Houston-Galveston Area Council

Clean Waters Initiative: Pathogen Indicators
AGENDA
November 20, 2024

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A G E N D A

8:30 a.m.	**Sign-in and Refreshments**
9:00 a.m.	**Welcome and Event Kickoff** **Justin Bower** Director, Community and Environmental Planning Department – Houston-Galveston Area Council
9:05 a.m.	***Addressing Contact Recreation Impairments*** **Todd Running** Water Resources Program Manager, Community and Environmental Planning Department – Houston-Galveston Area Council
9:15 a.m.	***Fecal Source Tracking: a molecular perspective*** **Jorge W. Santo Domingo, Ph.D.** Research Microbiologist, Office of Research and Development – U.S. Environmental Protection Agency
9:45 a.m.	***History of Microbial Source Tracking Use in Texas*** **Terry J. Gentry, Ph.D.** Professor, Department of Soil & Crop Sciences – Texas A&M University

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10:15 a.m.	Break
10:30 a.m.	***Tracking the Source of Fecal Contamination to Western Galveston Bay*** **Michael LaMontagne, Ph.D.** Assistant Professor, College of Science and Engineering – University of Houston Clear Lake
11:00 a.m.	***Applying Rapid Indicator Methods and Advances in Source Tracking in California Coastal Waters*** **Joshua A. Steele, Ph.D.** Senior Scientist, Department of Microbiology – Southern California Coastal Water Research Project
11:30 a.m.	***Public Health Considerations when Assessing Contact Recreation: Integrating MST-QMRA*** **Anna Gitter, Ph.D.** Assistant Professor, Environmental and Occupational Health Sciences – University of Texas Health Houston School of Public Health
12:00 p.m.	**Breakout Groups**
12:30 p.m.	**Wrap-up and Adjourn**

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TODAY'S PRESENTERS

Justin Bower

Justin Bower, Community and Environmental Planning Department Director, has over 20 years of experience in leading natural resource management and urban planning efforts for a variety of local government and non-governmental organizations.

For the past 14 years, Mr. Bower has served the Houston-Galveston Area Council in its focus on enhancing community resilience, most currently serving as H-GAC's Director of Community and Environmental Planning, overseeing the agency's natural resources, urban planning, disaster resilience, public safety, and conservation programs.

Mr. Bower has an educational background in environmental science and urban planning, including a master's degree in urban planning and public policy from the University of Delaware.

Todd Running

Todd Running, Water Resources Manager, has served at the Houston-Galveston Area Council for over 32 years. He is responsible for conducting water quality assessments for one river and three coastal basins in the Houston-Galveston area. He has also developed and directed over two dozen special studies regarding water quality issues in the H-GAC region. Under his leadership, H-GAC's Clean Rivers Program has produced several innovative reports that have taken advantage of advances in computer technology and the web.

Over the last 20 years, H-GAC's Clean Rivers Program has continually expanded its ambient monitoring program to more sites and collected more parameters, with no increase in funding. Mr. Running is also responsible for overseeing the development of TMDL Implementation Plans, Watershed Protection Plans and the annual update of the Regional Water Quality Management Plan at H-GAC.

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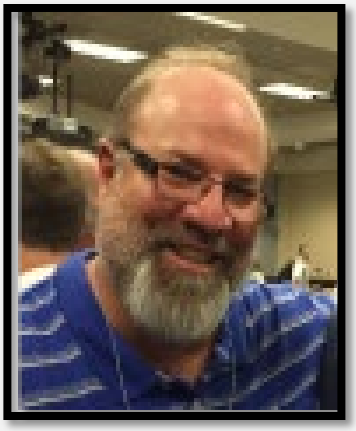

Jorge W. Santo Domingo, Ph.D.

Dr. Jorge W. Santo Domingo is a research microbiologist in EPA's Office of Research and Development (Cincinnati, OH). For the past 26 years he has worked in molecular microbial ecology projects related to drinking water, wastewater, recreational waters, fecal pollution, antibiotic resistance, biosolids, and cyanobacterial blooms. In 2022 Jorge was elected as Fellow of the American Academy of Microbiology. Dr. Santo Domingo earned his Master of Science in Biology from University of Puerto Rico and Ph.D. in Microbiology from Michigan State University.

Terry Gentry, Ph.D.

Dr. Terry Gentry is a Professor of Soil and Aquatic Microbiology in the Department of Soil and Crop Sciences at Texas A&M University in College Station. He holds a Bachelor of Science degree and Master of Science degree in Agronomy from the University of Arkansas and a Ph.D. in Microbiology and Immunology from the University of Arizona. He did postdoctoral work in Environmental Microbiology at Oak Ridge National Laboratory.

Dr. Gentry is internationally recognized for his research on applied microbial processes including detection and remediation of soil and water contamination and sustainability of intensive cropping systems. He has authored/co-authored 112 peer-reviewed journal articles in addition to 15 book chapters and leading textbooks on Environmental Microbiology and Soil Microbiology. He has developed and instructed numerous courses including Soil and Water Microbiology, Environmental Microbiology, and Environmental Soil and Water Science.

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Michael G. LaMontagne, Ph.D.

Dr. Michael G. LaMontagne completed his doctorate at Boston University and postdoctoral training at Michigan State University and the University of California - Santa Barbara.

Dr. LaMontagne directed research programs at US Genomics and Agricen Sciences and founded Endobione, a microbiome company.

Currently, Dr. LaMontagne directs research to further understanding of the microbiomes of agricultural and aquatic systems.

Joshua A. Steele, Ph.D.

Dr. Joshua A. Steele is an environmental microbiologist specializing in identifying and tracking pathogens and naturally occurring microbes in wastewater, coastal ocean water, and coastal watersheds using cutting-edge molecular techniques (next generation sequencing and digital PCR). His research focuses on developing methods to detect and track human-associated bacteria and viruses and identify their sources in stormwater and coastal water, developing and standardizing methods for wastewater-based epidemiology of pathogens, including SARS-CoV-2, applying molecular techniques to track antibiotic resistance genes in wastewater and the environment, and using bioinformatics tools to link eDNA from natural populations to ecosystem health.

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Anna Gitter, Ph.D.

Dr. Anna Gitter is an Assistant Professor in Environmental and Occupational Health Sciences at UTHealth Houston School of Public Health. Dr. Gitter's research includes evaluating environmental exposures through human health risk modeling and assessing water resources management in context of public health. Prior to joining UTHealth Houston, she also worked as a Research Specialist for the Texas Water Resources Institute and addressed water quality issues throughout the state. She earned her Ph.D. in Water Management and Hydrological Science from Texas A&M University and was a postdoctoral researcher at UTHealth Houston School of Public Health.

NOTES

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