

## **Project Summary**

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

**Project Title:** Soundscape Study for ATMP and Soundscape Planning at Bandelier National Monument

**Discipline:** Social Science  
**Type of Project:** Research  
**Funding Agency:** National Park Service  
**Other Partners/Cooperators:** 9/1/2012 - 3/31/2014  
**Funding Amount:** \$34,650

**Investigators and Agency Representative:**

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**Project Abstract:** Bandelier National Monument was designated in 1916 by President Wilson because of its tremendous ethnographic, scientific and educational value. Bandelier contains approximately 2,900 recorded archeological sites ranging from the Paleoindian period (10,000 years ago) to the historic period. While these sites are distributed across the entire park landscape, an abundance of them occur in Frijoles Canyon and have been used since the park's establishment as interpretive and display sites to promote visitor understanding of Ancestral Pueblo culture. In 1976, most of Bandelier's undeveloped area (23,267 acres) was designated the Bandelier Wilderness, including areas within and adjacent to Frijoles Canyon, requiring the park to preserve wilderness character such as quiet serenity. Recognizing the unique cultural and natural values of this site, park management approach has identified that Frijoles Canyon is a place of quiet serenity, allowing solemn appreciation for the archeological relics of past peoples in a setting that is absent of modern intrusions, as described in the *Bandelier National Monument Foundation for Planning and Management 2008*. However, human-caused noise is increasingly present in the monument, reflecting changing environmental factors associated with aviation activities, staff and visitor uses, development in and around the CCC Historic District in Frijoles canyon, and other impacts.

Through the work of the Soundscape project (including both the work of this Agreement and the Acoustic Data Recording by the WASO - Natural Sounds Program,) the monument will have sufficient acoustic data to prepare an Air Tour Management Plan and assess potential effects from ongoing and proposed air tourism. The monument will have more knowledge about the acoustic zones throughout the park and will provide better management of the natural soundscape based on a credible baseline inventory of the soundscapes in Bandelier National Monument in Frijoles Canyon. With this database the monument will have investigated and documented the current conditions of both natural soundscape and the level of impact of human-generated noise in this critical park setting. This project will develop a Soundscape Desired Condition for the pending Frijoles Canyon and Frijoles Mesa Development Concept Plan. The monument has carried out three major planning efforts since 1952 to study capacity issues in Frijoles Canyon and propose relocation of park administrative functions out of the canyon to protect the canyon environment and the quality of the visitor experience. This study will contribute a new natural resource measure to the array of known considerations related to this longstanding concern. Finally, this project will also assist in developing a *Comprehensive Interpretive Plan* update.

**Outcomes with Completion Dates:**

Nov-Dec 2013: Draft Final Technical Report, including peer review results, and presentation of final results to project team  
Jan-Feb 2014: Final Accomplishment Report

**Keywords:** wilderness, soundscapes, management planning, Frijoles Canyon, Bandelier National Monument, Colorado State University