

Florida Groundwater Webinar – October 7 & 8, 2020

Professional background of presenters

Andrew Stone, Executive Director, American Ground Water Trust, Concord, NH



Andrew Stone has a BSc Honors (Birkbeck College, London) and an MSc in hydrogeology from University College London. Between 1974 and 1989 he was a lecturer and groundwater researcher 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 in the MS Degree program at Antioch New England University and as groundwater educator, advocate and outreach specialist for the non-profit AGWT. He is a recipient of the National Ground Water Association "Oliver Award" in for his work in promoting groundwater education. In his time with the American Ground Water Trust he has convened and organized over 250 conferences, workshops and training programs on groundwater issues throughout the US.

Jennifer Reynolds, Director of Ecosystem Restoration and Capital Projects, South Florida Water Management District, West Palm Beach, FL



Jennifer Reynolds is the Director of Ecosystem Restoration and Capital Projects for the South Florida Water Management District. She retired from the U.S. Army in January and most recently served as the Deputy Commander for South Florida with the Jacksonville District of the U.S. Army Corps of Engineers. In addition to her time working on Everglades restoration with the U.S. Army Corps, she has experience managing emergency operations and supporting efforts in more than 90 countries worldwide. She has worked on unique international capital projects including the Mosul Dam, health clinics, schools, and wastewater treatment plants in Iraq; Kajaki Dam and the national electricity system in Afghanistan; building maintenance facilities and road repair in Bosnia; base camp design and construction in Kosovo; and construction of training facilities in Germany. Her undergraduate degree is in Natural Resource Management from Western Illinois University. She also holds graduate degrees from the Army's School of Advanced Military Studies in Strategic Planning and Webster University in Procurement and Acquisitions.

Robert Verrastro, PG, Lead Hydrologist, South Florida Water Management District, West Palm Beach, FL



Mr. Verrastro (Florida P.G. #1120) 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"). Mr. Verrastro 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

Joe Haberfeld, PG, Senior Program Analyst, Aquifer Protection Program, Florida Department of Environmental Protection, Tallahassee, FL



Mr. Haberfeld is a Hydrogeologist and Professional Geologist at the Florida Department of Environmental Protection (DEP) in Tallahassee, Florida. He is a Program Analyst and the prior Environmental Administrator for the State of Florida's Aquifer Protection Program, which is responsible for implementation of the Underground Injection Control regulations. He has worked all aspects of utilizing deep injection wells for wastewater disposal and aquifer storage and recovery in Florida, including hydrogeologic evaluation, well construction methods, ground water monitoring, permitting, and compliance. Particular interests include the hydrostratigraphy of the Floridan aquifer and the use of geophysical logs in injection well evaluation. Prior to joining DEP, he worked for 9 years as a petroleum geologist for Gulf Oil and Chevron in the Gulf Coast and Permian Basin in the areas of development, exploration and enhanced oil recovery. He was educated at the State University of New York at Fredonia (B.S. Geology, 1975) and Southern Illinois University (M.S. Geology, 1977).

William Logan IV, PhD., Director, International Center for Integrated Water Resources Management, USACE Institute for Water Resources, Washington D.C.



Will Logan directs the International Center for Integrated Water Resources Management (ICIWaRM), a UNESCO-affiliated center hosted by USACE's Institute for Water Resources, where he worked since 2008. In addition to center-related duties, he has authored *Managed Aquifer Recharge and the U.S. Army Corps of Engineers*, and helped coordinate the reviews of the USACE-SFWMD pilot and regional studies on ASR for Everglades restoration. Will was also Science Attaché for the U.S. Mission to UNESCO, handling issues related to fresh water, oceans, climate change, and the basic sciences. Prior to that, he was Staff Officer/Senior Staff Officer at the Water Science and Technology Board of the U.S. National Academies. There, he directed three studies related to MAR, in addition to studies on ecosystem restoration, river science, space-based and in-situ sensor technology, fluvial geomorphology and biofuels. Formerly, he taught at The George Washington University and was Assistant to the President for the Association of Geoscientists for International Development (AGID). Will has an M.A. from the University of Texas and a Ph.D. from the University of Waterloo, in hydrogeology. He serves on the Board of Directors of Aqua-LAC—UNESCO's water journal for Latin America and the Caribbean—and on the Governing Boards of UNESCO centers in Chile and Germany and the Alliance for Global Water Adaptation.

Manuel Arias, GIT, Staff Geologist, HBC Engineering Co., Doral, FL



Manuel Arias is employed at HBC Engineering Co., as a staff geologist. He has over 4 years of experience in Injection Well Drilling projects and a Geologist in Training (GIT) working towards his Professional Geologist (PG) License. He has experience in Class V Exploratory, Class I Injection and Monitor Well permitting, design, specifications, and construction and testing oversight. Manuel's design, permitting and hydrogeologic oversight experience includes the WASD's Class V Exploratory Well that was drilled to 10,000 feet below land surface (bls) that was converted to a Class I Injection Well to dispose of a combined wastestream of centrate fluid, scrubber fluid, effluent and leachate from CDWWTP. In addition, he has worked on various project along with the Miami-Dade Water and Sewer Department (WASD) and the Regulation and Economic Resources, Division of Environmental Resource Management (RER/DERM) on projects related to the influence of septic tanks on the water quality of Miami-Dade's Canals and Biscayne Bay. He is currently working on the construction and testing of 3 Injection Wells at the South District Wastewater Treatment Plant (SDWWTP) and will be part of the team to construct and test 7 Injection Wells and Monitor wells at the Central District Wastewater Treatment Plant (CDWWTP). Manuel received a BA in Geoscience from Florida International University (FIU).

Anamaria Sarmiento, PG, Senior Hydrogeologist, Black & Veatch Corp., Miami, FL



Anamaria is a Senior Hydrogeologist at Black & Veatch. She has over 7 years of experience, including 1.5 years as an intern for Miami-Dade Water and Sewer Department (MDWASD) and 6 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. Her design, permitting and specialized hydrogeologic oversight experience includes the MDWASD's Class I Industrial Injection Well that was drilled to 10,000 feet below land surface (bls) and was completed in the boulder zone to dispose of a combined wastestream of centrate fluid, scrubber fluid, effluent and leachate from CDWWTP. This oversight incorporated borehole geophysical log analyses, formation lithology interpretation, data support hydrogeologic modeling, and water level/water quality studies. Anamaria earned a Bachelor Degree in Geological and Earth Science/Geosciences from Florida International University, Miami.

Donald Ellison, PG, Senior Professional Geologist, SWFWMD, Brooksville, FL



Mr. Ellison has managed ASR projects and research efforts for the Southwest Florida Water Management District (District) since 1993. Acting as liaison between the District and over 14 water suppliers/utilities he helped develop and establish District funding for over 50 ASR wells throughout the District. He is currently active in the development of ASR and recharge projects using direct surface water to assess the feasibility of cost-effective projects to provide public supply, manage saltwater intrusion and mitigate drawdown impacts to surface water bodies. Over the last 24 years, his ASR management role at the District has giving him the privilege to work, learn and participate in problem solving with many of the industries foremost experts Don continues to work closely with Florida Department of Environmental Protection's Underground Injection Control work group to ensure beneficial projects for the public are developed. Prior to the District he worked in the Northeast on Superfund site assessment and remediation projects. Mr. Ellison received his B.S. in Geology from the University of Cincinnati and his M.A. in Geology from Boston University.

Nicole Fried, Commissioner, Florida Department of Agriculture and Community Services, Tallahassee, FL



Nicole "Nikki" Fried, is Florida's 12th Commissioner of Agriculture and Consumer Services. She is a lifelong Floridian, attorney and passionate activist. Commissioner Fried graduated from the University of Florida, where she received her bachelor's, master's and juris doctor degrees. Prior to being elected, Fried worked at law firms as a government consultant, advocating on behalf of clients before the Florida Legislature. In 2017, she formed her own firm to advocate in Tallahassee. Throughout her career, she has served with numerous organizations including the Young Lawyers Board of Governors, Chair of the Broward Days Board of Directors, Legal Needs of Children Bar Committee, LeRoy Collins Institute, Girl Scouts of Southeast Florida, University of Florida Governmental Relations Advisory Committee, University of Florida Board of Trustees, Florida's Children First, and others. She is a member of Florida Blue Key, the oldest and most prestigious leadership honorary in the state of Florida.

John T. Lisle, PhD, Microbial Ecologist, US Geological Survey, St. Petersburg, FL – FL 2017 or 18



Dr. Lisle 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, Dr. Lisle 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 been employed by the USGS Center for Coastal and Watershed Research in St. Petersburg, FL, where he's applied his experience to projects related biogeochemistry of surface and groundwater systems, ocean acidification and climate change. His expertise is in the use of non-culture based and molecular techniques and biogeochemistry to assess the survival and persistence of microorganisms in aquatic and sediment systems and the influence microorganisms have on the geochemistry within these systems.

Mark McNeal, PG, CEO, ASRus, LLC, Tampa, FL



Mark McNeal holds a B.S. degree in Engineering Geology from Brigham Young University. In 2006, he founded ASRus, where he has served as Chief Executive Officer for the past ten years. Before founding ASRus, he worked for CH2M HILL for 21 years and served as Groundwater Practice Leader and Reuse Practice Leader for the Southeast Region. His project experience includes project management and senior review of aquifer storage recovery (ASR), reclaimed water, water supply planning, and deep injection well projects. He has played an active role in the development of Florida's rules related to water reuse (including the ASR provisions), underground injection control, wellhead protection, and concentrate disposal. Mr. McNeal has been actively involved in numerous ASR projects, including storage of fully treated, partially treated, and untreated surface water, as well as reclaimed water. He assisted with design and permitting services for an injection well in Polk County, Florida to pilot test carbon capture and sequestration in a Class V Experimental Injection Well completed to 8,000 feet in depth, and oversaw construction of a 2,944-foot ASR well in northwest Polk County, believed to be the deepest ASR well worldwide.

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



Michael has over 24 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, well-fields, ASR well-fields, 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, (Palestine, Bolivia, Panama, and the Dominican Republic). His current projects include the deepest injection wells in the state of Florida at 8,000 feet deep and the first reclaimed water aquifer recharge project pilot and expansion project in the state. Michael established HydroGeo Consulting LLC in 2015 to provide clients with more cost effective and responsive technical services.

Jason Sheasley, PG, Senior Hydrogeologist, Kimley-Horn, Jacksonville, FL



Jason Sheasley is an Associate and Senior Hydrogeologist with Kimley-Horn and Associates, Inc. in Jacksonville, Florida. He has over 27 years of experience in water supply, underground injection control and managed aquifer recharge. In addition to specializing in the design, construction, permitting and rehabilitation of water wells, Jason has extensive experience in ground water modeling using MODFLOW and other modeling software programs. Jason is currently the Professional Geologist of Record for Clay County Utility Authority's (CCUA) Alternative Water Supply Hydrogeological Services contract. He is currently overseeing CCUA's project to evaluate the lower Floridan aquifer in Clay County for alternative water supply. Jason earned a B.S. in Earth and Environmental Science. Mr. Sheasley is a Professional Geologist licensed in Florida, North Carolina and Pennsylvania.

David Pyne, PE, President, ASR Systems, 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 100 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.

June Mirecki, Ph.D., PG, Senior Hydrogeologist, US Army Corps of Engineers, Jacksonville, FL



June Mirecki, is a senior hydrogeologist with the US Army Corps of Engineers-Jacksonville District. She is a registered Professional Geologist in Florida, and earned a Ph.D. in geology/geochemistry from the University of Delaware. She serves as the USACE technical lead for the ASR pilot projects and the ASR Regional Study, two Comprehensive Everglades Restoration projects to increase water storage in south Florida. She is an associate editor for two international scientific journals, and works on geochemical modeling and groundwater quality projects as a consultant (Mirecki Geoscience, LLC).

Lauren Zuravnsky, PE, Chief of Design & Construction, Sustainable Water Initiative for Tomorrow (SWIFT), Hampton Roads Sanitation District, Virginia Beach, VA



Ms. Zuravnsky is the Chef of Design and Construction for SWIFT. Lauren is a licensed Professional Engineer in the Commonwealth of Virginia and started with HRSD in January 2016 as an Engineering Project Manager, working for North Shore and South Shore Design and Construction divisions. Recently, Lauren was the Project Manager for the SWIFT Research Center project. She was previously employed as a consulting engineer for a national firm in Richmond. Lauren holds degrees from Villanova and Virginia Tech. She is active in VWEA and WEF and was honored as the recipient of the 2016 WEF Outstanding Young Water Professional Award.

Gretchen R. Miller, Ph.D., P.E., Associate Professor, Zachry Department of Civil & Environmental Engineering -Texas A&M University, College Station, TX



Gretchen Miller, Ph.D., P.E., is an associate professor of water resources engineering in the Zachry Department of Civil Engineering at Texas A&M University, where she teaches fluid dynamics and groundwater engineering. Her bachelor's and master's degrees in Geological Engineering are from the Missouri University of Science and Technology, and her doctorate in Environmental Engineering is from the University of California at Berkeley. She is registered as a professional engineer in the state of Texas. Dr. Miller specializes in groundwater sustainability, focusing on the interactions between groundwater, soil moisture, and vegetation and their implications for managing water resources. Her current work aims to improve methods of artificial groundwater recharge, modeling techniques such as multi-well aquifer storage and recovery systems in order to enhance their recovery and energy efficiency. Her projects also address the management of groundwater dependent ecosystems and their response to changes in groundwater availability. Her research is primarily funded is through a National Science Foundation CAREER Award from the Environmental Sustainability Program and a grant from the U.S. Department of Energy Earth System Modeling Program. In 2015, she was named a Montague Scholar by the Texas A&M Center for Teaching Excellence, and in 2016, she received the Texas A&M Dean of Engineering Excellence Award. She is an associate editor for Hydrological Processes. For more information: tx.ag/geoecohydro.