# NEW MEXICO GROUNDWATER CONFERENCE

**July 27-28, 2022 – at the State Bar of NM, 5121 Masthead NE, Albuquerque, NM 87199**

## Presenter Professional Background (Listed in presentation order)

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

Andrew Stone is a hydrogeology graduate from University College, London. He has experience in Africa and America as a university professor, groundwater consultant, & educator. Since 1989 he has worked in the United States as a private-sector consultant, as adjunct professor (teaching groundwater protection policy at Antioch New England University) and as groundwater educator, advocate and outreach specialist for the non-profit American Ground Water Trust. His work with the AGWT has involved convening over 350 "information-exchange" conferences and workshops related to well design, groundwater management, aquifer storage recovery, water rights, conjunctive use, geothermal technology, water banking, and asset management. He has organized over 70 "Groundwater Institutes" that have trained 2,000 science teachers and educators on water resources issues and the basics of hydrology. He is a recipient of the National Ground Water Association "Oliver Award" in for his work in promoting groundwater education

**Erwin Melis, PhD, PG, Senior Hydrogeologist, John Shomaker & Associates, Inc., Albuquerque, NM**

Dr. Melis has more than 10 years of experience as a field geologist and has a broad range of experience which includes, geologic mapping, well construction oversight, groundwater modeling and systematic geologic interpretation. His professional work includes characterization of geologic and hydrogeologic data for areas in the Rocky Mountains, the Colorado Plateau, the Cordilleran, and the central United States. He has developed groundwater flow models to evaluate groundwater supply, support environmental permitting, groundwater drawdown, and inflow calculations. In addition to providing expert witness testimony, he routinely provides technical support for permit applications for a broad range of groundwater projects. Dr Melis is a Professional Geologist (California) and has a PhD from the University of Maine, Orono and a MS from the NM Institute of Mining.

**Geoffrey Rawling, PhD, Senior Field Geologist, NM Bureau of Geology & Mineral Resources, Albuquerque, NM**

Dr. Rawling works in the NMBGMR Aquifer Mapping and Geologic Mapping Programs. His responsibilities include collection of physical and chemical hydrologic data, geologic mapping, and subsequent data analysis and interpretation. He has mapped all or part of more than twenty 7.5' quadrangles across NM and created several regional geologic maps, performing all compilation of new and legacy geologic mapping, subsurface geologic interpretation, and digital cartography. In addition to preparing technical reports and peer-reviewed scientific papers, he frequently presents the results of NMBGMR research programs to diverse audiences including scientists, conservation districts, state and local government officials, and groups of concerned citizens. Dr Rawling has a P*h.D. in Geology* from New Mexico Institute of Mining and Technology and an MS in Geosciences from the State University of New York at Stony Brook.

**Christopher Wolf, PG, Hydrogeologist/Geochemist, Daniel B Stephens & Associates, Inc., Albuquerque, NM**

Christopher Wolf, PG, Hydrogeologist/Geochemist, Daniel B. Stephens & Associates, Inc., Albuquerque, NM
Mr. Wolf specializes in applying geochemistry and hydrogeology to water resources and environmental projects and designs, installs, and tests water supply wells for tribes, municipalities, and water districts. For managed aquifer recharge (MAR) projects, Mr. Wolf evaluates geology and geochemistry to determine how local hydrogeology will influence water movement and water quality. By applying geochemical methods, he determines water chemistry and compatibility of the recharge source water with groundwater and aquifer sediments, and predicts water quality during MAR operations. Mr. Wolf has a MS in Geochemistry a BS in Geology from the New Mexico Institute of Mining and Technology.

**Amy Ewing, PG, Hydrogeologist, Daniel B. Stephens & Associates, Inc., Albuquerque, NM**

Ms. Ewing is a hydrogeologist specializing in water supply, conservation, and drought planning; hydrogeology; managed aquifer recharge; surface and groundwater quality studies; water rights; and permitting. She has extensive experience with recharge projects in New Mexico, including preparing the recharge project planning documents and permit applications, agency coordination with the New Mexico Office of the State Engineer (OSE) and New Mexico Environment Department (NMED), monitoring network design, construction oversight, water quality sampling, and reporting. Ms. Ewing has a master's degree in Water Resources (with distinction) from UNM and a BS in Earth Sciences from University of California, Santa Cruz.

**Kevin McGillicuddy, PG, Chief Hydrogeologist, Roscoe Moss Company, Los Angeles, CA**

Kevin McGillicuddy joined Roscoe Moss Company in 1996 and serves as a technical liaison to municipal water agencies, groundwater consultants, and water well contractors in the U.S. and several foreign countries. Kevin was a founding member and Chair of the CA/NV AWWA Water Well Technology Committee, member of the AWWA A100 Well Standards Committee and is a current member of the CA DWR Well Standards Update Committee. Prior to joining Roscoe Moss Company, he worked as Director of Recharge Operations and as a Senior Hydrogeologist for the Orange County Water District in Fountain Valley, CA. He holds a Bachelor of Science Degree in Geology from Boston College and Master of Science Degree in Geology from the University of Southern California. He is a Registered Geologist in the State of California. He is also the recipient of the 2022 National Groundwater Association's McEllhiney Distinguished Lecturer Award.

**Meghan Bell, Hydrologist, USGS New Mexico Water Science, Albuquerque, NM**

Meghan has worked in the private sector, and state and federal agencies. Since 2016 she has been a hydrologist with the US Geological Survey. Prior to that she was an environmental scientist at the New Mexico Environment Department, and a geologist with Haley & Aldridge in New Jersey. In 2010 and 2011 she worked in Nevada as a Renewable Energy Hydrologist, Power Services, for Bureau of Land Management. She has a BS from the University of Oklahoma and while working as an independent contractor for the US Environmental Protection Agency, completed an MS in Geoscience at the University of Nevada, Las Vegas in 2019.

**Senator Elizabeth Stefanics, PhD, District 39, Chair, Water & Natural Resources Committee, New Mexico State Legislature, Santa Fe,** NM

Dr. Stefanics was a New Mexico state senator from 1993-1996 and re-entered state politics in 2017 when she was elected as Senator for District 39. She currently serves as Chair of the Senate Conservation Committee and is Vice-Chair of the Interim Water and natural resources Committee. She earned a B.S. from Eastern Kentucky University, a M.S. from the University of Wisconsin, Madison, and a Ph.D. from the University of Minnesota. Her professional experience includes working as a professional mediator for the Mediation Academy International, as an assistant professor at UNM and Ohio State University from 1976 to 1985, as an executive director at NM AIDS Services from 1987 to 1989, as an executive director at Open Hands from 1989 to 1993 and again from 1994 to 2001, and as a Robert Wood Johnson Fellow for the Center for Health Policy UNM. She also worked for the American Cancer Society from 2001 to 2003, for the NM Human Services Department from 2003 to 2005, for the State of NM Risk Management from 2006 to 2007, and for the NM Health Policy Commission from 2007 to 2009. She also served as Santa Fe County Commissioner from 2009 to 2016

**AnnieLu DeWitt, Water Filtration & PFAS Product Line Director for North America, Clean Harbors, Boston, MA**

AnnieLu is the National Technical and Sales Lead for the Emerging Contaminant and Water Treatment Program for the Clean Harbors Environmental Services group. She has 25 years of experience in the environmental laboratory and remediation fields and assists clients in interpreting analytical results to evaluate options for treatment utilizing varied medias and pre-treatment equipment to achieve project objectives. Having worked as a gas chromatography–mass spectrometry and a Liquid chromatography–mass spectrometry chemist for PFAS compounds, she believes in the importance of evaluating the project as a whole, from suggesting the most valuable testing methods at the beginning of the project that help determine the best treatment trains and medias for complex waste streams to informing clients on their options for final deposition of their spent media. AnnieLu holds a BS in Chemistry-Geology from Bridgewater State University.

**Anthony McGlown, New Mexico Environment Department, Superfund Oversight Section, Santa Fe, NM** (invited)

Anthony McGlown is the Remedial Action Team Leader for the Superfund Oversight Section of the New Mexico Environment Department (NMED). In this role, he supports NMED's project managers with the investigation and remediation of Superfund sites across New Mexico. His prior environmental work experience includes serving as a project manager in the NMED's Superfund Oversight Section and in the Voluntary Cleanup and RCRA Corrective Action Programs at the Texas Commission on Environmental Quality. He completed his MS in Geological Sciences at the University of Texas at Austin and his BS in Geology at the University of Alabama.

**Rose Galbraith, MPH, Epidemiology and Response Division, New Mexico Department of Health, Santa Fe, NM**

Rose Galbraith, is the New Mexico Department of Health (NMDOH) Drinking Water Epidemiologist and Program Manager (PM) for the Environmental Health Capacity Program. Ms. Galbraith coordinates program activities including: stakeholder education and outreach; unregulated drinking water quality surveillance, drinking water data analysis and dissemination; linking stakeholders and resources; building environmental health and water quality partnerships; and grant management activities. Ms. Galbraith has been with the NMDOH for 8 years and worked in environmental health (EH) epidemiology for 6. Ms. Galbraith has 18 years professional experience including biological science, environmental science, EH epidemiology, GIS-based public health data analysis, and EH program coordination and earned her Master of Public Health from the University of New Mexico and Bachelor of Science degrees in Microbiology and Environmental Science from Oregon State University.

**Johnnye Lewis, PhD, Director, Community Environmental Health Program, Department of Pharmaceutical Sciences, College of Pharmacy, UNM, Albuquerque, NM**

Dr Lewis is the Director and Founder of the Community Environmental Health Program in the College of Pharmacy at UNM-HSC. She is also Co-Director of the Center for Native American Environmental Health Equity Research, the Principal Investigator of the Navajo Birth Cohort Study/Environmental influences on Child Health Outcomes and the UNM METALS Superfund. In addition to more than 20 years of work with various Native American Pueblo, Crow, and the Cheyenne River Sioux tribes, Dr. Lewis has worked on Navajo uranium exposure and health issues for more than 25 years and facilitated and developed tribal risk assessments in USEPA Regions 6, 8, and 9. Dr Lewis was awarded the Griff Salisbury Award by the NM Environmental Law Center for developing and defending a community-based recommendation reducing the uranium groundwater standard by orders of magnitude. Dr. Lewis received her Ph.D. in Pharmacology from the University of Manitoba (CA) in 1989

**José Manuel Cerrato, PhD, Superfund Research Program, Department of Civil, Construction & Environmental Engineering, UNM, Albuquerque, NM**

Dr. Cerrato's research interest is related to biogeochemical processes at the interface of water and energy that affect the cycle of metals and radionuclides in the environment. He leads the E-$H_2O$ Research Group which applies spectroscopy, microscopy, aqueous chemistry, and molecular biology tools for the study of complex environmental interactions. Dr. Cerrato was a Postdoctoral Research Associate at Washington University in St. Louis. He has been a recipient of the OAS-LASPAU-Fulbright Scholarship, National Science Foundation (NSF) Integrative Graduate Education Research Traineeship (IGERT), Oak Ridge Associated Universities Ralph E. Powe Junior Faculty Enhancement Award, the University of New Mexico Faculty of Color Research Award, and the NSF CAREER Award. Dr. Cerrato has PhD, Civil Engineering, and a MS i, Environmental Engineering from Virginia Tech

**Robert Pine, Hydrogeology Specialist, New Mexico Bureau of Geology & Mineral Resources, Socorro, NM**

After receiving an MS in Mathematics from the University of Utah and an MS in Hydrology from New Mexico Tech, Rob went to work for the State of New Mexico for 28 years In a variety of jobs. He worked for NMED for 14 years doing groundwater permitting, investigating groundwater contamination and working with drinking water systems to improve their managerial and operational capacity. Rob worked for EMNRD for 6 years on mining reclamation and designed OCD's online permitting system. Then he worked with the Office of the State Engineer for 8 years managing their adjudication database and in the Hydrology Bureau doing water right impact analysis and expert testimony

**Erick Fox, Geospatial Analyst, Intera Inc., Albuquerque, NM**

Erick is a geospatial professional with specialized experience in data analysis and management for water resources and environmental science applications. He has successfully delivered on complex quantitative and conceptual tasks for large public agencies and private clients, giving decision makers a foundation to support planning initiatives. Erik has the industry-standard GISP certification, a FAA drone pilot's license, and has served at board level in professional GIS organizations, His wide range of technical skills has been put to use assisting the development of a basin-scale water budget in Indiana, creating a regional water infrastructure model in southern California, and evaluating remote sensing data to determine the presence of irrigated agriculture in the Rio Grande valley. He has a MS in geographic information systems and remote sensing from the University of Pittsburgh.

**Kate Zeigler, PhD, CPG, Owner and Senior Geologist, Zeigler Geologic Consulting, LLC, Albuquerque,** NM

Dr. Kate Zeigler is owner and senior geologist at Zeigler Geologic Consulting. Her doctoral research included developing one of the first complete magnetic polarity chronologies for Triassic age rocks in New Mexico. As a consulting geologist she uses her skillset to provide information about groundwater resources to agricultural producers and rural communities. She serves on the executive boards of the New Mexico Water Dialogue, El Llano Estacado RC&D Council, the New Mexico Chapter of the American Institute of Professional Geologists (AIPG), and the New Mexico Geological Society Foundation. In 2012, Kate was named the New Mexico Geological Society's Honorary Member and in 2015 earned her Professional Geologist Certification from AIPG. Kate has a BS from Rice University in Geology and Anthropology and obtained her MS and PhD from the University of New Mexico.

**Jim Griswold, Special Projects Manager, Oil Conservation Division, NM Energy, Minerals and Natural Resources Department, Santa Fe, NM**

Jim Griswold is responsible for management of the remediation of an unstable brine cavern in Carlsbad with a budget of $76M. Previously, he was responsible for management of the Environmental Bureau, which oversees the investigation and remediation of hydrocarbon and produced water releases affecting soil and groundwater. Prior to working for the state, he was at Billings & Associates, Inc., an environmental services firm principally engaged in the investigation and remediation of sites contaminated with refined petroleum hydrocarbons. As VP at Construction Analysis & Management, Inc. a civil, mechanical, and environmental engineering firm and general contractor., he supervised the preparation of surface hydrology studies for facility and residential construction, groundwater resource development and water rights evaluations, and managed environmental investigations and remediation projects at hazardous waste sites in New Mexico, Arizona, and Colorado. His academic training incudes a BS (Physics & Math) from New Mexico Tech.

**Marvin Magee, PE, President, Maverick Drilling Inc, Mesilla Park, NM**

Marvin Magee has been involved in the ground water industry in New Mexico for over 40 years. Mr. Magee has a BS in Geological Engineering from New Mexico State University and is a New Mexico Registered Professional Engineer. He currently owns and operates two companies, Magee and Associates, a civil and environmental engineering company, and Maverick Drilling, a full-service water well drilling and service company. Maverick Drilling operates throughout the state of New Mexico and west Texas and Magee and Associates operates throughout the entire state of New Mexico. He has been involved heavily over the years with the New Mexico Ground Water Association and the Mountain States Ground Water Expo. He has also testified on ground water issues in front of the New Mexico legislature and on rulemaking issues in front of the Office of the State Engineer.

**Marshall Worsham, Researcher, Mapping for Environmental Justice, Energy and Resources Group, University of California, Berkeley, CA**

Marshall Worsham is a researcher with Mapping for Environmental Justice and technical lead for the organization's CAFO mapping project. He is a PhD candidate in Berkeley's Energy and Resources Group. His research spans forest ecology, ecohydrology, and water resource management. He develops open-source analytical tools to operate on massive remote sensing datasets to investigate how a changing climate and human activity are influencing vegetation structure and the hydrological cycle. He is particularly interested in applying these methods to support water resource management and environmental justice interventions in the western U.S. Marshall holds an MSc in Energy and Resources from UC Berkeley, an MPhil in political theory from the University of Oxford, and a BA in political science from Davidson College.

**Ann Berkley Rodgers**, **JD, Owner-attorney, Chestnut Law Offices, Albuquerque, NM**

Ms. Rodgers has worked as a water law attorney since receiving her Juris Doctor from the University of New Mexico School of Law (UNMSOL) in 1983. Prior to joining Chestnut Law Offices in 1989, Ms. Rodgers clerked for Chief Judge Santiago E. Campos, United States District Court for the District of New Mexico and she was a Research Professor at UNMSOL working in water law, and Research Attorney for the Northern Pueblos Tributary Water Rights Association. Over almost 40 years, Ms. Rodgers has been involved in the relationship of the law to groundwater, with most of that work consisting of representation of Pueblo Indian nations in in several water rights adjudications, including New Mexico ex rel. State Engineer v. Aamodt, State of New Mexico ex rel. State Engineer v. Abbott, and State of New Mexico, ex rel. State Engineer v. Kerr McGee, et. al, and other water quantity and quality matters.

**Jason John, Director, Navajo Department of Water Resources, Fort Defiance, AZ**

Jason was appointed Director of the Navajo Department of Water Resources in 2019. For 9 years he has served as the Chairman of the New Mexico Water Dialogue, a volunteer Non-Profit Organization that promotes dialogue among all statewide stakeholders for regional and statewide water planning. The Navajo Nation Water Management Branch specializes in collecting/providing technical information on surface and groundwater resources, water infrastructure planning, and project management for planning, design, and construction of water systems. Mr. John interfaces with federal and local agencies concerning water issues and oversees contracts with the Bureau of Indian Affairs and many agreements with New Mexico, Arizona, US Department of Agriculture, and US Bureau of Reclamation for planning, design and construction including portions of Navajo-Gallup Water Supply Project. He has been a Board member of the Animas La Plata Operation Maintenance Replacement Association since February 2012 and was a Navajo Nation trustee to the Colorado River Water Users Association for 2014 and 2015. He has a BS in Geophysical Engineering from the Colorado School of Mines and a MS in Geological Science from the University of Texas at Austin

**Maurice Hall, PhD, PE, Vice President, Water, Environmental Defense Fund, Santa Fe, NM**

Dr Hall's sreas of expertise include water management, water policy, hydrology, water resources engineering, aquatic ecosystems, sustainable agriculture, irrigated agriculture, water quality, natural infrastructure, civil engineering.

As vice president of climate resilient water systems, he oversees Environmental Defense Fund's work to manage groundwater more sustainably and revitalize working rivers and their ability to provide a resilient water supply. He focuses on developing collaborative water management approaches to meet ecosystem needs alongside the needs of farms and cities. Approaches central to this work include shaping water transaction programs that achieve resilient water supplies while protecting the environment and vulnerable communities, improving information systems to inform smart management of water resources, and shaping water governance that proactively considers multiple objectives and responds to climate change.

**Thushara Gunda, PhD, Engineer, Sandia National Laboratories, Albuquerque, NM**

Thushara Gunda is a Principal Member of Technical Staff at Sandia National Laboratories. Her research portfolio lies at the intersection of socio-technical systems, where she leverages multi-disciplinary insights and methods to inform decision-making within complex systems (across water, energy, and security domains). Her techniques focus on fusion of diverse datasets (e.g., text-based and time series analysis), development of quantitative metrics, and creation of decision support tools to inform stakeholder engagement, resilience analysis, and equity/justice priorities. She completed her PhD in Environmental Engineering at Vanderbilt University and earned B.Sc. and B.A. degrees in Environmental Science and Policy at the University of Virginia. Thushara has previous work experience as a Postdoctoral Fellow at the Vanderbilt Institute for Energy & Environment and as an environmental consultant in Austin, TX.

**Aaron Chavez, President,** New Mexico Water Dialogue, **San Juan Water Commission, Farmington, NM**

Aaron Chavez obtained his Bachelor's Degree from the University of New Mexico in 2000 and has worked for the San Juan Water Commission since 2001. And in 2015, Aaron was named the San Juan Water Commission's Executive Director. As a lifelong New Mexican, Aaron shares his home state's commitment to working toward creating and implementing water safeguards. Aaron represents the San Juan Water Commission on a variety of water programs and projects relating to the San Juan Watershed. Aaron is the Chairman of the Water Development Steering Committee for the San Juan River Basin Recovery Implementation Program, a Drought Response Operations Agreement/Drought Contingency Plan Stakeholder for the New Mexico Interstate Stream Commission. Aaron is the President of the Colorado River Water Users Association, New Mexico Trustee, serving on the Housing and Arrangements, Program, and Resolutions Committee, New Mexico Interstate Stream Commission Member, Animas La Plata Operation, Maintenance, and Replacement Association Board Member, President of the New Mexico Water Dialogue, Program Planning Committee member for Leadership San Juan, Leadership New Mexico, Policy Development Committee member for the New Mexico Water Resources Association, National Water Resources Association, President of the Four Corners Conference for Professional Development, Floodplain Manager and member of the New Mexico Floodplain Managers Association.