

Brian Fitzgerald
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Education

M.S. University of Nevada, Reno, Environmental Sciences and Health
B.S. Villanova University, Mechanical Engineering

Professional Experience

- 2005–present **Desert Research Institute, Staff Research Scientist**
Conduct surface water quality sampling, data acquisition, analysis, work-up, and report writing for a multitude of studies including the Incline Creek Watershed Nutrient/Sediment Loading, Carson River Sediment TMDL, Rosewood Creek Restoration evaluation, Near-Shore Lake Tahoe buoy monitoring, Off-site nuclear test monitoring, and Polyacrylimide Effectiveness in irrigation canals. Work independently and as part of a team.
- 2001–2004 **University of Nevada Reno, Graduate Research Assistant**
Thesis work on groundwater arsenic occurrence in Churchill County, Nevada as part of the Fallon childhood leukemia cluster investigation. One thesis chapter on mapping arsenic occurrence in three dimensions using GIS; one chapter on arsenic speciation and sorption.
- 2000 **University of Nevada Reno, Graduate Research Assistant**
Coordinated and led field research of elemental mercury flux from highly contaminated areas in northern California, including mine waste piles and Superfund sites. Worked independently and as part of a team.
- Assisted two professors in teaching Environment 100, a beginning course in Environmental Science. Enjoyed a diversity of duties including lab instruction, test proctoring and grading.

Selected Publications

- Bisiaux, M.M., R. Edwards, A. C. Heyvaert, J. M. Thomas, B. Fitzgerald, R. B. Susfalk, S. G. Schaldow and M. Thaw, 2011. Stormwater and fire as sources of black carbon nanoparticles to Lake Tahoe. *Environmental Science and Technology* 45(6), 2065-2071.
- Susfalk, R.B.; Martin, C.; Sada, D.; Young, M.H.; Gates, T.; Shanafield, M.; Fitzgerald, B.; Smith, D.; 2008. Benefits and Risks of Using Linear Anionic Polyacrylamide (LA-PAM) for Seepage Reduction in Unlined Water Delivery Canals AGU. San Francisco.
- Susfalk, R.B.; Fitzgerald, B.; Knust, A.M.; 2008. Characterization of turbidity and total suspended solids in the Upper Carson River, Nevada. DRI Publication Number: 41242.

- Susfalk, R.B.; Epstein, B.; Goreham, J.O.; Young, M.H.; Moran, E.; Martain, C.; Gates, T.; Swihart, J.; Smith, D.; Fitzgerald, B.C.; 2006. Use of Polyacrylamide to Reduce Seepage from Unlined Water Delivery Canals. Fall 2006 AGU Meeting. San Francisco, CA.
- Gustin, M.S., Coolbaugh, M, Engle, M., Fitzgerald, B., Keislar, R., Lindberg, S., Nacht, D., Quashnick, J., Rytuba, J., Sladek, C, Zhang, H., Zehner, R. 2003. Atmospheric mercury emissions from mine wastes and surrounding geologically enriched terranes, *Environmental Geology*, 43:339-351.
- Fitzgerald, B., M.J. Walker, M. Gustin, J. Davison. 2002. "Arsenic in domestic wells in Churchill County, Nevada." Nevada Water Resources Association Annual Conference, Las Vegas, NV
- Walker, M.J., B. Fitzgerald, M. Gustin, M. Benson. 2001. Arsenic in Domestic Water Supply Wells in Churchill County, Nevada, Proceedings of the American Water Resources Association Annual Conference on Water Resources, Albuquerque, NM, 2001.
- Gustin, M. Sexauer, Coolbaugh, M., Engle, M., Fitzgerald, B., Lindberg, S.E., Nacht, D., Rytuba, J., Zehner, R. *The significance of mercury emissions from geologic sources*, 6th International Conference on Mercury as Global Pollutant, Minamata, Japan, October 2001.
- Gustin, M. S., Coolbaugh, M., Engle, M., Fitzgerald, B., Lindberg, S., Nacht, D., Rytuba, J., Zehner, R. *Putting into perspective mercury emissions from geologic sources*, E.P.A. sponsored Workshop on the fate, transport and transformation of mercury in aquatic and terrestrial environments, West Palm Beach, FL, May 2001.
- Gustin, M.S., Coolbaugh, M., Engle, M., Fitzgerald, B., Nacht, D., Zehner, R., Sladek, C., Keislar, R., Rytuba, J., Lindberg, S., Zhang, H. *Atmospheric Mercury emissions from mine waste*, symposium volume, EPA Meeting on Assessing and Managing Mercury from Historic and Current Mining Activities, San Francisco, CA, Nov. 2000.