

Analysis of Stream and Wetland Restoration Opportunities in the Kawuneeche Valley

1. Faculty mentor name, department, college, and contact information:

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2. Extension agent mentor:

Olivia Clark, Director, Grand County Extension, Olivia.K.Clark@colostate.edu

3. In what region(s) will the student be working (county/region)?

Kawuneeche Valley, Grand County, CO and CSU Main Campus

4. Please describe the proposed internship goals, scope, and objectives.

Streams and wetlands in the headwaters of the Colorado River have been degraded by land use, ecological stressors, and the East Troublesome Fire. This project is the first phase of a long-term watershed-scale restoration to improve ecological function and water quality throughout the Kawuneeche Valley. Working closely with CSU scientists and Grand County Extension, the intern will participate in the assessment of current conditions and watershed stressors including impacts from the East Troublesome Fire, and data-driven feasibility analysis for a suite of restoration approaches including simulated beaver dams, riparian vegetation planting, and others. This information will be used to support planning, design, and implementation in subsequent project phases.

5. How was this applied research project identified?

Tasks are part of a broader long-term watershed assessment and restoration project identified by stakeholders described below.

6. With which stakeholder group(s) will the intern work?

The Kawuneeche Valley Ecosystem Collaborative, which includes Rocky Mountain National Park, US Forest Service, Grand County, Town of Grand Lake, Bureau of Reclamation, Northern Colorado Water Conservancy District, Colorado River Water Conservancy District, and The Nature Conservancy.

7. What student learning outcomes do you anticipate and are there opportunities for professional development?

Student will gain proficiency in stream/wetland geomorphic and ecological assessment, analysis of land use stressors and post-fire impacts, feasibility analysis for restoration alternatives, and collaboration with diverse stakeholders. Opportunities exist for continued involvement, including restoration design, implementation, and monitoring.

8. Do you have a specific mentor style that you would like to share with potential interns?

We provide hands-on training, guidance, and support for self-motivated problem solvers.

9. Are travel funds available? Opportunities to provide student assistance with housing?

Travel funds are available for field work during summer 2021. Some tasks can be done remotely or at CSU campus.