

# Bill Hoblitzell

## Watershed Scientist

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### **Summary and Background**

Bill has worked with Lotic Hydrological since 2012 on a variety of project areas including stream health assessments, flow restoration, creation and execution of monitoring plans, fisheries habitat modelling, clean water act assessments, and analysis of state water policies for regional stakeholders. His work has also included creation of interactive visual tools and maps used to distill and communicate complex scientific for water resource decision makers and public. Bill seeks to provide and use the best available tools to support data-driven decision making for environmental management and water resource planning. He has a diverse knowledge base in water quality, environmental policy, data analysis and visualization, watershed science, and science communication. He is proficient or familiar with many field methodologies for hydrologic, biologic, and riparian data collection, as well as analytical tools including GIS and R programming for translating collected data into actionable information for decision-makers and stakeholders. Bill is experienced in working in difficult field settings and has developed leadership, public speaking, and project management skills via years of river/ski guiding and work as a board member with his regional trails nonprofit.

### **Current Employer**

Lotic Hydrological  
Carbondale CO

### **Education**

MS, Environmental  
Sciences and Policy,  
Northern Arizona  
University, 2013

BA, Environmental  
Sciences (Hydrology +  
Geology focus),  
BA, Economics  
University of Virginia,  
2002

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### **Recent Project Experience** (Project Title, Client/Sponsor)

#### **Integrated Water Management Planning Framework, Colorado Mesa University, Colorado Basin Roundtable**

Utilize available hydrology, water quality, and biological datasets, as well as hydrologic modelling outputs to convey stream health and water use information in interactive web water dashboards created with Tableau. The web-based planning and outreach tool is aimed at water resource decision makers in the Colorado River headwaters region who are conducting integrated consumptive and nonconsumptive (environmental/recreational) planning activities.

#### **San Miguel Basin Stream Management Plan, Trout Unlimited and Southwest Basin Roundtable**

GIS-based analysis of nonconsumptive needs on major stream reaches in the San Miguel River basin. Application of an adapted River Styles framework assessment of geomorphic conditions. Used available remote sensed landcover datasets for basin-wide assessment of riparian conditions. Field work including stream cross sections and sediment distribution in order to parameterize a sediment transport model.

#### **Environmental review and analysis, Eagle River Watershed Council**

Developed organizational positions/stances and submitted formal comments for a regional watershed NGO for planning processes including USFS NEPA processes and local P&Z commissions. Comments analyzed proposed impacts to local water resources of housing developments, ski resort expansions, aggregate mining operations.

#### **Colorado Regulation 31 Basic Standards Workgroup, Northwest Colorado Council of Governments**

Provided technical evaluation of proposed changes to the state's basic water quality standards for a forum of Colorado West Slope entities mandated with regional water quality protection and improvement. Developed expert testimony on proposed changes to stream temperature standards and other proposals for use in hearings with the Colorado Water Quality Control Commission.

#### **Water Quality Sampling and Analysis Plan; In-stream and stormwater systems in Aspen, City of Aspen**

Created a Sampling and Analysis Plan for city engineering staff to complete long-term water quality data collection and analysis targeting a 303(d)-impaired urban stream reach. Document describes sampling methods, locations, and a defensible rationale for monitoring in-stream conditions on the Roaring Fork River and stormwater infrastructure in Aspen's urban core.

#### **Crystal River Stream Management Plan, Roaring Fork Conservancy, Public Counsel of the Rockies**

Developed computer code (R) for use in an PHABSIM/Instream Flow Incremental Methodology-based approach to modeling fishery habitat on the Crystal River under a variety of flow management scenarios.

## ***Previous outdoor guiding, risk management, and leadership experience***

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### **Senior Guide and Instructor, Operations Manager, Lakota River Guides**

Previous served as daily operations/logistics manager for company (2007). Help develop and execute yearly new-guide training and qualification programs in multiple years. Guide class III-V trips on regional rivers. Develop River Guide and Fish Guide education with Eagle River Watershed Council to train outfitters in advocating for local water issues.

### **Ski Patrol, Beaver Creek Resort CO, and Moonlight Basin MT**

Participated in avalanche control work and risk assessment, forecasting data collection. Provided emergency medical care to resort guest, Created and provided EMT training and CPR education to patrol during in-house continuing education.

### **Backcountry Avalanche Education Instructor, Backcountry Ski Guide**

AIARE certified Level 1 avalanche education instructor. Teach avalanche education with Colorado Community College (as Adjunct Recreational Faculty) and Paragon Guides, 2015 to present. Guide mechanized backcountry skiing with Chicago Ridge snowcats, 2013-2016.

## ***Leadership and Community Involvement***

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### **Board Member, Vail Valley Mountain Bike Association**

Complete planning, design and layout of multi-use hiking and biking trails on public lands. Engage with USFS on NEPA process tasks for trail projects, including proposal development, GIS mapping, and project analysis for recreational trails. Volunteer organizing and crew leadership on build projects. Fund raising and grant writing. Interface with local governments including presentations to town councils and participation in long-term planning exercises.

### **Community Presentations/Speaking**

Eagle River Watershed Council Watershed Wednesday Series:

“Canaries in the Coal Mine: Macroinvertebrate communities and assessing Eagle River Health”

“Climate Change and the Gore Creek Watershed”

“Watershed issues education for whitewater river and fishing guides”

## ***Technical Qualifications***

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### **Field Proficiencies**

Stream flow measurements,  
(Electromagnetic and Acoustic Doppler, familiarity  
with tracer-dilution)

Water quality, Macroinvertebrate collection

Physical stream transect surveys (Rosgen etc)

Outdoor travel group/individual risk mgmt.

### **Computing**

*Proficiency* with various GIS frameworks: QGIS,  
SagaGIS, WhiteboxGAT, ArcGIS,

R, Tableau, Microsoft suite

Affinity Designer (Graphic design/illustration)

*Currently developing familiarity:* Python, HTML,

CSS, JavaScript

## ***Additional education and recent short courses***

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Applied Environmental Statistics <http://www.practicalstats.com/training/aes.html> 2012

Applied Fluvial Geomorphology (Rosgen Level 1) 2014

ACOE Wetlands Delineation (Richard Chinn Environmental) 2016

Spatial Statistics for Streams (SSN/Stars, an ArcGIS + R package) modelling workshop 2017

Other skills: Outdoor emergency medical (WFR, OEC), AIARE Avalanche Level 1 Instructor, Swiftwater Rescue, senior whitewater guide/guide instructor; previously worked over 10 years in river guiding, ski patrolling, backcountry trip leading, and as an Emergency Medical Technician.