RESUME

Matthew J. Seitz, 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 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

Experience Overview

Mr. Seitz is a hydrogeologist and Project Manager with HRS Water Consultants, Inc., and specializes in groundwater field studies, hydrogeologic data analysis, data management, and project management.

His field experience includes hydrogeologic conceptualization, aquifer testing, lithologic description, well site construction observation, well design, well rehabilitation design and observation, pump system design, geophysical log interpretation, and GPS/GIS data collection.

His data analysis and data management experience includes aquifer test analysis, geologic mapping and cross section construction, pumping cost optimization studies, well permitting and regulatory compliance, construction cost estimation, drilling project management, preparation of bid documents and specifications, and spatial analysis of ground water 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 ground water projects.

Mr. Seitz has 18 years of experience in the water consulting field. His past clients include municipalities, water districts, private well owners, farmers and ranchers, ditch companies, State and Federal agencies, HOAs, and private natural resources companies.

Representative Experience

- Well rehabilitation of a municipal alluvial aquifer well in Vail, Colorado. 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 (UERWA).
- 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).
- Observation of drilling, geophysical logging, well construction, well development, and aquifer testing of over 15 Denver Basin aquifer wells (Denver, Arapahoe, LFH formations) for various clients (e.g., Colorado Springs Utilities, The Pinery, South Suburban Parks and Rec, Waste Management, Academy W&S District).
- 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)
- Geologic research to develop appropriate input data for a Glover stream depletion solution near Brighton, Colorado. Determined return flow accretion timing and volume using a variety of software tools.
- Contract preparation and competitive bid support, permitting, well design, project management, and construction and aquifer test observation for an alluvial production well (900 gpm) north of Fort Lupton, Colorado. Conducted a 48-hour aquifer test with 7 observation wells (City and County of Broomfield).
- 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).
- 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).

Presentations and Papers

- Seitz, M.J, and Ingels, Tyson, 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.