

2022 CONFERENCE AGENDA STREAM RESTORATION 2022: SHARING VISIONS FOR THE FUTURE

*Check for updates as the agenda is subject to change.

Sunday, July 31, 2022

1:00 - 5:00 pm Location: [Ryman Exhibit Hall B3](#)
Registration & Conference Information Desk Open
Exhibitor Set-Up

Monday, August 1, 2022

7:00 am ([Ryman Exhibit Hall B3](#))
Registration & Conference Information Desk Open

8:30 am– 12:00 pm Location: [Presidential D](#)
Opening Plenary Session
Stream Restoration 2022- A New Vision

8:30 am
Welcome & Opening Remarks
-- Ken White, Resource Institute
-- Barbara Doll, PhD, PE, North Carolina State University

Regional Perspectives on drivers of restoration, future directions, and innovations
Moderator: Ken White, Chair, Resource Institute

8:40 am
Plains and Southwest Perspective on River Restoration
-- Timothy Keane, PhD, Kansas State University, Manhattan, Kansas

9:00 am
Report on River Restoration in the Pacific Northwest – Evolving Perspectives that Extend Beyond the Channel
-- Gardner Johnston, Inter-Fluve, Hood River, OR

9:20 am
Stream Restoration in a time of Systemic Change – the Story from the Great Lakes Region
-- Robert Barr, Indiana University-Purdue University Indianapolis, Indianapolis IN

9:40 am
Conflicting Conviction: Rocky Mountain Perspective on Stream Restoration
-- Lucas Babbit, PE, CFM, WaterVation, Salida, CO

10:00 am Break in the Exhibit Hall
-> [Sponsored by Stantec](#)

National Stream Restoration Conference Agenda 2022

10:30 am

The Power of Partnerships: Reconnecting Rivers in New England
-- Ron Rhodes, Connecticut River Conservancy, South Pomfret, VT

10:50 am

Trends in Stream Restoration Crediting and Implementation in the Mid-Atlantic Region
- Tom Schueler & David Wood, Chesapeake Stormwater Network, Baltimore, MD
** Download - A Unified Guide for Crediting Stream and Floodplain Restoration Projects in the Chesapeake Bay Watershed

11:10 am

River Restoration in the Southeast
-- Barbara Doll, PhD, PE, NC Sea Grant and NC State University
Department of Biological & Agricultural Engineering
Raleigh, NC

11:30 am

Panel Discussion with all Regional Presenters

12:00 – 1:30 pm Lunch Provided (Ryman Exhibit Hall B3)

- ~ Welcome - Sheldon Hightower, USDA NRCS, Tennessee State Conservationist
- ~ Major Lee Stuckey, Founder & President, AHERO
- ~ The RiverShared Vision - David Bidelspach
& Brad Fairley, RiverShared

-> Sponsored by Habitat Assessment and Restoration Professionals - HARP

1:30 - 5:00 pm Technical Breakout Sessions
with a Break at 3:10 pm in the Exhibit Hall (Ryman Exhibit Hall B3)

-> Afternoon Break Sponsored by Wildlands Engineering

A Session - Survey and Assessment Technology (UAVs & Photo Software)
& Hydrologic and Hydraulic Modeling

Location: Ryman Studio ABC

B Session - Case Studies - Headwater Streams and Daylighting
& Dam Removal & Pond Conversion

Location: Ryman Studio DE

C Session - State & Regional Programs
& Planning & Prioritization

Location: Ryman Studio MNO

D Session - Fisheries & Fish Habitat
& Benthos

Location: Ryman Studio PQR

5:10 pm Adjourn for the Day

6 - 8 pm Sponsors' Reception (Ryman Exhibit Hall B3)

Music by AHero - Music4AHERO musicians featuring
- Kevin Adair

National Stream Restoration Conference Agenda 2022

- 2018 ICMA Producer of the Year, Jeff Silvey
- Mike Corrado

-> Music Sponsored by CS Britton, Inc.

Tuesday, August 2, 2022

7:30 am (Ryman Exhibit Hall B3)

Registration & Conference Information Desk Open

8:30 am– 12:10 pm Technical Breakout Sessions

with a Break at 10:10 pm in the Exhibit Hall (Ryman Exhibit Hall B3)

-> Morning Break Sponsored by RES

E Session - Channel Sizing and Regional Curves
& Floodplain Reconnection

Location: Ryman Studio ABC

F Session - Designing with Beaver & Wood
& Construction

Location: Ryman Studio DE

G Session - Lessons Learned
& Case Studies - Flooding Issues

Location: Ryman Studio MNO

H Session - Benthos Continued
& Case Studies: Engineering through Biological Monitoring

Location: Ryman Studio PQR

12:10 – 1:30 pm Lunch Provided (Ryman Exhibit Hall B3)

Luncheon Presenter: Dave Rosgen, PhD, PH - A Time and Place

-> Sponsored by North State Environmental & Atlantic ReefMaker

1:30 - 5:10 pm Technical Breakout Sessions

with a Break at 3:10 pm in the Exhibit Hall (Ryman Exhibit Hall B3)

-> Sponsored by AECOM

I Session - Channel Stability and Adjustment
& Innovative Structures and Grade Control

Location: Ryman Studio ABC

J Session - Social, Economic and Carbon Considerations
& Case Studies - Urban/Infrastructure

Location: Ryman Studio DE

K Session - Case Studies - Large Scale Efforts
& Case Studies - Stream Restoration

Location: Ryman Studio MNO

L Session - Functional Assessment
& Vegetation Considerations

Location: Ryman Studio PQR

National Stream Restoration Conference Agenda 2022

M Session - Ecological Uplift: What is it, How do you Measure it,
and Should it be Part of Mitigation?

Location: [Presidential D](#)

5:10 pm Adourn for the Day → On Your Own to Enjoy Nashville!

Wednesday, August 3, 2022

7:30 am ([Ryman Exhibit Hall B3](#))

Registration & Conference Information Desk Open

8:30 am– 12:00 pm

Closing Plenary Session ([Presidential D](#))

Moderator: Ken White, Chair, Resource Institute

8:30 am

Visions for the Future

-- Will Harman, PG, Stream Mechanics, Raleigh, NC

Future Vision for Science

8:50 am - Sara McMillan, PhD, Purdue University, West Lafayette, IN

9:10 am - Carmen Agouridis, PhD, PE, MPP, University of Kentucky, Lexington, KY

Nonprofits and Fundraising

9:30 am

Implementing Stream Corridor Restoration

-- Kelley Tucker, Ausable River Association, Wilmington, NY

9:50 am Break in the Exhibit Hall ([Ryman Exhibit Hall B3](#))

-> [Sponsored by Wildland Hydrology](#)

10:10 am

What Have We Learned and How do We Move Forward?

-- Joseph Wheaton, PhD, Utah State University, Logan, UT

10:50 am Panel Discussion

11:15 am

National Stream Restoration Conference Needs Assessment

-- Ken Whites, Resource Institute, Winston-Salem, NC

11:45 am Cash Drawing for \$500

(Must be Present to Win)

->[Sponsored by Wildlands Engineering](#)

12 pm Conference Adjourns See you in 2023!

National Stream Restoration Conference Agenda 2022

Monday, August 1

A Session Hydrologic And Hydraulic Modeling & Survey and Assessment Technology (UAVs & Photo Software)

Location: [Ryman Studio ABC](#)

Moderator: Jack Kurki-Fox, PhD, PE,
Biological & Agricultural Engineering, North Carolina State University

Survey and Assessment Technology (UAVs & Photo Software)

1:30 pm

Adapting UAV technology to the Rosgen Stream Classification System

-- William Whitehead, SWCA Environmental Consultants, Albuquerque, NM

1:50 pm

Lidar and Geomorphic Change Detection: Useful Tools for River Ecosystem Assessment and Restoration Monitoring

-- Robert Dunn, Geosyntec Consultants, Atlanta, Georgia

2:10 pm

Drone Technology for Ecological Monitoring: Photogrammetric Methods & Best Practices to Improve Accuracy

-- Anthony Brais, PE, Resource Environmental Solutions (RES), Brentwood, TN

2:30 pm

The High-Definition Stream Survey: A Fast, Affordable, and Flexible Method to Document Stream Corridor Conditions and Support Management Actions

-- James Parham, PhD, Hydrologist and Aquatic Biologist, Trutta Environmental Solutions, Nashville, TN

2:50 pm

Stream Tools App Introduction and Overview

-- Andrea Taillacq, Tailwater Limited, Wellington, CO

3:10 pm Break in the Exhibit Hall ([Ryman Exhibit Hall B3](#))

Hydrologic and Hydraulic Modeling

3:30 pm

Designing to Account for Natural Variability

-- Lucas Babbitt, PE, CFM, WaterVation, Salida, Colorado

3:50 pm

Cumulative Effects of Multiple Stream Restoration Projects on Flood Attenuation and Nitrate Removal at the Watershed Scale

-- Erich Hester, PhD, PE, Depart of Civil and Environmental Engineering, Virginia Tech, Blacksburg, VA

4:10 pm

National Stream Restoration Conference Agenda 2022

Accounting for Regime Changes in an Urban Corridor: A Case Study of Restoring a Restored Stream
-- Aaron Hofberg, PE, RES & Kip Mumaw, Ecosystem Services, Richmond VA

4:30 pm

Predictive Decision Making: A Forward-Thinking Approach

-- Scott C. Blossom, PE, CFM, LEED AP, Blossom Consulting, Williamsburg, VA

4:50 pm Adjourn

6:00 pm - Sponsors' Reception ([Ryman Exhibit Hall B3](#))

National Stream Restoration Conference Agenda 2022

Monday, August 1

B Session

Case Studies - Headwater Streams And Daylighting & Dam Removal & Pond Conversion

Location: [Ryman Studio DE](#)

Moderator: Ryan Gaujot, Green Rivers, LLS

Case Studies - Headwater Streams and Daylighting

1:30 pm

Headwater Stream Restoration Goals and Practices

-- Lindsay Nicoll, McCormick Taylor, Baltimore, MD

1:50 pm

Wissahickon Headwaters Restoration and Floodplain Reconnection

-- Brett Long, PE, Biohabitats, Inc., Baltimore, MD

2:10 pm

An Ounce of Prevention is Worth a Pound of Cure: Erosion Prevention Through Outfall Projects and How They Compare to Traditional Stream Restoration

-- Brian Roberts, PWS, CPESC, McCormick Taylor, Raleigh, NC

2:30 pm

Middle Fork of the New River Restoration & Tate Dam Removal

-- Adam Williams, PE, Brushy Fork Environmental Consulting, Inc., Trade, TN

2:50 pm

Fore to Forest for Fins & Feathers: transforming Acacia Country Club

-- Suzanne Hoehne, Biohabitats, Inc., Louisville, KY

3:10 pm

Break in the Exhibit Hall ([Ryman Exhibit Hall B3](#))

Dam Removal & Pond Conversion

3:30 pm

Who Gives a Dam? The Human Dimension in Dam-Removal Projects: A Case Study of Jordan's Point Dam in Lexington, Virginia

-- Louise Finger, Virginia Department of Wildlife Resources, Verona, VA

3:50 pm

Peggy's Pond – A (Dam) Good Solution - A Dam Removal Case Study

-- David Hursey, PE, Kimley-Horn, Raleigh, North Carolina

National Stream Restoration Conference Agenda 2022

4:10 pm

Columbia Lake Dam Removal; Using Drones for Quantitative Evaluation of River Restoration
-- Beth Styler-Barry, The Nature Conservancy, Chester, NJ

4:30 pm

Hoosier Dam Removal Project: Sediment Management Before, During, and After Removal
-- Angela Allen, PE, Wildlands Engineering, Inc., Raleigh, NC

4:50 pm

The Form and Function of Active vs. Passive: A Discussion on River Restoration
-- Geoffrey M. Goll, PE, Princeton Hydro, LLC, Ringoes, NJ

5:10 pm Adjourn

6:00 pm - Sponsors' Reception ([Ryman Exhibit Hall B3](#))

National Stream Restoration Conference Agenda 2022

Monday, August 1

C Session State & Regional Programs & Planning & Prioritization

Location: [Ryman Studio MNO](#)

Moderator: Robert Scrafford, Gannett Fleming

State & Regional Programs

1:30 pm

Stream and Floodplain Restoration in West Tennessee

-- David Blackwood & Kayla Key, PhD, West Tennessee River Basin Authority, Humboldt, TN

1:50 pm

Stream and Wetland Umbrella Mitigation Banks in Kentucky

-- Charles Davis, PE, CFM, Beaver Creek Hydrology, LLC, Lexington, KY

-- Kevin Roush, Ecosystem Investment Partners, Baltimore, MD

2:10 pm

Stressors and their Impact on Stream Health and Restoration Outcomes in the Chesapeake Bay Watershed

-- Neely L. Law, PhD & Chris Ruck, Fairfax County Department of Public Works & Environmental Services, Fairfax, VA

2:30 pm

That's WY: Stream Restoration in the Cowboy State

-- Lara Gertsch, Wyoming Game and Fish Department, Buffalo, WY

2:50 pm

Santa Clara Pueblo (SCP) – Flood Hazard Mitigation and Creek Restoration

-- Marc McIntosh, AECOM Technical Services, Inc. (AECOM), Phoenix, AZ

3:10 pm

Break in the Exhibit Hall ([Ryman Exhibit Hall B3](#))

Planning & Prioritization

3:30 pm

Six-Step Guide for Making Nature-Based Infrastructure Decisions Comparing the Benefits of Multiple Ecosystem Services

-- Lauren Harper, Houston Wilderness, Los Angeles, CA

3:50 pm

Stream Restoration Assessment and Planning for Nutrient Reduction in Durham, NC

National Stream Restoration Conference Agenda 2022

- Sandra Wilbur, PE, City of Durham, Durham, NC
- Mike Fowler, PE, Wildlands Engineering, Durham, NC

4:10 pm

Stream Restoration Ranking System (SRRS) Goal Driven Water Quality Capital Improvement Program

- Josh DeMaury, Mecklenburg County Storm Water Services (Water Quality), Charlotte, NC

4:30 pm

Ecological Restoration Site Selection Drivers, Principals, and Prioritization

- Austin Byers, Stantec, Baltimore, MD

4:50 pm

Implementing Prioritized Projects from a Watershed Plan on Picadome Golf Course, Lexington, Kentucky

- Bradley M. Anderson, PE, CPESC, LEED AP, RES, Louisville, Kentucky

5:10 pm Adjourn

6:00 pm - Sponsors' Reception ([Ryman Exhibit Hall B3](#))

National Stream Restoration Conference Agenda 2022

Monday, August 1

**D Session
Fisheries & Fish Habitat
&
Benthos**

Location: [Ryman Studio QPR](#)

Moderator: Gian Dodici, Us Fish & Wildlife Service

Fisheries & Fish Habitat

1:30 pm

Assessment of Spawning Platforms Constructed to Remediate Flood Damage to Kokanee Habitat: The Case Study of the Lower Powers Creek Flood Recovery Project, West Kelowna, British Columbia
-- Joe Kennedy, Stantec Consulting, Inc., Kelowna, British Columbia

1:50 pm

Response of Trout Populations in a Colorado Stream from Conversion of a Highly-Confined, Channelized and Riprapped, Single-Stage Stream Segment to a Moderately-Confined, Three-Stage Stream with Functional Floodplain
-- Matt Kondratieff, Colorado Parks and Wildlife, Fort Collins, CO

2:10 pm

Restoring Aquatic Habitat Connectivity in an Upper Susquehanna Sub Watershed, One Crossing at a Time
-- Gian Dodici, U.S. Fish and Wildlife Service, Cortland, NY

2:30 pm

A Review of Opportunities and Challenges of Working at the Tidal/ Non-Tidal Interface
-- Keith Binsted, Underwood & Associates, Annapolis, MD

2:50 pm

Response of Trout Populations and Pool Depths to Large Wood in Streams
-- Matt Kondratieff, Colorado Parks and Wildlife, Fort Collins, CO

3:10 pm

Break in the Exhibit Hall ([Ryman Exhibit Hall B3](#))

Benthos

3:30 pm

Got Bugs? A Biological Monitoring Plan for Evaluating NC Mitigation Projects
-- Ella Wickliff & Carolyn Lanza, Wildlands Engineering, Inc., Charlotte, NC

National Stream Restoration Conference Agenda 2022

3:50 pm

If You Build It, Do They Come? Biological Monitoring Pre- and Post-Restoration

-- Bree Stephens, RES, Richmond, VA

4:10 pm

If You Want to Build Up Your Biology, You Should Lift with Your Mussels!

-- Erik Neidy, Urban Stream Research Center, Forest Preserve District of DuPage County, Wheaton, IL

4:30 pm

Using Fish and Macroinvertebrate Habitat Associations to Better Understand Stream Restoration Success, an Adaptation of USGS National Water-Quality Assessment Program (NAAWQA) Habitat Protocol

-- Bethany Mulhall, Kentucky Department of Fish and Wildlife Resources, Kentucky Wetland and Stream Mitigation Program, Frankfort, KY

4:50 pm Adjourn

6:00 pm - Sponsors' Reception ([Ryman Exhibit Hall B3](#))

National Stream Restoration Conference Agenda 2022

Tuesday, August 2

E Session Channel Sizing And Regional Curves & Floodplain Reconnection

Location: [Ryman Studio ABC](#)

Moderator: Emmett Perdue, Ecosystem Planning & Restoration

Channel Sizing and Regional Curves

8:30 am

Watershed Response Factor – Global Implication

-- David Bidelspach, PE, Design Engineer and Partner, 5 Smooth Stones Restoration, PLLC
Livermore, CO

8:50 am

Precipitation-Driven Watershed Response Factor “C” - A New Tool for the Prediction of Hydraulic
Geometry Relationships

-- Ryan D. Baird, EIT, 5 Smooth Stones Restoration, PLLC, Master of Science Pursuant, Civil &
Environmental Engineering, Colorado State University, Fort Collins, CO

9:10 am

Application of Natural Channel Design Principles in a Sub-Arctic Landscape

-- Will Harman, Stream Mechanics, Raleigh, NC

9:30 am

Alligator Creek Stream Restoration: From Headwaters to Tidal Influence

-- Amanda C. Boone, PE, & Kiefer, PhD, PE, SrPWS, Sarasota County Public Works, Stormwater
Environment Utility, Sarasota County, FL

9:50 am

Designing for Floodplain Connectivity and Riparian Wetland Success: A Holistic Modeling Based
Approach for Big Rivers WMA Wetland and Stream Mitigation Project, Sturgis, Kentucky

-- Blair Borries, RES, Louisville, Kentucky

10:10 am

Break in the Exhibit Hall ([Ryman Exhibit Hall B3](#))

Floodplain Reconnection

10:30 am

The Vermont Functioning Floodplain Initiative: Identifying Reconnection Opportunities in the Vermont
Sector of the Lake Champlain Basin to Improve Water Quality, Flood Resiliency, and Habitat

-- Roy Schiff, Milone & MacBroom, Waterbury, Vermont

National Stream Restoration Conference Agenda 2022

10:50 am

Restoration and Floodplain Reconnection on Georges Creek

-- Patrick McMahon, PhD, PE, CF, Civil and Environmental Consultants, Knoxville, TN
Jeff Shaver, PE, CFM, CPESC, Civil & Environmental Consultants, Nashville, TN

11:10 am

Proactive Management of Flooding with Innovative Technology For Every Budget

-- Brent Register & Derek Slocum, OTT HydroMet, Sterling, VA

11:30 am

Influence of Restoration on Shallow Groundwater in Urban Forest Streams

-- Sandra Clinton, PhD, University of North Carolina at Charlotte, Geography and Earth Sciences, Charlotte, NC

11:50 am Adjourn & Lunch Provided ([Ryman Exhibit Hall B3](#))

National Stream Restoration Conference Agenda 2022

Tuesday, August 2

F Session Designing With Beaver & Wood & Construction

Location: [Ryman Studio DE](#)

Moderator: Michael Adams, Stantec Consulting

Designing with Beaver & Wood

8:30 am

When Beavers Move In: A Case Study of a Restored Stream Channel

-- Dana J. Ohman & Katerina Crowley, The Nature Conservancy Ohio, Dublin, Ohio

8:50 am

Beaver Dam Analogs for Riparian Restoration on Left Hand Creek, Colorado

-- Vincent L. Sortman, Biohabitats Inc., Denver, CO

9:10 am

A New Flow Regime, Ethics, and Beavers: A 30-year story of Eastern Sierra Stream Restoration and An Uncertain Future

-- David Vance, Geosyntec Consultants, Atlanta, GA

9:30 am

Stream Restoration and Floodplain Reconnection Using All Wood Structures Harvested from the Site

-- Joe Berg, Biohabitats, Inc., Baltimore, MD

9:50 am

A Review of Restoration Outcomes from Multiple MD Stream Restoration Sites Using Beaver Dam Analogs and Wood Design Features

-- Matthew Hubbard, Ecotone, Inc., Forest Hill, MD

10:10 am

Break in the Exhibit Hall ([Ryman Exhibit Hall B](#))

Construction

10:30 am

Combining Iron and Technology for Construction

-- Robert Stewart, PhD, PE, Water & Land Solutions, Johnson City, TN

10:50 am

Cost Effective Stream Restoration in Urban Watersheds: Contractor Recommendations for Successful Implementation

-- Adam Nabors, Environmental Quality Resources, LLC, Millersville, MD

National Stream Restoration Conference Agenda 2022

11:10 am

Adapting in the Field - An Engineer's Take

-- Jake Dittes, PE, Princeton Hydro, LLC, Bowie, MD

11:30 am

Do You Really Need to Hire a Contractor with Stream Restoration Experience?

-- Phillip Todd, North State Environmental, Winston Salem, NC

11:50 am

Design, Construction and Monitoring of the Fire Pond Mitigation Site: Converting a Pond to a Stream and Wetland Complex

-- Mike Miller, McCormick Taylor, Inc., Harrisburg, PA

12:10 pm Adjourn & Lunch Provided (Ryman Exhibit Hall B)

National Stream Restoration Conference Agenda 2022

Tuesday, August 2

G Session Lessons Learned & Case Studies - Flooding Issues

Location: [Ryman Studio MNO](#)

Moderator: Dani Wise-Johnson, Blueline Environmental

Lessons Learned

8:30 am

Restoration is Ancient History: Nothing You Do Is New

-- Bob Siegfried, RES, Richmond, VA

8:50 am

Observations on Natural Channel Design Approaches: Where Can We Improve?

-- Karl Koller, Minnesota Department of Natural Resources, Grand Rapids, MN

9:10 am

Understanding and Managing Streambank Erosion in an Agricultural Watershed through Monitoring and Modeling

-- Kari A. Bigham, PE, Department of Biological & Agricultural Engineering, Kansas State University, Manhattan, KS

9:30 am

Urban Stream Rehabilitation, The Past and Future - Where We've Been and Where We Need to Go Now

-- Will Wilhelm, P.E, CFM, CPESC, Kimley-Horn, Denver, CO

9:50 am

Linking Stream Restoration Success with Watershed and Project Characteristics

-- Urban "Samuel" Withers, RES, Nashville, TN

10:10 am

Break in the Exhibit Hall ([Ryman Exhibit Hall B](#))

Case Studies - Flooding Issues

10:30 am

Macroscale Urban Culvert Daylighting & Stream Restoration, Flooded with Challenges, Innovation, and Restoration Success

-- Matthew D. Gramza, PE, CFM, CPESC, Civil & Environmental Consultants, Inc., Cincinnati, OH

National Stream Restoration Conference Agenda 2022

10:50 am

Evaluating and Comparing Channel Adjustment of Reference and Restored Streams in the North Carolina Piedmont

-- Jack Kurki-Fox, PhD, PE, Biological & Agricultural Engineering, North Carolina State University, Raleigh, NC

11:10 am

Leveraging Municipal Employees and Resources to Restore Streams and Mitigate Flood Hazards in the Happy Valley Watershed, Radcliff, Kentucky

-- Neal Crawford, PE, Qk4, Inc., Louisville, Kentucky

-- Bradley M. Anderson, PE, CPESC, LEED AP, RES, Louisville, Kentucky

11:30 am

Mission Reach Lone Star Erosion Repair Project

-- Collen James Brownlow, PE, CFM, San Antonio River Authority, San Antonio, Texas

-- Tami Norton, PE, CFM, PMP, ENV SP, Ecosystem Planning & Restoration, San Antonio, Texas

11:50 am

Effects of Floods on the High-Energy, Cobble-Boulder Bedded, Urbanized Ellis Creek, British Columbia, Canada

-- Leif Burge, PhD, Stantec Consulting Inc., Kelowna, British Columbia, Canada

12:10 pm Adjourn & Lunch Provided (Ryman Exhibit Hall B)

National Stream Restoration Conference Agenda 2022

Tuesday, August 2

H Session Benthos & Two Case Studies: Engineering Through Biological Monitoring

Location: [Ryman Studio QPR](#)

Moderator: Cidney Jones, Ecosystem Planning & Restoration

Benthos

8:30 am

Interpreting Macroinvertebrate Data: What Does it all Mean?

-- Jason York, Michael Baker International, Asheville, NC

8:50 am

A Comparison of two Index of Biotic Integrity (IBI) Calculations for Benthic Macroinvertebrates and Fish at a Mitigation Site

-- Martha McCauley, EA Engineering, Science, and Technology, Inc., PBC, Hunt Valley, MD

9:10 am

Evaluation of the Relationship between Stream Microhabitats and Taxa Traits in Piedmont Streams in North Carolina

-- Anthony J. Roux, Mecklenburg County Land Use and Environmental Services Agency, Program in Infrastructure and Environmental Systems, University of North Carolina Charlotte, Charlotte, NC

Case Studies: Engineering through Biological Monitoring

9:30 am

Reedy Creek Stream Restoration Project: A Watershed Scale Design-Build Stream Restoration project in Charlotte, NC

-- Christine Blackwelder, Wildlands Engineering, Charlotte, NC

9:50 am

Integrating species diversity and function into restoration monitoring: What we've learned from the Reedy Creek Restoration Project

-- Sandra M. Clinton, University of North Carolina at Charlotte, Charlotte, NC

10:10 am

Break in the Exhibit Hall ([Ryman Exhibit Hall B](#))

10:30 am

Hatchery Creek Stream Restoration – Design/Monitoring Overview of a Unique Project to Create Trout Habitat

-- J. George Athanasakes, PE, Stantec Consulting Services Inc., Louisville, KY

National Stream Restoration Conference Agenda 2022

10:50 am

Monitoring Kentucky Wetland and Stream Restoration Projects: Past, Present and Future

-- Bethany Mulhall & Mitchell Boles, Kentucky Department of Fish and Wildlife Resources, Kentucky Wetland and Stream Mitigation Program, Frankfort, KY

11:10 am

Response of Fish and Macroinvertebrate Communities to a Novel Stream Restoration at Hatchery Creek in Central Kentucky

-- Michael B. Flinn, PhD, Murray State University, Murray, KY

11:30 am Adjourn & Lunch Provided ([Ryman Exhibit Hall B](#))

National Stream Restoration Conference Agenda 2022

I Session Channel Stability And Adjustment & Innovative Structures And Grade Control

Location: [Ryman Studio ABC](#)

Moderator: Joshua White, Water & Land Solutions (WLS)

Channel Stability and Adjustment

1:30 pm

Using a Scaled Model to Assess the Performance of the Penticton Creek Restoration Project, British Columbia

-- Elli Papangelakis, PhD, McMaster University, School of Earth, Environment & Society, Hamilton, Ontario, Canada

1:50 pm

Naturalized Instream Diversion Design in an Avulsing Planform

-- Michael Scurlock, PhD, PE, AECOM, Glenwood Springs, CO

2:10 pm

Effects of Spatial and Temporal Variability in Erosion Pin Measurements on Erosion Rating Curves for the BANCS Model

-- Rex S. Gamble, EIT, GZA GeoEnvironmental, Norwood, MA

2:30 pm

DEM Differencing as an Approach for Identification of Stream Restoration Projects and Quantification of Streambank Sediment and Nutrient Loads

-- Lisa Fraley-McNeal, Center for Watershed Protection, Inc., Ellicott City, MD

2:50 pm

Use of Protocol 1 for Prevented Sediment Credit

-- Craig Carson, McCormick Taylor, Inc., Baltimore, MD

3:10 pm

Break in the Exhibit Hall ([Ryman Exhibit Hall B3](#))

Innovative Structures and Grade Control

3:30 pm

Innovative Grade Controls for Restoring an Incised Urban Channel at Millbrook Exchange Park, Raleigh, NC

-- Barbara A. Doll, PhD, PE, NC Sea Grant and Biological and Agricultural Engineering Department
NC State University, Raleigh, NC

National Stream Restoration Conference Agenda 2022

3:50 pm

Use of Hay Bales in Stream Restoration: A Review of their Performance, and Vegetation Establishment to Secure Stability

-- Aaron Schoelkopf, Gina C. Levesque, and David Bidelsphach, 5 Smooth Stones Restoration, Livermore, Colorado

4:10 pm

The Effect of Design and Site Characteristics on the Success of Instream Structures in Maryland

Benjamin Smith, Stantec Consulting, Roanoke, Virginia

4:30 pm

Sub-Grade Structures in Restoration Design

-- Grant Ginn, PE, Stantec Consulting, Asheville, NC

4:50 pm

Bioengineering Solution for Infrastructure Protection and Stream Stability in Blackwater Creek

-- Emily Burgess, AECOM, Germantown, MD

5:10 pm Adjourn

National Stream Restoration Conference Agenda 2022

Tuesday, August 2

J Session Social, Economic, And Carbon Considerations & Case Studies - Urban/Infrastructure

Location: [Ryman Studio DE](#)
Moderator: Erich Hester, VA Tech

Social, Economic, and Carbon Considerations

1:30 pm

No Trespassing! Lessons Learned from Cultivating and Sustaining Working Relationships with Project Site Landowners

-- Christine Pankow and Bailey Wilfong, RES, Warrenton, VA

1:50 pm

Stream Restoration and Environmental Justice: Confluence or Countercurrent?

-- Sharon Moran, SUNY - Environmental Science and Forestry, Syracuse, NY

-- Kathy Hoverman, PE, RES, Richmond, VA

2:10 pm

Fluvial Geomorphic Characteristics and their Impact on The Accuracy of Commonly Applied Bank Retreat Measuring Techniques: A Case Study in the North Carolina Piedmont Region

-- Emily D. Brown, Engineer / PhD Student, Freese and Nichols, Inc. / North Carolina State University, Biological & Agricultural Engineering Department, Winston-Salem, NC

2:30 pm

The Ripple Effect: The Economic Impact of the Ecological Restoration Industry, Why What We Do, Matters

-- Liam O'Meara, Environmental Quality Resources, LLC, Millersville, MD

2:50 pm

The Social and Technical Challenges of Large Service Areas for Fish Habitat Banks in Canada of Stream Restoration

-- Lucas Warner, 5 Smooth Stones Restoration Inc., Rocky View County, Alberta, Canada

3:10 pm

Break in the Exhibit Hall ([Ryman Exhibit Hall B3](#))

Case Studies - Urban/Infrastructure

3:30 pm

Saving a Sanitary Sewer: A Stream Restoration Success Story

-- Emily Poynter Jenkins, PhD, PE, CFM, Farnsworth Group Inc., Champaign, Illinois

National Stream Restoration Conference Agenda 2022

3:50 pm

The Relationship Between Stream Enhancement and Urban Infrastructure - How Do We use Stream Enhancement as a Tool to Protect Infrastructure in Urban Environments?

-- Jason Diaz, PE, CFM, Kimley-Horn, Charlotte, North Carolina

4:10 pm

NCD for Extreme Event Stream Restoration and Improved Resilience

-- Thomas A. Graupensperger, NCD Restoration Designer, Dewberry, Mechanicsburg, PA

4:30 pm

Case Study on Technologies and Approaches for Urban Stream Restoration

-- Ken Barry, PE, D. WRE, S&ME, Inc., Knoxville, Tennessee

4:50 pm

Butterfly Branch 5 Years Later – Daylighting a Stream in Downtown Spartanburg Growing Pains

-- Liz DiNatale, PE & Michael Ellison, WK Dickson, Raleigh, NC

5:10 pm Adjourn

National Stream Restoration Conference Agenda 2022

Tuesday, August 2

K Session Case Studies - Large Scale Efforts & Stream Restoration Case Studies

Location: [Ryman Studio MNO](#)

Moderator: Nate Ober, Water & Land Solutions LLC

Case Studies - Large Scale Efforts

1:30 pm

Stream Restoration Design Components of the Bois d'Arc Lake Watershed-Scale Ecological Restoration and Mitigation Project

-- Lee Forbes, PE, DWRE, SWCA Environmental Consultants, Houston, TX

-- Joseph Zang, EIT, SWCA Environmental Consultants, Fort Collins, CO

1:50 pm

Recent Changes to the Fisheries Act have changed the Landscape for Mitigation Banking in Canada

-- Brad Fairley, 5 Smooth Stones Restoration, Kitchener, Ontario

2:10 pm

Case Study: Watershed-Scale Restoration within 4 Years – RES Robinson Fork Mitigation Bank

-- Michael Sachs, PE, RES, LLC and Ward Oberholtzer, PE, LandStudies, Inc., Pittsburgh, PA

2:30 pm

Dam Decommissioning and Removal: Challenges and Opportunities for Aging Infrastructure

-- Troy Naperala, AECOM, Travers City, MI

2:50 pm

Creek Coordination: Working Together to Restore Urban Streams

-- Erin Shanaberger, City of Charlotte, Charlotte-Mecklenburg Storm Water Services, Charlotte NC

3:10 pm

Break in the Exhibit Hall ([Ryman Exhibit Hall B3](#))

Stream Restoration Case Studies

3:30 pm

Upper Watts Branch Stream Restoration – Design Implications and Lessons Learned During Construction

-- Paul Le Bel, Hazen, Fairfax, Virginia

3:50 pm

Adaptive Buffer Management in Urban Stream Restoration

-- Jake McLean, PE, Wildlands Engineering, Inc., Asheville, NC

-- Paul Dow, PE, CFM, City of Greenville, Greenville, SC

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4:10 pm

Engineered Riffles on Portage Creek, MI – Design, Post-Construction Monitoring, and Lessons Learned
-- Janeen McDermott, PE, AECOM, Southfield, Michigan

4:30 pm

Assessing Stream and Watershed Function for a System Affected by Livestock Production in the Northeast Mississippi
-- John J. Ramirez Avila, Watersheds and Water Quality Research Lab, Civil and Environmental Engineering Department, Mississippi State University, Starkville, MS

4:50 pm

Field of Dreams Watershed & Water Trail – If you build it, they will come! Stream Restoration, the Iowa DNR River Restoration Toolbox and a Vision for Change!
-- Judith E. Joyce, PWS & Reid Stammer, PWS, Impact7G, Coralville, Iowa

5:10 pm Adjourn

National Stream Restoration Conference Agenda 2022

TUESDAY, AUGUST 2

L Session Functional Assessment & Vegetation Considerations

Location: [Ryman Studio QPR](#)

Moderator: Mike Galvin, JMT

Functional Assessment

1:30 pm

Geospatial and Field-Based Methods for Predicting and Quantifying Stream Bank Erosion

-- Layla El-Khoury, MS Student, Biological & Agricultural Engineering Dept., NC State University, Raleigh, NC

1:50 pm

Application of the Wyoming Stream Quantification Tool on Savery Creek, Wyoming

-- Paul Dey, Wyoming Game and Fish Department, Cheyenne, WY

2:10 pm

Design Challenges in Sand Bed Stream Systems Within the Mississippi Valley Loess Plains (74b) and How Design Parameters Relate to the New Stream Quantification Tool: Challenges & Perspectives of Practitioners

-- Clark Chewning, Civil & Environmental Consultants, Inc., Franklin, TN

2:30 pm

Evaluating and comparing channel adjustment of reference and restored streams in the North Carolina Piedmont

-- Jack Kurki-Fox, PhD, PE, Biological & Agricultural Engineering, North Carolina State University, Raleigh, NC

2:50 pm

Mock Debate TNSQT vs. Ratio Crediting

-- Adam Spiller and Joshua Sitz, KCI Technologies Inc., Nashville, TN

3:10 pm

Break in the Exhibit Hall ([Ryman Exhibit Hall B3](#))

Vegetation Considerations

3:30 pm

Vegetation Considerations When Converting a Mill Pond into a Public Park: Hershey's Mill Dam Redevelopment Project

-- Justin Laughlin, Gannett Fleming, Inc., Baltimore, MD

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3:50 pm

Silvicultural Methods to Increase Survival and Growth of Planted Riparian and Wetland Woody Vegetation

-- Jason Steele, Freese and Nichols, Winston-Salem, NC & Virginia Polytechnic Institute and State University, Blacksburg, VA

4:10 pm

Effective Green BMPs for Streambank Restorations

-- Lanka Santha & Udare Santha, PE, RoLanka International Inc., Stockbridge, GA

4:30 pm

Fulfilling the Vision for the Future through Native Seed Mix Design

-- Robert Hoffman, Roundstone Native Seed, LLC, Upton, KY

4:50 Adjourn

National Stream Restoration Conference Agenda 2022

Tuesday, August 2

M Session

Ecological Uplift:

What Is It, How Do You Measure It, And Should It Be Part Of Mitigation?

Location: [Presidential Ballroom D](#)

Moderator: Dave Penrose, Penrose Environmental Consulting

1:30 pm

Restoration of Dynamic Stream Systems and Assessing Ecological Uplift

-- Brian Topping, US EPA, Office of Water, Washington, DC

1:50 pm

Measuring the Trajectory of Biological Uplift in Space and Time

-- Mark Southerland, PhD, Tetra Tech, Owings Mills, MD

2:10 pm

Variety of Opportunities for Functional Uplift Associated with Stream Restoration

-- Joe Berg, CERP, PWS, CSE, Biohabitats, Baltimore, MD

2:30 pm

Benthic Fauna of Restored Streams

-- Dave Penrose, Penrose Environmental Consulting, Asheville, NC

2:50 pm

Comparison of Stream Assessment Methods used by the ACOE in Regulatory Programs

-- Gabrielle David, Army Corps of Engineers, Engineer Research and Development Center, Hanover, NH

3:10 pm

Break in the Exhibit Hall ([Ryman Exhibit Hall B3](#))

Panel Discussion

5:10 pm Adjourn