

# **MAWD 2016 Annual Meeting & Trade Show**

**December 1-3, 2016**

**Arrowwood Conference Center  
Alexandria, MN**

**MINNESOTA  
ASSOCIATION OF  
WATERSHED  
DISTRICTS, INC**



*Land and Water Shall be Preserved*

# *Your Invitation!*

**Minnesota Association of Watershed Districts**

**2016 Annual Meeting & Trade Show**

**Arrowwood Conference Center**

December 1-3, 2016

## **Introduction**

The MAWD 2016 Annual Meeting & Trade Show offers a strong seminar program to meet the needs of watershed district officials, staff and key watershed district partners.

**MAWD program includes:**

- ◆ *Four general concurrent sessions*
- ◆ *Two technical seminars*
- ◆ *Total of sixteen different seminars*
- ◆ *Four staff development seminars*
- ◆ *Trade Show with over 40 exhibitors*
- ◆ *Thursday evening Welcome Reception*
- ◆ *Door prizes!*
- ◆ *Three pre-conference workshops Thursday, December 1*

# MAWD 2016

## Annual Meeting & Trade Show

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# **Minnesota Association of Watershed Districts**

## **2016 Annual Meeting & Trade Show**

**December 1-3, 2016**

Arrowwood Conference Center, Alexandria, MN

### **Registration**

**MAWD Annual Meeting Registration form on page 19 - due November 18**

**Registration fee - \$185.00 per person includes all conference meals for registrant.**

**There is no registration fee for spouses/guests but spouses should pre-register for the Bake and Take Cookie workshop and pay the \$10 fee.**

Meal package or banquet tickets for spouse/guest are available on the registration form - page 18.

**Late registration** (postmarked after November 18) fees are **\$200.00** per person.

\$25 processing fee on all refunds. No refunds after November 25, 2016

Arrowwood Conference Center

2100 Arrowwood Lane

Alexandria, MN 56308

Arrowwood Reservation Form

Page 19

Hotel Reservation deadline

November 20

### **NOTICE:**

*The MAWD Board wishes to remind members that watershed districts are not permitted to cover expenses for spouses and guests. This is in accordance with recent State Auditor findings and the Minnesota Constitution which states "taxes shall be uniform . . . and shall be levied and collected for public purposes."*

# MAWD 2016 Annual Meeting & Trade Show

## Program Schedule

### Thursday, December 1, 2016

|           |                    |                         |
|-----------|--------------------|-------------------------|
| 2:00 PM   | Director's Meeting | Executive Board Room II |
| 6-9:00 PM | Registration       | Trade Show Floor        |
| 6-9:00 PM | MAWD Trade Show    | Tennis Center           |

### **7:15 - 8:00 PM      Concurrent General Session I**

#### **Seminar A:    Pump & Treat Iron Enhanced Stormwater Treatment in a Neighborhood Setting**

*Presenters:    Karen Kill, Brown's Creek Watershed District Administrator  
                   Ryan Fleming, Emmons and Olivier Resources  
                   A BCWD Board Manager*

McKusick Lake, located in Stillwater MN, was listed on the 303(d) impaired waters list for nutrient concentration which inhibits aquatic recreation. To address dissolved phosphorous loading from the Brown's Creek watershed, locations to implement an iron enhanced sand filter were evaluated. The site chosen for the application of this then-new technology is a city owned stormwater pond located in a residential neighborhood west of downtown Stillwater, MN. By using an automated pump station, drainage from a stream with a 1,200 acre suburban watershed is directed into a filter within the pond. Programming allows the pump to operate for 22 hours following rain events and increases in stream water levels, and to allow sufficient drying and iron oxidation of the filter after each event. Pumped and treated stormwater is returned to the stream through an outfall located approximately 700 feet downstream of the pump station. Given the project is located adjacent to a city trail; stormwater education and outreach are important components of the project. Throughout the project, neighborhood meetings were conducted to obtain buy-in on the project by neighboring residents, educate the neighborhood on the system components, as well as address any concerns with the aesthetics or performance of the project. Construction was completed in 2013. Automated sampling and water quantity monitoring has been conducted at both filter influent and effluent locations since 2014. The filter efficiency has remained consistent, averaging 82% total phosphorus removal.

#### **Seminar B:    Mapping the Improvement of Urban Subwatersheds to Improve Water Quality**

*Presenter:    Lucius Jonett , Wenck Associates Inc.  
                   Jon Morales, Middle Fork Crow River WD*

Middle Fork Crow River Watershed District received an Accelerated Implementation Grant to complete a two part public stormwater assessment project to identify and prioritize stormwater BMP projects within the watershed. A watershed wide, stormwater water quality analysis was completed to identify areas where runoff pollution is the worst within the city limits of New London and Spicer, MN where the impervious areas were evaluated with P8 (Program for Predicting Polluting Particle Passage thru Pits, Puddles, & Ponds – an urban catchment analysis model) modeling within the watershed areas to understand where the poor water quality "hotspots" are. With the hotspots identified, stormwater Best Management Practice (BMP) projects were evaluated, conceptually located and sized to model water quality improvements. Construction estimates and a cost benefit analysis of project costs and water quality improvements will help the District prioritize future implementation of the recommended BMPs to make significant and efficient improvements to the watershed water quality. This presentation will walk through the project watershed models & results, the process of locating stormwater BMP conceptual designs, the final prioritized list of recommendations and how the hotspot map is and will change with the implementation of projects. The presentation will also evaluate how the partnership of District and consultant staff throughout the process helped strengthen the field reconnaissance and local presence as data was gathered from the cities, counties and District as well as collecting history from landowners and the District board.

**(Thursday, December 1, 2016)**

**Seminar C: Addressing increased flows in the Minnesota River watershed**

*Presenters: Steve Woods, Carrie Jennings, Brian Bohman, Freshwater Society*

Southern Minnesota rivers have exhibited a significant increase in annual flows over the last several decades. The Lower Minnesota River Watershed District (LMRWD) manages the lower 35 miles of the Minnesota River, from Carver to the confluence with the Mississippi. This narrow reach is like the bottom of a funnel and bears the brunt of what happens upstream in 90% of the rest of this primarily agricultural watershed. The district is responsible for maintaining a navigable channel to the port in Savage from which agricultural products reach their market and agricultural chemicals are delivered. In 2016 LMRWD engaged the Freshwater Society to synthesize what is known about changes in flow and demonstrate how increased sedimentation in this reach has been the unintended result of land-management practices. There have been other attempts to facilitate consensus on management strategies but existing organizations and structures are of insufficient scale and the problems seem to vary depending on location in the watershed. However the over 13,000 eroding parcels along bluffs in the upper watershed and the .5" of sediment layered each year in the channel in the lower watershed have a common cause: increased flows. The LMRWD is interested in facilitating the creation of more upstream water storage to address both of these issues.

**Seminar D: Staff Development: Stormwater Pond and Wetland Performance Study in the Ramsey-Washington Metro Watershed District**

*Presenters: Erin Anderson Wenz, Barr Engineering Company*

*Tina Carstens, Administrator, Ramsey-Washington Metro Watershed District*

When inadequately maintained, the water quality treatment performance of stormwater ponds and wetlands in urbanized areas can degrade over time due to sedimentation. To help member cities prioritize pond and wetland assessment efforts for maintenance, the Ramsey-Washington Metro Watershed District (District) conducted a modeling exercise that utilized existing water quality (P8) models of the District to (a) determine the relative water quality impact of modeled stormwater ponds and wetlands on downstream water bodies and (b) estimate how quickly ponds and wetlands may be filling in due to sedimentation. By comparing and ranking the relative water quality impact and rate of sedimentation of all modeled ponds and wetlands, an assessment prioritization list was created for all four hundred ten (410) modeled ponds and wetlands within the District. Assessment prioritization lists were distributed to member cities and will be used to help guide pond and wetland maintenance efforts. Additionally, a volume sensitivity analysis was performed on the top thirty highest priority ponds and wetlands in the District to generate a cost-benefit analysis for sediment management (i.e., dredging). Modeled pond and wetland storage volumes were reduced to simulate the impact of sedimentation, and a cost benefit analysis was performed based on the change in pollutant (phosphorus) removal and cost to dredge the sedimentation volume. The cost-benefit of sediment management was then compared to other capital improvement projects within the District. The assessment prioritization methodology, sediment management cost-benefit analysis and feedback on the tool from member cities will be presented.

# Welcome Reception

8:00 PM Trade Show Floor

**Exhibitors, food and prizes**

## **Friday, December 2, 2016 Programming**

|                  |                                      |                         |                      |
|------------------|--------------------------------------|-------------------------|----------------------|
| <b>7:30 AM</b>   | <b>Resolutions Committee Meeting</b> |                         |                      |
| <b>8:00 AM</b>   | <b>Registration</b>                  | <b>Trade Show Floor</b> | <b>Tennis Center</b> |
| <b>8:00 AM</b>   | <b>MAWD Trade Show</b>               |                         | <b>Tennis Center</b> |
| <b>7-9:00 AM</b> | <b>Breakfast</b>                     |                         | <b>Tennis Center</b> |

### **8:00 AM Plenary Session - Strategic Plan Committee Report**

#### **9:00 AM MAWD Business Meeting** Presiding: President Lee Coe

|   |                                |
|---|--------------------------------|
| President's Report                              | Lee Coe                        |
| Secretary's Report                              | Barbara Haake                  |
| Treasurer's Report                              | Craig Leiser                   |
| Strategic Plan Committee Report & Consideration | - Craig Leiser & Perry Forster |
| Recommended Budget                              | Craig Leiser                   |
| BWSR Report                                     | John Jaschke, Director         |

### **9:15-10 AM Association of District Administrators Technical Sessions**

#### **Seminar A: Bixby Park Water Quality Improvement Project**

*Presenter: Mike Kinney, Comfort Lake-Forest Lake Watershed District*

Completed in 2016, the Bixby Park Water Quality Improvement Project involved the modification of an existing ditched wetland complex in Bixby Park, Forest Lake. The project increased the interaction between the natural floodplain and the wetland, increased water storage capacity of the wetland, and improved wildlife habitat by restoring disturbed wetland areas with native vegetation. Models suggest that the project will reduce down-stream phosphorus loading by 206 lbs/yr and total suspended solids by 55,000 lbs/yr. These reductions will help restore and protect Comfort Lake, and by extension, the St. Croix River drainage basin. This project was inspired by a 2010 petition from Chisago County to develop a regional stormwater management facility for the treatment of phosphorus-laden urban runoff from the City of Forest Lake. The project was funded by a Clean Water Fund Grant in 2014 for the amount of \$306,760. To ensure the project's integrity, the District developed a cooperative agreement with the City of Forest Lake to implement the project on city-owned land, and worked closely with them throughout the entire process. To inform the public of this major project, the District submitted a detailed press release to local newspapers, and informational project fact sheets were mailed to nearby homeowners. The footage from two UAV flights documenting the project site were shared on the District's social media accounts.

#### **SEMINAR B. Examining the Red River Algal Community to Understand Eutrophication in High Turbidity Waters**

*Presenters: Julie Blackburn and Bruce Wilson, RESPEC*

The International Red River Board (IRRB) identified excess nutrients as an important issue in the Red River due to the hyper-eutrophic conditions in Lake Winnipeg as well as the degraded water quality of the river itself. The IRRB determined that the best approach to developing nutrient targets for Red River of the North (RRN) would be to understand the biological stressor-responses for nutrients, suspended sediments and other parameters. Experts provided input on the development of a conceptual stressor-response model and determined that phytoplankton and periphyton were the most appropriate biological community for the study. A lack of data prompted the development of a plan for collecting periphyton, phytoplankton, and water quality data from 30 sites from the headwater to the mouth of the RRN. Overall, a stressor effect from excess nutrients was documented for both the quantity and quality of the algal community and observed throughout the gradient of the river. However phytoplankton results indicated a reduced abundance due to excessive turbidity (light limitation) in portions of the river. The response of the periphyton community to the nutrient gradient resulted in delineating nutrient targets of 0.15 milligrams per liter (mg/L) for TP and 1.15 mg/L for TN as nutrient criteria for the Red River of the North. Exploration of watershed effects in the stressor-response model indicate anthropogenic disturbances may be more critical than water quality parameters in determining algae variance.





## **Friday, December 2, 2016 Programming continued**

### **Seminar B: Developing a Stormwater Reuse Irrigation Assessment Planning Tool to Reduce Reliance on Groundwater**

*Presenters: Phil Belfiori (Rice Creek Watershed District),  
Catherine Nester (Rice Creek Watershed District),  
Mark Deutschman (Houston Engineering, Inc.),  
Rachel Olm (Houston Engineering, Inc.),  
Kate MacDonald (Houston Engineering, Inc.),  
Drew Kessler (Houston Engineering, Inc.)*

The majority of communities in the Twin Cities metropolitan area rely on groundwater as their primary public water supply. In recent years, there has been growing concern over the sustainability of pumping groundwater at current and projected rates and its effect on groundwater supplies in the area. Using a Clean Water Fund grant from the Board of Water & Soil Resources, the Rice Creek Watershed District has developed a watershed-scale planning tool (Stormwater Reuse Irrigation Assessment) to identify and prioritize potential locations suitable for stormwater reuse irrigation projects. Identifying and prioritizing potential reuse sites provides the opportunity to increase implementation of these projects, with the ultimate goal of reducing groundwater consumption. Using the tool, technically feasible sites are identified through a calculated ratio of the total contributing drainage area to the minimum drainage area required for sufficient runoff to meet the irrigation demands of the site. Sites that are identified as technically feasible are then prioritized using qualitative criteria that identify possible impacts (beneficial and adverse) of potential sites. The assessment was designed and is intended to be available for statewide use.

### **Seminar C: Runoff-Based Drainage Assessment GIS Application**

*Presenters: Charles Fritz & Grit May, International Water Institute  
Zach Herrmann and Jun Yang, Houston Engineering  
Al Kean, Board of Water & Soil Resources (BWSR)*

The Runoff Based Assessment Model provides drainage authorities with an alternative to assess ditch maintenance and repair costs. The method uses geographic information systems (GIS), terrain analysis methods, and available geospatial data to assess parcels within the watershed based on their relative runoff and sediment contribution to the ditch system. The method was applied in three MN pilot ditch systems to compare and contrast parcel assessment results from traditional viewing methods.

### **Seminar D: Staff Development: Urban School Retrofits: Sending Stormwater to Detention**

*Presenter: Anna Eleria, Planning, Projects and Grants Program Manager at CRWD*

Capitol Region Watershed District (CRWD) has worked with several schools to install innovative stormwater management projects that improve water quality and provide education opportunities for students. Installing stormwater treatment at urban schools can be challenging due to limited space, large impervious areas, maintenance requirements, and the need to preserve usable space for students. Overcoming these challenges requires planning and participation from the school community. Through grants and design assistance CRWD was able to work with four urban schools to retrofit stormwater BMPs on challenging sites. The BMPs provide benefits beyond stormwater management including improved aesthetics, wildlife habitat, and reduced urban heat island effect. The sites include: • Central High School – permeable pavers, tree trenches, rain gardens, and underground infiltration gallery with water sampling wells • Great River School – parking lot converted to play space (pavement left in place to cap contaminated soil), rainwater harvesting for irrigation, and proprietary underground membrane filter system • Twin Cities German Immersion School – underground rate-control structure upgraded to infiltration system, multiple rain gardens, and permeable rubberized outdoor play surface • Harambee Elementary – Multiple rain gardens including conversion of parking lot island to treat large parking lot These projects demonstrate how stormwater treatment at schools can occur even with severe site constraints. School retrofits improve water quality and provide real world demonstrations that can be integrated into curriculum for a variety of subjects. The success of recycling programs is largely due to students learning about its importance in school, and that success can be replicated with stormwater!

## **Friday, December 2, 2016 Programming continued**

**3:15 - 4:00 PM**                      **Concurrent General Session III**

**Seminar A:     Evaluating Floodplain Vulnerability and Communicating Flood Risk**

*Presenters:     Brandon Barnes, Barr Engineering  
                      Claire Bleser, Riley Purgatory Bluff Creek Watershed District*

Flooding or not flooding? Are we prepared for the future? RPBCWD developed flood profiles the late-1970s that considered full development to anticipate future impacts on the flood elevations in an effort to protect residents. However, recently NOAA released updated precipitation frequency estimates (Atlas 14) where the 100 year, 24 hour rainfall depth in RPBCWD increased by approximately 25%. Predictions of future rainfall depths indicate the 100-year precipitation depth will likely continue to increase from 7.4 to 10.2 inches (or more) of rain in 24 hours. Assessment results identified resilient areas (i.e., flood risk to structures and crossings was not sensitive to change in rainfall depths), and areas where flood elevations are sensitive to rainfall depths. Flood-risk figures were developed in partnership with local municipalities to inform communities of current and estimated future flood risk. Local municipalities have found the figures helpful and would like to further engage with the District to build on the initial evaluation. This information provides the RPBCWD and local municipalities a water management tool that looks at how future climate change can impact infrastructure but also helps the District and municipalities to identify locations for flood risk mitigation projects.

**Seminar B:     Drainage Records Modernization - GIS Database**

*Presenters:     Brian Fischer, HEI*

The BWSR has supported drainage records modernization for Chapter 103E drainage systems for many years, including coordinating development of Drainage Records Modernization Guidelines, Sep. 2008 and providing cost-share to drainage authorities for this purpose, when available. The stakeholder Drainage Work Group has promoted drainage records modernization, including the guidelines and cost-share. Drainage records modernization efforts to date began the development of GIS databases for managing Chapter 103E drainage system records. A 2014 LCCMR grant to BWSR enabled development of a GIS database template for use by drainage authorities, updating of the Drainage Records Modernization Guidelines and development of a statewide GIS database for hydrographic data about Chapter 103E drainage systems. This project builds upon experience and products developed through prior drainage records modernization efforts and is compatible with DrainageDB. The database template and updated guidelines will provide a consistent, high quality database for use by Chapter 103E drainage authorities and staff. The statewide database will provide a repository for hydrographic data about Chapter 103E drainage systems provided by users of the database template and accessible by planners and modelers for water management in Minnesota.

**Seminar C:     Planning to Mitigate Altered Hydrology with Multiple Benefits**

*Presenters:     Kerry Netzke, Area II  
                      Emily Javens, Yellow Medicine River Watershed District  
                      Julie Blackburn, RESPEC*

The Yellow Medicine One Watershed Plan was one of the first five One Watershed, One Plan pilot projects in the state. The plan is unique in that it addresses mitigating altered hydrology and preventing future flooding as one its primary concerns. It does so while prioritizing multiple benefits in order to address the plan's other two priorities of reducing pollutant transport and protecting and preserving groundwater quality. The plan uses the Hydrologic Simulation Program – Fortran (HSPF) Scenario Application Manager (SAM) to first prioritize subwatersheds for targeting efforts as well as identify best management strategies best suited for addressing the goals. In order to reduce future impacts, the plan also identified extensive actions for improving the effectiveness of regulatory controls. This session will highlight the process for identifying altered drainage as a priority, how the implementation plan was developed to address this goal, the regulatory tools outlined to reduce future impacts, and how the measurable goals were determined.

## **Friday, December 2, 2016 Programming continued**

### **Seminar D: Staff Development - Irrigate, Infiltrate, Automate: Stormwater Reuse at Upper Villa Park**

*Presenter: Forrest J. Kelley, PE., Regulatory Division Manager, CRWD*

Capitol Region Watershed District (CRWD) and the City of Roseville, through two State grants, constructed a 60,000 cubic foot underground stormwater infiltration system combined with a 13,000 cubic foot modular concrete cistern to harvest and use stormwater for irrigation of a high-use softball field at Upper Villa Park in Roseville, MN. The project protects Lake McCarrons, a high quality recreational lake within the urban core of the Twin Cities, and the Villa Park Wetland System by capturing stormwater runoff and filtering the pollutants associated with urban stormwater. In addition to removing approximately 45 pounds of TP annually, the system will save up to 1.3 million gallons of drinking water by capturing and using rainwater to irrigate the softball field. The system uses real time technology to actively manage the water level in the cistern. Prior to a rain storm, software programmed to communicate with weather forecasts and level sensors within the rainwater cistern open an automated valve to drain the cistern into the underground infiltration pipes and capture more stormwater. The valve closes after the storm and fills the cistern to provide irrigation for the softball field. To determine effectiveness of infiltration practice pollutant removal, three pan-lysimeter wells were installed at depths of 3, 5, and 7 feet below the perforated pipes.

4:00 -4:15 PM Break

Downstairs Lobby

### **4:15-5:00 PM Concurrent General Session IV**

#### **Seminar A: Stormwater BMPs at Watershed Offices: Design Solutions, Maintenance Challenges & Educational Opportunities**

*Presenters: Erica Sniegowski, Nine Mile Creek Watershed District  
Paige Ahlborg, Ramsey-Washington Metro Watershed District  
Matt Kumka, Barr Engineering Company*

Stormwater best management practices (BMPs) at watershed district offices provide demonstration sites for solution driven designs and rich opportunities for public engagement. Districts have been able to use these sites to expand outreach, connect with new audiences, and provide easy access to multiple BMPs at one location. On the flip side, there are also maintenance challenges associated with the upkeep of these demonstration sites. Challenges range from staff capacity to do maintenance, budgetary considerations, animal browse on plants, to BMP lifespan concerns, and beyond. During this presentation, learn about the practical implications and lessons learned from operating watershed district office demonstration sites, including maintenance challenges, design solutions and educational opportunities.

#### **Seminar B: Old Dog, New Tricks: Revised Approaches to Lake TMDLs for Better Results**

*Presenter: Geoff Kramer and Bruce Wilson, RESPEC*

As a whole, Minnesota has been completing TMDL studies on lakes for many years which leads to a lot of collective expertise and standardized approaches. However, new modeling tools have increased the precision of watershed loading estimates, new research sheds light on the importance of wind and resuspension in understanding internal loading, and adjustments to standard lake assessment tools may provide for improved understanding of shallow lake dynamics. This discussion will highlight several recently completed and current TMDLs, including shallow lakes in the northern, forested region of the state contrasted with those in the growing metropolitan area. Also included will be a discussion on what we have learned so far from the Lake of the Woods project – the largest lake TMDL in the state. Recent studies conducted by the St. Croix Research Station, Science Museum of Minnesota and University of Wisconsin – Stout provide tremendous amount of data to reexamine approaches to estimating internal loading and resuspension rates as well as aerobic vs anoxic release rates and an analysis of wind speed and calm days as foundational pieces to this TMDL and calibration of the BATHTUB model. This session will shed light on new information and approaches that can be used for lake TMDLs across the state.

## **Friday, December 2, 2016 Programming continued**

### **Seminar C: Updated Minnesota Public Drainage Manual**

*Presenters:* Tim Gillette, BWSR  
Larry Kramka, Houston Engineering

The first update of the Minnesota Public Drainage Manual (MPDM) since it was published in September 1991 is nearing completion. The Legislature provided funding to the BWSR in 2014 to update the MPDM along with the Understanding Minnesota Public Drainage Law (UMPDL) document. Through a competitive process, a partnership of Houston Engineering, Inc. and Rinke Noonan Attorneys was contracted to lead the update process, in coordination with BWSR. This project involves substantial updating of the MPDM, with input, review and comment provided through a Project Advisory Committee (PAC) and four chapter subcommittees of stakeholders, as well as communication with the stakeholder Drainage Work Group. The updated MPDM is to be available on the BWSR website in a Wiki format to enable easy searching of the document, and future maintenance of the MPDM

### **Seminar D: Staff Development:**

#### **GIS as an educational tool: ESRI Story Maps Tell the Watershed Story**

*Presenters:* Stephanie Johnson, PhD, PE, Mississippi Watershed Management Organization  
Nathan Campeau, PE, Barr Engineering Co.

Geographic information systems (GIS) have long been used as a tool by watershed organizations for planning and communications purposes, from the days of maps drawn on mylar to advanced webmapping technology. Whether maps were placed in hard copy format in flood control feasibility studies or embedded on a watershed's website to show their water resources of concern, the integration of GIS and the narrative often resulted in a static and awkward product. To provide a more seamless storytelling experience, better suited to communicating with the public, ESRI recently introduced the Story Map concept, which allow interactive maps to be combined with narrative text, images, and multimedia content in a highly mobile-enabled platform. A Story Map to tell the story of one watershed, a 2,100-acre urban watershed that includes Fridley, Columbia Heights, and Hilltop was developed. The Story Map helps the public connect themselves and their neighborhood with their water resource (the Mississippi River) and stormwater infrastructure (much of it buried). MWMO Outreach staff plan to use this tool and narrative in the organization's Stormwater Park and Learning Center and at neighborhood events to educate their residents about the importance of clean water, complete with a call to action.

**6:00 PM Social Hour - Cash Bar**

**7:00 PM Association Banquet**  
**MAWD Awards**  
**Entertainment**  
**Charlie Roth**



Featuring the music of Charlie Roth, an internationally acclaimed American folk musician with roots in Lac qui Parle County. Americana, Folk, Blues, Country, Celtic, Charlie Roth is a unique blend of all these genres. What Charlie is best at is telling a story with his rich baritone vocal, acoustic guitar, rack harmonica, and foot percussion. His fifth album 'Broken Ground' reached up to #6 on the Euro Americana charts and continues to get air play all over the world.

## **Saturday, December 3, 2016 Programming**

**7-9:00 AM Breakfast**

**Ballroom**

### **8:00 AM Plenary Session - Watershed District Buffer Enforcement**

**Presenters: David Weirens & Tom Gile, BWSR**

Watershed District buffer compliance enforcement, including jurisdiction election, compliance enforcement responsibilities, the BWSR APO and enforcement plan, watershed district rule review, and related topics will be covered.

**10:00 AM - 10:15 AM Break**

### **10:15 AM MAWD Business Meeting continued**

|   |                         |
|---|-------------------------|
| Presiding:                                | Lee Coe, President      |
| MAWD Administrative Report                | Ray Bohn, Coordinator   |
| MAWD Resolution Committee -               | Larry Kuseske, Chair    |
| MAWD Strategic Plan consideration -       | Lee Coe, President      |
| MAWD 2017 Budget Approval                 | Craig Leiser, Treasurer |
| Regions Reports                           | Region Representatives  |
| Watershed District Administrators' Report | Matt Moore              |
| Final Report on Attendance                | Ray Bohn, Coordinator   |
| Audit Committee Report                    | Craig Leiser, Treasurer |
| MAWD 2017 Annual Meeting                  | Lee Coe, President      |

# 2016 MAWD PRE-CONFERENCE SESSIONS

Arrowwood Conference Center - Alexandria  
Thursday, December 1 - 9:00 AM to 4:00 PM

*For Managers, Administrators, Staff, Key Partners and local and state government officials*

Name/Title: \_\_\_\_\_

Organization: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

**Pre-Conference Seminar Registration** - Please return this form before November 18.

**Please select one seminar**

Includes workshop, registration packet, coffee breaks and lunch.

- |                          |  |             |
|--------------------------|--|-------------|
| <input type="checkbox"/> | <b>Minnesota Drainage Workshop</b>   | <b>\$85</b> |
| <input type="checkbox"/> | <b>Basic Watershed Board Management Workshop</b>   | <b>\$85</b> |
| <input type="checkbox"/> | <b>Understanding the Art of Facilitation:<br/>Effective Practices for Public Processes</b> | <b>\$85</b> |

## Credit card registration at [mnwatershed.org](http://mnwatershed.org)

**Advanced Registration** is recommended - on-site registration subject to availability.

**Lodging:** Rooms reserved (one night \$98.23 with tax) for Wednesday, November 30, 2016 at Arrowwood  
Phone: 320-762-1124 for reservations. Please reference the MAWD Pre-Conference Sessions.

**Cancellations:** Refund only if cancellation received by November 25, 2016. Substitutes may be sent.

Registration questions please call 651-452-8506 or email: [pegbohn@gmail.com](mailto:pegbohn@gmail.com).



# 2016 MAWD Pre-Conference Session

Arrowwood Conference Center - Alexandria  
Thursday, December 1 - 9:00 AM to 3:30 PM

## **Understanding the Art of Facilitation: Effective Practices for Public Processes**

**9:00 AM -3:30 PM (lunch and breaks provided)**

Too often we our spend our precious time, money, and energy trying to convene people who are central to our work, such as neighborhood groups, lake associations, professional staff, and decision-makers. We need them to be knowledgeable and interested, but getting them to stay engaged is often challenging.

This workshop will immerse participants in the art of facilitating groups and group dynamics, as well as fostering leadership from within to address the water issues we face. We'll explore worldview, reflective listening, asking powerful questions, and embracing creative chaos.

Participants will leave with concrete skills and practices that can be used to educate and engage audiences, support program development, foster creative problem solving, and foster community engagement in your work.

*Presenters: Peggy Knapp, Director of Programs – Freshwater Society*

*Leslie Yetka, Program Manager – Freshwater Society*

*Jen Kader, Program Manager – Freshwater Society*

**Register on page 14**

# 2016 MAWD Pre-Conference Session

Arrowwood Conference Center - Alexandria  
Thursday, December 1 - 9:00 AM to 4:00 PM

## **Basic Watershed Board Management Workshop**

This workshop will be presented by BWSR staff and watershed district administrators. Open to new and experienced managers.

### **Agenda:**

#### **9:00 AM Welcome, Introductions, and YOUR chance to shape the agenda**

#### **Watershed Districts, BWSR, and the World**

Your WD is just one organization in a world full of state, federal, non-profit, citizen, and municipal interests with their own mandate to work for the public good. It really helps to know why you exist and what others around expect you to do and not do.

#### **Watershed Districts' Legal Powers and Purposes**

Managers have their own compact chapter of law—MN Statutes Ch. 103D. You can also play a big role in public drainage systems codified in MS 103E. The bottom line is that you can do quite a bit with the help of your staff if you choose to. We'll cover basic authorities, expectations, funding abilities, and even water management districts (stormwater utilities).

#### **The Value of Your Watershed Management Plan**

Every organization on the planet from the Cub Scouts to the US Army has some sort of strategic plan to guide them. WD plans set priorities, outline tactics, and explain where the tax money will come from. You'll hear a bit about the process, more on what goes in these things, and then find YOUR plan's proposed actions. Plans with details help attract outside funding which your taxpayers will appreciate.

### **LUNCH**

#### **Your Role as Leader**

Your county appointed you to the Board and probably expects you to make sure the organization does more than just exist. This section covers a few skills managers need to make the organization you lead excel—after all, it's your name on the board of directors... There are plenty of examples of districts that have had things go south on them. You don't want to go there. We'll share some horror stories if time allows.

#### **Government Basics – the Open Meeting Law, Data Practices Act**

We won't have an attorney on hand so our ability to go deep on these topics is low. This area has had a lot of manager interest so we'll do our best—then tell you to have your attorney provide a refresher for you. Suffice it to say, the public and private sectors operate differently. (Hold secret strategy meetings if you want to learn the hard way...)

#### **What Haven't We Covered?**

We have covered many required topic areas. There are still others that contribute to the art of "boardsmanship". Any remaining time before we adjourn will be used to address questions you still have and to share a few stories from the trenches...

**Adjourn 4:00PM**

**Register on page 14**



# 2016 MAWD Pre-Conference Session

Arrowwood Conference Center - Alexandria  
Thursday, December 1 - 9:00 AM to 4:00 PM

## Minnesota Drainage Workshop

8:00 a.m. **Registration**

9:00 a.m. **Minnesota Public Drainage Manual Update – Outcomes and Insights**

*Presenters: Project Team Members from BWSR, Houston Engineering, and Rinke-Noonan*  
What, where and how to find and use the updated Minnesota Public Drainage Manual (MPDM), along with some key insights from the update process about drainage law, applicable case law and issues regarding drainage and drainage law.

10:00 a.m. **Break**

10:15 a.m. **Buffer Law Implementation – Key Updates for Watershed Districts and Counties**

*Presenters: Bill Huber, DNR; Tom Gile, BWSR*  
An overview about: Buffer Protection Map status and plans for future maintenance; BWSR implementation policies and guidance; watershed district model buffer protection rule; county model buffer protection ordinance; and other pertinent information regarding compliance jurisdiction.

11:30 a.m. **Drainage Records Modernization Database Project – Products**

*Presenters: Tim Gillette, BWSR; Brian Fischer, HEI*  
This LCCMR-funded project developed a drainage records GIS database template for use by Chapter 103E drainage authorities, based on prior experience to date. It also developed a database on the MN Geospatial Commons data portal for drainage system hydrographic data from users of the template, and it updated the Drainage Records Modernization Guidelines.

12 Noon **Lunch**

1:00 p.m. **Current Drainage Work Group Discussion Topics**

*Presenter: Al Kean, BWSR*  
Summary of current topics of discussion and direction.

1:20 p.m. **Runoff-Based Drainage Assessments GIS Prototype**

*Presenter: Charles Fritz, International Water Institute; Zach Herrmann, HEI*  
Overview and discussion about a prototype GIS method developed as a proof of concept using relative runoff and sediment delivery as key variables associated with Chapter 103E drainage system repair projects. Development involved coordination with the Drainage Work Group.

2:15 p.m. **Break**

2:30 p.m. **Drainage Water Management in Minnesota – Recent Research and Demonstration**

*Presenters: Mark Dittrich, Heidi Peterson, Jeppe Kjaersgaard, MDA*  
An overview of recent research and demonstration for controlled subsurface drainage, saturated buffers and woodchip bioreactors. This work and the results involve Discovery Farms and other landowners, the UMN, the Agricultural Research Service, several grant sources, and other partners.

3:30 p.m. **CWF Multipurpose Drainage Management Grant Projects**

*Presenters: Tim Gillette, Al Kean, BWSR;*  
Presentation and discussion about partnerships between drainage authorities and Soil and Water Conservation Districts for erosion control, peak flow reduction, sedimentation reduction and water quality improvement for Chapter 103E drainage systems, including on-field practices.

4:00 p.m. **Conclusion**

**Register on page 14**

Minnesota Association of Watershed Districts  
**2016 Annual Meeting & Trade Show**

**Registration & Meal Form**

**DUE: NOVEMBER 18, 2016** Please use one form per party:  
Copy as needed. Names of all attendees must be submitted.

- **Skip the mailman and register online at [www.mnwatershed.org](http://www.mnwatershed.org)**

**December 1-3, 2016      Arrowwood Conference Center**

2100 Arrowwood Lane, Alexandria, MN 56308

Name: \_\_\_\_\_

Title (manager, commissioner, etc.): \_\_\_\_\_

Organization: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip \_\_\_\_\_

Phone: (Day) \_\_\_\_\_ (Evening) \_\_\_\_\_ Email \_\_\_\_\_

Name of spouse/guest (no registration fee) \_\_\_\_\_

**2016**  
■■■■■■■■  
**All meals are included in registration fee!**  
**Spouse meal package for purchase**

- **ADA Meeting (Administrators Only) = \$ 25.00**      \$ \_\_\_\_\_
  - **Registration \$185.00 per person = \$185**      \$ \_\_\_\_\_  
**this includes all meals for the registrant**
  - **Spouse meal package - all conference meals = \$ 85.00**      \$ \_\_\_\_\_
  - **Banquet only = \$ 35.00**      \$ \_\_\_\_\_
  - (Late registrations postmarked after Nov. 18, 2016 = \$200.00 per person)
  - \$25 refund processing fee before Nov. 25. No refunds after November 25, 2016.
- Registration and spouse meal total \$ \_\_\_\_\_**
- **Register online at [www.mnwatershed.org](http://www.mnwatershed.org)**

Please make check payable to Minnesota Association of Watershed Districts and return with this form by November 18 to:  
Minnesota Association of Watershed Districts  
540 Diffley Road  
St. Paul, MN 55123      Questions: phone: 651-452-8506 or email [pegbohn@gmail.com](mailto:pegbohn@gmail.com)

# Hotel Reservation Form

## December 1-3, 2016 - Arrowwood Conference Center

**Please note:** Please register for the MAWD Annual Meeting on the Registration Form.  
**This form does not register you for the MAWD Annual Meeting.**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip \_\_\_\_\_

Phone: (Day) \_\_\_\_\_ (Evening) \_\_\_\_\_ Email \_\_\_\_\_

**Please send completed form to Arrowwood by November 21, 2016.**

(Phone reservations not accepted - fax or mail only.)

Send to: 2100 Arrowwood Lane, Alexandria, MN 56308 Fax: 320-762-0133 Phone: 866-386-5263

**Lodging** - deadline November 21, 2016 • One form per party please - copy as needed.

### ASK FOR THE MAWD BLOCK OF ROOMS

- Please select **one room plan** per party.
- The room rates are for 1-4 persons
- All guest rooms are now non-smoking
- Big Splash Indoor Water Park discount tickets at \$10 per person per day are available for MAWD.

**Lodging I**      Thursday and Friday - December 2-3      \$193.46

**Lodging II**      One night only      \$98.23

**Townhouse units:** per bedroom/night plus tax      \$98.23

Select Unit Type desired:     3 bedroom/3bath       4 bedroom/3bath  
 (No elevators. Specify a first floor unit)

Cottages     2 bed-1bath     4 bed-2bath     6 bed-3bath      \$98.23

**Guaranteed Payment:**    \_\_\_ Visa/MasterCard    \_\_\_ American Express    \_\_\_ Other

Card Number: \_\_\_\_\_ Exp. Date: \_\_\_\_\_

Signature: \_\_\_\_\_

All rooms must be guaranteed. Individual reservations cancelled within 72 hours of the scheduled arrival date will be charged one night lodging on the date of cancellation. Check-in time is 4:00 PM. Checkout time is 12:00 noon.



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# **Minnesota Association of Watershed Districts**

## **2016 Annual Meeting & Trade Show**

### **December 1-3, 2016**

#### **2016 MAWD Pre-Conference Sessions - December 1, 2016**

- **Minnesota Drainage Workshop**
- **Basic Watershed Board Management Workshop**
- **Understanding the Art of Facilitation:  
Effective Practices for Public Processes**