



Heather Shipley, Ph.D.

Assistant Professor

Department of Civil Engineering

Areas of Teaching Interest:

- Analysis of Environmental Problems
- Environmental Chemistry
- Environmental Engineering
- Introduction to Civil Engineering
- Water and Wastewater Treatment

Areas of Research Interest:

- Water Quality Monitoring
- Fate and Transport of Pollutants
- Water Conservation
- Recycling and Sustainability
- Water Purification
- Technology Comparisons and Improvements for Water and Wastewater Treatment
- Remediation
- Nanomaterials for Environmental Clean-Up
- Implications of Nanomaterials on the Environment
- Contaminant Adsorption/Desorption with Nanoparticles and Nanoparticle Transport Including Modeling

Publications

- **Probabilistic and Sensitivity Analysis of Engineered Nanoparticles Mobility Behavior**
C. Contreras, H.R. Millwater and H.J. Shipley, Journal of Environmental Engineering (submitted), (2012).

Conference Proceedings

- **Stability and Mobility of Metal Oxide Nanoparticles in Porous Media**
C. Contreras, J. George, K. Paredes and H.J. Shipley, 2011, Proceedings of 2011 American Society Engineering Education-GSW Conference (accepted).
- **Transport of Al₂O₃ Nanoparticles in Sand: Effects of Ionic Strength, pH and Flow Rate**
J. George, T. Rahman and H.J. Shipley, November 2011, American Chemical Society 2011 Southwest Regional Conference, Austin, TX.