



Ohio Stormwater Conference 2025 Registration Information

May 7 - 9, 2025

Kalahari Conference Center - Sandusky
ohstormwaterconference.com

HIGHLIGHTS!

- ✓ Kayak Tour/Birding Tour/Bourbon Event
- ✓ Informative Presentations
- ✓ Networking
- ✓ Incredible Exhibitors and Sponsors



Contact: Harry Stark
Email : harry@tinkerscreek.org

18th Annual Ohio Stormwater Conference

Conference Overview

Recognizing that watershed and stormwater management involves people of varying disciplines and degrees of experience, our conference engages speakers experienced in many aspects of stormwater or water resource management. Speakers will address: examples of planning and design; new standards being developed; incorporating environmental goals into traditional stormwater areas; practice effectiveness; program administration and management; communications; as well as meeting regulatory requirements. Beyond learning from listening and dialogue with speakers, the conference provides an excellent opportunity to meet, network and collaborate with peers.

Who Should Attend?

Planned by a committee of professionals who deal with stormwater issues on a daily basis, the conference is appropriate for public and private engineers, planners, policy makers, scientists, managers, and elected officials throughout Ohio and the region. Those interested in innovative solutions to common issues relating to stormwater management should attend.

Continuing Education

A Certificate of Attendance will be provided to all individuals who attend the conference. This certificate, along with a copy of the agenda, will assist individuals needing to document professional development hours for their technical profession. We are also seeking to get approved hours from a variety of professions. Please contact Harry Stark with any questions at 216-385-5248 or harry@tinkerscreek.org.

Kalahari Conference Center

Kalahari Resort and Conference Center is located at 7000 Kalahari Drive, Sandusky, Ohio 44870. Complete directions can be found on the conference website.

Hotel Information

We are pleased to announce that the Conference has secured a block of rooms for the conference. Secure your room today!

Booking Website:

<https://book.passkey.com/e/50927572>

Go to the conference website and under hotel/travel is a direct link to the reservation page.

Note: The Resort Fee has been waived and will not be charged on any guest room. The standard wording on their website and confirmation letters though cannot be changed so it will reference the Resort Fee but no fee will be assessed.

Presented By

The Ohio Stormwater Conference is presented annually by the Tinker's Creek Watershed Partners and a dedicated group of volunteers.



Conference Schedule

The Below Schedule is Subject to Change

Wednesday, May 7, 2025

| | |
|-------------------------|------------------------------|
| 9:00 a.m. - 11:00 a.m. | Kayak Tour |
| 10:00 a.m. - 4:00 p.m. | MS4 Boot Camp |
| 10:00 a.m. - 11:30 a.m. | Birding Tour |
| 6:00 p.m. - 8:00 p.m. | Bourbon (wine) Tasting Event |

Thursday, May 8, 2025

| | |
|---|---------------------------------|
| Exhibit Area open 8:30 a.m. - 7:30 p.m. | |
| 7:00 a.m. - 8:30 a.m. | Registration / Breakfast |
| 8:30 a.m. - 12:00 p.m. | Concurrent Sessions with breaks |
| 12:00 p.m. - 1:30 p.m. | Luncheon |
| 1:30 p.m. - 5:30 p.m. | Concurrent Sessions with breaks |
| 5:30 p.m. - 7:30 p.m. | Reception |

Friday, May 9, 2025

| | |
|------------------------|---------------------------------|
| Exhibit Area open | 8:30 a.m. - 12:00 p.m. |
| 7:30 a.m. - 8:30 a.m. | Registration / Breakfast |
| 8:00 a.m. - 12:30 p.m. | Concurrent Sessions with breaks |

Registration Type/Fee

| Attendee | Speaker | Student | Scholarship |
|--|----------|----------|-------------|
| \$250.00 In Person (\$300 after 4/15/25) | \$125.00 | \$100.00 | \$100.00 |
| \$10.00 Kayak Tour | | | |
| \$10.00 Birding Tour | | | |
| \$75.00 Bourbon Tasting Event | | | |

Registration Includes:

- Unlimited admission to the sessions of your choice on both days
- Access to all recorded presentations after the event.
- Admission to morning breakfasts and all breaks
- Admission to luncheon on Thursday
- Admission to the receptions on Wednesday and Thursday

Register online
ohstormwaterconference.com

Questions? Contact us at
216-385-5248 or e-mail at
harry@tinkerscreek.org

MS4 Boot Camp and Tours

MS4 Boot Camp

Join the Ohio Stormwater Association as it hosts its annual day-long stormwater permit compliance training session on Wednesday, May 7, at Kalahari Resort -- the day before the Ohio Stormwater Conference begins. Whether you have been recently designated a Municipal Separate Storm Sewer System (MS4) community or you have been working with the MS4 program for years, come learn about how other communities meet the requirements of the permit. You will better understand permit requirements and compliance challenges from other MS4 communities and Ohio EPA stormwater staff. This training will provide all the information and tools your community needs to manage a successful MS4 program compliant with the latest Ohio stormwater general permit. Ohio EPA will provide insight on the NPDES program and existing successful MS4 communities will share their perspectives on the program elements.

Come for the training - stay for the conference!

When: Wednesday, May 7, 2025, 10:00 AM until 4:00 PM
Where : Kalahari Convention Center
Event Contact(s): LaShawna R Weeks, Committee Chair
419-936-3015 (p)

Category: Workshops / Trainings

- Registration is required
- Payment in Full In Advance Or At Event
- WMAO / OSWA Members US\$ 65.00
- Non-Members US\$ 70.00

Register today: https://www.wmao.org/content.aspx?page_id=4091&club_id=259593&item_id=2555026

Kayak Tour

Join the Ohio Coastal Training Program for a tour of the barrier beach and the very first Ohio Nature-Based Shoreline Certification Pilot Project before embarking on a paddling tour of the estuary. Staff will discuss some of the different initiatives of the Old Woman Creek National Estuarine Research Reserve, including shoreline stabilization techniques, stormwater management practices, and citizen science monitoring. Canoes/kayaks, paddles, and life preservers provided by OWC NERR. Must be comfortable in a boat and paddling on one's own. Please bring water, sunscreen, and bug spray and dress for the weather.

Price: \$10.00

Time: 9am-11am

Place: Old Woman Creek Reserve Boathouse, 2005 Cleveland Rd E, Huron OH 44839

Birding Program at Sheldon Marsh, Ohio

Join TCWP Watershed Coordinator Matt Siefert on a guided birding hike as we search for spring migrants. The Lake Erie coast is a major hotspot for bird migration, and participants will have the opportunity to see some of Ohio's most sought-after species. Meet at Sheldon Marsh State Nature Preserve, 2715 Cleveland Rd W, Huron, OH 44839. Hike will go from 10:00 - 11:30 am. Carpooling recommended if possible. Come prepared to walk 1-2 miles of trails. Binoculars recommended, but some will be provided. Birders of all skill levels welcome. Maximum 10 participants.

Time: 10:00 AM - 11:30 AM

Cost: \$10.00

Guided birding tour, including interpretive talks on bird species, migration, and habitat.

Transportation: Participants are responsible for their transportation to Sheldon Marsh. We encourage carpooling where possible. Upon arrival, please gather at the designated meeting point.

Bourbon (or Wine) Tasting Event

Bourbon Tasting Event

Join us for a fun time at Kalahari on Wednesday evening. This event will be a great time to network and have fun with those who attend. Enjoy a tasting of four bourbons (or have wine if you are not a bourbon fan) plus some awesome appetizers.

Appetizers will include:

- Bacon Wrapped Dates- Dates | Gorgonzola | apple wood bacon | bourbon glaze
- Smoked Brisket Sliders- Brioche roll | Smoked Brisket | bourbon and cherry BBQ
- Candied Bourbon Bacon- Thick cut bacon | brown sugar | Tellicherry pepper | maple | bourbon
- Southern Cheese and Charcuterie Board- Olives | fry bread | pimento cheese | kielbasa | brats | pickled okara | pepperoncini's | pepper jack cheese | white cheddar | pepper jelly | BBQ sauce | hot mustard | hot honey | crackers | dry rub bbq

This will be a fun event to hang out, enjoy some bourbon (wine), and prepare for another great conference.

Tentative time: 6:00 pm - 8:00 pm

Cost: \$75 per person

Maximum Number of People: 75

Location will be at the Kalahari Resort.

For more information, contact Harry Stark at harry@tinkerscreek.org

Hope to see you there!!



Program Sessions and Topics

Thursday May 8, 2025

Opening

Harry Stark, City of Aurora

Welcome to the 18th annual Ohio Stormwater Conference and overview of stormwater regulations in Ohio, regional success stories, and future outlooks on regulations, projects and rainfall.

Program Sessions

Watershed Planning and Restoration

Thursday

From Planning to Implementation: Case Studies in NPS-IS

Deanna Bobak, Civil & Environmental Consultants

The presentation will briefly describe NPS-IS plans and highlight projects that incorporate stormwater management/green infrastructure, stream/wetland restoration and agricultural best management practices that were developed during a NPS-IS planning process or leveraged NPS-IS plans for implementation funding to help generate ideas of how entities may engage this process.

From a School and a Soccer Field to Reclaimed Greenspace

Ellery Schneider, NOWCorps at Cleveland Metroparks

Anthony Casey, NOWCorps at Cleveland Metroparks

This presentation examines two previously developed sites that have been restored to improve connectivity between parklands, protect the local watershed, and expand wildlife habitat. Discussion will include the opportunities presented with the Cleveland Metroparks acquisitions, including revegetation methods, soil remediation techniques, and geographical factors involved.

Identification and Evaluation of Alternative Wetland Assessment Methods

Matt Lamoreaux, Ohio EPA

Mat Aldridge, Burgess & Niple

Ohio EPA conducted evaluations of 50 wetlands statewide to test the efficacy of alternative wetland assessment methods to the ORAM and VIBI. These alternative methods were statistically evaluated to determine if they could be utilized for wetland scoring and during wetland mitigation monitoring.

Restoration Basics: Get the Soil Right, Plants will Follow

Jim Kooser, Atlas Technical Consultants

Eric Goddard, Atlas Technical Consultants

Traditional remediation practices often lead to non-native plant species communities, nutrient poor soils, and undesirable site conditions. Native plant community reestablishment enhances beneficial pollinators, wildlife, and microbial communities which benefit site health. We will discuss practical cost-effective strategies to remediate a site with soil conditions conducive to native biological communities.

2025 ASCE Ohio Infrastructure Report Card Stormwater Chapter Update

George Remias, NEORS

Derek Vogel, NEORS

Learn about the Stormwater Chapter of the 2025 ASCE Ohio Infrastructure Report Card from its co-authors. Learn about how the grade is determined, what areas Ohio excels and can improve, trends since the 2021 Ohio Report Card, recommendations for improving the grade, and how professionals and programs can get involved.

Balancing Dam Safety, Stormwater, and Community Goals within Urban Watersheds

Denis Zaharija, NEORS

Steven Riedy, HDR

Tom Batrone, HDR

As part of NEORS's Regional Stormwater Program, the Lower Shaker Lake Dam was identified as a critical asset for achieving regional stormwater conveyance and management objectives. This presentation will cover preliminary engineering analysis conducted as part of the project including: dam safety regulations, stormwater management, and public education and outreach.

Flora vs Fawn-a: Losing Green to Save A Buck

Jessica Glowczewski, City of Akron

What are the devastating impacts of long-term unchecked deer populations in a highly protected watershed area surrounding a drinking water reservoir, and what is the City of Akron doing to manage the damage to get to the point where restoration could even be considered?

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Thursday 1:15 pm - 2:45 pm.

Sandusky Bay Landscape Scale Restoration Initiative for Water Quality Improvements Ashlee Decker The Nature Conservancy

Tom Denbow, Biohabitats

Eric Saas, ODNR

Sandusky Bay is Ohio's most important lacustrine. The Bay has been impacted by nutrient loadings and land use changes. This session will discuss how the Ohio has moved from concept to project implementation with The Nature Conservancy taking the lead to address water quality problems.

Upper Blacklick Creek Watershed: Innovative Flood Mitigation Solutions

Chad Boyer, ms consultants

The Upper Blacklick Creek Watershed Study addresses flooding and erosion in Reynoldsburg, Ohio. This presentation covers study objectives, data collection, and hydraulic modeling techniques for riverine and storm sewer flooding. Attendees will learn about various flood mitigation alternatives and the importance of stakeholder involvement and data collection in developing effective solutions.

The Past, Present, Future of managing Private Lands in Ohio

Christina Kuchle, Division of Wildlife, ODNR

Learn about the conservation tools available via the Federal Farm Bill to restore habitat on private lands. Ohio has gone from having a few hundred thousand dollars available to millions. Come learn how your community may be able to take advantage of these resources and partner with us.

Friday

How environmental justice can strengthen an evolving stormwater program

Lilah Zautner, NEORS

Leila Jackson, NEORS

A leader in environmental stewardship, NEORS has recommitted to the advancement of environmental justice. Learn how stormwater project nominations, green infrastructure grants, the investigation of illicit discharges, and property acquisition processes are evolving to combat systemic, implicit inequities within our urban-suburban service area.

Accessibility to Environmental Education

Nichole Lally, NOWCorps at University of Akron Field Station

This presentation supports local watershed education accessibility and inclusivity for all communities by drawing on successful examples from The University of Akron Field Station, Cleveland Metroparks, and Summit SWCD. Strategies for creating watershed education programs that foster environmental justice and community stewardship will be discussed.

NOACA Riparian & Wetland Setback Legislation Review Update 2024

Pamela Davis, NOACA

NOACA updated its 2012 Regional Riparian Setback Legislation Review report in 2024, examining riparian and wetland setback codes of all 165 communities in the NOACA region. NOACA's 2024 Review assesses setback codes to determine if they embrace regional recommendations included in the 2006 Community Riparian & Wetland Guidance brochure.

Leveraging Mass Media to meet Stormwater Public Education Goals

Tiara Davis, TMACOG

Launched by TMACOG's Stormwater Coalition, Lake Erie Starts Here NW Ohio is a stormwater education program that began as a mass media campaign in 2024. Following its first year, the successes and challenges of the program can guide plans for expansion and future collaborations for the betterment of Lake Erie.

Protecting Watersheds through Erosion Control Methods

Michael Everhart, CPESC, QSM EJ Prescott

People who attend this presentation will leave with a better understanding of the different erosion control solutions available to them. This presentation will provide a greater understanding of the importance of soil testing before recommending soil amendments and how to build sustainable vegetation for erosion control and stormwater management.

Legal

Thursday

Foundations of Water Law: Ohio and the Clean Water Act

Louis I. McMahon, McMahon DeGulis

Curious about the underlying legal principles that drive stormwater planning? This presentation will review the basics surrounding the multiple sources and regulators of water law in Ohio. Highlights include common law property and tort doctrines, local authority, state regulation and federal jurisdiction, practical implications of Sovereign Immunity, and ditch law.

New Administration, New Directions

Louis L. McMahon, McMahon DeGulis

A change of administration often drives technical priorities and can require stormwater professionals to shift priorities and change programmatic focus. Get informed on this, the latest stormwater-related litigation and other timely, legal hot topics.

Engineering Failures + Their Consequences

Tom Pannett, Kegler Brown Hill + Ritter

This session will cover a hand-full of failures that cost money and lives and will dig into the ethical compromises of the engineers in charge.

Forever Chemicals, Forever Questions: PFAS from the Stormwater Perspective

Louis L. McMahon, McMahon DeGulis

Megan E. Goedeker, McMahon DeGulis

PFAS and PFOA, also known as forever chemicals, are forever in the headlines as administrative agencies grapple with how to regulate these chemicals, leaving confusion in the wake. We'll take a look at how these questions may shape the stormwater industry.

Legal Hot Topics and Headlines in Stormwater Management

Megan E. Goedeker, McMahon DeGulis

Get informed on the latest stormwater-related litigation and other timely, legal hot topics and the practical implications for all who have a direct stake in stormwater management, non-point source pollution or the modeling of urban water systems.

Mitigating Flood Risks (And How to Pay For It)

Lee A. Slone, McMahon DeGulis

John M. Hoopingarner, McMahon DeGulis

A "greatest hits" approach that will appeal to water managers and stormwater utilities alike, this presentation examines opportunities to mitigate flood risks and how to pay for those projects. We will highlight some of the floods that never happened, one of the hidden benefits of Conservancy Districts in Ohio.

NUTRIENTS: Important Issues Coming to a Great Lake Near You

Louis L. McMahon, McMahon DeGulis

Nutrients are found in all of Ohio's many lakes, rivers, and streams. The regulatory strategy to mitigate this pollution continues to evolve. Learn how this will affect municipal stormwater management strategies.

Legal Roundtable Louis L. McMahon, McMahon DeGulis

Stormwater Practices and BMPs Planning and Design

Thursday

Performing for the Protocol at the Expense of Overall Functionality

Derek M. Berg, Contech Engineered Solutions

This presentation explores trends in SCM innovation intended to maximize measured laboratory performance that overlook other pollutants, the potential for clogging and fowling, maintenance frequency, and overall maintainability.

Discussion will focus on areas for improvement and staying mindful of the complexity inherent in addressing stormwater runoff in the field.

AI in the Stormwater Industry: Practical Applications Available Today Ty Garmon, Digital Stormwater

Introduction to AI's practical applications, covering predictive flood analytics, water quality monitoring, and BMP maintenance. Attendees will learn about accessible tools, how to prepare data for AI, and strategies for overcoming adoption challenges, with insights into future AI advancements in stormwater management.

Nature-Based Innovative Stormwater Management Solution Using Existing Hard Covered Street Dr. Thewodros K Geberemariam, NYC DEP

New York City's initiative exemplifies an innovative approach to stormwater management by repurposing existing hard covered (concrete) street medians for nature based green infrastructure solutions. The presentation reviews incorporating design features to capture significant volumes of stormwater runoff, reduce pollutant loads, decrease overflow event frequencies, and mitigate extreme weather-flooding.

From Overflow to Opportunity: Innovative Approaches to Stormwater Reuse Brian Torres, PE, Burgess and Niple

Learn how stormwater reuse offers a cost-effective solution to increasing water demands. This session examines infrastructure, treatment processes, and regulatory strategies through case studies, providing actionable approaches to sustainable water conservation.

Rainwater and Land Development Updates Justin Reinhart, Ohio EPA

This session will provide news on recently completed and in-progress revisions to the chapters in Ohio's stormwater design manual titled Rainwater and Land Development that cover Erosion and Sediment Control BMPs. Opportunity for input and other manual-related questions will be included.

Stormwater Managed Release Concept: Sustainable Solutions for Urban Resilience Deryk Shaw, Rettew Associates

The Stormwater Managed Release Concept (SMRC) controls stormwater release to reduce flooding and improve water quality, integrating green infrastructure with traditional systems. In non-infiltrative areas, SMRC uses detention, retention, and advanced treatment to manage runoff. It offers a sustainable solution to urbanization and climate change challenges, enhancing urban resilience.

Flood Reduction, Channel Reconstruction, Flow Resumption, and Obstruction Subduction! Derek Vogel NEORSD

Dempsey Ballou, Jacobs

NEORSD's Regional Stormwater Management Programmatic Purpose was achieved through the \$8.3M Chippewa Creek Flood Reduction Project, the District's first capital stormwater project directly resulting from regional stormwater master planning. Discover programmatic and technical lessons learned for property acquisition, stream restoration, and basin optimization for flood control.

Sustaining Ohio's First 'Clean Water Contractor Program'

Emily Kuzmick, ODNR Old Woman Creek

Valerie Sasak, Erie Conservation District

The Ohio Coastal Training Program and Erie Conservation District have partnered for ten years on the Clean Water Contractor Program, initially created to fill the gap in stormwater literacy for those directly performing construction. The partnership will share the program's evolution and the importance of knowing your audience.

Friday

Stormwater Real-Time Controls at CVG Airport to Protect Gunpowder Creek Cole Musial, Cincinnati/Northern Kentucky International Airport (CVG)

Chris Kaeff, Williams Creek Management

Dayton Marchese, OptiRTC

Join us to learn how CVG Airport's real-time control of a 58 ac-ft stormwater basin collecting runoff from over 3,700 acres upstream of Kentucky's Gunpowder Creek improves stream health, mitigates flood risk, and contributes to the airport's environmental compliance and sustainability initiatives.

Oakridge - Where A CMP Should Not Have Been!

Mark Delisio, Verdantas

During a stormwater master planning effort to prioritize O&M and capital spending, a collapsed and failed corrugated metal pipe was discovered. This presentation examines lessons learned from a construction contract to replace failed twin 30" x 50" pipes between homes that were only 18 feet apart.

A closer look at the water quality volume

Justin Reinhart, Ohio EPA

Engineers naturally tend to focus on the math. While formulas and calculations are an important part of managing stormwater, understanding the intentions and inner workings of the requirements can help design better projects. This presentation will look at the Water Quality Volume prescribed in Ohio's NPDES Construction General Permit.

Gravity Separation for Stormwater Sediment – Then and Now

Dana Stayer, StormTrap

Over time, gravity separation devices used for stormwater treatment have evolved from ponds to the latest in hydrodynamic separators (HDS). Each new design evolved to overcome the limitations of its predecessors. Review operation principles of successive generations of HDS and the limitations that lead to each evolution.

Ohio EPA Updates and Roundtable Jason Fyffe Ohio EPA

Climate Change, Resiliency, and Sustainability

Thursday

Climate Resiliency in Ecological Restoration, Collective Action, and Community Education

Peter Bode, Nature Center at Shaker Lakes

Leverage the power of industry to help guide public understanding of the importance of stormwater control measures and ecological restoration in the vantage of climate resiliency. Learn about a vertical alignment Workforce Development effort focusing on elementary through Higher ed and trade unions. Gain tools for increasing your project's impact.

Town of Ashland, Virginia Flood Resiliency Plan

Alice Ortman, Johnson, Mirmiran & Thompson

Collin Marshall, Johnson, Mirmiran & Thompson

In response to worsening flood conditions exacerbated by climate change and to address flooding in low-income and environmentally vulnerable areas, the Town of Ashland contacted JMT to develop a flood resiliency plan for their community.

Managing Forests for Resilience: Looking at Birds

Rosana Villafan, NOWCorps at Holden Forests and Gardens

Invasive species, pests, pathogens, and climate change threaten forests and streams. To protect these habitats, The Holden Arboretum is managing forested sites close to high quality streams to mitigate these threats. As the long-term monitoring

continues, bird response will be presented to demonstrate the management impact on forest health.

Holistic Stormwater Management to Improve Sustainability and Resilience

Dan Figola, ADS

Benjamin Sojka, RMS

The presentation will explore how an available resource, stormwater runoff, can be harvested and used for irrigation or indoor applications. It will discuss the benefits from a cost, sustainability, and resiliency perspective. It will also discuss the current and emerging standards as well as design strategies that can assist engineers.

East vs. West: Stormwater Solutions Showdown with a Wicked Twist

Kendall Grimm, R2O Consulting

Rachel Sebian, R2O Consulting LLC

East vs. West and the “No Good Deed” of managing water resources in diverse climatic regions of the U.S. This presentation highlights the importance of region-specific modeling to enhance urban resiliency to climate variability and extreme weather, proving that with the right strategies, we can all be “Changed for Good”.

Forecasting the Future for Central Ohio's Watersheds

Eric Onderak, PE Coldwater Consulting

Kathleen Smith, PE, PMP, ENV SP Hazen and Sawyer

Results from the Central Ohio Regional Water Study include a summary of current local water quality conditions and how future development, population increases, and changing climate conditions will impact the most vulnerable and sensitive watersheds; results will also focus on opportunities and strategies to protect these watersheds.

Stormwater Parks: How to Create Economic and Social Resilience

Julie Stein, HDR

Tom Batrone, HDR

Through four case national case studies (Historic Fourth Ward Park and Rodney Cook Jr. Park (Atlanta), San Antonio River Authority River Walk, and Liberty State Park) this presentation discusses eight critical success factors for integrating stormwater design, policies, politics, equity, and economic valuation into stormwater park projects.

Addressing Climate Change with Higher Standards for Better Watershed Management

Kari Mackenbach and Anil Tangirala, ms consultants

Climate change is a daunting topic but some very simple changes in your stormwater or floodplain regulations can help your community to address these concerns. Learn about how other communities across Ohio have done this and the learn the steps that can be taken to accomplish these changes.

Stream and River Restoration and Science

Thursday

Natural Biodegradable Erosion Control Products for Channel and Streambank Stabilization

Andy Durham, P.E. Western Green

Natural streams and waterways are routinely impaired by erosion and sedimentation from high velocity flow. Restoring streambanks can utilize a bioengineered approach by implementing natural and biodegradable erosion and sediment control products. Proper selection and performance of manufactured solutions are presented, resulting in sustainable riparian ecosystem enhancement.

Changes in the plankton community in Sandusky Bay 2018-2023

Christopher Ward Bowling Green State University

We describe the change in water quality and plankton in Sandusky Bay OH over the past decade and discuss implications for restoration of impacted water bodies.

A Nature-Based Approach for Resilient Infrastructure: SEPTA Jenkintown Stream Restoration

Tyler Charles, JMT

The Southeastern Pennsylvania Transportation Authority (SEPTA) Jenkintown Stream Restoration project relieved flooding at a key commuter railroad station by embarking on a comprehensive flood mitigation strategy. This urban stream restoration project improves the resiliency of SEPTA's facilities and provides infrastructure protection by leveraging the stacked benefits of ecological restoration.

Habitat and biological communities improve post-restoration in two Ohio streams

Julie Bingham and Jennifer Clark, EnviroScience

Stream restoration projects designed for habitat stability and improvement led to successful outcomes during post-restoration monitoring for habitat, macroinvertebrates, and fish in a coldwater and warmwater stream (northeast Ohio). Habitat achieved 'Excellent' ratings allowing for sensitive taxa to colonize and successful recovery of brook trout populations in the coldwater stream.

Navigating the Many Surprises of a Stream and Wetland Restoration

Kevin Saracino, Chagrin River Watershed Partners

Christina Znidarsic, Davey Resource Group

Join us to learn about an Ohio EPA Section 319 funded stream and wetland restoration project which presented several expected and unexpected challenges. Learn how the team approached and resolved each issue to achieve a successful restoration.

Can't Touch This: Restoration of Aquatic Habitat in Petitioned Ditches

Rachel Spadafore, Biohabitats

Aquatic habitat restoration in petitioned ditches can be challenging for practitioners and managers alike due to petition ditch law. Early engagement with county engineers and floodplain managers can be beneficial in building partnerships and solutions that restore ecosystem services while meeting ditch maintenance needs.

Conservation Ditches in Lucas County Designed to Reduce Nutrient Contributions

Mike Pniewski, Jay Mosley and Matt McFadden, Lucas County Engineers

A review of ten grant funded two-stage or self-forming conservation ditches in Lucas County, Ohio. The presentation discusses grant funding programs, design tools used to size the ditches, the ditch petition process utilized for long-term maintenance, initial water quality sampling results, and the design, construction, and maintenance challenges of the projects.

Digital Stormwater Asset Management: A 360° Stormwater System Streamview
Sarah Fuller, Wade Trim
Ryan Abrahamsen, Terrain 360
NEORSD has used state-of-the-art technology and Reality Capture methods to create a digital 360-degree viewer ("streamview") for hundreds of miles of asset waterways to bolster inspection, monitoring, and maintenance needs. Come see this one-of-a-kind Google-esque "streamview" and glimpse the future of stormwater system management.

What's to be Gained? Quantifying Stream Function at Cleveland Metroparks
Elizabeth Hiser, Cleveland Metroparks
Cleveland Metroparks will share their experience assessing stream function using other states Stream Quantification Tools (SQT) prior to Ohio's adoption of OSAM (Ohio Stream Assessment Method). The presentation will discuss data collection efforts, reference data gaps, and some benefits and drawbacks to quantifying stream function.

Delaware Piedmont Stream Restoration - 17 Years Post Construction
Mike Thompson, Meadville Land Service
Observations of a stream restoration project, 17 years post construction, can provide valuable information to the success and failures of stream restoration strategies. Even a project implemented prior to the requirements of post restoration monitoring has a story to tell.

Dam! That looks good.
Ivan Valentic, GPD Group
Nick Agins, Lake County Stormwater Management Department
Jesse Rufener, GPD Group
This presentation will provide an overview of challenges encountered during the design and construction of the project and how they were overcome. A summary of the coordination with agencies having jurisdiction and information provided for approval. Modeling results with tables and maps along images of the completed restoration.

Friday

Retrofitting Urban Projects while Preserving Historic Integrity
Joe Lanni and Jesse Rufener, GPD Group
This presentation will provide an insight into the challenges faced with the design of Cleveland Metroparks Garfield Park Pond and Stream Restoration Project and explain how various historical features of the park were preserved and incorporated into the urban restoration design.

From Overflow to Oasis: Harnessing Floodplain Wetlands for Resilient Watersheds
Megan Bowman, El Burgess & Niple
Crystal Scales, WPIT Burgess & Niple
Brian Tormes, PE Burgess & Niple
High nutrient loads during rain events can lead to degradation and eutrophication of Ohio's waterways. Wetland treatment design system can improve water quality and biodiversity in an at-risk waterway. This presentation will look at a case study demonstrating wetland design and modeling procedures, and implications for similar sites in Ohio.

Ottawa Hills Floodplain Wetland Restoration. Let's Get it Growing!
Patrick Nortz, Otisco Engineering
Cynthia Paschke, Land Solutions
Ashlee Decker, The Nature Conservancy
The "Sled Hill Meadow" project site is 26 acres (primarily Ottawa River floodplain) in the Village of Ottawa Hills, Ohio. The site restoration enhanced nine existing acres and created four acres of wetlands with trails. The features capture local runoff and flood waters to improve water quality.

Lessons Learned from a Decade of Designing for Floodplain Connectivity
Suzanne Hoehne, Biohabitats
Floodplain connectivity is crucial for ecological uplift, restoring groundwater-surface water connections. Techniques like elevating stream channel inverts with wood structures have been successful with reduced site impacts and cost. However, challenges like seepage, site suitability, and permitting issues persist. Design strategies are proposed to mitigate these issues.

Maximizing Project Objectives: A Case Study in Project Evolution
Edith Kippenhan, City of Toledo
Deanna Bobak, Civil and Environmental Consultants
This presentation will illustrate the evolution of planning and design for a stream restoration project, and the challenges presented in balancing funding, ecological, infrastructure and public interest needs. Nuances of project management and lessons learned will be discussed as part of the presentation.

Monitoring, Inspection, and Maintenance

Thursday

Forgotten BMPs: Good housekeeping measures and Non-structural controls for Construction
Brad Flack, StormwaterONE
SWPPP compliance is often put in terms of silt fence and erosion control blankets. However, there are some often overlooked and forgotten BMPs which are required and will boost your site's compliance: Good housekeeping and Non-Structural Controls.

Drones & Drainage
Kevin J Wienhold, EnviroScience
This presentation introduces several applications utilizing unmanned aerial vehicles (UAV) for the remote estimation of hydrologic parameters for stormwater management. Three case studies explore using affordable UAVs and consumer-grade sensors to provide near-real time flood inundation and depth mapping and estimate soil moisture content and infiltration rates.

Evaluating Pilot Projects to Reduce I&I in Seattle's Combined Sewers
Katherine Zodrow, ECO
Jenna Johnston, ECO
To evaluate the effectiveness of different I&I reduction strategies in the Longfellow Creek watershed, we developed comprehensive screening and evaluation tools for project locations and strategies. This framework supported Seattle Public Utility in selecting an early action project strategy and location to test I&I reduction in their combined sewer system.

Balancing stakeholders successfully to implement Municipal MS4 & SWP3 Programs
Kristin Hall, Cuyahoga SWCD
Fred Anger, Cuyahoga SWCD
Join Cuyahoga SWCD administrative and stormwater staff to learn about the environmental and economic consequences of MS4 permit & SWP3 non-compliance. Attendees will learn ways to create synergies across municipal administration, regulation, and operations to ensure the intent of the permit is met, and all stakeholders are winners.

Navigating Environmental Permitting and Compliance for Construction
Compliance
Eric Lance, CTL Engineering
This presentation explores key aspects of environmental permitting and

compliance for construction projects, focusing on USACE 404/401, NPDES, wildlife regulations, SWPPP development, and construction sequencing. Attendees will learn strategies to navigate regulatory requirements, mitigate impacts, and integrate restoration practices to ensure sustainable development and ecosystem resilience.

Strategies for Successful Deviation Reduction at Construction Sites

Mack Overton, KERAMIDA

Charlie Warino, NiSource

This session will discuss lessons learned from the development and implementation of an industry leading Environmental Compliance Program.

Modeling and Research

Thursday

City of Warren: Prioritizing the Stormwater Flooding Relief

Michael Keating, Hazen and Sawyer

Jenna Johnston, ECO

Rick Barone Hazen and Sawyer Learn how the City of Warren implemented a cost-effective approach to stormwater modeling in support of a growing Capital Improvement Plan and Preventive Maintenance Strategy.

Combining Ponds & Filtration to Achieve Enhanced Water Quality

Lynn Ramsey, Rymar Waterworks

Please join us for an introduction to this novel concept to aid in meeting current and future water quality requirements for new sites, redevelopment of existing properties and potential retrofit of older facilities to bring them into compliance with current standards.

Regulations and the Characterization of PFAS in Complex Environmental Matrices Jonathan Thorn, Eurofins Environment Testing (USA)

An exploration of select federal PFAS regulations, EPA analytical methods for NPDES permits, and state-level actions that could impact stormwater systems, with real-world analytical insights into PFAS detection challenges across complex environmental matrices.

Haunted by Ghost Streams: Intuitively Visualizing Urban Flooding

Alex Litofsky, OHM Advisors

When “ghost streams” come back to haunt communities during large storms, two-dimensional hydraulic and hydrologic modeling reveals the source of the flooding with intuitive visual clarity, facilitating better communication with community decision-makers about the problems and solutions.

Mitigating Pollutants and Erosion through Retrofits to Aging Stormwater Basins

Andrew Tirpak, Ohio State University

Keely Davidson-Bennett, Chagrin River Watershed Partners

Before 2003, flood control was the sole management objective of stormwater basins in Ohio. As a result, pre-2003 basins provide little water quality or downstream erosion benefits. Two approaches (i.e., PCSWMM, HydroCAD) were used to develop basin retrofit strategies to improve water quality while reducing downstream erosion for small storms.

A New Look at Aurora Shores Flooding: 2D HEC-RAS Modeling

Cole Blasko, Tetra Tech

David L. Koontz, PE, St. Summit County Engineer

Stephanie Deibel, Summit County Engineer

In coordination with the Summit County Surface Water Management District, Tetra Tech built a 2D HEC-RAS model to holistically assess the longstanding flooding issues in the Aurora Shores neighborhood of Reminderville, Ohio.

This presentation provides a history of Pond Brook and outlines methods and results of the 2D HEC-RAS model.

2D Storm Water Modeling: Case studies and lessons learned

Khaled Abdo, Hazem Gheith and Mary Whitehead, Arcadis

2D storm models assess storm systems to pinpoint deficiencies and flooding causes. Case studies in Houston (rain on mesh) and Fayetteville (traditional hydrology) illustrate different approaches, challenges during model development, lessons learned and examples for the proposed solutions.

Asset-Level Climate Resiliency Assessment in the Big Creek Watershed

Rezvane Ghorbani, Virginia Tech

George Remias, PE, NEORS

This study assesses the resiliency of stormwater infrastructure in the Big Creek Watershed using the StormWise model. It evaluates flood risk, assesses resiliency under various storm and climate scenarios, and proposes targeted improvements. Findings provide actionable insights for sustainable stormwater management and urban development in the face of climate challenges.

Adopting lessons learned from Ohio to Hurricanes and 200-year storms

Brandon P. Wong, Hyfi

This presentation examines wireless stream monitoring networks across Northern Ohio, which support real-time flood detection, stormwater model calibration, and debris jam monitoring. Attendees will gain insights into the system's performance during severe weather and how lessons learned are being adopted by municipalities elsewhere, including Dearborn, MI, and New Orleans.

Transportation

Friday

Transportation Roundtable Jon Prior ODOT Mark McCabe JEO Consulting Group

Am I Spec'ing Optimal Backfill/Bedding/Roadway Base Materials?

Leroy Wertz, PE Wertz Geotechnical Engineering

Engineering properties and the pros and cons of various construction materials for stormwater and roadway projects will be discussed. Topics include material selection, compaction methods, risks of utility backfill trenches, current testing effectiveness, and future materials and testing methods.

Drainage: How do you determine what you need?

Michael Schroer, Trench Drain Systems

Kristie Pohlman, Trench Drain Systems

What should you consider when determining the type of drainage needed? You'll learn about different types of systems along with other helpful details. After this session, you'll be armed with the knowledge to make informed decisions when specifying drainage solutions for future projects.

Lessons Learned on ODOT Construction Projects in Stormwater Management

Stacey Nuveman, ODOT

This presentation will cover ODOT's role in stormwater management as it relates to construction projects. A certified ODOT quality assurance inspector will talk about their role in each of ODOT's projects that require a SWPPP. This presentation will also cover how ODOT interacts with contractors and inspectors during construction.

When a “Diet” Leads to Heartburn - Transforming Central

John Lyons, Strand Associates

Cincinnati is planning to transform a half-mile of Central Parkway using Complete Street Principles. Managing runoff within the newly designed section required detailed micro-catchment analysis and careful negotiation of new storm conveyance systems across and around old existing infrastructure, including an abandoned subway tunnel.

Rethinking SWPPP Success: Using Sustainable BMPs to Achieve Results

Joe Moore, Erosion & Construction Solutions

This presentation explores sustainable BMPs in Stormwater Pollution Prevention Plans, focusing on biodegradable materials, wildlife-friendly products, and the dangers of outdated practices. Case studies highlight the environmental and financial impacts of sustainable BMPs, emphasizing the need for safer, effective solutions in construction and stormwater management.

Retrofitting GI: Lessons from Two Failed Biofilters

Michael Wegner, Brown and Caldwell

Two failed biofilters (less than 15 years old) were replaced with permeable pavement because they were causing infrastructure damage, poor aesthetics, and were not delivering the expected stormwater benefits. This presentation will provide a case study of problems that can occur with green infrastructure and lessons learned.

Restoring Hydrologic Function Lost During Development

Jay Dorsey, OH2O, LLC

Land conversion radically alters watershed hydrology with many negative consequences. Many opportunities exist to retain hydrologic benefits, most of which are never considered. This presentation outlines many of those opportunities, quantifies the benefits, and describes how and where they might be encouraged during planning, design, review and construction.

Efficacy of GI in Stormwater

Suresh Sharma, Youngstown State University

This study delved into the efficacy of GI in stormwater management within the Town of Willoughby-Chagrin River HUC 12 watershed in three major cities, with a focus on its adaptability to climate change. Leveraging climate data from Coupled Model Intercomparison Projects Phases 5 and 6 datasets.

How Effective are Distributed Nature-Based Solutions for Flood Control?

Caroline Burger, Carollo Engineers

Large storm hydrologic and hydraulic software was utilized the evaluation the magnitude of green infrastructure needed to meet the City of Madison, Wisconsin's flood mitigation targets. This presentation will describe the evaluation completed and how the City is using the information going forward for stormwater management.

Green Infrastructure

Friday

Creative Stormwatering

Sarah Brunot Cuyahoga SWCD

Kelly Parker, Cuyahoga SWCD

Combining art, education, and stormwater control can provide well rounded support for communities. Within this presentation we will dive deeper into the benefits and fallbacks of various stormwater and green infrastructure case studies to determine which aspects translate well to Ohio urban environments.



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☐ In-Person Before April 15, 2025 (\$250) After April 15, 2025 (\$300)

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(included in registration fee)

☐ Kayak Tour, Wednesday May 7, 2025, \$10.00, 9:00 am - 11:00 am

☐ Birding Tour, Wednesday May 7, 2025, \$10.00, 10:00 am - 11:30 am

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Vegetarian options at meals will be available. If **Vegan** option is needed, please check box. ☐

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(PO number must be enclosed with this form. Fee is to be paid in full prior to the 2025 Ohio Stormwater Conference)

Or, register on-line at www.ohstormwaterconference.com under the conference section of our web site.

If you are paying by check or purchase order, please mail the registration form with your payment.

Cancellation Policy: Cancellations before May 1, 2025, may be subject to a processing fee. After May 5, 2025, registration fees will not be refunded, but may be applied to another individual's registration fees.

Register on-line at WWW.OHSTORMWATERCONFERENCE.COM

OR

Submit this completed form to:

Tinker's Creek Watershed Partners, P.O. Box 444, Twinsburg, Ohio 44087