NATIVE AMERICANS CONSERVING NATURAL RESOURCES IN NEVADA

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Strapping on boots to improve habitat for sage-grouse and livestock

In the middle of Nevada, miles from nowhere, eight Native American young adults have spent their summer working to improve habitat for Greater Sage-Grouse. The young adults, who range in age from 18 to 26, were out-of work, disengaged, and living on the Duck Valley Indian Reservation and the Battle Mountain Indian Colony. All of them found personal satisfaction working on this worthwhile project.

Bringing the bird and the young adults together is the Bootstraps Program, an ambitious human development and natural resource enhancement program. Coordinated by Rod Davis with the University of Nevada Cooperative Extension in Lander County, Bootstraps teaches life skills and job responsibility by combining formal classroom instruction with real work experience like removing pinyon pine and juniper (PJ) trees from some of the most threatened sagebrush communities in central Nevada. PJ is invading sagebrush habitat, destroying critical habitat needed by sage-grouse and other species to survive.

Craig Plummer, district conservationist with the USDA Natural Resources Conservation Service in Winnemucca, Nev., found a landowner who wanted to help restore sage-grouse habitat. Together they developed a conservation plan that identified removal of PJ in key sage-grouse areas, and the rancher signed up and was approved for financial assistance under the Nevada NRCS Sage-Grouse Initiative of the Environmental Quality Incentives Program. Landowners receive financial assistance to remove PJ and implement other conservation practices to help protect sage-grouse and improve its habitat.

Bootstraps and EQIP are a perfect fit to get the job done. In June, the Bootstraps workers received intensive training covering use of chainsaws, two-way radios, satellite phones, and GPS units, as well as safety, first aid, and basic job skills. Once trained and equipped, they started removing PJ from 1,000 acres of public land and 400 acres of private land. Guided by their crew boss Doug Howey, they were taught which trees to remove, to leave the old growth PJ, and to leave PJ on the steep slopes where removing it would cause other environmental damage. The cut trees were left on the ground to protect the soil from erosion and provide shelter for wildlife.

All of the young adults have enjoyed the experience, especially working outside and working with their hands. Georgiana, from Duck Valley and the only female on the crew, said, "I've learned different fencing techniques and how to make cuts with the saws." It was hard for Georgiana to cut the trees at first because pine nuts are a culturally significant food source for Native Americans. "But I learned it's important to remove the trees to protect another species that is also important to my people," she said.

If the crew wasn't cutting PJ, they were fencing springs and meadow areas to protect them from overuse by livestock or wild horses. Meadows are critical habitat for young sage-grouse.

Derek from Battle Mtn., said, "This has taught me how to keep a job and how to respect my coworkers." Dal from Duck Valley added, "I've learned discipline, respect, and what it means to have a job."

> Bootstraps is a program that puts out-of-school young adults to work on habitat improvement projects. The landowner, Farm Bill and partners help foot the bill.

"Many partners have contributed to the success of this project and the Bootstraps Program", said Davis. "We couldn't do it without the support of the local rancher, the Bureau of Land Management, NRCS, Lander County Conservation District, many other organizations and agencies, and of course, Cooperative Extension."

Plummer added, "I'm really pleased that we are a part of this project for several reasons. The landowner wouldn't be able to restore this habitat without the financial assistance we're providing, we're getting conservation on-the-ground, and we're helping young adults at the same time."

Most of the PJ will be cut this fall, and next year a new Bootstraps crew will finish it and start work in other areas. You can bet the Nevada NRCS will be cheering them on.

Hoop Houses Extend Growing Season in Duck Valley

by Jaime Jasmine, Elko

Agricultural producers on the Duck Valley Indian Reservation installed five hoop houses in 2011 using Farm Bill funds. Hoop houses or high tunnels are proving to be an effective way to extend the growing season, allowing farmers to plant earlier and grow longer.

High tunnels are entering their third year of the three year pilot project, according to Jasmine. "I hope more producers will take advantage of the program and install hoop houses next year."

Pyramid Lake Paiute Tribe Improves Spring Developments

by Jim Gifford, Minden

> "The Pyramid Lake Paiute Tribe is proud of our long history working with NRCS."
> John Mosley, PLPT Environmental Director

The Pyramid Lake Paiute Tribe completely rebuilt the old spring development at Separator Spring and installed a new spring development at Jigger Bob Springs high in the mountains on the west side of Pyramid Lake, Washoe County, Nev. The two spring developments each consisted of a water collection system, a livestock pipeline, and a water trough. The spring sources were fenced off to protect them from livestock and feral horses, and the troughs were placed on the outside of the fence to provide clean, reliable water for livestock and wildlife. These water sources are very important to the PLPT cattlemen because they are surrounded by some of the most productive rangeland available for grazing cattle. The troughs were fitted with wildlife escape ramps and much of the water surface was not obstructed so bats could also use these troughs to get a drink.

NRCS worked closely with John Mosley, PLPT Environmental Director, to complete the projects. "The Pyramid Lake Paiute Tribe is proud of our long history working with NRCS. NRCS has provided technical assistance and funding to improve our rangeland resources and management of livestock that results in on-the-ground infrastructure and conservation of our natural resources. Conservation of resources, especially water, is a major goal for the Tribe, and we look forward to the future of working hand-in-hand with NRCS to achieve the goals in our management plan," said Mosley.

Photo by John Mosley

Walker River Paiute Tribe Protects Eroding Streambank

by Ed Biggs, Yerington

In 2008, the Walker River Paiute Tribe requested NRCS technical and financial assistance to restore about 500 feet of eroding streambank along the Walker River near the town of Schurz, Nev. This project had been a high priority of the Tribe for quite some time. NRCS was able to obligate funds for the project in August 2009 through the Farm Bill's Environmental Quality Incentive Program. The Tribe hired a contractor who completed the engineering design for the project in December 2009. The design included a combination of structural and vegetative measures that would minimize soil erosion and improve water quality and wildlife habitat along the stream corridor.

During the winter and spring of 2010, about 500 feet of actively eroding river bank were graded from their nearly vertical condition to a more stable side slope, then fractured rock was placed along the toe of the newly shaped bank. Rock was also "keyed" perpendicularly into the bank at strategic points as additional protection from erosion. An earth berm, or grade stabilization structure, was constructed along the top of the bank to prevent overland flow of water from the flood irrigated field located adjacent to the project site.

In addition to earth and rock work, vegetative practices were included as an integral part of the project. Dormant willow poles were planted singularly and as "bundles" of plants along the anticipated waterline. The willows sprouted and grew, and the project successfully withstood higher than normal spring runoff in 2011. Above water portions of the newly shaped bank were seeded to adapted plant species in 2011. These plants germinated and grew with the addition of supplemental irrigation provided by Tribal staff.

Moapa Paiute Farm Improves Irrigation System

by Jarrod Edmunds, Las Vegas

The Moapa Paiute Farm replaced a portion of their degraded concrete-lined ditch flood irrigation system with a more efficient wheel line sprinkler irrigation system this year, thanks to financial assistance from the Farm Bill's Environmental Quality Incentives Program. The projects will provide improved sprinkler irrigation for 181 acres of farmland on seven fields that produce forage crops. The improved irrigation delivery pipeline will also deliver irrigation water to six flood-irrigated fields consisting of 117 acres.

This is the first on-farm irrigation improvement project since the mid-1980's when the Bureau of Indian Affairs funded concrete-lined irrigation ditches for the entire farm.

NRCS is also working with the Moapa Band of Paiutes to install a seasonal high tunnel with a drip irrigation system, with funding through the Farm Bill's Agricultural Management Assistance Program. The seasonal high tunnel will be used for a Tribal community garden and to supply fresh vegetables to the Tribal Senior Center cafeteria. Carol Bishop, extension educator, University of Nevada Cooperative Extension, helped the Tribe select the best location for the high tunnel.

New Automated System to Monitor Water Resources Installed on Summit Lake Indian Reservation

by Dan Greenlee, Reno

The Summit Lake Paiute Tribe will be better able to manage their water resources now that NRCS has completed installing a new SNOw TELemetry (SNOTEL) site at the headwaters of Snow Creek, one of the main watersheds supplying water to Summit Lake. The SNOTEL data collection system will enable the Tribe to predict and manage water resources for soil, plant, animal, and human use.

The Summit Lake Reservation, which surrounds Summit Lake, is located in the upper northwest portion of Nevada and is Nevada's most remote Indian reservation. The Bureau of Land Management manages the upper watersheds of Snow Creek and Mahogany Creek to the east of the lake.

The process began four years ago, when William Cowan, Natural Resources Department Director for the Summit Lake Paiute Tribe, applied for and received funding from the Bureau of Reclamation to pay for the installation of a SNOTEL site. NRCS made several trips up to this remote location, beginning in 2008, to identify an appropriate site. Once a proper site was identified, the BLM evaluated the location and issued their Right of Way permit in the spring of 2011. NRCS Snow Survey personnel from Nevada, Utah, and Oregon spent two nights camping out near the site and finished the installation in September.

This small terminal lake fluctuates between 600 and over 900 acres, depending upon spring runoff conditions, and is primarily fed by Snow Creek and the larger Mahogany Creek. Mahogany Creek supports a population of Lahontan Cutthroat Trout, a threatened species in this watershed. Data from the SNOTEL site will allow NRCS to eventually provide forecasts for flows into this lake and, in turn, allow the Tribe to better manage their fisheries and other resource concerns on the Reservation.

This cooperative effort with the Summit Lake Paiute Tribe, BLM, BOR, and NRCS will provide much needed data for this remote part of Nevada.

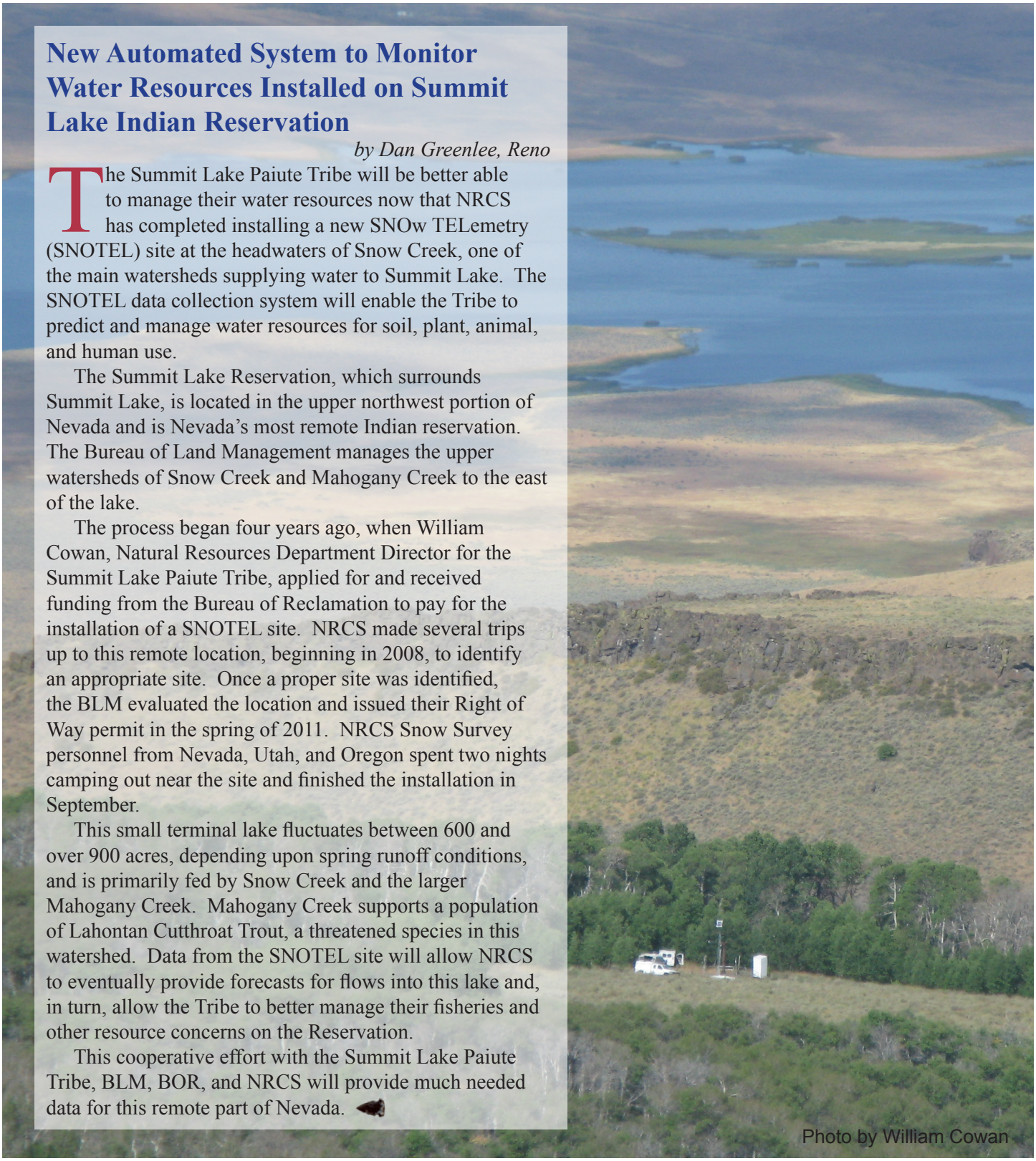

Photo by William Cowan

NRCS's natural resources conservation programs help people reduce soil erosion, enhance water supplies, improve water quality, increase wildlife habitat, and reduce damages caused by floods and other natural disasters. Public benefits include enhanced natural resources that help sustain agricultural productivity and environmental quality while supporting continued economic development, recreation, and scenic beauty.

For more information, contact your local NRCS office or click online to www.nv.nrcs.usda.gov.

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