

ANNUAL REPORT

July 1, 2015 – June 30, 2016

**MOJAVE DESERT RESOURCE CONSERVATION DISTRICT
15415 W. Sand St., #103, VICTORVILLE, CA 92392**

*Meetings are held the first Wednesday of each month at 1:00 P.M. at the District Office
located at
15415 W. Sand St., #103, Victorville, CA 92392*

BOARD OF DIRECTORS

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District Manager.....Dana Raponi
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Program Assistant.....Rebecca Everett
GIS Specialist II.....Elizabeth Bickham
Irrigation Water Management.....Tony Walters
Alternate Language Outreach.....Ben Park
Intern.....Belinda Serrano

TECHNICAL STAFF

USDA NATURAL RESOURCES CONSERVATION SERVICE (NRCS)

District Conservationist..... Holly Shiralipour
Soil Conservationist.....Marian Jordan
Area Resource Soil Scientist Peter Fahnestock
MLRA Ecological Site Specialist..... Dustin Detweiler
MLRA Soil Survey Project LeaderMatthew Ballmer
Soil Scientist.....Russell Plumb
Soil Scientist.....Matthew McClintock
Program Assistant.....Edward Montgomery
Korean Farm Bill Assistant.....Kevin Kang



MISSION STATEMENT: The Mojave Desert Resource Conservation District is committed to the development of a land stewardship ethic that promotes long-term sustainability of the region's rich and diverse natural resource heritage.

NATURAL RESOURCE OBJECTIVES OF THE DISTRICT:

- Provide resource management information to the community
- Promote the reduction of wind and water erosion
- Promote the proper utilization of our natural resources
- Promote water conservation
- Provide information for improved irrigation water management
- Demonstrate urban and agricultural practices that sustain and improve water quality and fish and wildlife habitat
- Work with the public and private sector toward land development practices that protect and enhance the region's natural resources and systems

TAMARISK/ARUNDO/RUSSIAN-OLIVE ERADICATION/CONTROL PROJECT

The district is continuing with their invasive plant removal program with the focus remaining on retreatments. In fall of 2015 we were able to retreat approximately 150 weed acres in the Barstow area. The majority of this work was completed by Forrester and Associates (previously known as SWEAT). Staff and board president, Chuck Bell also assisted in retreatment of this area. Staff and Bell worked in our Phase III area retreating approximately 19 acres of Salt Cedar. All of the above work was done using the foliar method and spraying with the herbicide Habitat. Work was completed at Camp Cady using the Southern California Mountains Foundation. This is a group similar to the California Conservation Corps. We decided to give them a try as their rates were less. They used the cut stump method (chain saws) on about 20 acres of Salt Cedar and then sprayed the stumps with herbicide (Habitat). The host at Camp Cady worked with this group and was very impressed with the work they did. We will be using them in the future. The district began control of these invasive plants during 2008 and has currently treated the majority of infested acreage from south of the Mojave Forks Dam to ½ mile east of the Barstow Marine Base. Parcels of non-consenting landowners and critical erosion areas were avoided. To date, a total of 1,780 "weed" acres of a total of 10,000 assessed acres of these invasive species have been removed/controlled.



With the exception of a few acres located in the Barstow area, we have completed all the actual removal that can be done. We have had to leave some areas in place due to lack of landowner permissions and/or locations located in sand blow/erosion areas that NRCS has required us to leave in place. Certain portions of the eastern bank were also left in place to maintain bank stabilization. Retreatments will be on-going to make sure all weeds stay eradicated and any new sprouts are treated before they go to seed.

The majority of the funding for these re-treatments is provided by the Mojave Water Agency. Initial funding for removal efforts was provided by USDA NRCS earmark of funds to the Mojave Water Agency, the Mojave River Basin Adjudication's Biological Resources Trust Fund, State Proposition 50, and direct funding from the Mojave Water Agency.

Benefits of this program are:

1. Implement the Mojave Basin Area Judgment (improve riparian habitats, maintain ground/surface water saturation at root zone, increase downstream flows).
2. Reduce evapo-transpiration of ground and surface waters (water conservation).
3. Reduce salt deposition in the riverbed (water quality).
4. Reduce wildfire potential.
5. Keep channels open – reduce debris damming and severity of flooding.

MOUNTAIN COMMUNITIES RELEAF



In completing our 12th year of planting we have built strong partner and volunteer relationships. It is now nearly 13 years since the Old Fire burned through so many acres of precious land in the San Bernardino Mountains and 9 years since the Slide and Grass Valley Fires.

Working with our partners at Southern California Edison and CalFire we completed a fall planting at Santa's Village and the Boy Scout Camp in Cedar Glen,

California, including spending time working with our partner American Forests and their partner Eddie Bauer. Eddie Bauer and American Forests executives came to the mountains to celebrate the planting of their 50 millionth tree and produced a Public Service Announcement starring actor, Ryan Reynolds. We are also working closely with our partners at Southern California Edison to once again grow the seedlings needed for the 2017 planting season. El Nino has definitely helped this year's planting season. Our relationship with American Forests is still as strong as ever and we work together regularly to make sure all of their partners are ready when our planting dates are announced.



Developed in 2004 after the 2003 Wildfires, Mountain Communities Wildfire ReLeaf is an ongoing program educating private landowners in the value of reforesting the burn areas and areas devastated by the bark beetle infestation. The ReLeaf program uses seeds previously collected in the San Bernardino Mountain burned areas. These seedlings are grown at the Southern California Edison Nursery in Auburn, CA and delivered to the sites for direct plantings as weather and climate conditions permit. Citizen and student volunteers are used on much of the larger burned areas, and professional planting crews in the more hazardous areas.



Since 2004, ReLeaf Volunteers, partnering with the Mojave Desert Resource Conservation District and CALFIRE (California Department of Forestry & Fire Protection) have planted over 400,000 native seedlings across several hundred acres of land in the San Bernardino Mountains and additional areas located in San Diego and Riverside counties.

The website is: www.mountaincommunitieswildfirereleaf.org

MOJAVE WEED MANAGEMENT AREA (MWMA)

The Mojave WMA continues to be coordinated by the district, which organizes and hosts quarterly meetings and oversees ongoing projects and outreach efforts. The Memorandum of Understanding for the MWMA currently has 23 signatories from agencies such as San Bernardino County Dept. of Agriculture, US Fish and Wildlife Service, Bureau of Land Management, California Dept. of Fish and Game, Joshua Tree National Park and Mojave National Preserve, to name a few.

We continue to work with our partners on prevention and control of noxious/invasive weeds on both public and private lands in the Mojave Desert.

CAMP CADY WILDLIFE MANAGEMENT AREA RESTORATION PROJECT

The objective of this continuing demonstration study is to determine the potential suitability and sustainability of selected plant materials for site restoration/revegetation on riparian salt cedar infestation sites along the Mojave River within the Camp Cady Wildlife Management Area's jurisdiction.



As of Fall 2015, the survival and productivity of nearly all species (11 of 13) were excellent with overall survival of approximately 85%, a year after planting. Evidence of true survival vs. mortality is now far enough along to be more definitive in assessment, plus degree of plant productivity in terms of canopy growth and branching is evident.



Further plantings, as part of Phase 2 of the Camp Cady revegetation study, were conducted in January 2016. Approximately 150 plants total were planted across 3 new drip system lines, located immediately west of the original 6 drip lines installed in 2014. Six species were planted, based on selection from species that performed the best (in terms of survival and productivity) from the original experimental study. Desert panic grass transplants were also added to 3

drip lines of the original planting in November 2015. These transplants are one portion of the field evaluations for this perennial native grass, derived from seedlings developed via greenhouse propagation in 2015 at Victor Valley College. Additional desert panic grass transplanting's were conducted at remote field sites located on the Joe Harter and Jim Johnson farms in the Newberry Springs valley. In addition to the expanded transplant studies, two demonstration plots were seeded with mixtures of shrub,



forbs and grass species similar to those planted at Camp Cady. The Plot locations are at the headquarters unit and the Hilarides unit. Both seeded plots included desert panic grass, constituting the second portion of the field evaluations for this species.

This study is also a component of the Newberry Springs/Baja Sub-Basin water conservation and erosion control project currently administered by the District, NRCS and Mojave Water Agency. The results of the study will be used to determine a recommended suite of native species for use in future Mojave River riparian restoration activities at Camp Cady and at other locations along the full river reach.

ASSISTANCE TO DAIRY OWNERS

One of the districts role as a non-regulatory agency has been to facilitate communication between the NRCS and the dairy owners to develop a collaborative solution to the nitrate concerns raised by the Lahontan Region Water Quality Control Board. This year the District, in partnership with NRCS, continued to assist dairymen with their Comprehensive Nutrient Management Plans (CNMP) being offered through NRCS. The CNMP can help producers utilize their manure sources available



for nutrient application and to reduce nitrate intrusion into surface and/or ground water. It will also help with the infrastructure and in obtaining management resources available to aid in delivery and monitoring of nutrient and irrigated water applications to the cropland (i.e., flow meters, pipeline, manure spreading, pond liners, etc). It is important that all parties understand how Lahontan will determine the effectiveness of nitrate mitigation and what will constitute ultimate dairy compliance.



Recently Lahontan has expressed the need for a general order for all dairies. To reach these means a Technical Advisory Committee (TAC) has been developed to address the issues and contents of this general order. The Confined Animal Facility (CAF) TAC will use the data derived from a report used in the Central Valley for this same situation, to adapt the general order to our high desert dairy environment. Two CAF/TAC meetings have been held to date.

BAJA SUSTAINABILITY PLAN

The District has been working on an area wide plan for the Baja Sub-Area of the Mojave Watershed with partners NRCS, Mojave Water Agency, US Bureau of Reclamation and local community members. The critical resource concern is severe aquifer overdraft, which is threatening the viability of agriculture in the area and reducing land values (because of concerns about water availability). Water use has been ramped down 55% from the original base years ending in 1990. The Mojave Water Agency and U.S. Bureau of Reclamation joined the partnership as major financial supporters including significant cash and staff support. The planning process has been underway since September 2013. A draft plan was completed in February 2015 after considerable public comment. The District and NRCS staff provided technical advice in all phases of the planning process including community involvement with meetings and a detailed survey. Implementation of several programs outlined in the plan have started. A Community Development Association has been formed to solicit possible grant opportunities for the better development of the Newberry Springs area. A Cal Poly Pomona

class is assisting with a community development plan. California Rural Water has received a grant to help property owners in the area with the rehabilitation of their household wells. The household well program will soon be underway.

ALLIANCE for WATER AWARENESS and CONSERVATION

The district remains an active participant in the Alliance for Water Awareness and Conservation (AWAC). The mission of this dynamic coalition of over 20 regional organizations is to promote the efficient use of water and increase awareness of conservation as an important tool to ensure an adequate water supply.

The four specific goals of AWAC are:

- Serve as a network to assist agencies in educating the public on water conservation.
- Provide resources with a consistent message to help agencies meet their respective conservation goals.
- Maintain current gallons per capita per day or lower and continue to position agencies for meeting future conservation needs.
- Exchange ideas between agencies, especially at quarterly meetings.

The district will be working with AWAC to locate local nurseries that either currently are or are willing to stock their inventory with native plants for our area.

A calendar that features low water use plants is published annually to heighten the public's awareness of water efficient landscaping. These calendars are freely available to the public through AWAC members.

MITIGATION/COMPENSATION

The District remains actively engaged in providing mitigation/compensation and environmental credits for developers wanting to build in the San Bernardino County portion of the High Desert area. Mitigation practices include the removal/retreatment of tamarisk and arundo in the Mojave River as well as trash removal on the designated sites. To date, the District has nine active contracts totaling 123 full acres. Six contracts have been fulfilled since the start of this program in 2006. The latest mitigation contracts are with the City of Victorville and San Bernardino County Department of Public Works.



MOJAVE DESERT SOIL SURVEYS

The Victorville Soil Survey Office continued field work mapping the Mojave National Preserve despite not having a formal agreement with the National Parks Service (NPS). NRCS funds were used for the first 3 quarters, and the NPS finally made funds available for the last quarter. A new agreement is supposed to be in place beginning FY17, enabling annual fund management. The survey is still on trajectory to be completed in about 5 years. In July, we did conduct a Progress Field Review for official QA and approval of map units for the Preserve. We will report approximately, 150k acres mapped for 2016.

2016 brought much focus to shift soil survey project paradigms from the non-MLRA soil survey areas to LRU (Land Resource Unit) based. This requires a lot of work examining the distinguishing criteria that define the MLRAs and LRUs, collecting necessary field data to justify hypothesis. Formal submission of documents pertaining to these concepts will be submitted to the Region for quality assurance.

NRCS has initiated a 10 year objective to complete all the remaining initial soils mapping in the U.S. For the Victorville Soil Survey Office, this means mapping 17 million acres. We are planning to use the LRU basis for organizing potential survey projects. Addressing interrelated landforms, soils and ESDs will help to expedite the mapping and correlation process over the huge remaining lands to be mapped.

The Victorville Soil Survey, CA NRCS and the BLM have again initiated a working agreement to map areas of priority as well as contribute to the long term goal of completing the remaining 12.8 million in CA. The BLM holds about 8.1 million in CA. The current BLM area of priority is the Solar Energy Zone along the I-10 between Cactus City Rest stop and Blythe. Official mapping will begin in fiscal year 2017 and will be led by the Area 4 Resource Soil Scientist, Peter Fahnestock.



We have also continued our work in assisting local customers with training and education. Leon Lato, Soil Scientist, led nearly 60 Native American high school students through a one day soils class in Las Vegas, NV, in December 2015. Dustin Detweiler, Ecological Site Specialist, assisted a revegetation project with (SLEWS) The Student and Landowner Education and Watershed Stewardship program in Riverside, CA. Russell Plumb, Soil Scientist, contributed soils information and expertise to the Local Envirothon competition. The NCF- Envirothon is North America's largest high school environmental competition.

All completed soil surveys across the country can be accessed through Web Soil Survey at: <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>

KOREAN OUTREACH PROGRAM

A team comprised of NRCS employees, District staff and an Earth Team volunteer joined forces to work with Korean farmers in San Bernardino County beginning in 2013. An increasing number of Korean farmers are moving to the High Desert to join existing Koreans that grow jujubes, pistachios, Japanese Ume Plums, and apples, among other crops. The NRCS & RCD team is working with the Korean farmers to develop conservation plans and contracts for their farms. More than half of the total NRCS active contracts are Korean farmers working with the Victorville Field office. A Korean farm bill assistant, Kevin Kang, has recently joined the team to assist with helping the Korean producers understand the farm

bill contracts and specifications. The addition of Kang will increase the Korean communication exponentially, not only in the office but in the field as well.

CIMIS

The district continues to maintain two California Irrigation Management Information System (CIMIS) stations. The station previously located in Barstow has been relocated to Newberry Springs to better service the agricultural community. The Victorville station remains at Victor Valley College in Victorville. These weather stations assist not only agricultural producers but urban landowners as well. Evapotranspiration data for alfalfa and turf grasses is updated Monday through Friday by RCD staff and is available on our website: www.mojavedesertgcd.org. Funding for maintenance of these CIMIS stations is provided through a Memorandum of Understanding with the Mojave Water Agency.



MOJAVE DESERT-MOUNTAIN RC&D

The district continues to support and participate in the Mojave Desert-Mountain RC&D. This six county organization works as an extension of the Resource Conservation District and assists in the economic development of the rural segments of San Bernardino County.

NRCS FARM BILL PROGRAM

The NRCS Victorville Service Center boundaries comprise most of San Bernardino County including the mountains in the Mojave River watershed and the high desert extending east to the Arizona/Nevada borders. (The southwest corner of the County lies in the Redlands Service Center area.)

Farm bill activity in the office has continued to increase. The Victorville Field Office now has approximately 104 active contracts with over 4.07 million in obligated funds. Total acres under contract are over 8,400. These contracts include agricultural practices and forestry practices from the San Bernardino Mountains. In Fiscal year 2016 NRCS instituted a new system for accepting and funding applications. There were a total of 7 application deadline periods.

These contracts include plans addressing resource concerns such as water quality, water quantity, soil erosion, inadequate wildlife cover and food, and energy conservation.