

# Restoring State Forests, Protecting Watersheds and Ensuring a Fresh and Adequate Water Supply

Laura McCarthy, The Nature Conservancy

Laura McCarthy is Director of Conservation Programs for the Nature Conservancy in New Mexico, where she manages the Conservancy's conservation work in the Rio Grande, Gila, and San Juan River basins. In ten years with the Conservancy, Laura has developed the Santa Fe Water Source Protection Fund, worked on the federal Collaborative Forest Landscape Restoration Act of 2009, and launched the Rio Grande Water Fund in 2014. Laura worked previously on five National Forests and for a state forest agency and community-based forestry NGO. Her professional life was significantly altered by the Cerro Grande fire in 2000 and Las Conchas fire in 2011. These damaging events became her inspiration to work on accelerating the pace and scale of restoration in forested watersheds, with a market-based approach to water source protection. Laura was recently selected by Governor Susana Martinez as New Mexico's Environmental Leader of the Year and in 2011 received a Neutrogena Naturals Champion of Clean Water award.



Figure 1. Introduction.

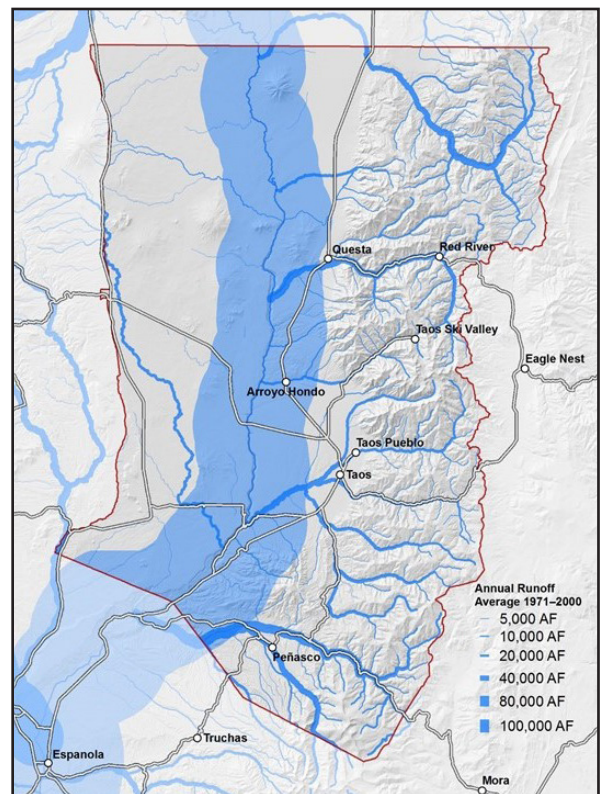


Figure 2. Annual runoff average from 1971-2000. This slide was provided by Candyce O'Donnell.



Figure 3. Debris floats on Cochiti Lake after moderate thunderstorms in areas that burned at high severity in the Las Conchas fire.





Figure 4. Day one of the Las Conchas fire.



Figure 5. Post fire debris flows due to monsoon rains.



Figure 6. Debris flows contaminating surface water.



Figure 7. Property damage caused by post-fire flooding after the Las Conchas fire.



Figure 8. Watershed Restoration.



Figure 9. The vision for proactive management.



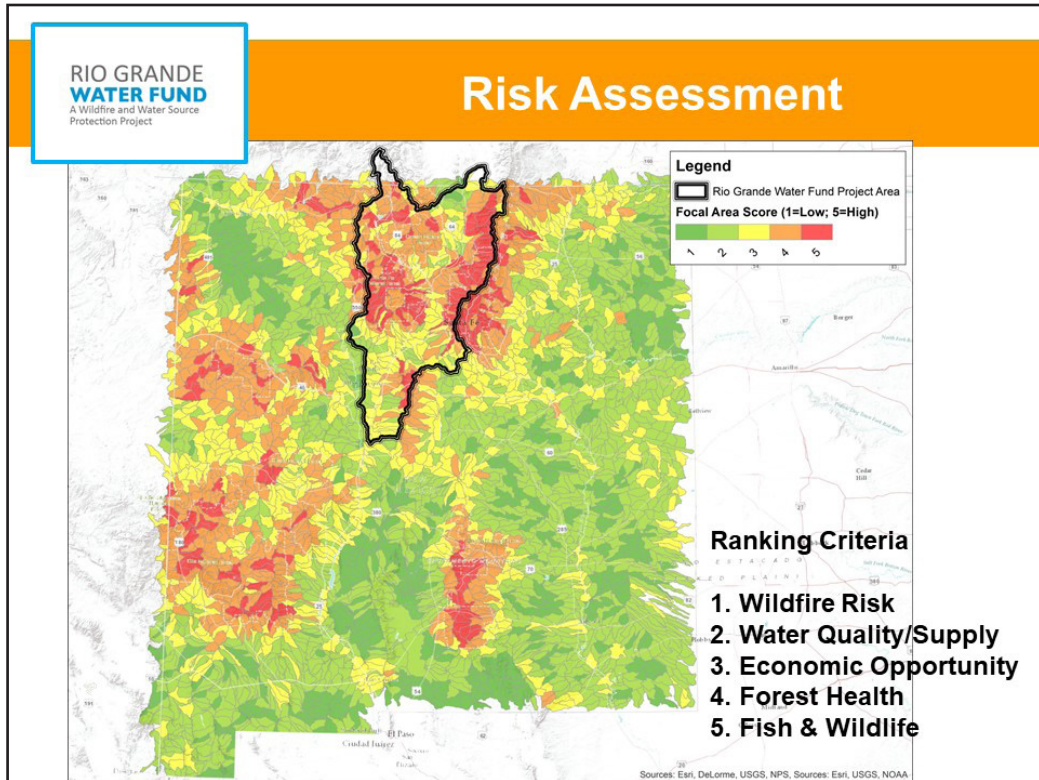


Figure 10. Rio Grande Water Fund project area’s risk assessment.

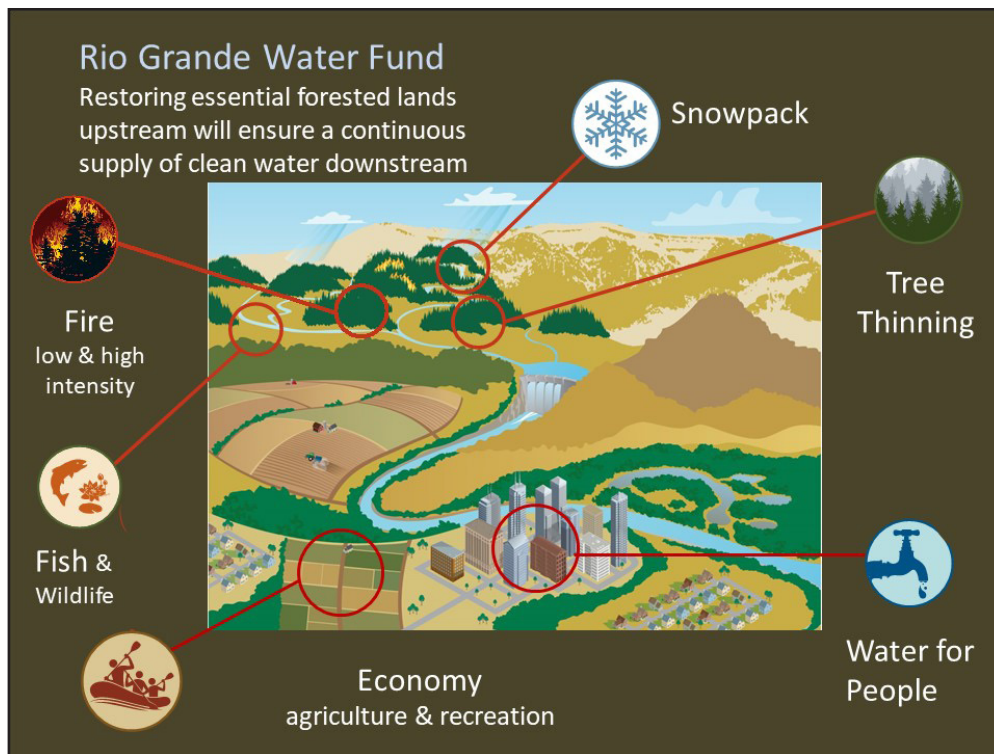


Figure 11. Rio Grande Water Fund.

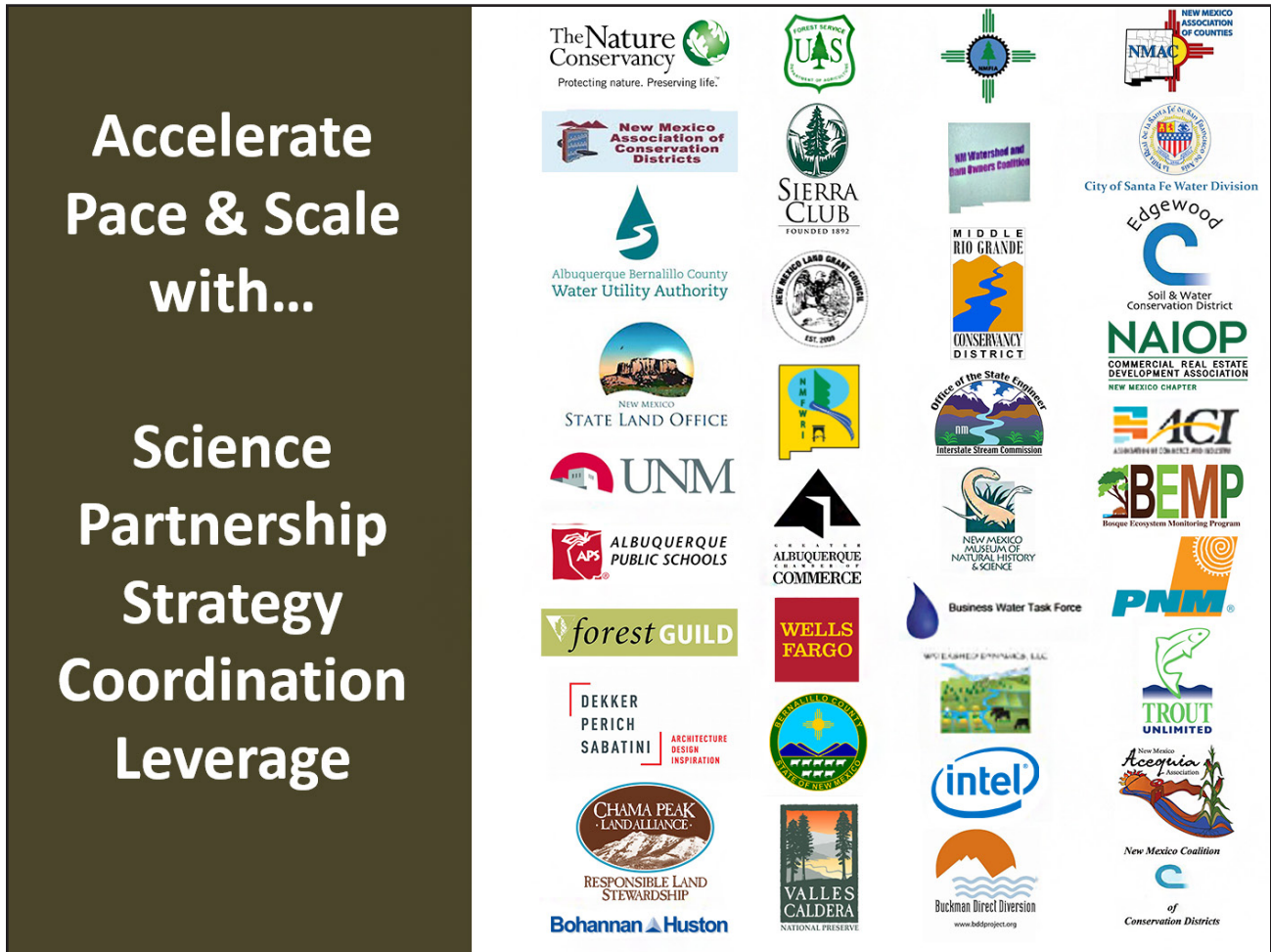


Figure 12. Partners.

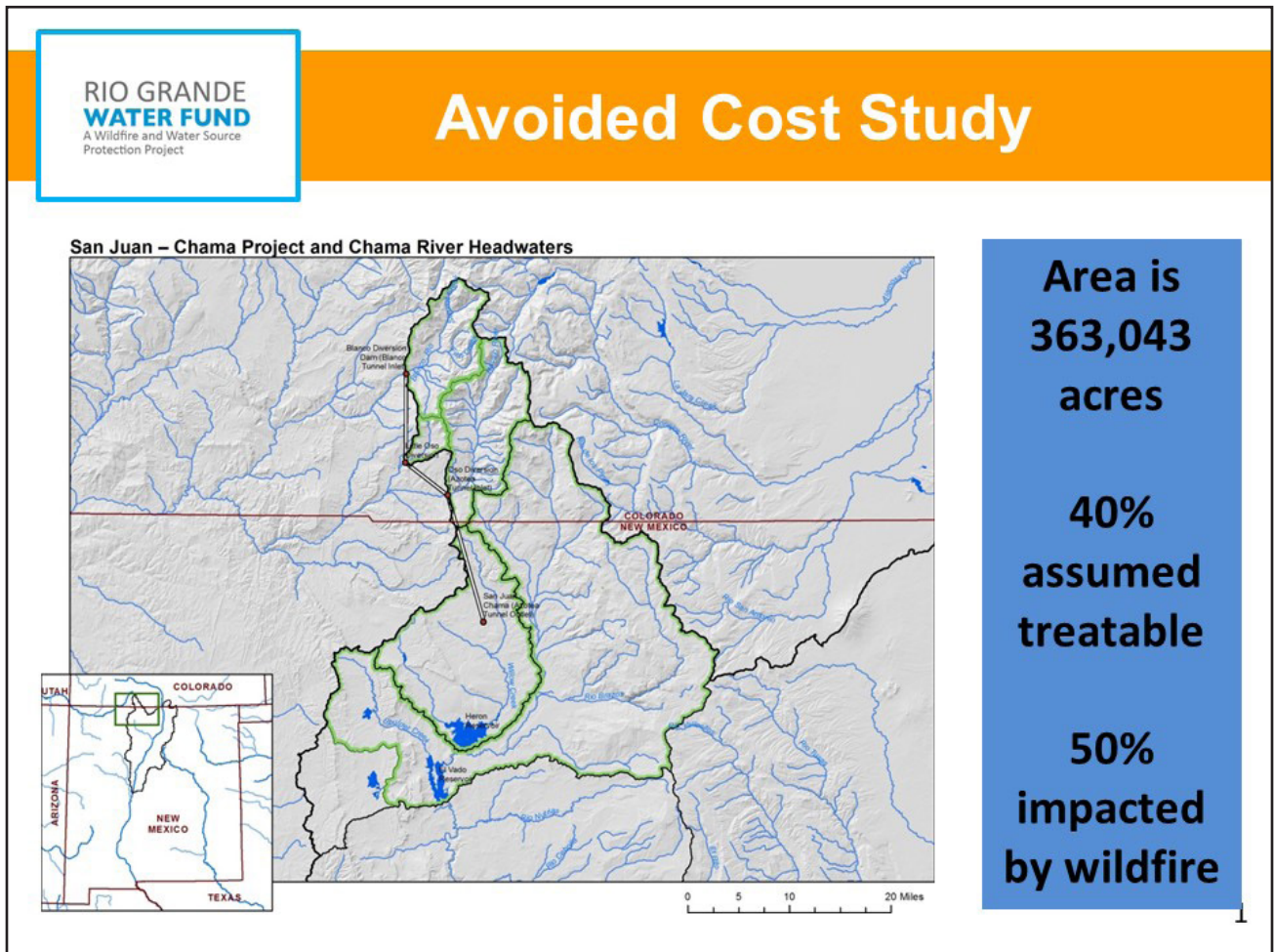


Figure 13. San Juan - Chama project and Chama River headwaters.



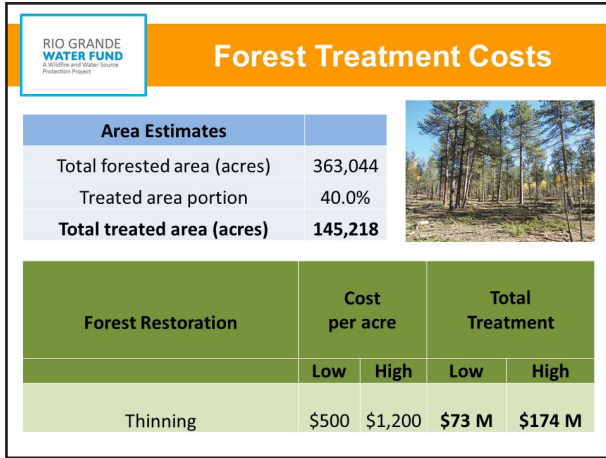


Figure 14. Treatment costs for major forest fires from 1993-2013.



Figure 15. Estimated costs for different treatment categories.



Figure 16. Estimated costs for different treatment categories (cont.).

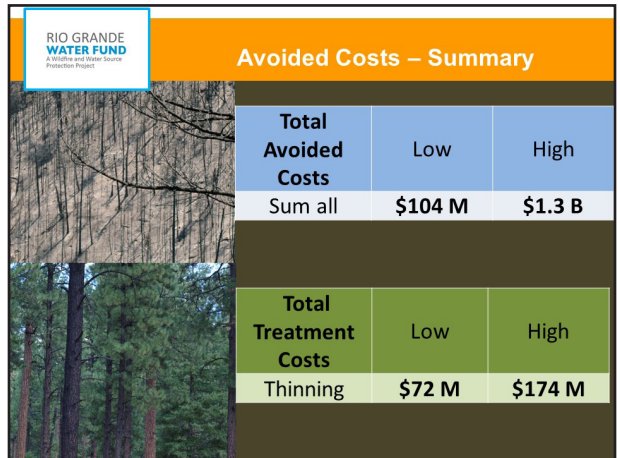


Figure 17. Summary of avoided costs for major fires from 1993-2013.

Partnership

42

RGWF

Signatories

**RIO GRANDE WILDFIRE AND WATER SOURCE PROTECTION  
COLLABORATIVE CHARTER**

THIS COLLABORATIVE CHARTER (“Charter”) is entered into by and among the Parties listed below (the “Signatories”), acting by and through their authorized representatives (a “Representative”), and is effective as of the date set forth below (the “Effective Date”).

WHEREAS, the Rio Grande and its tributaries within New Mexico (the “Rio Grande Watershed”) is a major source of water for more than half of the state’s population, including those living in metropolitan and rural communities and on Native American pueblos and tribal lands; and,

WHEREAS, severe wildfires and the resulting post-fire effects, as was seen after the 2011 Las Conchas fire, impact surface water sources and supplies by degrading water quality and introducing large quantities of sediments into reservoirs and the conveyance infrastructure that serve communities, acequias and irrigation districts in the Rio Grande Watershed, and with effects that may continue for several decades; and,

WHEREAS, New Mexico’s forests and grasslands are natural water storage reservoirs that have a key role in the hydrologic cycle and are a vital source of surface water and ground water recharge for the Rio Grande Watershed; and,

WHEREAS, the cost to federal, state, tribal and local governments of fighting severe wildfires is substantial as well as having considerable adverse effect on the New Mexico economy, including its agriculture, businesses, tourism, recreation, natural resources, cultural resources and property tax base; and,

WHEREAS, the Albuquerque Bernalillo County Water Utility Authority and the City of Santa Fe have expended tens of millions of dollars to develop projects to divert water from the Rio Grande and San Juan Chama Project to supply their respective water systems; and,

WHEREAS, New Mexicans will benefit from additional information about the essential role of the state’s watersheds to our water supply and economy and the on-going need for forest, shrub and grassland watershed restoration projects that will also have favorable outcomes for fish and wildlife habitat; and,

WHEREAS, approximately 600,000 acres of forests are proposed for thinning over the next twenty years to reduce the threat of severe wildfire in the Rio Grande Watershed; and,

WHEREAS, mechanical thinning and controlled burning of overgrown forests is a sound strategy to reduce fuel levels and the risk of high-severity wildfires; and,

WHEREAS, efforts to protect the Rio Grande Watershed from catastrophic wildfire will be most effective if federal, state, and local governmental entities, Native American pueblos and tribes, private persons and entities, and non-governmental organizations voluntarily collaborate on their individual forest, grassland and watershed restoration projects;

Figure 18. Rio Grande Wildfire and Water Source Protection Collaborative Charter.



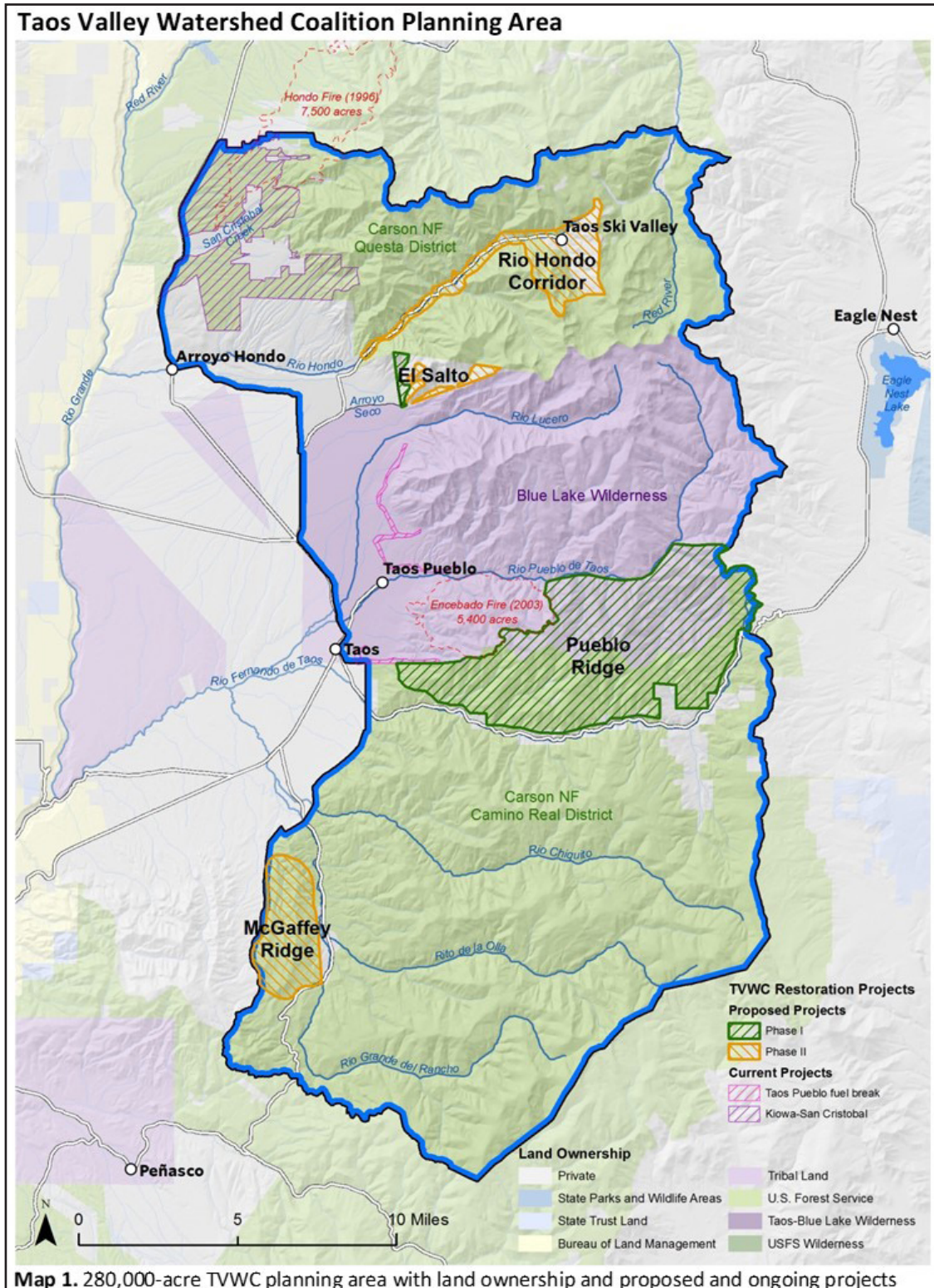


Figure 19. Taos Valley Watershed Coalition planning area.



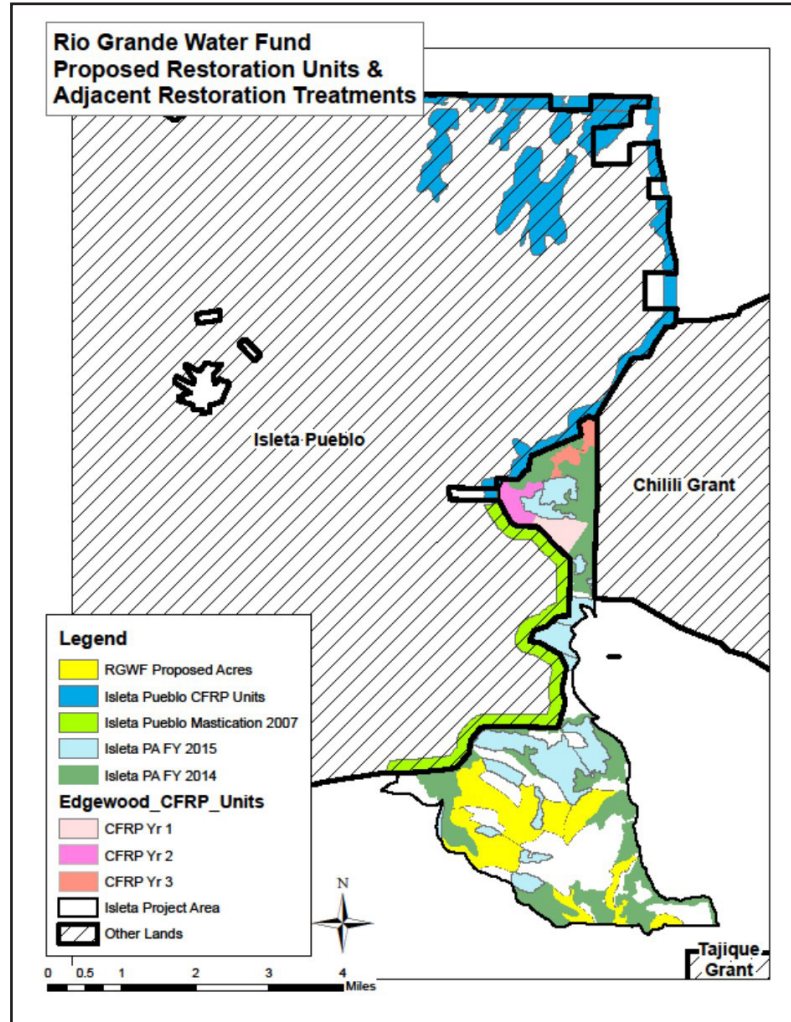


Figure 20. Coordinating the Rio Grande Water Fund’s proposed restoration units and adjacent restoration treatments.



Figure 21. Federal Funding.

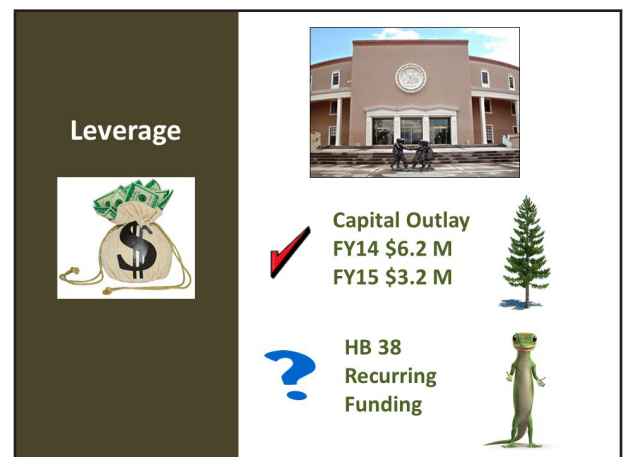


Figure 22. State Funding.

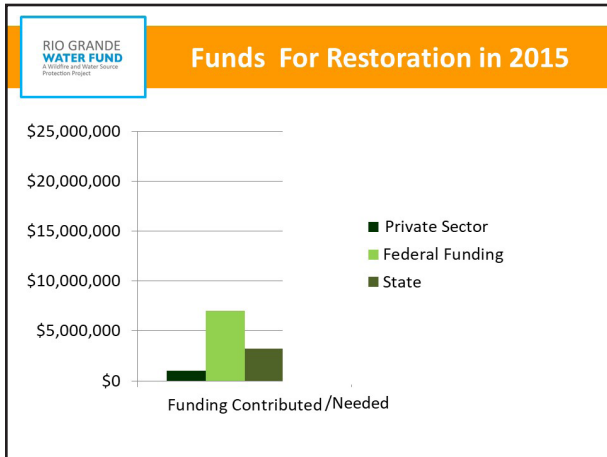


Figure 23. Funds for restoration in 2015.

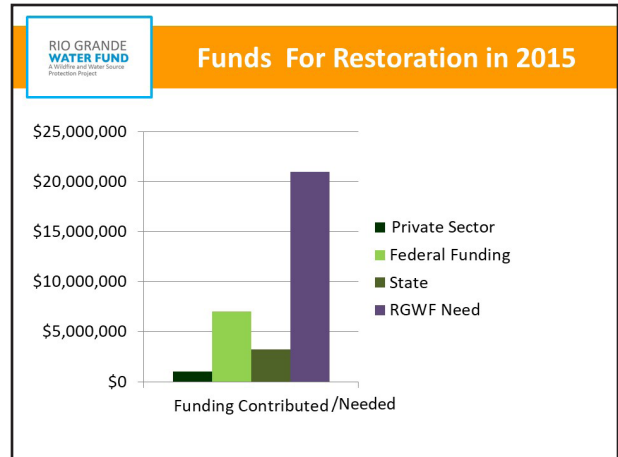


Figure 24. Funds for restoration in 2015 (cont.).



Figure 25. Restoring forests and protecting water.