



2019

Tennessee Environmental Conference



Executive Planning Committee

EASTMAN



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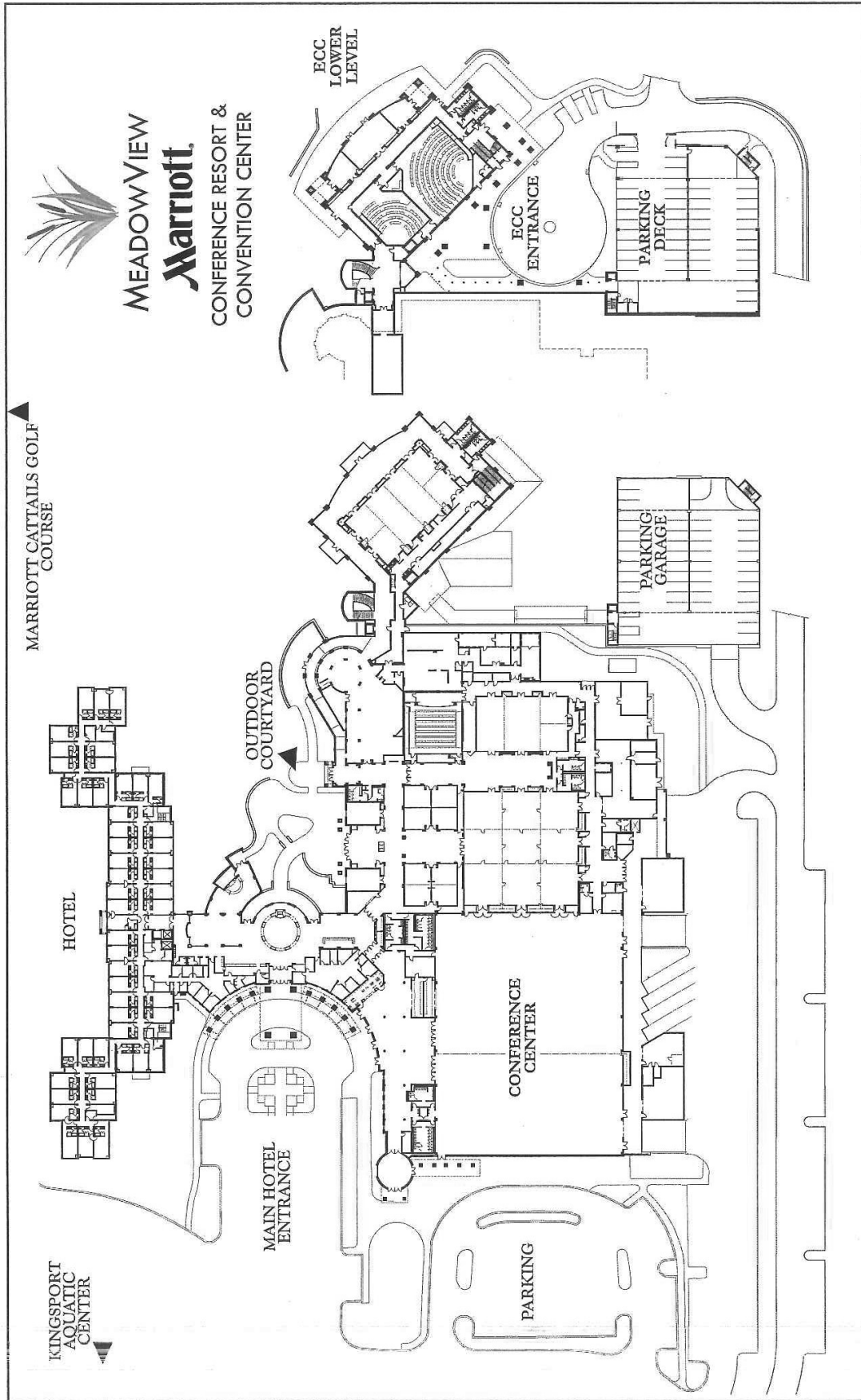
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Speaker Bios and Contact Information may be found online at: www.TNEnvironment.com	

This conference is for you! Our sponsors' partnerships allow us to keep costs reasonable. Please be sure to fill out the evaluation and feedback forms for all the sessions and events to allow us to make the Tennessee Environmental Conference your preferred choice. We strive to bring experienced, knowledgeable speakers to present on the latest trends and topics that are most beneficial in your daily work and activities.

Thanks again for letting us serve you!

Conference Presentations are Available Online at:
www.TNEnvironment.com.
The 2019 access code is: E_5qzH

Conference & Convention Center



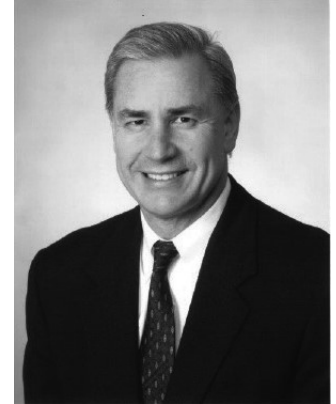
MeadowView Marriott Resort and Conference Center

1901 MeadowView Pkwy • Kingsport, Tennessee
423-578-6600 • 800-820-5055

Welcome



City Hall
Office of the Mayor
225 West Center Street
Kingsport, TN 37660-4265
Phone: 423/229-9412
Fax: 423/229-9350
www.kingsporttn.gov



Greetings!

It is an honor and pleasure to welcome you to our city for the 2019 Tennessee Environmental Conference. We are delighted that you are here.

We're excited to have presenters provide critical information addressing the latest environmental issues as well as examples of the best sustainability practices, which allows us to balance growth and improve human health.

We hope you will thoroughly enjoy your stay. You will soon learn why MeadowView Conference, Resort and Convention Center is a continual award-winning hotel, not only for accommodations, but also for customer service.

While you are here, I hope you will take time to discover all that makes Kingsport a great place to live and visit. From our scenic beauty and outdoor recreation, to our unique shops and restaurants, Kingsport offers something for everyone. I hope you are able to enjoy our city while you are here.

Enjoy your conference and enjoy Kingsport!

Sincerely,

A handwritten signature in dark ink, appearing to read "John Clark".

John Clark
Mayor
City of Kingsport

City Hall | Office of the Mayor
225 West Center Street | Kingsport, TN 37660-4265 | P: 423-229-9400 | F: 423-229-9350
www.kingsporttn.gov

2019 Great American Cleanup

Keep America Beautiful's Great American Cleanup is the nation's largest annual community improvement program that harnesses the power of over 4.5 million volunteers to build vibrant communities. Each year over 1,200 affiliates and patriating organizations engage volunteers to take action in their communities through programs that deliver positive and lasting impact through events focused on waste reduction, recycling, beautification and community



Schedule at a Glance

Monday, March 18

10:00 am	Exhibitor Setup and Pre-Registration
12:00 pm	Boys & Girls Club Golf Tournament
1:00 - 1:15 pm	CABIN Conference Session
1:15 - 2:45 pm	Networking Event
2:45 - 3:00 pm	Break
3:00 - 5:00 pm	CABIN Conference Afternoon Sessions
5:00 pm	CABIN Conference Concludes
5:30 - 7:00 pm	Reception - "Cattails Foyer" at Marriott Meadowview - <i>Sponsored by S&ME, Inc.</i>

Tuesday, March 19

7:30 am	Registration & Exhibits Open
7:30 - 8:45 am	Networking Continental Breakfast with Exhibitors & Setup
8:50 - 9:05 am	Special Opening: <i>Boys & Girls Club</i> of Greater Kingsport
9:05 - 9:15 am	Welcome/Open/Sponsor Recognition
9:15 - 9:40 am	Plenary Keynote Jeff Yorzyk, Associate Director of Sustainability, HelloFresh
9:45 - 9:55 am	Break
10:00 - 11:55 am	Morning Concurrent Sessions
12:00 - 1:05 pm	Luncheon/Awards - featured sponsor - Civil & Environmental Consultants, Inc.
1:10 - 2:25 pm	Afternoon Concurrent Sessions
2:30 - 3:00 pm	Break
3:05 - 3:45 pm	Afternoon Concurrent Sessions (cont'd)
3:30 - 4:00 pm	"Women of the TNEC Social"
4:00 - 6:00 pm	Academic Poster Session/Networking Reception - <i>Sponsored by S&ME, Inc.</i> Featuring Ivy Road Band - <i>Sponsored by DENSO</i>

Wednesday, March 14

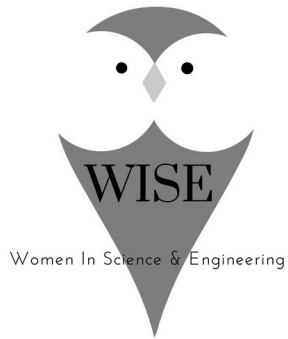
7:30 am	Registration & Exhibits Open
7:30 - 8:15 am	Networking Continental Breakfast with Exhibitors
8:30 - 8:55 am	Plenary Keynote - David Salyers, TDEC Commissioner
9:00 - 10:15 am	Morning Concurrent Sessions
10:20 - 10:40 am	Break
10:45 am – noon	Morning Concurrent Sessions (cont'd)
12:05 – 1:15 pm	Lunch - Closing Plenary Panel: Chris Thompson - TDEC Jeff Fleming - City of Kingsport Johanna Heywood - S&ME, Inc. Erik Schmidt - City of Chattanooga
1:30 pm	Adjourn/Door Prizes (Must Be Present to Win)
1:30 - 3:00	Stakeholders Meeting with David Salyers, TDEC Commissioner
2:00 - 4:15 pm	Tour Kingsport Downtown Redevelopment and Recreation (Sign-up sheet at registration - space is limited!) (Begins loading at 1:45 at parking area adjacent to registration)

Kingsport Redevelopment Tour

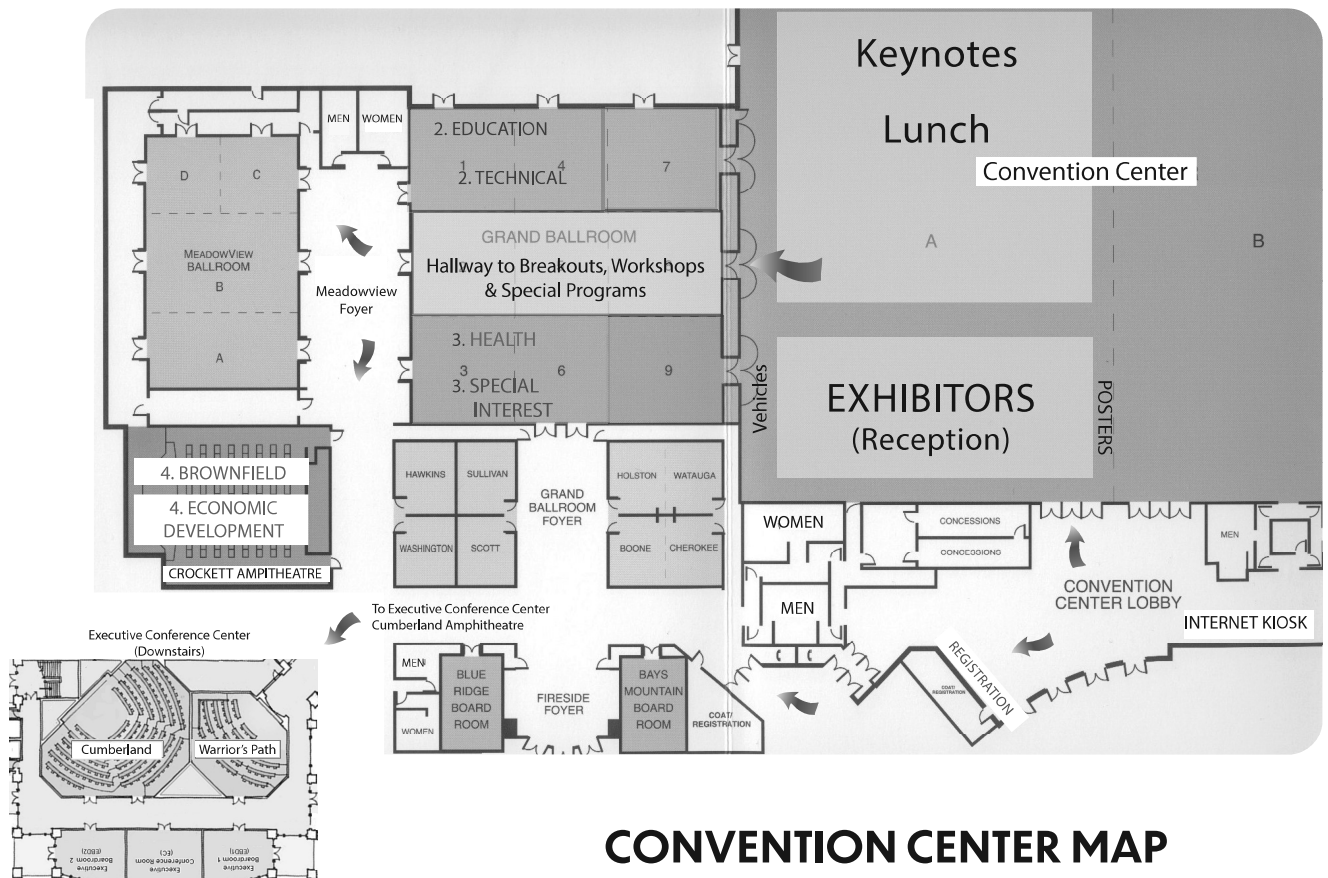
Do you think you know Kingsport? Well, maybe not. What did this building/property/road used to be? What is it now? Nathan Woods & Kristie Leonard will be leading a guided tour showing how Kingsport is transforming to a vibrant livable community with an engaging interactive tour of a place you may think you know. Hidden jewels and new destinations, you just may not know how it's being changed presently and in the future!

- 2:00 pm – Bus leaves MeadowView Convention Center
- 2:00-2:15pm – Drive through Redevelopment Sites on Stone Drive
- 2:20-2:40 pm – Buffalo Grasslands Boardwalk
- 2:40-3:00 pm – Drive through Historic Neighborhoods of Kingsport
- 3:00-3:45 pm – The Press Redevelopment Site (Carousel, Farmers Market, Lofts, Grocery)
- 3:45-4:00 pm – Downtown Kingsport Redevelopment Sites (Foundry, Higher Education, Centennial Park)
- 4:00-4:15 pm – Return to MeadowView Convention Center

WISE (Women in Science & Engineering) Reception



TDEC's WISE (Women in Science and Engineering) invites you to a special event "Women of the TNEC Social" on Tuesday, March 19, 2019 from 3:30 p.m. to 4:00 p.m. to promote networking between professional women in science backgrounds with organizations supporting young women and professional women in science careers. The first 50 women will receive a gift to commemorate the event.



CONVENTION CENTER MAP

Keynote Speakers

Jeff Yorzyk, Associate Director of Sustainability, HelloFresh



The Tennessee Environmental Conference is excited to introduce this year's keynote speaker, Jeff Yorzyk. Jeff currently serves as the Associate Director of Sustainability for HelloFresh and is President of the International Society of Sustainability Professionals. Jeff's professional mission is the integration of environmental and social stewardship into business through time-tested, dependable methods and tools in the context of cutting-edge thinking. Literally, "fusing sustainability with business" with a focus on risk and opportunity management. His expertise is rooted in sustainability program development and Life Cycle thinking, with foundations in traditional EHS. Along with experience in permitting, compliance and waste management, he has a deep expertise in management systems approaches, ESG policy, product LCA and organizational "footprinting", environmental claim and CSR report development, sustainability metrics and enterprise sustainability software. His professional philosophy is that organizational "sustainability" must be defined in the context of a specific operating environment and value chain, and that sustainability considerations MUST integrate effectively into operating environments with multiple priorities (environment, community, profitability, etc.). He also enjoys mentoring staff and growing the capacity of teams he engages in, working with students to integrate these goals into their own careers, and participating in like-minded nonprofit organizations. It all fits together into a single mission.

David Salyers, P.E., TDEC Commissioner



David Salyers became Commissioner of the Tennessee Department of Environment and Conservation in January 2019 after serving as Executive Director of the West Tennessee River Basin Authority since 1997.

A native of rural western Kentucky and resident of Madison County, Tennessee, Salyers led the West Tennessee River Basin Authority as an agency that sets the standard for water resource management in West Tennessee. Salyers introduced stream management techniques that led to improved efficiency and preservation of natural resources.

Under Salyers' leadership, the Basin Authority was recognized by state and local leaders as innovative and cost-effective. The agency successfully built partnerships with state departments, federal agencies, nonprofits, local chambers of commerce, businesses, private landowners and agricultural producers. Such partnerships led to large collaborative grant awards for projects to reduce flooding, protect infrastructure, improve water quality and restore ecosystems. The agency provided solutions to issues related to public safety, agriculture, transportation, recruitment of industry, watershed stabilization, water quality and natural resource enhancement. He received the 2016 Land Conservationist of the Year Award from the Tennessee Wildlife Federation for his wetlands restoration work and effective promotion of soil conservation practices with local farmers that improved the health of target watersheds.

Salyers worked for 11 years in the private sector in the southeast as an engineer and manager before taking the reins of the Basin Authority. He maintains registrations as a professional engineer and geologist, as well as being a certified hydrologic professional. He received a bachelor's degree in geology from Murray State University and a bachelor's degree and master's degree in geological engineering from Missouri University of Science and Technology.

Paul Hayden Memorial Award Winner



Jonathan Overly
Executive Director,
East TN Clean Fuels

Jonathan Overly has shown extraordinary commitment in Tennessee environmental service. Jonathan has been in the advanced fuels and vehicles industry since 1997, spending his first few years performing Life Cycle Assessments on advanced vehicles and alternatives fuels at the University of Tennessee's Center for Clean Products. In 2001, he founded the East Tennessee Clean Fuels Coalition, a 501(c)3 nonprofit and designated partner in the U.S. Department of Energy's (DOE) Clean Cities program. Throughout his career, Jonathan has developed partnerships with hundreds of community and fleet stakeholders; these partnerships have resulted in behavior change to enhance sustainable transportation and avoid millions of gallons in petroleum consumption. In the last five years alone, East Tennessee Clean Fuels has facilitated the avoidance of 38.9 million gallons of gasoline, resulting in a greenhouse gas emissions reduction of roughly 228 tons. Jonathan was named Clean Cities Coordinator of the Year at the 2006 Alternative Fuels & Vehicles National Conference. In 2015, he was recognized by DOE as a substantial contributor to the Clean Cities program and was inducted into the DOE Clean Cities Hall of Fame.

Poster Sessions

4:00 pm - 4:15 pm

Citizen Science: Radon Testing at Ivy Academy

Christian Spaide

Recycling for Manufacturers

Cody Buell - La-Z-Boy

A Risk-Based Approach to Conducting PFAS Evaluation in Water and Soil

Andy Nunnery - AquaAeTer

4:15 pm - 4:30 pm

Environmental Compliance - A Team Approach

Anne-Marie Hart - Kinder Morgan

4:30 pm - 4:45 pm

Driving to Net 0 - Stories of Hope for a Carbon Free Future

David Hrivnak (retired)

EPA Brownfield Grants - A Tool for Economic Redevelopment

Amanda Herrit - Terracon Consultants, Inc.

4:45 pm - 5:00 pm

GIS-Based Routing Scenarios to Reduce VMT: Application in Freight and Commuter Park-And-Ridge

Amy Moore - TVA

Vapor Intrusion Investigation - Uncovering an Unseen Risk

Chelsea Williams - K.S. Ware & Associates

5:00 pm - 5:15 pm

Tennessee HHW Infrastructure and the Options for Improving Health and Safety

Bob Fletcher - TDEC Div. Solid Waste Mgmt.

5:15 pm - 5:30 pm

Dark Store Theory

Greg Page - Environmental Consulting Technology, Inc.

Beyond the Single-Grant Approach: A Case Study for Building a Robust and Resilient Brownfield Program

Amy McCaffery - ENSAFE

Do's and Don'ts of PFAMS Sampling and More

Geoffrey Pellechia - SGS North America

5:30 pm - 5:45 pm

Tennessee Valley Authority, 2019 Integrated Resource Plan

Ashley Pilakowski - TVA

5:45pm - 6:00 pm

Distribution of a Carbon Slurry Injectate as Examined by Extensive Soil Cores, Documented by Photographs, and Modeled

Bill Brab - AST Environmental

Evaluation of Tomato Farmworker Ergonomics Using Electromyography

Mercy Aula - ETSU



**"Promoting using food wisely
and enhancing the
sustainability of Tennessee's
food resources"**

**Thank you to everyone who
participated in TNEC's canned
food drive!**

Second Harvest Food Bank of Northeast Tennessee has led the effort to end hunger in Northeast Tennessee since 1986. An affiliate of the Feeding America Network of Food Banks, Second Harvest Food Bank of Northeast Tennessee's Second Harvest is the only food bank serving the eight county region incorporating Carter, Greene, Hancock, Hawkins, Johnson, Sullivan, Unicoi, and Washington counties. The food bank is a 501 (c) 3 non-profit organization located in Kingsport, Tennessee and is a member of Feeding America, the nation's largest food bank network.

**SECOND HARVEST FOOD BANK
of Northeast Tennessee**

MEMBER OF
**FEEDING
AMERICA**



Photo Courtesy of Second Harvest Food Bank of Northeast Tennessee

CABIN Conference

The Central Appalachian Brownfields Innovation Network

Monday, March 18

1:00-1:15

Welcoming Remarks, Paula Middlebrooks

1:15-2:15

I Know a Thing or Two Because I've Seen a Thing or Two

Herb Petitjean, Brownfield Coordinator, Kentucky Brownfield Redevelopment Program

In his 20+ years of brownfield work, Herb Petitjean has seen and heard a lot of stories of brownfield projects that have soared and brownfield projects that have crashed and burned. In this presentation, he will use examples (such as "The Tale of the Truant Treasurer," "The Running Back and the Gang Leader," and "The Questionable QAPP") to provide some basic principles to ensure a smooth running, successful brownfield project.

2:15-2:45

Group Networking Event, All Attendees

3:00-3:45

Taking the "i" Out of Brownfields

Vince Maiden, Virginia Brownfields Program Coordinator

Meade Anderson, Virginia Brownfields and Voluntary Remediation Program Manager

Brownfields restoration and revitalization is a team sport and no one should go at it alone. This presentation will dive in to Virginia DEQ's Brownfields Individualized Outreach (BIO) approach to bringing community stakeholders together to spark community wide revitalization through brownfields assistance. In many rural or smaller communities government officials or private investors are simply unable to redevelop these sites without brownfields assistance and community support. We will take a close look at the BIO efforts on a project in Saltville, Virginia that have led to a community wide effort to address their environmental legacy while forging a path forward to a new economic future in this once thriving "company" town in the heart of the Appalachian Mountains.

3:45-5:00

PANEL: The Front Porch of Brownfields in Appalachia

This panel will be an interactive panel on addressing brownfields in Appalachia. State experts will provide information and take questions from the attendees.



Environment/Industry/Energy

Tuesday, March 19

10:00-10:35 One

Tennessee Division of Underground Storage Tanks Update

Stan Boyd - TDEC, Director, Underground Storage Tanks

Update about the Division of Underground Storage Tanks related to EPA measurements with comparisons to other Region 4 states and the nation.

10:40-11:15 Two

Tennessee Division of Solid Waste Management Update

Pat Flood - TDEC, Director, Solid Waste Management

This presentation will provide an update on the past year's activities from the Division of Solid Waste Management as well as a look-ahead to expected activities over the next year.

11:20-11:55 Three

Tennessee Division of Water Resources Update

Paula Mitchell | Chris Rhodes - Deputy Directors

This presentation will provide water and wastewater regulatory update from the Tennessee Department of Environment and Conservation's Division of Water Resources.

1:10-1:45 Four

USEPA Region IV Air Quality Updates

Kenneth Mitchell - Deputy Director: Air, Pesticides and Toxics Management Division

This session will provide an update on regulations and other topics related to air quality in the Southeast, including a discussion of criteria pollutants and air toxins.

1:50-2:25 Five

Tennessee Division of Air Pollution Control Update

Michelle Walker Owenby - TDEC, Director, Air Pollution Control

This presentation will provide important updates by the Division of Air Pollution Control.

3:05-3:45 Six

Panel Summary Discussion

Stan Boyd, Director, Underground Storage Tanks Division, State of Tennessee

Patrick "Pat" J. Flood, Director, Solid Waste Management Division, State of Tennessee

Paula Mitchell, Deputy Director, Water Resources Division, State of Tennessee

Chris Rhodes, Deputy Director, Water Resources Division, State of Tennessee

Michelle Walker Owenby, Director, Air Pollution Control Division, State of Tennessee

This session is a panel discussion including questions and answers with our distinguished speakers.



US Nitrogen LLC

Education/Technical

Tuesday, March 19

10:00-11:15 One

Sustainability in Tennessee Higher Education Institutions Panel

Brook Powell - TDEC | Kathleen Moore - ETSU

| Preston Jacobsen - UT Recycling |

Holly Hanson - Roane State Community

College | DeLayne Miller - Tennessee Tech University

The Office of Policy and Sustainable Practices (OPSP) at TDEC serves as the primary contact to provide technical and development assistance and support for enhancing sustainability efforts of Tennessee Higher Education Institutions (TN HEIs).

This presentation will give a high level overview of the TN HEI programs that have been developed this year to support TN HEIs sustainability efforts. Additionally, four speakers from different universities will also speak about how these programs have directly helped their schools.



Lighting
Resources
— LLC —

11:20-11:55 Two

Tennessee Schools Lab Rehab Program

Brianna Rives - TDEC, Division of Solid Waste Management, Materials Management

The Tennessee Schools Lab Rehab Program (TSLRP) exists to solve chemical disposal problems and student safety for public schools in Tennessee. TSLRP makes use of funding from the state's Solid Waste Management Fund to provide the opportunity for K-12 schools to dispose of their hazardous wastes, at no cost to them, through the state's Household Hazardous Waste contractor. SLRP staff will provide a comprehensive presentation of their efforts including Green Chemistry promotion, success stories, and data driven decisions.

1:10-1:45 Three

Intergrated Waste Management Programs - Crafting Tailored Packages for Local Situations

Dana D'Souza - Skumatz Economic Research Associates, (SERA)

Recent work in two different states highlights how different waste management plans need to be tailored to local conditions – and provides hints about how to gather the information needed to tailor the programs in an efficient and cost-effective way.

1:50-2:25 Four

LIF/MIP Use with Petroluem Contamination

Geina Skinner - TDEC, Underground Storage Tanks

TN Department of Environment and Conservation - Division of Underground Storage Tanks (TDEC-UST) initiated several pilot projects to evaluate the integration of Laser Induced Fluorescence (LIF) and Membrane Interface Probe (MIP) into the contamination assessment process. LIF/MIP has proven useful in the older contamination cases and is now being utilized earlier in the contamination assessment and corrective action process. An overview of the number of projects conducted to date will be provided as well as several examples that did alter the corrective actions.

3:05-3:45 Five

Questionable Practices and the Impact to Data Quality

Lydia Work - Environmental Standards

At the center of all remedial decisions are the analytical data collected in support of cleanup activities. This presentation will discuss data quality issues that may occur throughout the various stages of the sample life cycle. Field activities such as sampling, documentation, packaging, and transport to the analytical laboratory, can substantially effect quality of the analytical data and are often performed with minimal oversight.

Health

Tuesday, March 19

10:00-10:35 One

Bringing Healthy Choices to Rural Appalachia Through Remediation

Emily Partin - Tracy City, TN | Suzi Ruhl - US EPA Environmental Justice |
Patrick Dean - Mountain Goat Trail

Leveraging multiple local, state and federal grants, the small town of Tracy City has worked closely with the Southeast TN Development District and the Mountain Goat Trail Alliance to see these dreams come true. Brownfields to healthfields is a successful approach that strengthens community health, equity, sustainability and resiliency for overburdened and underserved populations by increasing access to health care and settings that allow healthier choices for recreation and healthy foods, education and jobs. Learn how this progressive, evidence based program can advance your community revitalization efforts.

10:40-11:55 Two

Household Air Pollution & Respiratory Health: Opportunities for Intervention Panel

Mildred Maisonet, PhD | Ying Li, PhD | Panagis Galiasatos, MD - East TN State University

Tennessee is one of the states with the highest prevalence of chronic obstructive pulmonary disease; the third leading cause of death in the nation. Indoor environmental exposures are contributors to respiratory morbidity. Indoor air pollution is a modifiable exposure that can be targeted to reduce respiratory morbidity in Tennessee. The objectives of this session are to: 1) raise awareness of indoor environmental exposures relative to respiratory morbidity; 2) describe strategies to identify and address indoor environmental exposures; and 3) identify challenges in the prescription and delivery of environmental control and education tools along the continuum of care.

1:10-1:45 Three

Active Shooter Response Training - Stop the Bleed

Melissa Taylor - TN Dept. of Health

1:50-2:25 Four

Bystander Emergency Response Training - You are the Help until Help Arrives

Melissa Taylor - TN Dept. of Health

You Are the Help Until Help Arrives is a 3 hour training created after the Boston Marathon bombing. It is a collaboration between CDC, Homeland Security and the Department of Health and teaches the lay person how to respond in an emergency situation where there are life threatening injuries. The training teaches techniques for bleeding control, use of tourniquets, basic comfort measures and speaking with the 911 operator.

3:00-3:45 Five

Healthy Parks, Healthy Persons Tennessee

Ryan Jenkins - Tennessee State Parks

Healthy Parks Healthy Person TN is a program aimed at improving and sustaining public health by getting the public outside. By simply visiting the website app.healthyparkstn.com, participants can sign up and begin earning points just by getting outside into any park and being active.

BalladHealth™



It's your story. We're listening.

Brownfields / Economic Development

Tuesday, March 19

10:00-10:35 One

Why Go it Alone? A Brownfield 101 and Creating Regional Synergy

Olga Perry | Derek Street | Felicia Fred - EPA Regions 3 & 4 | Gary White - New Jersey Institute of Technology

The interactive panel discussion will include R3 & R4 communities who are current or former grantees. The facilitated panel discussion will cover topics how to get started, how to engage the communities in the process, what projects have been the most successful, lessons learned and what they will do moving forward to keep the momentum.

10:40-11:15 Two

Landfills to Ballfields - Re-use of a Former BASF Landfill Brownfield

Adam Tripp - Headwater Environment

Anchor QEA supported the Enka Youth Sports Organization's project of redeveloping a former industrial landfill into a sports complex through the North Carolina Brownfields Program. The project involved multiple phases of soil, surface water, and methane assessment, which was done in coordination with a local environmental advocacy group that had sued the state of North Carolina because of concerns about re-use of the project.

11:20-11:55 Three

Partnerships: Supporting Creative Solutions

Erin Sutton - TDEC Brownfield Program | Anne Wallace - City of Knoxville Office of Redevelopment

This session will explore examples in East Tennessee that have brought significant investment into the area while protecting human health and the environment. The case studies will include the South Knoxville Waterfront brought to fruition by leveraging public funds, EPA Brownfield Assessment Grants and the private sector. In Blount County the former Alcoa West Plant's transformation to a new downtown will be presented in addition to the Westrock Company's remediation of the Clinch River Corporation Site to ready the property for a new waterfront park in Harriman County.

1:10-1:45 Four

Grants for Rural Communities - Rockwood, TN

Becky Ruppe - City of Rockwood

During the past several years, Rockwood has received more than \$2.5 million in grants with an overall average match of 15 percent. These grants have allowed for the construction of comfort stations, trails, greenways, congestion mitigation and air quality projects, safe routes to school sidewalks and repairs, a bridge replacement, and numerous recreation grants. The energy savings resulting from the project will allow the city to stay within its same debt structure without tax increases.

1:50-2:25 Five

Brownfields Redevelopment and Placemaking in Southeast TN

Sam Saieed & Cathy Andrews - SETNDD | Johanna Heywood - S&ME

SETNDD applied for EPA Coalition Assessment Grant in December 2014 and the grant was awarded to SETNDD in May 2015, this project was a \$500,000 Coalition Assessment Grant. Speakers will highlight four subject properties which were assessed and redeveloped with these grant funds. The properties cover a wide-range of both rural and urban rural settings in southeast Tennessee.

3:05-3:45 Six

A Story Worth Telling

Julie Graham & Tami Reist - Tennessee River Valley Stewardship Council

The Tennessee River is one of the ecologically important river systems in the country. Early in 2016, civic leaders and professionals in the mid-south recognized an opportunity to unify the Geotourism efforts of the 125 counties in seven states that embrace the Tennessee River waterway system.

Environment

Wednesday, March 20

9:00-9:35 One

30 Years of Air Quality Improvement in Tennessee - The Trends and the Reasons

Rick Bolton & John Shipp - Ensafé, Inc.

Since 1990, air quality in Tennessee has improved remarkably. This improvement is the result of actions taken at the local, state, and federal levels, as well as by industry. This presentation will include an overview of the reduction in air emissions in the state during that time and the resulting improvements in ambient air quality. The authors will talk about many of the actions taken across Tennessee and around the nation that have driven these improvements.

9:40-10:15 Two

Food/Organics Program: Making it Work

Dana D'Souza - Skumatz Economic Research Associates (SERA)

Food represents a huge portion of the remaining disposal stream, and the largest opportunity for progress in both the residential and commercial sector. Which are the most effective – and cost-effective – options? We recently conducted a series of residential and commercial projects in states across the nation, geared toward exploring the best options.

10:45-11:20 Three

Invasive Species Management in the Tennessee Valley

Dennis Baxter - TVA

Asian carp are an invasive species that can be detrimental to native species in the Tennessee, Ohio, and Cumberland River Valleys. These Asian carp were imported during the 1970s to the United States to control plankton in Arkansas aquaculture ponds. These carp escaped captivity in the 1980s during floods, then gained access to the Mississippi River basin. Asian carp can out compete native species for resources. Females are capable of producing over 1 million eggs annually causing their numbers to grow at an alarming rate. They also grow phenomenally fast where they grow out of the prey range of most predators therefore predation will not be a limiting factor for survival of this species. Additionally, silver carp's jumping behavior they exhibit when they are startled poses a danger to boaters causing injury to individuals and property.

11:25-12:00 Four


How to Reduce Your Carbon Footprint and Electricity Budget by Harnessing the Sun

Erin Asher - Wilmot, Inc.

Wilmot Inc. has consulted with several clients to assess the feasibility of solar installations, and has provided solutions to clients ranging from electric and water utilities to universities. Most recently, Wilmot developed a plan to meet a local university's goal of sourcing 100% of their energy from renewable sources. Wilmot designed a two-phased plan that will enable the university to meet its sourcing goal, reduce its carbon footprint, and save money along the way.

AGENDA

Monday March 18, 2019			
Time	Cumberland Amphitheatre	Grand Ballroom 1 & 4	Grand Ballroom 3 & 6
10:00 noon		Exhibitor Setup and Pre-Registration Golf Tournament Fund Raiser Shotgun Start - Boys & Girls Club of Greater Kingsport	
1:00 - 1:15	Central Appalachian Brownfields Innovation Network (CABIN) Conference <i>Cumberland Amphitheatre</i>	CABIN Conference Begins - Welcoming Remarks, Paula Middlebrooks	
1:15 - 2:15		Herb Pettigean: I Know a Thing or Two Because I've Seen a Thing or Two	
2:15 - 2:45		Group Networking Event	
2:45 - 3:00		Break	
3:00 - 3:45		Vince Maiden Meade Anderson: Taking the "i" out of Brownfields	
3:45 - 5:00		PANEL: The Front Porch of Brownfields in Appalachia	
4:30	Golf Tournament Awards		
5:30 - 7:00	Cattails Foyer Reception - Sponsored by S&ME, Inc.		
8:00	Exhibitor Setup and Pre-Registration Closes		




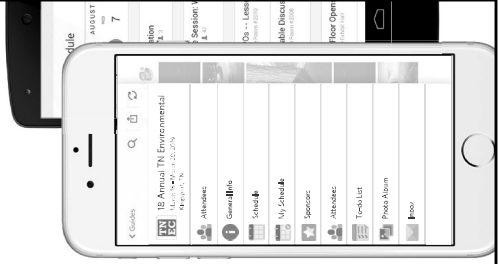
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18 Annual TN Environmental Conference Copy
20191025160554

AGENDA

Tuesday March 19, 2019			
	<i>Cumberland Amphitheatre</i>	<i>Grand Ballroom 1 & 4</i>	<i>Grand Ballroom 3 & 6</i>
Time	1. Environment/Industry/Energy	2. Education / Technical	3. Health
			4. Brownfields and Economic Development

7:30 - 8:45 Registration & Exhibits Open
 8:50 - 9:05 Networking Continental Breakfast with Exhibitors & Setup
 9:05 - 9:15 Special Opening: Greater Kingsport Boys & Girls Club
 9:15 - 9:40 Formal Open/Welcome - Sponsor Recognition
 Keynote - Jeff Yorzyk, Associate Director of Sustainability, HelloFresh

Break			
9:45 - 9:55	Tennessee Division of Underground Storage Tanks Update Stan Boyd - Director	Sustainability in Tennessee Higher Education Institutions	Bringing Healthy Choices to Rural Appalachia Through Remediation Emily Partin - Tracy City, TN, Suzi Ruhl - US EPA Environmental Justice and Patrick Dean - Mt Goat Trail
10:00 - 10:35	Tennessee Division of Solid Waste Management Update Pat Flood - Director	PANEL - Brook Powell - TDEC Kathleen Moore - ETSU Preston Jacobsen - UT Recycling Holly Hanson - Roane State Community College Delayne Miller - Tennessee Tech University	Landfills to Ballfields - Re-use of a Former BASF Landfill Brownfield Adam Tripp - Headwater Environmental, Inc.
10:40 - 11:15	Tennessee Division of Water Resources Update Paula Mitchell Chris Rhodes Deputy Directors	Tennessee Schools Lab Rehab Program Brianna Rives TDEC - DSWM - Materials Management Section	Household Air Pollution & Respiratory Health: Opportunities for Intervention Mildred Maisonet, PhD Ying Li, PhD Panagis Gallasatos, MD East TN State University
11:20 - 11:55			Partnerships: Supporting Creative Solutions Erin Sutton - TDEC Brownfields Program Anne Wallace - City of Knoxville Office of Redevelopment
12:00 - 1:05	LUNCH (Civil & Environmental Consultants, Inc. - featured sponsor) AWARDS		
1:10 - 1:45	USEPA Region IV Air Quality Update Kenneth Mitchell - Deputy Director: Air, Pesticides and Toxics Management Division	Integrated Waste Management Programs – Crafting Tailored Packages for Local Situations Dana D'Souza Skumatz Economic Research Associates, (SERA)	Grants for Rural Communities Rockwood, TN Becky Ruppe City of Rockwood
1:50 - 2:25	Tennessee Division of Air Pollution Control Update Michelle Walker Owenby - Director	LUF/MIP use with Petroleum Contamination Geina Skinner TDEC - Underground Storage Tanks	Brownfields Redevelopment and Placemaking in Southeast TN Sam Saieed & Cathy Andrews, SETNDD and Johanna Heywood, S&ME
2:30 - 3:00	Break with Exhibitors		
3:05 - 3:45	PANEL: Summary Discussion	Questionable Practices and the Impact to Data Quality Lydia Work Environmental Standards	Healthy Parks Healthy Persons Tennessee Ryan Jenkins - Tennessee State Parks
3:30 - 4:00	Women of the TNEC Social (Convention Center) Reception with Exhibitors sponsored by S&ME, Inc. (Convention Center)		
4:00 - 6:00	(Academic poster session to run concurrently from ~4:00-6:00 - Grand Ballroom) Ivy Road sponsored by DENSO		
	A Story Worth Telling Julie Graham, Tami Reist Tennessee River Valley Stewardship Council		

AGENDA

Wednesday March 20, 2019

	<i>Cumberland Amphitheatre</i>	<i>Grand Ballroom 1 & 4</i>	<i>Grand Ballroom 3 & 6</i>	<i>Crockett Amphitheatre</i>
Time	1. Environment	2. Industry & Energy	3. Special Interest	4. Brownfields and Economic Development

7:30 Registration & Exhibits Open
 7:30 - 8:15 Networking Continental Breakfast with Exhibitors
 8:30 - 8:55 **Keynote** - TDEC Commissioner David Salyers

9:00 - 9:35	30 Years of Air Quality Improvement in Tennessee The Trends and The Reasons Rick Bolton & John Shipp Ensae, Inc.	Innovative Mitigation Approaches for 404/ARAP Permit Compliance Alec Sheaff RES, LLC	Breathing Easier at the Tennessee Golf Trail Paul Carter & Mike Nixon Tennessee State Parks	Telling Your Story through ESRI Story Map Creation Elizabeth McNulty Kentucky Energy and Environment Cabinet
9:40 - 10:15	Food / Organics Programs: Making it Work Dana D'Souza Skumatz Economic Research Associates, (SERA)	ENERGY STAR - A Government and Industry Partnership Chandler Milhollin and Sharon Nolen	TN State Parks - Waste Reduction Initiatives Kelsey Davis TDEC - Office of Planning & Sustainable Practices	Opportunity Zones, Promise Zones, and Brownfield Redevelopment John Hargraves - PM Environmental Sandi Curd Kentucky Highlands Investment Corporation
10:20 - 10:40	Break with Exhibitors			
10:45 - 11:20	Invasive Species Management in the Tennessee Valley Dennis Baxter TVA	The Energy and Environmental Benefits of Combined Heat and Power in TN Art Samberg and Kimberly Conley	Organics Management and Soil Stewardship: Closing the Carbon Gap Mike Larrivee Chris Peterson Compost Fairy	Where there is Vision, there is Opportunity Elizabeth Gilboy, Nick Proctor, Joe Morici, Lou Wallace
11:25 - 12:00	Brownfield to Solar Field: The Case for Renewable Energy Projects Erin Asher Wilmot, Inc.	Small Business Environmental Roundtable Donovan Grinwood - TDEC, Small Business Charles Schneider - TCCI J.D. Cressman - TN Comptroller of the Treasury	Citizen Science Dr. Ingrid Luffman - ETSU - Geosciences	Smokey Mountain Smelters Superfund Removal David Andrews - USEPA, Region 4
12:05 - 1:15	Closing Plenary Panel: Chris Thompson - TDEC Jeff Fleming - City of Kingsport Johanna Heywood - S&ME, Inc. Erik Schmidt - City of Chattanooga			
1:30	LUNCH			
1:30 - 3:00	Adjourning/Door Prizes (Must Be Present to Win)			
2:00 - 4:15	Stakeholders Meeting - Commissioner David Salyers (Grand Ballroom, # 7) TOUR - Redevelopment Projects with Nathan Woods & Kristie Leonard * Sign-up sheet located at the Registration Desk - Space is Limited * Loads and departs from the parking area adjacent to the Registration Desk			

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Industry/Energy

Wednesday, March 20

9:00-9:35 One

Innovative Mitigation Approaches for 404/ARAP Permit Compliance

Alec Sheaff - RES, LLC

There are a few different options available for compensatory mitigation when needing to comply with 404/ARAP permitting requirements. In 1990, the USEPA and USACE established guidance for three compensatory mitigation alternatives: (1) mitigation credits from mitigation banks, (2) fees paid to a government or non-profit organization (ILF) and (3) onsite or offsite restoration mitigation activities for which the permittee has liability (PRM). This presentation will focus on innovative approaches, such as turnkey delivery, outcome-based performance, and liability risk transfer, for project-specific mitigation implemented by a third-party contractor on behalf of the permittee.

9:40-10:15 Two

ENERGY STAR - A Government and Industry Partnership

Chandler Milhollin - EPA Region 4 | Sharon Nolen - Eastman

New homes (1.6 million), commercial buildings (25,000+), and industrial facilities can also be certified as ENERGY STAR. An online tool, Portfolio Manager, allows tracking of energy, water, and waste streams and has become the required tool in the US and Canada for some commercial and industrial facilities.

Eastman has benefitted from the ENERGY STAR Program and Industrial Partner Network since becoming an ENERGY STAR Partner in 2008. This joint presentation by EPA and Eastman will focus on how the program is structured and the benefits of participation both from the EPA and industrial perspective.

10:45-11:20 Three

The Energy and Environmental Benefits of Combined Heat and Power in TN

Art Samberg & Kimberly Conley - US DOE Southeast CHP TAP

Combined heat and power (CHP) is an efficient and clean approach to generating electric power and useful thermal energy from a single fuel source; typically increasing total efficiency to 75% or more over traditional components. The U.S. Department of Energy estimates the technical potential for combined heat and power applications at more than 6,000 sites in Tennessee. There are presently 19 such systems. The U.S. DOE Southeast Combined Heat and Power Technical Assistance Partnership (CHP TAP) provides technical assistance and guidance to help candidates verify the viability of these systems which increase efficiency and resilience, while reducing costs. This presentation will provide an overview of CHP technologies and will highlight the environmental benefits including the reduction of greenhouse gas emissions. We will also include air permitting considerations associated with installations of CHP systems using a multitude of fuels.

Join us as we highlight case studies of installed projects in TN, and provide information on the assistance the Southeast CHP TAP provides to industrial, institutional and commercial facilities across the region.

11:25-12:00 Four

Small Business Environmental Roundtable

Donovan Grimwood - TDEC | Charles Schneider - TCCI |

J.D. Cressman - TN Treasury Comptroller

The Small Business Environmental Roundtable is an opportunity for small businesses to discuss environmental issues that affect them with representatives from the TN Department of Environment and Conservation, the TN Chamber of Commerce and Industry, the National Federation of Independent Businesses, and the TN Small Business Ombudsman. Similar to the Small Business Roundtables conducted by the Small Business Administration, this is an open forum panel discussion to discuss issues with non-regulatory advocates for small businesses in TN.

Special Interests

Wednesday, March 20

9:00-9:35 One

Breathing Easier at the Tennessee Golf Trail

Paul Carter & Mike Nixon - TN State Parks

Presentation will discuss the initiatives taken by Tennessee State Parks along their Tennessee Golf Trail comprised of nine golf courses to reduce the impact on the environment, reduce the consumption of natural resources, and improve the habitat for birds, insects, and wildlife. Presentation will detail project including the Electric Equipment Initiative which was created in association with the Office of Policy and Sustainable Practices to convert gasoline powered golf carts and golf course maintenance equipment to fully electric units. Presentation will detail environmental programs and projects carried out on the TGT courses including the Harrison Bay Eagle Cam Project, Bob White Quail restoration projects, creation of pollinator flowering beds and native grass areas, and others.

9:40-10:15 Two

TN State Parks - Waste Reduction Initiatives

Kelsey Davis - TDEC Office of Policy & Sustainable Practices

TN State Parks have an incredibly strong recycling and food waste diversion program – which is a part of their Go Green With Us initiative. After being given the proper tools and trained for best practices, TN State Parks have been able to divert an incredible amount of waste from the landfill and keep record of every pound. Upon seeing the impact and importance of proper metrics, park personnel became actively involved and passionate about what they are doing – which resulted in several very successful waste reduction programs.

10:45-11:20 Three

Organics Management and Soil Stewardship: Closing the Carbon Gap

Mike Larrivee | Chris Peterson - Compost Fairy

The US sends 250 millions tons of food waste alone to the landfill each year, causing human health impacts via the production of leachate, and missing a critical opportunity to restore compromised topsoils depleted through decades of unsustainable agricultural practice. Compost Fairy of Memphis is diverting residential and commercial sourced organic material from the landfill and returning it to local agriculture projects and home landscapes in a meaningful way. A review of our progress so far and a discussion of how compost can be used to remediate Brownfield sites.

11:25-12:00 Four

Citizen Science

Dr. Ingrid Luffman - ETSU - Geosciences

Citizen science projects are increasingly popular to collect scientific data and engage and educate the community about science research. In spring 2017, a citizen science project was implemented on Brush Creek, Johnson City, TN to collect stage data for this flood-prone stream. An educational sign and staff gauge was installed at Founders Park, a new park on the site of an old warehouse. The sign provides information about historical flooding in Johnson City and gives instructions on how the citizen scientist should read the staff gauge and report the water level via text message. Contributed data is automatically entered into a database using a parser that extracts the water level data from the message text. When citizen scientists deviate from the required text message format, the parser may extract incorrect data (false positive) or may be unable to extract water level data from the data provided (false negative). This occurs in only 3% of texts. This presentation will review the automation process, but focus mainly on results and best practices in citizen science research, based on lessons learned during this project.

3M MIDWAY

BROWNFIELDS / ECONOMIC DEVELOPMENT

Wednesday, March 20

9:00-9:35 One

Telling Your Story through ESRI Story Map Creation

Elizabeth McNulty - Kentucky Energy and Environment Cabinet

The ESRI Story Map application is a way to engage and inspire audiences through highlighting brownfield projects at any level of completion. This session will take you step by step through how to create a story map, tips to make it the best it can be for your program needs and examples of ways communities have used story maps to engage audiences and communicate about their brownfield projects. This session is for anyone interested in the story map application at any skill level. It will provide a solid introduction to the different types of applications and ways to use webmaps and multimedia content.

9:40-10:15 Two

Opportunity Zones, Promise Zones, and Brownfield Redevelopment

John Hargraves - PM Environmental | Sandi Curd - Kentucky Highlands Investment Corporation

Promise Zones and Opportunity Zones are tools that rural communities can utilize for redevelopment opportunities and infusion of interest in neighborhoods that may otherwise receive little attention. This presentation will define these zones, how they are similar and different, and ideas on how Opportunity Zones can benefit rural communities. Brownfield redevelopment is another key goal to these designated zones. A variety of environmental assessment, liability limitation, and financial tools will be summarized. These may assist with removing the stigma of a brownfield site and quantify risk and cleanup costs associated with redevelopment.

10:45-11:20 Three

Where there is Vision, there is Opportunity

Elizabeth Gilboy | Nick Proctor | Joe Morici | Lou Wallace - Community Design Assistance Center at Virginia Tech

From coal depot to a coffee cafe, the economic future of Dante, VA is bright. Dante's creative approach to utilizing grants opportunities has brought new life into this former coal camp, deep in the hills of southwest Virginia. Once known for its rich coal deposits, Dante (population approx. 400) now sits at the heart of the Clinch River watershed, a region teeming with biodiversity and eco-tourism potential. The Dante Community Association began in January 2017 by rapidly assembling a network of community, county, state, and collegiate partners to accelerate planning initiatives.

11:25-12:00 Four

Smokey Mountain Smelters Superfund Removal

David Andrews - USEPA, Region 4

The Smokey Mountain Smelter's Site (SMS) was referred by to Region 4 from TDEC for a Removal Site Evaluation in 2006. Numerous investigations conducted by TDEC and the Environmental Response Team (ERT) of EPA determined that the site qualified for a time critical removal in 2009. SMS was added to the NPL in 2010. Located in Knoxville, TN, the SMS site was the former location for aluminum smelting and recycling operations from 1979 to 1994. Waste materials including aluminum dross and spoils from smelting were disposed and stockpiled in an on-site landfill. TDEC and EPA documented leachate containing elevated levels of ammonia as well as aluminum dross liberating flammable hydrogen gas. Leachate and chemical residues were impacting Flenniken Branch to the Loudoun Reservoirs of the Tennessee River. EPA conducted the removal action from June 2010 - May 2011.





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- (6) Developing a public health action plan to perform any necessary changes, cleanups, or outreach.

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Visit www.tn.gov/environment or contact Kathy Glapa at 615-253-8780 for more information on eligibility requirements and evaluation criteria.





Photo taken near the confluence of the north and south forks of the Holston River in Kingsport in David's backyard

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Notes



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