

Concurrent Sessions Track: Policy and Funding

Tuesday, October 15, 2019

8:00 am to 9:00 am

Challenges and Solutions for Rural Wastewater Management in the Alabama Black Belt

Mark Elliott

The historical Black Belt region in central Alabama is characterized by its population, rural character, poverty, lack of economic development, low educational attainment, poor access to health care, and a prevalence of clay soil conditions. These characteristics are shared by parts of Mississippi, Georgia and Appalachia. Rural poverty in the Black Belt has recently received national and international attention for its lack of access to appropriate sanitation. Most residents of this region do not have access to sewer, and thus, according to US law, are responsible for treating their wastewater onsite. However, impermeable shrink-swell clay soils in many areas prevent septic systems from infiltrating wastewater into the ground. These conditions have resulted in failure of septic systems and the use of straight pipes (direct discharge of raw sewage to the ground). Surveys reveal raw sewage on the ground surface in 50% or more of the rural homes in some Alabama counties. Troubling preliminary evidence of water quality and health effects has emerged; elevated concentrations of fecal microbes and evidence of parasitic helminth (worm) infections in Black Belt residents have been reported. The geological, technical, regulatory, social, financial and political challenges that have enabled this situation to develop and persist are diverse and complex. Our team is collaborating with state agencies, congressional offices and the Governor's office to identify and develop five major approaches to address rural wastewater management in the Black Belt of Alabama. 1. Identify, cost, and prioritize specific wastewater needs for each Black Belt county; . 2. Develop, test and catalog viable clustered and onsite wastewater technology options; 3. Explore and define viable funding mechanisms for both capital and O&M costs; 4. Develop alternative regulator strategies for onsite wastewater; 5. Develop a



How To guide for local communities/counties to follow for obtaining funding and implementing sustainable wastewater infrastructure.

Tuesday, October 15, 2019

9:00 am to 10:00 am

Funding Onsite Sewage System Repairs A Proven Approach

Terry Hull

When faced with the need to do a major repair, or replace, their onsite sewage (septic) system, owners typically exhibit three concerns: fear of the unknown process details, anxiety around the need to engage local health regulators, and most-significantly, panic about the need to find an emergency funding source. Craft3, one of thousands of US Treasury certified Community Development Financial Institutions, successfully developed and demonstrated means to address all three concerns. Over 12 years, Craft3, engaged private and public partners, raised capital, developed program infrastructure, and successfully managed underwriting risk, while building a sustainable revolving loan fund. The program, which operates in Washington and Oregon, has funded more than 1,300 system repair/replacements with a value of \$30 million, while ensuring that annually more than 160 million gals of sewage is properly treated and recycled via in-ground dissipation. This paper describes the process by which this private/public partnership was developed, is successfully implemented to serve borrowers across the

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income spectrum and the performance measures used to ensure its sustainability. The authors encourage others to explore development of similar programs based on this model, as a way to address the growing national backlog of malfunctioning and failing onsite sewage systems.

Tuesday, October 15, 2019

10:30 am to 11:30 am

Don't forget about funding maintenance

Danna Revis

Those of us working in the onsite wastewater industry know that active maintenance of onsite wastewater systems, especially alternative systems, is essential to system's continuing good performance. Even for conventional systems, pumping the septic tank regularly and mowing the grass over the dispersal field are simple and essential maintenance procedures. Discussions of funding for onsite wastewater systems often focus on the cost of installing new systems. The discussions sometimes include evaluating the site, designing the systems, and often even the repair of failing systems. The discussions rarely include the cost of maintenance of existing systems. Funding for homeowner education includes the same old content: spread out the laundry through the week, be careful of chemical cleaning agents, and so on. The onsite wastewater industry needs to greatly improve our messaging and send out a wake-up call to the public. Pumping out the septic tank is not a magical fix for all septic system problems. For alternative systems especially, a pound of prevention can equal significantly more than a pound of cure in assuring that the system functions properly. As we work to improve funding in the onsite wastewater industry, we need to assure that real homeowner education and system maintenance are covered. This paper and presentation will identify some of the clear signs that a system is suffering from insufficient maintenance, cover ways to communicate the risks to the homeowner, and explore models for providing the funding needed in these areas.