Florida Groundwater Conference – November 1 & 2, 2022

Professional background of presenters (in presentation order)

Andrew Stone, Executive Director, American Ground Water Trust, Concord, NH (Conference Moderator)

Andrew Stone completed post-graduate studies in hydrogeology at University College, London. For 13 years he was involved in groundwater research and lecturing at Rhodes University, South Africa. Since 1989 he has worked in the United States as a private-sector groundwater consultant, as adjunct professor (teaching groundwater protection policy at Antioch New England University), and as groundwater educator, advocate and outreach specialist. His work with the AGWT has involved convening over 350 "information-exchange" conferences and workshops focused on groundwater issues. He has organized over 70 "Groundwater Institutes" that have trained 2,000 science teachers and educators on water resources issues. He is a recipient of the National Ground Water Association "Oliver Award" for his work in promoting groundwater education.

Robert Verrastro, PG, Principal Hydrogeologist, South Florida Water Management District, West Palm Beach, FL

Mr. Verrastro has been a professional geologist for 33 years. He holds an undergraduate degree in Geology from Rider University (Lawrenceville, New Jersey) and an M.S. from the University of Louisiana at Lafayette ("Raging Cajuns"). He initiated the first seven years of his career in Houston, Texas as an Explorationist with Conoco, Inc., in the search for deep Jurassic oil fields in Alabama, Mississippi and Florida. He subsequently "got his mind right" and switched to the environmental field and moved to Palm Beach County, Florida. Prior to joining the South Florida Water Management District (SFWMD) in 2000, he worked for eleven years as a groundwater consultant at Arcadis (Geraghty & Miller) and MWH (Montgomery Watson). While at the SFWMD, he has managed and been the principal investigator on numerous projects associated with the Comprehensive Everglades Restoration Program and other State-led initiatives associated with Aquifer Storage and Recovery.

Caroline Smith, Senior Hydrogeologist, Stantec, West Palm Beach, FL

Caroline has over seven years of working experience in design, permitting, and hydrogeologic field oversight during well construction of Class I and Class V Underground Injection Control (UIC), Municipal Supply, and environmental wells. Her experience includes the oversight of drilling; including power auger, mud rotary, reverse air, Geoprobe, and coring; geophysical log interpretation; hydrologic data collection; water quality profiling, nano-filtration and reverse osmosis raw water supply investigations, wellfield contamination investigations, collection and analysis of water quality data; rehabilitation of older wells, performing field geologic analysis; pump testing for Surficial and Floridan Aquifer projects in South Florida; and ensuring compliance with construction contracts and Florida Department of Environmental Protection permits. She has overseen the construction of approximately fifty Upper Floridan Aquifer wells and provided 24-hour onsite construction management and coordination. In addition, she has performed Phase I and Phase II environmental site assessments, contamination assessments, water quality sampling for numerous monthly monitoring sampling plans, and compliance reporting for water use permits. Caroline served as a short course instructor for the Southeastern Desalting Association in 2018 and 2019.

Mike Elfenbein, Conservation Chair, Cypress Chapter of the Izaak Walton League of America, Babcock Ranch, FL

Mike currently serves as Co-chair on the Charlotte County Soil and Water Conservation District dealing with legislative affairs and working with NRCS and the agriculture community to improve conservation efforts in Charlotte County. He was appointed under Governor Rick Scott to the South Florida Water Management Districts Water Resources Analysis Coalition. Among other responsibilities he currently serves on the board of the Future of Hunting in Florida and is a member of the Florida Fish and Wildlife Conservation Commission Deer Management Technical Advisory Group.

John Jansen, PhD, PG, PGp, Senior Geophysicist and Hydrogeologist, Collier Consulting, West Bend, WI

John has a B.S. in Geology and a M.S. and Ph.D. in Geological Sciences with an emphasis in hydrogeology and geophysics, all from the University of Wisconsin-Milwaukee. He is a Senior Geophysicist and Hydrogeologist for Collier Consulting. John works on a wide variety of ground water projects around the country specializing in high-capacity wells and groundwater resource management. He received the NGWA Keith A Anderson Award in 2012 for service to NGWA and the groundwater industry and was the NGWA McEllhiney Distinguished Lecturer in Water Well Technology in 2013. John was an invited lecturer on managed aquifer recharge and groundwater geophysics for the Geoscience University of China in Beijing in June of 2018.

Rand Edelstein Jr., PG, Hydrogeologist, City of Cape Coral Utilities Department, Cape Coral, FL

Rand has a B.S. in Geology and an M.S. in Hydrogeology with minors in Civil and Environmental Engineering, all from the University of Florida. He is a Hydrogeologist with the City of Cape Coral Utilities Department Administration Division. Rand has worked for 17 years for private sector groundwater professional services firms and 18 years for the public sector in groundwater resource management and development. He specializes in physical and chemical hydrogeologic assessment, groundwater flow and solute transport modeling and development and permitting of groundwater and surface water resources for sustainable water supply. Rand has developed, overseen and managed Aquifer Storage and Recovery systems utilized for potable water supply, reclaimed water systems utilized for irrigation water supply and Injection Wells systems utilized for disposal of reverse osmosis water treatment concentrate and treated wastewater. He has served as a Technical Reviewer and Expert Witness for the Florida Department of Business and Professional Regulation, Board of Professional Geologists and as a groundwater short course instructor for the University of Florida TREEO Center.

Glen Andersen, ScD, PE, Principal Engineer, Wood Environment & Infrastructure Solutions, Inc., Tampa, FL

Dr. Anderson is a Geotechnical Engineer with over 35 years of experience since his BSCE from Brigham Young University in 1985. He holds SM and ScD degrees in Geotechnical Engineering from the Massachusetts Institute of Technology and is an expert in soil behavior and soil/structure interaction modeling. He was a research civil engineer for the Chevron Oil Field Research Company and a professor of civil engineering at Tulane University, Texas A&M University, and Michigan State University before launching his consulting career. He has a broad range of consulting experience in geotechnical engineering including soft ground behavior, slope stability, karst engineering, and dam engineering.

Anamaria Sarmiento, PG, Supervising Hydrogeologist, Black & Veatch Corporation, Miami, FL

Anamaria has over 9 years of experience, including 1.5 years as an intern for Miami-Dade Water and Sewer Department and 8 years in the consulting industry. Her experience includes drilling/test pit exploration oversight, deep injection well and monitoring well installation, Biscayne Aquifer production wells installation, hydraulic testing, and multimedia sampling. She also has experience in construction coordination which involves providing oversight at project sites prior to, during, or after remedial construction-related activities to assess feasibility, monitor progress, and/or ensure conformance. Anamaria's experience includes permitting, design, construction and testing oversight of Class V exploratory wells and Class I injection wells and rehabilitation of deteriorated wells. Anamaria earned a Bachelor Degree in Geological and Earth Science/Geosciences from Florida International University, Miami.

Sam Miller, PE, Civil Engineer, Black & Veatch Corporation, Ocoee, FL

Sam Miller has been supporting various water resources projects across the state of Florida ranging from stormwater to water supply. Sam has led and supported various planning projects including water supply planning and capitol project prioritization for the public works and utilities space. Additionally, Sam has been involved with various design efforts including drainage design and wellfield construction. Recently Sam has led and supported the development of management tools for water supply management including dashboarding and application development utilizing open-source tools.

Aaryn Jones, Emerging Contaminants Coordinator, US Environmental Protection Agency, Region 4, Atlanta, GA

Aaryn Jones is the Emerging Contaminants Coordinator for EPA Region 4 in Atlanta, GA, where she serves as the regional point of contact for multimedia PFAS issues and leads a Regional PFAS workgroup. Aaryn has been with EPA Region 4 for over 14 years and most recently served as the Special Assistant to the Regional Administrator. Prior to that role, Aaryn was a physical scientist and enforcement officer in the Land, Chemicals and Redevelopment Division, where she worked directly with states, tribes, local governments, nonprofit organizations, and regulated entities on Underground Storage Tank enforcement and corrective action, Brownfields project management, and RCRA hazardous waste enforcement and corrective action. Aaryn holds a BS in Chemistry and MS in Analytical Chemistry from East Carolina University, and an MS in Environmental Chemistry from the Nicholas School of the Environment at Duke University. Her educational and research background has included novel green chemistry analytical method development, studying environmental fate, transport, and treatment of persistent halogenated contaminants in soil and groundwater, and fluoropolymer chemistry.

Joe Klimek, Northeast Sales Manager, Purolite Corporation, Bala Cynwyd, PA

Joe is a Chemical Engineer and has been employed at Purolite Corporation for over 7 years. He is responsible for sales and technical support in New York, New Jersey and New England Prior to joining Purolite, he was involved for nearly 20 years in technical sales of coagulants and flocculants for potable and industrial water treatment and worked for GEO Specialty Chemicals, Inc. as a Corporate Accounts Manager. He spent seven years as a process and project manager in chemical manufacturing before transitioning to sales. Joe received his Bachelor's Degree in Chemical Engineering from the University of Delaware.

Larry Gottlieb, President & Chief Technical Officer, ResinTech, Camden, NJ

Larry joined ResinTech in 1989. In early 2000, Larry launched the Aries FilterWorks division of ResinTech, a business unit that makes filter cartridges and high-purity lab water systems. Later, he would take over sales and operations for the ResinTech's flagship division — media formulation. Larry was the driving force behind ResinTech's investment in the laboratory and R&D resources necessary to identify and remediate PFAS contaminants. Today, ResinTech is a leading provider of ion exchange solutions for PFAS remediation. ResinTech's Lab Services division employs over 20 technologists in a state-of-the-art laboratory that can identify over two dozen distinct species of per and polyfluoroalkyl substances at the part per *trillion* level. Larry holds a degree in mechanical engineering from the University of Pittsburgh and is a board member of the Water Quality Association (WQA) and ASTM International Committee on Water and Environmental Technology.

Robert Maliva, PhD, PG, Principal Hydrogeologist, WSP Parsons Brinckerhoff, Fort Myers, FL

Dr. Maliva has been a consulting hydrogeologist since 1992 and is currently a Principal Hydrogeologist with WSP Parsons Brinckerhoff. He has a Ph.D. from Harvard University and has held research positions in the Department of Earth Sciences at the University of Cambridge, England and the Rosenstiel School of Marine and Atmospheric Science of the University of Miami, Florida. Dr. Maliva specializes in alternative water supply projects including managed aquifer recharge and desalination. He is registered Professional geologist in Florida and Texas. Dr. Maliva has managed or taken the technical lead on numerous water resources and hydrologic investigations including contamination assessments, environmental site assessments, water supply investigations, wellfield designs, and aquifer storage and recovery (ASR) projects. He has designed raw water supply wellfields for brackish water desalination systems, alternative intakes for seawater desalination systems and injection well systems for concentrate disposal. He is the senior author of five books, "*Aquifer Storage and Recovery and Managed Aquifer Recharge Using Wells: Planning, Hydrogeology, Design, and Operation"* (2010), *"Arid Lands Water Evaluation and Management"* (2012) "*Aquifer Characterization Techniques*" (2016), *Anthropogenic Aquifer Recharge* (2021), and *Climate Change and Groundwater; Planning and Adaptations for a Changing and Uncertain Future* (2021).

Amanda Berens, PE, PG, Senior Engineering Technologist, Jacobs, St Petersburg, FL

Amanda is a hydrogeologist and water resources engineer with more than 23 years of experience, with the last 15 years focused in Florida. Her area of expertise is groundwater and integrated groundwater-surface water modeling from conceptual model development thorough numerical model development, including field investigation design and hydrogeologic and hydrologic data evaluation.
Amanda has a BS in Geological Engineering from Missouri University of Science & Technology and a MS in Civil Engineering from UC Irvine.

Mark Elsner, PE, Water Supply Bureau Chief, South Florida Water Management District, West Palm Beach, FL

Mark Elsner is the Bureau Chief of the South Florida Water Management District's Water Supply Bureau. His responsibilities include development and implementation of regional water supply plans, facilitation and coordination of development of conservation and alternative water supply development including water reuse, local government planning, the District's cooperative funding program, and resource evaluation including groundwater modeling and groundwater monitoring and technical analysis. He has been with District for 32 years and involved in water resource management in south Florida for 36 years. He is a registered Professional Engineer in the State of Florida.

Jason B. Meadows, Hydrologist, U.S. EPA Region 4, Water Division, Safe Drinking Water Branch, Atlanta, GA

Jason has been employed as a Hydrologist with the US EPA in the Georgia office for 7 years. His job responsibilities include regulation of Class II UIC Wells in FL, Class I, III and V UIC Wells in Kentucky, as well as Aquifer Exemptions for Region 4. Prior to working for the US EPA, he was a GIS Technician for SynTerra Corp and Geologist II for Brown and Caldwell. Jason earned his Master of Science Degree in Hydrogeology from Clemson University, studied Fluvial Geomorphology (Geography) at the University of Georgia, received his Bachelor of Science Degree in Geology/Earth Science from Clemson University, and attended South Carolina Governor's School for Science & Mathematics.

R. David G. Pyne, PE, President, ASR Systems LLC, Gainesville, FL

David Pyne is a professional engineer who has pioneered development of the ASR technology for storage of water through wells in fresh, brackish, or seawater aquifers to meet seasonal, long-term, or emergency demands and to achieve sustainable water supplies through underground storage in confined and unconfined aquifers. He has directed or provided technical consultant assistance during development of about half of the 140 operating ASR wellfields in the United States. He is a civil engineer with extensive national and international experience, and is the author of the first book published on ASR

John T. Lisle, PhD, Microbial Ecologist, US Geological Survey, St. Petersburg, FL

Dr. Lisle's research is focused on characterizing how microbes influence the geochemistry and carbon and nutrient cycling in surface water, ground water and coastal marine water and associated sediment systems thru the application of phylogenetics, microbial energetics and stable isotopes and radiolabeled substrates. He earned his Ph.D. at the University of South Florida in the College of Public Health. Following his post-doctoral fellowship at Montana State University, he was employed by NASA's Astrobiology Institute at Johnson Space Center in Houston, TX where his research focused on the microbial ecology in extreme environments, including Antarctica. Since 2002, Dr. Lisle has worked for the USGS where he has applied his experience to projects related biogeochemistry of surface and groundwater systems, ocean acidification and climate change.

Sammy Smith, Hydrogeologist, Southwest Florida Water Management District, Brooksville, FL

Sammy Smith is a Hydrogeologist II in the Water Resources Bureau, Water Supply Section at the Southwest Florida Water Management District. She is the current UIC Program Lead and Project Manager of the Aquifer Recharge Project at Flatford Swamp. Additionally, she manages a number of complex aquifer recharge (AR) and aquifer storage and recovery (ASR) projects that are cooperatively funded by the District (i.e., SHARP in Hillsborough County, North Port ASR, Chesnut Park AR/ASR in Pinellas County, etc.). Sammy has a Bachelor of Science degree in Geology, a Master of Science degree in Geology (specializing in geophysics and volcanology) and is nearing the completion of her Ph.D. in geology (specializing in geochemistry and hydrogeology) - all from the University of South Florida.

Robert Nateway, PE, Bureau Chief, District Projects and Construction, St Johns River Water Management District, Palatka, FL

Bob is a Professional Engineer with over of 25 years of experience with Florida's water resource projects. He has been with the St. Johns River Water Management District for over 15 years and has worked on many restoration projects, including the engineering aspects of Lake Apopka restoration and the Lake Apopka North Shore. He is now leading the District's engineering design and construction Bureau handling new District projects and is the project manager of the Black Creek Water Resource Development project.

Christina Garcia, Hydrogeologist, Miami-Dade Water and Sewer Department, Miami, FL

Christina is a Geologist with a diverse background in hydrogeological consulting services. Her time as a consultant have made her a diversified professional developed around permitting and construction and testing of large multi-well Underground Injection Control (UIC) Class I Injection Wells systems. In her recent year with the Miami-Dade Water and Sewer Hydrogeology Section, Christina has been focused on assisting with the planning, direction and coordination of Miami-Dade Water and Wastewater projects, conducting soil and groundwater sampling, analysis of hydrogeologic water quality data, and technical compliance and reporting to federal, state, and local regulations pertaining to all things water and wastewater. She has a BS in Geology from the University of Miami.

Felipe Franco, Hydrogeologist, Black & Veatch, Miami, FL

Mr. Franco has a BS in Geoscience and has over 4 years of experience which includes oversight of construction and testing of large diameter deep injection wells and dual zone monitoring wells, hydraulic testing, and diverse sampling methods at public works facilities. He has been involved in various hydrologic, geologic, environmental investigations, and feasibility studies. This experience includes, design, permitting, construction and testing of Public Water Supply Wells/Wellfields (Surficial and Floridan Aquifer System) Class I injection wells, Class V Aquifer Storage and Recovery wells, Aquifer Recharge wells, industrial supply wells, irrigation wells, monitor wells, and rehabilitation of deteriorated wells, as well as abandonment of deteriorated wells. Mr. Franco has lead teams during Class I and Class V injection well facility construction projects. Mr. Franco has been involved in regional and departmental studies to determine feasibilities for the potential placement of ASR wells, Class I injection wells, and Carbon capture, utilization and storage wells (Class VI injection wells). He is trained in the use of programs like Geographic Information Systems (GIS), AQTESOLV and is actively involved in groundwater modeling training for Groundwater Vistas and Groundwater Modeling Systems (GMS).

Justin G. Roessler, PhD, PE, Solid Waste Director, Waste & Resource Recovery Dept., Pasco County, Spring Hill, FL

Justin graduated cum laude from the University of Florida with his Bachelor of Science in Environmental Engineering in 2012. While an undergraduate, Justin worked internationally in the Caribbean designing and operating desalinization systems. Following graduation, he began his PhD at the University of Florida in the Solid and Hazardous Waste Management research group under the direction of Dr. Timothy Townsend. Justin has worked on a number of projects related to the beneficial use of waste materials with members of the industry, local municipalities, and state regulatory agencies.

Mike Weatherby, PG, President, HydroGeo Consulting LLC, Tampa, FL

Michael has over 30 years of technical and management experience in FL. He has a MS in hydrogeology from Ohio University. He has conducted and managed high-profile projects involving design, permitting and construction of projects involving water supply, wellfields, ASR wellfields, reclaimed water aquifer recharge, deep well disposal, groundwater and surface water resource evaluations, groundwater modeling (flow and solute transport density dependent), recovery strategy evaluations, both domestically and internationally. His current projects include the Tampa Bay area deep injection wells to 3,000 feet bls, expanding the first reclaimed water aquifer recharge project pilot in the state, and evaluating geologic carbon sequestration in Florida. Michael established HydroGeo Consulting LLC in 2015 to provide clients with more cost effective and responsive technical services.

Patrick Tara, PE, Principal Engineer, INTERA Inc., Tampa, FL

Patrick Tara's professional experience has focused on water hydrology, groundwater, hydraulics, and integrated surface water/groundwater (SW/GW) hydrologic systems. His experience includes hydrologic data collection and analysis, and the development and application of SW/GW, hydrologic, hydraulic, transport, water quality, and salinity numerical models. Patrick has applied various models to watersheds, estuaries, rivers, lakes, reservoirs, and tidal inlets to support establishing minimum flows and levels (MFLs) needed to protect ecological resources, manage water supplies and natural systems, evaluate and implement restoration alternatives and actions, and estimate water quality impacts and sediment transport. He is proficient in using a wide variety of hydrologic and hydraulic modeling software and codes including MODFLOW, HSPF, PRMS, HEC-RAS, IHM, MIKE SHE, HydQual, and PEST. He has an MS in Civil Engineering from the University of S. Florida

Stephen Fisher, PG, Technical Director/Hydrogeologist, Subsurface Technologies, Palm Beach, FL

Stephen Fisher is a professional hydrogeologist with over 34 years of experience with water supply, environmental and well rehabilitation projects. He spent nearly 31 years as a hydrogeological consultant based in Pennsylvania, followed by a brief period as Senior Hydrogeologist with the Palm Beach County Water Utilities Department before joining Subsurface Technologies, Inc. (STI). He has experience with a wide variety of groundwater projects in various hydrogeological settings throughout the eastern U.S. His primary areas of expertise are water supply development, aquifer analysis, watershed recharge analysis, groundwater contamination projects, well and wellfield design and well rehabilitation. He attended Millersville University of Pennsylvania and a licensed Professional Geologist in Florida and seven other states. He is responsible for well rehabilitation project management and technical support for STI well services projects throughout the United States and internationally and business development in Florida.

Andrew McThenia, PG, Senior Hydrogeologist, Water Science Associates, Fort Myers, FL

Andrew has over 25 years of professional experience in geology, hydrogeology, well construction, and water/environmental resource permitting. Mr. McThenia has a broad range of experience as a hydrogeologist with a focus on the design, testing, and construction of wells for public water supply, disposal, geothermal, storage, and irrigation. He has worked closely with regulatory agencies including the Florida Department of Environmental Protection Underground Injection Control Program and the South Florida Water Management District to develop practical and environmentally defensible solutions to the challenges presented by complex hydrogeological situations .Mr. McThenia's technical expertise includes application of various investigative techniques including borehole geophysical logging, hydraulic isolation packer testing, water level data analysis, and aquifer performance analysis.

W. Kirk Martin, PG, Principal Scientist, President, Water Science Associates, Fort Myers, FL

Kirk Martin has over 35 years' experience as a practicing hydrogeologist specializing in water supply planning and development, water resource characterization, and the application of a wide range of analytical methods in developing innovative solutions to complex water resource challenges. Mr. Martin's experience includes development of large capacity water supply and aquifer recharge projects for state and municipal governments, agricultural enterprises, and industrial applications. He commonly serves in a technical advisory capacity to state, regional, and local governing councils and legislative bodies on water resource issues. Mr. Martin has held past positions of Vice President and Water Resource Practice Leader with CDM and Missimer International. He currently serves as the lead water resource practitioner and president of Water Science Associates.

Fred Rothauge, CWD, Technical Advisor, Hydro Resources, Simms, TX

Fred Rothauge has been in the Drilling and Drilling Fluids Engineering Business for 40 years. He iii a licensed well contractor in seven states. He oversees Drilling Fluids and Manages Well Rehabilitation for Hydro Resources. Fred currently serves on the Board of Directors for the NGWA "National Ground Water Association", the "American Ground Water Trust" where he serves as Chairman, the "Mountain States Ground Association" and The Colorado Water Well Contractors Association where he served and President for 2019. Fred has Co-Authored papers on drilling fluids and is a Co Author of Chapter 8 – Drilling Fluids of the 3rd edition of Johnson Screens "Groundwater and Wells." Fred has been selected as the National Ground Water Association's 2023 McEllhiney Distinguished Lecturer. The lecture topic that he will deliver throughout the US in 2023 is "Are We Creating Long-Term Groundwater Assets or Just Installing Wells?"

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