

# MAWD 2017 Annual Meeting Trade Show & Annual Report

**MINNESOTA  
ASSOCIATION OF  
WATERSHED  
DISTRICTS, INC**

*Land and Water Shall be Preserved*



November 30 - December 2  
Arrowwood Conference Center  
Alexandria, MN



w a t e r  
e c o l o g y  
c o m m u n i t y

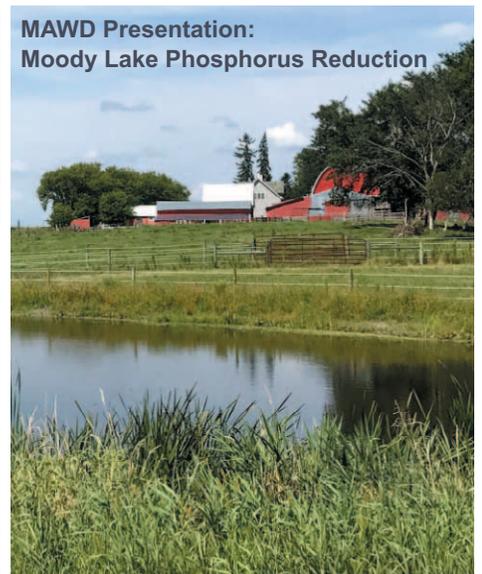
HONORED BY THIS YEAR'S RECOGNITIONS  
AND PROUD TO BE MAKING THE DIFFERENCE



2017 ASLA-MN Merit Design Award



2017 Sustainable St. Paul Award  
Water Quality and Conservation



MAWD Presentation:  
Moody Lake Phosphorus Reduction

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# President's Report

by Ruth Schaefer, MAWD President

2017 will go down in MAWD's history as a real "watershed" year! After being served by Ray & Peg Bohn for the past two decades and their desire to begin to move into retirement, MAWD for the first time in its history appointed a Strategic Plan Committee and developed and adopted a strategic plan for MAWD's future. Many things have changed in the past 20 years, including our role as watershed managers. MAWD is increasingly being called upon to work with other local governments and state agencies to develop strategies for future water management for the state of Minnesota.

To that end the MAWD Board asked our members at our Membership Special Meeting in June to step up to the challenge by development of the resources needed for us to fulfil our leadership role in water management in Minnesota. With your agreement at that Special Meeting we are moving to a full time executive director with part time program manager and lobbyist. This structure will free up the ED to expand our work in critical areas of need and concern to watershed districts.

After meetings of the Transition Committee and Interview committee that received over 50 applicants, 8 finalist were interviewed, and 2 were recommended to the board for their final interview and appointment of our new ED.

I am pleased to announce that the MAWD Board has appointed Emily Javens, current administrator of the Yellow Medicine River WD as our new executive director (see insert). Emily will play an integral part in carrying out MAWD's mission of providing educational opportunities, information and training for watershed district managers and staff through annual training events and tours, a robust legislative advocacy program, organizing stakeholder meetings, and regularly communicating on best practices and relevant watershed management topics and policy issues. Please give her best wishes in her new position!

While this was an important first step, it is only the beginning and much more needs to be accomplished over the next several years to meet goals and objectives of our strategic plan.

Even with all of the transition activities we still had a successful Legislative Reception & Breakfast. It presents a great opportunity for all districts to come to the capitol and tell our story to those who represent us in the House and Senate. Thanks to all who attended and please review our final 2017 Legislative Update in this report for our highlights from the 2017 Session. Watch for more information on our 2018 Legislative Reception & Breakfast on March 7-8, 2018. Please place this date in your calendar so you don't forget!

The MAWD Summer Tour, while somewhat overshadowed by the MAWD Special Meeting was a huge success. The Bemidji and Leech Lake area hold tremendous water resources. It was very interesting hearing from water resource managers on how they work to preserve and protect their valuable resources.

Our 2018 Summer Tour will be in the west metro area. The Summer Tour Committee is already at work on the program for this urban water management tour. Please put June 20-22 on your calendar for our 2018 MAWD Summer Tour!

I would like to express my thanks to the entire MAWD Board of Directors and other member volunteers in helping us out in the transition process. It could not have been done without all your help!!

Also, I would like to acknowledge and thank MAWD Board Directors Perry Forster from the Riley Purgatory WD and Ben Kleinwachter from the Middle-Snake-Tamarac River WD for their service on the MAWD Board. We will miss their insight and leadership as they leave the MAWD Board.

The MAWD Board also extends its deepest sympathy to the family of Loren Harste, past manager from Upper Minnesota River WD and MAWD board member and past president.

Loren was a key person in the development of MAWD.

## MAWD Welcomes Emily Javens as Executive Director

Emily Javens was selected as Executive Director for MAWD beginning January 1, 2018.

Javens will draw on her experience in watershed management, organizational leadership, and background in water resources engineering and education in her new role.

Javens holds Bachelor of Science degrees in Civil Engineering and Earth Science & Mathematics Education from Minnesota State University, Mankato. She has experience working in the private sector as a consulting engineer, in education as a construction site erosion control certification instructor, and has held various roles in local government.

Javens currently serves as Administrator of the Yellow Medicine River Watershed District. In that role she served as a leader in the facilitation and development of one of the pilot One Watershed One Plans, a statewide effort that aligns local water planning on major watershed boundaries using statewide strategies to develop prioritized, targeted, and measurable implementation plans.

Javens replaces MAWD Coordinator Ray Bohn who will remain as MAWD's primary lobbyist.



# 2017 Board of Directors

## Minnesota Association of Watershed Districts

### OFFICERS

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*Secretary*

**Ruth Schaefer**  
**Perry Forster**

*Vice President*  
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**Jerome Deal**  
**Craig Leiser**



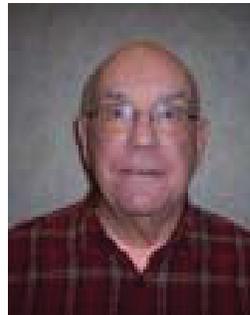
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trubador2@msn.com



**Peter Fjestad**  
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**Maddy Bohn**  
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[www.mnwatershed.org](http://www.mnwatershed.org)

# Visit the MAWD Trade Show

Arrowwood Exhibit - Convention Center

- **OVER THIRTY EXHIBITOR BOOTHS**
- WATERSHED DISTRICTS - Displays of watershed districts in action

## ***MAWD Welcome Reception - 8:00 p.m.***

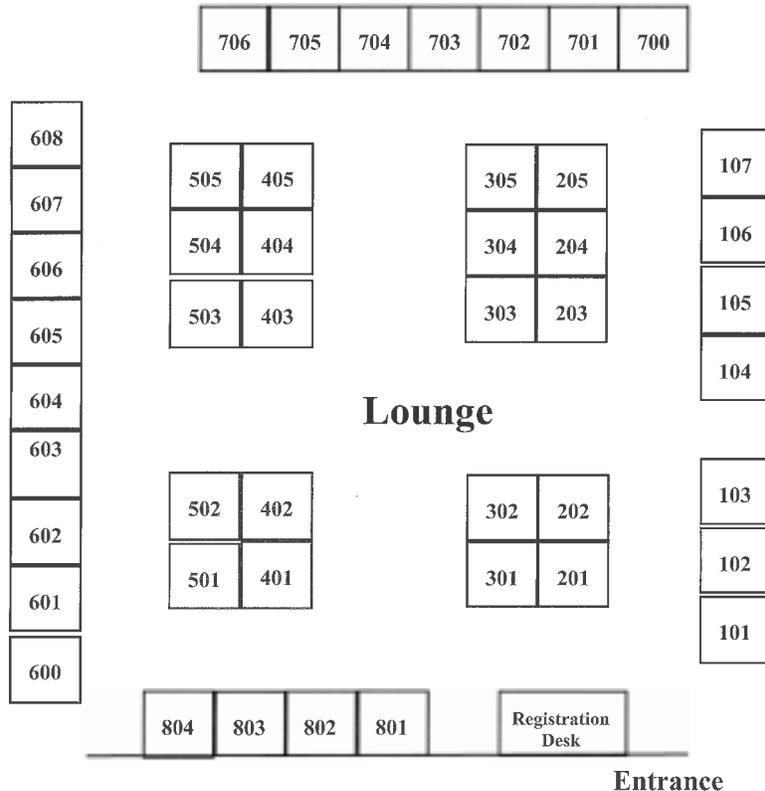
**Hors d'oeuvre - Cash Bar - Door Prize Drawings - Red Ticket**

**Friday - 8:30 to 4:00 p.m.**

- **Door Prize Drawings**  
**10:00 a.m. break - blue ticket**                      **3:00 p.m. break - white ticket**  
**Grand Prize - Two night stay at Arrowwood**

## **Trade Show Floor Map**

Trade Show Coordinator  
Heidi Buss  
Buss Productions  
Cell: 651-335-4915  
www.bussproductions.com  
Heidi@bussproductions.com



# Watershed District Booths

MAWD 107

Capitol Region 607

Riley Purgatory Bluff Creek 204

Make sure to visit  
[www.mnwatershed.org](http://www.mnwatershed.org)  
beginning of January  
2018 to see the new  
updated website!



**Social Media:** We invite you to Follow us on Twitter @mnwd46 and like us on Facebook Minnesota Association of Watershed Districts to keep updated with the latest news. The event hashtag is #mawd17. Type this hashtag in your tweets/posts, these social media efforts will help participants network and it will be easy to follow the conference.



## Visit the MAWD Trade Show - Exhibit Center



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# MAWD 2017 Annual Meeting & Trade Show

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P) 612 387 2413  
jim.merchlewitz@ads-pipe.com  
www.ads-pipe.com

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## Aquatic Informatics

Aquatic Informatics provides software solutions that address water data management, analytics and compliance challenges in the water industry.

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P) 602 810 0489  
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## Aquatic Restoration Services LLC

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## Barr Engineering Company

With offices in the US and Canada, Barr provides environmental and engineering consulting services to clients throughout the Americas and around the world

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102-103

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## Bio Clean, a Forterra Company

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## Brock White

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# MAWD 2017 Annual Meeting & Trade Show

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## Carp Solutions

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## Emmons & Olivier Resources, Inc.

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## HAB Aquatic Solutions

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P) 763-278-5965  
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## Houston Engineering, Inc.

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## // RESPEC CONFERENCE PRESENTATION

### Big Sioux River Flood Model Project (Friday, December 1 at 2-2:45 p.m.)

To protect people and property in the huge river basin, state and local decision-makers needed a high-accuracy, web-based inundation mapping tool to predict flood behavior, mitigate damage, and improve previous control methods. Cities and counties also needed a way to quickly and efficiently communicate details about the peak velocity and depth of flood waters within the inundated area to better manage emergency response activities.

RESPEC's Flood Information System allows users to predict river elevations and flood inundation under a range of stream flows and user-defined topographic conditions. Alternative topographic scenarios, mitigation strategies, and other ancillary information provide massive support for the most effective emergency management decisions during an extreme flood crisis.

# MAWD 2017 Annual Meeting & Trade Show

## Program Schedule

### Thursday, November 30, 2017

3:00 p.m. Director's Meeting - Executive Board Room II

6:00 - 8:00 p.m. Registration - Trade Show Floor - Exhibit Center

6:00 - 9:30 p.m. MAWD Trade Show Floor - Exhibit Center

### CONCURRENT GENERAL SESSION I

Thursday, November 30 at 7:15-8P.M.

#### ***Seminar A: Preventing the Spread of Aquatic Invasive Species (AIS) with a Collaborative Watercraft Inspection Program***

**Minnewaska**

Mike Sorensen - Comfort Lake-Forest Lake Watershed District (CLFLWD)

It is generally accepted that boater education is one of the best tools for preventing the spread of aquatic invasive species. As such, the CLFLWD, in partnership with Chisago County, manages a watercraft inspection program that continues to grow each year with generous support from a variety of partners. The 2017 program is currently on track to achieve more than 3,000 hours of inspections and more than 7,000 total inspections. A wide array of inspection survey data is analyzed at the end of each summer. For example, in 2016, inspections were performed on 314 watercraft coming from lakes containing AIS that are not currently found in CLFLWD lakes. Trends in drain plug violations, inspection rate, and previous lake of incoming watercraft were also observed. This presentation will highlight lessons that have been learned after more than five years of the CLFLWD's administration of the watercraft inspection program.

#### ***Seminar B: From Planning to Prioritizing, a Watershed District Story***

**Osakis**

Claire Bleser - Riley Purgatory Bluff Creek Watershed District (RPBCWD), Scott Sobiech - BARR Engineering, Greg Williams - BARR Engineering, Peggy Knapp - Freshwater Society, Michelle Jordan (RPBCWD), Josh Maxwell (RPBCWD), Erin Anderson-Wenz - BARR Engineering

Understanding that public support is critical for the efficient and effective operation of any government organization, the District emphasized public engagement and outreach throughout the development of their 10-year Plan. As a result, the issues identified and emphasized in their Plan are the direct result of stakeholder input. Furthermore, the results of the public engagement process identified "project prioritization" as an issue of high importance to stakeholders. Comments received at public meetings highlighted the difficulty in developing a clear and equitable method for project prioritization. To address this concern, the RPBCWD developed a proposed project prioritization method that allowed relative comparison of various watershed management type projects spanning across watershed boundaries and types of water resources (i.e. wetlands, creeks, lakes and groundwater). This prioritization tool allowed a method for scoring these projects based on multiple benefits with consideration for logistical factors (i.e. timing, partnership dollars and coordination with partners to name a few). The logistical constraints for high priority projects were taken into consideration in the development of a 10-year Management Implementation Program and were included in the District's 10-Year Management Plan to guide the District as they protect, restore and manage their water resources.

#### ***Seminar C: Grey Cloud Restoration***

**Miltona**

John Loomis and Andy Schilling - South Washington Watershed District

The Grey Cloud slough is a side channel of the Mississippi River in southern Washington County. Flow from the Mississippi River into the slough was cut off following construction of an earthen embankment and roadway across the mouth of the slough in the 1960s. As a direct result, the slough exhibits stagnation, poor water quality, and severely degraded backwater aquatic habitat. SWWD and its partners are currently replacing the embankment with a bridge to restore flow to the channel. The project will be complete in October and is expected to make immediate significant improvement to water quality within the channel. We will present project background, development, and funding as well as extensive visual documentation collected before, during, and after the project for project promotion.

## Thursday, November 30 - Continued

### *Seminar D: Staff Development*

#### ***Sustainable Stormwater Analysis for the Ford Site Redevelopment in St. Paul***

**Itasca**

Bob Fossum - Capitol Region Watershed District, Wes Saunders-Pearce - City of St. Paul  
Ford's former 122-acre Twin Cities Assembly Plant along the Mississippi River in St. Paul is in the process of being redeveloped over the coming years. Capitol Region Watershed District and the City of Saint Paul completed a Sustainable Stormwater Management Study, which defines the vision and lays the groundwork for future stormwater infrastructure, with one of the goals being to protect Hidden Falls. A centralized stormwater management approach was compared to a baseline parcel-by-parcel approach. Innovative tools for comparing feasibility costs, benefits, impacts and sustainability for the different options provided insights about the community value that redevelopment alternatives might generate. Sustainable Return on Investment (SROI) analysis using the software AutoCase allowed for monetizing the estimated environmental and social impacts of each alternative, thereby informing planning recommendations. The study outlines transformation of the Ford Site by featuring a stormwater-based amenity that reconnects the community to parks and the Mississippi River.

### ***MAWD Welcome Reception*** **Arrowwood Conference Site Exhibit Center - 8:00 PM**

## Friday, December 1

7:00 - 9:00 a.m. Breakfast Buffet - Exhibit Center

7:30 a.m. Resolutions Committee Meeting - Miliona A

8:00 a.m. Registration - Trade Show Floor - Exhibit Center

8:00 a.m. MAWD Trade Show Floor - Exhibit Center

### ***8:00 A.M. PLENARY SESSION I***

#### ***Climate Adaptation & Mitigation***

**Osakis/Minnewaska**

Erin Anderson Wenz - Barr Engineering Company

Our climate is changing and citizens are asking about what can be done to prevent it from getting worse and how to adapt. Some organizations and industries are being proactive on this front and preparing for extreme storm events. Others are overwhelmed by the possible extent of impacts. Watershed districts are addressing this difficult issue in many ways. From dealing with unprecedented flood events to developing adaptation plans, MN watershed districts are being proactive. This presentation will feature current work of several watershed districts, including the Riley Purgatory Bluff Creek Watershed District and the Ramsey-Washington Metro Watershed District. Examples include facilitating climate resilience workshops with local communities for them to plan for upcoming changes from storms, floods, heat, and warming winters. The results of these workshops will be incorporated into their 2018 City Comprehensive Plans. Other examples include modeling for the 95% confident limit storm from Atlas 14 to predict extreme event flooding, infrastructure vulnerability studies, and designing plant community restorations prepared for invasive species encroachment. This presentation will provide several examples of climate adaptation projects initiated by watershed districts.

CONCURRENT TECHNICAL SESSION - MN Association of Watershed Administrators (MAWA)

9A.M. - 10A.M.

**Itasca**

#### ***A. Developing an Education and Outreach Plan Through Community Engagement and Need Identification***

Michelle Jordan and Claire Bleser - Riley Purgatory Bluff Creek Watershed District

As part of the ongoing process of updating its watershed management plan, the Riley Purgatory Bluff Creek Watershed District (RPBCWD) developed an associated Education and Outreach Plan (E&O Plan). The objective of the E&O Plan is to improve water quality within RPBCWD by leveraging the power of an engaged community to effect positive, meaningful change. In creating the E&O Plan, RPBCWD sought to craft messages and programs that would be meaningful to its audiences. To accomplish this, it needed to better understand the needs and interests of its community. A series of community meetings and surveys were conducted. The information gathered from stakeholders was interpreted, and community needs identified. This was then used to create a set of E&O strategies and guiding questions. Informed by this engagement process, the final plan seeks to build capacity to protect clean water by partnering with stakeholders to create a network of watershed champions.

## Friday, December 1 - Continued

### ***B. Cost Analysis of Water Quality Standards in Minnesota***

**Vermillion**

Greg Wilson - Barr Engineering, Andy Henschel - Shell Rock River Watershed District

Barr Engineering and Bolton and Menk recently completed an analysis of the overall capital and operating costs to maintain and upgrade wastewater and storm water systems for existing water quality standards, and well as recently adopted, proposed or anticipated changes to water quality standards for total suspended solids, nutrients, chloride, nitrate and sulfate on behalf of Minnesota Department of Management & Budget. The results showed that there could be significant cost implications for several cities/utilities across the state, with Albert Lea being one of the more notable examples that will be discussed in this presentation. This presentation will also include estimates of the incremental effect on receiving water quality, as well as the relative cost-effectiveness and affordability, based on the number of residential and commercial connections to treatment systems.

### **MAWD BUSINESS MEETING**

**Osakis/Minnewaska**

9A.M. - 10A.M.

Presiding – President Ruth Schaefer

President’s Report- Ruth Schaefer, President

Secretary’s Report – Barb Haake, Secretary

Treasurer’s Report – Craig Leiser, Treasurer

Presentation of 2018 Proposed Budget – Craig Leiser

Bylaws Committee Report – Barb Haake, Chair

BWSR Report – John Jaschke, Executive Director

Introduction of New Executive Director – Ruth Schaefer

### **SPOUSES GARDENING WORKSHOP - 9:30A.M. - 11:30A.M. - Lake Cafe**

Create your own Holiday Centerpiece (materials provided)

Come ready with your gardening questions for Master Gardener,

Tami Gallagher, Home Sown Gardens!



*Restorative care for your garden and soul!*

10:00 A.M. Break - Exhibit Center - Door prizes - Blue Ticket

10:30 A.M. Resolutions Committee Report - Osakis/Minnewaska

11:30 A.M. Regional Caucuses

Region I     Miltona B&C

Region II    Miltona A

Region III   Osakis

### **12:15 Luncheon - Ballroom**

**DNR Watershed District of the Year and BWSR Employer of the Year**



#### **Keynote Speaker, Jeff Peterson**

Jeffrey M. Peterson is the Director of the University of Minnesota’s Water Resources Center, a partnership of University Extension and the College of Food, Agricultural, and Natural Resource Sciences. As Director, he provides overall leadership for the center’s outreach, teaching, and research activities involving faculty and students across the university. He also holds a faculty appointment as a professor in the Department of Applied Economics. He earned his Ph.D. from Cornell University in agricultural and resource economics. Prior to coming to Minnesota he held a faculty position in the Department of Agricultural Economics at Kansas State University for 15 years, including service as Director of Graduate Studies from 2014 to 2015. He is the recipient of national awards for his research on environmental policy analysis, focusing on water use and water quality impacts from agriculture. He currently serves as an editor of the Journal of Agricultural and Resource Economics.

## Friday, December 1 - continued

### CONCURRENT GENERAL SESSION II

2:00 - 2:45P.M.

#### ***Seminar A: Measuring the Success of Shallow Lake Management in Anderson Lakes*** **Osakis**

Randy Anhorn - Nine Mile Creek Watershed District and Janna Kieffer - Barr Engineering

Prior to 2008, Anderson Lakes (Northwest, Southwest, and Southeast) located in the Nine Mile Creek watershed were suffering from poor water quality due to excess phosphorus loading (watershed and internal) limiting the lake health and native plant communities. Release of phosphorus from the lake bottom sediments was also adding phosphorus, resulting in algal blooms and poor water clarity. In 2008, the Nine Mile Creek Watershed District (NMCWD) performed upstream pond improvements and a drawdown of Northwest and Southwest Anderson Lakes to address invasive Curlyleaf Pondweed. In 2012, the NMCWD conducted a buffered alum treatment of Southwest Anderson Lake to immobilize the phosphorus at the lake bottom. These shallow lake management techniques successfully controlled Curlyleaf Pondweed, surpassed phosphorus reduction and water clarity expectations and significantly improved the aquatic plant community.

#### ***Seminar B: Flood Prediction to Improve Planning in Southwestern Minnesota*** **Miltona B & C**

Jason Love and Jared Oswald - RESPEC

The Big Sioux River Basin, located in South Dakota and southwestern Minnesota, has historically experienced flooding. A 2014 flood revealed a lack of understanding of flood events. State and local governments need accurate hydrologic and hydraulic model of the basin to predict the severity of floods and to implement appropriate flood reduction projects. This hydrologic and hydraulic study will provide this information. The resulting system will predict impacted areas under a range of flood scenarios. A one-stop web-platform will provide access to flood conditions, forecasts, visualizations, inundation maps, and applications. Real-time and historical conditions will be available by streaming data from automated sensors, gauges, and weather forecasts. The system includes a rainfall-runoff forecast model to provide a flood risk estimate at critical locations and to assess impacts of flood management strategies. Users will obtain a relative understanding of the current and forecasted conditions in relation to flood response actions.

#### ***Seminar C: Moody Lake Adaptive Management Project*** **Miltona A**

Emily Heinz and Mike Kinney - Comfort Lake-Forest Lake Watershed District,  
Meghan Funke - Emmons & Olivier Resources

Moody Lake is on the impaired waters list for eutrophication due to excess phosphorus. The CLFLWD is in the final stages of a multi-year, multi-phase, adaptive management approach to reducing phosphorus loads to Moody Lake. Following completion of a TMDL, the District conducted intensive monitoring of tributary inlet streams to target the primary sources of phosphorus from the watershed. This resulted in excavation of phosphorus-laden soil from a degraded wetland and several small pond alum treatments to address legacy livestock loads. A fish barrier and aerator were also installed to control in-lake carp. The final phase will be a whole-lake alum treatment to address internal phosphorus loading. The combination of these projects should result in Moody Lake reaching a summer average phosphorus concentration of 40 g/L. Total estimated project cost is approximately \$1,021,500. Total lifetime phosphorus reduction is 18,025 pounds (\$57/lb).

#### ***Seminar D: Staff Development: Why is Watershed Phosphorus Loading So Stubbornly Persistent?***

Joe Bischoff - Wenck Associates

**Minnewaska**

The traditional paradigm for reducing phosphorus loading from watersheds is to build or utilize nutrient sinks by settling phosphorus in stormwater ponds and wetlands. The primary assumptions in this approach is that phosphorus is permanently sequestered once it reports to pond or wetland sediments. Recent evidence for stormwater ponds and wetlands suggest that sediments expected to permanently sequester are releasing phosphorus to surface waters, offsetting any new efforts aimed at reducing watershed phosphorus loading. Further exacerbating the problem, phosphorus released from sediments is in dissolved forms that are not removed by traditional practices and can directly result in excessive algal blooms. Wenck analyzed ponds and wetland sediments from watersheds in the Twin Cities Metropolitan Area that receive stormwater to characterize their potential to release previously sequestered phosphorus. Results of these studies demonstrate that many sediments are high in mobile phosphorus and have the potential to offset watershed nutrient reduction efforts.

**2:45-3:15 PM Break - Exhibit Center - White Ticket**

## Friday, December 1 - Continued

### CONCURRENT GENERAL SESSION III

3:15 - 4:00P.M.

#### ***Seminar A: Innovative Drone Aerial Services for Watershed Management***

**Miltona**

Dr. Michael Vogt, Mr. Mark Vogt, Mr. Mark Lundquist - North American Robotics

Watershed management typically relies upon large-scale human-intensive sampling of waters and associated vegetation. Techniques often employed were established many decades ago, and few replacement technologies have been both practical and cost-effective. But, specialized near-remote sensing provided by professionally-operated small unmanned aircraft systems (UASs) or “drones”, can deliver dramatically more watershed condition information to improve: performing maintenance, diagnosing problems, evaluating remediation's, and communicating risks to residents. Three services in particular have been developed and refined over the past five years and are ready to improve key aspects of watershed management: lake algae photogrammetric inspections - to spatially track blooms during alerts, synthetic water clarity gradient mapping - to augment spot sampling and evaluate complex surface waters, and drainage ditch surveying to improve their maintenance and planning. Results from these services are high-resolution specialized maps and 3D models that on-demand capture conditions, and their rates-of-change.

#### ***Seminar B: Conditioned Digital Elevation Models - Scale Matters***

**Minnewaska**

Charles Fritz - International Water Institute, Houston Engineering

The MN Legislature requires Clean Water Fund project sponsors to prioritize, target, and measure projects at watershed scale to ensure public accountability. Watershed and Soil and Water Resource Districts are developing geospatial data and state-of-the-art planning methods to establish goals and strategies to fulfill this requirement and appropriately manage Minnesota's water and soil resources. The most important and useful geospatial data is a hydro-conditioned digital elevation model (DEM). The DEM must be altered to accurately reflect surface water movement through an editing process that removes “digital dams.” Products derived from hydro-conditioned DEMs are used to varying degrees in to advance business needs of local watershed and soil and water resource districts. Explore how the scale of a hydro-conditioned DEM can affect the application of derived products for planning and implementation efforts.

#### ***Seminar C: Longevity and effectiveness of alum to restore lake water quality***

**Osakis**

Greg Wilson, Keith Pilgrim, Kevin Menken - Barr Engineering and Diane Lynch - Prior Lake Spring Lake WD (PLSLWD)

Sediment phosphorus release is a pervasive problem in nutrient-impaired lakes. Guidance for watershed (external) phosphorus controls is abundant, but there is no guidance on in-lake phosphorus controls. In-lake alum treatment has been used in Minnesota for nearly 30 years to reduce sediment phosphorus release, but it is poorly understood and judgement of alum-treatment success is wide-ranging. With increasing lake temperatures and ever-expanding impaired waters listings for eutrophication, there is urgency to develop a better understanding of alum treatment and its role in mitigating these conditions. Barr has completed a comparative analysis for PLSLWD, and published papers that have advanced the understanding of the use of alum to reduce internal phosphorus loading. This presentation will discuss results of these analyses, explain those factors that can optimize the longevity of in-lake alum treatments in Minnesota and present a checklist of considerations for future planning and assessment.

#### ***Seminar D: What Does Lake Restoration Look Like? Balancing Water Clarity Goals and Aquatic Plants***

Matt Kocian - Rice Creek Watershed District (RCWD)

**Nokomis**

Lake restoration goals are often straightforward and typically involve reducing nutrient loading by a certain amount. Ultimately, managers aim to meet state nutrient standards, thus reducing algal blooms and supporting lake recreation. But what happens when lake restoration and lake recreation conflict? Nearly 25 years after Marten Sheffer and others conceptualized the idea of “alternate stable states” in lakes, watershed managers and lake residents are grappling with the desire (and mandate!) to improve water clarity, and the impact to recreation due to increases in lake plants. This presentation will document two lake restoration projects: Silver Lake, located in the City of St. Anthony, and Bald Eagle Lake, located in White Bear Township. Both experienced significant improvements in water clarity and increases in aquatic plants following restoration efforts. The restoration projects, changes in lake chemistry and ecology, public outreach efforts, and public responses will be presented.

## Friday, December 1 - Continued

4:00 - 4:15 Break - Lower Foyer

### CONCURRENT GENERAL SESSION IV

4:15-5:00P.M.

**Miltona**

#### ***Seminar A: Getting it done Wright! Lessons Learned from the First Regional AIS Inspection Station***

Alicia O'Hare - Wright Soil and Water Conservation District and Chris Hector - Greater Lake Sylvia Association

Regional inspections were not a new idea, but they were never done before. A couple organizations considered it but no program ever got off the ground. But three lakes in Wright County finally had the chance to give it a try from October 11-31st, 2017. From securing the grant to outfitting the inspectors there were plenty of challenges along the way. But through the challenges came the data, and we got a little insight as to how to continue the program into 2018.

#### ***Seminar B: Building Innovative, Credible Watershed Plans***

**Minnewaska**

Rachel Olm - Houston Engineering, Margaret Johnson - Middle Fork Crow Watershed District (MFCWD)

Success from a watershed planning effort should not be defined by a completed plan. Rather, success should mean the completed plan is locally credible, and is used to actually implement the most cost-effective practices consistent with landowners business needs, to address resource issues locally-important to the community. Developing this credible plan requires engagement from all stakeholders in the watershed: agricultural producers, urban residents, lakeshore property owners, and more. The One Watershed, One Plan (1W1P) creates the platform to develop innovative, credible, implementation-focused plans. The North Fork Crow River 1W1P incorporates methodologies to both define altered hydrology and set measurable goals for mitigating impacts of a hydrologically-impacted watershed. The plan also pilots a "land stewardship" concept, which sets the framework for claiming good work already being done by rural, urban, and shoreland residents, and encourages field walkovers to increase information exchange and implementation of additional structural and nonstructural management practices within the watershed.

#### ***Seminar C: Iron-Enhanced Sand Filter Performance for Removing Phosphorus from a Regional Stormwater Pond***

Maddie Vargo, Bob Fossum and Britta Belden - Capitol Region Watershed District (CRWD)

**Osakis**

William Street Pond is a stormwater pond located in Roseville, MN. The pond receives stormwater from the surrounding urbanized residential neighborhood and discharges to Lake McCarrons, a 75-acre deep lake. Capitol Region Watershed District (CRWD) regards the phosphorus inputs to the lake as a high priority for improvement efforts. In 2011, CRWD installed two iron-enhanced sand filter benches (IESF's) at the pond's outlet, which remove dissolved phosphorus via surface sorption to oxidized iron. To assess the efficacy of the IESF's, CRWD collected influent and effluent water quality samples from 2013 to 2016 and analyzed them for multiple phosphorus species. Most samples taken showed a reduction of phosphorus. Further, effluent samples showed consistent, low concentrations for both phosphorus species regardless of influent concentrations. This suggests that the William Street Pond IESF's are reducing the amount of phosphorus entering Lake McCarrons. Monitoring will continue at William Street Pond to further analyze performance.

#### ***Seminar D: Staff Development: Permit Enforcement Techniques & Troubleshooting***

**Nokomis**

Forrest Kelley - Capitol Region Watershed District (CRWD), Nicole Soderholm - Ramsey Washington Metro Watershed District (RWMWD), Maggie Karschnia - Prior Lake Spring Lake Watershed District (PLSLWD)

Struggling with repeat permit violators? Wondering what enforcement tools other watershed districts are using to reach compliance? This session will highlight different permit enforcement approaches & protocols used by two seasoned watershed districts that handle 30+ new permits every year. Multiple real-world examples and differing approaches to permit enforcement will be discussed. An overview of permit programs and enforcement techniques throughout Minnesota watershed districts will be presented based on a state-wide survey. This session is designed to provide you with new ideas and skills to successfully enforce your permits and to reach quicker compliance with permittees. There will be an opportunity at the end of the session to have an open discussion on common violation problems and successful resolutions. Participants may send in questions in advance to [mkarschnia@plslwd.org](mailto:mkarschnia@plslwd.org) -or- bring questions to the session.

## Friday Evening

6:00 P.M. Social Hour - **Ballroom**

7:00 P.M. Banquet Dinner

7:45 P.M. MAWD Awards

2017 Watershed Program of the Year

2017 Watershed Project of the Year

8:15 P.M. Entertainment - The High 48's



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## Saturday, December 2, 2017

**7:00 - 9:00AM Breakfast**

**Ballroom**

**Plenary Session II - 9:00 A.M.**

**Osakis/Minnewaska**

### *Buffer Law Enforcement Update Field Progress*

Presenters: John Jaschke, BWSR, Justin Hanson, Mower SWCD and Cedar River Watershed District and Get the latest update on the Buffer Law Enforcement program and how it is progressing from BWSR's viewpoint, and how it is working from the perspective of the Mower County SWCD and Cedar River Watershed District.

### **MAWD Business Meeting Conclusion**

**Osakis/Minnewaska**

10:15 A.M.

Presiding: President Ruth Schaefer - Agenda

Agenda (continued)

Administrative Report – Ray Bohn, Coordinator

Resolution Committee – Barb Haake, Chair

Watershed District Administrators Report – Scott Henderson

Bylaws Committee – Barb Haake, Chair

2018 MAWD Budget Approval – Craig Leiser, Treasurer

Region Caucus Reports

Auditor's Report – Craig Leiser, Treasurer

Introduction of new Board members

MAWD 2018 Annual Meeting

11:30 A.M. Meeting Adjourned

Board of Directors meet for reorganization at noon or fifteen minutes after adjournment - Board Room II

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# 2016 Award Winners

## Project of the Year

### Bald Eagle Lake Restoration Rice Creek Watershed District



From left: Steve Wagamon, Mike Bradley, Barbara Haake, Phil Belfiori, Matt Kocian, Gerald van Amburg and John Waller

#### Bald Eagle Lake Restoration in Rice Creek WD

Bald Eagle Lake, located in the northeast metro area, suffered from severe algae blooms. Phosphorus and algae concentrations regularly exceeded state standards by a factor of three, and the lake was listed as 'impaired'. Using an innovative mix of funding sources, including a Clean Water Fund grant, a Clean Water Partnership loan, and a locally-petitioned special tax district, the Rice Creek Watershed District completed several major projects. First, the RCWD partnered with local homeowners to install approximately 16 neighborhood raingarden and shoreline restoration projects. Next, the RCWD and the City of Hugo acquired a Clean Water Fund grant to complete a multi-purpose stormwater re-use project. Finally, the RCWD and the Bald Eagle Area Association completed the State's largest aluminum sulfate treatment. The results have been remarkable. Algae blooms are non-existent, and Bald Eagle Lake is meeting state water quality standards for the first time since water monitoring began in 1980.

## Program of the Year

### River Rally and WaterFest Education Programs Sauk River Watershed District



From left: John Magedanz, Dennis Ritter and Lee Bautch, Scott Henderson, Gary Barber, Jason Scherping, Duane Willenbring and Ruth Schaefer.

#### WaterFests/River Rallies Sauk River WD

Protection of natural resources needs to start at an early age to be effective. Environmental education integrates various core fundamentals including science and math and introduces how human activities can affect our natural resources. A key component to the District's education program is WaterFests / River Rallies. WaterFests / River Rallies are outdoor classrooms in which local environmental agency professionals communicate with students on various water-related topics, such as the role of wetlands, water properties, and pollution issues.

Within the District, every fourth-grade student is invited to participate in a water-based festival. In 2016, over 5,500 fourth grade students and 750 volunteers participated in one of the various water festivals offered throughout the District.

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## Minnesota Department of Agriculture Water Research

The Minnesota Water Research Library is a user-friendly, searchable inventory of water research publications and project reports relevant to Minnesota.

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## **Red River Retention Authority**

The Red River Retention Authority assists watershed districts in MN and ND with planning and implementation of retention projects in the Red River Basin.

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Alum floc formation during application on Lake Riley. May 2016

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## Riley Purgatory Bluff Creek Watershed District named District of the Year

The Riley Purgatory Bluff Creek Watershed District was awarded District of the Year award at Minnesota Association of Watershed Districts Annual Meeting.



**Pictured left to right are staff member Michelle Jordan; board member Mary Bisek; DNR Ecological and Water Resources Division Director Luke Skinner; District Citizens Advisory Committee member David Ziegler; board members Richard Chadwick; Jill Crafton; staff member Zach Dickhausen; board member Leslie Yetka; board president Perry Forster; District Administrator Claire Bleser and staff member Josh Maxwell.**

The Riley Purgatory Bluff Creek Watershed District has existed since 1969. To be considered for the award, a district must be nominated by a DNR area or regional hydrologist.

“The district is honored to be recognized by the DNR, and looking forward to continuing the work of protecting, managing, and restoring water resources in the years ahead,” said Perry Forster, president of the district’s Board of Managers, in the release.

In 2016, the watershed district implemented 10 projects including its first ever creek restoration, and a spent-lime filter that removes phosphorus pollution from stormwater. The district collaborated with 19 partner organizations in its work including the DNR, local cities, and counties. Other accomplishments that were noted were the district’s efforts to engage the community in the process of updating its watershed management plan, and its success in seeking over \$300,000 in grants, the release said.

## Myron Jesme recognized by BWSR as Watershed Employee of the Year

**John Jaschke, BWSR Executive Director presents the Watershed Employee of the Year Award to Myron Jesme.**



The Minnesota Board of Water and Soil Resources (BWSR) has named Myron Jesme, district administrator for the Red Lake Watershed District, the 2016 Outstanding Watershed District Employee of the Year.

Jesme, of Thief River Falls, began working for the Red Lake Watershed District in 2003, having previously worked for 20 years for what was then known as the Middle River-Snake River Watershed District. As district administrator, Myron is the key point of contact for the largest watershed district in the state.

A leader in the region, he has successfully developed and maintained positive relationships with state and federal agencies, the Red Lake Band of Chippewa Indians, multiple local units of governments, nongovernmental organizations, and the public.

Over the years, those relationships have been key to the Watershed District's ability to get projects on the ground. Jesme has been instrumental in the completion of multiple largescale District projects, one of the most impressive of which was the \$7.25 million restoration of the Grand Marais Creek Outlet, completed in late 2015.

# 2017 Legislative Update

## Ray Bohn

The 2017 Legislative Session and Special Session ended early Friday morning, May 26th. All budget bills, policy bills, a bonding bill, and a tax bill were all sent to the Governor for final action. He did approve all of the budget bills, vetoed the Labor Standards bill because of a local government prohibition on mandating minimum wages higher than the state. In addition, the Governor line item vetoed the House and Senate's budget for the next two years, \$32 million per year per body. The Governor indicated he vetoed the legislative budget because he wanted to go back and revisit some provisions in the Tax, Education and Public Safety bills. He was particularly upset that the legislature included a provision in the State Government bill that would have denied funding for the Dept. of Revenue if he failed to sign the Tax Bill.

### **Environmental and Natural Resources Finance & Policy Bill (HF844, Chapter 93, Regular Session)**

The budget article of this legislation appropriated a one-time \$300,000 appropriation for Wetland Conservation Act efficiencies including 404 Assumption explorations. It also included legislation appropriating part of the Riparian Aid for Buffers Enforcement of \$2 million per year to counties and watershed districts who elect jurisdiction for buffer law enforcement.

In addition, the bill include \$240,000 per year for aid to the Lower MN River WD to help defray the annual cost of operating and maintaining sites for dredge spoils for the MN River channel.

\$166,000 per year was also appropriated to provide technical assistance to local drainage management and the cost of the Drainage Work Group. Rider language requires the Work Group to evaluate and make recommendations to accelerate drainage system acquisition and establishment of buffer strips under MS103E or compatible alternative practices required by 103F.48.

There were several policy language changes/clarifications to the buffer language:

- Keeps the original deadlines intact - 11/1/17 for public waters and 11/1/18 for public drainage ditches
- Recognizes that some farmers may have hardships with meeting the date (such as weather) – so added language allows for an eight-month extension for implementation if needed. The bill language says: A land-owner or authorized agent that has filed a parcel-specific riparian protection compliance plan with the soil and water conservation district by November 1, 2017, shall be granted

a conditional compliance waiver until July 1, 2018.

- Authorizes use of common alternative practices so land-owners and local governments can tailor sitespecific options for water quality improvements comparable to the required buffer.

**Wetland Conservation Act:** The legislation includes updates pre-settlement wetland definitions and broadens the ability of wetland mitigation to happen in more meaningful areas. This language was requested by the Rice Creek WD and MAWD. It was supported by BWSR and will be folded into the MN Rule Chapter 8420 update currently in progress. Legacy Bill Clean Water Fund:

The Legislature appropriated \$95.5 million CWF dollars to BWSR for FY18-19. In addition to grant programs, the appropriation includes \$22 million for soil and water conservation district capacity funding and \$5 million in cost-share for buffer and alternative practice implementation. The \$22 million can be paid back to the Clean Water Fund through the tax bill, if there is positive revenue forecast for Minnesota's budget next November. The governor has stated his expectation that the restoration of this funding will restore the remainder of his 2017 recommendations, including \$17.25 million for CREP, The Governor's expectation does not follow the recommendations of the Clean Water Council on how that money should be spent.

The Capital Investment bill (Bonding Bill), HF6, Chapter 8, 2017 Special Session; included several provision important to watershed districts. Two BWSR programs received capital investment funds this session: \$5 million for the Local Roads Wetland Replacement Program and \$10 million for CREP. The DNR received \$11.55 million in flood hazard mitigation funding. Of this amount, \$1,700,000 was earmarked for the Cedar River WD, \$750,000 for the city of Browns Valley Project, and \$1,800,000 for the city of Ortonville project. The ear-marked funding can be shifted to other projects if the DNR Commissioner determines the recipients are not ready to spend the money, thus making it available for other potential projects on the DNR Project List.

Tax Bill includes three provisions related to conservation work:

- Payback of \$22 million to the Clean Water Fund, if there is positive revenue forecast for Minnesota's budget next November. The governor has stated his expectation that the restoration of this funding will restore the remainder of his 2017 recommendations, including \$17.25 million for CREP.

## 2017 Legislative Update continued

- Riparian Aid to counties and watershed districts to enforce the buffer law (\$6 million in FY18 and \$8 million in FY19 and ongoing).

### Other Funding

#### Local Roads Wetland Replacement Program

The statutorily mandated wetland program is in deficit because of long-term funding gaps. Earlier this year, Governor Dayton signed into a law a one-time \$5 million cash infusion (general fund) to re-open Wetland Bank Service Areas and allow local projects to move forward. The additional \$5 million bonding appropriation does not meet the full \$15 million program need, so BWSR will need to make additional requests next year to close that gap.

### CREP Program

The Governor's 2017 recommendations for the Conservation Reserve Enhancement Program (CREP) funding totaled \$85.23 million. As detailed below, final session appropriations are \$61.48 million. BWSR, legislators, and partners will look to the 2018 legislative session to secure the remaining amounts needed for a successful CREP.

#### CREP Fund: Appropriation Origination:

Environment & Natural Resources Trust Fund (LCCMR)	\$ 6.0 m, \$13.5 m
Clean Water Fund	\$16.25 m
Outdoor Heritage Fund	\$15.731m
Bonding	\$10.0m
Total CREP 2017 Session	\$61.481m

### Riparian Aid

With the tax bill and general fund appropriations, counties and watershed districts have \$8 million available in year one and \$10 million in year two (and thereafter) for enforcement of the buffer law. If a county or watershed district chooses not to accept enforcement responsibilities, then it falls to the state (BWSR) for enforcement and that share of funding. BWSR certifies jurisdiction and the Department of Revenue will distribute funds. Please see the BWSR guidance memo on this process sent out last Friday and MAWD memo sent out Wed., Jun 7 with our recommendations.

### EQB Membership Changes

The legislature added to the EQB membership by mandating one person is appointed from each of Minnesota's eight congressional districts. Those public members presently serving will continue to serve.

## Minnesota Association of Watershed Districts Treasurer's End of Year Report November 1, 2016 - September 30, 2017

	Actual 11/01/16 to 9/30/2017
<b>REVENUE</b>	<b>9/30/2017</b>
Dues	117,590
Interest	111
Annual Meeting	52,068
Summer Tour	21,469
Drainage Seminar	5,595
Trade Show Fees	22,250
Legislative Breakfast	8,325
ADA Training	775
Managers Training/Basic Water Mgmt Fees	2,950
Communication/Public Education	2,720
Staff Development	
Other	
Associate Membership Income	
<b>TOTAL REVENUE</b>	<b>233,854</b>
<b>EXPENDITURES</b>	
General Administration & Lobbying Fees	62,311
Program Manager Fees	33,750
Executive Director Hiring	1,609
AIS Symposium Co-hosting	
Round Table Participation	1,896
Lobbyist, Administrative Expenses	3,647
Supplies & Equipment	679
Dues, Other Organizations	
Telephone, Conference Calls	509
Committee Meeting/Work Per Diem/Expense	19,512
Directors Meeting Expenses	1,440
Payroll Taxes	684
Legal Fees	1,308
Accounting and Audit Fees	4,100
Watershed District Handbook	1,361
Liability Insurance	1,645
Leadership & Development, Surveys	
WD Messaging/PR	
Website/Social Media/Internet Expense	1,460
Credit Card & Bank Charges	3,323
ADA Seminar Expenses	339
Trade Show Expenses	6,322
Annual Meeting Expenses	39,208
Summer Tour Expenses	16,000
Legislative Breakfast Expenses	7,045
Communication/Public Education	2,271
Aquatic Invasive Species Conference	
Drainage Seminar Expenses	1,817
Managers Training Expenses	580
Memorials	
Salary Survey	
<b>TOTAL EXPENDITURES</b>	<b>212,815</b>
<b>REVENUES OVER EXPENDITURES</b>	<b>21,039</b>
<b>BEGINNING NET ASSETS</b>	<b>125,888</b>
Change in net assets	21,039
<b>ENDING NET ASSETS</b>	<b>\$ 146,927</b>
<b>ASSETS, CASH AND EQUIVALENTS</b>	<b>154,113</b>
Deposits received, 2017 annual meeting	(4,799)
Liabilities, accounts payable, taxes payable	(4,359)
Deferred costs paid, liability insurance 2017	
Deferred costs paid, annual meeting	1,972
<b>ENDING NET ASSETS</b>	<b>146,927</b>

# MAWD Legislative Breakfast and Day at the Capitol

March 7-8, 2018

Embassy Suites - 175 10th Street E - St. Paul, MN 55101

*Wednesday, March 7*

- *MAWD Board Meeting*
- *MAWA Meeting*
- *Legislative Briefing/Reception*

*Thursday, March 8*

- *Legislative Breakfast*
- *Visit with legislators*

## MAWD Summer Tour

June 20-22, 2018 - West Metro Area



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# Partners in protecting our most precious resource

Houston Engineering, Inc. (HEI) has long partnered with Minnesota watershed districts to manage one of our most precious resources: water. For nearly 50 years, we have complemented traditional water resources engineering and environmental science with expertise in the emerging areas of GIS and web applications.

As regulations and policies evolve, HEI helps watershed districts navigate the changes. Most recently, we've taken a leading role in One Watershed, One Plan (1W1P) guidance and implementation across Minnesota by partnering with watershed districts to develop these groundbreaking pilot projects.

HEI is proud to present at this year's MAWD Annual Meeting and Trade Show sharing recent innovations and stories of powerful watershed management. Visit our booth and website to learn more.

## HEI & Partner Presentations

**Thursday, November 30**

**9:30am | Risk Management through the Reestablishment of Public Drainage Records** *Chris Otterness (HEI) with Rinke Noonan*

**Friday, December 1**

**4:15pm | Building Innovative, Credible Watershed Plans** *Rachel Olm (HEI) and Margaret Johnson (Middle Fork Crow River Watershed District)*

[houstoneng.com](http://houstoneng.com)



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At Barr, we're committed to providing honest answers for solving our clients' problems as if they were our own. With more than 70 engineers and scientists engaged in lake, stream, and wetland management, our depth and breadth of water resources professionals in Minnesota is unmatched, allowing us to provide you with comprehensive water management solutions.

- watershed planning and group facilitation
- water quality (TMDL) studies and implementation
- river and stream restoration
- flood protection
- aquatic plant management
- green infrastructure planning and design

