

Anna Birkás Hydrologist

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Education

Humboldt State University: B.S. in Environmental Ecology, minor in Spanish, 2002.

University of Montana, College of Forestry and Conservation: M.S. in Forest Hydrology, 2006

Work Experience

Hydrologist, 12/2004-present

At Ridge to River I write grants and implement projects in the following areas: Watershed monitoring, planning, and analysis; stream and riparian surveys; water rights disputes; habitat restoration in both terrestrial and aquatic environments; bioengineering based restoration techniques; statistical analysis; grant and report writing; research design; natural resource planning; forest and ranch road surveys, analysis, and repair; water re-use and infiltration; and erosion control.

Projects:

Sanitary Survey of the Elk County Water District prepared for Calif. Dept. of Env. Health, 2000

Watershed Assessment for Little River (Mendocino County). DFG funded, 2002

Garcia River temperature and turbidity monitoring, field research and report preparation, 2004-2005

Robinson Creek bank restoration using bioengineering techniques, 2005

Anderson Creek bank restoration using bioengineering techniques, 2006

Road surveys: Yorkville Ranch, Hendy Woods State Park, private lands, 2004-2006

Riparian habitat botanical restoration plan, 2005

Hathaway Creek survey – wetland and ditch cross-sectional and longitudinal profiles, BLM, 2005

Water dispute – Analysis of water withdrawal and potential ecological and hydrologic effects, 2006

Garcia River pre and post restoration monitoring, temperature and morphology, 2005-2006

Supervisor: Teri Jo Barber.

tbarber@mcn.org

(707) 964-0171

Delegation Leader, 10/2004

Organized and led a delegation of watershed professionals to Cuba to research Cuba's freshwater ecosystems. Studied pollution, restoration, education, economic incentives, ecology, and infrastructure. Visited field sites, conducted interviews with hydrologists and citizens, and attended the IV Central American and Caribbean Forum on Watersheds. Organized materials for a U.S. Treasury Department Research license.

Researcher, 5/2002 to 8/2004

Conducted thesis research and analysis on the Spatial Variability of Soil Hydrophobicity after Wildfire. Lead a field crew and collected data in burned areas.

Advisor: Scott Woods.

swoods@forestry.umt.edu

(406) 243-5257

Field Technician, 5/2003-8/2004

Conducted field research on the Burned Area Emergency Rehabilitation Project's erosion prevention treatments.

Supervisor: Amy Groen.

amy_groen@hotmail.com

(406) 829-9027

Educator, 8/2004

Taught basic hydrologic principles to Forestry students at the University of Montana's Measurements Camp. Lubrecht Forest.

Supervisor: Scott Woods. swoods@forestry.umt.edu (406) 243-5257

Educator, 4/2003 and 4/2004

Volunteered to teach 6th grade children about macroinvertebrates and their habitat in the Bitterroot River. Montana Natural History Center.

Supervisor: Deb Fassnaught (406) 721-5805

Field technician, 3/2004-8/2004

Identified and protected sensitive species from intensified grazing by wildlife. Participated in selective harvest and ecological restoration of forests. Watershed Consulting.

Supervisor: Mark Vandermeer. vandy@bigsky.net (406) 541-2565

Educator 12/2002 to 8/2004

Volunteered to lead middle school children and train volunteers in field experiments to learn about stream morphology, biology and chemistry. Modified curricula and helped develop a wetland field guide for children. Watershed Education Network.

Supervisor: Deb Fassnaught (406) 721-5805

Bio - technician, 10/2000

Worked on restoration project for the Garcia River. Created living willow baffles to enhance bank stability.

Bioengineering Associates.

Supervisor: Evan Ingber Evan@bioengineers.com (707) 984-7334

Field Technician, 3/2000 to 8/2000

Researched through radio telemetry the site fidelity of brant geese. Humboldt State University.

Educator, 8/2000 to 12/2000

Instructed beginning and intermediate English to native Spanish speakers. Developed curriculum and lead class.

Santa Rosa Junior College.

Supervisor: Kate Todd (707) 882-2740

Educator, 11/1998 to 6/1999

Instructed math, English, Math and ESL to children in grades 2-8. Taught both in classroom and alone with special needs children. California Academic Achievement Program.

Supervisor: Ann Nicksic. (707) 826-4791

Trail Guide, 6/1994 to 8/1995

Led equestrian trail rides at McKerricher State Park. Instructed customers in horse safety.

Ricochet Ridge Ranch.

Supervisor: Lari Shea. (707) 964-9669

Training

- Wastewater treatment and re-use, Dr. Heather Shepard, Solar Living Institute, 2005
- Macroinvertebrate identification, Rhithron Biological Associates, 2003
- River Channel Measurements, Glacier Institute, 2002
- Permaculture, Seeds of Change, 1997

Languages

- English
- Functional Spanish
- Functional Hungarian

Sustainable Development Projects

Facilitator

- Lead community discussion series on economic localization and sustainability, 2005
- Facilitated talks and movies about Latin American natural resource use issues, 2004

Urban Agroecology

- Landscaped with perennial food crops, xeric species and Montana native plants, 2003.
- Created a pond with natural clay liner, native vegetation and waterfall, 2004.

Alternative building

- Currently building cabin using cob, straw bale, pole construction, and sod roof, 2005.
- Built a cordwood sauna with sod roof, 2003.
- Constructed a yurt with photovoltaic system, 1998.

Renewable Energy

- Studied the use of renewable energy in Cuba since the "Special Period", 2002.
- Developed and installed photovoltaic systems

Senior Project

- Conducted field survey of organic farming in Hungary, summer 2000.

Forestry

- Conducted field survey of agroforestry practices in Indonesia, 1995.

Publications

Woods S.W., Birkas A. And Ahl R., 2007. Spatial Variability of Soil Hydrophobicity after Wildfires in Montana and Colorado. *Geomorphology*.

Barber T.J., and Birkas A., 2006. Garcia River Trend and Effectiveness Monitoring: Spawning Gravel Quality and Winter Water Clarity in Water Years 2004 and 2005, Mendocino County, California. Prepared by Ridge to River for the Mendocino County Resource Conservation District; final report to the California Department of Forestry and Fire Protection.