



19TH ANNUAL
WATERSHED
CONFERENCE

MARCH 6-7, 2018
LAMBEAU FIELD



FOX - WOLF
WATERSHED ALLIANCE



2018 Schedule

TUESDAY, MARCH 6TH

8:00 - 8:30am **Registration/Continental Breakfast**

8:30 - 8:45am **Welcome! (North Balcony)**

Jared Schmidt, Past President, Fox-Wolf Watershed Alliance

8:45 - 9:35am **Opening Session - Fox-Wolf Watershed: On the Road to Recovery**
(*Jessica Schultz, Fox-Wolf Watershed Alliance*)

9:35 - 9:55am **Morning Break**

9:55 - 10:45am **Education Sessions**

- A** Rainy Days: Collaborative Design Techniques for Better Stormwater Management
(*Ryan Lancour & Jeremy Jeffery, raSmith*)
- B** Oconomowoc Watershed Protection Program (*Tom Steinbach, Oconomowoc WWTF & Darrel Smith OWPP*)
- C** Agricultural Conservation in the Fox River Basin (*Paul Tollard, FDL County & Jeremy Freund, Outagamie County*)

10:55 - 11:45am **Education Sessions**

- A** Filtration Fundamentals: A back to basics look at filtration and why it matters today
(*Samantha Brown, Contech Engineered Solutions*)
- B** Water Quality Trading in a TMDL Watershed (*Jessica Schultz, FWWA & Brian Helminger, HOV MSD*)
- C** A Producers Perspective on Water Quality (*Bill Schaumberg & Dave VandeHey*)

11:45 - 12:45pm **Lunch & Exhibitor Showcase Overview**

1:00 - 1:25pm **Exhibitor Presentations**

- A** *Hydro International* - Developing a Predictive Performance Model for an Industrial Stormwater Filter
- B** *Brock White Company* - New & Innovative Erosion and Sediment Control Materials
- C** *Prinsco* - Stormwater Management Solutions: Retention/Detention Systems

1:30 - 1:55pm **Exhibitor Presentations**

- A** *Contech Engineered Solutions* - Available Stormwater Technologies in WinSLAMM & Prefabricated Bridge Updates
- B** *raSmith* - Online ESC Inspections
- C** *Envirolok* - Permanent Veg Solutions for Slope Stabilization, Streambank Restoration, Stormwater & Shoreline Erosion

2:00- 2:25pm **Exhibitor Presentations**

- A** *ADS Pipe* - Sustainable use of Recycled High Density Polyethylene in Manufactured Products for Stormwater Drainage Applications
- B** *Hanes Geo Components* - Permeable and Porous Pavements
- C** *NES Eco. Services/Robert E Lee & Associates* - Native Municipal Stormwater Features: Design/Const/Maintenance
- Skybox** *County Materials Corporation* - County Materials Corp: Our First 70 Years!

2:25- 2:40pm **Afternoon Break/Exhibits**

2:40- 3:30pm **Education Sessions**

- A** City of Oshkosh South Park Lagoons Redevelopment Process (*James Rabe & Laura Jungwirth, City of Oshkosh*)
- B** Know before you Fly: Drones Advancing Watershed Work (*Panel Discussion*)
- C** Porous Asphalt Pavements (*Debbie Schwerman, WAPA*)

3:40- 4:30pm **Education Sessions**

- A/B** Regulatory & Legislative Updates (*Paul Kent, Stafford Rosenbaum, LLP*)
- C** Designing Measureable Targets for Restoring Fish & Wildlife Habitats and Populations in the Lower Green Bay and Fox River Area of Concern (*Bob Howe, Amy Wolf & Erin Giese, UWGB*)

Join us for an hors d'oeuvres reception from 4:30 - 6:00 in the Pre-function Area

le at a Glance

WEDNESDAY, MARCH 7TH



8:00 - 8:15am **Registration/Continental Breakfast**

8:15 - 8:30am **Welcome! (North Balcony)**

Jared Schmidt, Past President, Fox-Wolf Watershed Alliance

8:30 - 9:20am **Opening Session (North Balcony)**

Building a shared vision for clean water: A community approach to the Lower Fox River Watershed
(Todd Brennon & Molly Meyers, Alliance for the Great Lakes)

9:20 - 9:35am **Morning Break/Exhibits**

9:35 - 10:25am **Education Sessions**

- A** What's New in Stormwater: Regulatory Updates (Pete Wood, Amy Minser & Suzan Limberg, WDNR)
- B** Oshkosh North High School Water Hero Project: Stormwater Education (Various Presenters)
- C** Management of Legacy Phosphorus within Agricultural Watersheds (Mathew Dornbush & Kevin Fermanich, UWGB)

10:35 - 11:25pm **Education Sessions**

- A** The Comp Plan, Zoning Ordinance & Subdivision Ordinance as tools to degrade or improve water quality
(Jeff Sanders, Community Planning & Consulting, LLC)
- B** WinSLAMM Updates & Application to WI Regulations (John Vorhees, AECOM & Caroline Burger, Brown & Caldwell)
- C** Status of Restoration: Cat Island Chain in Lower Green Bay (Mark Walter, Brown County Port & Resource Recovery)

11:25 - 12:30pm **Lunch & Lunch Presentation:** 12:00 - 12:30 EPA Region 5 Updates (Brian Bell & Jason Hewitt, EPA)

12:40 - 1:30pm **Education Sessions**

- A** The New Adventures of Hartsookville - MS4 Pollution Prevention (Pete Wood & Amy Minser, WDNR)
- B** The Art of Submitting a Successful WRAPP (Panel Discussion)
- C** NEW Water's Watershed Program: From Pilot Project to Full-Scale (Jeff Smudde & Erin Houghton, NEW Water)

1:40 - 2:30pm **Education Sessions**

- A** Design Considerations when installing Native Vegetation for Stormwater Facilities (James Havel, NES/REL)
- B** Protecting Human Health & Aquatic Life from Toxic PAH Pollution in Stormwater
(Ezra Meyer & Paul Mathewson, Clean Wisconsin)
- C** Ecosystem Restoration with Gorilla Tactics: A new paradigm to mitigating agricultural nutrient loading
(Joe Pfeiffer, KCI Technologies, Inc.)

2:30 - 2:45pm **Afternoon Break**

2:45 - 3:35pm **Education Sessions**

- A** Restoring Streambank Erosion to Achieve MS4 Water Quality Objectives - using Chesapeake TMDL Experiences in Wisconsin
(Josh Running, Stantec Consulting, Ltd.)
- B** Water Quality Assessment of Beaver Creek Subwatershed & Beaver Dam Lake, WI (Suzan Limberg, WDNR)
- C** Does being Ethical make Good Visual Sense (Dr. Gaurav Bansal, UWGB)

3:40- 4:00pm **Conference Closing Remarks (North Balcony)**

CONFERENCE AREA ROOM GUIDE

A	Willie Davis Room
B	Paul Hornung Room
C	Bart Starr Room

Welcome



On behalf of the Fox-Wolf Watershed Alliance and the Watershed Conference Planning Committee, welcome to the 19th Annual Watershed Conference.

What a year it's been since we last got together!

Throughout the watershed and the state, momentum is building as we work together to restore the waterways of the Fox River Basin. Planning for meeting new TMDL requirements and implementation of best management practices has continued in communities with MS4 permits. Alternate compliance options including Adaptive Management, Water Quality Trading and the Phosphorus Variance are being explored and advanced by Waste Water Treatment Plants considering those options. Agricultural producers are working closely with County Land Conservation staff, NRCS, their agronomists and each other to learn about practices that could improve soil health on their farm and reduce sediment and phosphorus loading to our waters. Water quality monitoring, which will help us gauge success in the future, has increased through efforts of WDNR, USGS and local colleges and universities. Conservation organizations and many others have joined in the conversation and are bringing their resources to the forefront.

This year's conference is bringing together expert practitioners to share experience, both successful and challenging, with protecting, conserving and restoring the waters of not only the Fox-Wolf Basin but waters from around the state and across the country.

We are glad you joined us!

Jessica Schultz
Executive Director
Fox-Wolf Watershed Alliance

Thank You

We would like to recognize the hard work and commitment the following people and organizations dedicated to planning the 19th Annual Watershed Conference

2018 PLANNING COMMITTEE

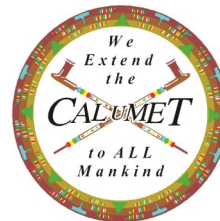
- › Sue Olson, City of Appleton
- › Danielle Santry, Calumet County
- › Jim Bacchuber, Brown & Caldwell
- › Jeremy Freund, Outagamie County
- › Jeff Mazanec, RA Smith National
- › Bob Givens, OMNI Associates, Inc.
- › Jared Schmidt, Robert E. Lee
- › Jeff Smudde, NEW Water
- › Erin Houghton, NEW Water



Robert E. Lee & Associates, Inc.



Engineering, Surveying, Environmental Services



2018 PRESENTERS

Thank you to all of the presenters listed in this program.
It is because of professionals willing to share their expertise and experiences that our conference continues to grow!

YOUR FEEDBACK IS IMPORTANT TO US!

Survey forms (available at the registration table) will be collected in each breakout room at the end of each day. Completed surveys can be exchanged for a door prize ticket.

Day 1: Feedback prizes will be drawn during the hors d'oeuvres reception before the awards ceremony

Day 2: Feedback prizes will be drawn during conference closing
You must be present to win!

Thank
YOU
FOR COMING!

2018 Sponsors

Gold Level Sponsors



ALLIANCE *for the*
GREAT LAKES

Silver Level Sponsors



Bronze Level Sponsors



THE ANNUAL WATERSHED CONFERENCE AND CELEBRATION IS MADE POSSIBLE THROUGH THE GENEROUS SUPPORT OF OUR SPONSORS.

Exhibits

EXHIBIT CARD GRAND PRIZE

To be entered into the drawing visit 12 of the 16 exhibitor booths during the 2 days of the conference. While at the booth, have your exhibitor card signed by the exhibitor.

Once you have 12 signatures on your card, obtain a raffle ticket from the Registration Booth. Two \$50 gift cards will be raffled off during conference closing on March 7 in the North Balcony.

You do not have to be present to win.

Thank You
Exhibitors!







2018 Exhibitors

Company:	Website:	E-mail:
ADS Pipe	www.ads-pipe.com	david.landwehr@ads-pipe.com
Robert E. Lee & Associates	www.releeinc.com	pkuehl@releeinc.com
BW Supply	bwsupply.biz	rmoynih@brockwhite.com
Contech Engineered Solutions	www.conteches.com	esturm@conteches.com
County Materials Co.	www.countymaterials.com	jim.luedeke@countymaterials.com
Evergreen Credit Union	www.evergreencu.com	mikeb@evergreencu.org
Hanes Geo Components	www.hanesgeo.com	scott.bordeau@hanescompanies.com
Prinsco	www.prinsco.com	JasonF@prinsco.com
R.A. Smith National, Inc.	www.rasmith.com	Gary.Raasch@RASmithNational.com
Rinker-Stormceptor	www.rinkerstormceptor.com	danielc.Thomson@cemex.com
StormTrap	www.stormtrap.com	mkamenick@stormtrap.com
Payne & Dolan, Inc.	www.payneanddolan.com	bwallace@payneanddolan.com
Becher-Hoppe Associates, Inc.	www.becherhoppe.com	jhuber@becherhoppe.com
Cedar Corporation	www.cedarcorp.com	Dean.zanon@cedarcorp.com
Hydro International	www.hydro-int.com	ptaylor@hydro-int.com
Envirolok	www.envirolok.com	Eric.seidl@agrecol.com

Logistics

GETTING AROUND...

-  Willie Davis Room
-  Paul Hornung Room
-  Bart Starr Room
-  Johnny Blood Room



NEED CREDITS?

PDH Certificate

If you would like a certificate for Professional Engineering Continuing Education Documentation, please be sure to have your PDH Certificate Tracking Sheet (available at the registration table) stamped immediately following each session.

Be certain to fill out your sheet completely and legibly. At the end of the conference, place your stamped sheet in the basket marked PDH Tracking Sheets at the registration table.

Fox-Wolf Watershed Alliance Staff will email you a PDH Certificate listing all of the sessions you attended along with the number of credits earned.

"If there is magic on this planet, it is contained in water." Loren Eiseley

2018 Watershed Conference

TUESDAY,
MARCH 6

8:00 - 8:30am **Registration/Continental Breakfast**

8:30 - 8:45am **Welcome! (North Balcony)**
Jared Schmidt, Past President, Fox-Wolf Watershed Alliance

8:45 - 9:35am **Opening Session (North Balcony): Fox-Wolf Watershed: On the Road to Recovery**
(Jessica Schultz, Fox-Wolf Watershed Association)

9:35 - 9:55am **Morning Break**

9:55 - 10:45am **Concurrent Education Sessions**

A Rainy Days: Collaborative Design Techniques for Better Stormwater Management; Stormwater Controls: Titledown District (Ryan Lancour & Jeremy Jeffery, raSmith)

Collaboration and flexibility were key to the design of the storm water management system at the 35-acre Titledown District development. Hear how the raSmith team tackled the design from the pre-proposal stage through construction of Phase I and beyond. The presentation will include a discussion of design challenges and constraints and how they were overcome; the flexibility that was exercised to allow the site design to advance with only a minor redesign of the base system; and what's ahead for additional improvements to the storm water system as future phases are built out at Titledown.

B Oconomowoc Watershed Protection Program

(Tom Steinbach, City of Oconomowoc & Darrel Smith Oconomowoc Watershed Protection Program)

The City of Oconomowoc has begun an innovative program to address phosphorus regulation being promulgated in Wisconsin and throughout the US. The City's program titled the 'Oconomowoc Watershed Protection Program (OWPP) addresses point and non-point phosphorus and sediment loading to the entire Oconomowoc River Watershed through a cooperative, partnership focused plan involving public and private entities in the entire 83,000 acre area. The OWPP has logged many successes in its three year existence thus far. Contributing to this success are the partnerships that have been established, now totaling in excess of 50 public, private and non-profit agencies. Many BMPs have been contracted and implemented throughout the watershed addressing non-point agricultural related nutrient concerns as well as storm water related sites in urban areas. To monitor nutrient levels and progress of the program, this presentation will also explain several monitoring programs that have been implemented.

C Agricultural Conservation in the Fox River Basin

(Paul Tollard, Fond du Lac County & Jeremy Freund, Outagamie County)

This session will provide a summary of some of the programs and initiatives being implemented by County LWCD's in the Winnebago Watershed. Pipe Creek Great Lakes Commission Grant, Green Lake Watershed Project, Conservation Practices, soil and water conservation standards, 9 Key Element Watershed Planning. An overview of the conservation initiatives being implemented in the Lower Fox Basin by County LWCD's in conjunction with other entities such as the Nature Conservancy, Fox-Wolf Watershed Alliance, USGS and UWGB.

Please remember to have your PDH form stamped after each session

2018 Watershed Conference

10:55 - 11:45pm Concurrent Education Sessions

TUESDAY
MARCH 6

A Filtration Fundamentals: A back to basics look at filtration and why it matters today
(Samantha Brown, Contech Engineered Solutions)

Filtration has been a common BMP for centuries, and BMP toolboxes now typically include proprietary media filters, membranes, rain gardens, biofilters, and a variety of infiltration practices. To ensure proper functionality of these BMPs, it is wise to understand filter fundamentals and apply them to their design. This presentation takes a close look at key variables like media gradation, hydraulic loading rate, longevity, reactive capacity and discusses how they influence filter performance.

B Water Quality Trading in a TMDL Watershed *(Jessica Schultz, FWWA & Brian Helming, HOV MSD)*
Water quality trading is a compliance option for both Wastewater Treatment Plants and MS4 Communities. Heart of the Valley Metropolitan Sewerage District (HOV) is in the process of submitting a Water Quality Trading Plan to WDNR to meet their TSS requirements. Upon approval, this trading plan will be the first for TSS compliance in the state and the first in a TMDL watershed. This session will walk through HOV's decision to use water quality trading to meet their TSS permit requirements, the installation of agricultural best management practices to meet their credit needs and the planning process. The presenters will also walk through the elements of a water quality trading plan and discuss how to calculate credits in a TMDL watershed.

C A Producers Perspective on Water Quality *(Bill Schaumberg & Dave VandeHey)*
This presentation will provide a producer and agronomist perspective on conservation opportunities in agriculture. The talk will highlight some of the new technologies and strategies that are helping advance conservation. Soil health, cover crops, reduced tillage, and precision nutrient application are a few of the topics that will be covered. You will also hear about some of the challenges from a producer's perspective and some possible opportunities to overcome these challenges .

11:45 - 12:45pm **Lunch & Exhibitor Showcase Overview**

1:00 - 1:25pm Exhibitor Presentations (1/2 Credit)

A Hydro International (Phillip Taylor) - Developing a Predictive Performance Model for an Industrial Stormwater Filter

This presentation backgrounds the research done by Hydro International on the development of a predictive model for the removal of copper and zinc from stormwater based on data collected from multiple sites using a proprietary media mix.

B Brock White Company (Greg Halverson) - New & Innovative Erosion and Sediment Control Materials
This presentation will review standard erosion control practices and limitations under certain design applications and highlight new technologies that reduce owner and contractor risk. Discussion will include riprap/hard armor design alternatives to improve water quality and highlight local case study examples.

1:00 - 1:25pm Exhibitor Presentations continued on next page

"Maintaining clean, safe water remains one of our greatest national and global challenges and responsibilities." Jerry Costello

2018 Watershed Conference

TUESDAY,
MARCH 6

1:00 - 1:25pm **Exhibitor Presentations (1/2 Credit)**

Continued from previous page

C Prinsco (Trevor Sorensen & Jason Forgette)

Stormwater Management Solutions: Retention Detention Systems

Built on its core values, Prinsco is focused on the future of water management. Our products meet the highest standards to meet the needs of today's storm water market, from chambers to pipe, high density polyethylene to polypropylene; we provide a variety of core products to the water management industry. The presenters will define who Prinsco is, the storm water products that we offer, and dive into retention and detention systems while displaying a local project at the CP Center, installed in Green Bay, WI.

1:30 - 1:55pm **Exhibitor Presentations (1/2 Credit)**

A Contech Engineered Solutions (Kevin Klein)

Available Stormwater Technologies in WinSLAMM & Prefabricated Bridge Updates

Satisfying WDNR water quality requirements and local stormwater storage requirements on some sites can be difficult to incorporate in your design, especially on a tight site. We will start by covering some of our underground solutions that can be modeled in WinSLAMM, including examples. We will also give updates on recent updates to our Bridges/Structures Portfolio, including the Conspan O-Series.

B raSmith (Jeff Mazanec) - Online ESC Inspections

Overview of PermiTrackESC for online reporting of ESC inspections, including an inspection demonstration, program administrator's overview and benefits for permitting agency and inspection team.

C Envirolok (Eric Seidl) - Permanent Vegetative Solutions for Slope Stabilization, Streambank Restoration, Stormwater & Shoreline Erosion

In addition to looking at Envirolok as a vegetative solution to soil stabilization for slope stream channel restorations, the presentation will explore other tools that will allow you to successfully incorporate native vegetation into natural and urban environments. By exploring a variety of project types and solutions, attendees will better understand how collaboration can create a successful outcome, learn about using the right plants, minimizing maintenance and maximizing your dollars.

2:00- 2:25pm **Exhibitor Presentations** *(continued on next page)*

A ADS Pipe (Jake Brunoehler & Brian Miko) - Sustainable use of Recycled HD Polyethylene in Manufactured Products for Stormwater Drainage Applications

The demand for sustainability in engineering design, construction, and resource management is a growing trend throughout the U.S. As local and state agencies continue to strive for sustainable long-term plans and extended service life of infrastructure, significant research continues to evolve regarding the use of recycled plastics. In particular, this presentation will discuss plastic recycling processes and technologies, conversion and qualification of recycled plastics for infrastructure applications, and the proper design and construction of storm drainage products utilizing recycled plastics. A thorough review of several NCHRP Research Reports, ASTM and AASHTO standards, and field case studies are central to the presentation as well.

Don't forget! Get your exhibitor card signed by 12 vendors for a raffle ticket!

2018 Watershed Conference

TUESDAY,
MARCH 6

2:00 - 2:25pm **Exhibitor Presentations (1/2 Credit)**

Continued from previous page

B Hanes Geo Components (Scott Bordeau) - Permeable and Porous Pavements

This presentation will provide an introduction to materials that can provide a porous pavement utilizing a locally produced recycled structural component and proper base materials. Additionally this presentation will provide an overview to permeable concrete block pavement, locally produced. Lastly a new 2 part adhesive used to bind rocks and stone together will be shown to assist with drainage and erosion control.

C NES Ecological Services/Robert E Lee Associates (Ashley VandeVoort & Jared Schmidt) - Native Municipal Stormwater Features: Design/Construction/Maintenance

The presentation will focus on the design consideration, installation practices, and management of native vegetation within and around storm water facilities. Native facility plantings benefit community residents by providing aesthetically pleasing landscapes that provide added floral diversity, wildlife habitat and recreational opportunities in mostly urban settings. It is important to focus on the specifics of design and installation to help promote successful development of the planting. Proper preparation will lead to reduced ongoing maintenance to help promote and sustain a successful project.

Skybox County Materials Corporation (Jennifer Schaff & Brian Kolden)

County Materials Corp: Our First 70 Years!

An overview of our history from our humble beginnings in Marathon, WI to the modern manufacturing facilities that producing quality products needed to build our infrastructure. A brief overview of the products we produce and the technical staff that we have available to assist engineers and designers.

2:25- 2:40pm **Afternoon Break/Exhibits**

2:40- 3:30pm **Concurrent Education Sessions** *(continued on next page)*

A City of Oshkosh South Park Lagoons Redevelopment Process

(James Rabe & Laura Jungwirth, City of Oshkosh)

The project consisted of dredging the existing lagoons to re-establish a healthy water environment, stabilizing heavily eroded shorelines and expanding the storm water storage capacity of the lagoons to reduce downstream flooding impacts. The area has historically suffered from significant flooding during rain events. After construction is complete, the lagoons will be more aesthetically pleasing, and easier to access for the general public's enjoyment, while improving storm water quality and reducing flooding impacts.

2:40 - 3:30pm continued on next page

"Water is the Driving Force of All Nature." Leonardo da Vinci

2018 Watershed Conference

TUESDAY,
MARCH 6

2:40 - 3:30pm Concurrent Education Sessions

Continued from previous page

- B Know before you Fly: Drones Advancing Watershed Work (Panel Discussion - Jeremy Freund, Outagamie County; Heath Anderson, City of Appleton; Jeff Smudde, NEW Water; Jon Chapman, raSmith)**
This presentation will be a panel discussion that will serve as an introduction to how drone technology is being adopted in Northeastern Wisconsin. Drones discussed will be both aerial and marine. The panelists include representation of a Metropolitan Sewerage District, County Government, City Government, and a Full-Service Civil Engineering and Surveying Firm. Each panelist will introduce their drone program, uses, and lessons learned. Time will be provided for Q&A following their presentations.
- C Porous Asphalt Pavements (Debbie Schwerman, Wisconsin Asphalt Paving Association)**
During this session you will learn about the concepts of porous asphalt pavements. Where they should be considered for use, how best to extend their serviceability, and take a look at projects that have been done throughout the state.

3:40- 4:30pm Concurrent Education Sessions

- A/B Regulatory & Legislative Updates (Paul Kent, Stafford Rosenbaum, LLP)**
This session will discuss new and proposed regulations at the state level for stormwater, wastewater, drinking water and groundwater. See how these changes may impact your day to day activities or long term planning efforts.
- C Designing Measureable Targets for Restoring Fish & Wildlife Habitats and Populations in the Lower Green Bay and Fox River Area of Concern (Bob Howe, Amy Wolf & Erin Giese, UWGB)**
The Lower Green Bay and Fox River Area of Concern (AOC) is one of the most ecologically diverse but demonstrably impaired AOCs in the Great Lakes. We outline a quantitative, transparent process for setting targets to remove two fish and wildlife-related beneficial use impairments (BUIs). The method identifies important local habitats and species and ranks them according to ecological and socioeconomic criteria. These ranks are combined with standardized estimates of current condition to create a baseline for future progress. This approach identifies multiple pathways for reaching delisting targets and facilitates informed discussions about cost effective restoration projects.

Join us!

Join us for an Hors d'oeuvres
reception in the Pre-Function Area at 4:30
on Tuesday, March 6th!

Turn in your Tuesday Evaluation and get your raffle ticket!

2018 Watershed Conference

WEDNESDAY,
MARCH 7

8:00 - 8:15am **Registration/Continental Breakfast**

8:15 - 8:30am **Welcome! Conference-Day 2 (North Balcony)**

8:30 - 9:20am **Opening Session (North Balcony)**

Building a shared vision for clean water: A community approach to the Lower Fox River Watershed *(Todd Brennon & Molly Meyers, Alliance for the Great Lakes)*

9:20 - 9:35am **Morning Break/Exhibits**

9:35 - 10:25am **Concurrent Education Sessions**

A What's New in Stormwater: Regulatory Updates *(Pete Wood, Amy Minser & Suzan Limberg, WDNR)*

The Wisconsin DNR has been busy updating Technical Standards, developing guidance documents and creating electronic forms. This session will cover the new information that you need to know and also discuss on-going and planned WDNR projects.

B Oshkosh North High School Water Hero Project: Stormwater Education *(Rick Leib, Oshkosh North HS; Ken Friedman, Oshkosh SW Rotary; Kelly Reyer, FWWA & John Ferris, C. of Oshkosh)*

Students immersed themselves in the study of local water and stormwater infrastructure by touring Lake Winnebago (with the help of On The Loos Cruises), hearing from local experts like John Ferris (City of Oshkosh), Ken Friedman (Southwest Rotary) and Kelly Reyer (Fox Wolf Watershed Alliance), and examining informational texts. Students put together presentations for local 4th and 5th grade classrooms in order to share with them the importance of keeping our local watershed clean. Students also shared their learning with local radio and television news outlets. Besides building awareness, the Communities 9th and 10th graders served the community by adhering "medallions" on storm sewer inlets around the City of Oshkosh that remind people not to dump non-biodegradable or biodegradable materials in the storm water sewers.

C Management of Legacy Phosphorus within Agricultural Watersheds *(Mathew Dornbush & Kevin Fermanich, UWGB)*

Non-point source P remains one of the primary drivers of coastal eutrophication and the associated degradation of beneficial uses. Phosphorous transport from field to aquatic ecosystems is regulated by land use and characteristics of the soil, with soil ultimately serving as both the principle storage pool for, and export source of, phosphorus. Years of P application in excess of crop removal accumulates significant P in soils, a condition referred to as legacy P. Here we present an overview of several projects evaluating the effects of land management and soil health on P within agricultural watersheds of Green Bay.

Did you complete your Exhibitor Card yesterday? It's not too late!

2018 Watershed Conference

WEDNESDAY

MARCH 7

10:35 - 11:25pm

Concurrent Education Sessions

- A **The Comp Plan, Zoning Ordinance & Subdivision Ordinance as tools to degrade or improve water quality** (*Jeff Sanders, Community Planning & Consulting, LLC*)
When the state legislature passed Act 9 in 2009, it created a powerful tool with the potential to improve water quality throughout the state. Wisconsin's Comprehensive Planning Law requires that any municipality administering zoning or subdivision regulations do so consistent with an adopted comprehensive plan. All land uses have an effect on water quality. Unfortunately, most are bad. We have spent 500 years methodically converting this continent to impervious surface. Through proper planning techniques, and the creative use of zoning and subdivision regulations, we may begin to correct our course.
- B **WinSLAMM Updates & Application to WI Regulations** (*John Vorhees, AECOM & Caroline Burger, Brown & Caldwell*)
The February 2018 release of WinSLAMM 10.3.4 has several new features including: 1. A "drag and drop" interface to develop drainage system networks. 2. Transferring particle size distributions and hydrographs through stormwater control practices so the practices can be modeled in series. Additional control devices including Filter Strips, Cisterns, Biofilter enhancements (evapotranspiration), Hydro International Upflo Filter and Contech StormFilter media filters. This session will provide an overview of the new features, plus address questions from site plan modeling.
- C **Status of Restoration: Cat Island Chain in Lower Green Bay** (*Mark Walter, Brown County Port & Resource Recovery*)
The Cat Island Chain of islands historically protected extensive coastal wetlands in the lower Green Bay. High water levels in the mid-1970s and a series of severe storms washed away the islands and most of the habitat. The project is reconstructing the Cat Island chain using clean dredge material from the bay protecting and restoring shallow water and wetland habitat. The wave barrier is providing long-term protection to the islands and wetlands from storm and ice damage and reestablishing aquatic plant beds in the lower bay. It is a joint effort of federal, state, local, university, public and private agencies.

11:25 - 12:30pm **Lunch & Lunch Presentation: 12:00 - 12:30 EPA Region 5 Updates, Brian Bell (EPA)**

12:40 - 1:30pm Concurrent Education Sessions

- A **The New Adventures of Hartsookville - MS4 Pollution Prevention** (*Pete Wood & Amy Minser, WDNR*)
Come and see how Hartsookville is addressing the latest municipal pollution prevention requirements. This session will cover the do's and don'ts of municipal stormwater pollution prevention and explain how to develop and implement effective pollution prevention programs.

12:40 - 1:30pm continued on next page

Remember to have your PDH Certificate Stamped after each session!

2018 Watershed Conference

WEDNESDAY,
MARCH 7

12:40 - 1:30pm **Concurrent Education Sessions**
Continued from previous page

B The Art of Submitting a Successful WRAPP

(Mike Wegner & Kelly Mattfield, Brown & Caldwell; Gary Raasch & Smith; Scott Koehnke, WDNR)

Permitting for navigable stream impacts (Chapter 30), stormwater, wetland impacts and construction site soil loss can be a daunting task for even small projects. This session will discuss steps that can be taken before the project is submitted to regulatory agencies to shorten review time and minimize questions and delays.

C NEW Water's Watershed Program: From Pilot Project to Full-Scale

(Jeff Smudde & Erin Houghton, NEW Water)

The Silver Creek Pilot Watershed Project at NEW Water is starting the fifth field season. This presentation will discuss accomplishments so far in Silver Creek and plans for 2018 and 2019 field seasons. In addition to working on the pilot project, NEW Water has also been evaluating the cost effectiveness of watershed based adaptive management as a compliance strategy for their WPDES permit. Learn about the methods used to evaluate potential watershed action areas and the likely watershed selected if NEW Water chooses adaptive management to meet the requirements of the next WPDES Permit.

1:40 - 2:30pm **Concurrent Education Sessions**

A Design Considerations when installing Native Vegetation for Stormwater Facilities

(James Havel, NES/REL)

The presentation will focus on the establishment of vegetation within and around stormwater facilities. Particular emphasis will be placed on the use of native vegetation and "natural principles" in the green space development. Facility plantings benefit community residents by providing aesthetically pleasing landscapes that provide added floral diversity, wildlife habitat and recreational opportunities in mostly urban settings. The assessment of existing site conditions, review of various plant characteristics and other design considerations will be discussed to assist participants in planning their next project.

B Protecting Human Health & Aquatic Life from Toxic PAH Pollution in Stormwater

(Ezra Meyer & Paul Mathewson, Clean Wisconsin)

Following an overview by Clean Wisconsin's Staff Scientist, Paul Mathewson, on the science and data behind the issue of Polycyclic Aromatic Hydrocarbons (PAH) contamination in Wisconsin's urban waterways, public health risks from PAHs, and the disproportionate contribution of tar-based pavement sealants to the problem, Water Resources Specialist Ezra Meyer will detail options for municipal and institutional action on the issue, citing examples from around Wisconsin and beyond.

C Ecosystem Restoration with Gorilla Tactics: A new paradigm to mitigating agricultural nutrient loading

(Joe Pfeiffer, KCI Technologies, Inc.)

A Strategic Plan was developed for Grand Lake St. Marys, integrating environmental and economic solutions amongst multiple stakeholder groups in 2010. The results of its implementation 6 years after its development provides insight on how multiple stakeholders and objectives can be met.

Pure Water is the worlds first and foremost medicine. *Slovakian Proverb*

2018 Watershed Conference

WEDNESDAY.

MARCH 7

2:30 - 2:45pm **Afternoon Break**

2:45 - 3:35pm **Concurrent Education Sessions**

A Restoring Streambank Erosion to Achieve MS4 Water Quality Objectives - using Chesapeake TMDL Experiences in Wisconsin (Josh Running, Stantec Consulting, Ltd.)

Legislative and regulatory changes in 2013 increased compliance challenges for MS4 localities within the Chesapeake Bay water shed. These localities are now responsible for sediment and nutrient load reductions from existing sources or retrofits. As part of these new requirements the Chesapeake Bay Programmatic Office developed a practical guidance document outlining acceptable methodologies for sediment and nutrient crediting for stream restoration projects. Over the past five years, Stantec has tested the relevant protocols, evaluated case studies, and provided clients with cost-effective stream improvements that meet TMDL requirements. This presentation discusses our findings as well the applicability of these techniques in Wisconsin.

B Water Quality Assessment of Beaver Creek Subwatershed & Beaver Dam Lake, WI (Suzan Limberg, WDNR)

In partnership with the Beaver Dam Lake Improvement Association and WI Department of Natural Resources, the University of Wisconsin – Madison Nelson Institute Water Resources Management graduate students conducted monitoring and data analysis in Beaver Dam Lake and in Beaver Creek, a tributary to the lake, which are both 303d impaired waterways that exceed total phosphorus and chlorophyll-a standards for recreational use and fish and aquatic life. The study addressed issues in the uplands, within the stream, in the lake, and with stakeholders. The Erosion Vulnerability Assessment for Agricultural Lands (EVAAL) model was used to determine areas in the Beaver Creek sub-watershed that are most vulnerable to erosion. Agronomic soil tests were conducted on samples collected in fields near Beaver Creek. Lake water quality was monitored and the WiLMS model used to better understand various sources of phosphorus that contribute to seasonal eutrophication of Beaver Dam Lake. In Beaver Creek, water quality was monitored, sediment cores were collected and analyzed for phosphorus, and macroinvertebrate and habitat surveys were conducted. Finally, the community was engaged to better understand stakeholder priorities, current management solutions, and to guide feasible recommendations towards an improved management plan for Beaver Creek and Beaver Dam Lake. Key study results and management recommendations will be presented.

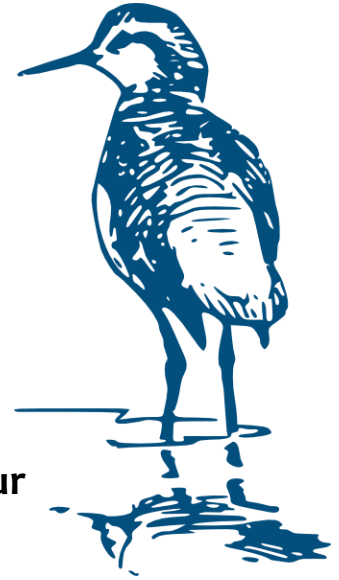
C Does being Ethical make Good Visual Sense (Dr. Gaurav Bansal, UWGB)

The session will focus on how misrepresentation of data, bad data, and/or wrong choice of visualization could lead to incorrect perception, wrong cognition and thus erroneous action. Poor and misleading visualizations are not only often unethical but also inefficient and ineffective as well. In this session we will assess how data and design work together, including how to choose the appropriate visual representation for your data, and the difference between effective and ineffective visuals. The session will cover design principles and theories based on the work of eminent data visualization scientists such as William S. Cleveland and Edward R. Tufte.

3:40 - 3:45pm **Conference Closing**

Thank you for attending our 2018 Conference! See you next year!

Watershed Celebration



A Night for
our Water
Resources

⋮ Celebrating
⋮ Together
⋮

⋮ Honoring our
⋮ Watershed
⋮ Heroes

Evening Event

Join us for an Hors d'oeuvres
reception in the Pre-Function Area at 4:30
on Tuesday, March 6th!

The hors d'oeuvres event is included with
conference registration.

Agenda

Tuesday, March 6th Evening Event: Watershed Celebration *Event Registration Required*

- 4:30 – 6:00 Networking Hors' devours Reception
- 6:00 – 6:30 Watershed Hero Impact Award Presentation
- 6:30 – 7:15 Dinner
- 7:15 – 8:00 Speaker: Josh Murphy, Simply Love Films
creator of Fox-2-0: A Water Quality Documentary

The Watershed Heroes Impact Award recognizes individuals and organizations who live, work or play within the Fox-Wolf Basin and who have excelled in any one of the following areas:

- ◆ Providing leadership in working towards sustainable development of our economies and resources.
- ◆ Inspiring the work of others, including our youth, to foster the health of the Fox-Wolf watershed's communities, economies, and cultures.
- ◆ Extraordinary focus on improving agriculture land use decisions to restore and protect our watershed.
- ◆ Utilizing innovative strategies or outstanding effort to achieve significant results in furthering sustainable development within the watershed.
- ◆ Demonstrating a lasting commitment to the health and management of our watershed resources.

Nominations for next year's awards will open in August.

2018 Watershed Heroes

Congratulations to our 2018 Watershed Heroes!

Pat Koehnke

As the host of Outagamie County's Conservation Field Days, Pat Koehnke has been instrumental in conservation education and environmental awareness for youth and educators in Outagamie County. In the 15 years that the event has been held at Pat's farm, the popularity of it has grown exponentially. Over 15 years, nearly 13,000 fifth and sixth grade students and numerous teachers and parent chaperones from Outagamie County have learned about conservation, wildlife, soil and water, food production, recycling, and numerous other topics which positively affect our natural resources in the long run. The opportunity has helped to instill a conservation ethic among countless numbers of youth. When asked why she's continued to work so hard for the event each year, she simply responds: "It's for the kids."

John P. Moyles III

John has worked with the WI Sea Grant, establishing a surrender network for unwanted aquatics plants and animals. He is currently working with Illinois/Indiana Sea Grant on a similar project to keep unwanted species out of local waterways. He has volunteered countless hours in effort to bring the focus of this cause to a national level. John created a surrender network first with Green Bay Aquarium Society which created a viable option for people to locally surrender their unwanted fish and other aquatic species. This event has grown and is now coordinated with other rescues and clubs to encourage proper animal surrendering. These events allow for the surrendering of birds, reptiles, cats, dogs and exotics. His efforts are helping prevent non-native species from entering and disrupting our ecosystems.

New Horizons Dairy

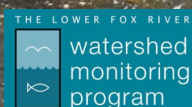
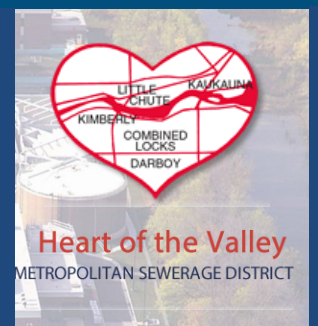
New Horizons Dairy Farm is committed to improving soil health and water quality. Over the past year, they have taken their operation to the next level. Dave Van De Hey and his sons Matthew and Derek, have fully embraced conservation practices, including cover crops and no-till planting. They understand how their actions on the land impact our local water resources, which has led them to go all in on conservation. In their first full season as a Fox Demo Farm, New Horizons Dairy converted more than 1,000 acres to 100 percent no-till and cover crops. This far exceeds the 200-acre commitment they made when they signed on to be a Demo Farm.

Fox River Watershed Monitoring Network

The Lower Fox River Monitoring Program is a network of teachers and students from eleven area high schools that monitor seven environmentally impaired streams in the Fox River watershed for water quality and ecological health. The students and teachers take on the role of scientists and explore local streams and waterways, in partnership with the scientific community. The data provides a measurement of pollution that flows to the Fox River and Bay of Green Bay. The program, launched in 2003 is celebrating its 15th year. Currently, eleven high schools, including 17 teachers and over 80 students participate in the program. More than 600 students have participated in the program since 2003.

Heart of the Valley Metropolitan Sewerage District

Facing increased permit requirements for total suspended solids, Heart of the Valley Metropolitan Sewerage District explored their options to upgrade their plant or utilize one of the WDNR's alternate compliance options to meet the new water quality based effluent limits in its wastewater permit. Over the past year, HOV MSD has worked with Fox-Wolf Watershed Alliance, Outagamie County Land Conservation Department and WDNR to advance a water quality trading plan to meet their TSS goals. This plan includes installing and maintaining Conservation Cover on a 3.6 acre field as well as a building and maintaining a Sediment Basin enhanced with Wetland Vegetation that will capture sediment from an additional 12.8 acre field within the Plum Creek Sub-watershed.



TUESDAY DURING THE CONFERENCE ...

Lower Fox River Watershed Clean Water Agenda

Leadership Roundtable

Tuesday, March 6 • 2:30 - 5:00
Johnny Blood Room

*Building a shared
vision for clean
water and an
improved quality of
life in the Fox River
basin and greater
Green Bay area*



ALLIANCE *for the*
GREAT LAKES

The Alliance for the Great Lakes has been advancing discussions about clean water and healthy communities.

Leaders from business, industry, agriculture, conservation, local government and other community partners will

join together to share goals, actions and perspectives advanced by each sector and explore a collective commitment to a clean water agenda for the Lower Fox River and Green Bay.

Todd Brennan from the Alliance for the Great Lakes will be sharing more about the process, the outcomes of the Leadership Roundtable and the project's next steps during the opening session of the Watershed Conference on Wednesday.

STAY IN THE LOOP ALL YEAR LONG

Sign up online (fwwa.org/source) to receive The Source -

A monthly e-newsletter providing updates from the Fox-Wolf Watershed Alliance and Partners working to protect, restore and sustain the water resources of Wisconsin's Fox-Wolf River Basin.

The Source

**Have a project or training opportunity
that you would like to share?**

Please submit your event or project article and related images via email to: Chad@fwwa.org

Saturday, April 21, 2018

— EARTH DAY WEEKEND! —

There are more than 50 cleanup sites coordinated throughout the Fox-Wolf River Basin from Fond du Lac to Green Bay. All cleanup supplies are provided! Choose your site, invite your friends, clean up and have fun! Registration is now open! Sign up by April 6th to receive a free Cleanup T-shirt! All volunteers are invited to the Cleanup Picnic in Appleton after cleaning up for free lunch, music, bounce houses, raffles, costumed characters, and more!

Visit www.fwwa.org
to register!

E-mail:
Kelly@fwwa.org
with any
questions.

*Volunteers
Needed!*



Erosion & Sediment Control

Workshops

March 13, 2018
Green Bay, WI



March 14, 2018
Oshkosh, WI



Credits

Workshop attendees
are eligible for:

- 4.5 Commercial Building Inspector CEUs
- 4.5 Dwelling Contractor Qualifier CEUs
- 4.5 UDC—Construction Inspector CEUs



Registration

If interested in attending,
please contact:
Chad Vanden Langenberg
(920)-915-5767

**Thank you to our 2018
Gold Level Sponsors**



ALLIANCE *for the*
GREAT LAKES