Project Year-End Summary Report

Title of Project: Bandelier National Monument Riparian Monitoring and Restoration

Begin answering in the shaded box right beside or below each question and it will expand to accommodate as you type. Use up to a total of two and a half pages for questions 1-8. More detailed presentations, a final report, articles or posters are welcome separately (See final instructions at the end of this form.)*

1. Organization name or Individual who received the grant:
Ana Casillas Brownson, Park Biologist, Bandelier National Monument

2. Amount of Grant: $ 2,000

4. Was additional outside funding obtained? (check box that applies) Yes ☐ No x
Other funding source(s) if you checked "yes."

5. Briefly, how was the grant money from the Carter Conservation Fund used?

The money from the Carter Conservation Fund was used to help pay for the work of a seasonal field technician to help with data collection related to the riparian monitoring and restoration project at Bandelier National Monument.

6. Write an abstract or summary of the activities performed and the progress that was made this year on your project. (Save any conclusions, lessons learned, and benefits achieved for the final sections, 7&8.)

The three main canyons within Bandelier National Monument have riparian monitoring sites located within them that were established in either 2006 or 2019. All nine permanent monitoring sites and a total of 36 transects were surveyed, some of which had not been read since 2019. Measurements taken included herbaceous species cover, canopy cover, woody transect cover, seedling and tree number counts by tree species, width of geomorphic landforms, and shrub cover. Beaver dams in Frijoles canyon were also measured and mapped.

7. How does your project further a Native Plant Society mission area, namely: *plant or ecological education; conservation/restoration of native plants and/or their habitats; adds to botanical research; promotes appropriate use of native plants to conserve water, land and/or wildlife.*

This project offered a valuable opportunity for a field technician to gain hands-on, real-world experience in conservation biology, preparing them for a successful career in the field. The park and its natural resources benefit from the collection of scientifically rigorous data that will inform current and future management strategies aimed at restoring and protecting vital riparian ecosystems.

The park and park visitors have already benefited and will continue to benefit from this project by providing park interpretation staff with knowledge and information regarding the riparian

ecosystems within the park's canyon bottoms and their changes and resulting management implications in regard to fire and beaver activity. This information has enhanced interpretive programming and facilitated meaningful visitor engagement through both formal presentations and informal interactions.

8. Any other conclusions, lessons learned, benefits to you, the community or the environment hopefully result from your work as assisted by this grant.

The data collected through this grant have laid the foundation for a new era of riparian ecosystem monitoring within Bandelier National Monument. Data analysis is currently underway, and findings will be shared with a broad range of audiences, including the public, park staff, beaver research groups, and other relevant partners. These results will help guide future management and restoration efforts, including the planned installation of low-tech, process-based restoration structures in select areas, ongoing invasive plant removal, and management of beaver reintroduction sites.

Lessons learned during this field season will also inform and improve future monitoring efforts by refining staffing needs, time requirements, and field logistics, as well as supporting the development of a comprehensive plant species inventory for the park's canyon-bottom ecosystems. These improvements will enhance the efficiency, consistency, and effectiveness of future data collection.

Finally, this project will create ongoing employment and professional development opportunities for graduate students and seasonal field technicians who will participate in the biennial resurvey and analysis of the riparian transects surveyed during this field season. This continued monitoring will provide valuable long-term data to track ecosystem change, evaluate restoration outcomes, and support adaptive management of the park's riparian resources.

Final Instructions

Please send your completed form as a PDF email attachment to cartergrantapps@gmail.com by November 1, 2026.

* *To remain in good standing for any future funding from the Native Plant Society of New Mexico, we ask that you educate our membership more fully in some way. This could be an article (250 words minimum, at least 1 high resolution illustration or photo) for our newsletter,* ***or*** *a paper or electronic copy or link to a published article connected with the past year's work,* ***or*** *by making an educational and visual presentation to one of our chapters. Contact information for our 7 area chapters is found on our website at www.npsnm.org under the Chapters tab.*

What are your intentions in this regard? We are currently writing an article for the newsletter and will have it to you by November 1st. I am also willing to host a field trip group to come to Bandelier to see the beaver dams we have closer to the visitor center, and talk about the riparian restoration and beaver projects.

This year end report is submitted by (Type your name) Ana Casillas Brownson

My typed name is equal to my handwritten signature in testifying to the accuracy and truth of this report to the best of my knowledge today.

eMail address ana_casillas@nps.gov

Date 22 October 2026

Please contact us again at cartergrantapps@gmail.com if you have any questions or alternate suggestions.