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Natural Resources Conservation Service

Accomplishments Report FY 2007



*There can be no greater issue than that
of conservation in this country.*

Theodore Roosevelt

The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment.

State Conservationist's Message

Another year has flown by and we have so much good conservation news to share, it's hard to fit it all in this report.

First, I'd like to say thank you to all of the landowners who applied conservation practices this year and those of you who signed up to apply practices. You're making our state a better place to live. You'll notice the artwork in this report features President Theodore Roosevelt, the father of conservation. I'd like to think he'd be proud of all of the work we're accomplishing together.

In this report, we've featured several ranchers and farmers who have applied conservation measures on their land to save water, protect the soil, and provide habitat for wildlife. Their stories help illustrate how NRCS truly helps people help the land.

I hope you enjoy this edition of our annual report. If you need help with conservation, please give us a call.

Sincerely,

Richard N. Vigil

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Helping People Help the Land

NRCS Chief Meets with Water Users

One of the highlights in 2007 was having NRCS Chief Arlen Lancaster visit Nevada to meet with local waterusers from Nevada and California. More than 2 dozen representatives from conservation and irrigation districts, Tribes, and state and federal agencies packed the conference room at the NRCS State Office. Chief Lancaster asked the group to provide feedback about NRCS's snow survey and water supply program.

"I want to hear what you like about the program, how you use our data, and how we can make the program better," said Lancaster.

Most of the participants praised the program. One participant said, "If you don't provide the data, we'll have to find someone who will, that's how important the data is to us."

The group appreciated the Chief's leadership and being able to meet with him personally to discuss this important service provided by NRCS.



By Liz Warner, State Office

Recovering from the Waterfall Fire

Since 2006, NRCS has been assisting Carson City with assessing and planning long-term restoration efforts for the Waterfall Fire that occurred in July 2004.

The City will implement the plan in 2008. The initial work consists of a series of shallow sediment basins and low flow channels focused on spreading water and sediment on the alluvial fan to bring back the natural functions of the remaining alluvial fan areas.



By John Harrington, State Office

Laughlin and Raine Named Nevada's Outstanding Conservationists in 2007

After purchasing their small ranch in 2004, Lee Raine and Mike Laughlin began actively applying conservation measures to improve their 40 acres of native meadow pasture. They became cooperators with the Lamoille Conservation District, and worked with NRCS to develop a conservation plan to address several resource concerns. Their conservation plan included prescribed grazing, irrigation water management, integrated pest management, and critical area planting. They applied for and received an EQIP contract to implement integrated pest management practices, install fencing, and develop livestock watering facilities.

Lee and Mike cross-fenced their land into 5 pastures for a rotational grazing system, and installed three water developments. By implementing a grazing management plan, they increased production of forage species for both wildlife and livestock on the native meadow and surrounding rangelands.

"We fenced off a spring that had been heavily impacted by livestock and the spring has come back and is running water," said Laughlin. "Our primary goal with our pastures is to increase native grasses for livestock grazing and wildlife."

Their biggest resource concern was a major infestation of an invasive weed species, leafy spurge, so they agreed to be a project location for release of the *Aphthona* flea beetle and a species of the *Oberea* beetle. Now in their second year, the beetles have already reduced the leafy spurge by 30 percent.

They also contacted the Nevada Department of Wildlife and signed up for the Landowner Incentive Program. "Under that program, we planted aspen trees and honeysuckle bushes which will benefit wildlife on our ranch," said Laughlin. "In 2006, we fenced off the spring area from livestock and we planted the trees in May of 2007." They also reseeded some areas using an upland wildlife species mixture. For the first time in at least four years, Sandhill Cranes are nesting near the spring.

With assistance provided by NRCS employees, Raine and Laughlin were able to complete their 5-year plan in just 3 years.

By Heather Steel and Teri Johnson, Elko



Hard Work and Time Pays Off with Success

For the past two years, Cory Lytle, NRCS conservationist, has been helping farmer Ed Hansen (*left*) replace his 50-year-old concrete ditches with an engineered pipeline system to irrigate 40 acres of grass and alfalfa hay. "This is probably the most successful conservation practice I've helped implement," said Lytle. "With his new system, Ed and his family are saving water, time and energy, and have made their farm a safer place to live."

It all started during one of our 2002 Farm Bill public meetings when Hansen asked Lytle about updating his conservation plan. According to Lytle, Hansen's concrete ditches were failing and it was taking him about 19 hours straight to irrigate. "In Nevada, you get your irrigation water when it's your turn, about every 12 days during the growing season. If you don't open your gates, the water

flows down the ditch to your neighbor. At 70 years of age, this was putting quite a strain on Ed. The old ditches were a safety hazard as well, since it was easy for Ed or his children to fall into the ditch when opening the gates, especially if they were irrigating in the dead of night. To make matters worse, Ed could only water about $\frac{3}{4}$ of his fields, less than that in the heat of the summer. Ed signed up for EQIP in August 2005 and got right to work installing the new system in January 2006."

Recently, Lytle stopped by to check on the project and was impressed by the height of the grass hay and the size of the windrows. "Ed had to borrow a swather so he could cut the hay," said Lytle. The hay had grown so heavy and thick that

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Success

(cont. from page 3)

his older swather couldn't get the job done. This was his third cutting of grass hay; he also got 5 cuttings of alfalfa this year. Hansen credits the added production to the new pipeline, and being able to control the water and getting it where it was needed on the fields. Plus, it takes him about an hour less to water all of his land.

"Ed told me that irrigating is a pleasure now," said Lytle. "He opens a set of risers, goes back to the house, sets an alarm clock, and when the alarm rings, he goes out and opens the next set. The family has developed a numbering system for the risers so that even Ed's grandchildren, ages 12 to 19, can help—it has made irrigating that simple."

Helping People Help the Land—yes, that's what it's all about!

By Cory Lytle, Caliente

Maurer Helps Save Water and Wildlife

For the past three years, John Maurer has been working hard to make the farm he was raised on an even better place to live. Maurer and his wife, Valerie, own the Hillside Hay Company in Nevada, and raise high quality alfalfa hay for dairies in California.

In 2004, Maurer contacted the NRCS office in Yerington, Nev., for assistance to improve his obsolete and inefficient irrigation system. He worked with NRCS to develop a conservation plan and signed up as a beginning farmer under the Environmental Quality Incentives Program (EQIP). As a beginning farmer, Maurer was eligible to receive 90 percent of the cost of installing the practices identified in his conservation plan, an additional 15 percent over the usual amount of cost-share provided through EQIP.

"My first project was installing a high efficiency center pivot sprinkler system on 253 acres," said Maurer. "I used nozzles equipped with pressure regulators to optimize the application efficiency of the water, and I placed the sprinkler nozzles closer to the ground to minimize wind drift and evaporation."

John's records indicate that his alfalfa hay yields increased from 4.72 tons per acre in 2003 to 6.1 tons per acre in 2005. Electrical power usage decreased from 526 kilowatt hours to 402 kilowatt hours per ton of hay produced during the same time period. Savings in electrical power equated to \$9.30 per ton of hay produced.

Maurer leases 400 acres in addition to the 700 acres he owns. He was so pleased with his new irrigation system that he worked with one of his landlords to install 10,000 feet of irrigation pipeline and 3 center pivot sprinkler systems on 150 acres that he leases.

According to Ed Biggs, NRCS district conservationist, Maurer is enhancing wildlife habitat on his land to help reduce wind induced soil erosion and improve air quality. He will plant 800 linear feet of trees and shrubs and install a micro (drip) irrigation system to provide regular water to the plants. The planting will provide food and cover for wildlife, including raptors, passerines and other bird species.

Recently, Maurer was encouraged by Tracey Jean Wolfe, NRCS range management specialist, to participate in a wind erosion control demonstration project planned by the NRCS Great Basin Plant Materials Center and the Esmeralda County Conservation District. The project will be conducted on a portion of his land that is highly visible from State Highway 266.

A regular participant at the Esmeralda County Conservation District meetings and a county committee member for the local Farm Service Agency, Maurer also helps get the word out about USDA programs to fellow agricultural producers in the Fish Lake Valley area. The NRCS staff in Yerington really appreciates his efforts, especially since the USDA Service Center is located 150 miles away.

Thanks to John's efforts, he's making his community an even better place to live, too.

By Ed Biggs and Tracey Jean Wolfe, Yerington



Moapa Paiutes Help Wildlife

In 2007, the Moapa Band of Paiutes worked with NRCS to develop a Wildlife Habitat Incentives Program (WHIP) plan. The plan includes fencing portions of the Muddy river to improve water quality, planting trees and shrubs, and installing an irrigation system with solar pumps to deliver water to the newly established trees.

A ½ acre pond will also be built to attract waterfowl and provide wildlife habitat. The pond will be fenced and tamarisk, an invasive weed, will be removed from the area.

By John Jeffredo, Las Vegas



A Slice of Soil Will Educate Millions of People

During 2007, NRCS soil scientists worked with the University of California, Riverside, to obtain a soil monolith, a vertical slice of soil. Monoliths help soil scientists observe soil properties, help explain how soils form, and serve as valuable teaching tools. The U.S. Fish and Wildlife Service gave NRCS permission to collect the soil and decided to add a monolith to their educational exhibit in the new visitor center in southern Nevada that will open this year.

Word spread and now, through the Red Rock Canyon Interpretive Association, the U.S. Bureau of Land Management plans to have a soil monolith on display in their brand new \$23 million visitor center, located in the Red Rock Canyon National Conservation Area. Approximately 1.2 million visitors pass through the visitor center each year.

By Doug Merkler, Las Vegas

Native Grass Seed Project Underway

The two new grass germplasms were released in 2007 as part of the native grass seed project underway by the High Desert Resource Conservation and Development (RC&D) Council. The new releases were Vegas germplasm of alkali sacaton (*Sporobolus airoides*) and Moapa germplasm for scratchgrass (*Muhlenbergia asperifolia*).

The High Desert RC&D began the two-year pilot project in 2006 working with local farmers to grow native grasses for seed production. The native grasses were selected by the Bureau of Land Management as high priority plants for riverbed restoration following salt-cedar removal on the Virgin River. The NRCS Arizona Plant Materials Center provided assistance by developing two new germplasms for conservation use.

In May of 2007, 6,500 plugs of scratchgrass were planted by PMC staff on local farms covering 1.5 acres. The planting day was celebrated with a media event. Senator Reid recognized the farmers with Certificates of Commendation for their conservation efforts. In the fall of 2007, the first seed harvest was made. Seed cleaning and testing is underway, with results for the first year harvest anticipated in January 2008.

By Teri Knight, High Desert RC&D



Great Basin Plant Materials Center Makes Great Progress in 2007

During 2007, the Great Basin Plant Materials Center made significant progress in developing the necessary infrastructure for the new facility. In particular, all priority farm equipment has been purchased, including tractors, cultivators, seed harvester, plow, and sprayers. Plans for new buildings have been developed and a contract has been awarded for construction of a new shop, equipment storage shed, chemical storage building, fueling station, equipment cleaning pad, and petroleum products storage building. The State Historic Preservation Office (SHPO) is reviewing the construction plans, and construction will begin as soon as authorization is received from SHPO.

The Great Basin PMC collaborated with a number of organizations in FY 2007 to implement several projects that address a variety of natural resource issues. These included: 1) bottlebrush squirreltail seed propagation project to provide seed for revegetation projects in Zion National Park; 2) study to evaluate species that can be used for revegetation of areas where cheatgrass die-off has occurred; 3) study on revegetation of abandoned cropland; 4) study of species and technology that can be used for streambank stabilization; and, 5) study on revegetation in areas where saltcedar has been controlled. Collaborators include the University of Nevada Cooperative Extension, Bureau of Land Management, Lahontan Conservation District, and Mason Valley Conservation District.

Great Basin PMC was actively involved in public outreach during FY 2007. During the year, two newsletters were published and distributed, five tours of the PMC were conducted, two exhibits were set up and maintained at conferences, two posters were developed and presented to the public, and 15 presentations were delivered to a wide variety of audiences. In March, the PMC collaborated with the Lahontan Valley Environmental Alliance to host an Ag Day event which was attended by the public and several elementary school classes.



By Steve Perkins, Great Basin PMC



Poplars Raised for Biofuel

In June 2006, 58 poplar varieties were planted at the Great Basin Plant Materials Center to study their potential as a biofuel source. Due to high mortality in 2006, the poplars were re-planted in May 2007. Mortality rates were high again in 2007, and it appears that soil salinity at the planting site may exceed the tolerance of many of the poplar varieties.

However, some of the poplar varieties were selected specifically for salt tolerance, so maintenance and monitoring of the planting will continue to determine the performance of the salt tolerant varieties.

Collaborators on this project include the University of Nevada Cooperative Extension and Greenwood Resources.

By Steve Perkins, Great Basin PMC

Volunteers Restore Wetlands on Walker River Indian Reservation

The Walker River Paiute Tribe, Mineral County School District and NRCS have been working together to complete a community natural resource conservation project at Weber Dam, located on the Walker River Indian Reservation. The first phase of the wetland restoration project was completed in 2007. Volunteers planted bulrush, cattails and native plant seed. Students learned planting techniques, how to test soils and water quality, and planted trout provided by the U.S. Fish and Wildlife Service.

By Dan Kaffer, Western Nevada RC&D

