

General Qualifications

Mr. Cowan specializes in karst hydrogeology, surface water hydrology, and environmental science. He has a range of experience conducting hydrogeologic karst investigations, particularly in the application of technology to collect environmental data. He has conducted karst feature surveys on 1000 acres in central Texas since 2007. He is also familiar with issues in cave microclimates, groundwater geochemistry, and contaminant transport. Mr. Cowan's project experience includes geologic evaluations, and hydrogeologic research. Aspects of these projects include dye tracing studies in the saturated and unsaturated zones of the Edwards aquifer.

Years with Zara: 0.75

Years with Other Firms: 2

Education

M.S., 2010, Hydrogeology,
University of Texas at Austin

B.S., 2006, Geology, University of
West Georgia

Certifications

CPR training

Selected Experience

Texas Department of Transportation, San Antonio, Texas.

Texas Department of Transportation, Environmental Affairs Division. Scientist. Responsibilities include scientific support. Zara was awarded a 4 year IDIQ contract in 2008 to perform karst services in Texas. These services include: conducting surveys and habitat assessments for protected karst invertebrate species, conducting biological analysis to support Section 7 consultation and preparation of ESA biological assessments or Section 10.a permits, initiating coordination with state and federal resource agencies, and other services related to the foregoing scientific services.

Camp Bullis Karst Management, San Antonio, Bexar County, Texas. *Department of Defense.*

Hydrogeologist. Responsibilities include processing data from and maintaining cave drip monitoring equipment and a rain gage network. Zara has an ongoing contract to monitor endangered species, evaluate karst habitat and caves, and evaluate the hydrogeology of Camp Bullis.

Loop 1604 Environmental Impact Statement, San Antonio, Texas. *Michael Baker Corporation.* Karst geologist. Responsibilities included performing surveys and evaluations for endangered species compliance and geologic assessments.

Selected Publications and Presentations

Cowan, B.D., 2010, *Temporal and spatial variability of cave-air CO₂ in central Texas*. M.S. Thesis. The University of Texas at Austin

Cowan, B.D., 2009, *Temporal variability of cave-air CO₂ in central Texas*, 15th International Congress of Speleology, Kerrville TX,

Cowan, B.D., Banner, J.L., Hauwert, N.M. and Musgrove, M., 2009, *Geochemical and physical tracing of rapid response in the vadose zone of the Edwards karst aquifer*, Geological Society of America Nation Meeting, Denver CO

Cowan, B.D., Smith, E. and Mayer, J., 2004, *Surface water/groundwater interaction beneath a Georgia Piedmont floodplain*, Geological Society of America Nation Meeting, Denver CO

