

**BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF COLORADO**

IN THE MATTER OF CHANGES TO THE)	CAUSE NO. 1R
RULES AND REGULATIONS OF THE OIL AND)	DOCKET NO. 200300071
GAS CONSERVATION COMMISSION OF)	TYPE: RULEMAKING
THE STATE OF COLORADO)	

PUBLIC WATER SUPPLIERS’ 300-SERIES JOINT RESPONSE STATEMENT

Arapahoe County Water and Wastewater Authority (“ACWWA”), Aurora Water, City of Brighton, City of Commerce City, East Cherry Creek Valley Water and Sanitation District (“ECCV”), Greatrock North Water and Sanitation District (“Greatrock North”), South Adams County Water and Sanitation District (“South Adams”), South Beebe Draw Metropolitan District, South Metro Water Supply Authority, Town of Castle Rock (“Castle Rock”), Town of Lochbuie (“Lochbuie”), and United Water and Sanitation District (“United”) (collectively, “Public Water Suppliers”), by and through their undersigned attorneys and representatives, respectfully submit this 300-Series Joint Response Statement in the above-captioned rulemaking in accordance with the Second Amended Case Management Order.

For the reasons described in the Public Water Suppliers’ 300-Series Joint Prehearing Statement, notice and consultation for potentially impacted Public Water Systems is critically important.

I. EXHIBITS AND WITNESSES

Pursuant to the Second Amended Case Management Order, the Public Water Suppliers attach the following exhibits:

- Exhibit 1 – Resume of Christopher Sanchez.
- Exhibit 2 – Resume of Heather Justus.
- Exhibit 3 – Resume of Matthew Seitz.

- Exhibit 4 – Resume of Scott Mefford.

The Public Water Suppliers identify the following witnesses and their testimony:

- Christopher Sanchez, P.G., BBA Water Consultants, Inc., for Lochbuie and Greatrock North. Mr. Sanchez will be testifying regarding the hydrogeology of shallow aquifer systems with an emphasis on alluvial aquifer systems, the physical vulnerability of shallow Public Water System (PWS) water supply wells to contamination, and the reasons that protections for shallow ground water supplies are appropriate and necessary. Mr. Sanchez will testify regarding the informational classifications of water supply wells and how existing datasets can be used to identify PWS water supply wells in need of protection.

- Heather Justus, P.G., for Castle Rock. Ms. Justus will be testifying regarding: Castle Rock's shallow municipal wells in Douglas and Weld Counties; Castle Rock's recharge facilities in Weld County; the types of aquifers in which its municipal wells and recharge facilities are constructed; whether any of its wells are GUDI; the location of its wells and recharge facilities in relation to its service area boundaries; the need for notice of oil and gas development near its wells and recharge facilities; data sets for its well and recharge locations; the capture area of Castle Rock's Box Elder Creek wells; the ephemeral nature of Box Elder Creek; and groundwater, geology and hydrogeology. Ms. Justus may testify on the travel distance of certain contaminant plumes.

- Matthew Seitz, P.E., P.G., HRS Water Consultants, Inc., for South Adams. Mr. Seitz will be testifying regarding the importance of notice and consultation when it comes to monitoring and protecting the groundwater supply of South Adams County Water and Sanitation District.

- Scott Mefford, P.E., Hydrokinetics Inc., for ECCV, ACWWA, and United. Mr. Mefford will be testifying regarding the importance of notice and consultation when it comes to the water supply systems of ECCV, ACWWA, and United, including notice and consultation regarding extraterritorial well fields and water resources utilized by ECCV and ACWWA.

II. TIME REQUESTED FOR HEARING

The Public Water Suppliers request 1 hour (15 minutes per witness) to permit their witnesses to summarize their testimony and answer any questions from the Commission.

DATED this 31st day of July 2020.

Respectfully submitted,

ARAPAHOE COUNTY WATER AND
WASTEWATER AUTHORITY

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CITY OF COMMERCE CITY

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SOUTH ADAMS COUNTY WATER AND
SANITATION DISTRICT

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SOUTH BEEBE DRAW METROPOLITAN
DISTRICT

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SOUTH METRO WATER SUPPLY
AUTHORITY

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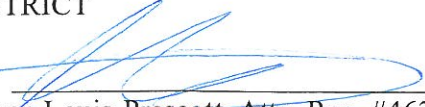
TOWN OF CASTLE ROCK

By: /s/ Madoline Wallace Gross
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TOWN OF LOCHBUIE

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UNITED WATER AND SANITATION
DISTRICT

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CERTIFICATE OF SERVICE

The undersigned certifies that on this 31st day of July, 2020, a true and correct copy of the foregoing **PUBLIC WATER SUPPLIERS' 300-SERIES JOINT RESPONSE STATEMENT** was electronically filed and delivered via e-mail to the following:

Colorado Oil & Gas Conservation Commission
DNR_COGCC.Rulemaking@state.co.us

Elias J. Thomas, Hearing Officer
Colorado Oil and Gas Conservation Commission
elias.thomas@state.co.us

Mimi Larsen, Hearings and Regulatory Affairs Manager
Colorado Oil & Gas Conservation Commission
mimi.larsen@state.co.us

___/s/ Stacy L. Brownhill_____

CHRISTOPHER J. SANCHEZ, P.G.

Principal - Hydrogeologist

EDUCATION

B.A. in Geology, 1994, The Colorado College, Colorado Springs, Colorado

Emphasis in ground water geology. Received Distinction for completing a senior thesis entitled "Analysis of Lawn Irrigation Return Flows in the Southeast Denver Area". Recipient of the Donald B. Gould Scholarship Award in Geology.

Graduate course work at the University of Colorado, Denver.

Graduate course work at Colorado School of Mines.

PROFESSIONAL

Board of Examiners of Water Well Construction and Pump Installation Contractors – appointed to the Board by Governor Hickenlooper, June 2018

American Water Resources Association – Colorado Section - President, Board of Directors, 2004

American Water Resources Association - National Section

Colorado Ground Water Association

National Ground Water Association

Association of Ground Water Scientists and Engineers

Geological Society of America

REGISTRATION

Registered Professional Geologist in the State of Wyoming. PG-3248

Registered Professional Geologist in the State of Utah. PG 5552449-2250

EXPERIENCE RECORD

1994-Present

Bishop-Brogden Associates, Inc., Englewood, Colorado.

Principal, Hydrogeologist. Responsible for studies of ground and surface water supplies. Experience includes the implementation, maintenance and testing of over 100 water supply wells, water demand and supply investigations, water rights and water supply planning, water supply well field implementation, ground water modeling, ground and surface water quantifications, analyses of water rights administration and injury, analyses of ground water/surface water interaction, historic use water rights analyses, water rights augmentation plan development, water rights valuations, drainage basin yield analyses, geologic analyses, geophysical log interpretation, and structural geology concerning ground water supplies and water rights issues. Responsible for well construction management, well rehabilitation implementation and analyses, pumping test management,

EXHIBIT 1

CHRISTOPHER J. SANCHEZ P.G. - Continued

pumping test data analysis, and expert testimony for water and civil court proceedings.

Summer 1993 Bishop-Broden Associates, Inc., Englewood, Colorado.
Intern. Completed an analysis of lawn irrigation return flows in the southeast Denver area. Provided support for various client projects.

Summer 1992 Keck Geology Consortium, Quetico Wilderness, Ontario, Canada.
Research Program Participant. Mapped the geology of regional fault zone. Analyzed and interpreted structural geologic data. Co-wrote abstracts for publication.

PUBLICATIONS AND PRESENTATIONS

“New Drought Challenges, Legislation and Solutions, Groundwater, The Science and The Law”, Colorado Law Institute, CLE International, Snowmass Village, June 8, 2018.

“History of Colorado Water Rights”, Colorado Water Well Contractors Association Annual Conference, in partnership with Colorado Ground Water Association, Denver, CO, January 10 – 12, 2018.

“Overview of Groundwater from the Technical Perspective”, Groundwater 101 Update, Water Court Practice Program – Technical and Engineering Program Series, Colorado Bar Association CLE, Denver, CO, October 13, 2017 (co-author: Scott G. Mefford, C.P.G.).

“Groundwater and Aquifer Mechanics – Part I”: American Bar Association, Section of Environment, Energy and Resources, 32nd Annual Water Law Conference Proceedings, Las Vegas, NV, June 2014 (co-author: Timothy A. Crawford P.G.).

“Meaningful Water Quality Sampling vis-a-vis Oil and Gas Drilling – Colorado Aquifer Overview in the Context of the Recently Enacted Statewide Groundwater Baseline Sampling and Monitoring Rules”, Water, Oil and Gas 101, Colorado Bar Association CLE, Denver, CO, April 10, 2013.

“Considerations for Analyzing Colorado Ground Water: A Technical Perspective: University of Denver Water Law Review, Volume 15/Issue 1/Fall 2011 (co-author: Luke W. Harris, P.E.).

“Monitoring and Management of Nonrenewable Ground Water Resources – Case Study: Denver Basin Aquifers”, American Water Resources Association 2006 Summer Specialty Conference – Adaptive Management of Water Resources, Conference Proceedings, June 26-28, 2006 (co-author: Daniel O. Niemela).

“Drilling Fluid Loss Events in the Denver Basin Aquifers”, H2GEO: Geotechnical Engineering For Water Resources, Geotechnical Practice Publication No. 2, Proceedings, October 22, 2004 (co-author: Michael McHugh).

“Practical Approaches to Water Supply Investigations in Fractured Rock Aquifers in Colorado and Related Case Studies”, Fractured Rock Aquifers 2002, National Ground Water Association, March 13 -15, 2002.

CHRISTOPHER J. SANCHEZ P.G. - Continued

“Structure of the Side Lake Shear Zone from Central Kahshahpiwi Lake to Northern Keefer Lake, Quetico Provincial Park, Southern Ontario”, Sixth Keck Research Symposium in Geology, 1993, and Geological Society of America, North-Central Section, 27th Annual Meeting, 1993 (co-author: Andrea L. Troolin).

Heather L. Justus, P.G.

EXPERIENCE

Town of Castle Rock, Castle Rock Water

October 2014-Current – Water Resources Program Analyst

Achieved a track record of results in managing utility infrastructure and developing and implementing creative renewable water supply projects. Responsible for coordinating and managing the Town's Water Resources including the non-renewable groundwater supply and various renewable supplies including WISE. Including the capital improvement management, water portfolio management, utility master plan support, long range utility planning, annual budgeting, and preparing memos and presentations for Utilities Director, Town Manager and Council.

Significant projects include:

- Lost Creek Aquifer Storage and Recovery Feasibility Study
- Denver Basin Aquifer Storage and Recovery Pilot Project
- Directional Drilled Alluvial Horizontal Wells in the Plum Creek Alluvium

Leonard Rice Engineers, Inc., Denver, Colorado

2009-January 2013 – Project Manager

Select, organize, inspire, and manage teams to provide optimal water solutions for clients using expertise in ground water and project management. In addition, develop and maintain good working relationship with clients, staff, and peers. I have managed multiple projects at the same time with multi-discipline team ranging from 2 to 5 team members.

2007-2009 – Senior Project Hydrogeologist

Involved in ground water studies and analysis including interpretation and evaluation of hydrogeologic systems, geologic and geophysical logs; water quality data; geologic and hydrologic maps, computer modeling, aquifer testing, water well design and construction, evaluation of mining impacts on ground water systems, ground water/surface water interactions, and water rights. Field experience includes: mapping, water quality sampling, aquifer testing, logging and supervision of well drilling. Duties require collection and analysis of data, report preparation, litigation support and project management.

2002-2006 – Project Hydrogeologist

1998-2001 – Staff Hydrogeologist

1996-1997 – Assistant Hydrogeologist

Significant projects include:

- Denver Basin Aquifer Storage and Recovery (ASR) Pilot project for Donala Water and Sanitation District. Included design, implementation, review of feasibility and project management.
- Denver Basin Aquifer study in the Monument, Co. area to evaluate an existing well field and reconnaissance level feasibility investigation of a possible satellite well field. The study included evaluating historic, current and projected demands, determining local hydrogeologic properties,

EXHIBIT 2

suggesting guidelines for well management, and analytical computer modeling to determine future drawdown.

- Evaluation of depletions to the South Platte River and the City of Brighton's Alluvial Well Field caused by changes in land use by development and lining of the Brighton Lateral. Estimated hydraulic conductivity, saturated thickness, and boundary conditions. The project included a ground water mass balance analysis, ground water modeling, and a modified Glover Analysis to determine the timing, location and amount of depletions.
- Evaluation of the hydrogeology of Beebe Draw and Box Elder alluvial aquifers includes preparation of an aquifer mass balance for eleven time periods, from 1930 to the present, and estimation of the timing and amount of depletion to the South Platte River caused by irrigation well pumping.
- Evaluation of the Cherry Creek Alluvial Open Space near the Town of Parker for the purpose of determining the impacts of future proposed pumping within the Cherry Creek Alluvium. The evaluation include but was not limited to creating water table maps, determining the hydrogeologic characteristics of the aquifer, and determining the regional drawdown due to proposed pumping. An environmental assessment was completed on the site that included mapping of major vegetation and using the drawdown maps created to estimate the potential loss of wetland and riparian plant acreage that may be lost due to the proposed pumping. We also provide potential mitigation options.
- Developing a Visual MODFLOW computer model for litigation in Arizona. The project involved using computer modeling to estimate the drawdown and stream depletions of a well pumping near a stream's subflow zone.
- Third party review of a ground water model for a client in dispute of how much additional ground water would be intercepted during gravel mining operations in an alluvial aquifer due to a recharge project in the vicinity. The initial review was a fatal flaw analysis of the ground water model. The work product included suggestions on how to improve the modeling effort; as well as, modifying the model to better represent the local hydrogeology. Specific task included: determining depth to bedrock (Pierre Shale), average seasonal saturated thickness, ground water gradient, hydraulic conductivity and negative and positive flow boundaries.
- Third party review of suggested mitigation options to reduce ground water seepage from a non-operational mine into the local stream system. The project included understanding the ground water flow through the mining elevations, the potential sources for mineral loading, seasonal changes in saturated thickness and the overall goals of the project and various parties and how best to store, remove and treat the ground water. The final work product included suggestions on how to improve the mitigation options with minimal cost and effort.
- Determine the impacts of a mining operation to a City's water rights. The project included determining the volume of water that would be removed from a fractured aquifer system and how the removal of the ground water would impact the City's water rights. The project including understanding the proposed mining operation and the local hydrogeology. Prepared engineering report in support of statement of opposition.
- Ground water yield and appraisal of appropriated water rights associated with the London Mine Tunnel located in the head waters of the South Platte Basin of Colorado. Project included understanding the water rights history, general knowledge of the mine and how ground water flow through the mine is captured. Including understanding the hydrogeology of the area and how precipitation was recharged into the aquifer and captured by the mine tunnels. Prepared letter report.
- Providing hydrogeologic support for multiple well fields for power plant entity located in Arizona. Includes review of water levels, preparing ground water models to determine life of the aquifer and how to extend the life including well spacing, cycling, and rehab. In addition, provide recommendations on how to mitigate impacts to themselves and others.

- Feasibility study for ground water supply for a power plant. Prepared a letter report.
- Several projects of determining the impacts of ground water removal due to mining activities on local stream and river systems.
- Design of well monitoring networks in association with mining activities.
- Alluvial aquifer characteristic study for the Upper Eagle Regional Water Authority to guide future ground water development.
- Estimating the ground water resources available in each county of the Denver Basin using GIS.
- Surface and ground water resource evaluation for the Bear River Basin, Wyoming using GIS. Involves data collection and interpretation.
- Ground water monitoring of mountain wells near Black Hawk for the purpose of determining the potential impact to nearby municipal wells.
- Design, construction observation, and testing of several shallow alluvial, mountain bedrock wells, and Denver Basin Aquifer wells.
- Ground water/surface water relationships using Glover programs and computer modeling to estimate surface water depletions.

PROFESSIONAL REGISTRATION

Professional Geologist: Wyoming #3709, Arizona #51112
 Certified Professional Geologist #11324

EDUCATION

B.S., Geology, Adams State College, Alamosa Colorado 1995
 Graduate Work at Colorado State University in Civil Engineering, Fall 1995 – Spring 1996

2017 – Water Education Colorado 2017 Water Leaders
 2010 – LRE Project Management University (In House Course)
 2012 – LRE Leadership University (In House Course)

PRESENTATIONS and Publications

- April 2018. "Update to the Benefits of Directionally Drilled Alluvial Wells in the Town of Castle Rock", AWRA Colorado Section Annual 2018 Conference: Colorado Water 2018: Turning Conflict into Collaboration, Golden, Colorado.
- October 2017. "Overview of Castle Rock Water", 2017 Cartegraph National Conference, Plum Creek Water Purification Facility Tour, Castle Rock, Colorado.
- June 2017. "Benefits of Directionally Drilled Alluvial Well Lateral Arms in the Town of Castle Rock", 2017 AWWA Annual Conference and Exposition, Philadelphia, PA. Co-wrote with Matthew Hayes, Castle Rock Water.
- June 2016. "Benefits of Directionally Drilled Alluvial Well Laterals in the Town of Castle Rock", 2016 RMSAWWA/RMWEA Joint Annual Conference, Keystone, Colorado. Co-presented with Dave Colvin, Leonard Rice Engineers, Inc.
- March 2016 and 2015. "Water in Douglas County", Leadership Douglas County Program, Castle Rock, Colorado.
- May 2015. "Planning a Sustainable Future for the Town of Castle Rock", AWRA Colorado Section 2015 Annual Symposium, Golden Colorado. Co-presented with Sheri Scott with Castle Rock Water.
- May 2012. "Gaining a Sustainable Future through ASR, IPR, Conservation and Acquisitions of Renewable Sources in the Colorado Front Range Area", 2012 National Ground Water Summit, Garden Grove, California.

- July 2011. "Well 2A Aquifer Storage and Recovery Pilot Study", Prepared for Donala Water and Sanitation District, Colorado Springs, Colorado. Prepared with Leonard Rice Engineers.
- November 2010. "Denver Basin Economic Analysis, One way to look at it..Arapahoe and Laramie Fox Hills Aquifers", 2010 Geological Society of America (GSA) Annual Meeting & Exposition, Denver, Colorado, Technical Program-Hydrogeology.
- March 2010. "Denver Basin Economic Analysis, One way to look at it..Arapahoe and Laramie Fox Hills Aquifers"; The Denver Basin Lecture Series, A Look into the Future presented by Colorado Ground Water Association, March 19, 2010.
- July 2007. "A Day in the Life of a Hydrogeologist"; 2007 Colorado Ground Water Institute Program, Denver Colorado, sponsored by American Ground Water Trust, US Geological Survey and Colorado Ground Water Association.
- February 2006. "Evaluation of Box Elder Creek Alluvial Aquifer for Designation as a Ground Water Basin", Prepared for Central Colorado Water Conservation District, Groundwater Management Subdistrict, and Well Augmentation Subdistrict. Prepared with Leonard Rice Engineers, Inc.

PROFESSIONAL ACTIVITIES – CONTINUING EDUCATION

Colorado Ground Water Association, 2010-2009 Past President, 2008-2009 President, 2007-2008 Vice President –Successes included: an increase of membership and organized two one-day seminars and one day field trip that were very well attended.

National Ground Water Association

American Institute of Professional Geologist



Matthew J. Seitz, P.E., P.G. Principal Hydrogeologist

Education

- M.Eng., Civil Engineering – Geographic Information Systems, University of Colorado at Denver, 2007
- B.A., Geology, Colorado College, Colorado Springs, 1997

Registrations/Affiliations

- Registered Professional Engineer - Colorado
- Registered Professional Geologist/Geoscientist:
 - Wyoming
 - Texas
 - Utah
- Colorado Ground Water Association (Past President)
- National Ground Water Association
- Rocky Mountain Association of Geologists
- Colorado Water Well Contractors Association
- Rotary Club

Contact Information

- mseitz@hrswater.com
- www.HRSWater.com
- W: (303) 462-1111

Representative Projects

- Completed a review of literature relevant to a lawn irrigation return flow study for a Denver Water. Used GIS software to facilitate the calculation of variables needed for input to a Glover stream depletion determination. Observed installed of over 50 monitoring wells and implemented water level monitoring program (Denver Water).
- Observation of drilling, geophysical logging, well construction, well development, and aquifer testing of over 25 Denver Basin aquifer wells (Denver, Arapahoe, Laramie-Fox Hills, and Upper Pierre aquifers for various clients (e.g., Colorado Springs Utilities, The Pinery, South Suburban Parks and Rec, Waste Management, Academy W&S District, Prosper Farms Investments, Noble Energy, etc).
- Two-day field reconnaissance to develop a hydrogeologic conceptualization of a ground water basin west of Phoenix, Arizona. Developed water budget using field notes, published reports, and a large amount of spatial and tabular data. Used water budget to provide input files to MODFLOW ground water model. Created relational database to summarize data and presented results using GIS software. Analyzed InSAR and other data on land subsidence and prepared a report documenting sustainable sixty-year yield and estimated ultimate land subsidence. (Confidential client).
- Well design and testing observation of a replacement high-capacity alluvial well at Western Sugar Cooperative's Fort Morgan Plant. Replacement well greatly increased yield, well efficiency, and reduced pumping costs. Coordinated with local driller to implement unique and effective well development plan (Nov. 2015).
- Led or assisted in the economic analysis, site selection, well design, preparation of specifications, permitting, aquifer testing, and groundwater modeling of Colorado's first horizontal collector well (HCW).

Experience Overview

Mr. Seitz is a Principal Hydrogeologist with HRS Water Consultants, Inc., and specializes in groundwater supply, hydrologic data analysis, data management, and project management.

His experience includes drilling project management, aquifer testing, well site lithologic description, well site construction observation, well design, well rehabilitation design, well pump system design, geophysical log interpretation, preparation of expert reports for Water Court proceedings, GPS/GIS data collection, hydrogeologic system conceptualization, aquifer test analysis, geologic mapping and cross section construction, pumping cost optimization studies, well permitting and regulatory compliance, construction cost estimation, preparation of bid documents and specifications, and spatial analysis of hydrologic systems using GIS.

Mr. Seitz is experienced in the creation of relational databases and geographic information system (GIS) models and their application to a wide range of surface and groundwater projects.

Mr. Seitz has 20 years of experience in the water consulting field, with most projects located in Colorado. His typical clients include municipalities, water districts, private well owners, farmers and ranchers, ditch companies, State and Federal agencies, HOAs, and natural resources companies.

The HCW was completed in the South Platte alluvial aquifer in January 2017 and was successfully tested at rates of over 9,000 gpm (S. Adams Co. W&S District).

- Well rehabilitation of a municipal alluvial aquifer well in Vail, Colorado for Upper Eagle Regional Water Authority (UERWA). Designed mechanical and chemical well rehabilitation program to mitigate iron bacteria issue and designed pumping system to reduce galvanic corrosion of pumping equipment due to high dissolved oxygen and conductivity of well water.
- Designed and implemented a regional data collection program and ground water modeling effort to examine the risk of alluvial wells being designated as “ground water under the direct influence of surface water” (GWUDI) by the Colorado Dept. of Public Health and Environment (CDPHE). Coordinated with CDPHE to understand the evolution and nuances of their regulatory process; submitted comments during the draft GWUDI review period which were later incorporated into the final version of the GWUDI policy (Policy DW-003).
- Construction observation, aquifer testing, and pumping system startup testing of a well liner in an alluvial aquifer well in Edwards, Colorado. Successfully reduced sand content of well below AWWA standard. (Upper Eagle Regional Water Authority)
- Designed, operated, and interpreted a 5-day aquifer and recovery test of “headgate” well field on the South Platte River using 8 monitoring wells and a temporary hand-augered sand point well. Corrected data for stream stage fluctuations and barometric effects. Determined aquifer properties using test results and image well methodology.
- Hydrogeologist for the ground water component of the Rio Grande Decision Support System project in the San Luis Valley, Colorado. Provided data and analysis used to develop the State’s Confined Aquifer Rules, particularly confined aquifer characteristics, geologic layering, and land subsidence potential due to pumping. Oversaw construction of 15 deep monitoring wells with associated extensometers and constant rate aquifer tests. (Colorado Water Conservation Board and Colorado Division of Water Resources)

Presentations and Papers

- Seitz, M.J. 2018. Wells 101 – Location, Protection, Components. Presented at Water Quality Association’s Annual Convention and Exposition, Denver, CO. March 26, 2018.
- Seitz, M.J. 2018. Pumps 101 – Wells and Pumping Systems. Presented at Water Quality Association’s Annual Convention and Exposition, Denver, CO. March 26, 2018.
- Seitz, M.J, and Ingels, Tyson (CDPHE), February 2015, “Is Your Water Well ‘Under the Influence?’ Strategies to Evaluate Groundwater Under the Direct Influence of Surface Water (GWUDI) Potential and Mitigate Risk.” Abstract and presentation at Colorado Groundwater Association, Denver, Colorado.
- Seitz, M.J, and Michael, S.C., April 2013, “That Sinking Feeling - Using InSAR Data to Analyze Land Subsidence.” Abstract and presentation at National Groundwater Association Groundwater Summit, San Antonio, TX. 2013.
- Seitz, M.J, July 2012, “Introduction to Hydrology of the South Platte Alluvial Aquifer.” Abstract and presentation for Colorado Water Well Contractors Association, Breckenridge, CO.
- Seitz, M.J, October 2002, “Ground Water/Surface Water in the Medano Creek Floodplain, Great Sand Dunes National Monument, San Luis Valley, Colorado.” Abstract and presentation at Geological Society of America Convention, Denver, Colorado.
- Seitz, M.J., May 9, 1997, “The Occurrence of Elevated Gamma Radiation Zones and possible Water Quality Impacts in Denver Basin Aquifers.” Colorado College Undergraduate Distinction Thesis, May 9, 1997.

Water Court Experience

- City and County of Broomfield, CO. Division 1, Case No. 2006CW288 (09CW96), Application for Conditional Underground Water Right, Alternate Point of Diversion, Plan for Augmentation; completed Expert Meeting negotiations and trial preparation.
- Donala Water and Sanitation District. Division 2, Case No. 09CW096 (2009CW73), Application for Change of Water Rights and Conditional Exchange; completed Expert Meeting negotiations and trial preparation.

- Timbro Ranch and Cattle Co. Division 1, Case Nos. 13CW3144 / 14CW3134. First Amended Consolidated Application for Nontributary Underground Water Rights from the Upper Pierre Aquifer Or In the Alternative Conditional Underground Water Rights and Plan for Augmentation; Attended Expert Meetings, Prepared Expert rebuttal reports, provided Expert Witness support in Division 1 Water Court trial.

RESUME

SCOTT G. MEFFORD
PRESIDENT, HYDROKINETICS, INC.
12975 West 24th Place
GOLDEN, COLORADO
80401

EXPERIENCE

1983-PRESENT

In 1983, Mr. Scott G. Mefford co-founded Hydrokinetics, Inc., a groundwater engineering firm specializing in geohydrology, water rights, and well system engineering. He is a senior project manager, working specifically in the areas of water supply development, water rights, groundwater planning, well design and maintenance, and aquifer analysis. Additionally, Mr. Mefford provides expertise in the application of geophysical techniques to groundwater investigations, groundwater modeling, aquifer recharge, groundwater contamination, and geologic mapping. He has routinely provided expert testimony before various local commissions, District Courts, Colorado Water Courts, and in Federal Court.

1972-1983

During eleven years with Willard Owens Associates, Inc., Mr. Mefford became corporate vice-president and manager of technical operations. In this capacity, Mr. Mefford supervised all technical activities of the Denver based geotechnical staff. He was responsible for drilling engineering projects, ground water development programs, mining hydrology studies, environmental hydrology investigations (including RCRA studies), regional aquifer studies, groundwater modeling programs, geological mapping, and groundwater monitoring programs. He managed many deep well construction programs and has prepared baseline and reclamation hydrology sections for a variety of mine permit applications in Colorado, Wyoming, Montana, and New Mexico. In addition to designing and implementing ground water monitoring systems, Mr. Mefford has supervised spill response, cleanup, and monitoring for a number of underground spills. Mr. Mefford has also provided expert testimony in both water court and in administrative hearings on numerous occasions.

1972-1980

Mr. Mefford served as vice president and consulting geophysicist to Western Well Logging, Inc., a sister firm of Willard Owens Associates, Inc.

1971-1972

Mr. Mefford was an economic geologist for the Colorado School of Mines Research Foundation.

1970-1971

Mr. Mefford was a staff geologist for the Colorado School of Mines Research Foundation performing air photography interpretation for the Colorado Land and Resource Inventory Project.

EDUCATION

Graduate studies in Mineral Economics, Colorado School of Mines, Golden, Colorado

Graduate of the U.S. Army Officers Engineers School, U.S. Army Corps of Engineers, Fort Belvoir, Virginia, 1971

B.S., Geophysical Engineering, Colorado School of Mines, Golden, Colorado, 1970

PROFESSIONAL AFFILIATIONS

Colorado Ground Water Association
President, 1991-92

American Institute of Professional Geologists
American Geophysical Union
National Ground Water Association

PROFESSIONAL REGISTRATIONS/CERTIFICATIONS

Certified Professional Geologist No. 5021
Wyoming Registered Geologist No. 620

APPOINTMENTS AND PEER REVIEW POSITIONS

Appointed by Governor to serve on Lowry Landfill Superfund Site Review Committee

Served on Peer review committee for SB-96-074

TEACHING POSITIONS

Taught Environmental Geohydrology, Metropolitan State College, Denver
Taught "Groundwater 101" , part of the Colorado Bar Associations Continuing Education Program

ELECTED POSITIONS

Member of Board of Directors, Genesee Water and Sanitation District, 2002-2005
Board President

Chief, Genesee Fire and Rescue, 2008-2010

TRAINING CERTIFICATIONS

Hazardous Materials and Site Investigations Training as Required by 29CFR Part 1910.120.

Certified at Operations Level for Hazmat Response by Colorado Division of Fire Safety

USEPA Region VIII START Course in Basic Chemical Hazard Classification

Safety Officer, Jefferson County Incident Management Team

Publications

Geoscience Data Base Handbook for Modeling a Nuclear Waste Repository, NUREG/CR-912, published by Lawrence Livermore Laboratory on behalf of U.S Nuclear Regulatory Commission, wrote chapters of handbook Vol. 1 and 2 dealing with hydrogeology and groundwater flow, 1979

Colorado Cases/Hearings in which Mr. Mefford Provided Testimony or Depositions Since 2000, and Expert Reports since 2008

2000 Case No. 96CW013, Water Court Division 1, Application for Non-Tributary Water Rights by Sportsmens Ranch LLP (2000)

2001 Case No. 96CW014, Water Court Division 1, Application for Tributary Water Rights and Plan of Augmentation, Sportsmens Ranch LLP and City of Aurora (2001)

2002 Case No. 96CW045, Water Court , Division 3, Application for Water Rights by Prairie Ditch Company

2003 Case No. 96CW313, Water Court, Division 4, Application for Water Rights by Town of Telluride

2003 Case No. 96CV2215, Division 8 District Court, Public Service Company of Colorado suit concerning natural gas contamination of water wells

2005 Case No. 94CW049, Water Court, Division 1, Water litigation involving non-trib groundwater, Parties include Objector, East Cherry Creek Valley Water and Sanitation District and Applicant, Pure Cycle Corp. (2005)

2005 Case 2005CV1613, Jefferson County District Court, Heagney Lawsuit involving dispute over well construction practices

2007 Hearing, Division 2, involving Cherokee Water District compliance with Court directions to curtail pumping

2008 Expert Report and Testimony in Case No 2007CW52, Colorado Water Division 3, involving creation of Ground Water Subdistrict in Closed Basin, San Luis Valley

2008 Rebuttal Report in Division 1 Case No. 02CW403, an Application for an Augmentation Plan filed by the East Cherry Creek Valley Water and Sanitation District, and United Water and Sanitation District

2009 .. Testimony before State Engineer regarding rule making for Non-Tributary designation for specific waters developed through coal bed methane development activities in the Piceance Basin

2010 .. Testimony before State Engineer regarding rule making for Non-Tributary designation for waters developed through conventional oil and gas development activities in the Piceance Basin

2010 Testimony before State Engineer regarding rulemaking for Non-Tributary designation for specific waters developed through conventional oil and gas extraction activities in the Denver Basin

2010 Testimony before the Hearing Officer of the Colorado Ground Water Commission regarding closure of portions of the Lost Creek Designated Basin to further appropriations (Hay Gulch)

2010 Expert Report in Division 1 Case Nos. 02CW404 and 03CW442, an Augmentation Plan filed by the East Cherry Creek Valley Water and Sanitation District, and United Water and Sanitation District

2011 Rebuttal Report in Division 1 Case Nos. 02CW404 and 03CW442, an Augmentation Plan filed by the East Cherry Creek Valley Water and Sanitation District, and United Water and Sanitation District

2011 Depositions on behalf of Gallegos Family regarding altering boundaries of Upper Crow Creek Ground Water Management District, 2003GW06

2011 Expert Report supporting Division 1 Case No. 2004CW326, an Augmentation Plan filed by the City of Thornton

2012 Hearing before the Upper Black Squirrel Ground Water Management District regarding Location and Impacts of the Tipton Well

2012 Depositions and Court Testimony in Division 3 Case No. 07CW42, Costilla County Conservancy District opposers to Battle Mountain Resources, Inc. Augmentation Plan.

2013 Expert Report for Division 1 Case No. 09CW275, involving various water rights for the Castle Pines Metropolitan District, and Castle Pines North Metro District

2013 Expert Report in Division 1 Case 03CW372 for Applicants in Green River Associates case in Conifer , Colorado

2013 Expert Report and Court Testimony in Division 1 Case No. 03CW371 for Augmentation Plan for "Bobcat Ridge" in Conifer, Colorado.

2013 Expert Report prepared for Division 1 Case 10CW306, an Augmentation Plan for East Cherry Creek Valley Water and Sanitation District in Adams County, Colorado