



**Experience
Summary:**

Sidney has over nineteen years of experience in environmental services including planning, biochemical treatment processes, comprehensive performance evaluations, wastewater process modeling, laboratory operations, environmental assessments, environmental permitting and compliance, chemistry, and toxicology. Sidney has developed or audited BioWin computer models for nitrification, denitrification; and biological phosphorus removal for the \$12 million Northglenn WWTP, the Boulder 75th Street WWTP, the Las Vegas Street WWTP in Colorado Springs, and several industrial facilities. Her Ph.D. research focused on biological nitrification and coursework focused on environmental regulations including water, air, landfills, and RCRA.

Sidney is a certified A wastewater and A industrial treatment plant operator in Colorado. Sidney has developed numerous operations training programs and gives training classes and seminars across the United States. Her hands-on experience operating treatment plants helps to ensure operator friendly processes and final design.

Education:

Ph.D., Environmental Science & Engineering, Colorado School of Mines, 2001
Master of Science, Environmental Science & Engineering, Colorado School of Mines, 1998
Bachelor of Science, Chemistry / Bachelor of Science, Biology, Regis University, 1993

Certifications:

Professional Engineer, Colorado, 38830
Colorado Certified Class A Wastewater Treatment Plant Operator
Colorado Certified Class A Industrial Wastewater Treatment Plant Operator

Offices:

Water Environment Federation Plant Operations and Maintenance Program Committee Chair
Water Environment Federation Technical Practices Committee Liason

SELECTED PROJECT EXPERIENCE

Utility Planning

- Town of Erie Wastewater Utility Plan Update, Erie, Colorado - Principal
- Water and Wastewater Utility Planning, Victor, Colorado - Principal
- Wastewater Utility Plan, Meeker, Colorado - Principal
- Wastewater Feasibility Study, Brush, Colorado – Project Manager
- Environmental Report for Wastewater Treatment Plant Upgrade, Brush, Colorado – Project Manager
- Wind Cave National Park Environmental Site Assessment, Wind Cave, South Dakota - Project Manager
- Wild Basin Lodge Utility Plan, Allenspark, Colorado – Principal / Project Manager
- Northglenn Wastewater Treatment Plant Utility Plan, Northglenn, CO – Environmental Scientist
- Wastewater Process Optimization and Facility Plan; Carbondale, CO – Project Manager
- Water and Wastewater Infrastructure Plan, Thornton, CO – Environmental Scientist
- Wastewater Treatment Plant Siting Study; Carbondale, CO – Project Manager
- Wind River Ranch Facility Evaluation and Regulatory Assistance; Estes Park, CO – Project Manager
- Nitrification Upgrades; Mountain Water and Sanitation District – Environmental Scientist
- Fairways Wastewater Treatment Plant, Boulder, CO – Project Manager
- City of Elko, Nevada Wastewater Treatment Plant Master Plan, Elko, Nevada – Senior Consultant

Comprehensive Performance Evaluations

- Fremont Sanitation District, Florence, Colorado – Principal
- Comprehensive Performance Evaluation, Town of Carbondale, Colorado – Project Manager
- Wastewater Feasibility Study, Brush, Colorado – Project Manager
- City of Victor, Colorado Wastewater Treatment Plant Comprehensive Performance Evaluation – Principal / Project Manager
- Town of Meeker, Colorado Wastewater Treatment Plant Comprehensive Performance Evaluation
- Wastewater Process Optimization and Facility Plan; Carbondale, CO – Project Manager
- Coors Brewing Company Comprehensive Performance Evaluation, Golden, CO – Environmental Scientist
- Elko Wastewater Treatment Plant, Elko, Nevada – Environmental Scientist

Biological Process Modeling and Collection System Modeling

- Collection System Modeling, Brush, Colorado – Principal
- Collection System Modeling, Meeker Sanitation District, Meeker, Colorado - Principal
- Sewer Model Development and Evaluation; Northglenn, CO – Project Manager
- Sewer Model Development and Evaluation; Thornton, CO – Environmental Scientist
- BioWin Modeling and Basis of Design Review, Leprino Foods Company; Lemoore, CA
- Las Vegas Street WWTP Process Evaluation, Colorado Springs Utilities – Environmental Scientist.
- Biowin Model Verification for Boulder 75th Street WWTP; Boulder, CO – Environmental Scientist
- Trickling Filter and Nitrifying Trickling Filter Optimization, Boulder, CO – Project Manager
- Biowin Modeling and Basis of Design, Northglenn WWTP; Northglenn, CO – Environmental Scientist

Training Courses

- Guest Lecturer at Colorado School of Mines, Red Rocks Community College, Boulder Operators School, Leadville School, Boulder Fundamentals School, and University of Tennessee at Knoxville
- Customized on-site training in a variety of topics for the following entities

Silverthorn/Dillon JSA	Leprino Foods Company	City of Boulder
Town of Silverthorne	City of Northglenn	Centennial W&SD
East Cherry Creek Valley W&SD	Frisco Sanitation District	Dinuba, California
Three Lakes W&SD	Town of Carbondale	Lemoore, California
Parker W&SD	City of Durango	Allendale, Michigan
Water Environment Federation	CDPHE WQCD	RMWEA PWO
City of Victor	Town of Meeker	City of Broomfield
RMWQAA		

SELECTED PUBLICATIONS

Sidney Biesterfeld, Mark Dane, Richard Dingeman, Dan Freeman, Paul Heppler, Kurt Keilbach, Ernie Oram, David Paterniti, Dan Waddas, and Mike Lutz, (October 2004) Impact of Water Treatment Plant Residuals on Fixed Film Wastewater Treatment, presented at the 77th Annual Water Environment Federation Conference, New Orleans, Louisiana.

Sidney Biesterfeld, Mark Dane, Richard Dingeman, Dan Freeman, Paul Heppler, Kurt Keilbach, Ernie Oram, David Paterniti, Dan Waddas, and Mike Lutz, (September 2004) Optimizing the Trickling Filter Solids Contact Process for Nitrification, presented at the RMWEA / RMSAWWA Joint Annual Conference, Grand Junction, Colorado.

John Bratby, Greg Farmer, Mar Van Nostrand, Karen DeFazio, Sidney Biesterfeld, and Kirk Petrik (2003) “Mitigating the Cost of Denitrification in Fixed Film Plant with Nitrate Recycle” Presented at WEFTEC 2003; Los Angeles, California; October 10-16

Sidney Biesterfeld, Greg Farmer, Linda Figueroa, Denny Parker, and Phil Russell (2003) “Quantification of Denitrification Potential in Carbonaceous Trickling Filters” Wat. Res. 37: 4011-4017

Sidney Biesterfeld, Linda Figueroa, Greg Farmer, and Phil Russell (2003) “Effect of Alkalinity Type and Concentration on Nitrifying Biofilm Activity” Wat. Env. Res. 75(3): 196-204 Presented at WEFTEC 2001, Atlanta, Georgia, October 12-17

Eric Wahlberg, Sidney Biesterfeld, Greg Farmer, David Kinnear, and Leonard Robb (2002) “A New Activated Sludge Process Control Test Uncovers Secondary Clarifier Inefficiencies” Presented at WEFTEC 2001, Atlanta, Georgia, October 12-17