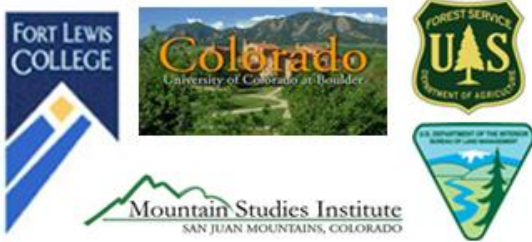


SAN JUAN COLLABORATORY – NATURAL RESOURCE INTERNSHIP OPPORTUNITIES FOR SUMMER 2011

The San Juan Collaboratory

Research, Education, and Outreach



The following descriptions present examples of the internships that will be offered this summer through the Natural Resources Internship Program as a partnership between University of Colorado-Boulder, Fort Lewis College, Mountain Studies Institute, San Juan Public Lands Center and other partners. Full descriptions and position requirements will be posted on Mountain Studies Institute's website by the end of January at www.mountainstudies.org. For more information, contact Carolyn Livensperger at 970-382-6908 or email info@mountainstudies.org.

FIELD HYDROLOGY AND AIR QUALITY

Based in Durango, CO; Mentored by Kelly Palmer, San Juan Public Lands (USFS/BLM).

The San Juan National Forest has several work projects and studies scheduled for the summer of 2011. First is the ongoing inventory of spring water sources across the San Juan Public Lands, which involves fieldwork from alpine settings to the canyon country of the Colorado Plateau. Springs are recorded with a GPS unit, flow is measured, and condition and other basic information is recorded and entered into a GIS database. Second, stream survey on the San Juan Public Lands includes training in basic hydrologic field methodologies such as cross sections, latitudinal profiles, channel substrate measurements, and discharge measurements. All work will be with field members of the San Juan National Forest hydrology field crew based in Durango, CO. This job offers a tremendous opportunity to do field work in a wide variety of beautiful terrain and locations across the San Juan Public Lands. The intern will learn about hydrologic survey techniques, monitoring projects, and basic Colorado water rights law. The intern will need their own clothing suitable for field work. Sturdy boots, rain gear, and hats/sun wear are necessary for field work in the San Juan Mountains.

COMMUNITY ENERGY EFFICIENCY INTERN

Based in Durango, CO; Mentored by Teresa Shishim, Four Corners Office for Resource Efficiency (4CORE)

Four Corners Office for Resource Efficiency (4CORE) is a non-profit organization based in Durango whose mission is to promote resource conservation, energy efficiency and the use of clean, renewable sources of energy to reduce energy consumption, decrease the emission of pollutants, lower utility costs, and strengthen the economy. The intern will work closely with the Program Manager, Executive Director, and staff to further 4CORE's mission and values. Job objectives include gaining knowledge in the field of energy efficiency, including experience with: community outreach and education, event planning and coordination, various research efforts, and non-profit office procedures. Job duties (as talents and training time dictates) to include: *Community Outreach and Education, estimated 20% time.* Update website and graphic materials to be used in our marketing and educational outreach. Topics to be covered include energy efficiency, renewable energy, green building, water efficiency, and sustainable policies. *Event Planning, estimated 20% time.* Organize educational and fundraiser events for 4CORE. Events may range in scope from small speaking events to large exhibitions. This will also include identifying ways that 4CORE can be a part of existing events as well. Duties could include drafting media releases for review and creating materials to be used during events.

Research, estimated 10% time; Research alternative energy methods, as needed. Develop content for our website, blogging, brochures, fact sheets, and other materials.

Sustainability Plans, estimated 10% time; Assist in the process to develop a Sustainability Plan and action plans for 5 counties in SW Colorado. This effort may include coordinating stakeholders in the county and region, setting up meetings, taking minutes at meetings, publishing minutes after meetings, and developing materials for the public regarding the process as it moves forward.

ENVIRONMENTAL SCIENCE: MULTIPLE PROJECTS

Based in Silverton, Colorado with some work closer to Durango; Mentored by Chris Peltz, Mountain Studies Institute.

The intern will work on a variety of projects, such as: 1) abandoned mine lands biochar project described below, 2) high-elevation lake water sampling, 3) Animas River Corridor Revitalization – trail building project, and 5) Animas River Nutrient study. The intern will be based in Silverton, but will also travel to the Durango area for certain studies and may stay overnight somewhat frequently in the Durango area. This intern needs to be flexible and be ready to enthusiastically fill important roles on multiple projects. This position is a terrific opportunity to work in a beautiful place and gain a wide variety of experience and skills.

ASSESSMENT OF MERCURY IN THE ENVIRONMENT

Based in Silverton and Durango, Colorado; Mentored by Chris Peltz, Mountain Studies Institute, in cooperation with University of Colorado.

The interns will work on a study to determine the transport and fate of mercury in soils and lake sediments following different forest treatments and fire. Sites are located near reservoirs and streams and will require soil sampling and lake sediment sampling. Interns may also participate in other activities associated with the project, including GIS and data analysis.

EROSION CONTROL AND WATER QUALITY MONITORING

Based in Durango, Colorado; Mentored by Chris Peltz, Mountain Studies Institute, in cooperation with City of Durango, Basin Hydrology, and San Juan Citizens Alliance.

Interns will work on a study to determine the transport of sediment and methods to reduce erosion from a small tributary to the Animas River. Sites will be located in the Lightner Creek Watershed and will require soil and water quality sampling, laboratory analysis, and installation of erosion control devices and monitoring their effectiveness. Interns will be involved in a multi-stakeholder process that brings local non-profits, local governments, and federal land managers together to improve water quality. Interns may also participate in other activities associated with the project, including GIS and data analysis.

SURVEY OF VEGETATION ALONG AN ELEVATIONAL GRADIENT

Based in Silverton, Colorado; Mentored by Chris Peltz, Mountain Studies Institute and San Juan Public Lands.

The interns will work on a pilot study to characterize vegetation communities along an elevational gradient. The purpose of this project is to develop a long-term monitoring program for understanding how ecosystems and plant communities are responding to changing climate system over time. Field work will consist of navigating to predetermined plots and conducting a range of vegetation and forestry surveys. The goal of the project is to develop a baseline dataset for monitoring climate change effects on the vegetation communities in the San Juan Mountains.