miles of streams over the past 20 years. Channel straightening projects completed several decades ago led to headcutting and streambank failures in some areas. In other areas, excessive sediment loading from upland locations caused significant sediment buildup. In either case, habitat was negatively impacted by reduced stream connectivity to the riparian floodplain corridor and elimination of deeper pools and riffles required by fish at various stages. In addition, sediment buildup reduced hydraulic capacity of the channels, resulting in increased occurrence of breakout flows, exacerbating sedimentation. This presentation will highlight the lessons learned from stream restoration projects within the BRRWD over the past two decades. The presentation will also discuss the various stages of project development, including design, permitting, funding, and construction.

MODELING TO PROTECT DOWNSTREAM WATERS: TOOLS AND TECHNOLOGIES FOR BETTER DESIGNS

LOCATION
LAKE OSAKIS

PRESENTED BY

Jacob Rischmiller & Paul Marston
ISG, Inc.

As an industry leader in water resource management, ISG's team uses leading-edge technologies to optimize designs and protect natural resources. Hydraulic and water quality modeling, drone, and pipe camera technologies are used to capture accurate data and improve designs that are based on project and stakeholder goals. ISG will present noteworthy case studies that explore how a variety of targeted technologies can be applied to collect data that support multi-purpose drainage management. The case studies detail real-world challenges and the design solutions developed using innovative technologies. We will highlight projects that have benefited from one- and two-dimensional hydraulic modeling and BMP targeting software to deliver solutions that increased productivity while protecting downstream waters. In addition, the presentation will showcase how drones are used to capture water on landscapes, including flood events, LiDAR drone to capture ground elevations, and pipe cameras to televise existing tile conditions to determine whether pipes are providing adequate support or require repairs.

THURSDAY, NOVEMBER 30, 2023

4 PM

LEGACY PAYMENT PROGRAM: RECOGNIZING LANDOWNERS WHO MAINTAIN NATURAL RESOURCES & SHORELINES

Loss of natural shoreline and upland land management practices have an alarming impact on water quality. CLFLWD's cost-share and comprehensive shoreline programs work to improve and maintain land management activities that protect water quality and lake ecosystems. As part of this effort, CLFLWD piloted a program to provide ongoing and yearly payments or tax rebates to landowners who protect high quality natural resources including high quality shorelines with buffers. The Legacy Payment Program is available to all property owners in the District and encourages maintaining healthy landscapes and natural shorelines. Staff researched similar programs used in agriculture and forestry but not commonly practiced by watershed district cost-share programs to develop this. It promotes the idea of the "un-restoration" and protecting properties and shorelines that are already providing the best water quality benefits to lakes, streams, and wetlands.

LOCATION
LAKE MILTONA (A)

PRESENTED BY

Aidan Read &
Beth Carreno
Comfort Lake Forest Lake Watershed District

SHARED PROGRESS TOWARD SHARED GOALS: COLLABORATIVELY TRACKING IMPLEMENTATION

Responding to a request from the Minnesota Association of Soil and Water Conservation Districts, the Board of Water and Soil Resources formed a work group of local partners to discuss systems for collaboratively tracking implementation of Comprehensive Watershed Management Plans (CWMP). This presentation will share the outcomes of the project, which was designed to identify common metrics for tracking plan goals and establish data standards so partnerships can customize how they track their plan implementation progress while being able to share data with others around the state. The presentation will also share examples and prototypes of tracking tools that partnerships can use to track their plan implementation.

LOCATION
LAKE MILTONA (B)

PRESENTED BY

Julie Westerlund
MN Board of Water and Soil Resources

Arlyn Gehrke
Rock County Soils & Water Conservation District

Rachel Olm
Houston Engineering, Inc.

DEVELOPMENT OF A STREAM STABILIZATION PROJECT FOR THE BENEFIT OF LAKE TRAVERSE (TCD 52)

Traverse County Ditch No. 52 was constructed in 1951 to improve agricultural drainage in a flat upland area above Lake Traverse located on Minnesota's shared border with South Dakota. The project redirected approximately 17.6 square miles of the watershed to an existing ravine that drained into the lake. In the decades following the completion of the project, massive erosion in the form of channel downcutting and side-slope sloughing resulted in an estimated 135,000 cubic yards of sediment being discharged into the lake. There were many failed attempts over the past five decades to develop a solution, with funding being the primary challenge. In response to the situation, the Bois de Sioux Watershed District developed an interdisciplinary multi-phased path forward that finally resulted in the completion of a stabilization and natural resource enhancement project. The final phase of construction will be completed by the fall of 2023. Learn how the District was able to generate landowner support for a local assessment district, secure permits, and obtain 89% grant funding for this project.

LOCATION
LAKE OSAKIS

PRESENTED BY

James Guler
Moore Engineering

THURSDAY, NOVEMBER 30, 2023

4 PM (CONTINUED)

CHANGING A LAKESHORE CULTURE: COMMUNICATION, ENGAGEMENT, & ENFORCEMENT

There is a statewide trend of declining lakeshore health and loss of natural conditions as (re)development occur. Natural shorelines are being replaced with rock, beach, patio, and turf and trees, shrubs, and native herbaceous vegetation are replaced with lawns and unobstructed views. The on-going loss of critical habitats is resulting in declining biological health and water quality. Additionally, social networks are promoting acceleration of lakeshore conversions. The 2022 CMSCWD Watershed Management Plan outlined measurable goals focused on reversing these trends through Communication, Engagement, and Enforcement. In 2022, the District began shoreline monitoring on our top 10 priority lakes to baseline shoreline conditions lot-by-lot and conducting lakeshore landowners surveys and focus groups. This data serves as a foundation to measure program effectiveness, prioritize program activities, and track progress toward goals. In this presentation we will share our baseline results, experience coalition building, public and landowner engagement actions, and rule enforcement.

LOCATION
LAKE MINNEWASKA

PRESENTED BY

Tom Langer & Mike Isensee
Carnelian-Marine-St Croix Watershed District

Minnesota Watersheds is a non-profit organization representing and connecting local governments that are focused specifically on the management of water on watershed boundaries rather than political boundaries, such as cities and counties.

Primary areas of focus include providing educational and training opportunities, lobbying and advocacy services and regular communications. We represents 37 Watershed Districts and 3 Water Management Organizations in the state.

Learn more at mnwatersheds.com

MINNESOTA WATERSHEDS

Connecting People. Protecting Water.