



Full Stream Ahead

May/June 2006

News and Highlights of Creeks and Communities: A Continuing Strategy for Accelerating Cooperative Riparian Restoration

Creeks and Communities: A Continuing Strategy for Accelerating Cooperative Riparian Restoration

A Federal level, interagency initiative of the BLM and USFS in partnership with NRCS

The Creeks and Communities approach is a model for incorporating scientific and technical information into collaborative processes. It is based on the belief that since riparian-wetland areas often pass through or are shared by numerous landowners, a collaborative approach, applied at the ground level in a watershed context is the only avenue to successful restoration and management. Designed to foster grass roots action across the landscape, this effort facilitates the ability to confront and resolve the complex and contentious problems surrounding these resources. The overriding goal is to increase awareness and create a shared understanding of riparian-wetland function and the attributes and processes that support the sustainable production of values, and to do this among a large number of diverse people so they can work together more effectively.

Courses offered by the State Training Teams

State	Training	Location	Dates	Contact	Phone
Montana	PFC Lotic	Helena	August 29-30	Jim Wilbur	406-457-8927
Utah	PFC	Kanab, Utah	August 29-30	Tom Mendenhall	801-539-4073

Custer National Forest – Phase 2 Service Trip

June 20-22, 2006

In the Jan/Feb 2006 issue of Full Stream Ahead, a detailed article about phase 1 of the Custer National Forest, Sioux Ranger District service trip that occurred August 9-11, 2005 was discussed. During that trip, the NRST worked with the Sioux Ranger District interdisciplinary team on PFC assessment protocol for drainages that have both lotic and lentic attributes and processes. Phase 2 took place June 20-22, 2006 in Camp Crook, South Dakota. The objective of phase 2 was to reach out to a larger community of people in NW South Dakota/SE Montana, and help create a common vocabulary and a common vision for riparian-wetland areas. The District wanted a workshop that included both Proper Functioning Condition and riparian-wetland grazing management and monitoring. National Riparian Service Team members participating on this trip were Janice Staats, Sandy Wyman, Steve Leonard, Laura Van Riper, Mike Lunn, and Bryce Bohn. We had two Learning Lab participants with us on the service trip: a professional mediator and a California State Fish Biologist.

Laura Van Riper, Mike Lunn, and a Learning Lab participant (Forest Service Fisheries Biologist) traveled to South Dakota and Montana and did a situation assessment the week of May 15, 2006. The situation assessment made a big difference in both the number of people who attended the service trip, and the agenda. The interview process really worked to find out “who else do we need to be talking to.” At first, the agenda was based on a service trip model that had worked in other areas: one day of classroom instruction, one day in the field, and ½ day of closeout. What came out of the situation assessment is the fact that ranchers in the area would not be able to commit to a 2 ½ day schedule, would need flexibility in what days they attended, and that some field portion was important each day to keep people learning and interested. During a conference call with the NRST interdisciplinary team and members of the Sioux Ranger District interdisciplinary team, it was decided to do an evening orientation, two 1-day workshops with the same morning classroom presentations, and go to different field sites each afternoon, and keep the ½ day close-out for whoever could attend. The revised schedule worked well for all involved. New participants, including permittees, attended each of the 2 workshop days, with a few people opting to attend both afternoon field portions.

Also because of the situation assessment, it was decided to do the field sites in a different way. In order to make it all fit, and not overwhelm people, small groups focused on just a few checklist items (2 hydrology, 2 vegetation, 2 erosion/deposition), and chose different ones at the two stops each day. It worked well for a crash course type introduction to riparian and riparian-wetland function. The group did not do a final determination since they had not gone through the entire checklist process.

During the close-out, one of the ranchers said that she had never heard of a hydrologist before, and she was excited to have Mark Nienow, Custer National Forest Hydrologist come out in the field with her. She was in a small group with Bryce Bohn, and she commented on how he looked at very different things that she did, so she could see the benefit of having both views talked through and learned from. That is what the Riparian Coordination Network is all about!

1. The Forest Service National Partnership Office has adopted learning labs as a way to expose and engage individuals and organizations to the best practices of working in a partnership culture. It is one way the NPO is working to build organizational capacity for collaboration and partnerships. The National Riparian Service Team has been selected as the pilot project for 2006 because of their success in applying national level policies regarding community involvement and collaboration through an operating framework that emphasizes joint fact finding, communication and learning while doing.

Sediment and Riparian-Wetland Areas
By Bill Ypsilantis
National Science & Technology Center

Upland and streambank-shoreline erosion supplies sediment to riparian-wetland areas. This natural process is vital to the functioning of riparian-wetland systems. Sediment supplies streambank and bed building material, nutrients for aquatic insects and fish, plant growth medium, and many other critical functions of riparian-wetland areas. Riparian-wetland areas can be divided into lotic or moving water systems associated with streams and rivers and lentic systems associated with lakes, ponds, and bogs not associated with flowing water.

Channels characteristics of streams and rivers are a function of the landform through which they flow. Streams in steep-gradient, confined landscapes are going to have high stream energy associated with them that will generally wash fine sediment through them, leaving mainly bedrock, boulders and cobbles in the streambed and banks. These coarse materials help dissipate the high energy in these streams and rivers and are very resistant to erosion. Even periodic deposits of large amounts of sediment from landslides or debris torrents can be removed by these high energy streams.

Broad, gently sloping valleys will typically contain low-gradient, meandering streams and rivers with much lower stream energy. Smaller size sediment particles, such as gravel, sand, silt, and clay, are often deposited forming the streambed and banks, especially in eddies and backwater areas. Floodplains and point bars are often formed by sediment deposition in these type streams.

Streams and rivers transport water and sediment out of a watershed based on their channel characteristics and energy. Excessive supply of sediment into a stream beyond what it typically can handle indicates that this process is out of balance and the stream system cannot function properly. This condition can occur as a result of human activities, such as improper road construction, or catastrophic events, such as wildfires. Natural stream channels, such as Alaska glacial outwash streams or sand bed desert Southwest streams, can be braided with annual shifts in bed location, but often a braided stream bed indicates that excessive sediment is being deposited in the stream.

Excessive sediment can also result in other stream channel characteristics being changed, for example change from a step-pool system to a riffle system, aggrading of the streambed, increased gradient by reducing sinuosity, and other changes resulting in increased flooding hazard and loss of stream channel stability. Fish and other aquatic life habitat can be degraded by sediment reducing light penetration, increasing loads of soluble nutrients and toxic substances attached to sediment particles, clogging gills and causing asphyxiation, causing reduced growth rates or death through ingestion, reduced visibility, interfering with feeding by organisms that filter food from the water column, destroying attachment sites for animals and eggs, loss of suitable pools and scour holes, and smothering plants.

Sediment and Riparian-Wetland Areas continued

Lakes, ponds, bogs, and other lentic riparian-wetland areas typically fill with sediment and may eventually convert to an upland area type. However, this is a very slow process and lentic systems often maintain themselves over hundreds or thousands of years. Accelerated supply of sediment to a lentic riparian-wetland area can result from human activities or catastrophic disturbance to a watershed. The result can be the rapid filling of the lentic system with sediment and loss of riparian-wetland function.

Visual characteristics of riparian areas can indicate whether the system is in dynamic equilibrium between sediment and water supply or whether excess sediment is being supplied to the system. This can be accomplished through on the ground inspection using an assessment tool such as the riparian proper functioning condition checklist. Use of aerial photos that cover several years or decades is an excellent way to detect changes in sediment supply to a riparian area. They can often be correlated to human activities or catastrophic events that have occurred concurrently in the watershed. There are also quantitative models available for predicting changes in sediment delivery to streams as a result of past or proposed changes in watershed conditions.

Website of Interest

Search engine giant Google announced the debut of a new search engine page, Google U.S. Government Search (<http://usgov.google.com>). The new facility draws on official government Web sites at the federal, state and local levels to give the public searchable access to news and information from a single search box and directory. A user can customize his or her government search page—both its appearance and what the engine trawls for. A user can also permanently add specific government links and news feeds—as well as commercial ones—to his or her page. Google U.S. Government Search mines sites ending in .gov, and selected .com, .edu and .us sites. If you are a U.S. government site webmaster, and you want to make sure you are listed, click on Google's Sitemaps facility to notify the company.

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