

Barton Richard Faulkner, Hydrologist in EPA's National Risk Management Research Laboratory

Groundwater, Watershed, and Ecosystem Restoration Division

[Mailing Address](#)

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Area of Expertise:

- Physical hydrology/hydrogeology
- Groundwater/surface water interactions
- Transport and survival of pathogens in vadose zone
- Aqueous geochemistry
- Mathematical modeling of water flow and transport
- Geostatistics
- Vadose zone hydrology

Select Publications:

Singh, HV, **Faulkner, BR**, Keeley, AA, Freudenthal, J., Forshay, KJ. 2018. [Floodplain restoration increases hyporheic flow in the Yakima River Watershed, Washington](#). *Ecological Engineering* 116(2018)110-120.

Faulkner, BR, Leibowitz, SG, Canfield, TJ, Groves, JF. 2016. [Quantifying groundwater dependency of riparian surface hydrologic features using the exit gradient](#). *Hydrological Processes* 30:2167-2177.

Cooper, CA, Mayer, PM, **Faulkner, BR**. 2014. [Effects of road salts on groundwater and surface water dynamics of sodium and chloride in an urban restored stream](#), *Biogeochemistry* 121(1):149-166.

Hockenbury, LA, **Faulkner, BR**, Forshay, KJ, Brooks, JR. 2014. Green Island and the Hyporheic Zone: Why Restoration Matters. US EPA *Environmental Research Brief* EPA/600/F-13/340, September, 2014, 10 pp. Cincinnati, OH.

Faulkner, BR, Brooks, JR, Forshay, KJ, Cline, SP. 2012. [Hyporheic flow patterns in relation to large river floodplain attributes](#), *Journal of Hydrology* 448-449:161-173.

Faulkner, BR. [Using monitoring, LiDAR and MODFLOW to Estimate Hyporheic Fluxes for a Dynamic Large River Riparian Area](#). 2011. In Proceedings, MODFLOW and More 2011 Conference, Golden, CO, June 5-8, 2011. International Ground Water Modeling Center, Golden, CO, 415-419.

View more research publications by [Barton Faulkner](#).

Education:

- Ph.D., University of New Mexico, Albuquerque, NM; Earth and Planetary Sciences, 2007
- M.S. University of Nevada, Reno, NV; Hydrology/Hydrogeology, 1996
- B.S. Cum Laude, Mesa State College, Grand Junction, CO; Geology, 1993

Professional Experience:Memberships and Affiliations

- American Geophysical Union
- National Ground Water Association
- American Water Resources Association
- Geological Society of America
- International Association of Mathematical Geologists

Workgroups and Projects

- Health and Safety Team
- EPA Awards Board
- Center for Subsurface Ecological Assessment and Research Team (2001-2005)
- Science Research Council (2007-2011)

Awards and Honors

- EPA ORD Scientific and Technological Achievement Awards (STAA) for Assessment of Hyporheic Flow Using Field Measurements and Modeling for a Large River Floodplain Undergoing Restoration (2015)
- EPA Team Achievement Award for assisting in identifying sources of protozoa contamination (2009)
- EPA Special Achievement Award for contributions to the Willamette Ecosystem Services Project (2009)
- EPA Special Achievement Award for work in McNair Scholarship Program (2008, 1999)
- EPA ORD STAA for Development of a Method to Predict Risk of Contamination by Viruses for Drinking-Water-Supply Aquifers (2006)
- EPA Special Achievement Award for writing team participation in Division Review (2005)
- EPA Special Achievement Award for development of Virulo computer model (2002)
- EPA Special Achievement Award for work in Business and Industry Externship Program (2000)
- EPA Team Achievement Award for work in Enhanced Source Removal (1999)
- NAGT/USGS Award Recipient: Western State College, Gunnison, Colorado (1993-1994)
- USDA Certificate of Merit Recipient: US Forest Service, Inyo National Forest, California (1991)