



Ohio Stormwater Conference 2024 Registration Information

May 8 - 10, 2024

Kalahari Conference Center - Sandusky

ohstormwaterconference.com

HIGHLIGHTS!

- ✓ Kayak Tour/Birding Tour
- ✓ Amazing Keynote Speakers
- ✓ Informative Presentations
- ✓ Networking
- ✓ Incredible Exhibitors and Sponsors



Contact: Harry Stark
Email : harry@tinkerscreek.org

17th 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.



In-Person at 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.

Virtual Information

Starting May 15th, all presentations will be available online virtually. You can register for virtual only or in-person. All in-person attendees will have access to the virtual sessions.

Hotel Information

The Conference Committee has secured group rates for the Kalahari Resort and Conference Center. We are pleased to announce that the Conference has secured a group rate of \$139 per night for the conference.

Booking Website:

<https://book.passkey.com/e/50707884>

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 Tinker's Creek Watershed Partners and the Ohio Stormwater Association.

Conference Schedule

The Below Schedule is Subject to Change

Wednesday, May 8, 2024

8:00 a.m. - 12:00 p.m.	Birding Tour
9:00 a.m. - 11:00 a.m.	Kayak Tour
10:00 a.m. - 3:30 p.m.	MS4 Boot Camp
6:00 p.m. - 9:00 p.m.	Wine Dinner

Thursday, May 9, 2024

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. - 8:30 p.m.	Reception

Friday, May 10, 2024

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
\$225.00 In Person (\$275 after 4/15/23)	\$125.00	\$100.00	\$100.00
\$150.00 Virtual/Webinar of all presentations starting May 15, 2023			
\$10.00 Kayak Tour			
\$10.00 Birding Tour			

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

The Ohio Stormwater Association is hosting its MS4 training session on Wednesday, May 8, at Kalahari Resort prior to the start of the Ohio Stormwater Conference. Whether you have been recently designated a Municipal 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. Join us to 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 8, 2024, 10:00 AM until 3:30 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\$ 85.00

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 us for an immersive birding experience at Sheldon Marsh, Ohio, amidst the excitement of the Biggest Week in American Birding festivities. This event offers a unique opportunity to celebrate and observe the remarkable phenomenon of bird migration. Whether you're a novice or an experienced birder, our guided tour will take you through the beautiful landscapes of Sheldon Marsh, where you'll have the chance to witness a diverse array of bird species in their natural habitat. Learn about migration patterns, bird behaviors, and conservation efforts while exploring one of Ohio's premier birding destinations.

Time of Arrival: 8:00 AM

Time of Departure: Approximately 12:00 PM

Cost: \$10.00

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

Light refreshments will be provided (water and snacks)

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

Maximum Number of Participants: 20. Contact Person: Alyssa Mills, Watershed Coordinator and Educator Email: alyssa@tinkerscreek.org

Wine Dinner at Firelands Winery

Join us for a fun time at Firelands Winery. This event will include wine tasting and a dinner. More information to follow as we finalize the event.

Tentative time: 6:00 pm - 9:00 pm

Cost: \$80 per person

Maximum Number of People: 75

Transportation: We encourage car pooling, Uber or driving yourself.

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

Opening & Keynote Presentations

Thursday, May 8, 2024

8:30 - 10:00 am

Opening



Harry Stark, MPA, CPMSM

City of Aurora, Ohio Stormwater Association

Harry Stark has over 31 years of experience in public administration. With specialties in stormwater management and watershed management, he has become known nationally as a subject matter expert. Harry has spoken nationally on stormwater and watershed management issues, is currently on the national stormwater board of directors, Past President of the Ohio Stormwater Association, Administrative Vice Chair of Envirocert, as well as many other local and regional organizations.

Keynotes



Chris Ronayne

Cuyahoga County Executive

For 16 years, Chris served as the President of University Circle Inc. (UCI), a non-profit community service corporation. Chris achieved measurable results, transforming Ohio's education, medical, and cultural district into a thriving complete community. He delivered more than 2,500 new and renovated neighborhood homes to the area, developed after-school and summer programs that engaged more than 10,000 students each year, helped bring a grocery store to a food desert and connected small businesses to Cleveland's arts, education and healthcare institutions. He stepped down from his role at UCI in 2021 to launch his campaign for County Executive.

Chris is past Chair of the Canalway Partners Board of Directors, and the Port of Cleveland Board of Directors. In these roles, Chris was a leader on innovative projects like the Cleveland-Europe Express container service and the newly completed Towpath Trail.

Program Sessions and Topics

Thursday May 9, 2024 Opening and Keynotes

Opening:

Harry Stark, City of Aurora

Welcome to the 17th annual Ohio Stormwater Conference and overview of stormwater regulations in Ohio, regional success stories, and future outlooks on regulations, projects and rainfall.

Keynote Speakers:

Chris Ronayne

For 16 years, Chris served as the President of University Circle Inc. (UCI), a non-profit community service corporation. Chris achieved measurable results, transforming Ohio's education, medical, and cultural district into a thriving complete community. He delivered more than 2,500 new and renovated neighborhood homes to the area, developed after-school and summer programs that engaged more than 10,000 students each year, helped bring a grocery store to a food desert and connected small businesses to Cleveland's arts, education and healthcare institutions. He stepped down from his role at UCI in 2021 to launch his campaign for County Executive.

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Program Sessions

Watershed Planning and Restoration

Thursday 10:30 am - 12:00 pm.

Thinking Outside the Box: Team Efforts to Fund Restoration Projects

Regina Collins, City of Toledo, Environmental Services

Deanna Bobak, Civil & Environmental Consultants, Inc.

Sally Gladwell, Mannik & Smith Group, Inc.

Jordan Rofkar, Verdantas

This panel discussion will illustrate how awareness of the watershed and collaboration have led to successful implementation of multiple projects within the City of Toledo. Panel members will discuss various ways to plan and fund restoration projects. Discussion will include lessons learned and other project nuances.

Williamsburg Off Channel Nutrient Removal Wetland

John McManus, Clermont SWCD

Laura Lair, Clermont Co Office of Environmental Quality

Clermont SWCD and the East Fork Watershed Cooperative completed construction of an off-channel nutrient removal wetland in November 2023 utilizing a 3-acre reservoir formerly connected to a low-head dam. This session will review the project design and results of a monitoring program designed to quantify resulting reductions in nutrient loads.

Thursday 1:15 pm - 2:45 pm.

Balancing Restoration Success and Angler Expectations on the Chagrin River

Kim Brewster Shefelton, Chagrin River Watershed Partners, Inc.

Kevin Grieser and Brett Long, Biohabitats, Inc.

Steve Fabian, Meadville Land Service, Inc.

Join Chagrin River Watershed Partners, Biohabitats, and Meadville Land Service to learn about an H2Ohio-funded river and wetland restoration project which achieved water quality and habitat improvements while balancing expectations from the angler community for a highly used public park and steelhead fishing destination in northeast Ohio.

Want to remove a dam...not so fast!

Ivan Valentic, GPD Group

Nick Agins, Lake County Stormwater Management Department

This presentation will provide an overview of challenges encountered during early coordination of the project through the implementation of design and construction of the dam removal and stream restoration. Presenters will discuss how the team overcame these challenges to provide a restored stream with support of neighboring residents and community.

Thursday 3:15 pm - 4:15 pm

A Perspective from Above: A West Creek Case Study

Shawn Robinson and Karrie Buxton, NEORS

A Perspective from Above: A West Creek Case Study will provide insight into how the NEORS (NEORS) Uncrewed Aerial Vehicle (UAV) program is supplementing the West Creek Stabilization project in Brooklynn Heights, Ohio.

GIS-based Data Management for Regional Stormwater Nomination and Project Tracking

Leila Jackson and Michael Blair, NEORS

Overview of GIS-based data management and visualization for the NEORS's Stormwater Nomination & Project Tracking App. This presentation describes project data integration and demonstrates how to comprehensively present project nomination and project tracking data across a regional stormwater service area.

Thursday 4:30 pm - 5:30 pm.

Legacy Issues, Legacy Solutions in the Sand Run Tributary
Christina Znidarsic and Cole Rashilla, Davey Resource Group

A case study of the Summit Metro Parks Sand Run Phase III stream restoration from the complete design/build perspective, including a discussion of the unique site challenges/constraints, developing an approach to meet different and sometimes opposing project goals, and how to adapt successfully when things don't always go as initially

Friday 8:00 am - 9:30 am

NEORS's Programmatic Purpose at Work along Pepper Luce Creek
Dempsey Ballou, Jacobs

Kristen Buccier, NEORS

The Northeast Regional Sewer District's Regional Stormwater Management Programmatic Purpose is to complete water resource projects to arrest erosion, stabilize streambanks, mitigate flood risk, protect and enhance water quality, and manage stormwater conveyance assets. Discover engineering and construction lessons learned as the Programmatic Purpose was achieved along Pepper Luce Creek.

Design Techniques for West Creek, a NEORS Urban Watershed Project
Joseph Lanni and Ivan Valentic, GPD Group

This presentation will provide insight to the design for the NEORS'S West Creek Stabilization Project and explain the techniques used to control water through the confined valley. By removing/altering previously designed stabilization features, various new features are being constructed to protect adjacent infrastructure and provide passage for native fish species.

Friday 10:00 am - 11:00 am

Ohio Department of Agriculture's Regional Watershed Program
John Timmons, Ohio Department of Agriculture

The Ohio Department of Agriculture's Watershed Program, founded in 2021, has completed their Regional Watershed Management Plans for all 7 Basins in the State of Ohio. These plans use and provide useful datasets and will be highlighted with suggestions for local watershed planning and regional program development.

The Role of Human and Beaver Communities in Restoration
Erin Mundorf, Biohabitats

This session discusses the role both communities of humans and beavers have in the long-term success of restoration projects. The ecological benefits from low-cost, process-based restoration are explored hand-in-hand with community benefits from engagement in suburban, rural, and living laboratory settings.

Friday 11:10 am - 12:10 pm

The Use of Native Plants for Meadow and Prairie Restoration

Jim Kooser, Atlas Technical Consultants

This presentation will focus on the benefits of using native meadow and prairie species for restoration. Topics to be covered will include site and species selection, planting techniques and maintenance.

Using a YSI to assess the health of streams

Nina White, TCWP

Zachary Randolph, Summit SWCD

Rebecca Leslein, Lake SWCD

Stormwater Practices, BMPs, Planning and Design

Thursday 10:30 am - 12:00 pm

Case Study: Baldwin Creek Stabilization in North Royalton, Ohio

Jaime Hain, NEORS

Baldwin Creek Stabilization at Abbey Road in North Royalton: Case Study, Post Construction Analysis & Lessons Learned presentation provides a summary example of the stream restoration process using bioengineering techniques, while looking at several design considerations and their potential impacts during construction

Creative Water Quality Solutions: Floodplain Restoration Case Study at UTCAD

Nathan Renaudin, RES

Jessica Stratigakos, RES

Join us to examine a watershed approach and floodplain restoration as a comprehensive solution for addressing the impacts of land use changes and hydromodification. Learn how this approach, through a case study of H2Ohio's UT CAD project, enhances aquatic habitat diversity and connectivity, resulting in a significant nutrient load reduction.

Effectively Preparing for a Flood of Development in Clarksville, Indiana

Chris Rust, Strand Associates, Inc.

The Town of Clarksville has experienced significant flooding issues in the heavily developed Broadway District. A comprehensive stormwater evaluation led to the implementation of stormwater improvements, including an expanded regional detention basin and new stormwater conveyance systems. These improvements have allowed the Town to effectively accommodate future redevelopment opportunities.

Thursday 1:15 pm - 2:45 pm

Larger Common Stormwater Plan - Small Sites, Big Disturbances

Lauren Conard, Cuyahoga SWCD

Cities need to look at their Larger Common Plan when reviewing and approving small-site development projects in order to effectively mitigate pollution and manage stormwater in their community. Come see how small projects can "team up" to make a big disturbance - and an even bigger impact on water quality.

Exploring the Clean Water Act: Construction Site Design & Implementation
Joe Moore, Siltworm

Let the Clean Water Act inspire your environmental stewardship and equip you to make a lasting impact. Join us to enhance your understanding of water quality regulation, refine your skills in budgeting and implementation, and achieve outstanding site performance through BMP technologies.

Thursday 4:30 - 5:30 pm

Stormwater to Groundwater: What's the Connection?

Julie Morelli, POWER Engineers, Inc.

This presentation will discuss the relationship between sensitive aquifer areas, common hot spots for stormwater impacts, and types of management practices being used. Bring your knowledge of or curiosity about geology, water quality, and stormwater management practices to learn more about the connection between stormwater and groundwater!

Friday 8:00 - 9:30 am

Education For Everyone Forever: When projects need extra help

Kelly Parker, Cuyahoga SWCD

Occasionally a project comes across your desk that requires a little more help than usual. From design to post-construction, take the time to teach them now so that little issues don't become big problems later.

The ABC's of Post-Construction Stormwater Quality Control Measures

Brad Flack, StormwaterONE

You need to be aware of your options when it comes to permanent stormwater quality control measures. From end of pipe solutions to inlet-based filtration and everything in between, we will cover the major categories of these control measures and their basic functions

Optimized Detention using Vortex Flow Controls - Case Studies

Phillip Taylor, Hydro International

Vortex flow devices offer significant improvements in detention design. This presentation will case study projects that employed vortex flow controls that have realized improved detention design over traditional orifice plates and weirs, resulting in significant cost saving, faster cycle times, with no increase in the design discharge rate.

Friday 10:00 - 11:00 am

Loading Rate Wars: Avoiding the pitfalls of perpetually chasing cheaper/smaller.

Derek Berg, Contech Engineered Solutions LLC

Pressure to minimize the cost of stormwater control measures (SCMs) has spawned continued innovation but is also resulting in a concerning trend relative to SCM sizing. Pushing SCM loading rates higher to save on installed cost is setting the stage for installed SCMs that need frequent maintenance to maintain functionality.

Ohio EPA Technical Updates

Justin Reinhart, Ohio EPA

Emily Coffin, Ohio EPA

Ohio EPA will introduce recently released technical guidance, including a new construction SWP3 template and checklist as well as updates to the Rainwater and Land Development manual. Stormwater specialists will discuss current technical hot-topics, trends, and common questions regarding BMP design and SWP3 development.

Friday 11:10 - 12:10 pm

Ohio EPA Updates and Roundtable

Jason Fyffe, Ohio EPA

Ohio EPA Updates and Roundtable

Legal & OEPA Roundtable

Thursday 10:30 am - 12:00 pm

Ohio Water Law 101

Louis L. McMahon, McMahon DeGulis LLP

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.

Water Law 102: Basic Legal Issues

Louis L. McMahon, McMahon DeGulis LLP

An overview of the nuts and bolts legal issues often encountered by stormwater utilities. The presentation will touch on specific issues, including ditch law, the examination of the practical implications of Sovereign Immunity, citizen suit protections available under the CWA, and flood insurance/flood mapping issues.

Legal Hot Topics and Headlines in Stormwater Management

Megan E. Goedecker, McMahon DeGulis LLP

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.

Thursday 1:15 - 2:45 pm

Sources, Fate, and Transport of Nutrient Regulation

Lee A. Slone, McMahon DeGulis LLP

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.

Flooding: Liability and Defenses

Megan E. Goedecker, McMahon DeGulis LLP

Larger, flashier storms are increasingly common. When is a community liable for flooding? What defenses are available? This presentation will examine those questions and more.

Post-Sackett Wetlands: The Regulated Perspective

Lee A. Slone, McMahon DeGulis LLP

Megan Goedecker, McMahon DeGulis LLP

In an ever-evolving regulatory world, the definition of Waters of the US (WOTUS) always seems to be changing. Learn how the recent Sackett decision will impact stormwater in Ohio.

Thursday 3:15 - 4:15 pm

Equitable and Defensible Stormwater Program Fee Development

Jeffrey Duke, Raftelis

Developing and implementing a defensible and equitable stormwater fee to provide stormwater program revenue can be challenging. Many potential factors, such as service area, population demographics, local and state regulations could impact stormwater fee development. Case studies looking at a variety of these factors will be presented.

Thursday 4:30 - 5:30 pm

Ethics from Aristotle to AI

Tom Pannett, Kegler Brown Hill + Ritter

Ethics from Aristotle to AI

Transportation

Friday 8:00 - 9:30 am

Incorporating Green Infrastructure for Traffic Calming
Ivan Valentic, GPD Group

This presentation will provide an overview of a problem a neighborhood was facing, and the unique way green infrastructure was able to solve the problem by providing traffic calming interventions, beautification of the neighborhood, and a reduction of stormwater to the existing CSO.

Transportation Roundtable

Jon Prier, ODOT

Mark McCabe, JEO CONSULTING GROUP INC

Open discussion of current topics associated with managing stormwater on transportation projects.

- Design guidance updates
- Regulatory updates
- Research updates
- Erosion and Sediment Control Updates
- Open discussion

Friday 10:00 - 11:00 am

A Regional Resiliency Framework for Stormwater and Transportation Planning

Rachael Barlock, Southeast Michigan Council of Governments

SEMCOG will provide an overview of the strategies used to develop a Regional Resiliency Framework and Transportation Resilience Improvement Plan for the Southeast Michigan region. These efforts include a climate data portfolio, a funding strategy, a large-scale green infrastructure analysis, stormwater data collection, and an equity analysis on the existing

Outfalls That Aren't Outlaws – Two Project Success Stories, More

Kevin Hutchens, Burgess & Niple, Inc.

This presentation will focus on identifying potentially substandard outfalls early in the project development and discuss strategies for dealing with them. Two case studies will be presented as examples of how substandard outfalls can be addressed.

Friday 11:10 - 12:10 pm

Pump It Up- Designing SEPTA's resilient transit infrastructure.

Shiny Mathew, JMT

The Sharon Hill Flood Mitigation project was initiated as part of the Southeastern Pennsylvania Transportation Authority's (SEPTA) Infrastructure Resilience Program to improve the transit system's resilience to severe weather. JMT's holistic and sustainable design approach included a stormwater pump station and flood storage basin to limit flooding along SEPTA infrastructure.

Climate Change, Resiliency, and Sustainability

Thursday 10:30 - 12:00 pm

A Collective Impact-style Collaborative to Propel Urban Canopy Policies in Cuyahoga County

Robert F. Brand and John Mills,, Cuyahoga County Board of Health

The Cuyahoga County Board of Health (CCBH) is exploring innovative solutions to climate change and deforestation using trees as Green Stormwater Infrastructure. CCBH's model tree ordinance strives to update outdated policies, improve public health, implement stronger tree protections, and incentivize tree retention.

Collaboration Is Key in a Rapid Developing Watershed

Kristy Hawthorne, Licking SWCD

Kari Mackenbach, ms consultants inc.

In a rapidly developing watershed, collaboration is key. Learn from Licking County

on how they have collaborated for success. A consortium of public entities, led by the Licking SWCD have cooperated to develop a comprehensive flood damage reduction, waterway protection and water quality plan for the SF Licking River watershed.

Thursday 1:15 - 2:45 pm

Tips to Successfully Applying for FEMA Hazard Mitigation Assistance Grants

John Aldrich, CDM Smith

This presentation will provide proven methods for developing technically feasible, cost-effective flood mitigation projects that meet qualitative and quantitative scoring criteria and environmental and historical preservation requirements for FEMA hazard mitigation assistance grant and assistance programs, including tips for successfully applying FEMA benefit-cost analysis tools.

Defending the Battery –Design & Reconstruction of Charleston's Historic Seawall

Jim O'Connor, JMT

As much preservation effort as engineering challenge, Charleston's historic landmark seawall is being reconstructed with resiliency and sustainable practices in mind. An improved public realm is being created utilizing innovative methods and materials to make the project sustainable, resilient, and cost effective.

Thursday 3:15 - 4:15 pm

Circular Pipe Economy: A Recycled Pipe Virtual Plant Tour!

Michael Cook, Advanced Drainage Systems, Inc.

Clinton Hartle, Advanced Drainage Systems, Inc.

How does recycled plastic content makes its way into stormwater pipe infrastructure? This presentation takes you on a "virtual tour" of a plastics recycling facility. We'll explain how communities can take advantage of recycled content pipe that can improve stormwater and green infrastructure goals, and circular economy initiatives.

A review of Microplastic Pollution and its Impacts on Health

Ty Haugh, Cuyahoga County Board of Health

Joshua Durr, Cuyahoga County Board of Health

A review of current knowledge on aquatic microplastics: types of microplastic, quantities in the great lakes, Lake Erie, and local watersheds; health impacts on ecosystems including humans; and a look at potential methods of bio- and phyto- remediation currently being researched.

Thursday 4:30 - 5:30 pm

Authentic stakeholder engagement is needed for climate resilience

Elizabeth Schuster, Sustainable Economies Consulting

We need a better way to advance nature-based solutions for climate resilience. We'll only achieve outcomes for ecosystems and human well-being through authentic stakeholder engagement. This means relationships based upon trust and equity and co-creation of knowledge. We'll share our 5-step framework for applying authentic stakeholder engagement to your work.

The Summer of 100-Year Rain Events in Morgantown, West Virginia

Chris Rust, Strand Associates, Inc.

Two extreme 100-year rainfall events resulted in widespread flooding across Morgantown in the summer of 2021. A Flood Control Study was initiated in response to the rainfall events, and the Morgantown Utility Board is beginning to identify potential capital improvement projects to alleviate future flooding.

Friday 8:00 - 9:30 am

Hanalei Riverbank Restoration. High Tides, Hau Bush and Habitat

Eric Seidl, Envirolok

Dive into the many challenges of a riverbank restoration on the Hanalei River, in Kauai, Hawaii. Learn how the design-build team worked to overcome the challenges of changing tides, inaccurate site data, limited access, and daily rains, and a looming tropical storm, to deliver a sustainable, bio-engineered solution.

Multifunctional riparian forest buffers

Rosana Villafan, Holden Forests & Gardens

Multifunctional Riparian Forest Buffers (MRFBs) are a unique ecosystem that can provide for both humans and wildlife. By demonstrating this buffer, Holden Forest & Gardens can educate the public and landowners on benefits such as improved water quality, wildlife habitat, and harvestable products.

Industrial

Friday 10:00 - 11:00 am

Introduction to Industrial Stormwater Inspections for Construction Stormwater Professionals

Nathan T Collier, POWER Engineers, Inc.

This presentation will present an overview of performing industrial stormwater inspections at regulated facilities. The content of this presentation will target both new and experienced construction stormwater management and inspection professionals who wish to expand their knowledge on industrial stormwater compliance.

Friday 11:10 - 12:10 pm

PFAS in Stormwater

Brian Yates, Burgess & Niple

Brian Tormes, Burgess & Niple

PFAS (aka "forever chemicals") are persistent in the environment. Federal and state regulators are looking at regulatory measures related to PFAS, including for stormwater. This presentation will take a look at PFAS sources in stormwater, a case study demonstrating special PFAS sampling procedures, and implications for industrial/airport facilities.

Monitoring, Inspection, and Maintenance

Thursday 10:30 - 12:00 pm

Wet Weather, Dry Weather, & Illicit Discharges: Let's Discuss IDDE

Brad Flack, StormwaterONE

One of the most important issues arising to the forefront is a need for better illicit discharge, detection, and elimination (IDDE). This presentation will serve to both inform and instruct these operators on the basics of IDDE. We will look at a few of the BMP's typically deployed and utilized.

A Day in the Life of An Inspector

Brad Flack, StormwaterONE

From arriving at the location to completing the inspection report, there are a lot of factors to consider when performing an inspection at a construction site. We will walk through the various practices, protocols, and control measures that need to be identified and evaluated during each inspection, together.

Thursday 1:15 - 2:45 pm

Effective Strategies for Long-term O&M Plan Implementation

Jessica Doty, CDM Smith

Kate Moran, CDM Smith

This presentation will cover various effective strategies the MS4 programs

across the country are taking to ensure that long-term operation and maintenance plans of post-construction controls are being followed.

Dry Weather Screening Success with a Robust Infrastructure Map

Ryan Wuest, Hamilton County Public Health

Ross Combs, Hamilton County Public Health

Hamilton County has a robust stormwater infrastructure map. This includes public and private storm sewer data. Using this data can be a useful tool in creating a Dry Weather Screening program. It can also lead to the discovery of illicit discharges in the course of data collection.

City of Toledo Open Channel Maintenance Program

Deanna Bobak, Civil & Environmental Consultants, Inc

Lorie Haslinger, City of Toledo

The City of Toledo developed a custom-designed Open Channel Maintenance Program for its 100+ mile ditch/stream network. This presentation outlines the process followed to 1) proactively identify and inventory issues within the network; 2) define maintenance responsibilities between landowners and City departments; and 3) prioritize and streamline improvement activities.

Thursday 3:15 - 4:15 pm

The Ohio Dam Safety Program Updates and the HHPD Grant

Matthew Marquis, ODNR Division of Water

Adam Lanzillotta, ODNR

The ODNR Program is happy to announce a substantial increase in pass-through funding opportunities with the High Hazard Potential Dam Grant (HHPD). This presentation will touch on general Dam Safety Program updates, provide an overview of new technical guidance for Ohio, and a comprehensive look at the HHPD Grant.

Thursday 4:30 - 5:30 pm

Municipal Waterways Maintenance Program Development and Implementation

James Akins, EMH&T

Michael Hendershot PE, CSSBB, City of Dublin

The City of Dublin, Ohio, has instituted a Waterways Maintenance program addressing the removal of stream blockages, channel erosion, and riparian corridor enhancements. This presentation will focus on how the City has successfully developed this program and provide a summary of the maintenance projects planned and implemented to date..

Stormwater Retrofits

Friday 8:00 - 9:30 am

Stormwater Basin Retrofits as Potential Watershed Restoration Tools

Keely Davidson-Bennett, Chagrin River Watershed Partners, Inc.

Attendees will learn about identifying promising stormwater basin retrofit projects, where potential retrofit projects in the Central Lake Erie Basin are concentrated, limits to stormwater basin retrofitting as a strategy for reducing stream impairments, and implementation considerations.

Leveraging 2D Modeling in a Stormwater Retrofit – Part II

Alex Vieira, Hazen and Sawyer

Eric Onderak, Coldwater Consulting

This presentation will expand upon the 2023 OSWC presentation, "Leveraging 2D Modeling in Retrofitting a Flooding Neighborhood" by updating the audience on the downstream impact evaluation and the stream erosion mitigation planning required to develop comprehensive flood mitigation alternatives as a consequence of providing relief to surface flooding.

Don't let your Trash make a Splash!

TJ Mullen, Best Management Products, Inc.

Stormwater quality control in a compact structural footprint can be very beneficial to drainage design in urbanized areas. This presentation helps designers optimize structure design with the addition of simple internal components for pretreatment and to increase trash capture and other urban pollutants.

Friday 10:00 - 11:00 am

Parma-nent Stormwater Basin Improvements Case Study

Derek Vogel, NEORS

This project case study reviews the Upper Ridgewood Basin Improvements project - A unique basin enhancement project that reduces flood risk to a downstream residential area, improves water quality, and enhances public amenities within a public park in the city of Parma.

Friday 11:10 - 12:10 pm

Honolulu Stormwater BMPs Case Studies

Jay Stone, Bowers + Kubota Consulting, Inc.

The City and County of Honolulu MS4 permit requires that 10% of all the City's MS4 structures be retrofitted with permanent BMPs, with an emphasis on LID practices. The following case studies will illustrate the procedures to design and permit stormwater structures in a tropical urban environment.

Modeling and Research

Thursday 10:30 -12:00 pm

A Blueprint for Flood-Resiliency: Modern Tools for Stormwater Master Planning

Dustin West, Hazen and Sawyer

The City of Baltimore is developing a stormwater master plan being piloted in three watersheds within the City. State-of-the-art hydrologic and hydraulic (H&H) models were developed to assess the system level of service and identify other root causes of surface flooding.

Barrier Inlet Screens to Mitigate Debris in ODOT Storm Sewers

Justin Kerns, ms consultants, inc.

Andrew Tirpak, Ohio State University

ODOT, ms consultants, Ohio State University, and University of Iowa have evaluated various debris screening devices in the laboratory and field to prevent debris from clogging stormwater inlets along highway barrier walls to determine their applicability for statewide implementation.

Computational Fluid Dynamics (CFD) Analysis of Hydrodynamic Separator (HDS) Performance

Greg Williams, StormTrap

This presentation will examine validating a computational fluid dynamics (CFD) model for the removal performance of a hydrodynamic separator (HDS) using empirically obtained data. Developing a model is a critical step in translating results from a verified test to a real world installation.

Thursday 1:15 - 2:45 pm

How 2D Modeling Can Help Identify/Mitigate Neighborhood Flooding

Chad Boyer and Colin Bope, ms consultants

Buckeye Lake, plagued by flooding since the 1940s, faces challenges from the South Fork Licking River (SFLR) and an outdated stormwater system. ms consultants, tasked by Licking County, conducted studies for flood mitigation. Engineering efforts include floodplain management, hydraulic modeling, culvert enhancements, and storm sewer design to address the persistent.

Watershed Surface and Channel Runoff Coefficient Assessment with Unified Runoff

Kenneth Kagy, Next Era Energy

Time of concentration graphs are created to demonstrate how watershed characteristics affect stormwater runoff. These comparisons employ empirical equations and velocity equations used in time computations. The study compares manning's sheet 'n' coefficients with impervious surface, rational method coefficients, and NRCS's CN values. Provides an estimate of runoff time.

Thursday 3:15 - 4:15 pm

Does it Age Like a Fine Wine?: Older Bioretention Performance

Ryan Winston, Ohio State University

We evaluated 29 bioretention systems that were between 10-20 years old in Ohio, Michigan, and Kentucky. Soils were sampled at three depths at three locations as well as from the forebay (if present). We found pollutants preferentially accumulated in the forebay and surface of the filter media.

Thursday 4:30 - 5:30 pm

Putting Real-time E. coli Measurements to the Test

Karlin Danielsen, OHM Advisors

Real-time bacteria monitoring tools would support communities in watershed characterization efforts and evaluate the effectiveness of programmatic improvements to treat or eliminate combined sewer overflows (CSOs). This pilot study tests the ability of an optical indicator parameter called Tryptophan-like Fluorescence (TLF) to predict E. coli concentrations continuously and in real-time.

Weather – its impacts on estuarine restoration in the Great

Suzanne Hoehne, Biohabitats, Inc

Did you know Lake Erie's water surface elevation can change up to six feet? Or how that affects restoration projects? This presentation reviews methods for successful restoration projects within the Great Lakes estuarine environment – focusing on how its complex hydrology is driven by the lake and the riverine watershed.

DEI

Friday 8:00 - 9:30 am

Defining Green Infrastructure Implementation Strategies Using Life-Cycle Costs

Nicholas Watkins and Michael Dodson, CDM Smith

This presentation presents a proven methodology for developing a cost-effective green infrastructure implementation strategy using a proven, holistic set of tools for weighing design, maintenance, community, and environmental justice considerations in order to improve neighborhoods and create more resilient, equitable communities.

Integrating Equity and Environmental Justice in Stormwater Comprehensive Planning

Jenna Johnston, ECO

Under-resourced cities are tasked with rectifying environmental injustices while facing declining revenues. When developing CIPs, equity metrics alongside other common engineering evaluation criteria can be used to evaluate projects. By using this holistic approach alongside authentic community engagement, we strive to prioritize areas in an equitable

Crime Prevention Design for Green Infrastructure

Katherine Holmok, PLA, Kimley-Horn

Michael Cook, PE, Advanced Drainage Systems, Inc.

Green Infrastructure is frequently integrated into evolving and transitional

communities, with a particular emphasis on repurposing vacant properties in proximity to schools and parks. Crime Prevention Through Environmental Design (CPTED) offers a strategic framework for enhancing the architectural landscape to minimize opportunities for conflicts and violence while fostering positive interactions.

Friday 10:00 - 11:00 am

Green, Clean & Seen: Maintaining GI Sites in Highly Urbanized
Paul Kovalcik, NEORS

The presenters will discuss lessons learned from nearly ten years of inspection and maintenance of large-scale green infrastructure sites and their connected public green spaces in urban Cleveland, Ohio. They will also present inspection and maintenance cycles for structural components, and vegetation to maintain function, aesthetics, and safety.

Friday 11:10 - 12:10 pm

Community Backyards: Providing Educational Incentives for Stormwater, Sustainability, and Equity
Mikaela Mohr, Franklin SWCD
Kori Sedmak, Franklin SWCD

Community Backyards is a stormwater outreach program that provides education to 2,000+ residents and \$80,000+ in incentives to implement BMPs that reduce nonpoint source stormwater runoff. This program meets MCMs 1 & 2 while providing financial assistance to residents and businesses for implementing backyard conservation in their own backyards.

Quantifying the Economic and Social Benefits of Floodplain Restoration Projects

Tom Batrone, HDR

Lisa Brown, Watersheds of South Pittsburgh

This presentation will provide conference attendees with approaches for how to build an economic case for community driven nature based floodplain strategies using socioeconomic data and state of the art flood modeling software tools for a real world case study in a densely built urban watershed.

Green Infrastructure

Thursday 10:30 - 12:00 pm

Green Infrastructure - Urban Forestry, Thriving Trees in Urban Stormwater
Jason Bailey, PE, Ferguson Waterworks

When visiting urban areas we find underperforming street trees, but how often have we stopped to understand why? This presentation gives participants a look at the benefits of urban forestry, how urban soil standards are developing, and how trees in green infrastructure designs can thrive.

Conceptualization, Collaboration, Construction – The Volunteers Field Green Infrastructure Project

Matthew Smith, JMT, Inc

Working closely with PWSA and local stakeholders and through JMT's holistic and sustainable design approach, two separate GI projects, along with two baseball field renovations, were identified, designed, constructed, and now provide a much needed and desired benefit to both the local community and the overall Saw Mill Run watershed.

Thursday 1:15 - 2:45 pm

River Trail School Agricultural Program: Urban Forest & Stormwater Management
Joanna Colletti, Graef-USA, Inc.

River Trail School, a K-8 school within Milwaukee Public School (MPS) system,

received funding from the Fresh Coast Protection Partnership to install a self-supporting Urban Forest on school grounds. A series of berms and swales were designed to improve stormwater management and provide a water supply for the forest.

Geosynthetic Turf Reinforcement: Mitigation of Channel Erosion from Hydraulic Stresses

Andy Durham, Western Green

Geosynthetic Turf Reinforcement solutions are evaluated for use as flexible liner alternatives to mitigate erosion in stormwater conveyance channels. The properties and performance of these solutions are introduced, and technical examples of modeling and design for permissible tractive (shear) force are explored.

Thursday 3:15 - 4:15 pm

Master planning for Harbor Multi-Use and Water Quality Improvements
Jessica L. Miller, ECT

Dan King, ECT

Lake Erie has the most industrial land along its coastline, which can present conflicts between environmental and other high-use economic activities. This presentation will introduce large-scale planning to intertwine recreation, industry, commercial, and residential uses while focusing on environmental, climate resiliency, and water quality improvements along the shoreline.

Invigorate Gallery: Grassroots Green Infrastructure for Revitalizing a Vacant Lot

Alex Litofsky, OHM Advisors

Antunesia Harris, Rosa Consulting

Taking ownership of vacant land redevelopment in Cleveland's Hough neighborhood, a team of residents, community organizers, and volunteer professionals explored grassroots creative placemaking at the Invigorate Gallery vacant lot, resulting in a grant application to implement the first phase of their learning and entertainment space showcasing green infrastructure.

Thursday 4:30 - 5:30 pm

Small Project...but Unexpected Big Challenges

Mike Flickinger, Jacobs

Randall Berkley, Jacobs

From finalizing the project scope to securing more than 20 easements, Minerva Park's latest storm sewer improvements project presented several new and interesting challenges which required Village staff, Jacobs, and legal counsel to work collaboratively to address a damaging flooding situation.

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Select Registration Type Below

☐ In-Person (\$225) Before April 15, 2024 (\$225) After April 15, 2024 (\$275)

In-Person registration provides access to all virtual, recorded presentations starting 5/15/24.

☐ Virtual/Webinar (\$150): **Virtual are recorded presentations: Available 5/15/24 - 12/31/2024**

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☐ I am attending Evening Reception, Thursday May 9, 2024
(included in registration fee)

☐ Kayak Tour, Wednesday May 8, 2024, \$10.00, 9:00 am - 11:00 am

☐ Birding Tour, Wednesday May 8, 2024, \$10.00, 8:00 am - 12:00 pm

☐ Wine Dinner, Wednesday May 8, 2024, \$80.00, 6:00 pm - 9:00 pm

☐ MS4 Bootcamp, Wednesday May 8, 2024, 10:00 am - 3:30 pm.

☐ \$65 (WAMO/OSWA Member)

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

Please indicate method of payment:

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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, 2024, may be subject to a processing fee. After May 5, 2024, registration fees will not be refunded, but may be applied to another individual's registration fees.

Register on-line at WWW.OHSTORMWATERCONFERENCE.COM

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