

Shannon Herstein

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A water resources specialist with 15 years of professional experience (project management experience since 2008) in hydrologic, hydrographic, and water quality data collection and analysis, stream bank stabilization and stream restoration design, storm water and erosion control management and best management practices, Clean Water Act Section 404 permitting, and environmental impacts analysis for NEPA projects. Experience working with federal, state, and local governments as well as developers, and oil and gas industry. Areas of experience:

- Project management (develops scopes of work, budgets, final reports)
 - Hydrologic, hydraulic, water quality data collection plans and data analysis
 - Erosion and sediment control design and inspection
 - Clean Water Act Section 401 and 404 permitting
 - Bank stabilization and stream restoration design
 - NEPA documents and analysis
 - Interdisciplinary team participation
 - Coordination with government agencies
 - Communication with public and technical audiences
 - ArcMap and GPS units
 - Microsoft Office programs
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PROFESSIONAL EXPERIENCE

BIO-WEST, Inc., Logan Utah

09/2013-present

Water Resources Specialist

Served as a senior water resources specialist on interdisciplinary teams to complete NEPA Environmental Impact Statement (EIS) projects.

Assisted with stream restoration and streambank stabilization designs using natural design techniques. Hydrology and hydraulics were analyzed using HEC-RAS and WinXSPro. Coordinated with US Fish and Wildlife Service, US Army Corps of Engineers, and state agencies. Organized threatened and endangered species evaluations, cultural resources evaluations to obtain Clean Water Act Section 404 permits.

Developed a functional assessment of high elevation streams to determine the current level of environmental services provided and potentially lost given construction of a proposed dam to support a Section 404 Individual Permit.

Completed an analysis of potential flood hazard areas and made recommendations for a land use development plan for a municipality using Federal Emergency Management Agency flood maps and historical data.

Managed water quality monitoring projects and wrote final monitoring reports.

SWCA, Inc. Salt Lake City, Utah

07/2012-09/2013

Water Resources Specialist

Developed SWAT models for Total Maximum Daily Loads for two reservoirs, calculated load allocations, wrote model development reports, analyzed and configured water quality and hydrologic data for use in models. Used a state-developed QUAL2kw model to help allocate loads. Assisted with proposals and budget development

BIO-WEST, Inc., Logan Utah

09/2002-07/2012

Water Quality Specialist

Led the wetlands team and supervised the wetland specialist and water quality technician between 2008 and 2012, overseeing Clean Water Act Section 404 permitting for wetland and stream projects for federal government agencies, city applicants, and private clients.

Designed and oversaw construction of 5 bank stabilization and stream restoration projects for the Utah Department of Transportation.

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Managed an EPA-funded phosphorus, sediment, and stormwater monitoring project. Prepared a QAPP, managed data collection and analysis, and wrote interim progress reports and a final project report.

Completed the water resources existing conditions and impact analysis sections for 4 Environmental Impact Statements (EIS) and 3 Resource Management Plans (RMPs). Participated in public scoping and technical committee meetings as a technical expert.

Developed and implemented water quality monitoring plans, established sampling and data management protocols, conducted data collection and analyses and wrote final reports for pH, dissolved oxygen, temperature, nutrients, selenium, mercury, methyl mercury, salinity, and turbidity for multiple projects.

Managed environmental inspections and recommended erosion and sediment control best management practices for a pipeline construction project.

Led data collection efforts for four urban stream and riparian corridor assessments, assisted with recommendations and report generation.

Wrote the Legacy Preserve Management Guidance document. Identified, mapped, and evaluated existing water quality of tributary streams and storm drain outlets discharging into the preserve. Recommended measures to protect water resources within the preserve.

BIO-WEST, Inc., Logan Utah

05/2001-09/2002

Hydrology Technician

Conducted hydrographic and water quality data collection and analysis. Assisted with reports.

VOLUNTEER WORK

Student Conservation Association

Resource Associate Mammoth Cave National Park

02/2000-05/2000

Assisted the hydrologist with a karst groundwater flow study and collected stormwater runoff samples.

California Conservation Corps

01/1999-01/2000

AmeriCorps*VISTA volunteer

Organized volunteer activities and, conducted monthly educational trainings.

EDUCATION

Master's degree in watershed science, Utah State University

2000-2004

Bachelor's degree in watershed science, Colorado State University (magna cum laude, honors scholar)

1994-1998

TRAINING

Learning ArcGIS for Desktop. ESRI online.

2015

Soil Water Assessment Tool (SWAT) Training. University of Texas A&M

2012

Streambank Stabilization for Restoration and Flood Control. American Society of Civil Engineers.

2010

Applied Fluvial Geomorphology Training. Wildland Hydrology.

2009

HEC-RAS Training. American Society of Civil Engineers.

2008

Non-Detects and Data Analysis: Statistics for Censored Environmental Data. United States Geologic Survey.

2006

Water Quality Modeling Training. American Society of Civil Engineers.

2005