



Montana NRCS Conservation Update

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In This Issue

- ❑ **NRCS Announces National Water Quality Initiative in Montana**
- ❑ **Streamflow Forecasts Well Below 2011 Levels**
- ❑ **Wildfire Rehabilitation Assistance**
- ❑ **Agriculture Secretary Vilsack Highlights the 150th Anniversary of USDA**
- ❑ **Wibaux Hosts Environmental Education Program**
- ❑ **Crow Earth Day: Children Discover Sage-Grouse and the Bonds to their Culture**
- ❑ **Hardin NRCS Participates in Kids Ag Day at Big Horn County Museum**
- ❑ **Native Rangeland Plants and American Indian Significance**
- ❑ **Human Resources Report**
- ❑ **Student Interns Receive orientation**
- ❑ **Upcoming Events**

Conservation on a Landscape Scale

Joyce Swartzendruber, State Conservationist

NRCS nationally has moved strategically over that past three years to fund projects and resolve conservation issues on landscape scales. Here in Montana, we have been integrally involved with the Sage-Grouse Initiative which is targeting our technical and financial assistance to ranchers who have prime sage-grouse habitat. The grazing management plans that we're writing are providing benefits to both the ranchers and the grouse, and ranchers are seeing better utilization of their grass and improvements to their operations. Sage-grouse numbers are holding steady and increasing in areas where we've monitored their nest successes, and researchers have shown improvements where we're marking or removing fences around their breeding leks. The sage-grouse efforts are showing that ranching and sage-grouse habitat are totally compatible, and if we can show increases in numbers in the next year or so, perhaps we can keep that species off the Endangered Species List.

The movement toward landscape scale conservation has come at some cost to individual farmers and ranchers in terms of how much conservation funding is available at the county level. The interesting fact is that our conservation funding hasn't gone down, and projections in the farm bill are still strong for financial assistance programs. By putting funds where they have the greatest effect, NRCS has become a leader across the nation in private lands conservation successes. In the Sage-grouse example, we have used the latest technology to pinpoint areas across the western United States with the highest sage-grouse populations. By focusing our range inventory and planning work in those areas, we've leveraged the federal dollar where we can get the greatest impact. Some have suggested that we should be widespread in our efforts, since the bird had a historic range across 11 western states and several Canadian provinces. But our process is to largely avoid a "shotgun" approach to conservation; instead we target technical staff and financial programs to the problem, show results, and move on to other issues.

Many initiatives are at work across the nation. We have a migratory bird initiative in the prairie pothole region, air quality initiative for specific regions with compromised air quality, and recently we named two Stillwater River watersheds for the national water quality initiative. In my opinion, these efforts can't start with money that must be obligated within a short amount of time. Every one of these initiatives needs to start with good conservation planning at the area scale and individual levels. The private landowners and operators who can make environmental impacts must be engaged in a process of understanding the issues, setting their own objectives, determining what they want to do based on well-thought out and presented alternatives, and then proceeding to implement. Racing to the "contract" finish line won't get us the solutions we need for conservation on the ground.

NRCS Announces National Water Quality Initiative in Montana

Two watersheds in Stillwater County, Montana, will be part of a new National Water Quality Initiative to improve impaired waterways across the country. NRCS has made funds available to farmers and ranchers in the selected watersheds.

“The Water Quality Initiative will further NRCS’ partnership efforts to improve water quality using voluntary actions on private lands,” said Joyce Swartzendruber, NRCS state conservationist for Montana. “This initiative is a focused approach in areas facing significant natural resource challenges. It bolsters the positive results of landscape conservation initiatives NRCS and its partners already have underway.”

Through this effort, eligible producers in the Rosebud Creek and Limestone Creek watersheds can use Environmental Quality Incentives Program funding to install conservation practices to help provide cleaner water for their neighbors and communities.

Both watersheds in Montana were selected because of the potential impacts agriculture may be having on water quality, and both are listed in the Montana Water Quality Integrated Report (303d list) for impaired streams.

A June 12, 2012 tour visited several animal feeding operations along the Stillwater River. New feeding areas planned and designed by NRCS staff illustrate how producers can use the Environmental Quality Incentives Program to benefit water quality and animal health.



Top photo: Tour participants examine land shaping in the vegetated treatment area (VTA) adjacent to the retrofitted corral at this animal feeding operation (AFO) on the Stillwater River. NRCS, through the Environmental Quality Incentives

Program (EQIP), helped the owners of this facility prevent storm water runoff from flowing into the river. The project required considerable land shaping to alter the slope of the corral, as well as to build berms that direct runoff into the VTA and divert clean water away from the corral and treatment field. An existing water gap was eliminated and a new livestock watering facility supplied by pipeline now provides water to livestock. Both water quality and animal health benefit from heavy use area protection applied in and around the corral.

Bottom photo: At a second site on the tour, an old corral with a water gap that sloped into the Stillwater River was filled in and had the manure removed. Tour participants stand in the new corral, which is located on higher ground away from the river and includes a new livestock watering facility. Grasses and alfalfa are already well established in the adjacent naturally sloping vegetated treatment area (VTA) at the left in this photo. This project also includes a stream crossing and heavy use area protection to further protect water quality, improve the handling facility, and benefit animal health.

Streamflow Forecasts Well Below 2011 Levels

Statewide snowpack increased 17 percent in May and as much as a 32 percent in individual basins, according to June 1 NRCS snow survey data. “Large temperature swings accompanied by near average moisture brought significant snowstorms, as well as rain, to the watersheds of Montana over the course of May, said Brian Domonkos, NRCS water supply specialist for Montana. “Cooler temperatures through May not only slowed the accelerated melt-rates of April, but allowed more precipitation to fall in the form of snow rather than rain.”

In general, 30 percent of this year’s snowpack remains due to a late May snowstorm. SNOTEL (SNOWTElemetry) data shows scattered basins still have considerable snowpacks, enough to drive streamflow peaks into June. “Most notably snowpack totals are above average in the northern and central two thirds of the state, while the southern third, although improved, is still below average,” Domonkos said. “The only southern watershed to see snowpack gains through May was the Lower Yellowstone.”

Domonkos said streamflow forecasts have changed little as a result of the increase in snowpack because snowpack is typically in the melt phase and weather during May and June can be highly variable. “In fact, most watersheds in the Jefferson and Madison River basins have already experienced their peak streamflow as a result of snowmelt. Other higher elevation watersheds such as the Gallatin and Upper Yellowstone are in the process of peaking at the beginning of June,” he said. For the most up-to-date streamflow information, visit Current Conditions for Montana: Streamflow on the Montana U.S. Geological Survey Web site.

The averaged River Basin streamflow forecasts shown here are for the period June 1 through July 31. These forecasts assume near normal moisture and runoff conditions June through July.



Streamflow Forecasts

River Basin	June to July 2012 Year Percent of Average	June to July 2011 Year Percent of Average
Columbia	99	188
Kootenai, Montana	121	168
Flathead, Montana	110	200
Upper Clark Fork	83	194
Bitterroot	88	162
Lower Clark Fork	93	183
Missouri	80	191
Jefferson	48	183
Madison	90	149
Gallatin	89	156
Missouri Mainstem	78	173
Smith-Judith-Musselshell	94	251
Sun-Teton-Marias	99	194
Milk	104	193
St. Mary	116	155
Yellowstone	85	200
Upper Yellowstone	96	170
Lower Yellowstone	74	231
Statewide	90	190

NOTE: The “June to July Last Year Percent of Average” column above is what was forecast last year, NOT what actually occurred.

Wildfire Rehabilitation Assistance

What can you do to protect your home and property after a wildfire? The publication, “Wildfire Rehabilitation Assistance” can help provide answers. To request a copy contact MT-nrcs-publications@one.usda.gov.



Agriculture Secretary Vilsack Highlights the 150th Anniversary of USDA

Last fall, Agriculture Secretary Tom Vilsack visited the Old Illinois State Capitol to announce the year-long celebration of USDA's 150th anniversary in 2012. Secretary Vilsack was in the hometown of USDA's founder – President Abraham Lincoln – who signed into law an act of Congress establishing the United States Department of Agriculture in 1862.

“Through our work on food, agriculture, economic development, science, natural resource conservation and a host of issues, USDA still fulfills President Lincoln's vision as “The People's Department” – touching the lives of every American, every day,” said Vilsack. “As we commemorate 150 years, we will look for lessons from the past that can help us strengthen USDA in the future to address the changing needs of agriculture and rural America.”

Secretary Vilsack is currently working to transform USDA into a higher performing organization – one that is open and responsive; more collaborative, inclusive and effective to meet the needs of the American public. USDA is also building a workforce that looks like and reflects the values of and understands the broad range of Americans the Department serves.

For more information about USDA, visit the USDA Web site at www.usda.gov.



Young conservationists listen to a discussion on soil health during the Environmental Education Program hosted by the Wibaux Conservation District on May 2, 2012.

Wibaux Hosts Environmental Education Program

On May 2, 2012, the Wibaux Conservation District hosted its Environmental Education Program (EEP). This year's theme was “Soil to Spoon” and the event is held every other year for grades 5-8. There were 38 students and 6 teachers that participated in stations with a soil health slake test and a mini-rain simulator operated by Katrina Johnson, NRCS district conservationist, Wibaux. Linda Peterson-Lohse, NRCS district conservationist, Glendive, discussed diversity in agronomics. Curt Begger, local farmer, discussed how he farms and the equipment he uses, and the students also were able to hand grind some wheat. The participants

then traveled to Nelson Livestock Company. The stations there included local rancher Tom Nelson, who discussed his cattle operation, Wibaux veterinarian Dr. AJ Domek, who talked about animal health, and Johnson, who discussed range ecological sites, types of plants and conservation planning. Three groups of students played “Conservation Jeopardy” and then they finished with each student making their own dessert of ice-cream in a bag. “It was a great time to share knowledge with young people and show them how soil is a vital part of what is on our spoon,” Johnson said. Each student also received a T-shirt from the Wibaux Conservation District.



Bruce Waage, NRCS/BLM liaison, holds out a piece of sagebrush for a student to smell as part of an educational presentation on sage-grouse at Crow Earth Day, May 2.

Crow Earth Day: Children Discover Sage-Grouse and the Bonds to their Culture

By Deborah Richie, Sage Grouse Initiative Communications

For the 150 children who attended Crow Earth Day on May 2nd, a stop at the Natural Resources Conservation Services (NRCS) booth to learn about sage-grouse revealed two strong connections to their culture.

Jeremy Not Afraid, the Crow Reservation NRCS district conservationist, said that the students, who ranged from preschool to 8th grade, knew very little about the bird and most have never seen a sage-grouse.

What proved as familiar to them as apple pie was the scent of silver sage that the children had seen in their homes and is used for purification and other cultural purposes, he said.

When they learned that the sage-grouse eats a diet of only sagebrush in winter, it became more meaningful because of the Crow's cultural dependence on the same plant.

Similarly, the sage-grouse taxidermy mount came to life through a link to something the kids knew well – tradi-

tional dancing. Each spring, sage-grouse males parade on a natural stage of open land set within sagebrush. They fan their tails, stomp their feet, and inflate air sacs to impress the females. Many Plains Indian tribes imitated the sage-grouse in dances that continue to be performed today.

Not Afraid hopes that the students eventually will have the opportunity to watch courting sage-grouse some early spring morning on the Crow Reservation. While the habitat is there and so are birds, he said the reservation has yet to be mapped for sage-grouse. That would take a grant to fly over and identify leks and other important seasonal areas.

Meanwhile, sage-grouse were a fitting part of Crow Earth Day that began with an opening prayer. Other activities included talks from Crow EPA and health directors, a fitness walk, plus numerous booths.

When small groups came to the NRCS booth, Not Afraid and Bruce Waage, NRCS/BLM liaison for sage-grouse, added a bit of extra fun to the sagebrush scents and the impressive bird mount.

Hardin NRCS Participates in Kids Ag Day at Big Horn County Museum



Evan Van Order, NRCS soil conservationist, Hardin, talks to local elementary students and performs a slake test to show how different management practices can affect soil structure.

The NRCS Hardin field office participated in Kids Ag Day at the Big Horn County Museum on May 10, 2012. Third and fourth-grade students from area schools attended. Kids Ag Day consists of multiple stations that elementary students rotate through, with each station covering various ag-related topics, such as dairy, machinery, farm safety, etc.

Evan Van Order, NRCS soil conservationist, talked to students about the importance of soil health. He used infiltration and slake tests to show students how various management practices can affect soil structure. Various soil samples from throughout the county, ranging from conventional tilled sugar beets to rangeland, were used in the tests.

Native Rangeland Plants and American Indian Significance

As summer approaches, the plains of Montana are alive with wildflowers. Here is one, along with some interesting facts.

Bitterroot (*Lewisia rediviva*)



Close up of bitterroot in flower, Camp Creek drainage, Silver Bow Co., MT, June 23, 2007.

The state flower of Montana, Bitterroot, gets part of its scientific name from the early explorer, Captain Meriwether Lewis. It is a low-growing perennial cool-season forb that has a thick, fleshy taproot. Bitterroot has large showy petals that can be rose-colored, purplish, or (rarely) white. This plant is found in open woodlands and sagebrush shrublands with pine, oak, or juniper, in a wide range of elevations from 60 to 3,000 m.

Considered the most important root crop of the Flathead and Kootenai Indians, they honor the Bitterroot plant with the First Roots Ceremony. This ceremony is practiced in early May to help ensure a good harvest of the plant. Bitterroots were prepared by boiling or steaming them, and they could be eaten plain or mixed various berries and meats. Bitterroot also found its purpose as a medicine. The

Nez Perce Indians thought the plant was beneficial for impure blood, and Cree Indians boiled the roots to make a tea for heart trouble and pleurisy.

References:

“Montana Native Plants and Early Peoples”, by Jeff Hart. Montana Historical Society Press, 1996.

“Range Plants of Montana,” by John E. Taylor and John F. Lacey. MSU Extension Service, EB 122, June 1994.

“Grassland Plants of South Dakota and the Northern Great Plains,” by James R Johnson & Gary E. Larson. South Dakota State University, 1999.

<http://plants.usda.gov/>

<http://www.nababutterfly.com/wildbergamot.html>

<http://www.blm.gov/wo/st/en/bpd.html>

Human Resources Report

New Permanent Employees

- Nicole Kerstetter, Soil Conservation Technician, Circle Field Office
- Amber Mason, Soil Scientist, Miles City Soil Survey Office
- Benjamin Moore, Soil Scientist, Dillon Soil Survey Office
- Darin Schepp, Civil Engineer, Malta Field Office

New Student Career Experience Program Employees

- McKenna Brown, Student Trainee Soil Conservationist, Forsyth Field Office
- Darcy Goodson, Student Trainee Soil Conservationist, Choteau Field Office
- Ernest Haglund, Student Trainee Soil Conservationist, Jordan Field Office
- Alexandra Hildebrand, Student Trainee Soil Conservationist, Philipsburg Field Office
- Trenton Howell, Student Trainee Soil Conservationist, Billings Field Office
- Ella McKinney, Student Trainee Soil Scientist, Missoula Soil Survey Office
- Mike Ruiz, Student Trainee Soil Scientist, Missoula Soil Survey Office
- Riley Singer, Student Trainee Soil Conservationist, Hardin Field Office
- Darsy Smith-Torres, Student Trainee Soil Conservationist, Kalispell Field Office
- Carissa Stein, Student Trainee Soil Conservationist, Sheridan Field Office
- Susan Wisheart, Student Trainee Soil Conservationist, Hamilton Field Office

New Student Temporary Employment Program Employees

- Megan Bones, Office Assistant, Management Services staff, Bozeman State Office

- Landon Krogstad, Soil Conservation Technician, Townsend Field Office
- Nikki Romero, Office Assistant, Public Affairs staff at Bozeman State Office
- James Woodring, Soil Conservation Technician, Miles City Field Office

Students Converting to Permanent Positions

- Danny Pratt, Soil Conservationist, Roundup Field Office
- Desiree Varela, Soil Conservationist, Helena Field Office
- Kayla Wickey, Civil Engineer, Dillon Field Office
- Alix Wittmayer, Soil Conservationist, Wibaux Field Office

Returning Student Career Experience Program Employees

- Michelle Du, Student Trainee Soil Conservationist, Baker Field Office
- Carolyn Edenbo, Student Trainee Soil Conservationist, Broadus Field Office
- Logan Hodgskiss, Student Trainee Civil Engineer, Bozeman State Office
- Ashley Kiehl, Student Trainee Soil Conservationist, White Sulphur Springs Field Office
- Dezerae Lorash, Student Trainee Soil Conservationist, at Havre Field Office
- D'Jeane Peters, Student Trainee Public Affairs, Bozeman State Office

Returning Student Temporary Employment Program Employees

- Devin Roloff, Biological Science Technician, at Missoula Soil Survey Office

Promotions

- Kimberly Burr, Soil Conservationist, Graham, Texas, to District Conservationist, Cut Bank Field Office
- Scott Christiaens, Engineering Technician to Civil Engineer, Bozeman Area Office
- Jackie Dalzell, Soil Conservation Technician, Ekalaka, Field Office
- Heather Luinstra, Soil Conservation Technician, Sidney Field Office
- Kathy Meidinger, Soil Conservation Technician, Terry Field Office
- Ted Nelson, District Conservationist, Columbus Field Office
- Brian Ressel, Soil Conservationist, Kalispell Field Office
- Paul Smidansky, Civil Engineer, Glendive Field Office
- Blake Stiffarm, Soil Conservation Technician to Soil Conservationist, Fort Belknap Field Office
- Kirt Walstad, Rangeland Management Specialist, Bozeman State Office

Relocations

- Jennifer Woodward, Biologist, Miles City Area Office, to Rangeland Management Specialist, Roundup Field Office

Losses

- Jennifer Garoutte, Soil Conservation Technician, Circle Field Office
- Jordan Kudrna, Soil Conservationist, Chinook Field Office
- Philip Reierson, Soil Conservationist, Malta Field Office
- James Speed, Student Trainee Soil Conservationist, Conrad Field Office
- Guy Stickney, Civil Engineer, Miles City Area Office

Student Interns Receive Orientation

On June 18, Montana NRCS welcomed 15 new students into what could be their future career with NRCS. The Student Career Experience Program (SCEP, soon to be renamed the Student Internship Program) employs students ages 16 and up who have expressed an interest in conservation and resource management. These students work during the summer in NRCS field offices to gain hands-on experience as an NRCS employee. If the student completes a minimum of 640 hours of work for NRCS in a satisfactory manner and has the correct level of education, they are then eligible for non-competitive placement with Montana NRCS. "It is a trial basis," says Bart Huber, NRCS state administrative officer. "You are seeing if you want to work for us, and we are seeing if we want you to be part of our team."



Montana student interns pose for a group photo during training session in Bozeman, June 20, 2012. Back row L-R: Ella McKinney, Ashley Kiehl, Ernie Haglund, Riley Singer, Joyce Swartzendruber (state conservationist). Middle row L-R: Carissa Stein, Dezerae Lorash, Susie Wisehart, D'Jeane Peters, Darsy Smith-Torres, Darcy Goodson. First row L-R Carolyn Edenbo, McKenna Brown, Lexi Hildebrand, Michael Ruiz, Trent Howell.



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Upcoming Events

For up-to-date conservation and agriculture-related events and activities in Montana, visit <http://www.mt.nrcs.usda.gov/news/events.html>.

July 2012

- ❑ Montana Natural Resources Youth Camp, July 15 - 20, 2012, Missoula
- ❑ Montana Youth Range Camp, July 16 - 20, 2012, Townsend

September 2012

- ❑ Women Stepping Forward for Ag Symposium, September 25 - 27, Great Falls

October 2012

- ❑ Young Ag Leadership Conference, October 5-7, Great Falls

November 2012

- ❑ Montana Association of Conservation Districts, November 13 - 15, 2012, Kalispell

December 2012

- ❑ Fifth National Conference on Grazing Lands, December 9 - 12, 2012, Orlando, Florida