

# Cortney C. Brand, P.G.

## Water Resources

---

### University of Colorado

M.B.A.

### Arizona State University

M.S., Geology

### Lafayette College

B.S., Geology

### Professional Registrations/ Certifications

Professional Geologist:  
AZ, WY, FL

### Key Expertise

- Program Management
- Water Supply and Infrastructure Development
- Water Resources Planning
- ASR Systems
- Water Rights
- Financial Analysis
- Utility Management



Mr. Brand is a Program Manager and the firm's Local Practice Leader for Water & Utilities in the Rocky Mountain Region. He has more than 16 years of consulting and water utility experience in the areas of water infrastructure development, water resources planning, aquifer storage recovery (ASR) systems, water rights, and financial analysis. He specializes in the planning and development of water infrastructure projects and is skilled in financial analysis techniques utilized to compare and prioritize alternatives.

Prior to joining SAIC (formerly R. W. Beck), Mr. Brand was a Senior Project Engineer in the Water Supply Department at Colorado Springs Utilities, where he conducted long-range water supply planning, source of supply development, regional negotiations, capital budgeting, and water rights engineering. He served on the Board of Directors at Castle Pines North Metropolitan District from 2004-2008, and currently serves on the Metro Roundtable as El Paso County's appointee.

Mr. Brand is a registered geologist in Arizona, Wyoming and Florida.

## Professional Experience

### Water Supply Development

Mr. Brand has planned, permitted, designed, and managed installation of numerous water supply wells in Arizona, Colorado, Nevada, Kansas and California. He is experienced with all facets of groundwater supply development.

- Planned and managed development of a 30,000-AF/yr groundwater supply for a power generating facility near Gila Bend, Arizona.
- Planned and managed development of a 13,000-AF/yr groundwater supply and monitoring well network for the Rio Salado Habitat Restoration project in Phoenix.
- Prepared a pre-design for a 29,000-AF/yr well field for Denver Water.
- Managed permitting and installation of Denver Basin wells for Colorado Springs Utilities.
- Managed development of a 1,900-gpm bank filtration well field for the City of Arvada, Colorado.

### Water Resources Planning

Mr. Brand previously conducted water resources planning for a large municipal utility that serves nearly 500,000 people. As such, he has a keen understanding of water resources planning techniques.

- Project Manager for the City of Phoenix's Water Resource Options Evaluation project.
- Life-cycle cost and NPV analysis of water supply projects
- Developed a comprehensive nonpotable water strategy for Colorado Springs Utilities
- Regional water supply planning and multi-party negotiations
- Managed development of a large-scale agricultural water rights leasing program
- Directed development of an Integrated Water Resource Plan (IWRP)
- Managed development of a business case for a large-scale water rights acquisition

## Financial Analysis

Mr. Brand is skilled in the conventional financial techniques used to evaluate capital projects, value corporations and assets, and conduct utility financial planning.

- Life-cycle cost and financial analysis of water infrastructure projects
- Capital project analysis utilizing IRR, payback, and NPV techniques
- Preparation of pro forma financial statements
- Valuation using discounted cash flow (DCF), multiples, and comparable sales techniques

## Water Rights

Mr. Brand is very knowledgeable of water rights in the western United States, especially Colorado. He has both owner and consultant experience with water rights filings, litigation, valuation, and acquisition.

- Managed a complex water rights filing to exchange municipal groundwater return flows
- Managed a large, GIS-based groundwater adjudication project for City of Aurora
- Litigation support for numerous water rights cases
- Water rights valuation and acquisition

## Groundwater Recharge / Aquifer Storage Recovery (ASR)

- Managed an alluvial groundwater recharge investigation using reclaimed water
- Project Manager for a reclaimed water recharge/recovery study for the City of Phoenix. The project involves technical and financial feasibility assessment of various recharge sites in northeast Phoenix along with evaluation of treatment improvements.
- Assisted with the feasibility assessment for a Managed Aquifer Recharge (MAR) facility in the Sheep River alluvial aquifer near Calgary, Alberta.
- Initiated, permitted, and managed development of a deep bedrock (Denver Basin) ASR program for Colorado Springs Utilities.
- Conducted a feasibility study and pilot testing program for a reclaimed water ASR facility east of Colorado Springs, Colorado.
- Planned and prepared concept designs of facilities to recharge and recover 2.5 MGD of reclaimed water for Prescott Valley, Arizona.
- Evaluated the feasibility and prepared permit applications for in-channel recharge of 25,000-AF/yr of Central Arizona Project water into the Hassayampa River basin west of Phoenix, Arizona.
- Sited, designed, and prepared technical specifications for two direct injection wells for the City of Tucson, Arizona.
- Conducted a feasibility investigation to capture and recharge stormwater into the Carrizo aquifer in south-central Texas.

## Utility Administration

Mr. Brand has gained valuable utility administration experience through his tenure at a large utility, consulting to utilities, and serving on the board at Castle Pines North Metropolitan District.

- Utility rate setting and rate re-design
- Annual and long-term budgeting (capital and O&M)
- Capital project financing strategies, using G.O bonds, revenue bonds, and certificates of participation (COPs)
- Process mapping and analysis
- Human resource policies, salary structures and organizational designs
- Knowledge management systems
- Capital program optimization

## Program Management / Owner's Advisor

Through various program management assignments, Mr. Brand is experienced serving as a utility's virtual staff. Mr. Brand provides program management and owner's advisory services to utilities associated with implementation of large capital programs.

- Program Manager and former Design Manager for the City of Wichita's \$250 million Phase II ASR Program. Phase II consists of a 60-mgd river intake, a 30-mgd water treatment plant (membranes and advanced oxidation), 30 recharge/recovery wells, 40 miles of power lines, and 30 miles of 16- to 66-inch pipeline. He served as the Program Controls Manager in the early stages of the program and helped establish the program business systems.
- Deputy Program Manager for a 30,000 AF/year water supply delivery system project in Colorado. Project consists of the acquisition and transfer of agricultural water rights, and development of a 50-mile raw water delivery system with pump stations and reservoirs.
- Owner's advisor for delivery strategy and procurement of a program manager for Colorado Springs Utilities' 75-mgd Southern Delivery System (SDS). Mr. Brand assisted with the planning and permitting of the SDS when he worked at Springs Utilities.
- Assisted with development of the Program Management Manual (PMM) and workflows for Tarrant Regional Water District's \$2 billion Integrated Pipeline Program in Fort Worth, Texas.
- QA/QC lead for San Antonio Water System's (SAWS) concentrate management well investigation associated with its Brackish Groundwater Feasibility Study.

## Environmental Permitting

Mr. Brand has experience with obtaining EIS, 404, NPDES, and state-specific permits for a wide variety of water and wastewater infrastructure projects.

- Assisted with the EIS process for Colorado Springs' Southern Delivery System, which consists of a 43-mile, 78-MGD pipeline with pump stations, reservoirs and a new water treatment plant

- Water impacts lead in the EIS process for a power generating facility in northwest Arizona

### **Other Relevant Experience**

- Developed on-line operation, maintenance, and procedures (OMPM) manuals for three Denver Water Source of Supply (SOS) facilities, including valve houses and hydro plants.
- Prepared an irrigation water supply strategy for a 5,500-acre development near Orlando, Florida.
- Mr. Brand has conducted water supply evaluations in support of Independent Engineering (IE) studies for ethanol, natural gas, nuclear, solar, and geothermal facilities throughout the United States.