Hugh Hammond Bennett (right), first Chief of the Soil Conservation Service.

natural resources REPORTER

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Dennis Alexander Named State Conservationist

Dennis L. Alexander has been named by the USDA-Natural Resources Conservation Service as New Mexico's new state conservationist.

Alexander has most recently served as NRCS Colorado's assistant state conservationist for programs where he was responsible for the Environmental Quality Incentives Program, Wildlife Habitat Incentives Program, Wetland Reserve Program, Conservation Security Program, and Farmland Protection Program.

He also served as the NRCS program manager for the Grassland Reserve program, which is jointly administered with the Farm Service Agency.

A graduate of Truman State University, Alexander began his career with NRCS as a soil conservation technician in Missouri in 1972. He worked in various locations in Missouri before transferring to Lakewood, Colorado as the assistant state conservation for operations in 1995, and stepped into the assistant conservationist for programs position in 2002.

He is an active member of the Soil and Water Conservation Society as well as other conservation organizations.

Alexander will be replacing Rosendo Treviño III, who has accepted a position as special assistant to the chief of NRCS on Mexico border issues.

Drought Calls for Help Desk, Conservation Agency Says

Unusually dry conditions are prompting the New Mexico Association of Conservation Districts (NMACD) to establish a *Farmers & Ranchers Drought Help Desk* to be available until after cattle are shipped next fall.

"The drought conditions are just incredible out there," said Cyle Sharp, NMACD president. "As a conservation organization we want to do everything we can to help farmers and ranchers get through this year - taking care of the land while they are working to make their operations survive. We want to be there for them, to help them get the information that can make a difference when they are facing tough choices."

The *Farmers & Ranchers Drought Help Desk* is being

(Continued page 2)

Drought Help Desk (continued)

The New Mexico Association of Conservation Districts' efforts to assist farmers and ranchers by the establishment of a Drought Help Desk this summer is supported by NRCS.

established by the New Mexico Association of Conservation Districts in cooperation with the USDA-Natural Resources Conservation Service. It is anticipated that the *Help Desk* will network with agricultural entities throughout New Mexico. If an answer to a farmers or ranchers request for information about available resources is not immediately available, multiple outreach efforts will be pursued with the help many in New Mexico's agricultural community.

"If a farmer or ranchers is facing a particular problem, needs information about choices or possible resource available, and isn't sure about which way to turn, we want him or her to call - so we can help fill in the blanks," Sharp said.

The *Farmers & Ranchers Help Desk* will be proactive, according to Sharp, in addition to responding to specific requests for aid. The *Help Desk* will be issuing weekly advisories on drought related issues that target New Mexico's farmers and ranchers.

For further information about the *Farmers & Ranchers Drought Help Desk* or to request assistance call 1-800-410-2067.

Natural Resources Reporter

For more information about NRCS conservation services and programs contract your local NRCS Service Center or go to www.nm.nrcs.usda.gov

Snow Runoff Forecasts Yield Critical Information

Snow runoff forecasts issued by NRCS from January to May are the basis for water-management decisions made by farmers, government agencies, and others throughout the spring, summer, and into the fall. In New Mexico, where every flake counts, this is critical information for conservation efforts and the welfare of the land.

"It is sometimes a tough call, because our big storms tend to come in March and early April," said Richard Armijo, NRCS New Mexico snow surveyor. "We do want to get the information out there, though, because land managers are making their choices in the winter for the coming growing season and need the best data they can get to make their decisions."

NRCS puts years of experience into these forecasts, and in doing so serves a variety of interests that can impact New Mexico's natural resources. Since 1935, NRCS has been measuring mountain snowpacks and issuing runoff forecasts. From January through April, snow surveyors like Armijo visit 23 high-elevation snowpack sites to measure the depth of snow and its water content. Another 20 Snotel sites radio in data on a continuing basis. These Snotel sites are automated and use solar powered equipment to operate.

The data that is gathered at New Mexico's snow measuring sites is then transmitted to and analyzed by NRCS's National Water and Climate Center in Portland, Oregon. The experts at this facility also receive and analysis snowpack data from the other western states where this information is so critical for irrigation and other uses.

Normally around the first week of each month from January to May, NRCS in partnership with the National Weather Service, issues its forecasts of snow runoff for the growing season. Every effort is made at that time to get the information out to the public through the media, and the information is posted prominently on NRCS's website at www.nm.nrcs.usda.gov

While NRCS's snow surveyors may feel uncomfortable doing press and television interviews, getting the information to the public is important and part of the job – one task they handle well despite a certain amount of discomfort.

But the snow survey and runoff forecasts are not just seasonal work at NRCS.

"While activity for NRCS's snow surveyors slows down in the summer, that is our time for repairing equipment at our survey sites and getting everything in shape for another season," said Armijo.

Snow surveying can be a job that offers variety and outdoor mountain experiences. It is one that NRCS takes very seriously because it can yield such valuable information for land managers as they make their decisions about the utilization and conservation of New Mexico's natural resources.

Drought: Bringing Farmers, Ranchers to Brink

The devastating effects of drought can bring farmers and ranchers to the brink of tough decisions impacting themselves, their families, and the land. No wise words can erase the negativity of the situation, but maybe a thoughtful suggestion will offer an avenue that can help ease the sting and consequences of dry times. That is what the Natural Resources Conservation Service is trying to do when they offer thoughts to consider when doing contingency planning.

Contingency planning can take many forms, but all are an effort on the part of an individual farmer or rancher to think of and assess all options - and in advance as much as possible. It is time to think the unthinkable, and either accept those far out options as viable or discount them, and finally, move ahead with a plan that encompasses the best choices.

NRCS is offering here some thoughts that may help the thinking process along.

For farmers there are considerations that could impact crops and save effort.

All crops grown in New Mexico have different water requirements. For example, in Deming cotton uses 27 acre-inches of irrigation water, and alfalfa uses 45 acre-inches in a season. NRCS New Mexico has on its website an "Irrigation Water Management Jobsheet" where a farmer can compare consumptive use values – a piece of information that can be valuable in providing a good idea of the amount of water needed throughout the year for a particular crop at a particular location.

Then there is the question of not only how much irrigation water is going to be needed, but when. Most crops must have adequate soil moisture when the main stem is elongating just before flowering. If water is short during this period, yield will suffer to some extent. After the flowering, in the grain-fill stage, water levels can be lowered some.

NRCS New Mexico is encouraging farmers to do the maintenance they may have put off or ignored. Surface systems need leveling every five years. Pivots that have missing or worn nozzles need to be replaced, and leaky supply ditches, fittings, and pipelines need to be fixed. If a well no longer can supply the designed water volune, pivots need to be re-nozzled.

If a farmer is considering turning on an old well if the irrigation districts runs out of water and the well is shallow, there is a very good chance it contains high concentrations of salt. Any well that has a concentration of total dissolved solids greater than 2000 parts per million should only use that water if lower concentration water can be blended in.

Some inputs such as soil fertility and weed density, can be evaluated in light of the low moisture condition. Soil tests can actually save money when water is limited. New Mexico State University and NRCS have methods for soil testing and fertilizer recommendations tied to yield. If a lower yield is anticipated due to low rainfall, the amount of fertilizer application can be reduced.

Field scouting is another money saving step that can be used to minimize costs of pesticides. In terms of weed control, using early control measures that favor crop competition is the best plan. Scouting for insects and diseases weekly, and more frequently when pests are found, works to the farmer's advantage.

There are thoughts for ranchers to consider in drought, too.

Drought affects rangeland by limiting plant growth, resulting in reduced forage yields. Not only is the plant above the ground impacted, but root growth is also limited which makes range plants less able

to reach scarce soil moisture.

Carryover is a portion of each year's plant growth that is left ungrazed. As carryover breaks down it becomes litter or the dead plant material on the soil surface. Litter insulates rangeland by keeping soil temperatures lower and reducing water loss. When moisture is scarce rangeland with adequate litter reserves will produce more forage than land with less litter. During drought, grazing at normal stocking levels will hasten litter breakdown, intensify drought effects, and retard range recovery.

If, during a drought, grass growth has started, early grazing will further stress range plants and leave them with low energy reserves. Over a series of dry years, heavily grazed ranges will show a shift in plant species to weedy, shallow-rooted, and less productive species.

A rancher's contingency plans should include ways to have an adequate supply of feed for all livestock on hand. Maintaining a livestock feed and forage balance inventory will enable a rancher to know how much feed is in front of his/her animals at all times. On NRCS New Mexico's website there is a "Livestock, Forage, and Feed Worksheet" to help in this process.

Ranchers may use fall seeded annual crops for emergency feed, or purchase feed for spring or know where they can get some if they need it. They should have pre-arranged trucking plans in place to bring feed in or ship livestock out if needed.

During drought conditions, then, the goals of the rancher are to minimize damage to the range and stay in business. Heavy to moderate use of rangeland during drought reduces production and profit potential for future years.

Demonstrations Bring Conservation to Land

Sites Throughout the State Carry Message

Riparian restoration interest continues to grow among NRCS cooperators in New Mexico. As of March 1, more than 20 USDA Service Centers have requested either plants or information form the Los Lunas Plant Materials Center. Since 1987, the Plant Materials Center has offered 100 free riparian plants annually to any NRCS field office in New Mexico for demonstration plantings. In addition this year, the Plant Materials Center had available over 2000 plants of about 10 species of montane plants.

In Aztec, Allan Maez, the district conservationist at the Aztec Service Center, received 100 plant material units which included narrowleaf cottonwood, silver leaf buffaloberry, wax currant, crack willow and aspen. These plants will be installed on the banks of the San Juan River at Farminton's new Nature Center. The environmental group, River Reach, will do the planting. Both salt cedar and Russian olive have been removed from the site and will be replaced with these natives.

In Espanola, Thomas Gonzales, the district conservationist of the Espanola Service Center received 20 cottonwoods and 10 skunkbush sumac. The 20 cottonwoods were provided to a land owner on the Rio Grande of the Rinconada community. This individual will plant these natives where he has previously removed Russian olive and salt cedar from his property. He has had previous success with the 20 cottonwood poles he established on his property the year before. The 20 skunkbush sumac were received by another cooperator with property on the Rio Chama. The plants were installed to stabilize the tow of a diversion dam. Also, this individual planted 50 cottonwood pole cuttings using the methodology outlined in the NRCS brochure "The Pole Cutting Solution" which can be obtained on the NRCS state web page.

In Carrizozo, Dick Shaw and Hollis Fuchs of the Carrizzo Area Office received 80 plant material units of various species including littleleaf mock orange, quaking aspen, silver buffalo berry, desert willow and cinquefoil.

"Water is a huge issue locally with regular acute shortages and bans on outside watering," said Hollis Fuchs. "Customers, landscapers and nurseries are constantly looking for non-invasive natives of beauty that are water wise."

Shaw and Fuchs have strategically distributed these plants for plantings where they will receive high visibility. Planting locations include: Carrizozo schools, Carrizozo Village Hall, and the new USDA Service Center.

The PMC Staff believes that this plant material distribution is a very important part of their program in that it is one more facet that keeps their program active with NRCS field offices. Additionally, it initiates volunteer applied conservation practices that may not have happened if the plant materials were not available.

Demonstration in Carrizozo of plant materials from the NRCS Plant Materials Center in Los Lunas

Floyd Fire Followed by Devastating Wind Damage

NRCS District Conservationist Plays Key Role in Solution

Joe Whitehead, NRCS district conservationist in Portales, demonstrated leadership in pulling together what it took to institute erosion control measures following the range fire that devastated the Floyd area in late November. The Floyd School has been particularly hard hit by blowing sand and dust coming off the landscape bared by the huge fire, and action was needed.

"We put together about 1000 years of local experience in working with these soils to come up with a solution," said Whitehead. "The trial came out of some real brainstorming with landowners and government and university officials."

The problem the landowners and experts faced was holding the highly erodible soils that suddenly had no vegetative cover. All of the soils in the area are technically deemed "highly erodible" but only those that were once plowed and now enrolled in the Conservation Reserve Program were suffering from wind erosion. By comparison, little wind erosion has been occurring on the burn area that was never plowed, had better sod formation, and had better soil structure. Whitehead estimates that 2700 to 2800 acres of land within the burned area could be subject to immediate wind erosion.

Above: Manure and cotton seed trash mixture spread to thwart wind erosion.
Below: Digging out sand and dust blown into the Floyd school yard.

Alternatives considered for stabilizing the soil and stopping the wind erosion included chiseling to roughen the soil surface and create clods, using manure from dairies, and spreading cotton seed trash. The trial selected used ten tons of manure and two tons of cotton seed trash per acre, spread to hold the soil in place at an estimated cost of $110 per acre.

For further information about the erosion control efforts, contact Joe Whitehead at NRCS in Portales (505)356-6629 ext. 3.

NRCS Natural Resources Conservation Service

New Mexico NRCS Area Office Contacts:

Norman Vigil
Northwest Area
2132 Osuna NE
Albuquerque, NM 87113
(505)341-0074

Ken Walker
East Area
918 Parkland Drive
Clovis, NM 88101
(505)762-4769

Hollis Fuchs
Southeast Area
305 12th Street
Carrizozo, NM 88301
(505)648-4293

Cliff Sanchez
Southwest Area
406 North 6th Street
Socorro, NM 87801
(505)838-4259

Public Affairs
Natural Resources Conservation Service
6200 Jefferson NE
Albuquerque, NM 87109

NRCS Natural Resources Conservation Service