

Wednesday, November 7th

9:00 AM XPSWMM Workshop

XPSWMM Training: Best Practices for Floodplain Management & 2D Analysis

Anthony Kuch, Innovyze

Mr. Anthony Kuch, VP SWMM Products has worked for Innovyze for more than 25 years, authored several technical papers, and has instructed consultants, managers, and engineers in over 300 public workshops and on-site training seminars. He currently works in the Product Management group steering the Storm, Sewer and Flood Products to meet the needs of the worldwide user base. He graduated from the University of Guelph in Canada, where he completed his Masters of Science in Engineering. His MSc (Eng) thesis was on developing decision support software tools for sensitivity analysis and calibration of SWMM.

2:00 PM Engineering Ethics Workshop

Does Being Ethical Make Good Visual Sense?

Dr. Gaurav Bansal, University of Wisconsin – Green Bay

Dr. Gaurav Bansal is Frederick E. Baer Professor in Business at the Austin E. Cofrin School of Business at UW- Green Bay. He is the founding chair of the Master of Science in Data Science program at UW-Green Bay, and is currently teaching courses in Data Science, Analytics, and Management Information Systems area. He received his Ph.D. in Management Information Systems (MIS) from University of Wisconsin - Milwaukee in 2008. He has an M.B.A. from Kent State University, Ohio and an undergraduate degree in Mechanical Engineering from MMM University of Technology in India. Dr. Bansal's current research interests are in the areas of user trust re-building in case of online data breaches, role of top management support in creating cyber-secured organizations, and ethical issues in enhancing organizational security policy compliance, among others. Dr. Bansal has published more than 40 peer reviewed journal articles and conference proceedings so far. Before starting his academic career, he worked as Quality Assurance Engineer for General Motors India and Daewoo Motors India.

4:00 PM Evening Reception and Game Night

Thursday, November 8th

9:00 AM Opening Plenary

Update from ASFP, Bill Brown, PE, CFM, Flood Science Center Director ASFP

Mr. Brown is the Association of State Floodplain Managers' Flood Science Center Director. He oversees the Flood Science Center, which works to enhance and further develop collaborative relationships with Federal, Academic, Foundation, and NGO partners with a mission of studying the technical, biologic, social, and economic aspects of flood science. Prior to his tenure with ASFP, he was the inaugural Stormwater Executive Manager for the City of Arlington, Texas where he directed the development of a comprehensive, integrated stormwater and floodplain management program. Over his nearly 30-year career Mr. Brown has worked in the private sector, municipal and county stormwater and floodplain management programs, academia, and not-for-profit organizations focused on integrating stormwater and floodplain management programs which reduced flood risk while improving the environment. He

previously served as chair of the Illinois Association for Floodplain and Stormwater Management, past Co-Chair of ASFPM's Mapping and Engineering Standards Committee and ASFPM's Urban Stormwater Committee, Adjunct Faculty member for the University of Texas at Arlington Department of Civil Engineering and served on a National Research Council for the National Academy of Science committee studying FEMA Flood Maps. Mr. Brown is currently serving a 4-year appointment to the federal Advisory Committee on Water Information. Mr. Brown holds B.S. degrees in Agriculture and Agricultural Engineering from the University of Illinois Urbana-Champaign and a M.S. in Agricultural Engineering from Oklahoma State University.

10:30 AM Breakout Sessions

The Stormwater Benefits of Creating High-Performance Urban Trees

Jeremy Bailey, Senior Consultant, GreenBlue Urban

Jeremy Bailey is a senior consultant at GreenBlue Urban, where his experience covers a broad range including low impact development, urban tree planting, and green infrastructure. His knowledge offers many insights into the value of incorporating high-performance tree design into the urban landscape, providing many solutions that are being utilized globally. Jeremy speaks at green infrastructure and sustainable development conferences around the world and lectures at universities in the United States and Canada.

Calculating Stormwater Volume and Total Suspended Solids Reduction under Urban Tree Canopy in Wisconsin Using Available Research

Steve Gaffield and Dane Wudel, Montgomery Associates: Resource Solutions, LLC

Steve Gaffield has 25 years of experience in hydrogeology and water resources engineering and has been with Montgomery Associates since 2004. He has MS and PhD degrees from UW-Madison and works on stormwater, floodplain and groundwater issues.

Dane Wudel has been a water resources engineer at Montgomery Associates since 2014, where he works on a variety of stormwater and erosion control permitting, modeling and design projects. He has a BS in Civil and Environmental Engineering from UW-Madison.

Historic Mitchell Street Green Parking Lot

Cassandra Bence, Stormwater Solutions Engineering, LLC

Cassandra received her Bachelor of Science in Civil Engineering degree from University of Wisconsin-Milwaukee in 2016. As a Project Engineer at Stormwater Solutions Engineering, LLC (SSE), Cassandra aims to design and integrate innovative stormwater infrastructure around the greater Milwaukee area. Cassandra has worked on projects involving green infrastructure, drainage design and modeling, community outreach, parking lot design, and ADA compliance. She strives to follow SSE's goal of "providing stewardship of our lakes and streams through quality engineering and sustainable design".

Cassandra carries her passion for water outside of work where she mentors the local UW-Milwaukee chapter of Engineers Without Borders (EWB@UWM). She was part of EWB@UWM throughout college taking on multiple officer roles to help the team fundraise for, design, and implement potable gravity/pump fed water systems for villages in the highlands of Guatemala. After travelling to Guatemala for 4 years she knew she couldn't just graduate and say goodbye to EWB@UWM and the people in Guatemala. She has mentored EWB@UWM ever since graduation and has travelled with the group as a professional

responsible engineer in charge. Her work with EWB@UWM helps empower communities to meet their basic human needs and lessens the number of people who live without potable water.

In her spare time, Cassandra enjoys camping with her fiancé, coaching downhill alpine skiing and field hockey, gardening, cooking, and exploring Earth.

Watershed Scale Underground Storage and Advanced Treatment Applications

Matt Kamenick, StormTrap

Matt Kamenick, PE developed an appreciation and passion for our lakes, rivers, and streams as a young boy. Much of Matt's youth was spent on, in, or near the many waterways throughout Wisconsin. This enjoyment has turned into his goal of helping to improve and protect our waterways for the generations to come. He brings 12 years of experience in the stormwater and civil construction products industries. Mr. Kamenick's experience includes working with both private and public-sector clients and primarily focuses on the design engineers or municipalities and is often involved from concept and budget stage through construction. Currently he is a Territory Manager for StormTrap and covers IA, MN, WI. Matt has a Bachelor of Science degree in Civil Engineering from the University of Wisconsin-Milwaukee and is a Licensed Civil Professional Engineer in the state of WI.

County Hazard Mitigation Planning in Wisconsin

Angela Kowalzek-Adrians, Natural Resources Planner, Bay-Lake Regional Planning Commission

Angela Kowalzek-Adrians is a Natural Resources Planner at the Bay-Lake Regional Planning Commission, a planning agency that has been providing technical assistance to county, municipal, and tribal governments in northeast Wisconsin since 1972. She is responsible for management of the environmental and hazard mitigation programs at the Bay-Lake RPC. For the past 17 years, Angela has worked with local and tribal governments, and state and federal agencies to promote sustainable initiatives, hazard and resiliency planning, and the protection and restoration of Lake Michigan coastal resources. Angela holds a Master's of Science degree in Environmental Science and Policy with an emphasis in Environmental Planning from the University of Wisconsin - Green Bay.

National Flood Insurance Program Requirements Concerning Coastal Construction

Michelle Staff, Wisconsin Department of Natural Resources

Michelle Staff is the Statewide Floodplain Policy Coordinator for the Wisconsin Department of Natural Resources. She coordinates federal, state and local floodplain development regulations as well as the National Flood Insurance Program for nearly 550 Wisconsin communities. Her duties also include assisting with the coordination of floodplain mapping, flood disaster response, and flood mitigation activities in Wisconsin. Prior working for the WDNR, she worked 20 years in county government in the administration and enforcement of zoning, floodplain, land division, sanitation, and subdivision ordinances. During the 2008 flooding event, Michelle conducted over 500 substantial damage assessments and issued hundreds of land use permits for flood damage repairs. She saw firsthand how a flooding disaster can impact a community. She has a BS in Geography/Geology from UW-Whitewater and Master of Public Administration (MPA) from UW-Oshkosh. She is a Certified Floodplain Manager through the National Association of Floodplain Managers.

12:00 PM Lunch Plenary

Statewide Record Flooding

Katie Sommers, CFM, Wisconsin Emergency Management

Katie Sommers is a Certified Floodplain Manager with eight years of experience in hazard mitigation and floodplain management. She served as Wisconsin's State Hazard Mitigation Officer for three years before moving into the Hazard Mitigation Section Supervisor position she presently occupies at Wisconsin Emergency Management. Katie has worked with federal, tribal, state, local, private, and non-profit representatives to implement hazard mitigation measures across the state. She has been active in national and state hazard mitigation and floodplain management organizations and events. She is the District 2 Chapter Director for the Association of State Floodplain Managers and administers the scholarship program for WAFSCM.

1:00 PM Breakout Sessions

Navigating the floodplain study approval process with WI DNR

Chris Olds, State Floodplain Engineer WDNR

Graduated from UW-Madison Biological Systems Engineering program in 2002. Started working for the DNR floodplain program as a student in 2001 and has held different positions in that program since then. Currently the lead floodplain engineer for the DNR in the central office of Madison. Has been heavily involved in FEMA's MapMod and RiskMap programs to update Flood Insurance Rate Maps and encourage flood mitigation projects.

Wisconsin Elevation Mapping: Statewide Completion of Lidar, Development of Hydro-enforced Products and Planning for Future Needs

Jim Giglierano, Wisconsin Dept of Administration

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.

Building Coastal Resilience in Southeastern Wisconsin through Research, Education, and Collaboration

Adam Bechle, Wisconsin Coastal Management Program/Wisconsin Sea Grant

Adam Bechle is a Coastal Resilience Outreach Specialist with Wisconsin Sea Grant and the Wisconsin Coastal Management Program. In this role, Adam coordinates a NOAA Coastal Resilience Grants project that is helping coastal communities in Southeastern Wisconsin plan and prepare for coastal hazards. Adam received a Ph.D. in Civil and Environmental Engineering from the University of Wisconsin Madison.

Using Computational Fluid Dynamics (CFD) Modeling Effectively: Weighing the Advantages and Disadvantages of CFD Modeling

Brent Teske, FreshWater Engineering

Brent Teske is a water resources and CFD engineer at FreshWater Engineering in Madison, Wisconsin. He holds an MS in Civil and Environmental Engineering from UW-Madison, as well as a BS in Mechanical Engineering from Iowa State University. His graduate research involved sustainable shore protection design in low-energy lakes with an emphasis on establishing native flora communities and habitat for local fauna. Brent's expertise includes stream and wetland restoration, living shoreline design and implementation, and CFD modeling. When not at work, he enjoys time outdoors, often on his bike or cross-country skiing.

The Community Rating System (CRS) Credits and Documentation

Lou Ann Patellaro, ISO / CRS Specialist, Insurance Services Office

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 Breakout Sessions

Using Air-Cooled Blast Furnace (ACBF) slag to Remove Ortho Phosphorus from Stormwater

Todd Weik, CBC Engineers and Associates

Todd Weik is a Professional Landscape Architect with over 30 years of experience in the field of Water Resources and Stormwater Management. He currently leads the Stormwater Management Design Services for Ohio based CBC Engineers and Associates. Mr. Weik co-authored "Air Cooled Blast Furnace Slag II: Phosphate Removal from Simulated Rainfall Events" which was recently published in the ASCE Journal of Hazardous, Toxic and Radioactive Wastes.

How the "Hanging Levee" Technique in FEMA's 2018 Levee Guidance is being applied in the Milwaukee Area

Rich Klein/Stantec, Aaron Volkening/Stantec, Mark Mittag/MMSD

Rich has 25 years of experience as a consulting civil engineer. His more interesting projects have focused on flood risk reduction and stream corridor improvement. These projects generally involve modifying watershed hydraulics using levees, ponds and sewers, and improving the floodplain and riparian corridor. He also spent several years on project teams designing combined sewer overflow (CSO) facilities, large diameter deep tunnels in rock, and smaller diameter sewer tunnels in soft ground. He most enjoys leading teams of talented engineers and specialists in developing solutions that tangibly benefit the communities with whom he works.

Green Infrastructure Planning on a Watershed Scale

Carrie Bristol-Groll, Stormwater Solutions Engineering

Ms. Bristol-Groll is the Principal Civil Engineer and CEO of Stormwater Solutions Engineering, LLC (SSE), and the designer of a new patent-pending stormwater product, StormGUARDen™. Carrie received her Bachelor of Science degree in Civil Engineering from University of Wisconsin-Milwaukee in 1994. Carrie has been working in the field of stormwater engineering since that time, starting out as a Civil/Stormwater Engineer at the Cities of Milwaukee and Brookfield, Wisconsin, prior to founding SSE in 2002. SSE is located at the Global Water Center in Milwaukee and has a team of 8 professionals who hold the same passion for water quality and flood management.

Carrie enjoys assisting her clients in seeking solutions for their stormwater needs, oftentimes by searching out or developing new strategies or technologies. SSE's clients include WisDOT, Milwaukee Metropolitan Sewerage District, municipalities, and private land-owners.

Carrie serves her community as an Advisory Board member for the Wisconsin Sea Grant, as the organizer of river and beach clean-ups and as the organizer for the Women of Water (WoW) in the Milwaukee area, a group of 175 women in various water industries. Carrie is married to Tony, her husband of 29 years, has three grown sons, and a German Shepherd Dog, Ava. In her spare time, she enjoys running, motorcycling, kayaking the Milwaukee Rivers, gardening and cooking.

Neighborhood Outreach and Green Infrastructure Installation: Shorewood and Greenfield Neighborhoods

Adrienne Cizek, Stormwater Solutions Engineering

Adrienne earned her PhD studying Regenerative Stormwater Conveyance (RSC) at North Carolina State University, working along-side the NC state extension, state and local water quality regulators, and engineering design firms. Adrienne's history involves designing innovative and integrated approaches to wastewater, graywater, stormwater, and rain water collection, treatment, and reuse including managing the installation of systems, permitting and outreach through workshops and training. Adrienne's role at Stormwater Solutions Engineering, involves Green Infrastructure design and community engagement as well as floodplain modeling, stormwater management plans, permitting, grant applications, and culvert design. Adrienne also serves as a team member developing WDNR technical guidance with the Standards Oversight Council, as well as leads a course at UW-Milwaukee School of Continuing Education. In her spare time, Adrienne enjoys running, gardening, and adventuring with her family.

Midwest Urban Stream Restoration: Two Case Studies that Rehabilitate Ecological Function in a Developed Landscape

Brent Brown, Jacobs

Brent Brown is a water resources engineer, project manager and senior technologies at Jacobs Engineering Group (formerly as CH2M HILL) who works on projects involving hydraulic analyses and design for water and wastewater clients, ecosystem protection and restoration, habitat and geomorphic assessment, and watershed and stormwater management. He has a bachelor's degree from the University of Wisconsin at Platteville in civil/environmental engineering and a master's degree from the University of Illinois at Urbana-Champaign in environmental engineering. He has over 18 years of experience and has lead a variety of projects involving stormwater and agricultural land management, urban stream restoration design, contaminated sediment dredging and beneficial reuse, and dry cargo shipping on the Great Lakes.

Floodplain Management Plans -Arcadia, WI Case Study

Daniel Cook, Davy Engineering Company

Dan works for Davy Engineering and has been providing civil engineering services for 35 years, with most of that experience involving water resources. Over the past 25 years, he has provided floodplain-mitigation analyses for mitigation plans; dam inspections; stormwater treatment; design of alternative solutions to flood-proofing; and hydraulic analyses for developments, bridges, and culverts. Dan is a skilled facilitator of watershed management and public comment meetings.

3:45 PM Closing Plenary

Milwaukee Metropolitan Sewerage District's Integrated Watershed Management Programs

Kevin L. Shafer, PE, Milwaukee Metropolitan Sewer District

Kevin Shafer has served as the Executive Director of the Milwaukee Metropolitan Sewerage District (MMSD) since 2002. Shafer is responsible for the overall management, administration, leadership, and direction for MMSD in meeting short- and long-term goals and objectives; coordinating the establishment of strategic goals and objectives and their approval by the Commission; overseeing the development of policies and operating plans; and representing MMSD to its customers, bond rating agencies, and the public. Prior to joining the District, Shafer spent 10 years in private industry with an international engineering firm in Chicago and Milwaukee, and six years with the U.S. Army Corps of Engineers in Fort Worth, Texas. He holds a bachelor of science degree in civil engineering with a specialty in water resources from the University of Illinois and a master of science in civil engineering from the University of

Texas. He is a past president of the National Association of Clean Water Agencies. He currently serves as the Chair of the US Water Alliance Board of Directors and is the Co-Chair of the Water Research Foundation (WRF) Board of Directors. He is a past member of the EPA's Local Government Advisory Committee.

Friday, November 9th

9:30 AM Field Tour

Tour of three different Milwaukee area projects:

- South Shore Stormwater Project using Fungi for Water Quality Benefits
- Reimagining the KK River from 6th Street to Pulaski Park (concrete removal in progress and flood protection)
- Underwood Creek Rehabilitation (concrete removal completed)

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 land owners. She holds a Master of Science 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.