



**Socorro SWCD
Annual Report – FY 2014**

Socorro Soil & Water Conservation District
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Socorro SWCD Board Members:

Richard Ritter, Chairman
Dr. Mark Person, Vice-chairman
Chris Lopez, Secretary/Treasurer
Gordon "Corky" Herkenhoff, Supervisor
Eddy Harris, Supervisor

Staff:

Nyleen Troxel Stowe, Director of Special Projects, Program Manager
Will Kolbenslag, Range Technician, Noxious Weed Specialist
Amy Galanter, Technical Assistant and Masters Student at NM Tech

WATER CONSERVATION:

The Socorro Soil & Water Conservation District's Cost Share Program remains the top priority of the fiscal year. It is designed to assist landowners in implementing water conservation measures on their farms, ranches, and residences. The following is a summary of the available programs and the combined benefits of the District's multifaceted programs:

- This year \$34,142.61 was reimbursed to landowners for installing beneficial agricultural and residential conservation projects.

Agricultural Projects

Agriculture is perennially the most active segment of our cost share program. This year we assisted landowners with ten land leveling projects moving 14,809 cubic yards of dirt on 103 acres, installation of 8,000 feet of livestock pipeline with one drinking tub on 640 acres, replacement and upgrade of two irrigation turnouts benefitting 17 acres, installation of 780 feet of internal livestock fencing for alpaca management, and drip irrigation for a two acre vineyard, Black's Smuggler Winery.

Residential Projects

We assisted 1 landowner with a rain harvesting system, reimbursing a total of \$255, we assisted 2 landowners with \$1,111 in cost share for drip irrigation systems, 2 landowners with \$173 of assistance for water saving low flow toilets, and 1 landowner was provided \$25 of cost share for a low flow showerhead.

- Conservation Technical Assistance with numerous other individuals resulted in many practices being applied on the agricultural land within our district.

The application of resource management systems in conjunction with the benefits of this versatile program has resulted in significant water and soil savings in the Socorro SWCD this fiscal year. Other benefits derived from the application of these conservation practices include improved water quality in the irrigated valley as well as the grazing lands in the district, improved wildlife habitat, improved watershed health and an overall improvement in the quality of life for the residents in our area. Our programs for drip irrigation, low flow water devices and rain harvesting barrels have expanded our cost share to reach more urban residents and have a greater overall impact on our community.



Start of livestock pipeline



End of livestock pipeline-drinking tub



Finished land leveling job prior to planting and watering (previously a salt cedar forest)

RIO GRANDE RESTORATION FUNDING:

In February of this year the Socorro SWCD contracted with Boss Reclamation, LLC to extract all 51.8 acres of the Armijo property. This acreage was sprayed by helicopter in 2004 and 2005 with the herbicide Arsenal (active ingredient Imazapyr). The cost of the winning bid by Boss Reclamation, LLC was \$772.20 per acre, for a total of \$40,000. Boss carefully worked around all native trees and shrubs while skillfully removing the non-desirable species.

Although wood cutters have been harvesting Salt cedar from the property since 2010, the amount of woody material remaining was as substantial as it was inaccessible. The purpose of the extraction of this now dead material was to (1) Decrease the fuel load to lower fire risk in the area, and (2) to restore the area to its native habitat.

The extraction process was done in such a way as to accomplish these goals while creating areas that facilitate firewood cutting. As the woodcutters remove material from the site, the Socorro SWCD will periodically use its Bobcat Min-Excavator to pull the piles apart to allow more wood to easily be harvested. Over time this will result in the clearing of the area and allow us to accomplish our re-vegetation goals.

Restoration of this property will be made easier by the fact that there are already several large old-growth Cottonwood and Black willow trees, which are now thriving with the competition of the Salt cedar removed. In February of 2015 we will harvest Rio Grande Cottonwood poles from the Bosque del Apache and transplant them to the site, re-establishing a Cottonwood grove that was long ago lost to the noxious Salt cedar trees. As clearing and budget allow, we will also plant native grasses and shrubs.



Salt cedar extracted and piled for woodcutting access



*Native trees and shrubs left undisturbed following extraction
(the large trees are Black willows, and the small white trees are NM Olive)*



Rows of Salt cedar trees with roads left between to facilitate woodcutting

While native species such as New Mexico olive, Rio Grande Cottonwood, Wolfberry, Gooding's black willows, Baccharis, Inland salt grass, Winterfat and Four-wing saltbush are emerging post excavation, the majority of succession is Russian knapweed. Staff continues to work on treatment of the Russian knapweed using the herbicide Milestone.



Russian knapweed infestation on Armijo tract

POLE PLANTING:

As part of our continuing effort to re-vegetate the Middle Rio Grande valley with Rio Grande Cottonwood trees, we harvested, prepared, and planted 150 trees this year on two restoration sites that had the Salt cedar removed. The Socorro SWCD Range Technician also assisted Sevilleta National Wildlife Refuge by drilling 600+ holes for their staff to plant with various types of willows.



Bourne tract Cottonwood planting

Noxious Weed Control:

The Socorro SWCD continues to offer control of all designated noxious weed and tree species to the public. We employ a licensed herbicide applicator for all chemical treatments, and we also own a Bobcat E35 Mini-Excavator for non-chemical removal of these species when possible.

The Socorro SWCD began this fiscal year by continuing treatments of Salt Cedar and other noxious species on BLM land. The Flanders Detention Dam, west of Bernardo, has been identified as a severe infestation which will likely need to be treated by hand due to limited funding. In addition to continuing treatments of this and other earthen retention tanks on several rangeland leases, we began management plans for The Box Recreation Area as well as at Ft. Craig.



Flanders Retention Dam

The Box Recreation Area received treatment on the ingress roads, public parking areas, and areas adjacent to the parking lot. Due to the relatively high traffic in the area, a multitude of invasive weed species exist, including Silverleaf nightshade, Jimsonweed, Kochia, and Russian olive.



The Box Recreation Area

We also began treatment at Ft. Craig, treating the parking lot, common areas, and the trail system that exists throughout the area. Much of the trail had become completely overgrown making it unusable for pedestrian traffic. We will visit this area annually in the spring to prepare for the tourist season.



Trails post-treatment at Ft. Craig

While following up on last year's treatment of Tree of Heaven at the Fite Ranch, another small outbreak of the tree was identified and treated in an area near the previous infestation.



Fite Ranch Tree of heaven

In the fourth quarter of FY 2014, the Socorro SWCD continued its attack against the noxious weeds that threaten to invade our district. This included long awaited treatments of African Rue at both the former Lemitar livestock sale facility and local redi-mix plant, as well as a rare opportunity to treat Salt cedar.

The Lemitar Sale Barn has been known as one of the only areas in our district that has African Rue growing on it. The weed was likely transported from another part of the state or country along with livestock. Fortunately, the sale barn has been closed for many years, and although the plant has spread throughout the property, it has likely not spread due to traffic in and out of the property. The Socorro SWCD was finally able to obtain written permission to apply herbicide from the Pennsylvania based investment company that owns the land, and the entire property has had initial treatment, with moderate success. This property was previously the site of the BLM-sponsored Mustang Ranch adoption program.



Treated African Rue at the Lemitar Sale Barn. Follow up treatments will occur this fall.

Another long awaited African Rue treatment was accomplished this spring at the A1 Redi-Mix plant in Socorro. The Socorro SWCD first spotted African Rue at the property several years ago, and it was an isolated outbreak of just a few plants. We were unable to get permission from the owners to apply herbicide until recently. The owners finally acquiesced after seeing that the African Rue had spread quickly across all 22 acres of their property. Even worse, there is a never ending stream of trucks and material leaving the property, headed to all parts of the county. The BLM has expressed concern over this, as they purchase road materials from A-1 (the only local source). Although the area is now under our treatment program, full control will take time, and we expect to see more African Rue as a result of A-1's negligence.



Treated African Rue at A-1



Flanders Detention Dam, June 2014

Due to the continuing effects of the drought, one of the largest detention dams on the BLM rangeland west of Bernardo has run dry. Although the Flanders Dam is not supplying any drinking water right now, we had an opportunity to treat Salt cedar in this dirt tank that has been inaccessible since treatment began in this area. It is likely that this tank will not remain dry through monsoon season, so it was fortunate to be able to treat the trees now. Work will continue on the rest of the tank this fall, as well as the remaining Salt cedar in the area.

EDUCATION:

The Socorro SWCD organized and held the Thirtieth Anniversary Bosque Conservation Day on November 1, 2013 for one hundred ninety fifth grade students from Zimmerly Elementary, Midway Elementary, San Antonio Elementary and Cottonwood Valley Charter School.

We had volunteers at each of the schools to meet the bus drivers with maps and to ensure that they knew how to get out to the Socorro Nature Area in Lemitar. We had five school buses transport the students. All arrived prior to start of the rotations, so all students got to see each of the eight presenters.

| <u>Agency</u> | <u>Topics</u> | <u>Name(s)</u> |
|--------------------------------------|-----------------------------------|-----------------------------------|
| 1. Rio Birds | Birds of Prey | Matt Mitchell |
| 2. NM State Parks | Wildlife of the Bosque | Karen Herzenberg & Tanja George |
| 3. NM State Forestry/ USFWS | Forest Ecology | Nick Smokovich & Gina Dello Russo |
| 4. City of Albuquerque | Real Life Vampires | Paul Smith |
| 5. Bosque School | BEMP | Kelly Steinberg |
| 6. Socorro County Fire Department | Firewise | Fred Hollis |
| 7. NM State Forestry | Putting Out Campfires/Fire Safety | Jack Dickey |
| 8. NMDG&F | Poach Coach | Andrew Teaschner |

At Station 1, the students learned about raptors. Matt Mitchell brought two raptors that the students got to observe at close range. Matt discussed training raptors, what they eat, rehabilitation of injured raptors and their importance in the ecosystem. Station 2, Wildlife of the Bosque: Karen Herzenberg and Tanja George discussed the various forms of wildlife that call the Bosque home, where they live and how they interact in the Bosque and the importance of the Bosque. Station 3, Forest Ecology: Nick Smokovich and Gina Dello Russo discussed trees, shrubs, and numerous other aspects of the forest and Bosque and their importance in the ecosystem. Station 4, Real Live Vampires, was a new station this year. Paul Smith discussed mosquitoes with the students. They learned about the life cycle of the mosquito, what diseases they transmit and how a person can protect themselves from being bit by the mosquitoes. Station 5, BEMP: Kelly Steinberg discussed the Bosque Ecosystem Monitoring Program (BEMP) and what data is collected at the sites in this program and how students can become involved in it. Station 6, Firewise: Fred Hollis and staff discussed fire, how to escape a burning building, and fire safety. Station 7, Fire Safety: Jack Dickey discussed wildfires with the students. He talked to the students about how wildfires start, how they fight and control them and the best ways to ensure not

starting a wildfire when out in nature. Station 8, Poach Coach: Andrew Teaschner, NM Department of Game and Fish Law Enforcement Officer discussed what poaching is, why it is illegal, how to get a hunting/fishing license and safety.



Bosque Conservation Day

November 1, 2013--Socorro Nature Area



Bosque Conservation Day
November 1, 2013
Socorro Nature Area

| | Class A San Antonio | Class B Cottonwood Valley Charter School | Class C Midway Group 1 | Class D Midway Group 2 | Class E Zimmerly Group 1 | Class F Zimmerly Group 2 | Class G Zimmerly Group 3 | Class H Zimmerly Group 4 |
|-------------|-------------------------------|--|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| | Introduction and Placement | | | | | | | |
| 8:45-- | | | | | | | | |
| 9:00-9:15 | Station 1 Birds of Prey | Station 2-Wildlife of Bosque | Station 3-Forest Ecology | Station 4-Real Life Vampires | Station 5-BEMP | Station 6-Firewise | Station 7-Firefighting/Safety | Station 8-Poach Coach |
| 9:20-9:35 | Station 2-Wildlife of Bosque | Station 3-Forest Ecology | Station 4-Real Life Vampires | Station 5-BEMP | Station 6-Firewise | Station 7-Firefighting/Safety | Station 8-Poach Coach | Station 1 Birds of Prey |
| 9:40-9:55 | Station 3-Forest Ecology | Station 4-Real Life Vampires | Station 5-BEMP | Station 6-Firewise | Station 7-Firefighting/Safety | Station 8-Poach Coach | Station 1 Birds of Prey | Station 2-Wildlife of Bosque |
| 10:00-10:15 | Station 4-Real Life Vampires | Station 5-BEMP | Station 6-Firewise | Station 7-Firefighting/Safety | Station 8-Poach Coach | Station 1 Birds of Prey | Station 2-Wildlife of Bosque | Station 3-Forest Ecology |
| 10:20-10:35 | Station 5-BEMP | Station 6-Firewise | Station 7-Firefighting/Safety | Station 8-Poach Coach | Station 1 Birds of Prey | Station 2-Wildlife of Bosque | Station 3-Forest Ecology | Station 4-Real Life Vampires |
| 10:40-10:55 | Station 6-Firewise | Station 7-Firefighting/Safety | Station 8-Poach Coach | Station 1 Birds of Prey | Station 2-Wildlife of Bosque | Station 3-Forest Ecology | Station 4-Real Life Vampires | Station 5-BEMP |
| 11:00-11:15 | Station 7-Firefighting/Safety | Station 8-Poach Coach | Station 1 Birds of Prey | Station 2-Wildlife of Bosque | Station 3-Forest Ecology | Station 4-Real Life Vampires | Station 5-BEMP | Station 6-Firewise |
| 11:20-11:35 | Station 8-Poach Coach | Station 1 Birds of Prey | Station 2-Wildlife of Bosque | Station 3-Forest Ecology | Station 4-Real Life Vampires | Station 5-BEMP | Station 6-Firewise | Station 7-Firefighting/Safety |
| 11:40-12:30 | Lunch | Lunch | Lunch | Lunch | Lunch | Lunch | Lunch | Lunch |





Matt Mitchell--Birds of Prey Station





Wildlife of the Bosque Station--Karen Herzenberg and Tanja George



Forest Ecology Station--Nick Smokovich and Gina Dello Russo



Real Life Vampires Station--Paul Smith





BEMP-Bosque Ecological Monitoring Program Station--Kelly Steinberg



Fire Wise Station--Melissa Harris



NM Department of Game and Fish Poach Coach Station--Andrew Teaschner





Firefighting/Wildfire Station--Jack Dickey





Kids getting their lunch and backpacks.



The four who started Bosque Conservation Day thirty years ago.

PUBLIC OUTREACH:

The Socorro SWCD staff had a booth at the Socorro County Fair over Labor Day Weekend. The cost share program for agricultural practices and for urban water conservations projects is promoted at this event.



Socorro SWCD booth at the Socorro County Fair, August 30-31, 2013.

On October 24, 2013, the Socorro SWCD staff set up the Rolling Rivers trailer for Kids, Kows, and More in partnership with the Socorro County Extension Office. The Socorro SWCD set up the trailer to mimic the Rio Grande, the low flow channel, farmland, urban areas, mountains, wildlife and agriculture. Third and fourth grade students in Socorro County were transported to the Fairgrounds by bus to attend this event. The Socorro SWCD paid to bus the students within the District.



The Socorro SWCD staff posted flyers at businesses in the District to promote the Cost share program and to offer wildlife escape ramps at cost to cooperators.



We have \$\$\$ available NOW to help with your farm and home improvement projects. We reimburse you up to \$3,000 (varies by project) for:

- Laser Leveling
- Irrigation Pipelines
- Concrete Ditches
- Home Drip Irrigation
- Water Saving Devices

Simple, one page, free application.

If you own land in our district, you qualify!

Apply **NOW** before funding is gone.

Socorro SWCD
103 Francisco de Avondo
575-418-5979

A flyer for wildlife escape ramps, framed by a decorative border of small green plant icons. At the top is the Socorro SWCD logo. Below it is a photograph of a blue metal drinking trough with a silver mesh escape ramp installed at the bottom. The text below the photo explains that these ramps are used to prevent animals from drowning in water troughs. It states that the ramps are simple, effective, and inexpensive, and that the district has them available for \$20 each. The flyer concludes with the contact information: 'Call 575-418-5979'.

Range Technician, Will Kolbenschlag made a presentation to NM State University students on water conservation projects that the District is involved in such as agricultural land leveling, irrigation pipeline and concrete ditch lining design, Salt cedar treatments of various types and urban water conservation project such as drip irrigation and rain water harvesting systems.

Director of Special Projects, Nyleen Troxel Stowe, did a radio interview about Socorro SWCD cost share programs including agricultural and urban, noxious weeds and treatments and water conservation in general. This aired on the local radio station, 91.9FM on April 5, 2014 at 1:15am, 5:15 am, 7:15 am, 1:15 pm and 5:15 pm.

FISCAL YEAR 2014 BUDGET:

| Item | Amount |
|--|---------|
| Income: | |
| State funding | 11,874 |
| Mil levy | 155,515 |
| Grant Income | 74,784 |
| Loan repayment | 2,500 |
| Total: | 244,673 |
| Expenditures: | |
| Staff | 118,911 |
| Cost share program | 34,143 |
| Office supplies, postage, meetings, dues, telephone, travel | 33,583 |
| Auto | 8,883 |
| Grant expenditures | 45,181 |
| Conservation activities | 1,930 |
| Loan repayment to ISC | 1,604 |
| Total: | 244,235 |