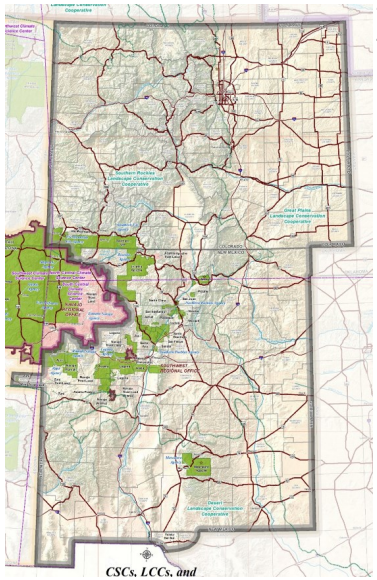
US Department Of The Interior
Indian Affairs

Tribal Climate Resilience Program — Southwest Region

SOUTHWEST REGION

Prolonged drought and increased wildfires, less precipitation and reduced, shorter period of snowpack, which stress water resources in the region.

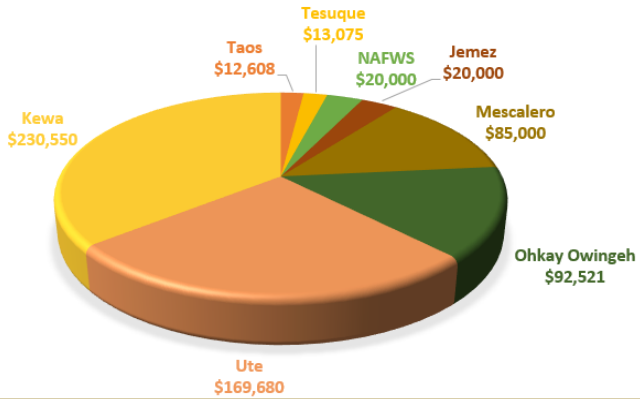
Native Pueblos have retained remnants of lands that they held before either the Spanish and the United States became active in the area, but climate change impacts awakens new concerns.



CLIMATE IMPACTS

- Extended Drought
- Wildfire Hazards
- Traditional Farming
- Water Resources

SOUTHWEST TRIBAL AWARDS



FUNDED STRATEGIES

Southwest Tribes work with other entities to include training and project support through the South Central Climate Science Center and the Southwest Climate Hub. Pueblo of Tesuque (http://bit.ly/2mpUj1W) and the Mescalero Apache Tribe (http://bit.ly/2mHFBj5) both work closely with the U.S. Forest Service and other state and local forest managers to co-manage forest resources, reduce fire hazards, and control pests, as well as, establish sophisticated greenhouse systems and preservation strategies for native food.

Pueblo of Isleta has restored streams with the support of Texas Tech faculty and studies in partnership with nearby Kirkland Air Force Base to restore a culturally important wetland.

Pueblo of Jemez in partnership with the Flower Hill Institute is leading a *Water and Climate Working Group* for area Tribes to tackle a variety of issues together. Pueblo of Jemez serves as the NM lead on the Southern Rockies LCC steering committee and seeks to lead NM area SR LCC to adapt large landscape level vulnerability assessments to more localized Tribal concerns.

Pueblo of Sandia provides rainwater harvesting for wildlife training to surrounding Tribes and nationwide.

Santa Ana Pueblo studies juniper die off with sophisticated GIS and remote sensing techniques to develop ways to restore them.

Pueblo of Santo Domingo (Kewa Pueblo) manages a large Natural Resources Vista Youth Volunteer Program in a variety of landscape and restoration projects. Also, they have launched a community-based climate adaptation planning process.

EXAMPLE PROJECTS

Mescalero Apache Tribe: Forestry Collaborations and Native Foods Systems

What for the Mescalero Apache began as a small garden grew into four greenhouses with fishery waste irrigation powered by solar panels, a 4-H club, and food preservation and elder food sharing. The Tribes also worked with federal and state partners for combat invasive mistletoe and increase fire resilience

Pueblo Tesuque: Solar-powered Greenhouse and Straw Bale Seed-Bank

Pueblo of Tesuque has revived traditional farming techniques on over 40 acres, producing traditional crops, herbal medicines, many varieties of fruit, grains, and several non-traditional crops including over 10,000 asparagus plants and 200 fruit trees. Ten beehives provide the necessary pollination, as well as honey and beeswax for the community. A straw bale, solar powered seed bank preserves key species.

"The goal of Tesuque Farms is to help the community become more sustainable, preserve traditional seeds and foods, and maintain a healthier lifestyle" indicates Emigdio Ballon, Tesque Farm manager.

Regional Climate Dashboards (top-right sidebar) and other federal-wide resources for Tribes & Climate are available at: **bia.gov > select Category: Climate**

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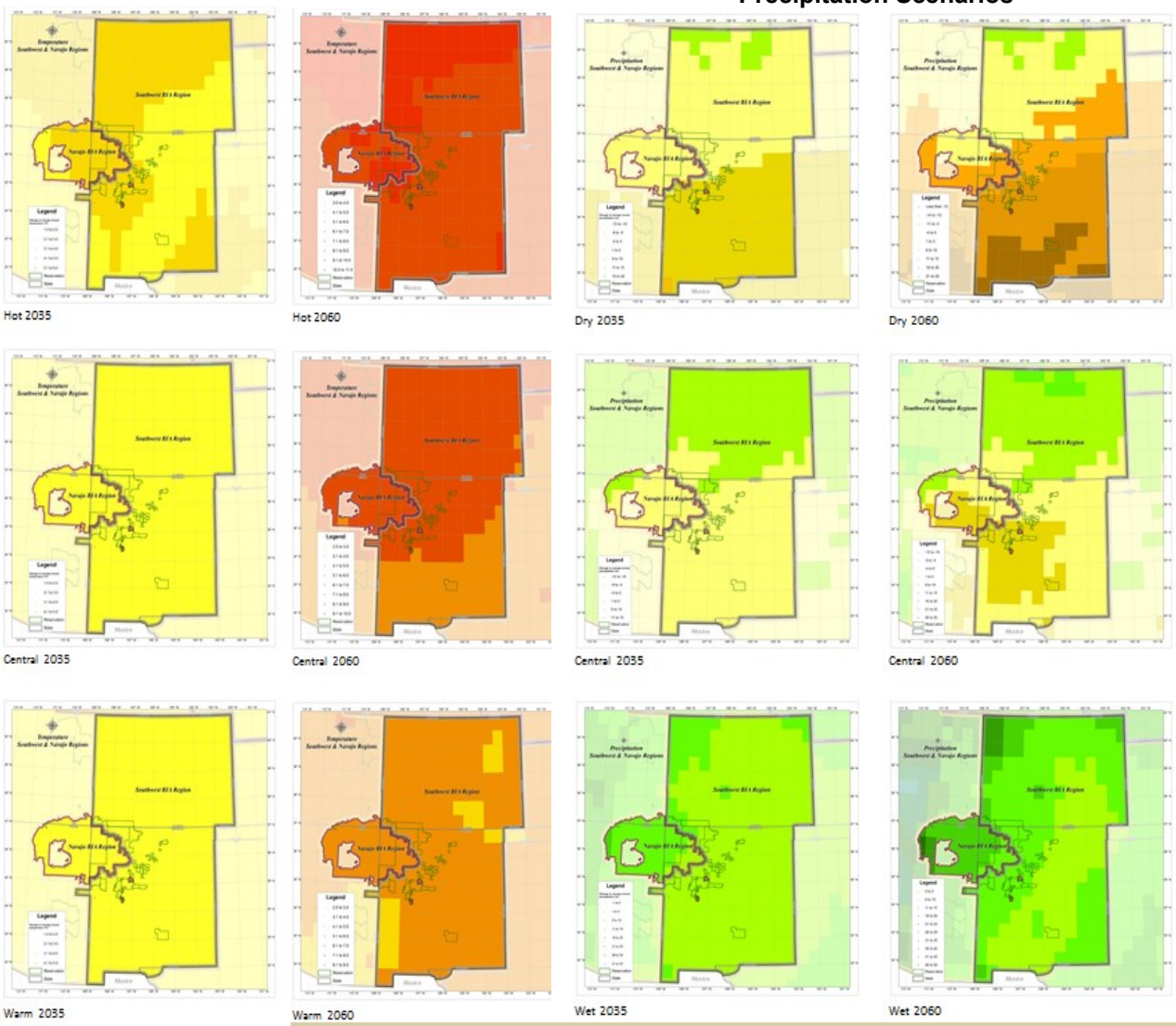
CLIMATE SCENARIOS

2035 and 2060 CMIP5 Climate Projections

From EPA CREAT Projection Map - http://arcg.is/2cEzv2p

Success at emissions controls over time, as well as development and population trends, will determine the degree of climate change we can anticipate. Managers should test the robustness of decision over a range of potential futures to reduce overall risks and costs.

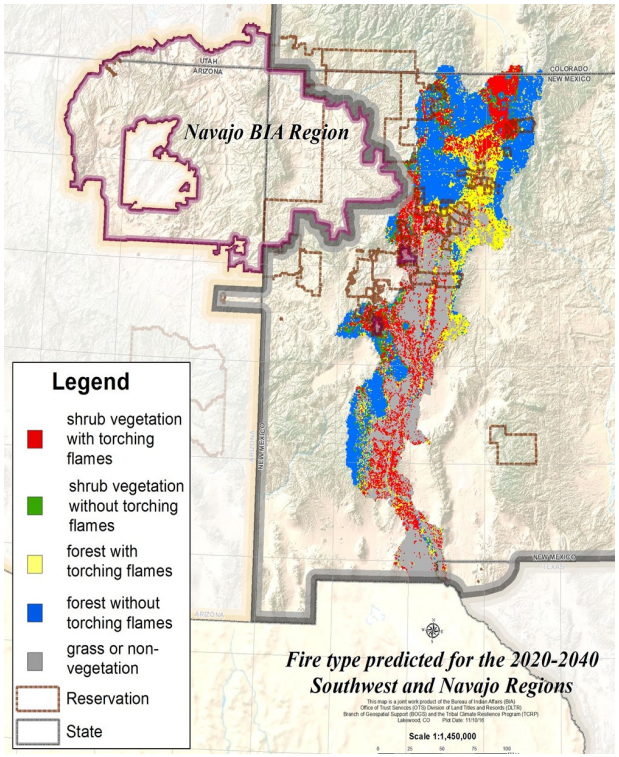
Temperature Scenarios | **Precipitation Scenarios**



DATA ANALYSIS EXAMPLE

Rio Grande River Basin Fire Susceptibility Analysis - http://bit.ly/2mGCARe

US Forest Service Missoula Fire Sciences Laboratory estimated increased wildfire risk ranges predicted for 2020-2040 to assist federal, tribal, state and other partners plan new fire and forest management methods across landscapes to preserve high-value stands.



Visit FireScience.gov to obtain information from local experts and scientists working in your area, attend training, share data, and plan and test management strategies together with others facing similar concerns.

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