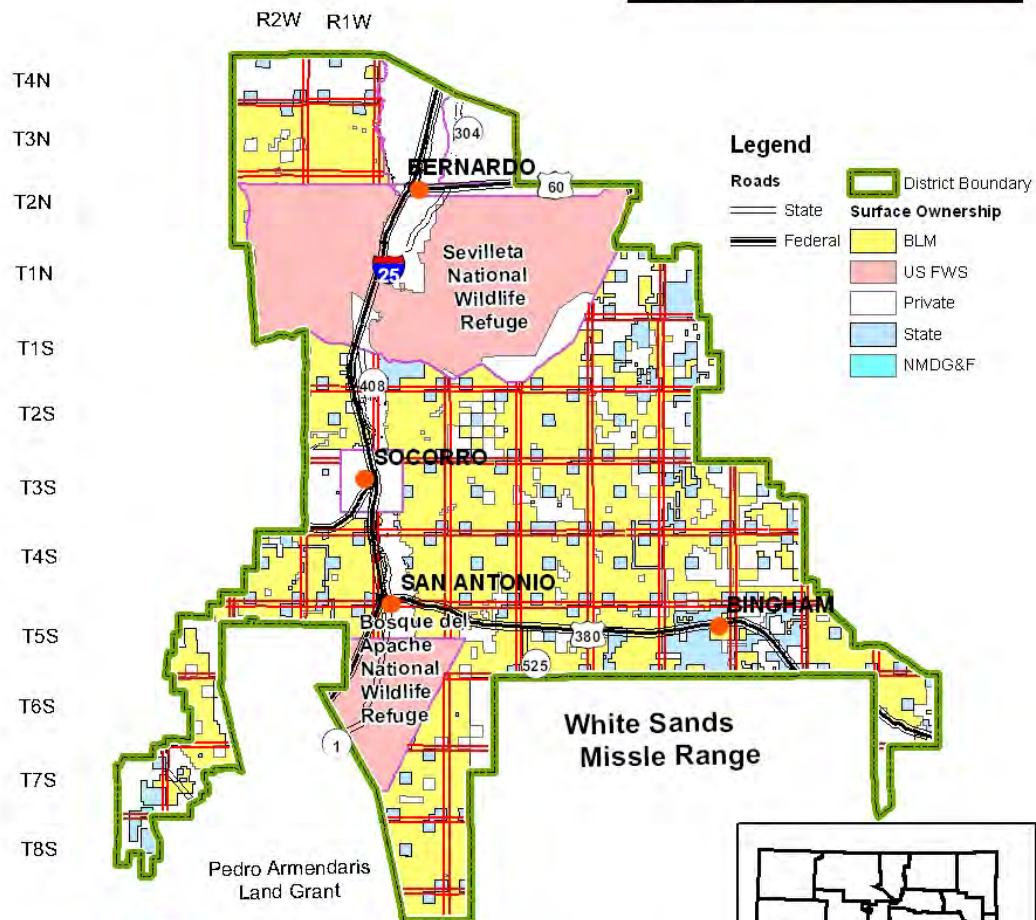


SOCORRO SOIL AND WATER CONSERVATION DISTRICT



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Produced August 27, 2008 - jaf



Socorro SWCD Annual Report – FY 2012

**Socorro Soil & Water Conservation District
103 Francisco de Avondo
Socorro, NM 87801
(575) 838-0078
(575) 838-0978 (fax)
Email: socorroswcd@qwestoffice.net**

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, Noxious Weed Coordinator, Lower
Rio Grande Salt Cedar Control Project Manager
Will Kolbensschlag, Range Technician, Noxious Weed Specialist
Belle Rehder, Educational Coordinator, Administrative Assistant**

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 implement water conservation measures on their farms, ranches, and urban residences. The following is a summary of the available programs and the combined benefits of the District's multifaceted program.

- Socorro SWCD Cost Share Program-This year \$32,061.54 was spent on cost share with cooperators on the following conservation projects. Ten land leveling projects moving 13,434 cubic yards of dirt on 69 acres; installation of 906 feet of twelve inch irrigation pipeline on 11 acres; installation of two solar pumps for two livestock wells on two ranches; installation of drip irrigation on 1.2 acres of farmland; installation of five urban drip irrigation systems; replacement of three old toilets with low-flow toilets.
- 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. The drip irrigation cost share program and the low flow water device replacement program offer our urban cooperators an opportunity to implement water savings.



Laser mounted on tractor during land Leveling.



Windmill replacement with solar pump on ranch east of Bingham.

PROJECTS:

The Socorro SWCD worked with White Sands Missile Range and the Bureau of Land Management to treat 304 acres of Salt cedar on the north end of White Sands Missile Range working to the south and on the Harless Ranch, north of Highway 380. These tracts were treated on September 24 and 25, 2011.



Harless Ranch staging area for Salt cedar aerial treatment September 24, 2011.



White Sands Missile Range aerial treatment September 25, 2011.

Capital Outlay--Rio Grande Restoration Funding:

In November of 2011, using capital outlay funding from the state of New Mexico, the Socorro SWCD contracted with CMC construction from Truth or Consequences, NM, at a cost of \$23,397.50, to clear salt cedar from 19.1 acres at JMC farms in La Joya, NM. The area had been part of the original aerial spraying for the Lower Rio Grande Salt Cedar Control Project in September of 2004, but had since re-sprouted heavily. At that time, the land was owned by a different person, but John Carangelo purchased the tract when given the opportunity, as it adjoins his farm and the La Joya Acequia.



Carangelo property prior to clearing (behind fence).

The property was root plowed using a D8 Caterpillar Bulldozer with a hydraulic root plow, pulled 24 inches below ground surface. Then, using a smaller dozer mounted with a rake, CMC construction piled the trees to facilitate burning.

Mr. Carangelo then hired a local contractor to burn the piles, and used his own tractor with a small rake behind it to gather up all the small pieces and debris, and burned these as well.

The Socorro SWCD surveyed the entire area with a Topcon Total Station and provided Mr. Carangelo with an elevation map of the property. Using this information, along with several options of dividing the fields provided by the Socorro SWCD, Mr. Carangelo decided to focus on the first 6.18 acres to prepare it for agricultural production. The Socorro SWCD provided a cut/fill map and plans for the contractor to follow, and Mr. Carangelo paid to have the property laser leveled.



CMC Construction clearing the property.



Salt cedar piled for burning.



Laser leveling completed.

While the 6.18 acre piece was being prepared for cultivation, the Socorro SWCD began re-vegetation on a part of the property containing a small arroyo. This area was deemed to be too high in elevation to consider for agriculture, and Mr. Carangelo decided to leave it as a natural area for wildlife. Mr. and Mrs. Carangelo helped Socorro SWCD staff plant Giant Sacaton, Alkali Sacaton, Sand Sage, Mariola, Iodinebush, and Littleleaf Sumac. These plant materials were purchased from the NRCS Plant Materials Center in Los Lunas, NM, at a cost of \$1322.50. Staff used the Socorro SWCD's Water Dog Trailer to water the plants as they were planted. All plant materials were planted just ahead of monsoon season to hopefully provide them with enough water to establish a healthy root system this year.



Martha Carangelo preparing Giant sacaton plugs for planting.



John Carangelo watering in sacaton plugs.

For the final phase of preparing the land for agriculture, John Carangelo applied for Socorro SWCD cost share to install an irrigation pipeline to water the 6.18 acres. The NRCS surveyed the land and provided the design for the contractor, and Mr. Carangelo hired a pipeline installer. The land is now cleared, leveled, and ready to irrigate. The entire project, from issuing the RFP to the first irrigation of the laser leveled field, was accomplished in less than 10 months. Working with a motivated and conservation-minded landowner, the Socorro SWCD is able to reclaim land formerly lost to Salt cedar and make it a productive part of our local economy.



John Carangelo's irrigation pipeline.

Pole Planting:

The Socorro SWCD made great strides towards keeping the valley green with extensive re-vegetation efforts once again this year. The Bosque del Apache National Wildlife refuge issued us a permit to harvest over 500 Rio Grande Cottonwood trees in February of 2012. Using a newly constructed soaking rack to hold the trees made the soak period much easier this year, and we planted 300 trees for 10 private landowners. We also cut and harvested 200 more trees and provided them to a large farm that had the equipment to plant themselves.



The Socorro SWCD also completed a grant with Seville National Wildlife Refuge to continue restoring native Southwestern willow flycatcher habitat. The Socorro SWCD contracted with Hydra Aquatic Inc. to harvest and deliver another 1800 Gooding's black willow poles which were planted in February 2012. This site has thousands of very closely planted willows which should be ideal for the flycatcher to nest in.



Sevilleta NWR equipment and volunteers planting in March 2012.

Noxious Weed Control:

The Socorro SWCD continued to make noxious species treatment and removal one of our top priorities for FY2012. We utilized both chemical and mechanical means to treat weeds on private and public lands. Chemical treatment is accomplished using primarily backpack sprayers and our Bobcat 2200-D UTV. Mechanical removal of re-sprouts and small trees is done with our Bobcat E35 mini excavator with thumb attachment. The excavator is also used to auger planting holes for re-vegetation after noxious species are removed.

This year's herbicide applications covered weed infestations across 56 acres of land. This included a high priority project treating Russian knapweed in a fallow field in Lemitar. This field is surrounded by alfalfa fields, and contaminating these fields with Russian knapweed could prove disastrous to the economic and nutritional value of the hay harvested from the surrounding farms. Range technician Will Kolbensschlag applied Milestone to the weeds and achieved good results from two separate applications. The landowners, Rick and Susan Barclay, got their private applicators license so they can continue to keep the Russian knapweed controlled.

We also continued to work on keeping the trails and common areas clear of weeds at the Socorro Nature Area, worked with the Bosque del Apache strike crew to control Russian Knapweed at the San Antonio Riverine Park, and controlled Russian olive and Salt cedar at Parkview Elementary School. We also assisted Trish and Woody Peabody with controlling Siberian Elm on a fallow field that they purchased to put back into agricultural production.

Finally, we have been working on several projects for the BLM, including spraying Salt cedar on BLM leased ranch land west of Bernardo, spraying Spiny cocklebur on the Chupadera Mesa and Quebradas road, and spraying Salt cedar on the Harless ranch. We continue to work with the BLM to plan upcoming treatments.



Spiny cocklebur infestation in a dirt tank on the Chupadera Mesa.



Russian olive removal using chipper to dispose of woody material.

The mechanical removal program at the Socorro SWCD continues to gain popularity every year. This year we removed noxious species from 12 private tracts of land, covering 68.45 acres from San Acacia to Bosquecito.

This included a special project to remove Russian olive from a farm in Polvadera. The trees were overgrowing into a heavily traveled road, and were close enough to an irrigation ditch to facilitate the spread of seeds across the valley. Socorro County offered us the use of their Vermeer mulcher and large dump truck to remove the trees. The staff of the SWCD spent 3 full days cutting down the trees and turning them into mulch. When the trees subsequently re-sprouted, they were sprayed with Habitat herbicide. Once the large stumps have a chance to rot, they will be removed using the excavator, and native tree species will be planted in their place.

EDUCATION:

The Socorro SWCD hosted the Rolling River Water Trailer at Kids, Cows, and More held at the Socorro County Fairgrounds on April 26, 2012, where over 300 3rd and 4th grade students in the District learned about local watersheds and conservation of natural resources. The Socorro SWCD worked with the Socorro County Extension Office to sponsor this event. Socorro SWCD supplied bus transportation to students in the Socorro Consolidated School District.



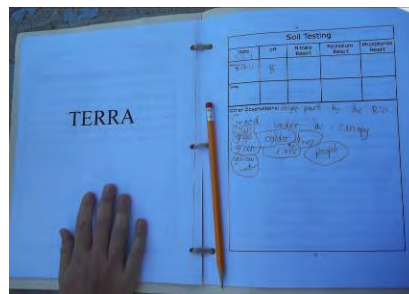
Kids, Cows and More at Socorro Fairgrounds
April 26, 2012



County Fair Socorro SWCD booth

The Socorro SWCD hosted an informational booth at the Socorro County Fair to inform the general public about programs including Cost Share assistance for irrigation improvements, brush control, soil testing, noxious weeds, drip irrigation, low flow water device installation, Salt cedar control, monitoring, re-vegetation and restoration on September 2 and 3, 2011.

The Socorro SWCD in partnership with Cottonwood Valley Charter School (CVCS) developed a field study program and field journal for New Mexico Game and Fish (NMGF) Watershed Watch program. Technical and educational support was provided each month during the 2011-2012 academic school year. Water quality information, natural resource activities and hands-on sampling engaged 4th and 5th graders as they learned about the local Rio Grande watershed. Data collected was supplied to RiverSource and NMGF for input into the state volunteering water monitoring program. Socorro SWCD funded a classroom initiated proposal for nine pairs of waders to be used for water sampling and science activities in the river.



Students from Cottonwood Valley Charter School taking soil & water samples for chemical analysis on the Rio Grande.

Cottonwood Valley Charter School students display the waders funded by Socorro SWCD for river studies.



The Socorro SWCD coordinated Bosque Conservation Day for 5th graders within the Socorro School System on October 20, 2012 held at the Socorro Nature Area. The Socorro SWCD also had the Noxious Weed Scavenger Hunt at Bosque Conservation Day. We assisted over 160 5th graders with native and weed plant identification.



Bosque Conservation Day, Socorro Nature Area, October 20, 2011

The Socorro SWCD provided soil stewardship materials for 1211 students and 54 teachers of K-5th grades in the District (Parkview Elementary, Zimmerly Elementary, San Antonio Elementary, Midway Elementary, Cottonwood Charter School, and La Promesa Elementary School). Socorro SWCD will again promote and provide awards in the fall 2012 local poster contest entitled "Soil to Spoon". Students and teachers are encouraged to participate. This year, educational coordinator Belle Rehder gave a presentation to the Socorro Farmers Market board and members to encourage their participation and volunteerism in the classroom during Soil Stewardship Week, April 29 to May 6, 2012.

Belle also held a water conservation program at Zimmerly Elementary School on May 14, 2012 for 4th and 5th grades. Over 90 children and their teachers attended this presentation and demonstration event.



Belle Rehder, Educational Coordinator, presentation to Zimmerly 4 & 5th grade students on water conservation measures .



On May 16, 2012 the Socorro SWCD assisted in planting native tree and shrub seedlings at Zimmerly Elementary School with 5th grade students and staff. The Socorro SWCD secured approximately 200 native trees and shrubs and helped demonstrate, plant and irrigate the seedlings.



Spring planting at Zimmerly Elementary School, 5th grade students with teacher, Mrs. Vinson and Socorro SWCD educational coordinator, Belle Rehder.



This fiscal year Socorro SWCD participated in two Community Day Events on the New Mexico Tech campus. On September 19, 2011 and February 16, 2012 Socorro SWCD had a information table and provided conservation and natural resource policy, programs and education information to NMT students & staff, Socorro county district and surrounding area residents.



NMT Community Day,
September 19, 2011.

Students from schools in the Socorro SWCD were invited to participate in creating posters that reflect the conservation message of understanding benefits, function and importance of trees and forests as natural resources in the National Association of Conservation Districts (NACD) 2011 Stewardship Program : *"Forests For People – More Than You Can Imagine"*. This year's local winners were from Mrs. Vinson's class at Zimmerly Elementary School and sophomore Victoria Esquibel from Socorro High School. Ms. Esquibel went on to win the state high school award at the fall NMACD annual meeting.



Zimmerly students with winning posters during the Socorro SWCD poster contest, left, and Ms. Esquibel, Socorro High School, winner of the poster contest high school division at the local and state level.

On November 2, 2011 Socorro SWCD in collaboration with multiple local, federal, state and non-profit organizations participated in a public forum to educate and inform the public on programs available to agricultural landowners and private citizens in the district of Socorro SWCD.



William Kolbenslag
presentation of Socorro SWCD
programs at Building
Productive Lands - Conservation
Program Outreach for NM
Private Landowners.



FISCAL YEAR 2012 BUDGET:

Item	Amount
Income:	
State funding	8,825
Lower Rio Grande Salt Cedar Control Project	72,591
Mil levy	153,000
Grant Income	114,133
Loan repayment	6,076
Total:	354,626
Expenditures:	
Lower Rio Grande Salt Cedar Control Project	85,985
Staff	159,932
Cost share program	32,062
Office supplies, postage, meetings, dues, telephone, travel	36,774
Auto	11,150
Grant expenditures	58,835
Conservation activities	3,221
Loan repayment to ISC	13,266
Total:	401,225