



Full Stream Ahead

November/December 2006

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

Fens, Springs, and Seeps

Fens, springs and seeps are areas of the landscape with associated water and vegetation characteristics that support a myriad of resource values. Increasing recognition of their importance is initiating additional attention and effort toward inventory, assessment and monitoring of these features. In October, the National Riparian Service Team received the following question from a field unit: **"Has anyone developed livestock grazing implementation monitoring protocols for fens, springs, and seeps?"** This question was shared via e-mail with the Creeks and Communities Network to garner feedback for the requestor and to share the responses with the Network to facilitate further learning.

Below is a compilation of the responses. They include references, considerations and opinion, representing a range of backgrounds and perspectives. Presenting the variety of ideas is a primary step in fostering dialogue and ensuring that multiple dimensions will be addressed as work in this area evolves.

- In the second edition of the Nevada Rangeland Monitoring Handbook and in the new Technical Reference (TR) 1737-20 Grazing Management Processes and Strategies for Riparian-Wetland Areas, it is emphasized that the key is to focus monitoring on objectives. Therefore the questioner should first focus on the attributes and processes that are not up to par and that the management is intended to change, or those that managers are afraid might change, and then monitor them using whatever techniques are effective for detecting those changes. For example if the system is at risk from trampling and poor vegetation in the outflow, then monitoring the vegetation cover versus bare ground and species composition in that outflow area would be the focus. The interagency manuals could help with specific techniques. The answer to the question may well spring from the Proper Functioning Condition (PFC) assessment and the management put in place to address the "no" or "liner" responses from the assessment. Both publications referenced above are currently in press. The Nevada Rangeland Monitoring Handbook will be available on the University of Nevada Cooperative Extension publications website <http://www.unce.unr.edu/publications/natural.htm>. A .pdf version of TR 1737-20 is available on the NRST website at http://www.blm.gov/or/programs/nrst/technical_notes and also by using this [form](#) through the BLM National Science and Technology Center.

Save the Date: The National Riparian Service Team will once again be hosting the biennial Riparian Coordination Network Meeting. The meeting is scheduled for November 5-9, 2007 at a location that is yet to be determined. These are working meetings designed to increase and enhance the ability of the Riparian Coordination Network to effectively implement the Creeks & Communities strategy. A portion of the meeting will be set aside for finalizing FY2008-2009 state work plans.

Fens, Springs, and Seeps continued

- Some things to consider:

Surveyed elevation lines similar to stream channel-cross sections, set perpendicular to the slope, could be used to monitor the sponge and surface of the feature of interest. The elevation line(s) would document the height of the seeps surface (profile) and allow comparisons of readings over time. The "jaggedness" of the profile line produced by the elevation survey would represent a sampling of the peaks and valleys associated with any hummocks, trampling, channels, etc. intercepted by the survey line. Long-term monitoring objectives could include: 1) maintain or increase the baseline surface profile, 2) reduce the extremes in peaks and valleys. i.e., reduce the severity of hummocks, etc., over time, 3) maintain a channel-free surface or reduce the width and depth of any existing or future channels. The limits of the riparian-wetland area, i.e., the riparian-wetland/upland interface, and important vegetation parameters such as cover, density, frequency, etc., could also be captured along these survey lines.

Install several shallow ground water monitoring wells also perpendicular to the slope across the riparian/wetland area to monitor the water table. These would be useful for managing impacts to the seep/spring if it were developed for watering livestock, wildlife, etc. Stipulation would include language that the development would be shut off if the water table dropped X amount or the valve would be adjusted to maintain water table level at X inches.

I would definitely be watching the water source(s) and the route it takes to feed the feature, the integrity of the impervious layer or other feature that retains the water and the outflow if there is one (you don't want the outflow to drop in elevation, i.e., headcut). It would also be important to maintain the appropriate amounts of overland flow, sediment, and nutrient inputs so the health of the contributing upland area (ground cover, plant composition, etc.) should be monitored.

Photopoints are always good to have, if placed strategically.

- A drop in soil level could be estimated from any lichen lines on rocks. The question is, how quickly do lichen grow and rocks weather? If we knew that, we could get a time line.
- Consider the feasibility of providing off-site waters to prevent livestock, or wild horse and burro impacts at small springs and seeps. There has been recent research into the effects of water quality on cattle health and weight gain. Cattle drink less water when the quality is low; if water consumption is a significant factor in meat production and weight gain this would be an important concern to livestock producers. Given the choice of drinking from a trough or from a muddy spring or fen, cattle will usually choose the trough. Springs are unique in many cases because they may support wildlife species that may not be found anywhere else, or varieties of species with unique survival thresholds (i.e. many pupfish subspecies). Off-site waters are a very obvious win-win situation for everyone. This concept can easily be expanded to stock tanks and ponds that also support sensitive fish and wildlife. Stock tanks can be death traps when water levels drop and cattle are forced to wade out into the soft sediment to the remaining water. A very convincing argument can be made to pipe water to a trough in these cases. Here are a few papers on this issue:

Surber, G., K.Williams, and M. Manoukian. no date. Drinking water quality for beef cattle, an environment friendly & production management enhancement technique. Montana State University, Animal & Range Sciences, Extension Service. <http://animalrangeextension.montana.edu/Articles/NatResourc/Drinking%20Water%20Quality%20for%20Beef%20Cattle.pdf>

McIver, S. 2004. Using off-stream water sources as a beneficial management practice in riparian areas – a literature review. Agriculture and Agri-Food Canada, Prairie Farm Rehabilitation Administration. http://www.agr.gc.ca/pfra/land/OffStreamWatering_e.pdf

Wilms, W.D. et. al 2002. Effects of water quality on cattle performance. J. Range Management. 55:452-460. [abstract http://uvalde.tamu.edu/jrm/Sep02/wilms.htm](http://uvalde.tamu.edu/jrm/Sep02/wilms.htm)

Fens, Springs, and Seeps continued

- My feeling is the way to address this is going to be through a trampling protocol, but we have yet to formally adopt one of those for our Region, and even when monitoring trampling, what is going to be an appropriate standard? One of the things we struggle with is the variability between Forests and even fen types. Whatever we may come up with is not going to cover everything.
- Fence them off if they are getting degraded, and make them a photo point. Provide off-site water as needed. Don't salt within 500 feet to 1/4 mile. Avoid surface disturbance with 500 feet unless special protective mitigation measures are taken.
- Fens are areas of upwelling groundwater and fragile soils. My first reaction is to state the obvious, the less grazing in these areas the better. When viewed as part of the entire system, such areas are much more valuable for their water storage and biodiversity than for the comparatively small amount of feed that they can produce. Drought makes it even more so. If there is a need to rank the extent of damage between various areas, I suggest starting with the items in the lentic checklist. Percentage of vegetative cover (grazed/ungrazed) and disturbance could be used to rank direct impacts but would not take into account changes to the capacitance in the water storage system caused by soil compaction.
- I don't know the details of the site, but in general I would not suggest any grazing or water development in fen/spring/seep areas because they: 1) usually have some unique and sensitive plants species, 2) have unique/sensitive soils, 3) provide cold subsurface flows to nearby streams, 4) provide high quality water to nearby streams, and 5) have rich biodiversity of both plants and associated (dependent) wildlife. These areas are an especially important part of more arid landscapes and ecosystems.
- The Humboldt-Toiyabe National Forest has dealt with this issue. Contact Diane Weaver, Range Program Lead for more information (dlweaver@fs.fed.us, 775-355-5396).
- See TR 1737-17 A Guide to Managing, Restoring, and Conserving Springs in the Western United States. Chapter IV discusses spring resource management goals and Chapter V discusses spring management assessment and priorities (<http://www.blm.gov/nstc/library/techref.htm>).
- USDA Forest Service Pacific Southwest Region (R5) has developed a [fen inventory form](#) to document soil, hydrologic and vegetative characteristics. The inventory form is used to determine whether a site is a fen, and document incidental observations of impacts. They are developing a [fen condition checklist](#) which is adapted from the PFC lentic checklist and Colorado Natural Heritage Program fen information, to evaluate condition and effects of any impacts. For more information on the fen inventory form contact Sue Weis, Inyo National Forest (sweis@fs.fed.us, 760-873-2496). For more information on the fen condition checklist or to provide comments on the early draft, contact Dave Weixelman, Tahoe National Forest (dweixelman@fs.fed.us, 530-478-6843).
- Steve Smith and Tim Burton (Idaho BLM) have been working on a Multiple Indicator Monitoring protocol for application in wetlands. It is in the developmental stage and they have done some testing. They have measured stubble height, woody use, and wetland surface alteration (trampling) on wet and mesic meadows. This winter they are also working to develop a soil stability/hummock indicator as well. Monitoring Streambanks and Riparian Vegetation—Multiple Indicators Version 2.0 (Cowley et. al 2006) can be downloaded at http://www.id.blm.gov/techbulb/05_02/index.htm. For more information contact Steve Smith (Steve_J_Smith@blm.gov, 208 373-4000).

As you can see, differences exist even within our Creeks and Communities Network, supporting the importance of a collaborative approach in developing a shared understanding of all the processes used to manage riparian-wetland areas and catchments. Hopefully, the continuation of open communication on this, and other topics, will inform these efforts and foster the best outcomes. Thanks to all who replied, and as we learn of additional efforts relative to livestock grazing implementation monitoring protocols for fens, springs, and seeps, we'll include them in future issues of Full Stream Ahead.

(See the BLM Partnerships website for the BLM 2007 Collaboration Desk Guide for more information on collaboration (http://www.blm.gov/partnerships/Collaboration_Desk_Guide.pdf).)

Cooperative Conservation

In 2004, President Bush signed Executive Order 13352 entitled 'Facilitation of Cooperative Conservation.' This order directs Federal agencies to implement environmental and natural resource laws in a manner that promotes collaborative activity among Federal, State, local and Tribal governments, private for-profit and nonprofit institutions, other non-governmental entities and individuals.

White House Conference on Cooperative Conservation

As part of this order, the Council for Environmental Quality (CEQ) was instructed to sponsor a White House Conference on Cooperative Conservation (WHCC). This conference was held in St. Louis, Missouri in August 2005 and brought together over 1,300 citizens and decision makers to identify opportunities for building conservation partnerships and institutionalizing cooperative conservation. The National Riparian Service Team (NRST) participated in this conference and submitted three case studies: the Creeks and Communities Strategy, the North Fork of the Crooked River in central Oregon and the Yainix Ranch, Klamath Basin in southern Oregon.



Creeks & Communities



North Fork Crooked River, OR



Yainix Ranch, OR

The conference had two main goals; to highlight and provide an in-depth look at a few select cooperative conservation success stories and to facilitate participant discussion. These discussions centered on various themes, including:

- Accelerating Cooperative Conservation as a Way of Doing Business – Building Capacity, Skills and Practices Across Organizations
- Building Successful Partnerships
- Expanding the Role of Tribes, States and Communities in Cooperative Conservation
- Improving Certainty and Incentives for Stakeholders
- Infrastructure Projects – Collaborative Partnerships for Successful Outcomes
- Managing Diverse Resource Demands on America's Public Lands – A Cooperative Approach to Improving Conservation
- Measuring Success of Cooperative Conservation Efforts
- Reaching Across Boundaries to Promote Shared Governance
- Using Science and Technology to Reach Cooperative Conservation Goals

Additional listening sessions were scheduled across the country in an effort to gather information and perspectives from individuals who were not at the conference. Copies of listening session transcripts are also available on the cooperative conservation website.

To access case studies go to the cooperative conservation American website at <http://www.cooperativeconservationamerica.org>

For more information on the WHCC, complete transcripts of the facilitated discussions and listening sessions, and the Faces & Places document highlighting case studies including Creeks & Communities go to <http://cooperativeconservation.gov>

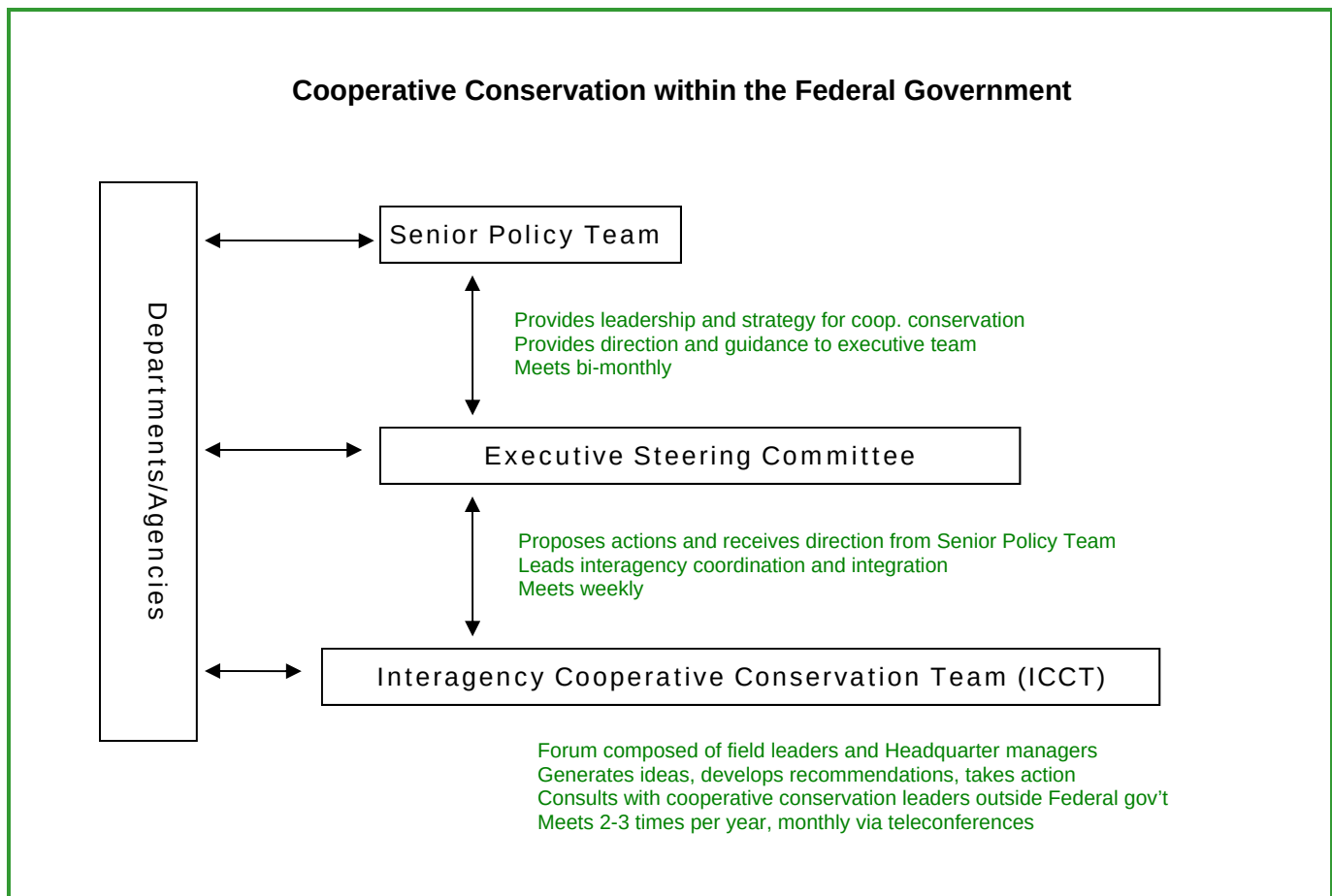
"Healthy Streams Through Bringing People Together"

Cooperative Conservation continued

Interagency Cooperative Conservation Team

Following the WHCC, an Interagency Cooperative Conservation Team (ICCT) was formed to respond to the feedback received. Representatives from the Departments of Agriculture, Interior, Defense, Commerce and the Environmental Protection Agency have formed 4 subgroups addressing: 1) training and development, 2) measuring and monitoring, 3) workforce transformation/competencies, and 4) strengthening cross-agency collaboration. The NRST is participating on both the training and development and measuring and monitoring teams.

In 2006, the ICCT and others made a number of recommendations on how to increase Federal agencies' capacity to effectively engage in cooperative conservation and various agencies worked on some of these recommendations over the past year. Some examples are highlighted below and for additional updates go to <http://cooperativeconservation.gov/library/index.html>



Western Collaboration Assistance Network (WestCAN)

The National Forest Foundation and Sonoran Institute are working in partnership with the Bureau of Land Management (BLM), USDA Forest Service (FS) and others to offer WestCAN, a program that provides short-term expertise to help collaborative efforts get started or work through challenging issues. Resources include: technical assistance, links to peer coaches, and a web-based resource library. For more information contact Karen DiBari, WestCAN Coordinator, at (406) 542-2805 x13 or kdibari@natlforests.org

Cooperative Conservation continued

Forest Service Leadership Transition Process

Recognizing the need for improved transitions between outgoing and incoming leaders the FS recently created a 'Handover Memo.' The purpose of the memo is to help communicate formal and informal agreements and commitments made between the departing leader and agencies, other organizations and the public to the new leader, as well as other agency staff and supervisors, who will continue to support such cooperative efforts in the interim and into the future. For more information contact Debra Whittall, FS National Partnership Office, 202-205-0967 or dwhittall@fs.fed.us

BLM Collaboration Desk Guide

The BLM recently compiled a collection of principles, guidelines, outcomes, and practices detailing how to engage the public in the collaborative process. To download the guide, go to http://www.blm.gov/partnerships/Collaboration_Desk_Guide.pdf

This guidebook relied heavily on the work done by the Sonoran Institute and the BLM staffs that developed the "Desk Guide to Collaborative Community Based Planning," which can be downloaded from http://sonoran.org/pdfs/desktop_ref_guide.pdf

Knowing Your Nonprofit Partner: A Desk Guide for Federal Employees

NRST Social Scientist, Laura Van Riper, recently completed a two month detail in the BLM National Partnership Office drafting the Nonprofit Desk Guide. The purpose of the guide is to promote cooperative conservation by providing Federal, field-level employees with insight into the nonprofit world – their language, culture, goals, ways of doing business, and barriers they face. For more information contact Helene Aarons, BLM National Partnership Office, 202-452-5134 or helene_aarons@blm.gov

Competency Based Approach to Collaboration and Partnering

All five agencies named in the Executive Order have agreed to support a competency-based approach to developing knowledge, skills, abilities and behaviors within their organizations necessary to achieve conservation goals through collaborative processes. Some are also in the process of developing and collecting baseline data for internal and external performance measures relative to cooperative conservation. These will be incorporated into agency performance plans tied to strategic goals and objectives.

Learning Lab

One ICCT recommendation adopted in 2006 by the FS Partnership Office was the initiation of a "learning lab" as one way to build organizational capacity for cooperative conservation. The NRST implementing the Creeks and Communities strategy was selected for the pilot and provided experiential training opportunities, exposing individuals to fundamental principles and practices for working collaboratively. A more in-depth discussion of this learning lab will be featured in a future issue of Full Stream Ahead.

White House Conference on Cooperative Conservation Select Feedback from Facilitated Discussions

Participants noted that in order for cooperative conservation efforts to be successful, agency staff must become accustomed to doing business in a cooperative conservation mode - which differs from traditional approaches to making decisions and interacting with external stakeholders. Cooperative conservation efforts must be viewed as a genuine way to achieve common goals in collaboration with others, not simply a way to save federal resources. In addition, agencies should act as problem solvers and initiators serving as facilitators of cooperative conservation.

White House Conference on Cooperative Conservation Select Feedback from Facilitated Discussions—Continued

What does it mean to do business in the cooperative conservation mode?

The federal government plays an important role in convening stakeholders for cooperative conservation efforts, which should be designed to fit the situation at hand and include stakeholders in decisions about design and participation.

There needs to be recognition of the importance of establishing and building trusting relationships and a realistic expectation of what it takes to do this (i.e., consistency, transparency, regular communication and shared decision-making – meaningful involvement) and the time commitment needed to be successful.

There needs to be consistent protocols and systems to communicate across agencies and with local and tribal governments. Scientists need to learn how to communicate science in language, context and terms that the public understands.

More emphasis needs to be placed on innovative ways to incorporate accurate scientific and technical information, as well as community-based and traditional knowledge, into cooperative conservation efforts. These efforts include: integrating joint fact-finding activities that enable groups to systematically collect, analyze, synthesize, understand and ultimately trust data; exploring and strengthening models that link science to practical application with local landowners; involving stakeholders in the development of questions and assumptions needing scientific input; and adopting an adaptive management framework for science-based decision-making.

How do we accomplish this?

Participants noted that while some federal agency staff possess some of the skills mentioned above, too often they do not have the skills to lead or participate in ongoing cooperative conservation efforts. As a result, it is important to increase collaborative leadership capacity within and outside the agencies through capacity building activities. Examples of capacity building activities include: providing financial support for participation in cooperative conservation efforts, funding projects with groups that have demonstrated ability to work together, facilitating the development of a learning network [learn from past experiences], creating training opportunities and using experienced/exemplary federal staff to coach and mentor others through an employee exchange program.

Logo Available as a BLM Lotus Notes Letterhead Option

If you are a BLM employee with Lotus Notes you can now have the Cooperative Riparian Restoration Logo attached to the letterhead of your outgoing email.

Follow these simple steps.

1. Start by being in your Lotus Notes email
2. Select Tools
3. Select Preferences
4. Click on the Letterhead Tab
5. Scroll down and select OR NRST LOGO
6. Click OK and you are done



"Healthy Streams Through Bringing People Together"

TR-1737-20 Coming Soon

Grazing Management Processes and Strategies for Riparian-Wetland Areas (TR 1737-20) is soon to be shipped out. The technical reference will replace the *Grazing Management for Riparian-Wetland Areas* (TR 1737-14) as the riparian grazing reference used by the Riparian Coordination Network (RCN). Copies will be sent to the RCN and more copies will be available through the Denver Service Center by using the Technical Reference order form found on the NRST website. <http://www.blm.gov/or/programs/nrst/training.htm>

Full Stream Ahead

Is there something you would like to see in a future issue of *Full Stream Ahead*? If so, send an email to nrst@or.blm.gov. The NRST utilizes this newsletter to share highlights, news and hot topics that pertain to the Creeks and Communities Strategy. This newsletter is for the entire network and we encourage you to send in ideas, questions and articles for us to publicize. The deadline for submissions to the January/February 2007 issue is March 9.

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