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REVITALIZING THE REGENERATIVE CAPACITY OF DAMAGED ECOSYSTEMS

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**NEW MEXICO BEAVER COALITION AGENDA**

**Meeting Date/Time: June 13, 2024, 9:00am – 12:15pm**

**Santa Fe National Forest Supervisor's Office**

**11 Forest Lane, Santa Fe, NM**

**(or virtual attendance through Zoom: <https://us02web.zoom.us/j/88161954540>)**

The purpose of the New Mexico Beaver Coalition is to bring together a diverse group of state, federal, tribal, non-profit, for-profit organizations, and individuals to share information, coordinate activities, and identify common interests and opportunities to work collaboratively to expand the distribution of beaver across New Mexico.

- I. Meeting Introduction and Review Operating Principles (from The World Café, <https://theworldcafe.com/>) (10 minutes):
  - Create hospitable space;
  - Explore questions that matter;
  - Encourage each person's contribution;
  - Connect diverse people and ideas;
  - Listen together for patterns, insights and deeper questions;
  - Make collective knowledge visible.
- II. Presentation: *Beaver Restoration in Bandolier National Monument*, Sarah Milligan  
Bandolier National Monument (30 minutes presentation/ 10 minutes Q/A)
- III. Presentation: *Colorado Legislation Addressing Stream Restoration & Water Rights and Update on Beaver Mgt Planning*, Jackie Corday, Corday Natural Resources Consulting (30 minutes presentation/10 minutes Q/A)
- IV. Break (15 minutes)
- V. Presentation: *New Mexico Beaver Management Policies*, Nicholas Forman, New Mexico Department of Game and Fish (30 minutes presentation/30 minutes Q/A)
- VI. Report: *Beaver Coexistence and Relocation Working Group May 31 Meeting*, Steven Fry, Amigos Bravos (15 minutes report/10 minutes Q/A)
- VII. Wrap-up and next meeting (5 minutes)



# BEAVER REINTRODUCTIONS AT BANDELIER NATIONAL MONUMENT

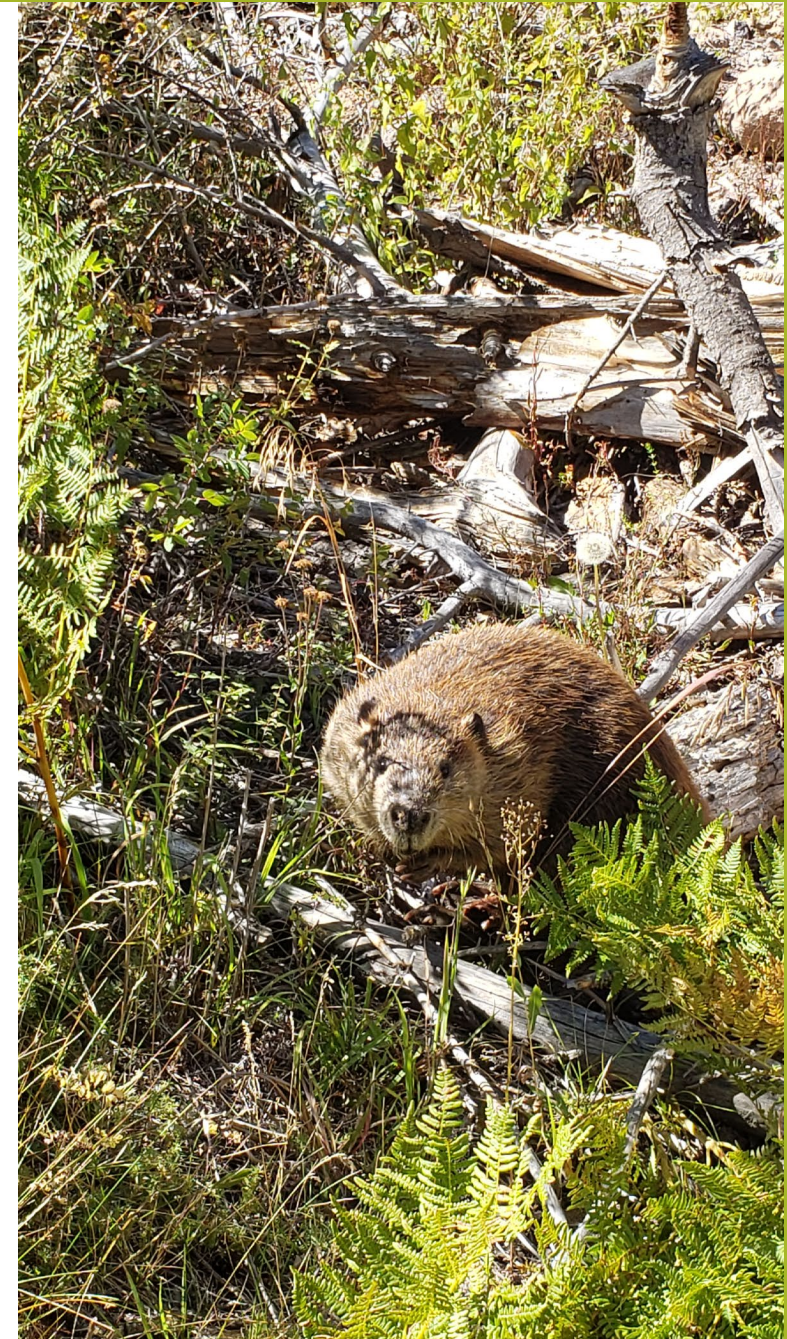
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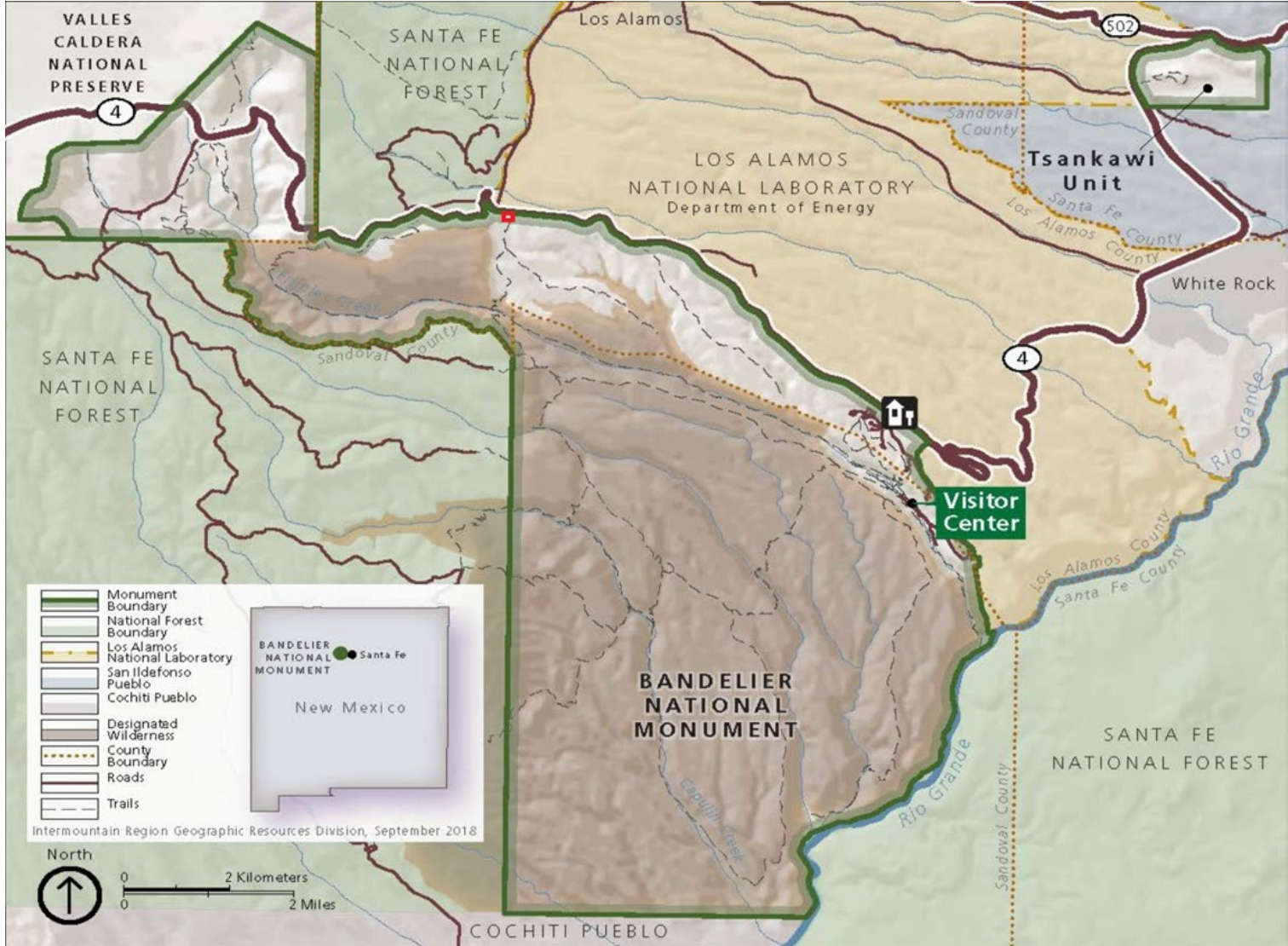
Sarah Milligan  
Bandelier National Monument  
Natural Resource Program Manager

# History of Beavers



- From the 1955 NPS HISTORICAL HANDBOOK SERIES ,  
“On the headwaters of the Rito de los Frijoles, about 9 miles above monument headquarters, a permanent colony of beavers is established, pioneered long ago by some migrant pair who left the big river to venture up the tiny tributary.”





# BEAVERS IN BANDELIER NATIONAL MONUMENT

- Las Conchas Fire and floods
- Restoration opportunity



Flash Flood Summary									
Upper Crossing Stream Gauge					Lower Frijoles Stream Gauge				
Date	Flood start time	Flood end time	Peak time	Max Stage (ft)	Flood Start	Flood End	Peak Time	Max Stage (ft)	Max Discharge (cfs)*
7/7/13	1458	1632	1528	2.09	1715	N/A	1805	2.63	14
7/12/13	1558	1932	1739	1.4	1735	0040	1945	2.9	35
7/26/13	2334	0037	2352	17.78	0010	0610	0150	10.38	7690
8/5/13	1842	1914	1855	2.52	2000	2040	2000	2.93	43
9/2/13	1346	1413	1352	3.59**	1515	1645	1515	3.5	160
9/10/13	1831	?	1847***	2.36	1910	0510	2000***	3.49	157
9/12/13	1524	1653	1616	6.4	1645	2045	1710	7.04	>1200
9/13/13	0727	0918	0800	9.77	0755	1040	0830	13.61	~9000
9/14/13	NA	NA	NA	NA	2310	0320	0030	5.76	1220
9/22/13	NA	NA	NA	NA	1655	2350	2055-2115	2.17	3.5

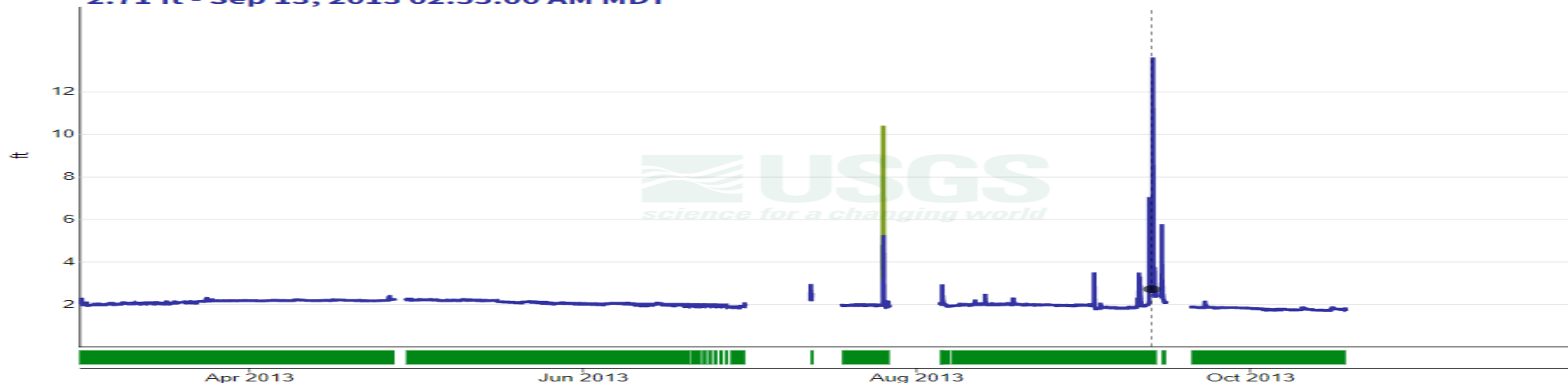
- using custom time span -

## Rito DE Los Frijoles IN Bandelier Nat Mon, NM - 08313350

March 1, 2013 - November 30, 2013

Gage height, feet

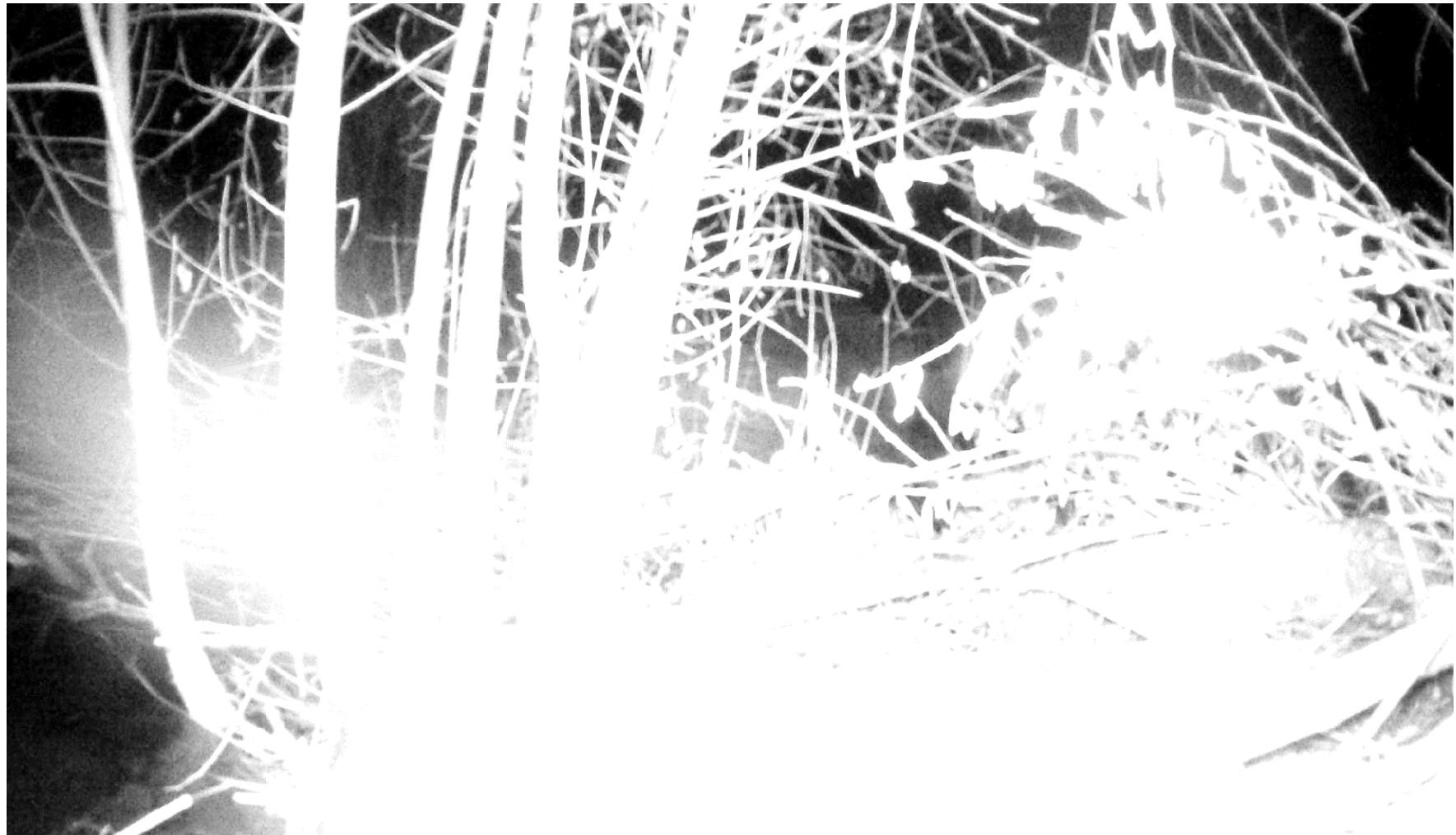
2.71 ft - Sep 13, 2013 02:55:00 AM MDT





# Why beavers?

- ❑ Ecosystem engineers
- ❑ Create wetlands and habitat for many species
- ❑ Reduce erosion
- ❑ Increase biodiversity
- ❑ Regulate stream flow
- ❑ Maintain stream health
- ❑ Minimize catastrophic wildfire and flooding
- ❑ Restoration



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# **Beaver Reintroductions 2019-2023**

# NMDGF and USFWS Scorecards

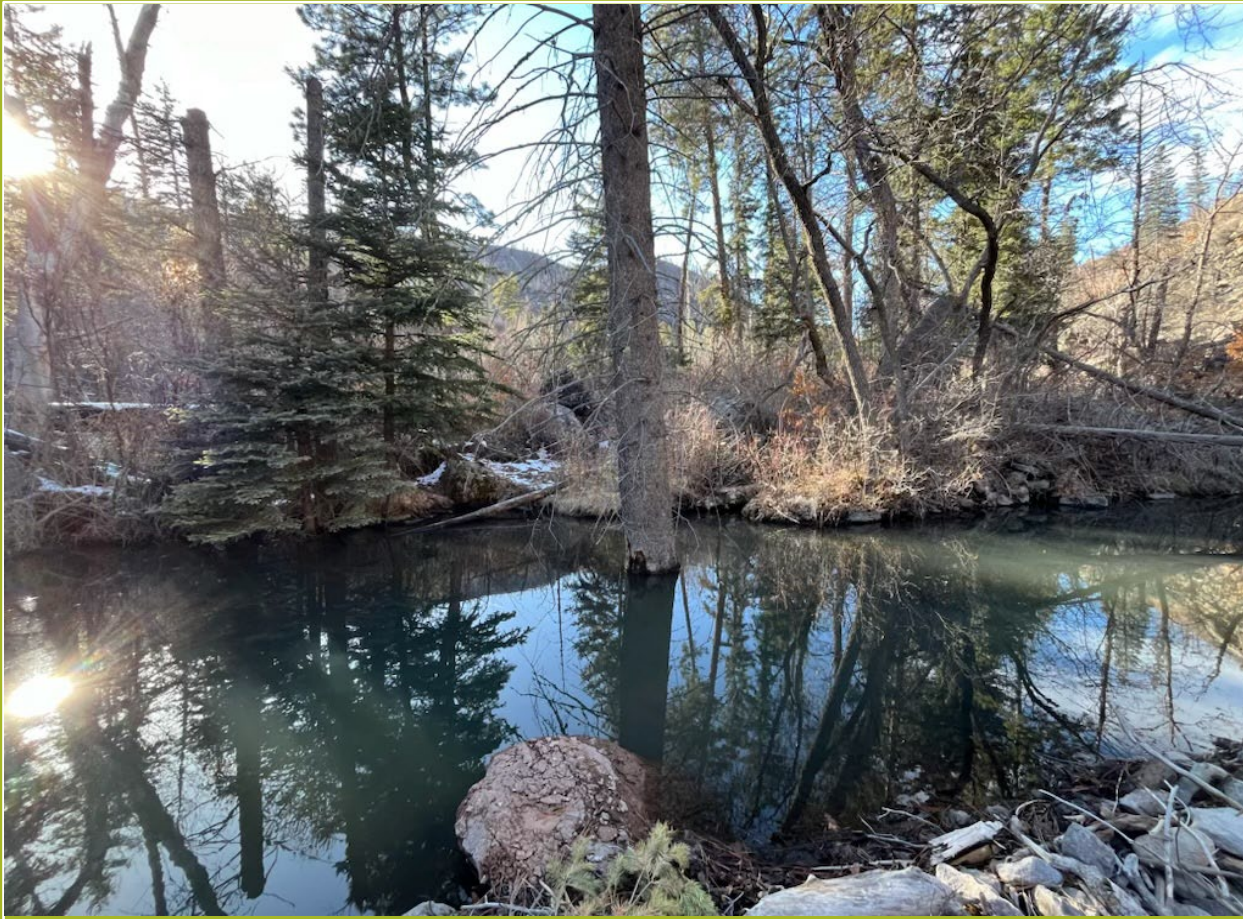
- Permanent source of water available
- Slow moving, relatively low gradient watercourse (<15%)
- Preferred food species abundant at site: willow/aspen/cottonwood/alder, etc.
- Foraging distance from waters edge: adjacent or no further than 30m (98ft)
- Minimum amount of contiguous habitat available is at least 0.25 stream mi
- Current beaver sign is absent at this site
- Relocation area is not adjacent to roads or culverts
- Relocation site meets Land Ownership Criteria: Minimum of 10 stream mi. and the same property ownership from bank to bank.

# The Process





# THE PROCESS CONTINUED...



# WHAT ARE OUR BEAVERS UP TO?



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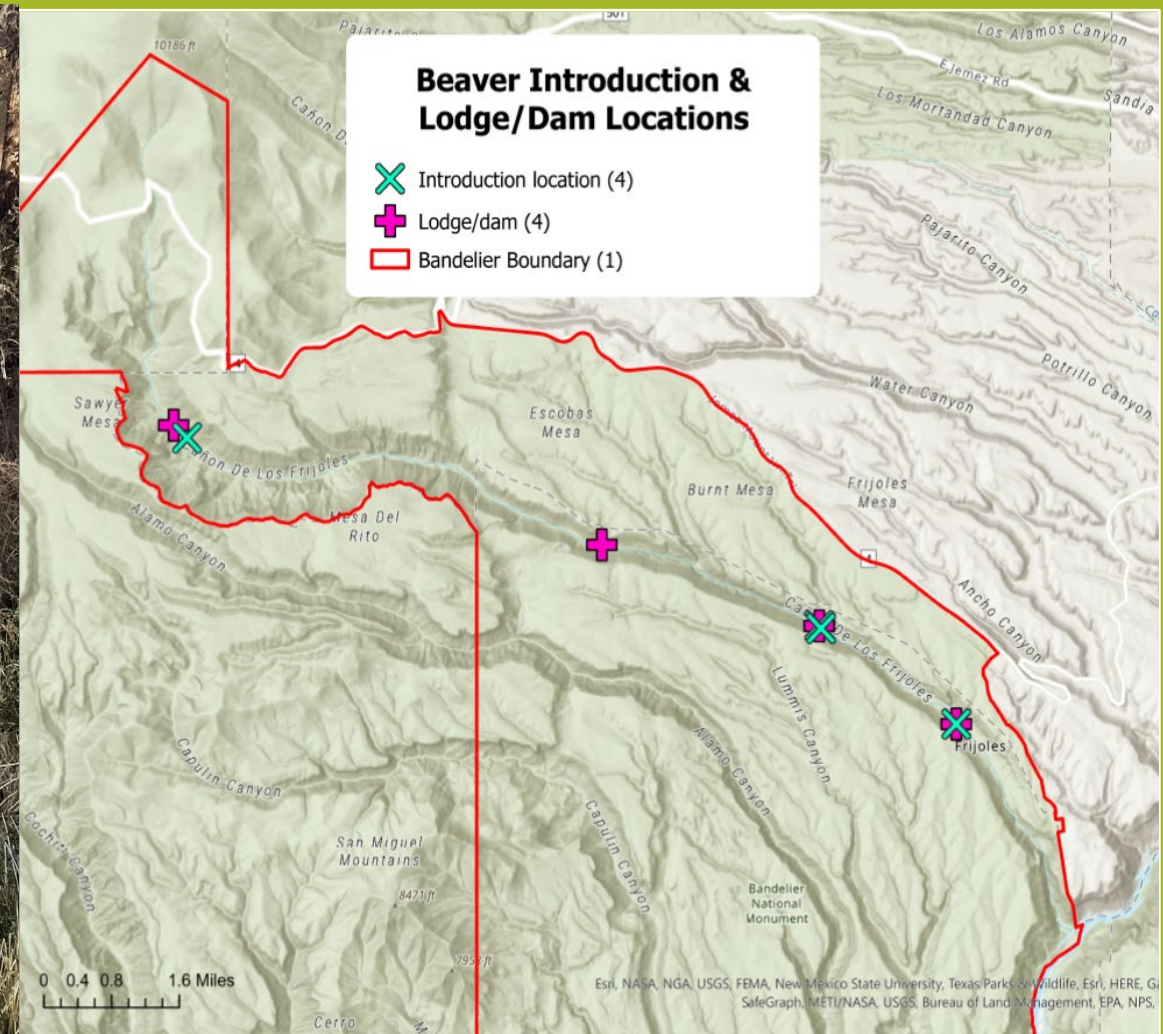
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2021/11/13

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# INTRODUCTION & CURRENT DAM LOCATIONS



# Benefits



- 2022
  - 105 Rio Grande Chub and 20 Rio Grande Sucker
- 2023
  - 103 Rio Grande Cutthroat Trout
  - 65 Chub



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# Monitoring

- Trackers
- Wildlife Cameras
- Staff and Visitor Reports!



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# Lessons Learned

- Need safe Relocation pond
- Holding facility
- Helicopter Drops for higher numbers
- Water!
- Habitat
- Threats and mitigations



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# What's Next?

- Continue monitoring
- Water monitoring equipment
- Grad student research on carrying capacity, water retention at the ponds, and soils.
- Explore options for PALS/BDAs in Frijoles/Capulin Canyons
- Additional Riparian Restoration

Check out Under the Willows by National Park Traveler

<https://www.nationalparkstraveler.org/2022/11/under-willows-beavers-return-bandelier-national-monument>



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**BUSY BEAVERS**  
• **WILDLIFE LEADER** •



**BEAVERS ARE KEY PLAYERS IN BIODIVERSITY**

Many species reside in or depend on  
beaver-manufactured ponds to survive and thrive.

Leave it to  
**Beavers**

NATURE®  PBS.

# QUESTIONS?

Sarah Milligan  
Bandelier National Monument  
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