



**JONATHAN M. KELLY, P.E.**  
SENIOR WATER RESOURCES ENGINEER  
VICE PRESIDENT

**CURRENT** Water resources engineer with experience in water supply and water rights engineering, hydrologic analysis of groundwater and surface water systems, channel hydraulics and floodplain delineations, water quality evaluations, application of best management practices (BMPs), and sizing of stormwater facilities.

**EDUCATION** M.S., Civil Engineering, 1993  
University of California, Los Angeles

B.S., Civil Engineering, 1992  
University of California, Los Angeles

**REGISTRATION** Professional Engineer — Colorado #33901

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**REPRESENTATIVE PROJECTS**

Conducted engineering analysis for numerous water court applications and water augmentation plans in Western Colorado. Evaluations typically included developing a physical and legal water supply plan for the project; analyzing controlling water rights and periods of calls; and qualifying and locating augmentation sources.

Primary author for two chapters of 2001 update of the Denver Urban Drainage & Flood Control District's *Drainage Criteria Manual*.

Prepared permit text for submittal to Colorado Division of Minerals and Geology regarding all aspects of surface water and groundwater quality/quantity impacts associated with mining-induced ground subsidence.

Conducted a transit loss study a stream system in western Colorado to assess the channel seepage losses. Reservoir water is released to the stream system to augment out-of-priority depletions over twenty miles downstream. Downstream water users must account for transit losses before taking credit at their points of diversion.

Applied a computer model to predict the subsidence resulting from longwall mining and assessed the changes in surface and groundwater hydrology. Evaluated the sediment transport characteristics and potential for increased channel erosion due to change in channel slope.

Developed a comprehensive river basin simulation model for a proposed resort in Eagle County. Performed numerous simulation runs for alternative development scenarios to assess water rights implications and water quality issues.

Performed a hydrologic analysis of a rain-on-snow precipitation event for a coal mine in western Colorado. The analysis showed that the runoff resulting from the storm exceeded the design capacity of a sediment pond and, thus, a NPDES permit violation was not warranted.

**PUBLICATIONS**

- Wright, K.R., T.A. Earles, and J.M. Kelly, 2003. Public Safety at Low Head Dams. Presented at the ASDSO Dam Safety 2003, Minneapolis, Minnesota, September 7-10, 2003.
- Clary, J., J. Kelly, J. O'Brien, J.E. Jones and M. Quigley, 2001. National Stormwater Best Management Practices Database: A Key Tool to Help Communities Meet Phase II Stormwater Requirements. *Stormwater*. 44-48, March/April 2001.
- Wright, K.R., J.M. Kelly, and A. Valencia Zegarra. 1997. Machu Picchu: Ancient Hydraulic Engineering. *Journal of Hydraulic Engineering*. 838-843 (October 1997).
- Kelly, J.M., J.K. Clary, J.E. Jones, and E.W. Brown, 1996. Colorado Regulations for Preserving Riparian Corridors. Presented at the 1996 CASFM Conference on Thinking Outside the Box...Expand Your Horizons, Vail, Colorado, September 18-20, 1996.
- Jones, J.E., E.W. Brown, J.K. Clary, and J.M. Kelly, 1996. Riparian Buffer Widths at Rocky Mountain Resorts. Presented at the 1996 Engineering Foundation Conference: Effects of Watershed Development and Management on Aquatic Ecosystems, Snowbird, Utah, August 4-9, 1996.
- Wright, K.R., J.A. Dracup, and J.M. Kelly, 1996. Ancient Floods and Droughts: The Demise of Three Great Empires in Peru. Presented at the Symposium What We Have Learned Since the Big Thompson Flood, Fort Collins, Colorado, July 10-13, 1996.
- Wright, K.R., J.A. Dracup, and J.M. Kelly, 1996. Climate variability impact on the water resources of ancient Andean civilization. Presented at the ASCE North American Water and Environment Congress Conference, Anaheim, California, June 22-28, 1996.
- Clary, J.K., J.E. Jones, E.W. Brown, and J.M. Kelly, 1996. Riparian Corridor Protection and Rocky Mountain Resorts. Presented at the National Symposium: Assessing the Cumulative Impacts of Watershed Development on Aquatic Ecosystems and Water Quality. Chicago, Illinois, March 1996.
- Wright, K.R., J.M. Kelly, R.J. Houghtalen, and M.R. Bonner, 1995. Emergency Rescues at Low-Head Dams. Presented at the ASDSO Annual Conference and Exhibit Show, Atlanta, Georgia, September 15-20, 1995.
- Wright, K.R., J.M. Kelly, and W.S. Allender, 1995. Low-Head Dam Hydraulic Turbulence Hazards. Presented at the ASDSO Western Regional Conference and Technical Seminar, Red Lodge, Montana, May 22-25, 1995.
- Jones, J.E., J. Kelly, C. Wick, and T. Abernathy, 1994. Four-Season Resort Makes Strong Commitment To Riparian Corridor Preservation And Enhancement. Presented at the CASFM Conference on Multi-Objective River Corridor Management in the Arid West, Telluride, Colorado, September 15-16, 1994.