

## **Project Summary**

### **Rocky Mountains Cooperative Ecosystem Studies Unit**

**Project Title:** Re-evaluation of Glacial Lake Missoula National Natural Landmark for Boundary Expansion

**Type of Project:** Technical Assistance  
**Discipline:** Natural Resources  
**Funding Agency:** National Park Service  
**Other Partners/Cooperators:** University of Montana, Department of Geosciences  
**Effective Dates:** 6/1/2010 - 12/31/2011  
**Funding Amount:** \$7,500

**Investigators and Agency Representative:**

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**Project Abstract:** The National Natural Landmarks (NNL) Program, administered by the National Park Service (NPS), was established in 1962 to identify, recognize and encourage the preservation of sites containing some of the best remaining examples of biological and geological features that illustrate the Nation's natural heritage. NNL designation does not change ownership or require specific management of the site. Rather the partnership formed between the landowner(s) and the NPS through the designation, allows the NPS to be an advocate for and support the landowner's voluntary conservation efforts.

To date, there are nearly 600 sites designated across the country and U.S. Territories, most of which were designated in the 1970's and 80's. During the evaluation process for each site, the evaluator prepares a recommended boundary for the area to be designated. As stated in section 62.7(b) of the 1999 NNL Program Regulations, "three justifications exist for enlarging the boundary of a national natural landmark: better documentation of the extent of the nationally significant features, professional error in the original designation, or additional landowners with nationally significant features on their property desiring the designation."

Glacial Lake Missoula, located within the Camas Prairie in western Montana, was originally evaluated in 1966. Designated that same year, the area given the NNL designation included a section of land (section 31) of T21NR23W. The current landowners of the Glacial Lake Missoula NNL were not the landowners at the time of the original site designation. They own nearly six sections of land in the Camas Prairie, including the one section already under the NNL designation.

It is unclear why the original designated area was only one section as there are clearly additional flood ripples and other geologic resources associated with the ice age floods that occur on adjacent lands. The current landowners have a strong desire to see these significant resources located on their property recognized and conserved. Additionally, much research has been completed on the ice age floods since the time of the original designation resulting in improved understanding of the events that took place, the resulting geologic features and their location and distribution. Given this, the NPS has determined that an expansion of the NNL boundary for this site is appropriate. As guided by the NNL Program Regulations, boundary expansions require that the designation process, as used for new NNL sites, also be used.

Thus, the primary objective for this cooperative agreement is to re-evaluate the Glacial Lake Missoula NNL to result in updated information about the significant resources as well as a recommendation for an expanded boundary that better reflects the location and extent of the significant resources.

**Outcomes with Completion Dates:** June 1, 2014

Completion of evaluation report for the Glacial Lake Missoula National Natural Landmark (NNL).

**Keywords:** Glacial Lake Missoula, National Natural Landmarks (NNL) Program, National Park Service, University of Montana