

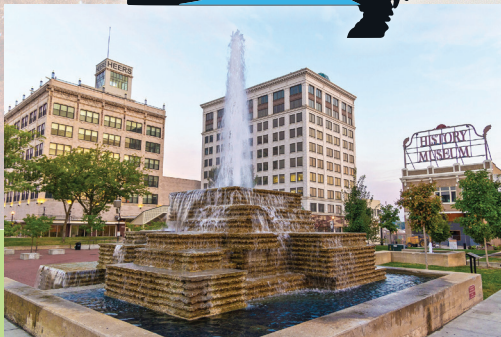
THE Onsite Journal



Onsite Wastewater 2022 MEGA-CONFERENCE

Promoting Health &
Protecting Our Resources

Conference Preview Issue



OCTOBER 29 - NOVEMBER 2, 2022



SPRINGFIELD, MISSOURI

NOWRA
National Onsite Wastewater Recycling Association
FALL 2022

**CESSPOOLS: A CAUTIONARY
TALE FOR HAWAII, 10**





Joe Glasser (1925–2022)

We'd like to take a moment to pause and reflect on the amazing legacy Joe Glasser has left behind.

A decorated WWII and Korean War hero, Lt Colonel Joseph Glasser would later go on to teach at UConn and launch Eljen Corporation out of his basement.

We are where we are today, as a nation and a company, due to the service, dedication and hard work Joe exemplified. We will miss his presence, but will always cherish his memory.



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Onsite Wastewater Mega-Conferenece Preview

Schedule, highlights and more, 16-19

ADVERTISER INDEX

Eljen Corporation.....	2
American Manufacturing Company.....	5
Polylok.....	7
Hiblow, Inc.....	9
Infiltrator Water Technologies	11
Jet, Inc.....	13
BioMicrobics, Inc.....	15
Imperial Industries	17
Norweco.....	19
Presby Environmental	21
Roth Global Plastics, Inc	23

INSIDE THIS ISSUE

Executive Director's Message	4
A Note From the President.....	5
State Affiliate News	6
Legislative Update	8
NOWRA Board of Directors	9
A Cautionary Tale for Hawaii.....	10
Industry News.....	15
Mega-Conference Preview.....	16
NOWRA Online Course Offerings.....	20
Corporate Members	22
Septic Smart Week Proclamation.....	23

Cesspools: A Cautionary Tale for Hawaii, 10





Thomas Groves, Exec. Director

Wow, I cannot believe that summer flew by so quickly. NOWRA is already in the midst of conference planning for our 2022 Onsite Wastewater Mega-Conference. We are looking forward to another great in-person event as everyone returns back to a sense of normal. We will still offer a limited virtual component of the conference again this year, as we have found that the virtual option allows us to reach many others who cannot attend the conference in-person for more than pandemic reasons. This option allows us to spread the word about NOWRA and our great educational opportunities available.

For this year's Mega-Conference, we are pleased to have a great lineup of speakers and presentations. We were overwhelmed with abstract submissions and the Education Committee did a great job in putting together a strong agenda. The conference will start with a look at the onsite industry – where we have been, and where we are going. We will then have an update on our research initiative followed by federal updates from our partners at US EPA and USDA, and lastly an update on NOWRA's advocacy efforts in Washington, D.C. The remainder of the two-day conference will feature up to six concurrent tracks of education on the latest trends in nutrient removal, management, research, underserved communities, and more.

For 2022 we have expanded the poster sessions and will have them prominently displayed in the exhibit hall throughout the conference. Also new for 2022, will be a contest for Emerging Professionals for their

EXECUTIVE DIRECTOR'S MESSAGE

poster and oral presentations. We are excited to see what the upcoming professionals in our industry are doing. For more information on the Mega-Conference highlights and schedule, see page 16.

NOWRA is pleased to be hosting this Onsite Wastewater Mega-Conference with our partners – the National Association of Waste Technicians (NAWT), the State Onsite Regulators Association (SORA), and our state affiliate from the host state, Missouri Smallflows Organization (MSO). The relationship with our partners on hosting these Mega-Conferences has been very successful and we are looking forward to another great event. Even though registration has just started at the time of this writing, the attendee and exhibitor turnout has been fantastic.

The Mega-Conference would not be complete without fantastic field trips and a social event. The optional field trips this year will not only take attendees to learn about onsite wastewater treatment, installation, and management in Missouri, but will also feature some of the cool geological features that southwest Missouri is known for, like the Fantastic Caverns and Talking Rocks Cavern. Our social event will occur on the night of Halloween, so NOWRA is planning to make a special Halloween-themed event at the Wire Road Brewing Company complete with entertainment, good food/drink, networking, and a costume contest. Watch for pictures in the next issue!

In closing, I'd like to thank our Conference Planning Chairperson of the last two years, Tammy Trantham

from MSO who will be stepping aside after this year's conference. She has been instrumental to the success of the Mega-Conference and I could not have done it without her. I'm glad that she is able to conclude her term in her hometown and state, let's show her a great time and event. Looking forward to seeing you all in Springfield, Missouri!

NOWRA ANNUAL BUSINESS MEETING

Tuesday, November 1, 2022
University Plaza Hotel
& Conference Center,
Springfield, MO
Room TBD
5:00 PM – 6:30 PM

In accordance with Article III, Section 7 of the NOWRA Bylaws, all NOWRA members are formally notified through this communication of the Annual Membership Meeting, scheduled to occur on November 1, 2022, from 5:00-6:30 pm. The NOWRA 2022 Annual Membership Business Meeting will be held in the University Plaza Hotel & Conference Center, Springfield, MO. All Members are urged to attend and participate in this meeting. This notice was placed on the NOWRA website (www.nowra.org).

Agenda

1. Roll Call—A master membership list will be available.
2. Reading of the 2022 Annual Meeting Notice and reading/distribution of the previous annual meeting minutes
3. President's Report
4. Secretary-Treasurer's Report
5. Executive Director's Report
6. Committee Report
7. Other Business
8. Open Member Discussion
9. Adjournment

A NOTE FROM THE PRESIDENT

As fall approaches the annual Mega-Conference is top of mind for all of us deeply involved with NOWRA. It is the one time of year our organization gets together in person to celebrate what we have accomplished, learn from each other and strategically plan for the next year. If you plan to be at the conference, here are the highlights of these activities; if not, consider attending virtually!

Celebrating our Accomplishments

- Evaluated and updated our bylaws.
- Passed additional legislation to have more public funds available to help those served with decentralized wastewater treatment.
- Established a partnership with the Rural Community Assistance Program to develop educational materi-

als related to decentralized systems.

- Set aside sufficient reserves to cover the organization's expenses for one year.

Learning

- Over 60 technical sessions will be presented at the conference covering a wide range of topics including research, underserved communities, nutrient removal, funding, education, solutions for challenging sites, regulations, and many more.
- The exhibit hall will be filled with over 40 exhibitors showcasing the best solutions and technology in the decentralized industry.
- Two field trips will highlight the geology and solutions in southwest Missouri.
- Networking opportunities throughout the conference to learn



Sara Heger, President

from each other.

Strategic Planning

- Board of directors meeting to set 2023 goals.
- Committee meetings to set priorities and timelines and hopefully gain new members.

Hope to see many of you in Springfield!



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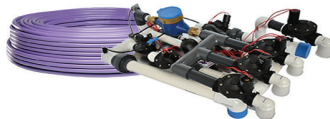
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STATE AFFILIATE NEWS

MARYLAND ONSITE WASTEWATER PROFESSIONALS ASSOCIATION (MOWPA)

The Maryland Onsite Wastewater Professionals Association is pleased to announce site preparation work is starting on the Onsite Wastewater Treatment Demonstration Facility to be located at Central Maryland Research and Education Center – Clarksville Facility. This two-acre site presents unique opportunities for homeowners, industry and county environmental professionals to experience a variety of wastewater treatment technologies hands-on. We plan to start sourcing sponsorships this fall. MOWPA will also be holding its 2022 conference in Clarksville, MD on November 2.

MISSOURI SMALLFLOWS ORGANIZATION (MSO)

Missouri Smallflows Organization is looking forward to hosting the NOWRA On-Site MegaConference in Springfield, Missouri. Starting October 30, the conference will welcome its attendees in the iconic Hammons Tower with a great view of Springfield during the Welcome Reception.

The Conference Committee has worked hard to bring a well-rounded agenda to all attendees. With options for social events and exploring the exhibit hall, there won't be a lack of networking with other professionals. Rounding out the conference with a field trip is a great way to see the OWTS being used in southwest Missouri. MSO hopes to see you at the show and thanks all professionals for attending!

OHIO ONSITE WASTEWATER ASSOCIATION (OOWA)

Greetings from the Buckeye State! Be sure to check out the Ohio Onsite Wastewater Association (OOWA) website (ohioonsite.org) for some of our upcoming events and educational opportunities! John Thomas with the Washington On-Site Sewage Association is coming to Belleville on October 25 to speak on Infectious Disease for Onsite Wastewater Workers Handling Sewage & Excavation and Trench Safety. Also, be sure to mark your calendars for January 10-11, 2023! This is when the OOWA Annual Conference will take place at the Cherry Valley Hotel in Newark. It is going to be one that you do not want to miss!

OREGON ONSITE WASTEWATER ASSOCIATION (O2WA)

The Oregon Onsite Wastewater Association's mission is to support our members through educational programs and opportunities, to encourage professionalism, and to protect Oregon's environment and public health. O2WA is holding its annual fall mini conference on Friday, November 4, 2022 at the Seaside Convention Center in Seaside, Oregon. Attendees can earn up to 0.6 CEUs for their attendance.

VIRGINIA ONSITE WASTEWATER RECYCLING ASSOCIATION (VOWRA)

VOWRA is holding its annual conference and trade show October 16-18 at the Hotel Roanoke in Roanoke, Virginia. Classes start Sunday afternoon and run through

Tuesday afternoon. Vendor set up is Sunday and the trade show/exhibit hall is open Monday and Tuesday. Operators, installers, and designers can earn up to 16 CEUs with full conference registration. For more information please check the website at www.vowra.org, call (540) 855-8500 or email vowra.org@gmail.com.

UPCOMING NOWRA STATE AFFILIATE EVENTS:

Sept. 13-15

KEHA/KSFA Joint Conference, Topeka, Kansas

Oct. 16-18

VOWRA Annual Conference and Trade Show, Roanoke, Virginia

Oct. 17-18

OOWAOK Annual Conference, Muskogee, Oklahoma

Nov. 2

MOWPA Annual Conference, Clarksville, Maryland

Nov 4

O2WA Fall Conference, Seaside, Oregon

NOWRA conducts bimonthly calls with our state affiliate organizations. For more on NOWRA's affiliate state organizations, visit our web site at: www.nowra.org/about/state-organizations/

State affiliates, submit your news to Executive Director Tom Groves at tgroves@nowra.org for publication in a future issue.

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LEGISLATIVE UPDATE

by Tracy Hammond, Polsinelli

Not Your Typical Midterms

With the primaries behind us and the Congressional midterm elections just around the corner, the fight for the 118th Congress is finally coming into focus.

For nearly a year President Joe Biden's job approval rating and Democratic electoral prospects were on a steady decline toward a typical midterm election in which the party in power suffers significant losses.

There's mounting evidence, however, that this won't be a normal midterm. This doesn't mean Democrats won't lose both their House and Senate majorities, but Democratic prospects in the fight for both chambers have improved significantly since earlier in the year.

A combination of factors has put wind in the Democrats' sails, including the Supreme Court's reversal of *Roe v. Wade*, subsequent GOP efforts to eliminate access to legal abortion at the state level, less-than-ideal GOP candidates in key races (most notably in the Senate), revelations from the Jan. 6 House select committee, continuing investigations into former President Donald Trump, legislative victories for congressional Democrats and President Biden, and steady improvements in gasoline prices.

Despite all this, it's important to note that Republicans don't need a wave to win the House majority in 2023. They don't need to win districts that Biden won big in 2020. They just need to net a gain of four seats, and they are still predicted to secure this—and more—in November.

The fight for control of the Senate has always been more competitive than the fight for the House this cycle. A year ago Democrats were struggling to win races in places where Joe Biden had won handily in 2020. Now, the President's party is within striking distance of winning in some states that Biden barely carried, and it could be enough to hold the majority in the Senate.

The size and shape of the Senate battleground has remained static over the past year, when Democrats were defending Arizona, Georgia, Nevada and New Hampshire and Republicans were defending Florida, North Carolina, Ohio, Pennsylvania and Wisconsin. All these races are pivotal, given the current 50-50 split in the upper chamber.

Securing a net gain of a single seat looked well within reach for the GOP, given that President Biden narrowly won six of the nine Senate battleground states in 2020. As long as Republicans held their own seats, they only needed to defeat one of the vulnerable Democratic incumbents.

Republicans are facing the challenge of underperforming nominees, however. The GOP cannot merely rely on a positive political environment to prop up candidates in Georgia, Arizona, Pennsylvania and Ohio, where they are facing some of Democrats' strongest campaigns.

Biden's job approval rating has been mediocre at best for over a year and there's little historical precedent for a party in power dramatically improving their election prospects in the final few months of a midterm. Typically, it's a slide toward more losses. This year may prove different, so stay tuned.

Over the summer, NOWRA vol-

unteers reviewed and supplied feedback to EPA regarding their Report to Congress titled *Alternative Decentralized and Centralized Wastewater Treatment Technology*. This report was the result of a provision passed by Congress in 2018 that was initially part of the *National Onsite Wastewater Recycling Act (NOWRA)* that we supported. NOWRA appreciates the thoughtful comments provided by our volunteer members in this effort.

NOWRA's top legislative priority this year remains to secure funding for the newly-created EPA Decentralized Wastewater Systems Grant program created by the passage of last year's bipartisan *Infrastructure Investment and Jobs Act (IIJA)*. Congress must appropriate funds for this and thousands of other discretionary federal programs each year. NOWRA also continues to urge Congress to increase funding for USDA's Decentralized Water Systems grant program. The ultimate results of our work won't be known until later when the FY 2023 appropriations bills are passed.

As always, we urge you to reach out to your Representatives and Senators and ask them to support increased funding for these critical programs. These are the only sources of federal funding dedicated to decentralized systems.

Tracy Hammond is a Senior Policy Advisor with Polsinelli's Public Policy Group in the firm's Washington Office. He advises clients on federal legislation and regulation in the areas of infrastructure, water and environmental policy and serves as one of NOWRA's lobbyists in Washington, DC.

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The Heart of a Healthy System

A CAUTIONARY TALE FOR HAWAII



Photo 1: Cesspools across Hawaii

By Stuart Coleman

As a surfer, swimmer and environmental advocate, I have become painfully aware of deteriorating water quality issues in Hawaii. Despite its pristine-looking waters, Hawaii has more cesspools per capita than any other state. That’s a dirty little secret that most tourists and even many residents have never heard about, but the tea is staring to spill.

Sewage pollution from cesspools poses serious risks to water resources, human health and near-shore ecosystems. Many of these substandard systems are located near water wells and sensitive coastal areas. In areas like Kea’au on the Big Island, there are over 13,000 cesspools (see Table 1), and a study conducted in Hawaiian Paradise Park by the Hawaii Department of Health’s Safe Drinking Water Branch indicated that 25% of the 32 drinking water wells in the area tested positive for fecal indicator bacteria, *E. coli*.

There are 88,000 cesspools across Hawaii (see Photo 1), and

these substandard systems discharge more than 53 million gallons of untreated sewage per day into our groundwater. That’s like a massive sewage spill every day! Most people have a “flush and forget” mentality when it comes to sanitation, but it has become increasingly hard to ignore the damaging effect of sewage pollution here in Hawaii and across the U.S.

Hawaii was the last state to ban cesspools, but there has been some progress over the last six years. A coalition of environmental groups and concerned citizens helped pass three new laws

banning the construction of new cesspools (Act 120, passed in 2015), mandating the conversion of all cesspools by 2050 (Act 125, passed in 2017) and creating the Cesspool Conversion Working Group (Act 132, passed in 2018).

While serving on the Working Group, I helped start an environmental non-profit called WAI: Wastewater Alternatives & Innovations. At WAI (the Hawaiian word for water), we are dedicated to protecting water quality and reducing sewage pollution. We do this by introducing new policies, funding sources and innovative sanitation technologies that

Island	Total OSDS	# of Cesspools	Effluent Discharged (mgd)
Hawai‘i	58,982	49,344	34.6
Kaua‘i	18,011	13,688	12.5
Maui	16,883	12,242	11.6
Moloka‘i	1,956	1,442	1.2
O‘ahu	14,606	11,253	9.7

Table 1: Number of On-Site Sewage Disposal Systems (OSDS), Cesspools and Effluent Discharge amount from Hawaii Islands:

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are more efficient, eco-friendly and affordable for Hawaii's homeowners.

After three years of meetings, the Cesspool Conversion Working Group is in the process of writing its final report with recommendations to the state on how best to convert all cesspools. Before that report is released later this year, it's important to examine how other parts of the country are dealing with the same issues to learn from their experiences and benefit from the progress they have made.

and nutrient pollution. What we learned would prove to be a cautionary tale for Hawaii.

Although Hawaii has the highest number of cesspools per capita, Suffolk County has the most in sheer numbers (over 250,000). After years of studying wastewater issues, researchers at Stony Brook University and other institutions have shown that nutrient pollution (mostly nitrogen and phosphorus) from cesspools and failing septic systems are wreaking havoc on estuaries and coastal ecosystems.

bad that it led to the near complete collapse of the once-thriving shellfish industry in Suffolk County.

Beyond the environmental and economic impacts, nutrient pollution from cesspools and septic systems can also pose serious threats to human health. Suffolk County has higher nitrate levels in its drinking water than 95% of the country, and recent studies have shown that there are elevated rates of bladder and kidney cancer in communities with high nitrate levels.



Photo 2: WAI team visiting Stony Brook University in Long Island to learn about alternative onsite wastewater treatment technologies.

In the summer of 2021, our WAI team visited our Decentralized Wastewater Innovation Cohort partners at Stony Brook University in Long Island, NY (see Photo 2). Stony Brook's Center for Clean Water Technology has done extensive research on wastewater

Excessive amounts of nitrogen from cesspools and failing septic systems make their way into the groundwater and down to the shorelines, causing toxic algal blooms, beach closures, fish kills and shellfish restrictions. The nutrient pollution has become so

During our visit to Long Island, I asked colleagues at Stony Brook University if they would mind if I used Suffolk County's wastewater problems as a cautionary tale for Hawaii. Without missing a beat, they said that it was important to sound the alarm about the dangers of cesspools and inadequate septic systems. Like us, they want to help Hawaii avoid the extensive environmental, economic and human health issues caused by nutrient pollution.

What did we learn from our partners in Suffolk County? The main lessons revolve around the need for more innovative technology, financial resources and new policies to help implement the necessary changes.

Innovative Technology

Because Suffolk County has been wrestling with these water quality issues for decades, they have done extensive research and testing of what they call Innovative & Advanced (I/A) Onsite Wastewater Treatment Systems (OWTS). Unlike cesspools and traditional septic systems, the County has developed a list of approved technologies that reduce nutrient pollution. The list includes the most effective aerobic treatment

units (ATU's), including those by Fuji Clean (<https://www.fujicleanusa.com/>) and Orenco Systems (<https://www.orenco.com/>), as well as new nature-based systems called nutrient-reducing bio-filters (NRB's).

WAI has introduced similar treatment techniques like Ridge to Reef's Bioreactor Garden and Eljen's Geotextile Sand Filter (<https://www.eljen.com/eljen-gsf>) systems to Hawaii. Both reduce nitrogen levels dramatically yet don't require air pumps, annual maintenance fees or increased utility fees. We have also brought in global pioneers like the Norwegian company Cinderella Eco Group, whose waterless, incineration toilets use heat to transform waste into pathogen-free, odorless ash (<https://www.cinderellaeco.com/us-en>).

WAI is also introducing more ef-



Photo 3: Orenco's PreLOS concept

ficient conveyance systems like Orenco's Pressurized Liquid Only Sewer (PreLOS) model (see Photo 3). The PreLOS system includes a

holding tank on each property that uses a small pump and thin PVC piping right below the surface to transport the liquids (which is 80%

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of wastewater) and connect to nearby sewer lines or to a decentralized treatment plant. This model will be more affordable and less disruptive than installing expensive large gravity sewer lines that require digging up roadways for months at a time.

Financial Resources

Suffolk County has demonstrated its commitment to replacing old cesspools and septic systems by providing state and county grants of up to \$30,000 to help homeowners with the high costs of conversion. Without some financial support, most homeowners would have a hard time finding the money to install innovative systems that reduce nutrient pollution.

In a dramatic sign of progress, the Hawaii Legislature recently passed a new bill (Act 153 passed in 2022) that would provide up to \$20,000 in grants or rebates to low-to-middle income homeowners to help with the cost of converting their cesspools. The state still needs to figure out exactly how to pass on the funds (grants to homeowners or rebates to contractors who install the systems), but they can use Suffolk County as a model.

With Congressional passage of the Infrastructure Investment and Jobs Act (IIJA), there is a once-in-a-generation opportunity to access federal grants for wastewater projects. The EPA is working with the state's Dept. of Health (DOH) to use the increased funding from the Clean Water State Revolving Fund (CWSRF) to set up a pilot program to help homeowners with the high costs of converting their cesspools.

Hawaii is still behind when it comes to converting cesspools, but we have a rare opportunity to become a national leader in new sanitation technologies and policies. By embracing new treatment systems that reduce nutrient pollution, we could leapfrog past many other states that are being forced to spend millions of dollars replacing failing septic systems. Photo 4 shows a typical cesspool in Hawaii.

There are also economic opportunities for workforce development. As part of the Work-4-Water Initiative, WAI is working with the state's community colleges to design training classes for new jobs in the wastewater treatment sector. We hope to set up the initial curriculum design in the Fall and launch classes and internships in the Spring of 2023. With the mandate to convert 88,000 cesspools by 2050, we estimate that up to 2000 new jobs could be created in the next 30 years.



Photo 4: The WAI team stands next to a typical cesspool in Hawaii.

In the end, we need to do everything we can to protect our water quality because that is the foundation of a healthy ecosystem. In Hawaiian culture, the word for water is wai, and the word for wealth is waiwai. Without access to clean drinking water, there is no real wealth, only slowly deteriorating health for us all.

If we learn from the cautionary tale provided by Suffolk County and other areas across the country, we can begin the work to restore our water resources and our natural ecosystems. That is a wealth beyond measure.

About the Author

Stuart Coleman is the Executive Director and Co-founder of WAI Org Inc (Wastewater Alternatives & Innovations). A writer, speaker and surfer, Coleman is also the author of the award-winning book *Eddie Would Go*. For more info, go to www.WaiCleanWater.org and www.Stuart-Coleman.com.

INDUSTRY NEWS



Eljen founder passes away

It is with a heavy heart and great sadness that we share the news of the passing of LTC Joseph Glasser, World War II Veteran and hero, and founder of Eljen Corporation. Joe passed away after a beautiful life of 97 years. He was a scholar, an entrepreneur, a dedicated man to the uniformed service, and the ultimate adventurer who is going on to his next. Many are saddened by Joe's passing because he was more than a colleague; he was also a friend.

LTC Glasser received full honors from our nation at his funeral. A well-deserved honor for our hero. Joe's family held a private ceremony for him and ask that you honor Joe in your own way. To the Veterans, surrender a salute; for everyone else, raise a glass and tell a story. That is how Joe would like you to celebrate his life.

Joe was passionate about everything, but he really wanted to hear what you had to say. It didn't matter to Joe if you had worked with him for 50 years or were the new hire. He wanted your opinion and wanted to know how he could help you. Joe was a phenomenal leader, leaving enormous shoes to fill.

It is hard to imagine Eljen Corporation without its founder close by. In Joe's absence, Eljen will stick to his values and will continue to honor his legacy. Eljen's staff will keep everything moving forward, promoting quality and customer service.

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WHY ATTEND?



Missouri
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Organization

Now in its eighth year, the Onsite Wastewater MegaConference is a collaboration between several national and state onsite wastewater organizations:

- **NOWRA** – National Onsite Wastewater Recycling Association
- **NAWT** – National Association of Wastewater Technicians
- **SORA** – State Onsite Regulators Association
- **MSO** – Missouri Smallflows Organization

So what does that mean for you? Installers... pumpers...service providers...regulators...engineers...soil scientists... designers...educators.... Regardless of your role in the onsite wastewater profession, you will find lots of useful learning opportunities.

Ideas to grow or improve your business. Through education sessions, conversations with colleagues, and meetings with many of the industry's most progressive and innovative companies in the exhibit hall, you can get new ideas for building your existing business.

Identify new ways to expand your business. Increasing water shortages, skyrocketing costs to build and maintain central sewer infrastructure, and a wide range of applications are creating new markets for onsite wastewater. The Mega-Conference is an ideal place for you to identify new opportunities for your company to grow and expand.

Bigger really is better. While size doesn't always matter, having lots of choices does. A wide range of

options for meeting your education needs is another reason to attend the Mega-Conference.

You can meet your continuing education requirements. In most states, the conference curriculum will qualify for credit hours in licensing or professional certification programs. We are working to secure approval for continuing education credit from states which license or certify installers, service providers, inspectors and designers.

It's an investment in you and your organization. If you get one good idea which translates into more business or a better way to do things, you will more than justify your cost of attending. Invest in yourself and your organization.

CONFERENCE HIGHLIGHTS

TECHNICAL EDUCATION & TRAINING

Choose from dozens of sessions across a variety of technological, management topics, including many sessions specific to Missouri onsite wastewater professionals. Sessions are being planned for in-person and virtual formats. Earn continuing education training hours for your state license or certification.

NOWRA / MSO / NAWT EXPO

Many leading national and local companies will have a booth in the Expo Hall.

OPENING GENERAL SESSION

You'll receive a high-level view of key issues facing our industry. Opening session speakers will pro-

vide detailed updates on activities at EPA and USDA, NOWRA's current research initiatives, NOWRA's lobbying activities before Congress, and perspectives from industry thought leaders on other key issues facing onsite/decentralized treatment.

OPTIONAL SOCIAL EVENT

Join us for a fun evening of good food, drink, music, relaxation, and even a Halloween Costume Contest after the first day of the Mega-Conference. Your peers and co-workers will surely be joining us at Southwest Missouri's newest brewery, the Wire Road Brewing Company.

This optional off-site social event requires a separate registration ticket that you can purchase during the

registration process. The event is open to spouses and guests as well. Bus transportation will be provided from the University Plaza hotel.

OPTIONAL FIELD TRIPS

Join us for one of two, full-day field trip options on Wednesday, November 2, for attendees to learn more about installations and maintenance here in Missouri. Each field trip includes bus transportation and lunch. Pre-registration will be required due to expected demand. Field trips will depart the hotel at approximately 8:30 AM on Wednesday, November 2, after coffee and continental breakfast, and return late afternoon. Due to the sites being visited, private vehicles are NOT ALLOWED. Field trip attendees MUST use the bus transportation provided.



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f i y t i n

CONFERENCE SCHEDULE

Sunday, October 30

12:00 pm - 5:30 pm	Registration open
1:00 pm - 5:00 pm	Exhibitor Move-in
2:30 pm - 5:30 pm	NOWRA Board of Directors Meeting
5:30 pm - 6:00 pm	NOWRA Corporate Members Meeting
6:00 pm - 11:00 pm	Welcome Reception

Monday, October 31

7:00 am - 5:00 pm	Registration open
7:00 am - 8:00 am	Government Relations Committee Meeting
7:30 am - 9:45 am	Exhibitor Move-in continued
8:00 am - 12:00 pm	Opening General Session
9:45 am - 6:00 pm	Mega-Conference Expo open
12:00 pm - 1:30 pm	Lunch in Expo
12:00 pm - 1:30 pm	State Affiliates and Emerging Professionals Committee Meetings
1:30 pm - 4:40 pm	Concurrent Education Sessions
4:45 pm - 6:00 pm	Exhibitors' Reception
6:30 pm - 10:00 pm	Off-site Social Event Wire Road Brewing Company (optional)

Tuesday, November 1

7:00 am - 4:30 pm	Registration open
7:00 am - 1:00 pm	Mega-Conference Expo open
8:00 am - 11:40 am	Concurrent Education Sessions
11:45 am - 1:00 pm	Lunch in Expo
11:45 am - 1:00 pm	Joint Education Committee & Technical Practices Committee Meeting
1:00 pm - 4:25 pm	Concurrent Education Sessions
1:00 pm - 6:00 pm	Expo move out
5:00 pm - 6:30 pm	NOWRA Annual Business Meeting
6:30 pm - 8:30 pm	SORA Reception (invitation only)

Wednesday, November 2

8:30 am - 5:00 pm	Field Trip 1: Caves, Drip Irrigation and Educational Tools (optional)
8:30 am - 5:00 pm	Field Trip 2: Table Rock Lake Area Wastewater Systems (optional)



Attendee and exhibitor registration is open. Register now at www.nowra.org!

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INSTALLER TRAINING

Ideal for new installers. This course includes modules on topics such as safety, planning, soil and site concepts, distribution of effluent, dosing and controls, advanced treatment, and soil treatment.

TROUBLESHOOTING

Ideal for designers, installers,

regulators, service providers and more! No matter what our role is in the decentralized industry, we are sometimes faced with systems experiencing problems or out of ordinary situations. This course walks through a typical treatment train starting with the flow coming from the structure and then walks through component troubleshooting including septic tanks, pumps and controls, soils, media filters, aerobic treatment units and finally soil treatment units.

DESIGN COURSE

NOWRA has developed seven courses in the critical area of design of decentralized systems. These courses lay the groundwork for design and will be expand-

ed over the next several years. This course includes modules on topics such as aerobic treatment units, soil properties, soil water movement, making infiltrative decisions, and pressure distribution.

MEGA MODULES

NOWRA has developed 12 courses from presentations at the 2020 Virtual Onsite Mega-Conference. These courses cover a wide variety of topics and were selected due to their continued relevancy to the decentralized industry. Modules include topics such as planning for sustainability, research updates, reuse, brewery waste treatment, nitrogen balance, urine diversion, and more.

Participants can select class length based on continuing education requirements, the subject matter, or how much time they have to commit to training.



**Sign up today at:
www.pathlms.com/NOWRA**

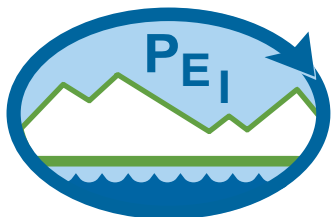


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To learn more about or to join NOWRA's Corporate Membership program, please contact us at (978) 496-1800, by email at info@nowra.org, or on our website at www.nowra.org/about/corporate-members/.

Corporate Membership in NOWRA is an investment that enhances your business marketing efforts while showing your support of our mission to advance and grow the Onsite and Decentralized Wastewater Industry.

Corporate Membership Benefits

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- Onsite Journal Advertising Discounts
- Individual NOWRA Memberships
- Participation in the Legislative DC Fly-in
- Recognition in the Industry
- Federal Advocacy on Your Behalf

Advocacy Successes

1. NOWRA worked with Congress on the Infrastructure Investment and Jobs Act (H.R. 3684) that was just signed into law by President Biden on November 15, 2021. The water infrastructure bill creates a Decentralized Wastewater Grant Program for the repair or replacement of failing or non-existent septic systems owned by low-income homeowners. The Act authorizes \$50 million of funding for each of the Fiscal Years 2022 – 2026, for a total of

\$250 million.

2. NOWRA is working with EPA on implementation of legislation we sponsored which was passed into law as part of the 2018 Water Bill (America's Water Infrastructure Act of 2018) requiring EPA to create a Decentralized Technology Clearinghouse and to share information about the cost-effectiveness of decentralized systems with local governments and other groups. EPA must regularly report back to Congress about how they are supporting the increased use of decentralized systems.
3. NOWRA is monitoring the U.S. Census Bureau's efforts to include a "sewer or septic" question added to the Annual American Community Survey (ACS). This question was removed from the decennial Census after 1990. NOWRA worked with EPA to get them to submit a request to have this question included on the survey. In October 2018 the U.S. Census Bureau accepted the EPA proposal and the question is moving forward to the next stage of cognitive and field testing. This is on track for addition to 2026 ACS.

SEPTIC SMART WEEK PROCLAMATION



WHEREAS, proper septic system use and routine care are vital to protecting public health, preserving our highly valued groundwater, lakes, streams and waterways, and avoiding costly repairs that can result from neglect; and

WHEREAS, more than one in five households depend on septic systems to treat wastewater from homes and businesses; and

WHEREAS, wastewater professionals of NOWRA use their expertise in the design, installation, maintenance, research, outreach and/or regulation of septic systems in the U.S.; and

WHEREAS, the U.S. Environmental Protection Agency's SepticSmart program used by NOWRA does educate homeowners about the need for proper septic system use and routine maintenance; and

WHEREAS, homeowners and the environment benefit from properly designed, installed, operated, and maintained septic systems;

NOW THEREFORE, we the Board of Directors of the National Onsite Wastewater Recycling Association do hereby proclaim the week of September 19-23, 2022 as SepticSmart Week and we urge all people to join us in this special observance.

Signed this 27th day of July 2022,
Sara Heger, PhD., NOWRA President



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