ANNUAL REPORT

July 1, 2019 – June 30, 2020

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

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ReLeaf Coordinator…….. Cheryl Nagy
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Water Conservation Specialist……...……..Tony Walters
Conservation Technician I.…….……Luis Cortes

TECHNICAL STAFF
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District Conservationist……..…… Holly Shiralipour
Soil Conservationist…….Elizabeth Bickham
Program Assistant …….……..…….Edward Montgomery
Area Resource Conservationist……...……Kim Lary
Farm Bill Assistant…….…….Kevin Kang
Farm Bill Assistant…….……Bonnie Nam
Area Resource Soil Scientist ……..……..…….. Peter Fahnestock
MLRA Soil Survey Project Leader ……..……..Matthew Ballmer
Soil Scientist……..…..…….Russell Plumb

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 soil health, 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 ERADCATION/CONTROL PROJECT

The Mojave Desert RCD is continuing their invasive plant removal/retreatment program with the focus remaining on retreatments in the Mojave River. Over the years the Tamarisk Beetle (Diorhabda) has been slowly migrating its way along the Colorado River and has recently been found across the California border and along the Mojave River. Due to the migration of this little beetle the district decided in the fall of 2019 to not treat the usual places and give the beetle a chance to proliferate. Retreatment at Camp Cady in Newberry Springs was paused again this year as well to allow the tamarisk beetle to settle and proliferate.

A quick survey in the first part of June 2020 showed hardly any blooms and those that we did find were suffering the effects of the beetle. The district will follow the progress of the beetle and monitor the various tamarisk spots where they show the most sign. The Diorhabda doesn't kill the tamarisk plant but puts it in a suppressed state where it will not produce seed and thereby cannot spread. The hope is while the tamarisk plants are in this suppressed state native vegetation will rehabilitate the areas along the riverbed, using less water and providing habitat for native endangered wildlife.

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 have been avoided. To date, a total of 2,310 "weed" acres of a total of 10,000 assessed acres of these invasive species have been removed/controlled. Retreatments will be on-going to make sure all weeds stay eradicated and any new sprouts are treated before they go to seed. However, if the tamarisk beetle continues to proliferate within the salt cedar in the Mojave River, the need for chemical treatment may not be as necessary. The district will be contracting with Tom Dudley, UC Santa Barbara to monitor and report on the tamarisk beetle locations, spread and future. Initial funding for removal efforts was provided by a 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 evapotranspiration of ground and surface waters (water conservation).
3. Reduce salt deposits in the riverbed (water quality).
4. Reduce wildfire potential.
5. Keep channels open – reduce debris damming and severity of flooding.

MOJAVE RIVER RIPARIAN AREA FIRE PREVENTION/HAZARD PROJECT

In summer of 2020 the district again oversaw the mowing of tumbleweeds along the pasture fences and imbedded in the trees along the edge of the forested riparian area of the Mojave Narrows Regional Park. This mowing was accomplished by pulling out the tumbleweeds from within the trees along the south and southwest edges of the regional park by hand, where they were then mowed by a tractor attached commercial mower. This work was done by Marty Frazier Weed Abatement services and was funded by the Fish and Wildlife Biological Trust Fund. A mowing plan is being discussed between the Fish and Wildlife, San Bernardino County, Marty Frazier and the district to mow the different weed species at the right time of year to keep them from going to seed.

PEPPERWEED

Fish and Wildlife as well as the district are becoming very concerned about the amount of Pepperweed that is now taking over in the Mojave riverbed. As pepperweed is a very difficult invasive species to eradicate, different avenues to attack the weed are being discussed including a possible biological control.

MOUNTAIN COMMUNITIES RELEAF

In 2003 the Old Fire burned through thousands of acres of precious land in the San Bernardino Mountains – in 2007 once again fire struck during the Slide and Grass Valley Fires.

Working for over 15 years with Southern California Edison and CalFire we continue to work to grow and plant seedlings each year on private lands. Due to funding from American Forests we have been able to complete site visits, land treatments, and the planting of additional seedlings across the San Bernardino Mountains of Southern California. Southern California Edison continues growing the seedlings needed for our 2021 planting season. We had a wet winter season which filled up all the surrounding bodies of water and has kept the area out of drought. The FY 19/20 saw 10,000 seedlings planted in the San Bernardino Mountains.

Currently ReLeaf is partnering with American Forests and CalFire in a two-year project with the National Fish and Wildlife Foundation and Wells Fargo under the "Resilient Communities" grant program. This funding will support planting, restoration treatments, community engagement and development of a climate – informed restoration plan for the San Bernardino Mountains over a two-year period.

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 450,000 native seedlings across several hundred acres of land in the San Bernardino Mountains and additional areas located in San Diego and Riverside counties.

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 tamarisk beetle (Diorhabda) has been confirmed at Afton Canyon and farther west and south along the Mojave River to as far as the Hinkley bridge in Hinkley, and the Vista bridge in Silver Lakes. Cal-Ipc has been working tirelessly on assembly bills to provide funding for the Weed Management Areas. Senate Bill 840 appropriated $2 million dollars from the General Fund for Noxious Weeds Management. The California Department of food and Agriculture (CDFA) released a round one of funding specifically to be applied for by County Agriculture Commissioner's. After this funding a second round was to be released for Weed Management Areas and applied for through RCD's. After the onset of Covid-19 the CDFA has pulled the remaining funds. 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. During the summer and fall of 2018 there were much needed upgrades to the old piping system at Camp Cady.

The Camp Cady restoration plant sites were monitored in December of 2019. At this time the highest average survival rate across both planting sites was the desert willow. While the fourwing saltbush showed over 80% survival rate in the sandy loam in the Spring of 2019, it

had fallen to only 56% by the fall of 2019. While the desert broom showed higher survival rates in some soil types it was lower in other sites from the last report. The waterjacket did not have a survival rating at all and none were found alive by the fall of 2019. Overall, the Desert willow, Desertbroom, and the Gooding's and Narrowleaf willows made the most come back and survivability by the fall of 2019. Other native plants have established in the study area showing what species will survive in the salty and sandy environment. Some nearby tamarisk have grown large enough to possibly affect the micro-habitat of the plants. The water uptake from the saltcedar may affect the nearby plants water availability. Also, the partial shading from the remaining controlled saltcedar debris may affect the plant survival for these species in the sandy loam understory. The chemical treatment of the tamarisk has not been completed because of the recent presence of the tamarisk beetle.

The weather data during the 12 months before the fall observation showed similar conditions in soil and air temperature, though precipitation varied widely. All data was obtained from the HOBO data stationed at the Camp Cady site. CIMIS weather station 234 in Newberry Springs data was supplemented for any missing data from the HOBO station.

CAMP CADY FIELD AT HARVARD ROAD SAND BLOW REDUCTION

The district, in partnership with California Department of Fish and Wildlife, San Bernardino County and Quail Forever, is working on a project to restore a portion of a Camp Cady grain field. This restoration will greatly diminish or possibly stop dune sand from blowing onto Harvard road in Newberry Springs. Every year Harvard road, a main road off of the 15 freeway, in Newberry Springs must be closed due to sand blowing across the road making it unsafe for traffic. This road stays closed for several days until the sand can be bulldozed onto the shoulder to allow traffic to continue. This closing of Harvard road happens several times per year especially in the fall. The planting of grain on this agricultural field up wind from Harvard road will not only work to diminish sand blow but provide a larger source of food and shelter for local wildlife.

IRRIGATION WATER MANAGEMENT

In partnership with Mojave Water Agency the district is dedicated to water conservation within the Mojave Desert RCD's large area. The district has implemented a program of water conservation alternatives through evaluation and field assistance for irrigation efficiency improvement, including enhancement irrigation water management automation, soil moisture and soil quality testing. In the fall of 2019 and beginning months of 2020 eight workshops, six public outreach events and seven presentations for water conservation were presented. From these education presentations close to 1500 attendees were reached in the areas within the district boundaries. Tony Walters, Water Conservation Specialist, and Luis Cortes, Conservation Technician I, have assisted homeowners, businesses and Homeowner Associations to assess their irrigation systems and suggest solutions for higher efficiency and water conservation. The district has also conducted workshops, both hands on and classroom oriented, on water efficient irrigation and healthy soil management. Also, with this program the district offers interactive workshops for English, Spanish and Korean speaking landowners on water conservation and healthy soils.

In March of 2019 this program was suspended due to Covid-19. Using Covid-19 NRCS field protocols limited visits resumed in late May and June.

ASSISTANCE TO DAIRY OWNERS

One of the districts roles as a non-regulatory agency has been to facilitate communication between the Natural Resources Conservation Service and the dairy owners to develop a collaborative solution to the nitrate concerns raised by the Lahontan Region Water Quality Control Board. The NRCS Conservation Nutrient Management Program (CNMP) can help producers utilize their manure sources available for nutrient application and to reduce nitrate intrusion into surface and/or ground water. The CNMP 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.). Lahontan has determined a general order will eventually come out that will apply to all Confined Animal Facilities. This draft will then go through dairy and public comment before going to the Lahontan board. It is paramount all parties work together to achieve the most efficient and cost productive avenues that will determine the effectiveness of nitrate mitigation.

EVAPORATION COOLER STUDY

In partnership with the Mojave Water Agency the district is conducting an evaporation cooler water usage study in the Joshua Tree, Johnson Valley, Apple Valley and surrounding areas. The data from this study will be for calculating consumptive use water regulations in the near future. When the meters are placed on the cooler lines a series of questions will be recorded including, location, weather data, type of cooler and model number. The team will be working with UC Davis, to peer review the data. UC Davis is completing water bill collections and correlating that information with energy use through Edison bills. Community homeowner volunteers will allow a water meter to be placed on the water line to their swamp coolers. An initial reading will be noted, and further periodic readings taken for water consumption data. This data will then go to Mojave Water Agency for analysis.

LAS FLORES RANCH MANAGEMENT AND TECHNICAL ASSISTANCE PROJECT

In partnership with the Crestline Sanitation District the Mojave Desert RCD is continuing the Management and Technical Assistance program for the Las Flores Ranch, located on Summit Valley Road in Summit Valley. This historic ranch leases over 600 acres of pasture to raise grass fed cattle. This pasture is flood watered by a natural gravity fed water source, through the Crestline Sanitation Facility and dissipating in the pastures of Las Flores. The districts scope of work has included the use of the Global Positioning System to mark boundaries, water ways and pertinent landscape. The points have been used to create a shape file for use in Geographic Information System to allow the overlaying of data layers such as existing soil types within the boundaries. Existing infrastructures have been evaluated with changes and repairs made, as well as a plant census conducted. The soil quality and moisture holding ability and plant variety and quantity is being identified, inventoried and disseminated into data for use in prescribing future pasture production and agricultural quality. Other partners for this project include Natural Resources Conservation Service and the Victor Valley College.

ALLIANCE for WATER AWARENESS and CONSERVATION

The district remains an active participant in the Alliance for Water Awareness and Conservation (AWAC). The district is partnering with Mojave Water Agency to provide educational outreach in irrigation water conservation in both residential and agricultural forums as well as other water conservation topics for the AWAC, both in attending events and currently in the video workshop arena. 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.

A calendar featuring 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 AND EASEMENTS

The District remains 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. Seventeen contracts have been fulfilled since the start of this program in 2006.

NATIONAL RANGELAND INVENTORY

An extended agreement with NRCS increasing the agreement funding, finds the District on its third year to provide assistance in the National Rangeland Inventory (NRI). This program is federally mandated throughout the nation. The district provides assistance in the form of surveying and documenting designated points in southern California. Each point is an onsite data collection for grazing and range inventory. Each point is surveyed via 150 foot transects to collect environmental data including but not limited to plant life, land cover/use, landscape and soils, disturbance indicators and biomass/production, cover, density, and height. Points are revisited every 5 years

The NRI program season resides in the spring and summer between the months of March and September. In July through September of 2019 the NRI team traveled several hundred miles in not only San Bernardino County but Kern, San Diego and Los Angeles counties, with many points requiring overnight stays. With the original NRI agreement expiring, a new agreement with NRCS was reached in September of 2019 extending the NRI work into 2022.

In March of 2020 the Covid-19 pandemic occurred thereby curtailing programs within NRCS offices including the Victorville Field Office. With the paralyzation of the state and country, the NRI program was postponed until fiscal year 2020-2021.

PALISADES RANCH RESTORATION PROJECT

In August of 2019 the district agreed to be the lead agency for the CEQA in the restoration of the Palisades ranch in Oro Grande. The Mojave Desert Land Trust purchased the retired agriculture farm with plans to restore the natural wildlife habitat and plant species to original. The district has offered to assist in the tamarisk/Arundo removal. The final plans are in the consulting process and should be in the final stages soon.

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.mojavedesertrcd.org.

MOJAVE DESERT-MOUNTAN 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.)

For FY19/20, the Victorville Field Office will have obligated 73 new contracts (38 currently in preapproved status). Over $715 thousand dollars are committed for contracts in 2020. In total, since 2011, the Victorville Field Office of NRCS has spent $11 million in EQIP contracts and $930 thousand in CSP contracts – making a significant partnership investment in conservation in San Bernardino County. These contracts include agricultural practices such as seasonal high tunnels, water conservation, National Air Quality Initiative, and a variety of forestry practices in the San Bernardino Mountains

KOREAN OUTREACH PROGRAM

The district continues to support work with the Korean farming community in San Bernardino County. Korean farmers are moving to the High Desert to join existing Koreans to 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. Korean farm bill assistants, Kevin Kang and Bonnie Nam, continue to assist with helping the Korean producers understand the farm bill contracts and specifications. Bonnie Nam also works with the Lancaster NRCS office, assisting their Korean producers.

The Covid-19 pandemic has moved NRCS EQIP programs to telework offices in employee's homes. This has slowed initial visits and application process but not suspended them completely.