

2021 Ohio Stormwater Conference

May 20 & 21, 2021



Addressing regional stormwater issues requires strategy, creativity, and collaboration. Get certified with us for greater opportunities for your business. *neorsd.org/opportunity* 



# 2021 Ohio Stormwater Conference



#### Presented by

Tinker's Creek Watershed Partners is a non-profit organization whose mission is to increase awareness and build support for the preservation and improvements of water quality, land use, and habitat value throughout the Tinker's Creek watershed.



The Ohio Stormwater Association is a group of public and private citizens dedicated to advancing the management of stormwater and related natural resources through education, leadership, watershed-based coordination, and technical assistance in Ohio. The Ohio Stormwater Association provides educational and networking opportunities for people focused on reducing the negative impacts of stormwater runoff.

#### Acknowledgement

A special thank you to all of those who helped plan this event. Thank you to the speakers who have taken their time to present.

We also want to recognize all of our Sponsors and Exhibitors; without their participation this conference would not be possible.

#### Get The 2021 Ohio Stormwater Conference App

Attendees with Apple iOS or Android devices are able to personalize their conference experience with our Annual Conference mobile app. Here are just some of the many features:

- Bookmark presentations and events in the conference agenda to create a personalized schedule.
- Preview schedule and speaker bios.
- Sponsor and exhibitor information
- Message other attendees directly, easily access individual message threads, and share contact information to stay connected after the conference.
- Participate in the App Photo Contest and be entered to win a prize!
- Description of all sessions and tracks.

Photo Contest: Upload a photo to the app, label with your name and be entered to win a prize!! Photos should be of your "viewing" location for the conference.

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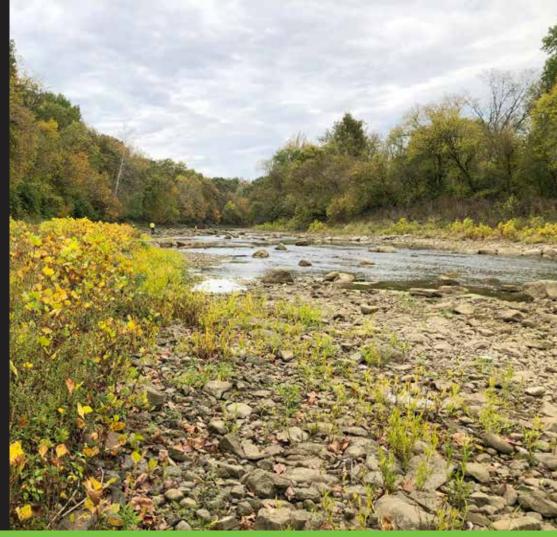
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Precious resources. Powerful insights. A future we build together.

# Conference Schedule

#### **Thursday, May 20, 2021**

8:30 a.m. - 8:45 a.m.

8:45 a.m. - 9:45 a.m.

9:45 a.m. - 10:15 a.m.

10:15 a.m. - 11:15 a.m.

11:30 a.m. - 12:30 p.m.

12:30 p.m. - 1:30 p.m.

1:30 p.m. - 2:00 p.m.

2:00 p.m. - 3:00 p.m.

3:15 p.m. - 4:15 p.m.

4:30 p.m. - 5:30 p.m.

5:30 p.m. - 7:30 p.m.

Opening

**Concurrent Session** 

Break - Exhibit Hall

Concurrent Session

Concurrent Session

Lunch

**Exhibit Hall** 

Concurrent Session

**Concurrent Session** 

Concurrent Session

Reception in Exhibit Hall

#### Friday, May 21, 2021

8:15 a.m. - 9:15 a.m.

9:15 a.m. - 9:45 a.m.

9:45 a.m. - 10:45 a.m.

11:00 a.m. - 12:00 p.m.

12:00 p.m. - 1:00 p.m.

1:00 p.m. - 2:00 p.m.

2:15 p.m. - 3:15 p.m.

**Concurrent Sessions** 

Break - Exhibit Hall

Concurrent Sessions

Concurrent Sessions

Lunch

Concurrent Sessions

**Concurrent Sessions** 

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#### EXHIBITORS - VIRTUAL









































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#### EXHIBITOR BOOTH INFORMATION



526

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228

ABT, Inc.

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# **Conference Planning Committee**

#### Conference Chair

Harry Stark, City of Aurora / Tinker's Creek Watershed Partners - Executive Director / Ohio Stormwater Association

#### Planning Committee

Tony Burgoyne GPD Group

Ana Burns - Chair, Abstract and Agenda Committee Davey Resource Group, Tinker's Creek Watershed Partners Ohio Stormwater Association

Kate Chapel

Tinker's Creek Watershed Partners

Jeff Duke

Northeast Ohio Regional Sewer District

Stacey Faile, PE OHM Advisors

Jason Fyffe Ohio EPA

Dana Hineman Contech

Katherine Holmok

Environmental Design Group, Tinker's Creek Watershed Partners

Kelly Kuhbander

Strand Associates, Inc., Ohio Stormwater Association

**Emily Kuzmick** 

Ohio Department of Natural Resources

Matt Lascola GPD Group

Bob Lentz

Butler County Storm Water District, Ohio Stormwater Association

Michael Liptak

Enviroscience, Inc., Tinker's Creek Watershed Partners

Kari Mackenbach

ms consultants, Inc., Ohio Stormwater Association

Mark McCabe

JEO Consulting Group, Ohio Stormwater Association

Victoria McCauley City of Wadsworth

Afaf Musa CDM Smith

Jonathan Prier

Ohio Department of Transportation

Joe Reitz

City of Avon Lake

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**Greg Spires** 

Advanced Drainage Systems

Jennifer Syx

Tinker's Creek Watershed Partners

Anil Tangirala ms consultants, Inc.

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Kathleen A. Wade-Dorman, PE

Village of Indian Hill, Ohio Stormwater Association

Jill Ward

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#### **SERVICES**

ASSET MANAGEMENT / GIS

**BASIN RETROFITS** 

**CIP DEVELOPMENT** 

**COLLECTION SYSTEM** 

**CONSTRUCTION INSPECTION** 

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DAM REMOVAL AND RESTORATION

**FLOODPLAIN MODELING** 

**FUNDING** 

GREEN INFRASTRUCTURE / STORMWATER CONTROL MEASURES

**H&H MODELING** 

INVENTORY, INSPECTION AND ASSESSMENT

MS4 PERMITTING

POWER AND BACKUP POWER GENERATION

**PUMP STATIONS** 

**RATE ANALYSIS** 

RIVER AND WETLAND RESTORATION

SHORELINE RESTORATION

STORMWATER COLLECTION

STORMWATER UTILITY DEVELOPMENT

STREAM BANK STABILIZATION

WATER DISTRIBUTION

WATER TREATMENT

**WASTEWATER TREATMENT** 

WATERSHED STUDIES



# Welcome



Harry Stark
Executive Director

I've been honored to be the Executive Director of the Ohio Stormwater Conference since 2008. It has been a pleasure to meet and work with so many great people who are dedicated to protecting and improving Ohio's abundant natural water resources. The dedication of these individuals is an asset to Ohio.

The planning for this year's event has been a challenge but we feel the final agenda and event plans will be a benefit to all. This year's event is an opportunity to advance the knowledge and understanding of comprehensive stormwater management for those dealing in all aspects of planning, design, implementation, and regulatory compliance. We are fortunate to have top notch speakers participating at this year's event to provide information that can benefit us all. Throughout this conference, concurrent sessions will provide an in depth look at the challenges that stormwater management presents and how we can develop effective solutions for these challenges. The conference will provide an excellent opportunity to gain new perspectives, share experiences, and network with colleagues.

I would like to thank the planning committee, the numerous sponsors, exhibitors, collaborating partners, and speakers who all have devoted countless hours and resources to make this conference a success. I encourage everyone to visit the sponsors and exhibitors either in-person or virtually over the two-day event for the knowledge, expertise, and products that they bring to share with all of us.

I want to give a special thank you to Kate Chapel from the Tinker's Creek Watershed Partners who has been my go to person in helping plan this event. Thank you to Ana Burns, Davey Resource Group, who led the development of a strong agenda. Thank you to Annalise Maniscalco and Katherine Holmok, Environmental Design Group, for all of their assistance on the virtual platform development.

It has been a wonderful experience working with all of the talented people who have volunteered their time in making our conferences a success. I look forward to the years to come to see how this event will continue to grow and expand and bring stormwater management issues to the forefront in Ohio. Thank you.



Eckert Ditch Drinking Water Quality Improvements, City of Akron, Ohio

The intent of the project is to improve water quality by mimicking natural stream characteristics, improving flood storage capacity and implementing innovative phosphorus removal structures. The reuse of alum from the active drinking water process will create a new reuse for the spent material.

Akron Harmful Algal Bloom General Plan, City of Akron, Ohio

The Cyanotoxin General Plan documented and demonstrated that the existing practices utilized by Akron City PWS provide a multiple barrier approach to cyanotoxin reduction and treatment and are sufficient to prevent finished water exceedances of the algal toxins action levels.

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#### JOIN THE CLEANWAY RE-OCCURRING CLUB

In appreciation for your business, we would like to let you know about a new program we have rolled out for 2021.

The phrase "out of sight, out of mind" truly applies to the maintenance of stormwater filtration units. Whether it's one of our Downspout units, a Curb Inlet, or a Catch Basin Insert, these all need to have their filters replaced periodically. If you have one of our weighted booms or a cubic foot of MetalZorb, these need to be replaced, at least, once a year. Tracking all the above can be very time consuming and a real headache. We realize this, but also know that regular maintenance keeps you in compliance and away from hefty fines.

Introducing our new **Re-Occurring Club!** It takes the guess work and tracking of when new replacement products are needed off your plate. We do it for you! This program can be set up as an auto-ship or simply a notification for new filters, weighted booms, and/or MetalZorb. All you need to do is complete an agreement form, and we do the rest.

Simple, right? Maintenance is something that is often overlooked. We care about keeping you in compliance. Let us help!

**JOIN THE PROGRAM TODAY!** 

Email your request to join the Re-Occurring Club to Alison Stephens at alison.stephens@cleanwayusa.com

#### Chances To Win!!

We are pleased to offer you opportunities to win some great prizes at this years conference
This year, both virtually and in-person, we have several contests!

1

#### **IN-PERSON EVENT**

This year's in-person event has a number of fun activities that you maybe able to win one of many great prizes.

- Session Bingo
- Exhibitor/Sponsor Passport
- Guidebook App Scavenger Hunt
- Photo Contest

More information will be available when you check in for the conference.

2

#### **VIRTUAL EVENT**

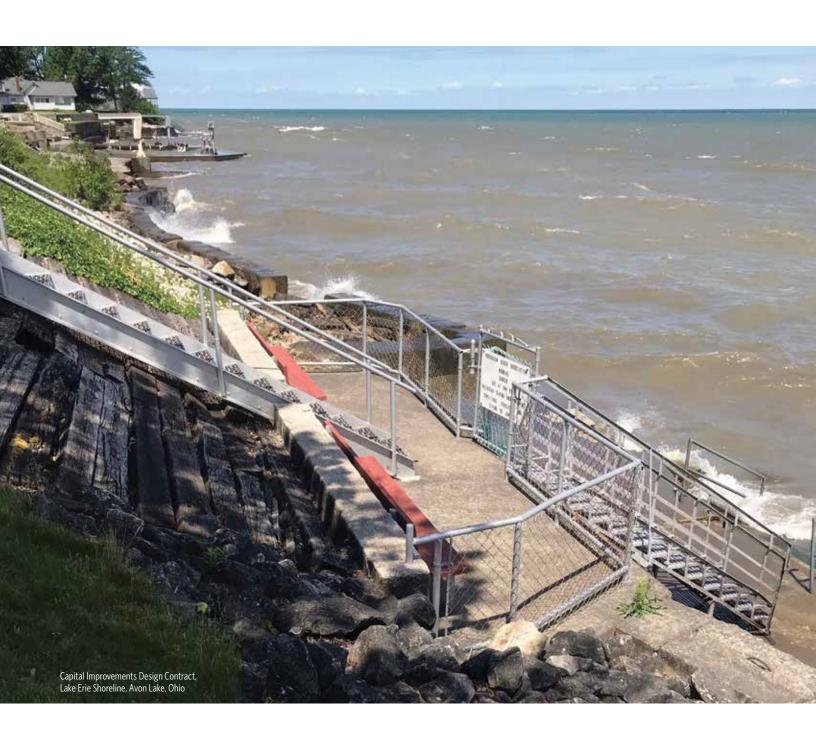
The virtual event will have the opportunity to win some prizes as well.

- Photo Contest
- Sponsor Trivia

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Harry Stark, RS, MPA, CPMSM - Executive Director Kate Chapel - Senior Project Manager Kelli Herrick - Watershed Coordinator Julie Stark - ServeOhio Project Manager

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# Get involved - Become a member today!

<u>tinkerscreek.org</u>Purchase a raffle ticket to win a kayak!!Raffle Link Here



#### Thank You - Stone Environmental Engineering & Science, Inc.

Stone Environmental graciously donated the kayak that is being raffled as part of our fund raiser. We greatly appreciate this donation and Stone Environmental's continued support of the Tinker's Creek Watershed Partners.







# WESSLER **ENGINEERING**

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#### **Interested in learning more?** Contact Eric Davis at (419) 358-0521 or EricD@wesslerengineering.com





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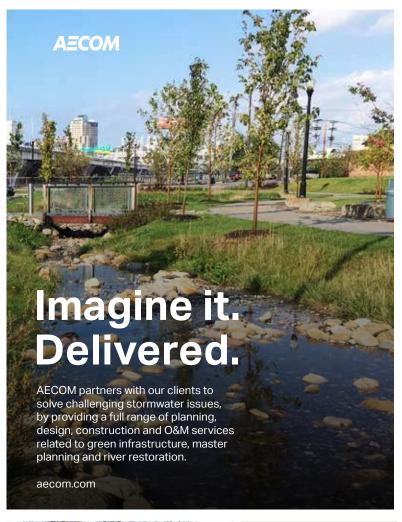
We connect the tried-and-true with the best new ideas to deliver innovative stormwater solutions that enhance our communities.

advancing\*stormwater



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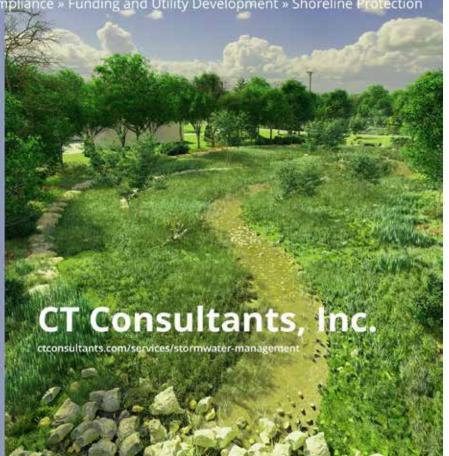


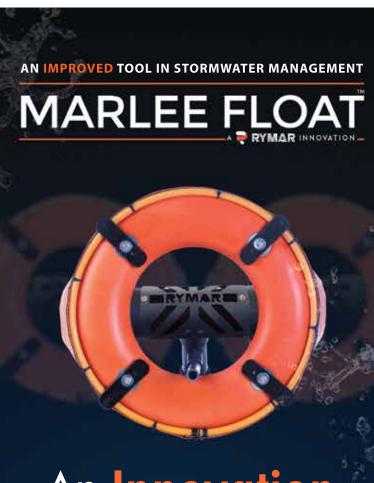
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An existing, highly channelized stream was causing flooding of nearby homes.
Removing those homes would provide more area to relocate the stream into a meandering waterway with expanded floodplain overflow areas. Planting meadow and shrub plantings suitable for floodplains and streambanks would help prevent erosion and slow the floodwater flows.







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The Ohio Coastal Training Program works with a variety of environmental professionals to help inform, educate, and meet their needs. To learn more about the program, contact the Coastal Training Program Coordinator at <a href="mailto:Emilv.Kuzmick@dnr.ohio.gov">Emilv.Kuzmick@dnr.ohio.gov</a>







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WHERE: The Water Pavilion at The Utility Expo,
Kentucky Exposition Center, Louisville, KY

WHEN: Sept. 28 to 30, 2021

AEM's Utility Expo draws over 19,000 utility and construction professionals and spans more than 30 acres. The largest event for utility professionals and construction contractors, it included over 1,000 exhibitors in 2019.

#### **SAVE THE DATE, MARK YOUR CALENDAR TODAY!**

Registration will open in May, for the latest updates visit: sgcwaterpavilion.com





## **Continuing Education Information**

Please track the educational sessions that you attend and enter the total number of hours on the certificate for your records. The certificate can be found on the link at the loading page.

- A certificate of attendance will be available for download
- Live webinar attendance records will be available for download for Distance Learning Credits
- Video recordings of presentations will be available for download for Correspondence Course Credits
- Quizzes will be available for Landscape Architecture CEUs and other certifications

More information can be found at: <a href="https://ohstormwaterconference.com/ceu-info/">https://ohstormwaterconference.com/ceu-info/</a>



#### CERTIFICATE OF ATTENDANCE

This certifies that:				
Has earned hours of	continuing education credit			
	Harry Stark	May 21, 2021		
	Signature	Date		

The Ohio Stormwater Conference is a three-day conference that provides training and discussions on Best Management Practices for Local Land Use Planning, low impact development, and stormwater management. This conference is relevant to the practice of civil engineering, planning, and landscape design, to partially fulfill Continuing Professional Development (CPD) requirements for Ohio Professional Engineers, EnvioCert Certifications, Surveyors, Certified Planners (AICP), Landscape Architects, and other related professions. The Ohio State Board of Registration for Professional Engineers and Surveyors does not pre-approve CPD courses nor does the board pre-approve CPD providers. Each registrant is responsible to make sure that the courses they take meet the requirements specified in O.R.C. 4733.151. It is the individual's responsibility to provide supporting ma-terial as to the sessions and hours attended. Scanned sign-in sheets for each session of the conference will be available on file at ohstormwaterconference.com



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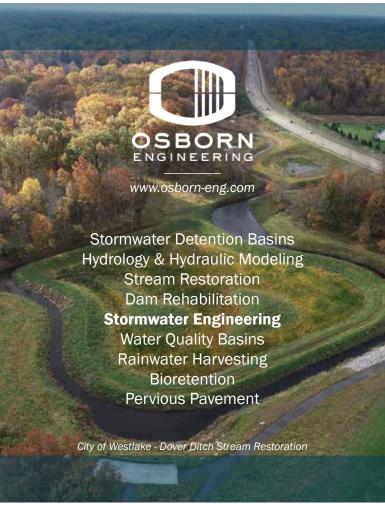






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#### Ohio Stormwater Conference Technical Agenda

8:30a - 8:45 am

Opening Remarks: Harry Stark, Conference Executive Director

	In-Person Only Track Zambezi Room	Watershed Planning and Restoration Nile Room	Monitoring, Inspection, and Maintenance Orange Room
8:45 - 9:45 am 1.0 CEU		Getting it Funded - Grant Resources for Watershed Restoration  Betsy Ehler, Burgess & Niple Eric Saas, ODNR Steve Ferryman, Ohio Emergency Management Agency Steven Malone, Ohio EPA	Data at Your Fingertips: Mobile GIS for Stormwater Monitoring  Katie Norris, City of Dayton Department of Water Greg Hornbeek, City of Dayton  Aerial & Bathymetric Drones Aid Detention Basin Inspections  Alan Stadler, Wade Trim
9:45 - 10:15 am	Break In-Person: Visit Exhibit Ha	all and see all our Exhibitors!	
10:15 - 11:15 am 1.0 CEU		Restoring the Black: Capping off a Decade of Restoration  Kate Golden, City of Lorain, A.J. Gutz, Coldwater Consulting  The Power of Coalition Building in Watershed Restoration  Marissa Lautzenheiser, Rural Action Shana Angel, Rural Action	Digital Technologies for Effective Green Infrastructure Management  Stephanie Weagraff, Arcadis Caroline Caglioni, Arcadis  Asset Management for Constructed and Natural Stormwater Systems  John Aldrich, CDM Smith Jeff Claus, CDM Smith
11:30 - 12:30 pm 1.0 CEU	Selling Stormwater Improvements: Calculating the Benefits  Katherine Holmok, Environmental Design Group	No (Elevation) Relief in Sight: Olmsted Township's Stormwater Master Plan  Dave Gleason, Stantec Craig Nauman, Cuyahoga County Department of Public Works  A Practitioner's Overview of a Developing Water Quality Trading Market  Erin Delawalla, Resource Environmental Solutions, LLC Michael Sachs, RES	Improving SMP Design: Lessons Learned from Inspections  Shiny Mathew, JMT Allison Hill, JMT  A Proactive Examination of Maintenance during Green Infrastructure Design  Alysondria Eason, Hazen and Sawyer

12:30-1:30 pm

1:30 - 2:00 pm

Lunch

**Exhibit Hall** 

# Thursday May 20, 2021

Stormwater Practices, BMPs, Planning & Design Aloeswood	Modeling and Research Zebrawood	Legal Rosewood	
Maintaining Sediment & Erosion Controls in the Urban Environment  Kelly Parker, Cuyahoga SWCD Megan Smith, Cuyahoga SWCD Revisions to Rainwater and Land Development  Justin Reinhart, Ohio EPA	2D modeling concepts for dams, streams and wetlands in Ohio  Matthew Marquis, Hull & Associates, LLC  Climate change impacts on urban streamflow: implications for stormwater management  Zia UI Hassan, Kent State University Anne J. Jefferson, Kent State University	Ohio Water Law 101  Louis L. McMahon, McMahon DeGulis LLP  Water Law 102: Basic Legal Issues  Louis L. McMahon, McMahon DeGulis LLP  Erin McDevitt-Frantz, McMahon DeGulis LLP	
Stream Bank Stabilization Techniques: Improve Water Quality and Protect Assets Brian Tornes, PE, Burgess & Niple Matt Kestner, Burgess & Niple	Integrated 1D-2D Modeling for Flood Hazard Delineation  Dustin West, Hazen and Sawyer Chris Reichle, Hazen and Sawyer  Proper Sizing of Stormwater Control Measures  Dr. Greg Williams, StormTrap LLC Dan Fajman, StormTrap LLC	Legal Hot Topics and Stormwater Litigation  Wendlene M. Lavey, McMahon DeGulis LLP  Megan Goedeker , McMahon DeGulis LLP	
Dam or Filter – What's the Difference?  Craig A. Shultz, American Excelsior Company  Green Infrastructure Planning Approach Adopted for Stormwater Authority of Chester  Aaditya Pise, HDR Peter Littleton, HDR	Watershed Surface Coefficient Assessment with Unified Runoff Time Implications  Ken Kagy, City of Milton	Conservancy Districts and Flood Retention: The Good, Bad, and Ugly  John M. Hoopingarner, McMahon DeGulis LLP	

### **Ohio Stormwater Conference Technical Agenda**

	In-Person Only Track Zambezi Room	Watershed Planning and Restoration Nile Room	Monitoring, Inspection, and Maintenance Orange Room
2:00 - 3:00 pm 1.0 CEU	Air Monitoring Ed Fitzgerald, Jack Doheny Company	Headwater Stream Restoration Provides Stormwater Storage and Improved Habitat Kaley Donovan, Davey Resource Group, Inc. Josh Myers, Chagrin River Watershed Partners  ———————————————————————————————————	How Does Your Post-Construction Program Measure Up?  Brent Eysenbach, Cuyahoga SWCD Carla Regener, Cuyahoga SWCD
3:15 - 4:15 pm 1.0 CEU	3 Powerful Ways to Improve Your Project Experience Tammi Nagucki, Environmental Design Group	Sustainable Watershed Planning Guidebook (Sustainable Streams and USFWS, 2020) Part 1&2  Bob Hawley, Ph.D., P.E., Sustainable Streams Katie MacMannis, Sustainable Streams LLC Nora Korth, Sustainable Streams LLC	Prioritized Catchment-Based Approach to Ongoing Surveillance of MS4 Outfalls  Kate Moran, CDM Smith  Storm Outfall Inspections and Testing, Lessons Learned, Changes Made  Joseph Reitz, City of Avon Lake
4:30 - 5:30 pm 1.0 CEU	Environmental Considerations for High Flows: Best Practices and Lessons Learned from PennDOT's Bridge Replacement Program  Greg Zimmerman, EnviroScience	Moments in the Marsh: Restoring and Protecting a Coastal Gem  Sally Gladwell, Mannik Smith Eric Kraus, Standing Rush, LLC	Neglected Drainage Systems - Where to Start?  Mark Delisio, P.E., CT Consultants, Inc. Jason Loree, CT Consultants, Inc.

# Thursday May 20, 2021

Stormwater Practices, BMPs, Planning & Design Aloeswood	Modeling and Research Zebrawood	Legal Rosewood
Anionic PAM Logs for Turbidity Removal and Water Clarification	Biomimicry as Nature-Based Methodology for Coastal and Stormwater Infrastructure Design	Effective Stormwater Controls for Reducing Nutrient Impairments in an Urban Watershed
Kyla Iwinski Wood, Applied Polymer Systems	Elena Stachew, Biohabitats and The University of Akron	Stephen Haughey, Frost Brown Todd LLC
	Dam Breach and Inundation Mapping	
	Patrick McMahon, S&ME Salley Reamer, S&ME	
	Green Infrastructure Zebrawood	
How to Prioritize, Fix, and Fund Our Drainage Infrastructure Problems	Evaluation of Sewershed Scale Hydrological Responses to Retrofitted Green Infrastructure	Maui Ruling Impacts on Stormwater Discharges to Groundwater
Brandon Vatter, Raftelis	Kathryn Boening, Ohio State University	Adrienne Nemura, Geosyntec Consultants
	The Impact of Sewershed-Scale Green Infrastructure on Stormwater Quality	Could a General Nutrient Permit help the Lake Erie Basin?
	Joseph Smith, Ohio State University	Nathaniel Morse, Vorys, Sater, Seymour and Pease LLP
		Transportation Roundtable Rosewood
Regional Offsite Mitigation in an Urban Environment	Parking Reserved For GI: Hydrologic Performance of Commercial Stormwater Retrofits	Transportation Roundtable  Jonathan Prier, Ohio Department of Transportation
Chad Boyer, ms consultants, inc. Anil Tangirala, ms consultants, inc.	Andrew Tirpak, Ohio State University Ryan Winston, Ohio State University	Mark McCabe, JEO Consulting Group
BRIC by BRIC, A Real World Guide to FEMA Grants	Designing Floating Treatment Wetlands to Improve Pond Performance: A Meta-Analysis	
Kari Mackenbach, ms consultants, inc.	Andrew Tirpak, Ohio State University Ryan Winston, Ohio State University	



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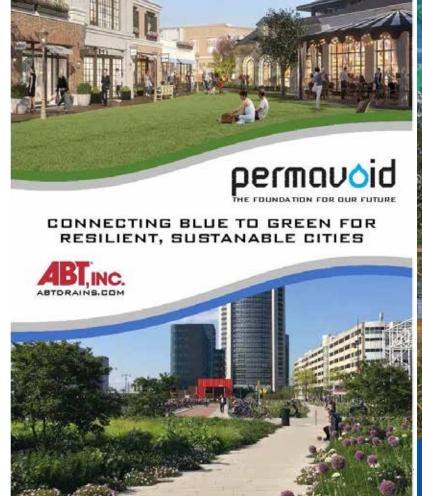




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## 2022 Ohio Stormwater Conference

# SAVE THE DATE . . . May 2022

The 2022 Ohio Stormwater Conference Kalahari Resort and Conference Center Sandusky, Ohio



Interested in Presenting? Call for Abstracts will open in September 2021.

Want to have a booth? Want to be on the planning committee?

Contact Harry Stark at hstark@tinkerscreekwatershed.org

## **Ohio Stormwater Conference Technical Agenda**

	In-Person Only Track Zambezi Room	Watershed Planning and Restoration Nile Room	Monitoring, Inspection, and Maintenance Orange Room
8:15 - 9:15 am 1.0 CEU	Fund Green Dreams and Clean Streams with Section 319 Christina Znidarsic, Davey Resource Group	Project Update: Long-Term Solutions to Stream Erosion  Adam Athmer, Strand Associates Dean Flores, Montgomery County Environmental Services	Using Trash Trappers for a Cleaner Toledo Edith Preciosa Kippenhan, City of Toledo Julianne Badreddine, City of Toledo  PFAS in Stormwater: The What, How, and Why of Testing  Taryn McKnight, Eurofins Environment Testing America
9:15 am - 9:45 am	Break - Visit Exhibitors/Spo	nsors	
9:45 - 10:45 am 1.0 CEU	Resilence in Buried Infrastructure Storm Systems  Matt Mace, ADS	Widening the Viewpoint: Building NPS-IS for Near-Field and Far-Field Goals  Deanna Bobak, Civil & Environmental Consultants, Inc.  Stream Restoration and Infrastructure Protection: North Branch Sycamore Creek  Amy Schultz, Beaver Creek Hydrology  Chuck Davis, P.E., Beaver Creek Hydrology	Maintenance of Buried Infrastructure Systems  Michael Cook, ADS  Proactive Data Collection for Flood Warning  Chuck Kozora, OTT HydroMet
11:00 - 12:00 pm 1.0 CEU	Bringing Education & Outreach into the New Normal  Kate Chapel, Tinker's Creek Watershed Partners  NOWCorps: Launching a new environmental stewardship AmeriCorps Program in Ohio  Kate Chapel, Tinker's Creek Watershed Partners	Penn 7 Maumee River Wetland Restoration: Planning and Construction Overview  Ryan Darnton, NOAA Restoration Center Eric Ellis, Coastal Conservation and Habitat Restoration Phil Hicks, PE	Development and Implementation of a Statewide Dam Construction Monitoring Plan  Chad Davis, HDR Jacob Bench, HDR  Framework for Managing Stormwater Infrastructure  Lauren Van Meter, HDR Peter Littleton, HDR

Lunch

12:00-1:00 pm

# Friday May 21, 2021

Stormwater Practices, BMPs, Planning & Design Aloeswood	Green Infrastructure Zebrawood	Ohio EPA Roundtable Rosewood	
Hybrid Stormwater Infrastructure: Addressing Tomorrow's Challenges Through Creative Design  Chris Allen, Contech Engineered Solutions, LLC Jacob Dorman, Contech Engineered Solutions, LLC	Engaging the Public with Green Stormwater Infrastructure  Sara Guiher, Toledo Metropolitan Area Council of Governments  Innovative Green Infrastructure Beneath Milwaukee's Marquette Interchange  Anna Sunderland, Strand Associates, Inc.	Ohio EPA Roundtable  John Matthews, Ohio EPA Jason Fyffe, Ohio EPA	
		Stormwater Retrofits Rosewood	
An Odyssey of Artful Stormwater Design in Wheeling, WV Gabe Hays, WallacePancher Group  A Turnkey Stormwater Solutions Operation Mike Massonne	Implementing Stage-Zero Stream Restoration in the Urban Context  Tyler Smith, Hazen and Sawyer  Finding the Right Mix: Bioretention Media Effects on Water Quality  Ryan Winston, Ohio State University	Build It and They Will Come  Gregory Kacvinsky, OHM Advisors  City of Avon Lake Stormwater Infrastructure Update  Joseph R. Reitz, P.E., CPESC, CESSWI, City of Avon Lake Jennie Celik, HDR Doug, Mohn, HDR	
Industrial Aloeswood  Industrial Stormwater: Defining, Monitoring, and Managing Water under NPDES Julie Morelli, POWER Engineers, Inc.	Green Infrastructure at Wissinoming Park: Maximizing Treatment in Unique Setting  Andrew Birmingham, Johnson, Mirmiran & Thompson, Inc. Tyler Charles, JMT	Getting Rain Gardens Built without Lifting a Shovel  Susan Bryan, Washtenaw County Water Resources Elizabeth Hiser, Cuyahoga SWCD Laura Bonnell, Chagrin River Watershed Partners Natalie Gertz-Young, Lake County SWCD	

#### Ohio Stormwater Conference Technical Agenda

	Watershed Planning and Restoration Nile Room	Monitoring, Inspection, and Maintenance Orange Room
1:00 - 2:00 pm	Rooting for Stable Streambanks – NEORSD SWIM Root Cause Failure	Project Management Solutions for Integrating Asset Tracking and Inspections
1.0 CEU	Christina Silea, Northeast Ohio Regional Sewer District Anne Roberto, Northeast Ohio Regional Sewer District	Olivia Devereux, Devereux Consulting, Inc.
	Resolving a "Stickney" Situation  Derek Vogel, Northeast Ohio Regional Sewer District	Designing Manufactured Treatment Devices (MTDs) with Maintenance in Mind
	Jaime Hain, PE	Dana Hinaman, Contech Engineered Solutions

2:15 - 3:15 pm 1.0 CEU

Restoring Part of Toledo's Urban Wetland Puzzle at Detwiler Marsh

Alexandria Peters, The Mannik & Smith Group, Inc. Shawna Towns, City of Toledo

Lick Run Valley Conveyance System Construction and Lessons Learned

John Lyons, Strand Associates, Inc Mike Ellerbrock, Strand Associates, Inc Increasing the Life Cycle of SCMs with Preventative Maintenance

Jeffrey Urban, AQUALIS



Protecting Public Health
Promoting Environmental Responsibility

City of Delaware Public Utilities Department MS4 Program



## Friday May 21, 2021

Industrial	Green Infrastructure	Stormwater Retrofits
Aloeswood	Zebrawood	Rosewood
Navigating Industrial Stormwater NPDES Permits: SWPPPs, BMPs and Benchmarks  Jennifer Conroy, PE, CPESC, Burgess & Niple Brian Tomes, Burgess & Niple Brian Yates, Burgess & Niple	Permeable Paving & Ground Stabilization  Doug McCluskey, Everett J Prescott	What To Do When Your Project Has "Topsoil Replacement/Restoration"  Chris Vasco, Cuyahoga SWCD  Curb and Gutter Modifications as Pretreatment for Green Infrastructure  Alec Grimm, The Ohio State University

Industrial Stormwater: Not Just Your Father's Stormwater

Gary Lohse, Hydro International

Urban Green Infrastructure Design in Baltimore - Lessons Learned

Andrew Sankowski, Straughan Environmental, Inc.

Follow the Drop: Building Water Security & Resiliency

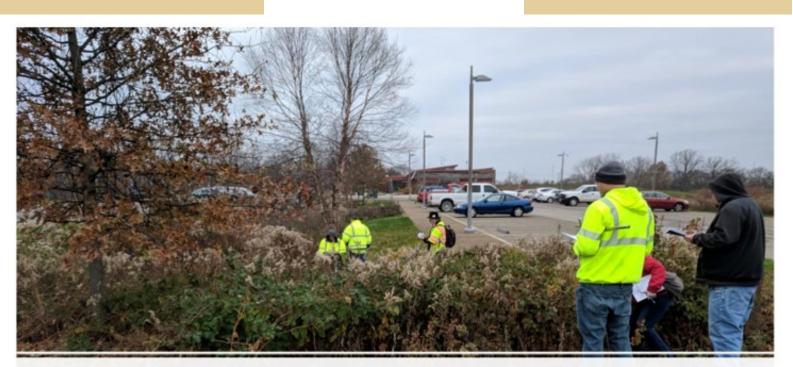
Lauren Roth Venu, 3Rwater, Inc.

Retrofitting Green Stormwater Infrastructure to Sustainably Address Changing Storms

Dr. Matthew Jones, Hazen and Sawyer Lisa Jeffrey, Hazen and Sawyer

The Evolution of Turf Reinforcement Mat Technology

Timothy Lancaster, GrassWorx LLC



Inspection and Maintenance Certification for Stormwater Control Measures in Ohio

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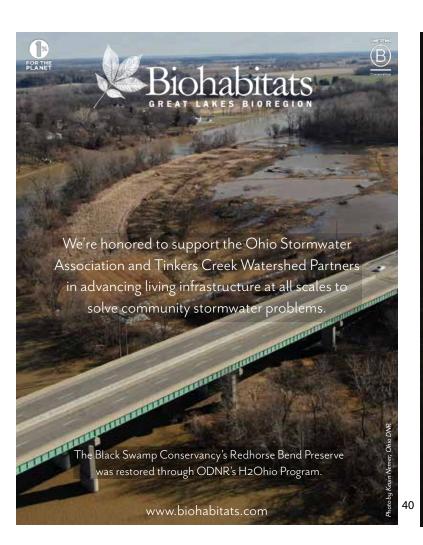


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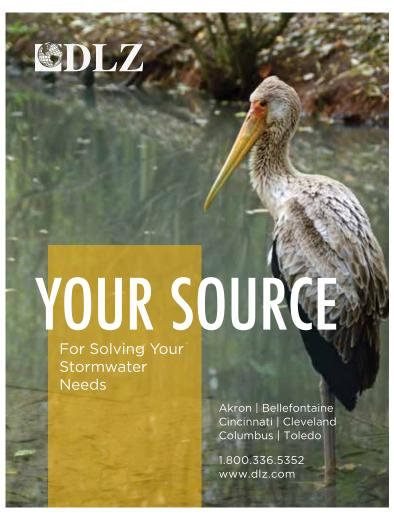


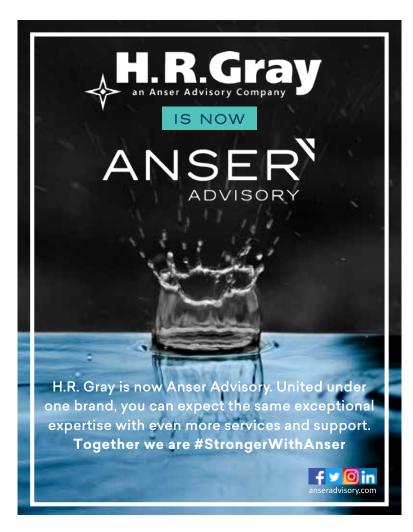


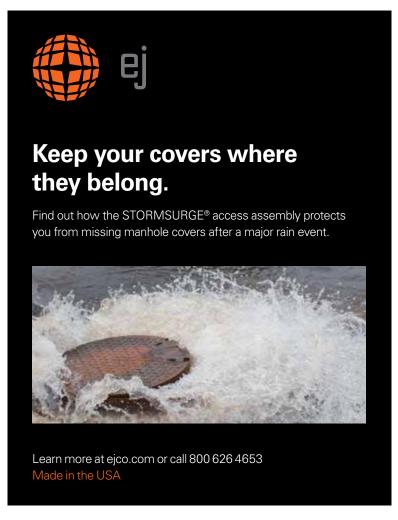


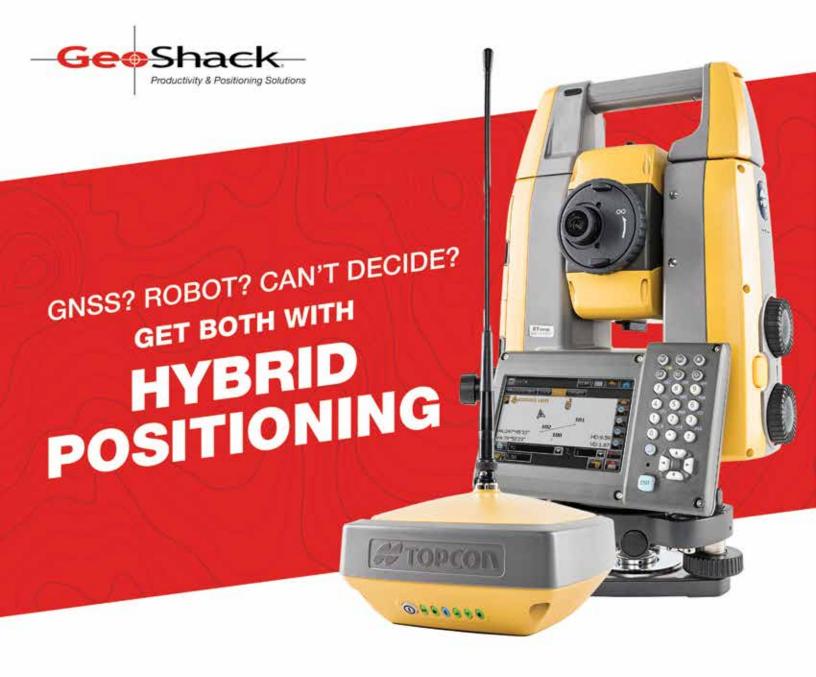
The Ohio Environmental Education Fund offers grants to educate the regulated community, general public, and pre-school through university students and teachers about stormwater management. The next application cycle will open in late May, with applications due by July 15, 2021.

Contact oeef@epa.ohio.gov to discuss project ideas.









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