# Speaker and Bios for MWEA Biosolids Workshop

## Title of Presentation: Land Application under the Missouri Clean Water Law

Speaker: Heather Peters

Heather is the Water Pollution Control Branch Chief and has been with the Department of Natural Resources since 1999. The Water Pollution Control Branch is responsible for Missouri Clean Water law designs, permitting and implementation, compliance and enforcement, water quality standards, and water quality monitoring.

Presentation Abstract:

Department of Natural Resources is reviewing the permitting process for land application of wastewater, domestic biosolids, and industrial wastewater treatment residuals in response to many recent concerns and amendments:

- PFAS in dairy cows and milk (and new regulations)
- Recent legislation and the changing laws
- Fertilizer or wastewater treatment

In this presentation, we plan to discuss upcoming changes for land application associated with wastewater treatment in the state of Missouri. We will cover the different regulatory authorities for these practices and what changes or proposals you can expect to see in the future. You will be able to share your experience, concerns and thoughts with the Department on this topic.

## Title of Presentation: Michigan's Interim Approach to Land Application of Biosolids with PFAS

Speaker: Christian Smith

Christian earned his Bachelor of Science in Microbiology from Michigan State University in 2018, followed by a Master of Science in Biological Sciences from Western Michigan University in 2022. He is currently employed with the Water Resources Division of the Michigan Department of Environment, Great Lakes, and Energy (EGLE), serving in the Emergent Pollutants Section. His role includes acting as the statewide contact for PFAS in Biosolids and providing source identification support for Non-Industrial Pretreatment Program wastewater treatment plants affected by per- and polyfluoroalkyl substances (PFAS).

Presentation Abstract:

Development and implementation of EGLE's Interim Strategy for Land Application of Biosolids Containing PFAS and information on EGLE's Industrial Pretreatment Program (IPP) PFAS Strategy. Including state-wide sampling data, and reduction of PFAS concentrations through source identification and control.

## Title of Presentation: Operational Challenges and the Future of Biosolids

Speakers: Marcia Kumar (MSD), Clara Haenchen (City of Jefferson City), Brent Herring (KC Water), Elliot Schneider (City of St. Peters), and Allen Busick (City of Springfield).

- Marcia Kumar, P.E. is a plant engineer for Missouri River and Coldwater WWTFs at the Metropolitan St. Louis Sewer District, where she has been at the district for eight years in Flow Monitoring, Development Review, and Treatment Plants. She has experience with three different biosolid disposal processes: digesters to a regular landfill, transfer pumps to another plant, and incineration to a single use landfill.

- Clara Haenchen, Plant Manager, with City of Jefferson Wastewater Treatment Plant. In 1997, began employment in the Laboratory and was promoted to PM in 2016. Has a MDNR Class A Wastewater Operator License.

- Mr. Herring is Deputy Director for Water & Wastewater Operations for the City of Kansas City, Missouri. In this role, he manages several hundred staff in operating 66 wastewater treatment and pumping stations and 33 water treatment facilities and pumping stations. He manages field operations consisting of levee maintenance and spot repairs to a combined 5600 miles of distribution, stormwater, and wastewater pipeline systems. He is responsible for the certified laboratory and regulatory compliance divisions which includes the biosolids management program. This includes the 1400 City-owned land application property for approximately 50% of produced biosolids and oversees a program for land application of 50% of the biosolids for the agricultural community. Mr. Herring continues a long career with consultants and municipal government at the facility and system level for many different water and wastewater facilities.

- Elliot Schneider is the Manager of Environmental and Fleet Services for the City of St. Peters and serves on the Board of Directors for the United States Composting Council. Elliot has over fifteen years of experience in biosolids management and composting and has facilitated the implementation and growth of biosolids composting facilities nationwide. Elliot has developed several strategies to improve composting processes and efficiencies relevant to product quality and throughput when dealing with polymers. Elliot's role with the City encompasses the composting facility, both operations and marketing as well as a Material Recovery Facility, Transfer Station, Solid Waste Collections, and Fleet Maintenance.

- Allen Busick is currently the project engineer for Springfield's wastewater treatment plants. He manages capital planning and construction at Springfield's Southwest Wastewater Treatment Plant and Northwest Wastewater Treatment Plant. He has worked for the City of Springfield for seven years. Allen graduated from the University of Arkansas with a degree in chemical engineering and a master's in operations management and is a licensed professional engineer in Missouri.

Presentation Abstract:

Five utilities across the state with various types of treatment plant processes and sizes will discuss the challenges of maintaining and operating biosolids programs. The presentation will dive into the potential expectations and plans for future biosolids management.

## Title of Presentation: Biosolids and Public Relations

Speaker: Anthony (Tony) Boone

Tony, Boone consulting a private environmental management firm founded in 1979, specializes in the planning, design and management of beneficial reuse projects, providing professional independent assistance between generators of waste products, end users, landowners, neighbors, the public and regulatory agencies. Tony, BOONE CONSULTING combines experience in soil and crop knowledge with management of waste byproducts from municipalities, industries and large Concentrated Animal Feeding Operations (CAFO) livestock operations that assist in bringing people together through planning, marketing, managing and monitoring to beneficially reuse waste for long term success. Knowledge of regulations, working relationships and attention to details through the whole process from planning to implementation to create a win-win situation for all parties involved. Tony enjoys spending time with family…especially grandchildren.

Presentation Abstract:

- Will focus on the following:
- Will look at 3 things all people want
- Will look at 3 things all people don't want…
- Two Sides of the same Coin…
- What causes Buy-in…
- Do we know what the Problem is?
- Troubleshooting
- Investment in Public Relations is a small price for a long-term biosolids program benefits

## Title of Presentation: Biogas & RNG Market Trends

Speaker: Scott Martin

Scott is a project manager and has more than 19 years of experience in biogas gas conveyance, treatment, beneficial use (RNG, Electricity, Direct Use), and regulatory compliance. He has served as lead engineer for multiple biogas beneficial use engineer-procure-construct (EPC) projects, from preliminary feasibility through commissioning. Scott routinely consults on technical and financial viability of brownfield and greenfield biogas development projects, and has extensive environmental permitting experience (air, solid waste, beneficial use). Scott's core engineering competencies include gas process engineering, mechanical and civil design, and overall balance of plant facility design.

Presentation Abstract:

This presentation will focus on project development and available market strategies for municipal entities including the various approaches seen in the industry, such as self-development vs 3rd

party development, regulatory RNG programs, and other environmental attribute / decarbonization markets.

## Title of Presentation: Keeping Greene Green: Springfield's Biosolids Management Program

Speaker: Allen Busick

Allen Busick is currently the project engineer for Springfield's wastewater treatment plants. He manages capital planning and construction at Springfield's Southwest Wastewater Treatment Plant and Northwest Wastewater Treatment Plant. He has worked for the City of Springfield for seven years. Allen graduated from the University of Arkansas with a degree in chemical engineering and a master's in operations management and is a licensed professional engineer in Missouri.

Presentation Abstract:

The City of Springfield operates two wastewater treatment plants. The Northwest Wastewater Treatment Plant treats an average of 5 MGD while the Southwest Wastewater Treatment plant treats an average of 35 MGD. Solids produced by both treatment plants are processed through anaerobic digestion at the Southwest Wastewater Treatment plant. The digestion process also receives hauled fats, oils, and grease and other municipal sludge from surrounding communities. The digestion process produces a Class B biosolids product. This product is dewatered and spread onto nearby land. This process produces around 6,000 dry tons of biosolids per year.

Springfield has learned much since its original digesters were built in the 1950s. Springfield is continuously working to improve the management of the fats, oils, and grease program. When possible, Springfield seeks to source additional high strength waste. Gas produced through the digestion process is used to produce 2.4 MW of power, which is used to generate 50% of the southwest treatment plants energy needs. Springfield manages its own biosolids program which includes soil sampling and in-house lab testing, land application, and reporting. Land application uses cutting edge technology to ensure proper and consistent application. Springfield works closely with landowners to ensure biosolids are applied in accordance with the 503 regulations. Springfield has developed trust with local landowners such that there is a waiting list for biosolids application. To maintain trust, Springfield has begun voluntary testing of PFAS-compounds to understand the risks associated with the biosolids it produces. Springfield's commitment to its biosolids program has allowed it to receive multiple Biosolids Management Awards from the MWEA.

## Title of Presentation: Nutrient Impacts on Biosolids Processing

Speaker: Patrick Young

Pat has 33 years of experience working on the design, construction and commissioning of water resource recovery projects. He has a broad understanding of current state-of-the-art advanced wastewater treatment and the challenges that his clients face in providing high-level service to their users and to the environment.

Presentation Abstract:

Missouri water resource recovery facilities are facing new phosphorus removal requirements, with implementation deadlines of 2029 to 2033 depending on the plant's design flow. This will cause many permittees to evaluate options for nutrient removal, and all options impact biosolids processing. This presentation will examine the effects of biological and chemical phosphorus removal on the wastewater unit processes, biosolids processes and their sidestreams. Pat will also discuss opportunities for enhanced resource recovery.