

Otero Soil & Water Conservation District

2018 Report of Accomplishments



Mission Statement: To take available technical, financial, and educational resources, whatever their source, and focus or coordinate them so that they meet the natural resource needs of the local land user.

Sacramento Mountains Watershed Restoration Project

Background –

The Otero Soil & Water Conservation District (SWCD) is an entity of state government authorized by the legislature to conserve and develop the natural resources in Otero County through the Soil and Water Conservation District Act. A referendum was held on June 20, 1940 with over two-thirds of the local landowners in favor of organizing a Soil & Water Conservation District for Otero County.

Since 1975 the Otero County Commissioners have engaged the Otero SWCD to address watershed restoration, noxious weed control and resource education by providing financial support for our program. In the last 19 years these funds (\$1,023,352) have been leveraged as match for federal grants totaling \$3,100,021 (a \$3.03 return for every county dollar). Otero County Subdivision regulations require Otero SWCD to review and comment on Terrain Management Plans of proposed subdivisions. This year we completed one subdivision review.

The Otero SWCD petitions for funding to continue our soil and water conservation program on an annual basis. Since 2012 our budget has been reduced from \$75,953 to the current \$47,755. The noxious weed program assists over 100 local landowners willing to combat noxious weeds on their private lands. Watershed restoration (information, hazardous fuels reduction and restoration) hinges on educating the public and private land managers about installing erosion control structures and thinning trees. Our resource education program provides information about all these programs and available assistance from our partnering agencies.

Following the floods in 1941, 1951, 1954 and 1955, Otero SWCD sponsored construction of the Upper Penasco Watershed Project, which included constructing three floodwater-retarding dams. These dams were completed in 1960 and the program life of these structures is complete. Part of the districts responsibility as the sponsor is to carry out an annual maintenance check on each of the structures.

Noxious Weeds –

Otero SWCD continues to manage the noxious plant control program for the county. Technical assistance is provided, and herbicides are available to control noxious plants. We survey the area identifying where noxious plants exist and either cost share herbicide or arrange spraying to control these plants. Over 100 private landowners have participated in the program.

Otero County funds are used as required match for grants to expand this program to treat “hot spots” of noxious weeds to slow down their expansion onto agricultural lands. Since 2007 the Bureau of Land Management has awarded us \$312,000 to treat noxious plants primarily on BLM administered lands in Otero County. Another \$20,000 was awarded this year just for African rue control. Working with NM Energy, Minerals and Natural Resources Department we have treated 1,218 acres of private lands in the Sacramento Mountains for noxious plants such as Musk thistle.

In July we received a grant through the Soil and Water Conservation Commission to improve the mapping of noxious weeds in Otero County. We have contracted with the EcoServants to map locations of noxious weeds in the project area for the Westside Sacramento Collaborative Forest Restoration Program Project. Another application has been submitted to the NM EMNRD to treat noxious weeds in the Sacramento Mountains and enhance our mapping program with more work from the EcoServants. This new data will be uploaded to our website and a national database for noxious weeds <https://www.eddmaps.org/> Early Detection & Distribution Mapping System.

Watershed Information –

The Sacramento Mountains are the principal source of the water which sustains communities, agriculture and industry over a significant portion of the state, including the Lower Pecos River, and the Tularosa and Salt Basins. In addition to the communities within the Mountains, cities such as Alamogordo, Roswell, Artesia and Carlsbad depend on water which originates as rain and snowfall in the mountains. Understanding how the Sacramento Mountains function as a hydro-geologic unit is critical to make informed judgments concerning how the functioning of these watersheds can be optimized.

NM Bureau of Geology and Mineral Resources has completed the following studies to address this issue:

- 2012 Southern Sacramento Mountains Hydrogeology Study
- 2014 Northeastern Tularosa Basin Regional Hydrogeology Study
- 2014 Hydrologic Investigation at White Sands National Monument
- 2015 Sacramento Mountains Watershed Study
- 2016 Brackish Water Assessment in the Eastern Tularosa Basin

These reports are available at the NM Tech website <http://geoinfo.nmt.edu/resources/water/amp/publications/home.html> or the Otero SWCD website: http://oteroswcd.org/index_files/Page754.html.

Hazardous Fuels Reduction -

Otero SWCD has executed a Joint Powers Agreement with NM Energy, Minerals and Natural Resources Department to complete individual work plans. Nine work plans have been completed treating over 1,159 acres and totaling \$1,420,427.83. The following projects have been completed: Coleman Ranch, three Otero County Wildland Urban Interface Projects, Pine Springs Non-Federal Lands, Coleman Ranch Phase II, Timberon Block 2, High Rolls, and Karr Canyon Non-Federal Lands. The latest work plan being developed is for another Otero County Wildland Urban Interface Project. These funds provide landscape-scale areas to mitigate the spread of a catastrophic wildfire.

South Central Mountain RC&D plays a pivotal role in implementing these work plans. A contract for services between Otero SWCD & South Central Mountain RC&D allows for the two agencies to share the workload and the administrative fees. The RC&D has the Rural Community Forester in place to perform the necessary field work. Otero SWCD (as an entity of state government) is the fiscal agent for all projects within Otero County.

Watershed Restoration -

The Sacramento Mountain Watersheds are suffering from different levels of landscape degradation. This type of erosion is weakening the ability of the soils to store water. When the water runs rapidly through the soils they lose their structure, causing tunnel erosion. Eventually the soil collapses and gullies form. We have completed two projects funded by the Soil and Water Conservation Commission in the Sacramento Mountains. Photos were taken to show the amount of debris and sediment being held by the structures. A step-by-step guide has been printed and is available on the oteroswcd.org website.



Resource Education -

The Otero SWCD maintains a website <http://oteroswcd.org/> to keep the public informed about conservation issues in Otero County. A portion of the site is dedicated to information about noxious weeds. We have expanded this to include interactive mapping of our noxious weed program and to highlight our other projects with NM Tech and EMNRD. This tool will allow the public to “see” where we work. We publish quarterly newsletters that are also available on the site. There is also a page dedicated to water resource information from the 1950’s to current.

Otero SWCD owns a NM Mobile River Study Center (Rolling River Trailer). The **Rolling River** is a five by ten-foot utility trailer with a six-inch deep trailer bed that is filled with sand (actually recycled plastic granules). A meandering river is scooped out running from one end to the other.



Small figures of cows, horses, houses, a barn, corral and a parking lot with cars and farm equipment placed on top, form a simulated village. Trees, foliage and a few rocks line the riverbank. When water is turned on at the top of the watershed, it flows through the river and can be used to demonstrate a variety of water lessons. This trailer is used for educational events in the county.

Since 2009, we have partnered with the US Forest Service “Take It Outside NM!” (TIONM!) Program to fund opportunities that connect school children with the natural environment. Utilizing grants from the USFS, National Park Foundation and the National Environmental Education Foundation \$29,850 has reimbursed schools for transporting elementary school students to White Sands National Monument, local water festivals and various locations in the Lincoln National Forest. An additional \$9,000 has been awarded to continue this project.

Farm Bill Implementation –

NRCS – Alamogordo had another successful year getting conservation practices on the ground in Otero County. Producers in Otero County completed 45 conservation practices and the Field Office paid out over \$731,351 for the fiscal year in Environmental Quality Incentives Program cost share contract dollars. Conservation Stewardship Payments totaled \$1,798,338.61.

Brush Management in Acres:

Aerial – 5,403.3

Mechanical – 1,081.5

Pipelines in feet:

Livestock – 51,570

Irrigation – 1,048

Water:

Storages – 8 for 44,740 gallons

Solar Pumping Plants – 4

Irrigation Systems:

Micro-irrigation – 1

Fence – 29,113.1 feet

Diversion - 10 acres

High Tunnel System – 2,100 sq. feet

Forest Stand Improvement – 157.5 acres