

# Wednesday, October 25th

## 9:00 AM Workshop

### **Stormwater Pollution Modeling for LID, TMDL and Retrofitting Analysis – An Overview of WinSLAMM**

#### **Dr. Robert Pitt, PhD, PE, BCEE, D.WRE**

Bob Pitt is the Emeritus Cudworth Professor of Urban Water Systems in the Department of Civil, Construction, and Environmental Engineering at the University of Alabama, where he recently retired after 14 years. He taught at UAB for 14 years before coming to the Tuscaloosa campus. Prior to his academic career, Pitt was a senior engineer in industry and government for 16 years. He has conducted more than \$10 million in research concerning the effects, sources, and control of urban runoff during his academic career. He has written more than 100 publications, including journal articles, book chapters, research reports, and several books. He is a registered Engineer (WI) and a Board Certified Environmental Engineer by the American Academy of Environmental Engineers. He has also served on numerous professional committees in the U.S. and abroad, including the Committee on Beneficial uses of Graywater and Stormwater and the Committee on Reducing Stormwater Discharge Contributions to Water Pollution of the National Academy of Science; and has directed several project review panels for the Water Environment Research Foundation. Recently, he and his graduate students have conducted research focusing on integrating green infrastructure controls in combined sewer areas; characterization and treatment of emerging contaminants in wet weather flows; and development and testing of stormwater treatment systems.

#### **Eric S. Rortvedt, P.E. Water Resources Engineer, Wisconsin Department of Natural Resources**

Eric Rortvedt obtained a B.S. in Civil and Environmental Engineering from the University of Wisconsin-Madison and is a registered Professional Engineer. He has worked in the Department's stormwater program for 20 years including roles as a plan review engineering and statewide program coordinator.

## 1:00 PM Workshop

### **Water Engineering Ethics Presentation from the UWM School of Continuing Education**

Ginney Plumeau is a registered environmental manager and senior ecologist with TRC Environmental. She has extensive experience managing projects in the Midwest. She has over 30 years of technical and leadership experience related to land use and development projects involving environmental compliance on construction sites, managing water quality protection measures, §401/404 wetland regulatory permitting, and wetland / waterway assessments.

# Thursday, October 26th

## 9:00 AM Opening Plenary

#### **Chad Berginnis, CFM, Executive Director ASFPM**

Chad Berginnis became executive director of ASFPM in July 2012, after joining the association staff as associate director in 2011. Since 2000, he served the association as Insurance Committee chair, Mitigation Policy Committees' coordinator, vice chair and chair. He has a Bachelor of Science in natural

resources from Ohio State University. Since 1993, his work has focused on floodplain management, hazard mitigation and land use planning at the state, local and private sector level. As a state official, Berginnis worked in the Ohio Floodplain Management Program and was Ohio's state hazard mitigation officer. As a local official, Berginnis administered planning, economic development and floodplain management programs in Perry County, Ohio. In the private sector, he was the national practice leader in hazard mitigation for Michael Baker Jr. Inc.

## 10:30 AM Session A

### **Understanding Wetlands as Solutions to Flood Risks and Other Water Problems**

#### **Kyle Magyera, Wisconsin Wetlands Association, Local Government Outreach Specialist**

Kyle Magyera is a Local Government Outreach Specialist for the Wisconsin Wetlands Association (WWA), where he primarily develops and delivers tools and trainings to help Wisconsin communities improve consideration of wetlands in land use policy, planning, and implementation. He is the co-author of WWA's Land Use and Wetlands Publication Series, including a new Model Wetland Conservation Ordinance. Kyle holds Master's of Science degrees in both Urban and Regional Planning and Water Resources Management from the University of Wisconsin-Madison and ten years of experience working on wetland conservation and water policy issues with the WWA and Wisconsin Department of Natural Resources.

### **Underwood Creek - Past, Present, and Future**

#### **Susan Coyle, PE, CFM, MMSD**

Susan Coyle is the Hydraulic Modeler and Analyst for the Milwaukee Metropolitan Sewerage District (MMSD). In this capacity, she creates, modifies, and calibrates hydraulic models in support of the District's Wet Weather Peak Flow Management Program and the Technical Services Department's Watercourse Section. Prior to joining MMSD in 2015, Coyle spent 12 years in the private sector, where she conducted floodplain determinations for clients ranging from FEMA to State and Local Governments to private landowners. She holds a master's degree in Civil Engineering from Purdue University and a Bachelor of Civil Engineering degree from the Georgia Institute of Technology. She is a registered professional engineer in the State of Wisconsin and a Certified Floodplain Manager. Coyle is also involved in many K-12 STEM activities such as the Future City and Lego League Robotics Competitions.

## 10:30 AM Session B

### **Flood Frequency Analysis using Stochastic Storm Transposition and Rainfall Remote Sensing**

#### **Guo Yu, PhD Student, University of Wisconsin-Madison**

Guo received a bachelor degree in Water Supply and Drainage Engineering in 2011 from Tianjin Chengjian University, and a joint MS in Hydroinformatics in 2013 from Newcastle University (United Kingdom), Polytech Nice (France) and Brandenburg University of Technology (Germany). He was a Hydraulic Engineer and Team Leader in DHI China, 2013-2016. Guo is interested in studying and developing hydrological, hydrodynamic, and water quality models and how to apply these modelling technologies and analytics to solve a challenge in flood hazards control, urban stormwater management and environmental fluid mechanics. He is studying with Dr. Daniel Wright in the Hydroclimate Extremes Research group in the Civil and Environmental Engineering Department at the University of Wisconsin-Madison.

**A Comprehensive Scorecard Assessment of Wisconsin Municipal Flood Vulnerability**  
**Haley Briel**

## 10:30 AM Session C

**Intermediate UAS Technology**  
**Ben Yahr, Resolution Studio**

Mr. Yahr serves as a landscape architect and project manager focusing on waterfront design, public access, open space, and ecological restoration projects; and is licensed by the FAA to operate drones. As founder of Resolution Studio, Ben actively brings UAS technology and data to the design process.

**Sterling Green Infrastructure Riverfront Revitalization**  
**Jens Jensen, Principal Ecologist, Jensen Ecology**

Jens Jensen, the principal ecologist and owner of Jensen Ecology, has been in the field of Ecological Restoration since 2002 and has been involved with many complex, multi-year ecological restoration and native landscape projects and has performed ecological consulting and design. Jens is also experienced in natural resource management and landscaping, supervision and implementation techniques in restoration ecology. These include invasive species control, bioengineering, prescribed burning, native seed and plant installation, management plan development, construction oversight, specification development, and bidding and contracts administration. Jens also has experience in managing, monitoring and minimizing impact for threatened and endangered species.

## 11:30 AM Lunch Plenary

**Engineers without Borders**  
**Rod Beadle, Executive Director, ENGINEERS IN ACTION**

Rod Beadle is a civil engineer with over 34 years of experience in the design and construction of transportation and infrastructure facilities. He founded and served as the president of an engineering consulting firm in the Chicago area for 25 years. Rod has also worked extensively as a water, sanitation, and hygiene (WASH) engineer on community health programs and disaster response operations throughout the developing world since 2006.

In 2015, Rod became Executive Director of Engineers in Action (EIA). EIA is a 501(c)3 nonprofit organization that works to bring clean water and infrastructure solutions to impoverished, rural communities in Latin America.

## 1:00 PM Session A

**Abrupt Changes to Bluffs Adjacent to Coastal Structures in Lake Michigan**  
**Nick Jordan and Chin Wu**

Nick Jordan lives in Madison, where he works as a water resources engineer for FreshWater Engineering. He attended UW-Madison for a long, long, long time, earning a Bachelor's degree in Geological Engineering and Geology in 2014 and a Master's degree in Water Resources Engineering in 2017. Nick's Master's research involved measuring coastal bluff and beach erosion at a number of sites on Wisconsin's Great Lakes coasts, including numerous sites in Ozaukee, Milwaukee, Racine, and Kenosha Counties, and on Madeline Island in Lake Superior.

## **Lake Michigan Ravine Streams: Remarkable Habitat in Forgotten Places**

### **Dale J. Buser, PE, PH, CST, SEWRPC-Principal Specialist**

Dale is a licensed professional engineer and professional hydrologist with 35 years of water resource research, investigation, engineering, permitting, and construction experience. He has completed surface-water and groundwater projects in urban to near wilderness setting throughout North America and as well as portions of South America. After spending over 30 years in private consulting, Dale went back to his public-sector roots and joined the Southeastern Wisconsin Regional Planning Commission where he is Principal Specialist in the Natural Resources Planning and Management Division. His work at SEWRPC focuses on lake/stream ecology and water quality, fish and other aquatic organism assessment, and watershed/watercourse protection, restoration, and rehabilitation planning. With degrees in science and engineering, he has a deeply rooted desire to fully integrate science and engineering to benefit infrastructure projects and the natural world.

## **1:00 PM Session B**

### **Enhanced Storm Water Management Techniques in Sensitive Urban Environments**

#### **Neil J Pfaff, PE, PH, CST**

Neil is a water resources engineer for Vierbicher Associates Inc. Neil has more than nine years of commercial and municipal engineering experience with a primary focus on storm water, floodplain, and wetland projects. Neil has two bachelor's degrees; one from the University of Wisconsin-Stevens Point in Water Resources with a major in Watershed Administration as well as double minors in soil science and geographic information systems and spatial analysis; and Neil's 2nd bachelor degree is in Environmental Engineering from UW-Platteville. Neil is a Wisconsin licensed professional engineer, professional hydrologist and certified soil tester.

### **Salt? No Thank You. Our permeable pavement is heated**

#### **Doug Buch and Matt Bednarski**

Doug Buch is a twenty (20) year veteran of the construction industry. In 1992 the University of Iowa graduate began promoting Geosynthetic and erosion control materials throughout the Midwest. Mr. Buch moved to Wisconsin in 1995 to head up the environmental specialty precast division of Modern Building Materials, Inc., based out of Kenosha. His responsibilities included the start-up, promotion, manufacturing, and installation of articulating concrete block/mats (ACB/M's) and precast stormwater treatment tanks throughout the Midwest. In February of 2000 Mr. Buch went to work for Armortec as it's National Sales Manager. In the fall of 2006, Mr. Buch was recruited to V.P. of Business Development for Submar, Inc. A position he undertook until he launched the PaveDrain System in the fall of 2008.

Matt is a Senior Civil Engineer and leader of GRAEF:Water. For over 20 years, he has refined his experience and expertise in large and collaborate efforts on a number of watercourse and public works projects. He takes a holistic approach in understanding infrastructure projects, finding avenues for collaboration, and delivering results that improve conditions for everyone. Matt is a two-time graduate of the University of Wisconsin-Milwaukee with a Bachelor's of Science – Civil Engineering (1998) and a Lubar Executive Masters of Business Administration (2014).

## **1:00 PM Session C**

### **2017 Community Rating System (CRS) Manual Update**

### **Lou Ann Patellaro, ISO/CRS Specialist**

Lou Ann Patellaro has been working as the ISO/CRS Specialist for the National Flood Insurance Program (NFIP) Community Rating System (CRS) since 2014 and is responsible for all of Wisconsin and Illinois CRS communities. Lou Ann is a graduate from Florida Atlantic University with a Bachelors of Arts in Urban and Regional Planning. She is a Certified Floodplain Manager with over 30 years of municipal government experience in Land Use Planning, Building, Zoning and Floodplain Management working in the communities of Dania Beach and Weston, Florida.

## **2:30 PM Session A**

### **Great Lakes Coastal Flood Hazard Mapping**

#### **Alan Luloff**

Alan Luloff is Chief Scientist at the Association of State Floodplain Managers (ASFPM) Flood Science Center. His published reports include a Coastal No Adverse Impact Handbook, A Strategy to Reduce the Risks and Impacts of Dams on Floodplains, and Flood Mapping for the Nation – A Cost Analysis for the Nation's Flood Map Inventory. Before joining ASFPM in 2004, Mr. Luloff spent 32 years with the Wisconsin Department of Natural Resources (WDNR) in floodplain management, dam safety, water supply, groundwater management and water quality. Mr. Luloff holds an Environmental Engineering degree from the University of Wisconsin - Milwaukee, is a registered professional engineer in Wisconsin, and is a Certified Floodplain Manager.

### **Floodplain Mapping Using 2D Models**

#### **Michael Schwar, PE, PhD, Stony Point Hydrology**

Michael Schwar is Principal Water Resources Engineer at Stony Point Hydrology LLC. Mike has over 25 years of professional and academic experience focusing on the hydrology and hydraulics of surface water systems, with special emphasis on the restoration of streams, rivers, lakes and wetlands. He has worked on more than 150 surface water projects in 21 states, Canada and Puerto Rico. Mike received his Ph.D. (Civil Engineering) from the UW-Madison, is a registered professional engineer in Wisconsin and five other states, is a Certified Floodplain Manager and developed and teaches the senior-level "Watercourse Design" course at Milwaukee School of Engineering.

## **2:30 PM Session B**

### **Status of Lidar Elevation Projects in Wisconsin**

#### **Jim Giglierano**

Jim Giglierano is the Geographic Information Officer for the Wisconsin Dept of Administration. He works with the Wisconsin Land Information Program and Wisconsin Coastal Management Program to secure funding for lidar and other geospatial projects. Formerly worked for the Iowa Geological Survey, Iowa DNR, and Iowa State University Extension.

### **Using ArcGIS Online and the Collector App in Adaptive Management**

#### **Megan Bender, P.E., CFM**

Megan Bender is a water resources engineer with CH2M in Milwaukee, Wisconsin. She has her PE and Certified Floodplain Manager license, and has been involved with adaptive management projects since she started with CH2M in 2015. She received her BS degrees in Geological Engineering and Geology and Geophysics from the University of Wisconsin – Madison in 2007, and her MS in Environmental Engineering – Water Resources from the Marquette University in Milwaukee in 2012. She works on a

variety of projects including floodplain management and hydrologic and hydraulic floodplain modeling, hydraulic modeling of sewer collection and water distribution systems, and water quality modeling as well.

## 2:30 PM Session C

### **Panel Discussion:**

#### **Thinking Outside the Pond: How to Make Green Infrastructure Work in Wisconsin**

##### **Julia Noordyk, Water Quality and Coastal Communities Specialist, UW Sea Grant Institute**

Julia Noordyk is the Water Quality & Coastal Communities Specialist at the University of Wisconsin Sea Grant Institute. She is also a Great Lakes NOAA Coastal Storms Program Outreach Coordinator and focuses on hazard mitigation, community resilience and reducing stormwater impacts with green infrastructure. A former NOAA Coastal Management Fellow, Julia came to Sea Grant from the Maine Coastal Program where she was a senior planner working on outreach programs in offshore wind energy, water quality and coastal public access. Julia has a M.S. degree in conservation biology and sustainable development from the University of Wisconsin-Madison and a B.S. in zoology from Colorado State University.

## 3:45 PM Closing Plenary

### **Regional Flooding in 2017**

#### **Paul A. Osamn, CFM, IL DNR and Michelle J. Staff, CFM, WI DNR**

Michelle is the Floodplain Management Policy Coordinator and the National Flood Insurance Program (NFIP) Coordinator for the Wisconsin Department of Natural Resources. She has a BS in Geography/Geology from UW-Whitewater and Master of Public Administration (MPA) from UW-Oshkosh. Prior to joining the WDNR, Michelle has worked 20 years in county government in both Jefferson and Waukesha County. As a Zoning/On-Site Waste Management Technician in Jefferson County, she worked in the administration and enforcement of zoning, floodplain, land division, sanitation, and subdivision ordinances. During the 2008 flooding event throughout Jefferson County, Michelle conducted over 500 substantial damage assessments and issued hundreds of zoning floodplain permits for flood damage repairs. She saw firsthand how a flooding disaster can impact a community. She lives in Janesville with her husband and three children. In her free time she enjoys genealogy, traveling and watching her children swim competitively.

Paul Osman is the Statewide Floodplain Programs Manager for the Illinois Office of Water Resources. He coordinates federal, state and local floodplain development regulations as well as the National Flood Insurance Program for nearly 1,000 Illinois communities. His duties also included assisting with the coordination of floodplain mapping, flood disaster response, and flood mitigation activities in Illinois. Prior to joining IDNR/OWR, Paul was a Resource Conservationist with the Soil Conservation Service and served three years as a Resource Conservationist in Northwestern Kenya. Paul is a graduate of Augustana College and has done graduate studies in Resource Management at Illinois State University. Paul has served on the Board of Directors for both the National and State Associations of Floodplain Managers, has served as ASFPM Flood Insurance Chairman, has testified in Congress on floodplain issues, and has served on many national and international task forces regarding floodplain management issues.