

# Otero Soil & Water Conservation District

## Report of Accomplishments

**Mission** – The Otero Soil and Water Conservation District promotes and facilitates effective stewardship of natural resources by providing leadership, educational, technical, and financial assistance to the citizens of Otero County.

### History –

Otero County has over 4 million acres of forest, range, cropland, pasture and other lands. The stewards of these lands include Federal (68%), State (10%), Mescalero Apache Tribe (11%) and Private (11%). Otero Soil and Water Conservation District was formed in 1940 through a local referendum to address the resource concerns on agricultural lands. New Mexico recognizes Soil and Water Conservation Districts through the Soil and Water Conservation District Act as a political subdivision of state government. Through this legislation, Otero SWCD can act as agent for any instrumentality or agency of the state or the federal government in the acquisition, construction, operation or administration of a natural resource conservation, utilization or development project or program within the district.

We greatly appreciate the support and collaboration of our valued partners who make it possible to carry out our mission: At the federal level, this includes the Natural Resources Conservation Service, the Bureau of Land Management and the U.S. Forest Service; in New Mexico, the departments of agriculture and environment, and the State Forestry Division; and, locally, Otero County, the city of Alamogordo, Villages of Cloudcroft and Tularosa, and the Mescalero Apache Tribe.

### Watershed Dams –

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 through a partnership with the Natural Resources Conservation Service (formerly the Soil Conservation Service) 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. There is an RV park and other resources that could be washed away if this dam fails. We petitioned for capital outlay funds to restore the structures to as-built condition. This request was successful, and planning is being done with the forest service to begin the restoration process to as-built condition.

Due to the development of the lands below the dams and their age they are considered high hazard dams even though they continue to function adequately. With the changes in weather patterns precipitation is occurring more as high intensity storms in the summer instead of winter moisture which could impact the functionality of the dams. In 2018 we petitioned the NRCS to have dam assessment reports completed for the three dams. The intent of an assessment report is to document the condition of the dam and the potential scope of any rehabilitation needed to meet current state and NRCS dam safety and design criteria and performance standards. The assessment report will provide the sponsor with necessary information to help make an informed decision on whether rehabilitation of the dam is warranted. These reports have been completed and the executive summaries are attached.

An Emergency Action Plan has been approved by the Office of the State Engineer/Dam Safety Bureau for the three dams. This plan requires the dam owner to conduct a dam failure exercise to test the effectiveness of the document. On May 3<sup>rd</sup>, representatives from Chaves and Otero County Emergency Management, Otero County Commissioner Vickie Marquardt, along with the Natural Resources

Conservation Service Area Engineer, NM State Forestry, South Central Mountain RC&D and supervisors from the Otero SWCD met to test the plan. A flood scenario was presented, and the group went through the steps from disaster declaration to its end. The main takeaway from the exercise was how to alert the public about the event. This could be a flood event, wildfire or any other natural disaster. Working with the South-Central Mountain RC&D a brochure has been developed and dispersed across the Sacramento Mountains for residents and guests to utilize. The brochure is also available on the Otero SWCD website [oteroswcd.org](http://oteroswcd.org) and on the RC&D website [scmr.cd.org](http://scmr.cd.org).

### **Local Funding –**

Working without a mil levy, our district relies on the support of Otero County to provide the operational funds for our district. They have done this since 1975. Each year Otero SWCD board members petition the Otero County Commissioners for this funding. This funding provides administrative support, office expenses to include a fiscal year audit, and base funding for the noxious weed control program. These funds are then used as leverage for federal funds to increase the scale of the local projects such as the noxious weed program. This year we had additional funds set aside to offer cost share to two local producers needing assistance with small conservation projects. 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.

### **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 which are located in 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
- 2022 Hydrogeology and water resources of the Salt Basin

These reports are available at the NM Tech website <https://geoinfo.nmt.edu/publications/openfile/home.cfm> or the Otero SWCD website: [http://oteroswcd.org/index\\_files/Page754.html](http://oteroswcd.org/index_files/Page754.html).

### **Forest Restoration -**

Otero SWCD has executed a Joint Powers Agreement with NM Energy, Minerals and Natural Resources Department to complete individual work plans. Ten work plans have been completed

treating over 1,297.69 acres and totaling \$1,740,722.67. The following projects have been completed: Coleman Ranch, five Otero County Wildland Urban Interface Projects, Pine Springs Non-Federal Lands (NFL), Coleman Ranch Phase II, Timberon Block 2, High Rolls, and Karr Canyon NFL. The latest work plans approved include for another Otero County Wildland Urban Interface Project and the Two Goats and High Rolls NFL. These funds provide landscape-scale areas to mitigate the spread of a catastrophic wildfire. In 2020 we entered into a Memorandum of Agreement to complete projects through the NM State Land Office. The first project completed was located on the Circle Cross Ranch for 200 acres. In fiscal year 2021 we treated 179.362 acres through the Coleman NFL and 162 acres on the Circle Cross Watershed Health Project. In fiscal year 2023 we treated 25.2 acres within the Two Goats/High Rolls NFL Project area and 20.37 acres in the Otero County WUI area.

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.

### **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 on agricultural lands. We survey the area identifying where noxious plants exist and either cost share herbicide or arrange for a commercial applicator to control these plants. Over 100 private landowners have participated in the program. Leveraging the county funds with federal funding we partner with other agencies to expand the program. Since 2007 the Bureau of Land Management has awarded us \$617,000 to treat noxious plants primarily on BLM administered lands in Otero County. Otero SWCD was contracted to treat 497 acres of African rue on county rights-of-way in conjunction with treatments on Otero County properties and BLM lands. A new award treated 1600 acres of BLM lands for invasive plants on BLM lands with the potential to be renewed annually for four years. Working with NM Energy, Minerals and Natural Resources Department we have treated private lands in the Sacramento Mountains for noxious plants such as Musk thistle in 2022 and again in 2023. A new application has been submitted to continue this project. Utilizing our memorandum of agreement with the NM State Land Office we were again able to treat 60 acres of African rue at the Tuli Motocross.

<b>Species</b>	<b>Treated acres</b>	<b>Monitored acres</b>	<b>Inventoried acres</b>
African Rue – Oct. 2022	2085	899	6701
African Rue - April 2023	3220	2085	8816
Musk Thistle	732	569	5851
Russian Knapweed	103	158	300
Malta Starthistle	15	18	60
	6155	3729	21728

In 2005, the New Mexico Bureau of Land Management (BLM) launched the Restore New Mexico initiative with the goal of restoring disturbed lands on a landscape scale through an ambitious partnership approach. Otero SWCD has partnered with the NM Association of Conservation Districts to complete projects on several allotments in Otero County. Recently the BLM entered into a new \$282,503 agreement with us to assist local ranchers with rangeland improvements. Through this new five-year award, we will hire contractors to survey areas

infested with juniper to understand pinon jay movements and habitat use throughout the annual cycle (breeding and non-breeding periods) in relation to thinning projects. This spring we conducted a thinning treatment on 2,950 acres reducing juniper densities to a more ecological reference state which is beneficial to improved watershed health. A pinyon jay survey was conducted prior to treatment and additional funds will be utilized to revisit treated sites and survey new project locations.

## **Education & Outreach -**

Interactive Mapping – We have expanded our website [oteroswcd.org](http://oteroswcd.org) to include interactive mapping of our noxious weed program and to highlight our other projects with NM Tech and EMNRD. This tool allows the public to “see” where we work.

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 or two 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. We have received funding through the Soil and Water Conservation Commission to completely restore the trailer. Once completed the trailer will be made available to local schools.

Since 2009, we have partnered with the US Forest Service “Take It Outside NM!” (TIONM!) Program to fund opportunities to connect school children with the natural environment. Utilizing grants from the US Forest Service, National Park Foundation and the National Environmental Education foundation \$21,000 has been spent to pay for busses to transport elementary school students to White Sands National Park, local water festivals and various locations in the Lincoln National Forest. There is \$6,000 remaining to continue this project.

## **Farm Bill Implementation –**

The Alamogordo Field Office has worked diligently amongst changing workloads and priorities to have the following conservation practices implemented on the ground. Through their tireless efforts, stellar customer service and excellent technical assistance to their producers; producers in Otero County implemented 43 conservation practices. The field office paid out over \$501,274 in Environmental Quality Incentives Program (EQIP) cost share dollars. They paid out \$1,322,740 in Conservation Stewardship Program payments. There were six new EQIP contracts awarded as well as 3 new CSP contracts.

Through Farm Bill Implementation, conservation practices applied were:

- 3,063 acres of Aerial Brush Management and 331 acres of Mechanical treatment
- 24,022 feet of fence installed – approximately 4.55 miles through various types of terrain
- 169,016 acres of Prescribed Grazing
- Livestock and wildlife water development systems:
  - 7,834 ft of Livestock Pipeline – roughly 1.5 miles through various types of terrain
  - 4 storage tanks for 20,000 gallons
  - 5 troughs for 3,750 gallons
  - 2 solar pumping plants
  - 2 wells