



2021 Ohio Stormwater Conference

May 20 & 21, 2021



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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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By taking a more integrated perspective, we can solve our water resources challenges in a more economical, environmental, and socially responsible way.

Catch this Year's Presentations:

■ **Modernizing the MS4 Facility Storm Water Plan & Assessment Program**

Nancy Ellwood & Jessica Doty

2021 Virtual MS4 Boot Camp
Training – Wednesday, May 19

■ **Asset Management for Constructed & Natural Stormwater Systems**

John Aldrich

Thursday, May 20 – 10:45 am
to 11:15 am

■ **Prioritized Catchment-Based Approach to Ongoing Surveillance of MS4 Outfalls**

Kate Moran

Thursday, May 20 – 3:15 pm
to 3:45 pm

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Conference Schedule

Thursday, May 20, 2021

8:30 a.m. - 8:45 a.m.	Opening
8:45 a.m. - 9:45 a.m.	Concurrent Session
9:45 a.m. - 10:15 a.m.	Break - Exhibit Hall
10:15 a.m. - 11:15 a.m.	Concurrent Session
11:30 a.m. - 12:30 p.m.	Concurrent Session
12:30 p.m. - 1:30 p.m.	Lunch
1:30 p.m. - 2:00 p.m.	Exhibit Hall
2:00 p.m. - 3:00 p.m.	Concurrent Session
3:15 p.m. - 4:15 p.m.	Concurrent Session
4:30 p.m. - 5:30 p.m.	Concurrent Session
5:30 p.m. - 7:30 p.m.	Reception in Exhibit Hall

Friday, May 21, 2021

8:15 a.m. - 9:15 a.m.	Concurrent Sessions
9:15 a.m. - 9:45 a.m.	Break - Exhibit Hall
9:45 a.m. - 10:45 a.m.	Concurrent Sessions
11:00 a.m. - 12:00 p.m.	Concurrent Sessions
12:00 p.m. - 1:00 p.m.	Lunch
1:00 p.m. - 2:00 p.m.	Concurrent Sessions
2:15 p.m. - 3:15 p.m.	Concurrent Sessions

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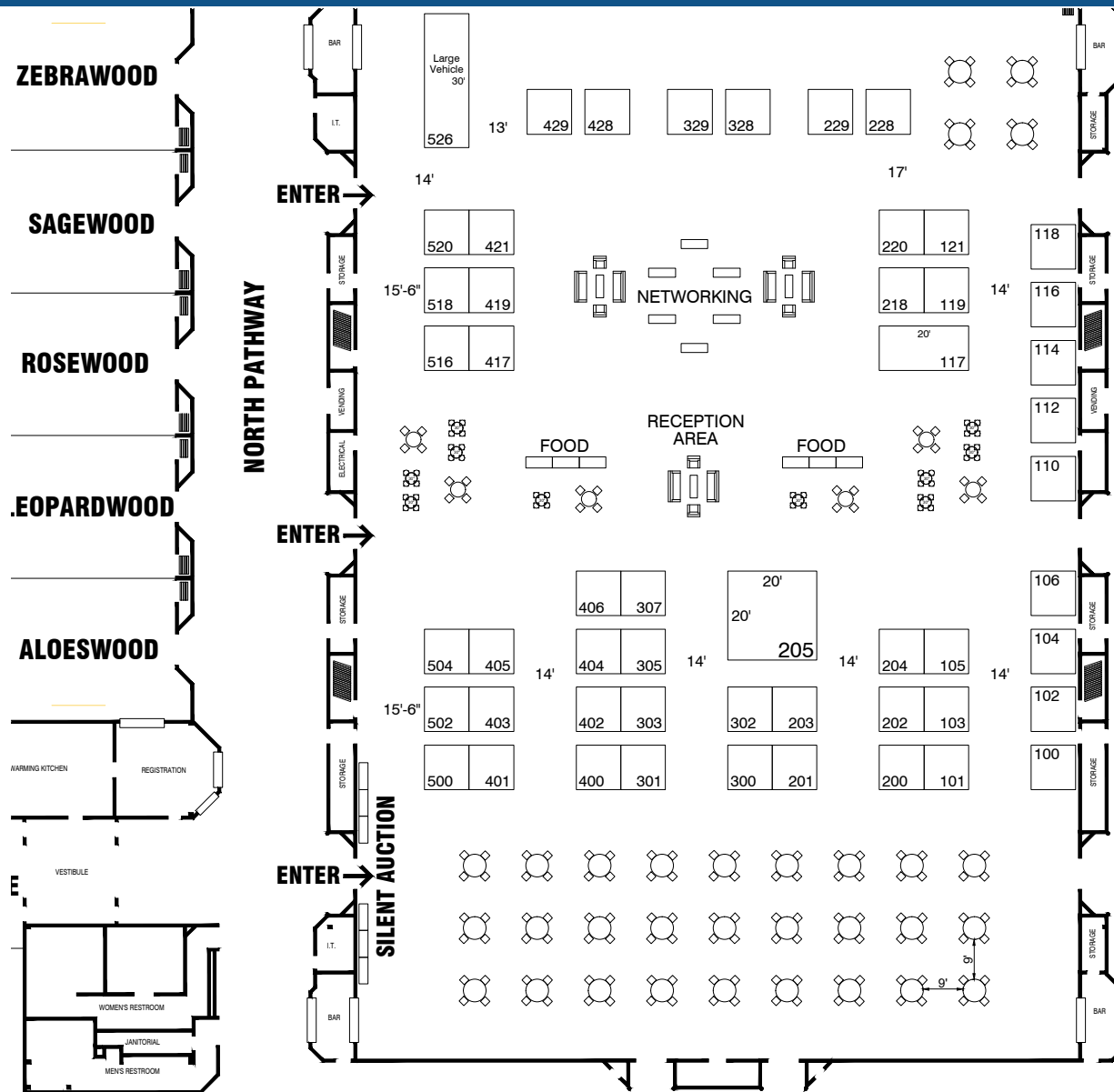
MS4web2.0



EXHIBITORS - VIRTUAL



EXHIBITOR BOOTH INFORMATION



ABT, Inc.	220	Hi-Vac Corporation	526
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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

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GPD Group

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

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1

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OPPORTUNITY



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BASIN RETROFITS

CIP DEVELOPMENT

COLLECTION SYSTEM

CONSTRUCTION INSPECTION

CONSTRUCTION MANAGEMENT

DAM REMOVAL AND RESTORATION

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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

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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.

Photo by: Michael Toth,
Water Protection Specialist
for the City of Akron

CLEAN WATER IS IMPORTANT FOR LIFE.

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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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.



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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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Tinker's Creek Watershed Partners

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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.





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&
JEOPARDY! game

Friday 2:15 - 3:15
Restoring Part of Toledo's Urban
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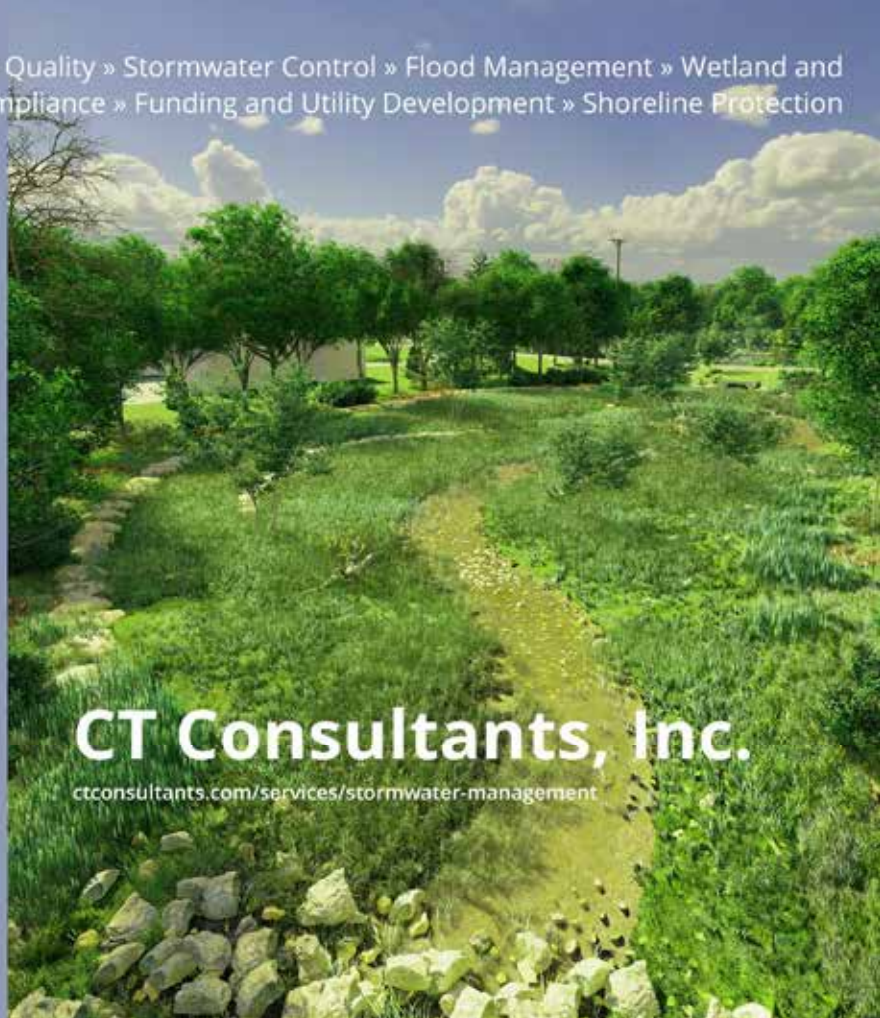
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WHEN: Sept. 28 to 30, 2021

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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: <https://ohstormwaterconference.com/ceu-info/>



CERTIFICATE OF ATTENDANCE

This certifies that:

Has earned _____ hours of continuing education credit

Harry Stark

Signature

May 21, 2021

Date

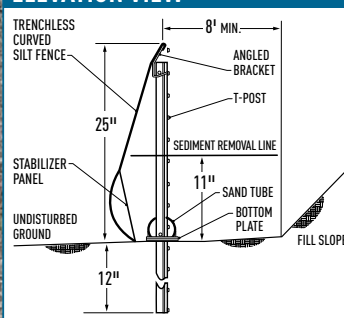
The Ohio Stormwater Conference is a three-day conference that provides training and discussions on Best Management Practices for Local Land Use Planning, low impact development, and stormwater management. This conference is relevant to the practice of civil engineering, planning, and landscape design, to partially fulfill Continuing Professional Development (CPD) requirements for Ohio Professional Engineers, EnviroCert 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 material 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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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 <hr/> Aerial & Bathymetric Drones Aid Detention Basin Inspections Alan Stadler, Wade Trim
9:45 - 10:15 am	Break In-Person: Visit Exhibit Hall 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 <hr/> 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 <hr/> 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 <hr/> 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 <hr/> A Proactive Examination of Maintenance during Green Infrastructure Design Alysondria Eason, Hazen and Sawyer
12:30-1:30 pm	Lunch		
1:30 - 2:00 pm	Exhibit Hall		

Thursday May 20, 2021

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

Ohio Stormwater Conference Technical Agenda

	In-Person Only Track Zambezi Room	Watershed Planning and Restoration Nile Room	Monitoring, Inspection, and Maintenance Orange Room
<p>2:00 - 3:00 pm</p> <p>1.0 CEU</p>	<p>Air Monitoring</p> <p>Ed Fitzgerald, Jack Doheny Company</p>	<p>Headwater Stream Restoration Provides Stormwater Storage and Improved Habitat</p> <p>Kaley Donovan, Davey Resource Group, Inc. Josh Myers, Chagrin River Watershed Partners</p> <hr/> <p>Creating a Stream/Wetland Complex with Sand Seepage Berms</p> <p>Kevin Grieser, Biohabitats Suzanne Hoehne, Biohabitats</p>	<p>How Does Your Post-Construction Program Measure Up?</p> <p>Brent Eysenbach, Cuyahoga SWCD Carla Regener, Cuyahoga SWCD</p>
<p>3:15 - 4:15 pm</p> <p>1.0 CEU</p>	<p>3 Powerful Ways to Improve Your Project Experience</p> <p>Tammi Nagucki, Environmental Design Group</p>	<p>Sustainable Watershed Planning Guidebook (Sustainable Streams and USFWS, 2020) Part 1&2</p> <p>Bob Hawley, Ph.D., P.E., Sustainable Streams Katie MacMannis, Sustainable Streams LLC Nora Korth, Sustainable Streams LLC</p>	<p>Prioritized Catchment-Based Approach to Ongoing Surveillance of MS4 Outfalls</p> <p>Kate Moran, CDM Smith</p> <hr/> <p>Storm Outfall Inspections and Testing, Lessons Learned, Changes Made</p> <p>Joseph Reitz, City of Avon Lake</p>
<p>4:30 - 5:30 pm</p> <p>1.0 CEU</p>	<p>Environmental Considerations for High Flows: Best Practices and Lessons Learned from PennDOT's Bridge Replacement Program</p> <p>Greg Zimmerman, EnviroScience</p>	<p>Moments in the Marsh: Restoring and Protecting a Coastal Gem</p> <p>Sally Gladwell, Mannik Smith Eric Kraus, Standing Rush, LLC</p>	<p>Neglected Drainage Systems - Where to Start?</p> <p>Mark Delisio, P.E., CT Consultants, Inc. Jason Loree, CT Consultants, Inc.</p>
5:30 - 7:30 pm	RECEPTION - EXHIBIT HALL		

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

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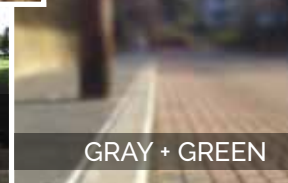
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Ohio Stormwater Conference Technical Agenda

	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 <hr/> 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/Sponsors			
9:45 - 10:45 am 1.0 CEU	Resilience 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. <hr/> 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 <hr/> 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 <hr/> 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 <hr/> Framework for Managing Stormwater Infrastructure Lauren Van Meter, HDR Peter Littleton, HDR
12:00-1:00 pm Lunch			

Friday May 21, 2021

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

Ohio Stormwater Conference Technical Agenda

	Watershed Planning and Restoration Nile Room	Monitoring, Inspection, and Maintenance Orange Room
1:00 - 2:00 pm 1.0 CEU	<p>Rooting for Stable Streambanks – NEORSW SWIM Root Cause Failure</p> <p>Christina Silea, Northeast Ohio Regional Sewer District Anne Roberto, Northeast Ohio Regional Sewer District</p> <hr/> <p>Resolving a “Stickney” Situation</p> <p>Derek Vogel, Northeast Ohio Regional Sewer District Jaime Hain, PE</p>	<p>Project Management Solutions for Integrating Asset Tracking and Inspections</p> <p>Olivia Devereux, Devereux Consulting, Inc.</p> <hr/> <p>Designing Manufactured Treatment Devices (MTDs) with Maintenance in Mind</p> <p>Dana Hinaman, Contech Engineered Solutions</p>
2:15 - 3:15 pm 1.0 CEU	<p>Restoring Part of Toledo’s Urban Wetland Puzzle at Detwiler Marsh</p> <p>Alexandria Peters, The Mannik & Smith Group, Inc. Shawna Towns, City of Toledo</p> <hr/> <p>Lick Run Valley Conveyance System Construction and Lessons Learned</p> <p>John Lyons, Strand Associates, Inc Mike Ellerbrock, Strand Associates, Inc</p>	<p>Increasing the Life Cycle of SCMs with Preventative Maintenance</p> <p>Jeffrey Urban, AQUALIS</p>



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Friday May 21, 2021

Industrial Aloeswood

Navigating Industrial Stormwater NPDES Permits:
SWPPPs, BMPs and Benchmarks

Jennifer Conroy, PE, CPESC, Burgess & Niple
Brian Tomes, Burgess & Niple
Brian Yates, Burgess & Niple

Green Infrastructure Zebrawood

Permeable Paving & Ground Stabilization

Doug McCluskey, Everett J Prescott

Stormwater Retrofits Rosewood

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

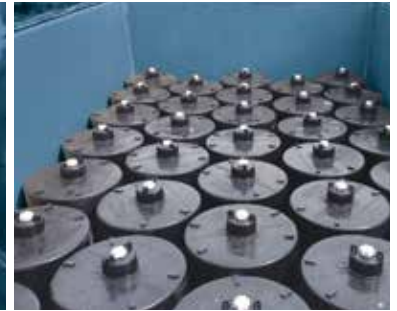
Timothy Lancaster, GrassWorx LLC



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