



2017-2020 Accomplishments of the EPA Decentralized Wastewater MOU Partnership

Prepared by the MOU Partnership for the 2020 Decentralized MOU Renewal Meeting

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Introduction and Background

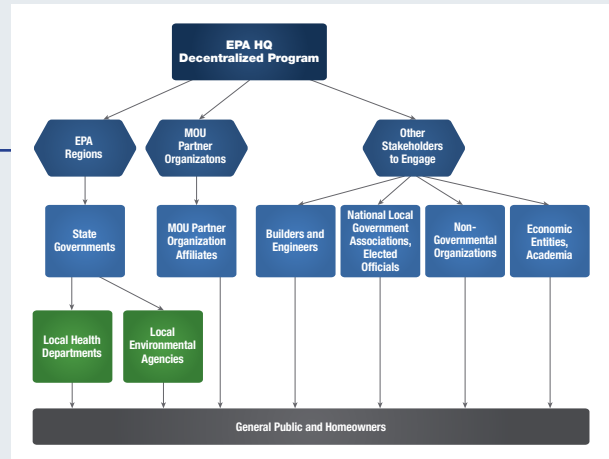
In 2005, the U.S. Environmental Protection Agency (EPA) issued a Program Strategy for the Decentralized Wastewater Program to improve the performance of decentralized wastewater treatment systems. One of the components of the Program Strategy is a Memorandum of Understanding (MOU) between EPA and organizations involved in managing decentralized wastewater systems. The MOU is intended to facilitate collaboration between EPA Headquarters, EPA Regions, state and local governments, and national organizations representing wastewater management practitioners to improve system performance.

The original MOU was signed on January 12, 2005, with eight partner organizations. It has since been renewed four times: 2008, 2011, 2014, and 2017. The 2020 MOU renewal convenes 20 partners with EPA and is focused on continuing to expand the ongoing collaborative relationships in the decentralized wastewater industry. It aims to encourage proper decentralized system management and protect the nation's public health and water resources with an emphasis on small, rural, and suburban communities.

This document highlights key accomplishments for the renewal period 2017-2020. The information has been provided by members of the EPA Decentralized Wastewater MOU Partnership (the MOU Partnership). The document focuses on the MOU Partnership's priorities to: (1) work with state and local government entities on outreach to homeowners with septic systems, such as the annual homeowner awareness campaign, SepticSmart Week; (2) obtain accurate decentralized system data nationally; (3) emphasize the growing decentralized system technologies; (4) leverage financial mechanisms for homeowners with septic systems; and (5) promote education and training for the decentralized workforce.

EPA Decentralized Program Accomplishments

- Developed a **Decentralized Wastewater Program Strategic Communications Guide**, a multi-use tool that outlines the partnership's communication goals, targeted audiences, sample communication messages and channels, engagement strategies, and materials for effective outreach and evaluation, in August 2020.
- **Participated and presented the Program at various state events** including Iowa and Virginia Onsite Wastewater conferences.
- **Attended events hosted by MOU partners**, including National Environmental Health Association (NEHA), Rural Community Assistance Partnership (RCAP), Water Environment Federation (WEF) Small Communities Committee, and State Onsite Regulators Association (SORA) Annual Meetings.
- **Awarded first place to Qingzhi Zhu, Ph.D.**, for winning the EPA Office of Research and Development Advanced Nitrogen Sensor Challenge in May 2020. *(Photo courtesy of EPA)*



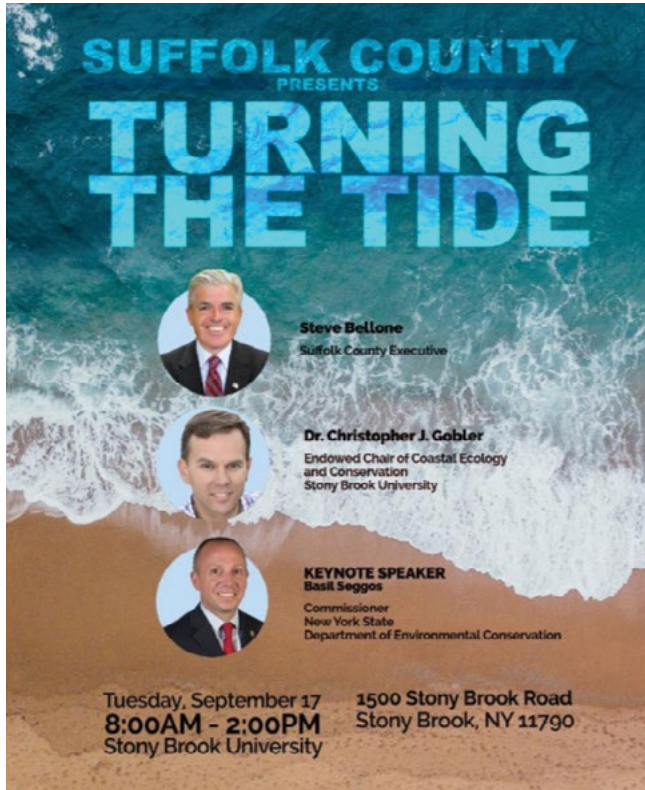
MOU Partnership Accomplishments

The MOU Partnership has sponsored nine webinars on industry lessons learned and current topics of interest to the decentralized community. The presentations focused on advanced technologies, natural disaster preparedness, effluent surface discharges, state regulatory frameworks, and more. The presenters included wastewater experts, engineers, policy makers, university professors, and regulators. On average, the webinars attracted more than 150 participants on each webinar.

The MOU Partnership's quarterly newsletter, Tank Talk, was published 25 times in 2017-2020. Tank Talk shares Partnership news, resources, and events.

The Partnership accomplished actions according to five priorities. Highlights of the Accomplishments include:

Priority 1: Ensure septic systems are maintained and functioning properly to protect water quality and public health. The MOU Partnership led three successful SepticSmart Weeks, an annual campaign focused on educating homeowners and communities on the proper care and maintenance of their septic systems. With support from a steering group of partner organizations, federal agencies, and state and local health departments, each year, partners shared SepticSmart Week messages and outreach materials on their websites, newsletters and listservs, and social media platforms. In addition, partners, state governors, and local health departments issued SepticSmart Week proclamations to declare their support. A total of 18 unique states issued proclamations, with Idaho, Oregon, and Washington doing so each year.



Online media and local events reached thousands of homeowners. Utilizing the MOU Partners’ SepticSmart Week Social Media Guide, the program garnered, on average, over 500 unique posts, generating an estimated two million impressions on social media platforms such as, Facebook, Twitter, LinkedIn, and Instagram. There have been dozens of training and education events, including events sponsored or hosted by MOU partners. In 2020, Suffolk County, New York, held “Turning the Tide” Water Quality Summit at Stony Brook University to discuss local water quality challenges. In addition, the Fairfax County, Virginia, “Conversation” podcast dedicated an episode to environmental health from properly maintained septic systems.

In July 2020, the MOU Partnership [published five videos](#) on SepticSmart Quick Tips. The videos cover topics of water efficiency, drainfield protection, well testing, and safeguarding home pipes and fixtures.

Priority 2: Obtain accurate, updated statistics on decentralized system usage in the U.S.

Led by the Association of State and Territorial Health Officials (ASTHO), with support from the National Environmental Services Center (NESC), the MOU Partnership advanced, obtained, and collected critical local-level data on decentralized wastewater systems in the U.S.

Throughout 2020, ASTHO has analyzed data from their Environmental Health Programs and Services Survey. Results from the survey are guiding the creation of an updated MOU Partnership fact sheet. In 2018, NESC finalized the report [“Onsite Wastewater Installation Assessment,”](#) which examined state regulatory authorities and tracked types of permits and repairs for septic systems. A second report will be available later this year.

EPA formally requested the U.S. Census to add a question on septic system use to the American Community Survey (ACS). The U.S. Department of Agriculture (USDA) also submitted a request for the question to be added. Cognitive testing is scheduled to begin in 2020, and the question could be added to the ACS in 2024.

Priority 3: Expand opportunities to emphasize decentralized wastewater system technologies.

Led by The Water Research Foundation (WRF) and the Water Environment Federation (WEF), the organizations published a fact sheet titled “[Distributed Systems Overview.](#)” The fact sheet covers rural and urban settings for decentralized technologies, the potential benefits to homeowners and the environment, and two case studies. WRF and WEF are in the process of drafting follow up fact sheets on decentralized wastewater technologies related to water reuse, nutrient recovery, and water efficiency.

Priority 4: Leverage existing funding mechanisms for decentralized systems.

With the support from the National Onsite Wastewater Recycling Association (NOWRA), the MOU Partnership has been examining existing funding mechanisms such as the Clean Water State Revolving Fund (CWSRF) and community development financial institutions (CDFIs) as options to finance septic systems. EPA and MOU partners have been finalizing a guide titled “Financing Decentralized Wastewater Treatment Systems: Pathways to Success with the CWSRF,” for states, municipalities, and homeowners for financing systems through state CWSRF program funds. The document provides a path to guide local communities, organizations, and states to successfully utilize CWSRF program funds for decentralized wastewater projects in their state. Interviews with state officials and CDFIs were conducted to prepare the report, which will be released by early 2021.

EPA also began offering technical assistance to state onsite wastewater programs in 2019, starting with Alaska’s onsite wastewater program to help them brainstorm financing mechanisms that could best be paired with the CWSRF. The second round of technical assistance went to North Carolina, in 2020. Those projects are currently ongoing.

In 2018, the MOU Partnership and the EPA Water Infrastructure and Resiliency Finance Center worked together to deliver the “[Decentralized Wastewater System Financing for Homeowners](#)” learning module. MOU partners played a pivotal role in providing input to the design and content of the course.



Priority 5: Emphasize decentralized wastewater treatment education.

Led by EPA and MOU partner NOWRA, the decentralized workforce steering group engaged multidisciplinary experts within the industry to better understand decentralized workforce needs.

EPA held two listening sessions as part of the 2018 Onsite Mega Conference to kick start these discussions, and to hear from industry experts, on the range of workforce challenges for the decentralized industry. Following these listening sessions, EPA formed a steering group to plan a national meeting focused on identifying solutions to increase workforce training and advance decentralized education in community colleges and universities. The steering group, comprised of academic and industry experts, and MOU partners, was instrumental in developing the meeting approach, scoping the discussion topics, and refining research materials on the range of decentralized wastewater systems, job types, and competencies.

The steering group met in February, April, and June 2019, and in person at the National Decentralized Wastewater Workforce Meeting held July 9, 2019, in Nashville, Tennessee, preceding the National Environmental Health Association’s Annual Education Conference. The meeting identified priority areas and helped develop an action strategy based on meeting discussions. The steering group continued to work on this priority in the development of two reports noted as first steps in the action strategy: (1) A report defining the career pathways in the decentralized wastewater field, including occupational profiles for each career and job growth patterns or projections, and (2) a decentralized workforce landscape assessment on education and training, which aims to provide an analysis on the credentialing, certification, and licensing aspect of decentralized careers, and offers case studies on a few states that have successful frameworks for education and training. Both reports are anticipated to be released by early 2021.

Individual MOU Partner Accomplishments

National Onsite Wastewater Recycling Association (NOWRA) Onsite Mega Conference – NOWRA organized and hosted three annual Onsite Wastewater Mega-Conferences with over 1,400 attendees and 155 hours of continuing education offered. These conferences were co-sponsored with the local state affiliate chapter of NOWRA, the State Onsite Regulators Association (SORA) and the National Association of Wastewater Technicians (NAWT). The conferences gather thought leaders from around the nation to offer a national perspective on onsite wastewater issues, provide a forum for disseminating important research and other critical industry information, strengthen relationships with state onsite associations, and provide an opportunity for the three primary associations, which focus exclusively on onsite wastewater issues, to collaborate on topics of common concern.

National Environmental Health Association (NEHA) and Centers for Disease Control and Prevention (CDC) Private Drinking Well Efforts – The CDC National Center for Environmental Health (NCEH) works to address sources of contamination that affect private drinking water, including onsite wastewater systems. As part of this work, NCEH partnered with NEHA and others to establish a Private Water Network and encouraged members of the network to address and raise concerns with decentralized wastewater systems.

Rural Community Assistance Partnership (RCAP) Technical Assistance, Webinars, and Workshops – RCAP, through its network of six regional partner organizations, has provided technical assistance through 23 decentralized or onsite system projects and 34 training events throughout the U.S., Puerto Rico, and the U.S. Virgin Islands. Several webinars have been conducted on wastewater system topics reaching a large audience. The three webinars specifically focused on decentralized system operations and maintenance, septic systems 101, and decentralized system case-studies were attended by hundreds of individuals and follow-up questions were addressed by regional technical assistance providers, University of Illinois [Water Operator](#) staff, and National RCAP staff.

Lowndes County, Alabama, Collaboration – The International Association of Plumbing and Mechanical Officials (IAPMO) joined with plumbing industry stakeholders to install decentralized wastewater systems in disadvantaged communities on the Navajo Nation and in Lowndes County, Alabama, bringing life-changing access to sanitation to a number of households in need. Additionally, IAPMO published a new, international standard for non-sewered sanitation systems as an American National Standard and a National Standard of Canada paving the way for new, innovative technology to be utilized in the decentralized wastewater sector.

National Association of Wastewater Technicians (NAWT) Trainings – NAWT developed a virtual training platform to continue to provide training for wastewater technicians during the pandemic in light of the restrictions regarding public gatherings. This included the development of online training course exams, which resulted in continued training solutions and streamlined program operations.

Workplan Priorities for 2020-2023

The MOU Partnership will continue to work collaboratively to improve the overall performance and management of decentralized systems in line with the five priorities featured in this handout. The partnership welcomes new members: DigDeep, Indian Health Service, and US Water Alliance.

