

DECEMBER 2022
4TH QUARTER



EXECUTIVE DIRECTOR

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WEBSITE

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TNSA Times

Tennessee Stormwater Association
Quarterly Newsletter

A Message From the TNSA President

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Hello TNSA,
What kind of impact are you making today?

Seriously. Stop and ask yourself that question. (I promise to make this a shorter report if you do)

It's a great question to ask ourselves as individuals, organizations, and a community. Whether you see it or not, we're all doing something. We're all impacting other people in some way everyday. It may be negative or positive, small or large, narrow or broad, but it's something no matter what.

I think TNSA is made up of people who desire to make a positive difference with a lasting, generational impact. And that really is our goal, isn't it. Generational impact. We want our posterity to have, enjoy, and respect the quality of water that we are so diligently working towards. However, much of our time is spent working towards these big goals that we may not see in our lifetime. That's why it is good to think about the impact we're having right now.

Even if you're just doing something small and seemingly insignificant, it can still be moving the needle in the right direction. Keep it up.

TNSA President,
Joshua Rogers

P.S. If this took you less than 30 seconds to read, then go back to line 2.



TNSA EXCEPTIONAL QUALITY AWARDS WINNERS!

Robert Haley III, with Smith Seckman Reid (SSR), was recognized for the Dr. Bruce Tschantz Lifetime Achievement Award this year. Recently retired from Murfreesboro, Robert has committed his career to stormwater and water quality. From the early years with TDEC to building a stormwater program in Murfreesboro, Robert has been a constant in our field. His technical contribution to the discipline is impressive, but more impressive is his ability to use stormwater as a tool for teaching and showing kindness. Silt fences and curb inlets are not just responsibilities to Robert, they are opportunities to create a relationships. Robert Haley has had an exceptional career in stormwater, and participation in TNSA including his past knowledge in permit writing and regulatory efforts both in the State and in Murfreesboro.

Person of the Year was awarded to Paul Davis. Paul has been teaching free Stormwater Basics classes across the state that is helping educate stormwater professionals at all levels. He also put in innumerable hours on his review and comment of the Phase II permit this year.

Organization of the year was awarded to University of Tennessee Municipal Technical Advisory Service (MTAS). MTAS and CTAS offer exceptional aide to TNSA members through legal, regulatory and training assistance. John Charlson and his team offer support and help through the entire state on a daily basis. They also provide legal support for the association when needed.

Give them all a BIG CONGRATULATIONS when you see them!

Upcoming Regional Meetings

Regional meetings are held each quarter. You do not have to be a TNSA member to attend a meeting. Region meetings are a great way to keep updated within your area and the state. Meet like-minded professionals, network, learn about statewide events and new ideas within the stormwater community.

North East: Thursday, December 1, 1pm-3pm. Kingsport Water Services Operation Center 1113 Konnarock Rd, Kingsport, TN 37664 Future Dates: March 7, 2023, June 15, 2023.

East: Friday, December 2. Networking 8:30am, Meeting 9:00am-11:30am. UT Morgan Hall, 2621 Morgan Cir. Knoxville, 37996 Future Dates: December 2, March 3, 2023, June 2, 2023. **Please RSVP to mjohn337@vols.utk.edu**

West: Tuesday, December 6, 1:00pm-3:00pm. International Harvester Park 4523 Canada Rd Lakeland, TN 38002 Future Dates: February 28, 2023, June 6, 2023.

North West: Wednesday, December 7, 11am-1pm Professional Development Center 305 College St, Dyersburg, TN 38024. Future Dates: March 1, 2023, June 7, 2023. Lunch provided, **please RSVP to tomlawrence@bellsouth.net**

Middle: Thursday, December 8, 10am-12pm. Linebaugh Conference room at the Public Library 105 W. Vine St. Murfreesboro, TN 37129 Future Dates: March 2, 2023, June 8, 2023.

South East: Wednesday, December 14, 10:30 am. Enterprise South Nature Park 190 South Hollow Loop Chattanooga, TN 37416 Future Dates: March 8, 2023, June 14, 2023.

For updated meeting information visit our website event calendar.

**** Meeting Dates/Locations are subject to change ****

Email Charlene DeSha if you would like to be added to a specific region email list.

Committee Updates

Public Outreach: Creates Education Resources

Chair: Tom Lawrence, Thomas Lawrence Engineering

The TNSA Public Education and Outreach Committee has continued to move forward, completing several important milestones. At the moment we are working on a Homeowners Association rack card or brochure. TNSA currently sells the Homeowner Guide to Clean Water & EPA "After the Storm" brochures and TENS the Turtle Children's Activity booklet/stickers. To purchase visit: <https://www.tnstormwater.org/ed>

Education: Manages and Creates Educational Training and Resources

Chair: Tim Gangaware, UT Water Resources Research Center

UPCOMING EVENTS

Stormwater Basics for TN MS4's (FREE TO ATTEND)

January 24-25, 2023, Professional Development Center, 305 College St, Dyersburg, TN 38024.

To register: <https://www.tnstormwater.org/stormwaterbasicsclass>

Mid-South Clean Water Expo \$50 to attend

April 13, 2023. Shelby Farms FedEx Center, 415 Great View Dr. Cordova, TN 38018

To register: <https://www.tnstormwater.org/mscwe>

West Trail Run

May 6, 2023. International Harvester Managerial Park, 4523 Canada Rd, Lakeland, TN 38002

To register: <https://www.tnstormwater.org/westtrailrun>

Committee Updates Continued...

**INTERESTED IN BEING MORE INVOLVED? CONSIDER PARTICIPATING IN A COMMITTEE.
POLICY, CONFERENCE, EDUCATION, COMMUNICATION, SCM AND PUBLIC OUTREACH
CONTACT CHARLENE FOR MORE INFORMATION**

SCM: Standardizes Device Evaluation and Develops SCM Toolkit.

Chair: Jacob Dorman, Contech

At the Annual TNSA Conference, SCM Committee Members Bing Cao and Jacob Dorman presented a status update on the Designing for Maintenance Guide that the Committee has been working to prepare throughout 2023. A final guidance document for use by TNSA members is forthcoming.

Communication: Goal is to work on communication within and outside of the organization

Chair: Aaron Rogge, CDM Smith

TNSA wants to see your stormwater successes! The Communication Committee is compiling footage from all corners of the state that demonstrates “How Beautiful Stormwater Can Be.” That could be anything – natural areas, innovative BMPs, staff at work – be creative! Your submissions will be compiled into an educational video and shared by TNSA this fall.

Video guidelines: The video must be taken landscape. Please keep the length between 3 and 10 seconds.

Videos from iPhones etc. are fine. Be creative! Be safe!

Send video submissions to Aaron Rogge at roggea@cdmsmith.com. Title your emails with “TNSA video” and the name of your location.

Policy: Works with TDEC to share and update members on state and EPA regulations and policies;

Chair: David Mason, CDM Smith

The policy committee is looking for new committee members. Please contact Charlene DeSha if you are interested in participating.

Board Position Updates

Welcome New Board Members

Associate Board Member: Kevin Blackburn, City of Fairview

Private Board Members: Aaron Rogge, CDM Smith

Tom Lawrence, Thomas Lawrence Engineering (re-elected)

MS4 Board Elections will be held at Region Meetings this month

Below is a list of board members up for renewal or rolling off

West: Ethan Skaggs with City of Germantown

East: Roger Fields with City of Alcoa

North East: Jessica Hartley with City of Johnson City

Middle: Shelia Huffmire with Rutherford County

South East: Josh Rogers with City of Chattanooga

North West: Tim Ware with City of Dyersburg

Hope floats in Third Creek

UT students, professors and staff scrub up for ‘creek kidney transplant’ in Knoxville

Imagine you’re a kid again. It’s a Saturday afternoon in July and after a morning full of rain the clouds begin to clear and the sun peeks out.

You run outside in your rubber rain boots to meet your friends down by the creek in your neighborhood, carrying a large bucket, boots squeaking as you go.

Once there, you and your friends carefully wade down into the water, curious to see what creatures lurk beneath the surface.

The water is crisp and clear and cool as you move slowly, trying not to fall on the slippery rocks. Your back is hunched, nose close to the water, and your eyes pierce sharply through the water down into the stream bed looking for any sign of movement. It’s not long before you see a crawdad dart between two rocks. You ready your hand in the water and gently tap the rock with the tip of your

boot. In a split second, you see him dart back out and you grab his tail before you lose sight of him again.

“YEEEEHOOOO! I caught one!” you exclaim to alert your friends of your accomplishment.

“Me too!” yells another.

“I’ve already got one crawdad AND a frog,” brags the second friend.

Now imagine the creek is not so cool and clear and crisp. It is a murky brown, warmer than before, deeper, and it’s flowing much faster. The recent rain has washed too much water and loose soil from the banks into the creek. You can’t see far enough down to catch the crawdads or the frogs.

Now imagine your mother won’t let you near the creek. She

says it’s too dirty to play in and she doesn’t want you getting sick from an infection.

This final scenario is the reality for Third Creek here in Knoxville.

Like most other cities in the U.S. before the 1960’s and 70’s, Knoxville’s streams and creeks mainly functioned as a place to dump the city’s sewage and industrial waste. This changed after the Clean Water Act was amended in 1972, motivated by growing public concern about the quality and safety of our waterways. It gave the EPA the framework and authority to regulate water quality, build wastewater treatment plants, and required private entities to obtain permits before polluting. In the decades since the Clean Water Act was passed, water quality across the country has improved overall.

Unfortunately, many waterways, like Third Creek in Knoxville, are still considered impaired according to the EPA’s “How’s my waterway” website, which gives the status and pollution specifics of waterways across the country.

As of 2020, E. coli and chemical pollutants such as nitrates and sediments continue to persist at unsafe levels in Third Creek, negatively affecting the health of aquatic life and making it unsafe for human recreational use. E. coli and other pathogens can cause disease, originate from the fecal matter of warm blooded animals, and enter creeks via leaky sewage pipes.

Rain carries nitrates and other industrial and agricultural pollutants from factories, farms, and soils into nearby creeks. These pollutants damage ecosystems by disrupting water oxygen levels and degrading habitat. Excessive suspended sediments from erosion of creek banks can get into gilled animals and impair their breathing as well as cover the creek bed habitat where so many organisms live. This kind of degradation not only hurts the environment, it hurts our communities.



Hope Floats (continued)

If you follow the path through Tyson Park that runs alongside Third Creek in the warm summer months eventually you will pass a sign, a few yards away from a playground, that warns pedestrians to avoid physical contact with the water. Children do not play in the water to cool off from the playground. They do not catch frogs with their friends. No longer a resource to the community, the creek is instead a hazard. It serves as a reminder of how far we still have to go.

Luckily, there are people who care and who are working hard to implement creative solutions. Professor Mike Ross, Assistant Professor in the School of Landscape Architecture at UT, chairs the Third Creek Initiative, which is dedicated to remediating Third Creek. He also teaches Green Infrastructure at UT, a class that is working on a project using plants to remediate the ecosystem. The project: floating treatment wetlands (FTW's), small man-made islands whose plants serve two purposes, to clean the water and serve as new habitat for wildlife. The frames of the FTW's can be made of recycled plastics or biodegradable materials like bamboo, which is an invasive species and grows plentiful nearby. The soil and plants are then placed into the frame so that their roots reach down and grow into the water, allowing them to absorb pollutants and remove suspended sediments from the creek.

The islands are tied to the shore using rope to prevent them from being washed away, and then placed into the creek.

Andrea Ludwig, U.T. Assistant Professor and Extension Specialist in the Department of Biosystems Engineering and Soil Science, consults for the class, "Natural wetlands work as nature's kidneys," she explained. Water is like the blood and wetlands help to detoxify it.

Launching the FTW's is like a kidney transplant for Third Creek, helping it get back to its healthy self. Professor Ross explained that the project is in its early stages, working out the logistics of how the islands hold up in the creek over time and under different weather conditions.

Right now the islands mainly serve as habitat, but with more work and testing they could optimize the kinds of plants used in the islands to remove target water pollutants.

The project is a good fit for Third Creek because it's fairly cheap and straightforward. No expensive or complicated equipment is required, just a bit of shared knowledge. This kind of approach is good for creeks in urban areas like Knoxville where underserved populations are more common, waterways are more likely to be polluted, and funding is not easily obtained.

The FTW's are a good community project, the kind that people of any age can participate in for little to no cost. It could also be an opportunity to educate kids about the environment, why it's important to keep these resources clean, and get them interested in science.

There are other ways people can get involved to help maintain healthy local waterways, and a lot of them start at home.

Professor Ludwig emphasized that many of the issues surrounding creek degradation stem from too much water flow overwhelming the creeks during storms due to the presence of impervious surfaces like roads and sidewalks that do not absorb water.

Some methods that people can look into to reduce runoff include: permeable pavers, porous concrete, use of materials other than concrete, pocket prairies containing native plants, and being mindful of downspouts as well as where you fertilize.

You can also go to <https://mywaterway.epa.gov/> to look up the quality of waterways near you.

Article from: <https://hellbenderpress.org/news/hope-floats>



The Tennessee Stormwater Association is Tennessee's premier membership organization for stormwater professionals.

TNSA's mission is to assist members with their local efforts to comply with State and Federal clean water laws; including stormwater regulations through EPA and TDEC (Tennessee Department of Environment and Conservation).

TNSA's goal is to protect and improve the quality of the waters of Tennessee through the exchange of information and knowledge regarding design, construction, maintenance, administration and operation of stormwater facilities.

TDEC UPDATES

Small MS4 Notice of Intent (NOI) & Permanent Stormwater Implementation Plan Submittals

The Division would like to thank the MS4s that have submitted their NOIs and their Permanent Stormwater Implementation Plans so far.

For those that are still working on their **NOI** or **Implementation Plan**, this is just a friendly reminder they are both **due November 30, 2022**.

As you know the NOI is required to be submitted through the MyTDEC Forms portal at <https://forms.tdec.tn.gov/>. It may be helpful to know that a couple common issues that the Division has been working with folks on is that their NOI has been signed incorrectly or that all receiving streams have not been included on the form.

The Permanent Stormwater Implementation may be submitted either via MyTDEC Forms with the NOI or by Email at water.permits@tn.gov. You can find *Guidance for Permanent Stormwater Implementation Plan Submittals for Municipal Separate Storm Sewer Systems (MS4)* at [dwr-nr-g-1-1-municipal-stormwater-08012022-ms4-perm-sw-implement-plan-submittal.pdf](https://www.tn.gov/content/dam/tn/dwr/nr-g-1-1-municipal-stormwater-08012022-ms4-perm-sw-implement-plan-submittal.pdf) ([tn.gov](https://www.tn.gov)).

Please contact the Stormwater Team if you have any questions.

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Brown Patton Brown.Patton@tn.gov;

Ann Morbitt Ann.Morbitt@tn.gov;

Ariel Wessel-Fuss Ariel.Wessel-Fuss@tn.gov



Municipal Stormwater Program

State Water Infrastructure Grants (SWIG) Program

The SWIG program is working to elevate much needed funding for stormwater. This includes Municipal Separate Storm Sewer System as well as non-point source projects.

This year the SWIG program awarded 3 municipalities an Overflow and Stormwater Grant (OSG). The Town of Bell Buckle, Metropolitan Government of Nashville & Davidson County, and the Town of Gainesboro all received about \$500K a piece for Sanitary Sewer Overflow issues, installation of bioretention areas, and jurisdiction wide hydrologic studies. These grants mark the first year the Division of Water Resources (the Division) has been able to provide this funding. The Division intends to build the grant opportunity, increase the funding, and provide awards annually.

American Rescue Plan (ARP)

The Division is also responsible for issuing \$1.35 billion dollars in American Rescue Plan (stimulus) funding. Every municipality and county with a National Pollutant Discharge Elimination System (stormwater or wastewater) permit were allocated dollars as part of a non-competitive grant. Municipalities and counties had to apply for the funding by November 1, 2022.

For those non-competitive grants, the Division received 339 applications that contained 293 stormwater projects. This represents millions of dollars of investment in stormwater projects across the state.

Finally, the Division will be announcing a suite of competitive grants in the spring of 2023. The Division has set aside \$50 million dollars for projects that address resource protection. This category of projects includes all of the common green infrastructure practices and any State Revolving Fund eligible green infrastructure style activity. The Division encourages hydrologic studies, dam removal, bank stabilization, and any other type of green or green-grey infrastructure to address stormwater and resource protection.

Mid-South Clean Water Expo Thursday, April 13, 2023 8 am - 5 pm

Shelby Farms Fed Ex Center
415 Great View Drive
Memphis, TN 38018
5 PDH's Included as well at lunch

This day-long workshop will begin with speaker sessions about industry regulations and trends at the Fed Ex Center. After lunch demonstrations of SCM's led by experts eager to answer questions and share their knowledge will be located throughout Shelby Park.

Click here for more information:
<https://www.tnstormwater.org/ecd>

Tennessee Stormwater Association



Mid-South Clean Water Expo

Tennessee's Premiere Organization
for Stormwater Professionals

Thursday, April 13, 2023

Location: Shelby Farms, Memphis

Registration \$50

5 PDH's and Lunch Included

Attend the 2021 TNSA Mid-South Clean Water Expo on April 13, 2023 to gain exposure to innovative research being performed on commonly employed construction site erosion and sediment control practices with hands-on field demonstrations. The field instructional session will be held at the Shelby Farms and will provide attendees with an opportunity to learn proper design and installation techniques on various erosion and sediment controls to achieve improved performance & compliance.



LEARN MORE AND REGISTER AT www.tnstormwater.org/mscwe

Contact Charlene Desha at Charlene@tnstormwater.org or 865-386-6917 for sponsorship and exhibitor opportunities



May 6, 2023

International Harvester Managerial Park
4523 Canada Rd, Lakeland, TN 38002

3 Mile Trail Run, Family Fun Run & Water Quality Festival
Registration is 7:00AM Trail Run Starts at 8:00AM Fun Run at 9AM
Water Quality Festival 7am-1pm

Join us for the Water Quality Festival after the race in the park which includes music, food trucks and beverages.

For more information, to sponsor or register to run visit our website:
<https://www.tnstormwater.org/westtrailrun>



1ST ANNUAL WEST TN TRAIL RUN FOR CLEAN WATER

May 6, 2023

Trail Run, Fun Run & Water Quality Festival

Call for WQ Booths and
Sponsorships.

Click here for more
information:

<https://www.tnstormwater.org/westtrailrun>

Contact Charlene DeSha with any
questions



Tennessee Stormwater Association
P.O. Box 6550, Maryville, TN 37802
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TNSA ANNUAL CONFERENCE

Thank you to everyone who attended the TNSA Annual Conference last month.

We hosted 248 attendees!

Thank you to those that took time to respond to the Post-Conference Survey. The committee has reviewed the results and will try to implement as much as possible for 2023. Please understand, since we do host it at the state park there are certain things out of our control. TNSA was not notified ahead of time the park restaurant and bar would be closed during the entire conference, we hope this will not be the case next year. Since we do try to keep costs down and host at a state park our food options are limited as well. We ordered enough food for 250-275 attendees for each meal. Communication with management is not great even though we meet with them regularly before we arrive.

Due to rising food costs and other expenses we will have to increase the price slightly for 2023. We understand your budgets are tight and truly try to keep our costs low, which is one reason we remain at the state park.

SAVE THE DATE!

We have booked Montgomery Bell State Park for the next 2 years.

October 24-26, 2023, Workshop October 23, 2023

Rooms are ready to reserve with Group Code 2543

If you are interested in a cabin call ASAP. The state will no longer hold cabins with a group code.

You must call to use the code 615-797-9052 or 1-888-867-2757

October 22-24, 2024, Workshop October 21, 2024

THANK YOU TO OUR SPONSORS

