Project Summary Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Research Fencing to Protect Resources at Grant-Kohrs Ranch NHS

Discipline:InterdisciplinaryType of Project:Technical assistanceFunding Agency:National Park ServiceOther Partners/Cooperators:Montana State UniversityEffective Dates:April 15, 2010 - September 30, 2012Funding Amount:\$10,000

Investigators and Agency Representative:

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Project Abstract: The purpose of this project is to research and evaluate NPS-era fences for their continued need and impact/benefit to resources. Park resource staff will work with the Principal Investigator and student researcher, Philip Davis, to implement the following scope of work:

- Refine existing and extensive written and GIS documentation on fences. Research will include ground-truthing of current documentation and minimal new investigation of aerial photography, historic photographs, and NPS maintenance files. Documentation on NPS-era fences will include original justification of need, e.g. protect riparian areas, guide visitors down trail, etc. GIS documentation will be updated with new findings or corrections and an annotated written report completed with findings;
- Develop and implement a multi-disciplined methodology to identify and assess continued need for NPS-era fences that considers the various needs of park management, visitor services and impacts on natural resources which may be both negative (vegetation trampling, soil compaction/erosion) and positive (protection of riparian areas, improved wildlife passage);
- Recommend, based on multi-disciplined approach above, NPS era fences that can be removed because they no longer serve any significant purpose. Justification will be provided;
- Recommend areas that will benefit from new fencing, e.g. riparian areas, upland native grass communities. Provide justification and recommendation on type of fencing that least impacts cultural landscape;
- 5. As time allows, recommend existing fencing that should be modified to improve wildlife passage. Provide design/techniques with design proposal.

Outcomes with Completion Dates: September 30, 2011

- 1. GRKO's GIS Fence Database will be updated with new findings/corrections including an annotated written report completed with findings.
- 2. Written report with the following included:
 - Summary of multi-disciplined methodology used to identify and assess continued need for NPS-era fences;
 - Recommendation/justification of NPS era fences that could be removed because they no longer serve any significant purpose; and
 - Recommendation of areas/resources that will benefit from new fencing with sensitivity/benefit to cultural and natural resources.
- 3. Copy of all associated research material, e.g. photographs.

Keywords: Montana State University, Grant-Kohrs Ranch NHS, fencing, resources, cultural landscape