

NEW MEXICO AQUIFER CONFERENCE

Conjunctive use of surface and groundwater in New Mexico

July 14, 2016 – at the State Bar of NM, 5121 Masthead NE, Albuquerque, NM 87199



PROGRAM



A focus for the conference is on water management strategies for New Mexico involving conjunctive use of groundwater and surface water. Presentations include both hydrologic and regulatory perspectives. Additional program components will consider the effectiveness of New Mexico's system of water permits and discuss the current and future role of water trading (water rights marketing) to enable managers to plan for and deal with drought conditions.

CONFERENCE - KEYNOTE PRESENTER:



Claudia C. Faunt, Ph.D., P.E., Supervisory Hydrologist, Program Chief – Groundwater Framework and Applied Modeling, U.S. Geological Survey California Water Science Center, San Diego, California

**CONJUNCTIVE USE OF WATER IN CALIFORNIA'S CENTRAL VALLEY:
PAST, PRESENT, AND FUTURE**

CONFERENCE SPONSORS



7:00 – 8:15 REGISTRATION

8:15 – 8:30

WELCOME - INTRODUCTION

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

8:30 - 9:00

Mike Johnson, Hydrology Bureau Chief, NM Office of the State Engineer, Santa Fe, NM

CONJUNCTIVE USE IN NM – A PERSPECTIVE FROM THE OFFICE OF THE STATE ENGINEER

9:00 - 9:30

Rick Carpenter, Acting Director, Water Division, City of Santa Fe, NM

CONJUNCTIVE MANAGEMENT OF SANTA FE'S WATER RESOURCES

9:30 -10:10 KEYNOTE

Claudia C. Faunt, Supervisory Hydrologist, Program Chief – Groundwater Framework and Applied Modeling, U.S. Geological Survey, California Water Science Center, San Diego, CA

CONJUNCTIVE USE OF WATER IN CALIFORNIA'S CENTRAL VALLEY: PAST, PRESENT, AND FUTURE

10:10 – 10:30 BREAK

10:30 – 11:00

John Stomp, COO, Albuquerque Bernalillo County Water Authority, Albuquerque, NM

CONJUNCTIVE MANAGEMENT OF WATER AS ALLOWED BY THE WATER AUTHORITY'S PERMITS

11:00 – 11:30

Jack Wittman, Vice President, Principal Geoscientist, INTERA, Bloomington, IN

MODELING THE EFFECTS OF GROUNDWATER WITHDRAWALS ON STREAMS IN THE MIDWEST

11:30 – 12:00

Kevin France, CEO, SWIIM Systems, Partner, Regenesys Management Group, LLC, Denver, CO

WATER MARKETS – TRADING WATER RIGHTS AS A MANAGEMENT STRATEGY

12:00 – 12:30

Brett Bovee, Intermountain Regional Director, Westwater Research, Fort Collins, CO

WATER TRADING IN NM AND THE WESTERN US: IDEAS FOR FUTURE WATER MANAGEMENT

12:30– 1:30 LUNCH

1:30 – 2:00

Rolf Schmidt-Petersen, New Mexico Interstate Stream Commission, Rio Grande Bureau Chief, Santa Fe, NM

MANAGING GROUNDWATER DEPLETIONS IN THE MIDDLE RIO GRANDE VALLEY

2:00 – 2:30

Jesse Roach, Hydrologist, Tetra Tech, Inc, Santa Fe, NM

DYNAMIC SIMULATION OF REGIONAL GROUNDWATER/SURFACE WATER INTERACTION

2:30 – 3:00

Jeff Wechsler, Attorney at Law, Montgomery & Andrews, Santa Fe, NM

THE NM WATER PERMIT PROCESS – MAINTAIN THE STATUS QUO OR MOVE TO COMMON SENSE?

3:00 – 3:10 BREAK

3:10 – 3:40

Steve Finch, VP/Principal Hydrogeologist at John Shomaker and Associates, Albuquerque, NM

SUPPLY PROBLEMS AND INNOVATIVE WATER MANAGEMENT SOLUTIONS FOR WATER PROVIDERS IN THE SACRAMENTO MOUNTAIN REGION, NEW MEXICO

3:40 – 4:10

Scott Sensanbangher, Public Works Director, City of Rio Rancho, NM

CITY OF RIO RANCHO - WATER RECYCLING – AQUIFER RECHARGE PROJECT

4:10 – 4:30

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

AQUIFER STORAGE – A LEAST COST RESPONSE TO THE HYDROLOGIC VAGARIES OF CLIMATE CHANGE

4:30 ADJOURN

Presenter Background

Listed in presentation order

Mike Johnson, Hydrology Bureau Chief, NM Office of the State Engineer, Santa Fe, NM

Mike has been chief of the Hydrology Bureau since 2006. His duties include managing operating and contracts, budgets, developing policies, guidelines and regulations, and overseeing the agency library. Prior to becoming chief, he spent seven years as a hydrologist in the bureau, completing hydrologic evaluations of more than 40 water rights applications around the state. Before joining the OSE in 1999, he worked for the Navajo Nation and in private consulting. Mike has a B.S. in geology from Evergreen State College and an M.S. in geology from Eastern Washington University, and is a registered professional geologist.

Rick Carpenter, Acting Director, Water Division, City of Santa Fe, NM

Rick has approximately 20 years of professional project management and water resources experience. Mr. Carpenter has a Master of Science in Physical Geography from the University of New Mexico. He currently serves as Water Resources and Conservation Manager for the City of Santa Fe. He was also the project manager for the City's 12.5 million dollar Emergency Buckman Wells project, the project manager for the \$221 million design - build Buckman Direct Diversion project, and the \$5 million design -build 1.5 MW BDD photo voltaic project. Prior to working for the City of Santa Fe, Rick was the Principal Water Resources Project Specialist for the City of San Diego. He also worked as a water resources Project Manager for the U.S. Army Corps of Engineers. Mr. Carpenter has managed many different types of water projects, including: groundwater and surface water drinking water projects, pipeline and storage, dam and flood control, aquifer characterization, and river restoration projects. He has also managed the preparation of many water resource-related planning and permitting efforts as well as water rights acquisition efforts.

Claudia Faunt, Supervisory Hydrologist, Program Chief, U.S. Geological Survey

Claudia (PhD, PE) is Supervisory Hydrologist and Program Chief – Groundwater Framework and Applied Modeling at the, U.S. Geological Survey California Water Science Center, San Diego. She has been a Hydrologist with the U.S. Geological Survey for 25 years, where she has been studying regional ground-water flow systems. She has been in the San Diego office for the past 15 years. Her research has specialized in hydrogeologic framework modeling, visualization of geologic and ground-water data, incorporation of hydrologic and geologic spatial information into ground-water models, and more recently in regional groundwater flow modeling. Current studies include regional ground-water flow and texture analyses of the Borrego Valley and Central Valley of California. Recently, she has become the Program Chief for the Groundwater Framework and Applied Modeling section of the USGS California Water Science Center. Claudia has conducted studies on regional groundwater flow systems in the Central Valley of California and Death Valley, California and Nevada. Her research has focused on regional groundwater flow systems and exploring how geologic conditions, conjunctive water use, land-use changes, and climate variability affect water supplies.

John M. Stomp, III, COO, Albuquerque Bernalillo County Water Utility Authority, Albuquerque, NM

John Stomp III holds Bachelor and Master of Science degrees in Civil Engineering from the University of New Mexico and is a registered Professional Engineer in New Mexico. He is the Chief Operating Officer for the Albuquerque Bernalillo County Water Utility Authority. The Water Authority provides water and wastewater services to more than 600,000 residents in the metropolitan area. John's primary responsibility is to implement the City Council adopted Water Resources Management Strategy to provide a safe and sustainable water supply for the City. John Stomp has many years of experience dealing with water and wastewater issues in New Mexico and throughout the southwestern United States.

Jack Wittman, Vice President, Principal Geoscientist, INTERA, Bloomington, IN

Jack Wittman's professional experience encompasses serving as a research hydrologist, technical and policy advisor to governors and tribes, groundwater modeling specialist, and consulting scientist, and applying hydrologic data and models to scientific and public policy problems.

Jack has been appointed by the Indiana governor to the State Water Shortage Task Force, and he is currently a member of the NGWA's certification committee. He was a member of the ASTM Committee D18 on Soil and Rock, the AWWA Research Foundation technical review committee, and is a member of the American Water Works Association's Water Utility Council. He has a PhD in Environmental Science from Indiana University and MS, in Watershed Science, Utah State University.

Kevin France, CEO, SWIIM Systems, Partner, Regenes Management Group, LLC, Denver, CO

Mr. France leads business development and operating strategies at Regenes Management Group. Regenes focuses on the efficient use of finite natural resources through the development of innovative techniques, software and instrumentation. Mr. France is a managing partner, founder or an equity participant in several water right, real estate and natural resource projects covering thousands of acre feet of water rights and thousands of acres of land and mineral rights. SWIIM, **(Sustainable Water and Innovative Irrigation Management)** is a system designed for farmers, ranchers and other water right owners to optimize farm income and water use.

Kevin has been a board member of a Colorado metropolitan water district and is active on an advisory board focused on water conservation and optimization. Mr. France earned a Masters of Business Administration degree, graduating with honors from Regis University and a Bachelor of Science degree in Business Administration and Communications from the University of Colorado.

Brett Bovee, Intermountain Regional Director, Westwater Research, Fort Collins, CO

Brett has performed investigations of water supply and demand for Federal, Tribal, and private clients, and has completed detailed studies of comprehensive water planning, irrigated agriculture development potential, and water project feasibility. He is skilled in water valuation and economic cost-benefit analyses, and has been instrumental in water rights litigation and dispute resolution. Brett has prepared expert witness and technical reports, completed hydrographic surveys of water use, and helped to develop settlement agreements.

Brett holds B.S. and M.Eng. degrees in biological and environmental engineering from Cornell University, with a focus in water resources. He is a licensed professional civil engineer in five western states, and is also recognized as a professional hydrologist. Prior to joining WestWater, Brett worked for NRCE managing and assisting with water rights projects across the Western U.S

Rolf Schmidt-Petersen, New Mexico Interstate Stream Commission, Rio Grande Bureau Chief, Santa Fe, NM

Rolf Schmidt-Petersen is a hydrologist with over twenty years of experience addressing water resources issues in New Mexico. He graduated from the New Mexico Institute of Mining and Technology with a Masters Degree in Hydrology, worked in private industry for about a decade doing environmental hydrogeology consulting, and has worked for the State of New Mexico Interstate Stream Commission since 1999. Mr. Schmidt-Petersen and his staff are charged with conducting numerous projects to plan, conserve, develop, and investigate the waters of the Rio Grande for New Mexico.

Jesse Roach, Hydrologist, Tetra Tech EC, Inc, Santa Fe, NM

Jesse has Bachelor and Master's degrees in Civil and Environmental Engineering from Stanford, and a Ph.D. in Hydrology and Water Resources from the University of Arizona. He works as a Hydrologist at the Santa Fe office of Tetra Tech Inc., an environmental consulting company, and is an expert on potential climate change impacts in the Rio Grande basin. He has particular interest in the interplay between spatially and temporally variable water resources and the demand for them by human and natural systems.

Jeff Wechsler, Attorney/Shareholder, Montgomery & Andrews, Santa Fe, NM

Mr. Wechsler concentrates his practice in the areas of water, environmental, natural resources, public utility regulation, and complex litigation. In the area of water law, Mr. Wechsler has litigated cases and negotiated agreements involving surface and groundwater throughout the West. He regularly represents public and private clients in litigation before state and federal courts, in stream adjudication suits, and before the New Mexico State Engineer. He has worked extensively with experts in the areas of groundwater and surface water hydrology, and regularly advises clients on the sale, lease, transfer, and permitting of water rights. Representative water clients include states, municipalities, ranchers, energy companies, developers, utilities, private industry, and farmers.

Steve Finch, VP/Principal Hydrogeologist at John Shomaker and Associates, Albuquerque, NM

Steve Finch has more than 25 years of experience in many parts of New Mexico and Texas including the Rio Grande and Pecos River watersheds, Mimbres Basin, Estancia Basin, Hondo Basin, Jal Basin, Peñasco Basin, Salt Basin, Tularosa Basin, the Pecos River Valley and Roswell Artesian Basin. His work has included hydrogeologic investigations for groundwater resource development, aquifer - test interpretation, groundwater flow and contaminant transport modeling, geochemical modeling, water - quality treatment studies, water - resource analysis for water plans, and well - drilling oversight and well - site hydrogeology. Steve has an M.S. in Geology (Hydrogeochemistry), from Northern Arizona University.

Scott Sensanbaugher, Public Works Director, City of Rio Rancho, NM

Scott manages the City of Rio Rancho Public Works Department which consists of Engineering, Street Maintenance, Water and Wastewater Operations, Utility Billing, Land Acquisition, and Building and Fleet Maintenance. He was previously the City Engineer and Managed the Engineering Division of the Public Works Department. Prior to working at Rio Rancho he was project engineer at **Wilson & Company, Inc., and the manager of He is a Professional Engineer in New Mexico and has a Masters degree in civil engineering from Brigham Young University.**

Scott oversees the City's aquifer recharge project which uses recycled water to help offset surface-water depletions caused by Rio Rancho groundwater pumping.

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

Andrew Stone is a hydrogeology graduate from University College, London. He has over thirty five years of ground water experience in Africa and the U.S. as a university professor, ground water consultant and ground water advocate & educator. From 1990 to 2003 he taught an annual course on Groundwater Protection Policy at Antioch New England University. In recognition of his work in promoting ground water resource education in the US, he received the 1998 National Ground Water Association "Oliver Award" for outstanding contributions to the groundwater industry.

