



Creeks and Communities Biennial Network Meeting
March 2-4, 2010 • Silver Legacy • Reno, NV

Meeting Report

“Achieving healthy streams through bringing people together.”

Kelli Stone, Two Birds One Stone, LLC

for the

National Riparian Service Team

Creeks and Communities Biennial Network Meeting

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Meeting Report

Introduction

The 2010 Creeks and Communities (C&C) Biennial Network Meeting Report was produced to serve as a repository of the information presented at the meeting and as a reference for people seeking additional details in their area of interest. The report consists of a synopsis of each of the PowerPoint presentations, case studies, panels and general discussions, and showcases the cooperative work being done by Network members and their partners in riparian restoration and management in the Western United States and Canadian provinces. The Network includes individuals from federal, state and local agencies, academia, industry and conservation interests, and others.

In keeping with the C&C strategy, Network meetings rely upon the interaction among members to enhance the transfer and use of information presented at meetings. In order to document the content of meeting sessions and subsequent discussions, a number of attendees were asked to take notes capturing what they heard (Table 1). More than one listener was engaged because people hear things differently and there was a lot of information to absorb. These notes, along with those taken by Janice Staats (NRST) and Kelli Stone (Two Birds One Stone, LLC) were used in conjunction with the PowerPoint presentations to develop a synopsis of each session. The use of acronyms is kept to a minimum, however, a reference list is provided in Appendix A.

Table 1. Listeners and Note Takers		
Chester Novak	Chuck Petersen	Dan Baggao
Ed Neilson	Jay Thompson	Jo Christensen
John Christensen	Judith Dyess	Justin Jimenez
Kellie Roadifer	Kevin Wright	Marisa Meyer
Mike Dolan	Norine Ambrose	Rick Hopson
Rob Roudabush	Roy Jemison	Russell Castro
Sarah Peterson	Steve Williams	

Meeting Attendance

Approximately 90 people from 12 states, two Canadian provinces and the District of Columbia attended the meeting (Table 2). The 90 meeting participants included six members of the NRST, 81 other attendees and presenters from a variety of locations, as well as three representatives from the Washington D.C. offices of the Bureau of Land Management and U.S. Forest Service.

Table 2. Attendee States and Provinces					
Alaska	1	Colorado	3	Oregon	20

Alberta	1	Idaho	4	Texas	3
Arizona	7	Montana	4	Utah	5
British Columbia	2	New Mexico	7	Washington DC	8
California	6	Nevada	11	Wyoming	8

Attendees were primarily members of the Network and guests from federal agencies, non-profit organizations, universities, public high school, ranches, and consulting groups (Table 3). Meeting participants ranged from agency retirees to new Network members, as well as an employee of the Environmental Protection Agency (EPA) and individuals relatively new to their positions and agencies.

Affiliation	Number	% of Total
Bureau of Land Management	40	44.4
U.S. Forest Service	14	15.6
Consultants/Independent Workers	11	12.2
Natural Resources Conservation Service	6	6.7
Academia (Extension Service)	5	5.6
Ranching/Agriculture	3	3.3
Non-Profit Organizations/Community Groups	2	
U.S. Fish and Wildlife Service	2	
Retirees	2	
Environmental Protection Agency	1	
State Agencies	1	
Farm Bureau	1	
Public School	1	
College Student (Master's candidate)	1	
Total	90	

The 90 meeting participants were categorized by “discipline” based on the information they provided when registering for the meeting (Table 4). The most represented category was managers (16); followed by range management (15), hydrologists (11), and wildlife biologists (10). The “manager” category includes coordinators, directors of non-government programs, field managers, agency program leads and Forest Service District Rangers.

Table 4. Attendee Disciplines			
Discipline	# Attendees	Discipline	# Attendees
Managers ¹	16	Environmental Scientist	2
Range Management, Botanists, Vegetation Management	15	Academia	2
Hydrologists	11	Engineers	2
Wildlife Biologists	10	Geography	1
Fisheries Biologists	8	Limnology	1
Federal Agency Leadership	5	Private Industry: Fencing	1
Ecologist	4	Natural Resource Specialist	1
Rancher	3	Planner	1
Soil Scientist	3	Teacher	1
Public Affairs, Social Scientist, Conflict Management	3		
¹ Managers = Coordinators, directors of non-government programs, field managers, agency program leads, and USFS District Rangers			

Agenda Development

Since 1998, Network meetings have been an integral part of implementing the C&C strategy. The biennial meetings are both developmental and working meetings designed to increase and enhance the ability of the Network to be effective in management and implementation of the initiative while meeting participating agencies goals. The NRST is dedicated to providing a valuable and effective Network meeting. To this end, telephone interviews were conducted in 2009 asking Network members what they found effective and ineffective with previous meetings and their suggestions for the 2010 meeting; input from this process was used to develop the 2010 meeting agenda. The meeting was structured to provide a diversity of topics throughout each day, and like all Network meetings, it was designed to be very interactive, with adequate break time for networking. As in previous years, the 2010 agenda included presentations coupling theory and principle with on-the-ground practices and examples. Information was given in the form of PowerPoint presentations by Network members and guests, case studies, panels and facilitated group discussions. The 2010 meeting theme was “*Creeks and Communities: Staying Relevant to Agencies & Communities.*” Meeting objectives included: (1) enhance accountability and agency support, (2) diversify and enhance the Network skill base, and (3) enable coordination between network members. A copy of the agenda is provided in Appendix B.

State and Provincial Team Reports

The riparian restoration and conservation work done through the C&C strategy is accomplished, in a large part, through the 11 State Teams and one Provincial Team. These inter-disciplinary teams are the backbone of the Network and are composed of personnel with a suite of other duties and/or retirees and others volunteering time and expertise. Team reports have always played a major role in Network meetings by providing tested insight into what worked and what didn't, and as a source of inspiration. Network member feedback generated during telephone interviews suggested that the team reports would be more effective if they occurred throughout the agenda and if team leaders addressed the following:

- Summary of accomplishments in the last two years
- What impact did it have?
- Successes/failures
- What worked, what didn't, and why?
- What would you do the same again, or differently?
- What was your biggest challenge?
- How are you evolving or operating differently?
- Ideas on how to advance the C&C strategy in your state

Facilitated Discussions and Collective Statements

Two presentations, one addressing possible revision of the Proper Functioning Condition (PFC) Technical References (TR's) 1737-15 and 1737-16, and one having to do with riparian monitoring, were followed by facilitated group discussions with participant input captured on index cards. People were asked to respond to the following questions:

- Do you feel that the PFC TR's need to be revised? Is one TR more important to address than the other?
- If so, what specific items and portions of the TR do you feel need to be upgraded or added?
- Do you have any suggestions regarding the process of convening a diverse team to address the revisions?
- What are some of the greatest challenges you (or your peers/customers) face implementing riparian monitoring on your units?
- How can you (State Riparian Teams) help C&C customers in your states improve their riparian monitoring efforts?

Also, participants were asked to give feedback about the meeting on index cards prior to adjourning by answering the following questions:

- What aspects of this meeting went well?
- What would you suggest we do differently in 2012 in terms of both process and focus?

Responses were compiled into "collective statements." Collective statements are the result of adding all of the individual statements together, keeping each person's words to the best extent possible, and then organizing them into topic areas. This technique captures the range of perceptions and opinions. The intent is to validate often competing perspectives as legitimate and

important pieces of information with respect to managing differing points of view. The collective statements also serve as a record of meeting participants viewpoints and can be used later when addressing the issue in question. (See Appendix C)

Session Summaries

To assist in navigating through this report, each session (presentation, case study, panel discussion, etc.) is shown below with a corresponding number (Table 5).

Session Title	Presenter	Session Type	Materials Available	Session #
Creeks and Communities Meeting Theme and Overview	Steve Smith, NRST Team Leader	Presentation	PPT	1
Introductions - Grounding	Mike Lunn, Facilitator	Group Activity		2
NRST Report	Susan Holtzman, Laura Van Riper	Presentation	Handouts	3
BLM Assistant Director, Renewable Resources and Planning	Ed Roberson	Q & A		NA
State Riparian Team Reports	NV: Sherm Swanson	Presentation	PPT	4
	UT: Justin Jimenez	Presentation	PPT	5
	CA: Dave Weixelman, Dick McCleery, Bob Hall	Presentation	PPT	6
Cows and Fish Process Alberta, Canada	Norine Ambrose	Presentation	PPT	7
WO Agency Program Leads: NRCS, USFS, BLM	Gene Fults, Ralph Giffen, Rob Roudabush	Panel Discussion		8
Optional Evening Session: The Water/Energy Nexus	Patrick Lucey, Cori Barraclough	Presentation	PPT	9
State Team Reports	WY : Mark Gorges	Presentation	PPT	10
	MT: Mike Philbin	Presentation		11
	NM: Steve McWilliams	Presentation		12
Integration of the Social Dimension	Laura Van Riper, Chuck Petersen	PPT	PPT	13
Using the Creeks and Communities Contract	Carol Connolly	Presentation	Handout	14
Ranching Heritage Alliance: Springerville, Arizona	Wink Crigler, Carey Dobson, Judith Dyess, Jeff Rivera, Dave Smith	Case Study	PPT	15
BLM Riparian Activities	Gordon Toevs	Presentation	PPT	16
State and Provincial Team Reports	Canada: Cori Barraclough	Presentation	PPT	17
	AZ: Dave Smith	Presentation	PPT	18
	OR: Jimmy Eisner	Presentation	PPT	19
Revision of Proper Functioning Condition (PFC) Assessment	Steve Smith	Facilitated Group Discussion		20

TR's 1737-15 & 16				
State Team Work Plans	Janice Staats	Breakout Sessions	C&C Network Work Plan	21
State Team Reports	TX: Russell Castro	Presentation		22
	ID: Bryce Bohn	Presentation	PPT	23
	CO: Thompson	Presentation	PPT	24
Update on National Operation Center (BLM)	Jay Thompson	Presentation	PPT	25
Streambank Alteration	Steve Smith	Facilitated Group Discussion		26
NRCS Riparian Activities	Gene Fults	Presentation	PPT	27
Engaging Private Citizens: Nueces River Authority, Texas	Sky Lewey	Presentation	PPT	28
USFWS Riparian Activities	Dave Smith	Presentation	PPT	29
Holding on to the Green Zone: Youth Riparian Program and Curriculum	Betsy Wooster	Presentation	PPT	30
	Brian Wachs	Presentation	PPT	31
Deputy Chief, National Forest Systems	Joel Holtrop	Q & A		NA
Monitoring with a Purpose: Linking Inventory, Assessments, Management and Monitoring	Steve Smith	Presentation	PPT	32
Multiple Indicator Monitoring (MIM) Overview	Erv Cowley, Tim Burton	Presentation	PPT	33
Riparian Monitoring Approaches: MT BLM	Jo Christensen	Presentation	PPT	34
Riparian Monitoring Approaches: USFS Region 5	Dave Weixelman	Presentation	PPT	35
Riparian Monitoring Speaker Panel	Steve Smith	Panel & Group Discussion	Collective Statements	36
Closing and Final Thoughts	Steve Smith, Mike Lunn		Collective Statements	37

1. Creeks & Communities Meeting Theme and Overview Steve Smith, NRST (PowerPoint)

Steve Smith, National Riparian Service Team Leader, welcomed everyone to the 2010 C&C Biennial Network Meeting. This is Steve's 14th year of involvement with C&C and his 8th Network meeting. He went on to say there is reason to be excited and optimistic about the future of the C&C's continuing strategy for accelerating cooperative riparian restoration and management. The C&C logo is a reminder; it is our "brand" that what we do is cooperative riparian restoration.

The 2010 meeting theme is “Creeks and Communities: Staying Relevant to Agencies and Communities.” One definition of relevancy is “having significant and demonstrable bearing on the matter at hand.” The work the Network does is very relevant. Water and climate change are two of the six “what we do” items identified by the Secretary of the Department of Interior. Among the Secretary’s priorities are working collaboratively to provide tools to enhance water resources and make landscapes more resilient to climate change. Objectives of the C&C strategy (below) will help meet those ends:

1. Create awareness, understanding and interest in this strategy and invite participation across multiple scales.
2. Provide individuals and groups of diverse interests and backgrounds with the tools to develop a shared understanding of riparian wetland function and assist in developing solutions to management challenges stemming from issues in both the resource and human dimensions
3. Ensure consistency and effectiveness through activities focusing on program management and accountability

This meeting provides the opportunity to open your mind to creative ways to advance C&C concepts. This work is a lot about communication; get to know each other, ask questions, and take notes on the good ideas you hear.

2. Introductions – Grounding Mike Lunn, Sustainable Solutions

The C&C strategy is built upon providing forums for communication that is respectful and open to all regardless of their position and affiliation. Thus, Network meetings start with an activity called “grounding” that, among other things, sets the stage for listening with respect. As facilitator, Mike asked participants to stand, introduce themselves, and address the following: your relationship to the C&C Network; what do you hope to gain to remain relevant, and how do you feel about being here? This activity is more than a way to introduce people, it also accomplishes the following:

- Establishes a model for listening with respect and a knowing that each person will be heard
- Establishes a verbal territory for each participant, a sense of potential equity
- Requires access to both the left and right brain, engaging the “whole brain”
- Allows apprehensions and hopes for the meeting to be expressed
- Allows participants to express hidden agendas (like leaving early, a flat tire, sickness)
- Brings people into the “here and now”
- Provides initial information to the facilitator

Grounding is an important activity to start any meeting. We all come to meetings with a measure of apprehension or uncertainty about what will happen. Grounding allows this apprehension to be stated. The grounding is used at Network meetings to achieve all of the above and to demonstrate an important technique Network members can use in their own activities.

3. National Riparian Service Team (NRST) Report Susan Holtzman and Laura Van Riper, NRST (Handouts)

The National Riparian Service Team (NRST) is charged with implementing the C&C strategy to meet the mission of achieving healthy streams through bringing people together and creating forums that enable individuals to interact with each other more effectively. Meeting that mission requires approaches that address both the technical and social dimensions, the amount and type of which depend on the particular situation. (See handout - Creeks and Communities: A Continuing Strategy for Accelerating Cooperative Riparian Restoration and Management)

The NRST has completed a wide breadth of projects and activities. The report emphasized their processes, experiences, observations and lessons. (See handout - NRST: Summary of Activities and Projects FY 2008-2009) The NRST receives requests for assistance from a wide range of entities. As the team coordinator, Susan speaks with requesters to evaluate if the request meets the team's mission and discusses objectives and explains what services the NRST might provide. There is a lot of communication prior to accepting a project; most of which is to pin down the objectives and expected outcomes. After the team accepts a request, an interdisciplinary team is developed by drawing upon members of the NRST and the C&C Network. (See handout - C&C NRST/Working Landscape Alliance: Multi-phased Assistance)

The NRST's 'Collaboration Learning Lab' started as a pilot in 2006 with support of the USFS National Partnership Office. The intent was to build the capacity of both agency employees and their stakeholders by providing on-the-ground experience with the C&C process of applying collaborative problem solving to natural resource issues. In 2006 and 2007, 14 C&C Network members participated in the program, traveling with the NRST and learning by doing. In 2008, the BLM's National Landscape Conservation System (NLCS) and Community Partnership Office initiated a partnership with the NRST to continue the "Learning Lab" effort within NLCS units. The NRST is currently working on three NLCS units as part of this effort: The Upper Missouri River Breaks National Monument (Montana), the Black Rock Desert-High Rock Canyon Emigrant Trails National Conservation Area (Nevada), and the Canyons of the Ancients National Monument (Colorado). (See handout - Collaboration Learning Lab History)

The "Desk Guide" document describing on-the-ground implementation of the C&C strategy has been preempted by other demands including developing the Progress Report, other National Operation Center (NOC) priorities, and preparing for an Office of Management and Budget (OMB) evaluation. The first evaluation of the C&C Strategy was OMB-approved and conducted by Laura Van Riper. The current OMB approved evaluation is being conducted by Oregon State University or the NRST. (See handout - Evaluating the Creeks and Communities Strategy)

Ed Roberson - BLM Assistant Director, Renewable Resources and Planning

Ed Roberson, Assistant Director of Renewable Resources and Planning for the BLM, was in Reno for an Executive Leadership Team meeting, but took time to address attendees of the Network meeting. Roberson believes in collaboration, in finding the common vision, and the human need to come together to address complex challenges. Collaboration allows us to solve problems on the ground. The BLM is working with the Institute for Environmental Conflict Resolution to identify community shareholder values, similar to what Network members are doing.

The Secretary of Interior has established a core concept to address climate change: the Interagency Landscape Project. Twenty-eight Landscape Conservation Cooperatives (LCCs) throughout the country will examine science application and land management on a grand scale. Conservation cooperatives have been described as the way to address climate change issues. The BLM will be heavily involved in the Great Basin LCC and will establish the Desert LCC as well. Coordinators for 8 LCCs have been hired by USFWS and science coordinators will soon be hired. Within LCCs, the mining of existing data will be a priority to assist with eco-regional assessments. Challenges include government and non-government organizations addressing data gaps, sharing of data, stepping down valid data and deciding upon necessary monitoring. Another component of this initiative is establishment of Climate Science Centers; there are 8 in the U.S. The LCCs and Climate Science Centers provide a mechanism for collaboration, allowing information from the ground level to be incorporated so adaptive management decisions can be evaluated. See the U.S. Fish and Wildlife Service website for more information about LCCs.

4. NV State Riparian Service Team Report Sherm Swanson (PowerPoint)

Accomplishments in the last two years include six 2-day PFC classes and a grazing management for riparian wetland areas workshop conducted at various locations throughout Nevada. The team also made 32 short presentations, sponsored 6 posters, had 7 publications, and developed 4 funded projects including a poster given in China and a presentation in inner-Mongolia at the International Rangeland Congress. A riparian grazing workshop was held with the assistance of Sandy Wyman (NRST) and Jimmy Eisner (OR Riparian Team). The team also worked with soil mapping and correlation with ecological site descriptions. Notably, they have ongoing collaboration with several groups in Nevada, including the Environmental Protection Agency and Tribal governments.

The team secured funding to have its workshops and sessions evaluated by a Master's student. Evaluations from two of their biggest classes indicate they were rated between successful and very successful. Participants noted that the best aspects of the sessions were the field experience or hands-on application, teamwork, caliber of the teaching team, relationship building and good networking. Evidence of team success is that PFC is being used for broad-scale assessment. The BLM uses PFC as an everyday tool and many private landowners report they are using the information taught in workshops. Some key people report that PFC classes and Range Management School have led to better working relationships between agencies and landowners in Nevada. The team was successful in using stream survey (GAWS) which compliments PFC and often provides the long-term data for fisheries streams. Indications of shortcomings were that some participants were using PFC to "measure" agency's objectives versus its intended purposes, PFC done with incomplete teams, and PFC used for fire closures.

The team has learned to teach follow-up classes, teach more restoration, and use more active management case studies. To resist information overload, they know to not stay late without warning, and use slides with reference lists. Also, teach the skills needed by the various disciplines of interdisciplinary teams. They are striving for fewer but better training, for example

no “PFC recalls.” The biggest challenge is acting as a full team with more participation needed by some who are less active. The team will continue teaching classes in lotic and lentic PFC and Grazing for Riparian-Wetland Areas as needed. They have added social dimension activities prescribed by the C&C strategy (see session #13). The Ruby Mountains Pilot Project and the South Fork Project are opportunities for the team to facilitate active restoration through the C&C strategy.

5. UT State Riparian Service Team Report Justin Jimenez (PowerPoint)

Active members of the Utah Team include Mark Petersen (Co-team Lead), Kevin Wright, George Cruz, Rick Hopson (Agency Coordinator), Shane Green, Norm Evenstad, and Paul Curtis.

In 2008, the team provided a PFC training session and conducted a river restoration service trip. With assistance from Erv Cowley the team provided a Multiple Indicator Monitoring (MIM) training session and then hosted and facilitated another MIM workshop. Team members participated in the Flashy and Intermittent Stream Systems PFC training and assessment with the NRST in the Grand Staircase-Escalante National Monument. The team leader attended a PFC Trainer the Trainer session held for the Texas Team.

In 2009, the team conducted two MIM implementation training sessions, and helped the BLM and USFS establish MIM designated monitoring areas on Pine Creek to evaluate different grazing management practices on Bonneville cutthroat trout habitat. The team conducted a PFC training and an assessment of stream and riparian conditions along the Sevier River. They combined Stream Visual Assessment Protocol, Version 2 (SVAP2) (see session #27), PFC and low level video and high resolution aerial photos for the assessment.

A major impact the team had was providing a needed quantitative monitoring training through MIM. They also provided training to a large number of non-federal entities including local counties, various Utah Conservation Districts, the Intermountain Center for River Restoration and Rehabilitation and others, as well as personnel from federal natural resources agencies. What worked for the team was providing training at locations where training is needed without incurring travel costs for the participants. Support from MIM developers and members of the NRST to assist with MIM and Flashy and Intermittent Stream System PFC was advantageous. The team knows now to follow MIM introductory with MIM implementation training. Active coordinators, leadership, and team participation made the team successful.

What didn't work was the lack of a clear understanding of the C&C strategy and how to define and explain it. Also some training participants were not interested in what the team had to share regardless of the team's effort to communicate. Communication and coordination among the team wasn't ideal and needs to be more reciprocal. Involvement on the team is on a volunteer basis so it isn't necessarily a high “work” priority for some members. There is a need for more support and acknowledgement of the value of the State Teams from the agency leadership so employees are supported and encouraged to participate.

The team is evolving to incorporate active coordinators and leadership. There is a concerted effort to offer MIM training and implementation. They are developing a better team understanding of the C&C strategy to better incorporate the principles and activities into existing riparian opportunities.

6. CA State Riparian Service Team Report Dave Weixelman, Dick McCleery, and Bob Hall

Dave Weixelman reported that the California Team conducted several workshops in the last couple of years. A MIM training for the USFS and BLM, a PFC for lentic and fens, a PFC workshop with the Santa Inez Tribe and two trainings for the USFS in southern California. In 2009, the team published “PFC for Fens” for California, which is tiered off of the lentic checklist and TR 1737-16. The lentic PFC TR was originally an important flagship document; however to continue to serve the Creeks and Communities strategy well, it must evolve through time. There is a feeling among some that quantitative guidelines must be attached. Supporting quantitative documents should be attached to ensure PFC stays relevant. The future of multiple use management in our agencies is tenuous because some new personnel don’t have this mentality. There is a need for top-down direction regarding multiple-use management.

Dick McCleery talked about a project significant to the team. An interdisciplinary team was formed to work within a privately-owned watershed with small holdings. With the use of grant dollars and a community foundation, they had an outreach and education effort that included mailings, neighborhood meetings and training. This resulted in the ID team getting access to miles of river for assessment as well as creating active participants in the project. They developed a poster describing this effort.

Bob Hall, an environmental scientist with the Environmental Protection Agency (EPA) in California relayed that EPA has a climate change program, and an ecosystem research program. The agency is also modeling nitrogen. Relative to collaboration, the regional EPA has been guided to work within its regions more closely as well as working externally. Each EPA region provides funding to states. Significant funding for water quality projects is provided through Section 319 of the Clean Water Act; Tribal governments, non-government organizations, and others (not federal agencies) are eligible to apply. The EPA conducts cross-border work with Canada through the Office of International Affairs.

7. The Cows and Fish Process: Working with Producers and Communities on Riparian Awareness Norine Ambrose, Program Manager (PowerPoint)

“Cows and Fish” is the name of the program because they can co-exist. The idea began when a range professional and fisheries biologist kept running into each other while conducting their work on Provincial lands. They started talking around the kitchen table of a visionary ranching family, and the program was launched in 1992. A brief but inspiring movie about this story, entitled “Loving Fish” with Lorne Fitch is available.

Cows and Fish is a non-profit organization operating in Alberta Canada, with a one million dollar budget derived from grants, in-kind and partner contributions. They have no impact on

laws and policies. Water quality is a big issue in Alberta and an obvious segue into the value and need for healthy riparian systems. The program works at the small watershed or stream level where a community is best suited for having an impact. Agencies get reorganized and personnel change, but that is not the case with landowners, thus they strive for community-based solutions and decisions. They spend a lot of time with people in the riparian discussing what these systems are and how they function; this work isn't easy and it takes a lot of time. The approach is to recognize that people need to understand the reasons why first, before they can take action, and then letting them drive the process, has made them successful. Program elements include:

Awareness - This first fundamental step is often missed. People need to understand the story about how and why the riparian system works as a whole. Cows and Fish personnel provide non-threatening, basic message about ecology; such as "healthy riparian areas can be messy." Norine has never worked with a landowner who was purposely making decisions to hurt the landscape. With livestock producers and managers, they use analogies to capture interest and to convey the impacts of grazing. Developing a common language is very important. This step needs to be repeated to reach new generations and because people don't learn everything they need to know from one interaction or presentation. Digital storytelling has been an important part of their program delivery. It provides a focused creation of stewardship messages and a story circle for feedback; a wonderful way to share messages about the work being accomplished. For more information: <http://www.cowsandfish.org/photos/digital.html>.

Team and Community Building - Team building is about bringing people together, sharing ideas and even rebuilding communities. It is about taking the scientific knowledge, the wisdom and experience from landowners and linking them. Often people don't know their neighbors especially now that many work off the ranch. Cows and Fish workers help community members understand each other's needs.

Tool Building - In this step they help identify and provide "tools" landowners need to be able to make decisions about management changes. Tools and techniques for outsmarting a cow such as changing how animals access water and controlling the timing of grazing when riparian areas are vulnerable. They assist with the design, development and monitoring of demonstration sites and selection of photo monitoring points. The program involves a lot of training similar to the Network's "Train the Trainer", and they conduct workshops that involve a range of perspectives: public, private and regulatory. They also offer "women only" grazing workshops. To facilitate tool building in new locations, they spread the word about the work private landowners are doing. Sometimes they collect research information, such as riparian forage production which assists the landowner but can also be used to build improved management tools across the province. Research linking riparian health, breeding birds and forage showed some interesting results that help ranchers look for key features.

Community-Based Action - The community identifies the issues and priorities and decides upon the timeline and the approach to take; all of which allows for a long-term commitment and ownership of the solution and success. Management changes should be based on sound science, best practices at the time, and be locally supported

Monitoring - In this step they ask: where are we, where do we want to be, how will we get there and did we make it? This step results in a sense of progress, increased probability of sustained, positive management actions, and for the program, a reality check and time to re-tool if needed. They go where they are invited. There is a concentrated effort to provide their message in an image-based, non-technical, relevant and well-presented manner to build interest and understanding. In an evaluation of their work they found that the more contact they had with landowners the more change they made on the landscape.

8. WO Agency Program Leads Natural Resources Conservation Services, U.S. Forest Service and Bureau of Land Management

Gene Fults, NRCS West National Technology Support Center, Rangeland Management Specialist - The NRCS works on 70% of the U.S. land base but it often occurs in “droplets.” Most of NRCS’ work is in uplands, but those areas are also the headwaters of riparian areas. The agency works with wildlife, water, and working ranches. Conservation standards and practices are based on the best science available, and are adaptable to a number of situations, for example; grass-fed beef, “mom and pop” operations, organic farming, etc. Gene provided a review of the following: (1) Rangeland Conservation Effects Assessment Project (CEAP), (2) Ecological Site Description (ESD) development, and (3) Stream Visual Assessment Protocol (SVAP), (4) recent policy related to riparian areas and channel modification (an interdisciplinary approach by USWFS and NRCS in floodplains) and (5) the Farm Bill - a way to encourage private people to implement practices that are both economically and ecologically sound.

Ralph Giffen, USFS Assistant Director, Rangelands - There have been changes in the last year with the new administration; now there is a landscape approach that is somewhat different from previous philosophy. In August 2009, the Secretary of the Agriculture gave his vision for forests in America. Aspects of the vision include: restoring and sustaining forest landscapes; providing incentives to keep private forests intact through in part; collaborative processes; protecting and enhancing water resources and watershed health while supporting jobs in rural communities; and providing ecosystem services. The agency is looking to partners to help enact its vision. There was a realigning of the budget item that goes to Congress. In the 2011 budget watershed restoration, vegetation restoration, fisheries and wildlife have been combined into one restoration line budget item.

Rob Roudabush, BLM Division Chief, Rangeland Resources - It is important to develop our resources within a framework of sustainability, and collaboration is the only way to get to long-term sustainable solutions. Bob Abbey, BLM Director, is a strong supporter of collaboration. Collaboration takes a lot of time and energy. I have trouble slowing down to do it but one cannot afford not to slow down to collaborate. We need to search out the money to do collaboration; there will ample money, just go for it. With collaboration we need to come up with a common language. Figure out terms that are easier to communicate with (i.e. regular English) than some of the techno-language we often use. Livestock grazing is the tool of choice for vegetation management on public lands for the future. Ranchers are the true environmental community because they live on the landscape and know it. They have a lot to teach us, and vice-versa. To be relevant we must understand the 3 legs of the stool: ecology, social and economy.

PFC has been misused; PFC is sometimes used in place of monitoring but we need quantifiable and defensible data. Resource management is highly complicated. Get ready, get help. Get your data and documentation ready for what you know is the right thing to do. The leaders in this room are at the field and state office levels. Don't forget your ability to lead in your world. Rob encouraged the audience to keep their passion for riparian systems; be passionate and share it often.

Robert Hall, EPA Region IX - Robert said that EPA programs overlap everything other agencies here (BLM, NRCS, FS) have just mentioned. The EPA has an ecosystem research program, is modeling nitrogen and carbon sequestration and has a climate change program. He also spoke about ways to secure funding from the EPA, such as 319 Clean Water Act funding.

9. Optional Evening Session: The Water/Energy Nexus. Patrick Lucey and Cori Barraclough. Aqua-Tex Scientific Consulting, B.C., Canada

Cutting edge ideas and examples of how water (both for consumption and other uses) can be incorporated into green development and building to generate energy and maximize efficiency and costs.

10. WY State Riparian Service Team Report Mark Gorges (PowerPoint)

The Wyoming team consists of (but is not limited to): John Henderson, Dennis Doncaster, Kellie Roadifer, Steve Kiracofe, Carl Bezanson, Amy Nowakowski, and Cheryl Newberry.

In 2008, an abbreviated PFC awareness class was conducted for 11 community college students, and the team conducted a two-day PFC class in Rawlins. The team leader continued to work with NRST on the C&C Desk Guide. In 2009, another abbreviated PFC awareness class was held and 15 community college students attended. The team conducted a three-day PFC class in Lander, with 31 participants. The team leader assisted NRST with teaching an aerial photography analysis of PFC class in Elko, NV, and recruited Amy Nowakowski, a hydrologist from the Bighorn National Forest.

The Wyoming team's impact includes teaching PFC concepts and processes to new, young professionals. One of the team's attributes is their extensive experience in doing PFC and using PFC concepts on the ground. The challenge is maintaining management support for team members. The team is evolving by encouraging the use of MIM, lobbying for BLM District Riparian Teams and using "Holding onto the Green Zone" in youth education. Team members will be working with members of the NRST in Wyoming, in 2010.

Mark showed photos of riparian restoration successes throughout Wyoming including LaBarge Creek, Rock Creek, Trail Creek, Loco Creek (the Morgan-Boyer Allotment), and the Littlefield Creek (Sulfur Springs Allotment).

11. MT State Riparian Service Team Report Mike Philbin

The name of the team (Montana Riparian Service Team) includes the word “service” to indicate their intent to extend beyond teaching PFC. Team members: Chad Kraus, Tom Pick (NRCS), Pete Husby (NRCS), NRCS, Forest Berg, Bob Leinard, and a new member: Jo Christensen.

Team accomplishments in 2008 include conducting MIM and riparian ecology training where they had high involvement and participation from the NRCS. In 2009, the team conducted service visits to Little Bighorn National Monument (National Park Service), revisited a private lands site, and Jo Christensen assisted on two bio-engineering projects. The team also recently conducted the Willow Ecology Conference, so the team is delivering a variety of services. Mike also created (and updates) a compact disc with a number of key references that he distributes throughout the state. Plans for 2010 include an interdisciplinary team with members from USFS, University of Montana and NRST conducting an assessment of riparian condition along the Missouri River in the Upper Missouri River Breaks National Monument.

People in Montana are active in riparian issues, therefore, the team wondered what their niche should be, and if they wanted to be an agency training team. The team identified lay people as their primary audience and concluded that PFC training for journeyman wasn't appropriate for this. The team found PFC was overwhelming and intimidating to participants, and it was hard for the team to stay motivated in these conditions. Meanwhile the team was getting requests to assist with specific problems and needs, and they decided to provide those particular services. However, the team will provide PFC training if they get requests for it. Mike discussed that there is also a credibility issue with people using PFC who haven't been properly trained, thus, it is time to think about an alternative to PFC. Mike encouraged the NRST to develop a modified version of PFC, one that includes the important attributes but can be made relevant to a particular situation. PFC provides a common vocabulary but it isn't necessary for everyone to know all of the riparian-related vocabulary. A “PFC Lite” training for private landowners and others would be less intimidating and more effective.

12. NM State Riparian Service Team Report Steve McWilliams

Currently the team has 9 members. Sadly, team member, Dave Seery, passed away. His contributions to the team and the resource will be missed. Denise Smith (USFWS) relocated to Montana. Steve suggested that the Montana team contact her, as she would be a plus to any team. A hydrologist from the USFS joined the team.

In 2008, the New Mexico team conducted a lentic and lotic class in Clayton, which was attended by NRCS and State Conservation District employees. They examined soils, lakes, and the river system. In 2009, the team conducted a lotic class in Ruidoso with interagency attendance (NRCS, BLM, two Pueblos, State Conservation Districts, and a few local Forest Service employees). In 2010, PFC will be conducted in Silver City and Taos.

The team used to do three classes a year but now it only does one or two. The team has a lot of retired members and the support of the NRST in getting them to these meetings is much appreciated. The team is evolving by customizing their sessions, often abbreviating them and

more consideration is given to their audience. The team might start looking at MIM training and consider if they should start offering it.

13. Integration of the Social Dimension Laura Van Riper, NRST and Chuck Petersen, NRCS (PowerPoint)

The C&C strategy is a continuing strategy for accelerating cooperative riparian restoration and management. Many people still view the technical dimension of this strategy as separate from the social. The NRST and Network members spend most of their time meeting objective 2 - on-the-ground implementation of the strategy. This occurs primarily through PFC training, service trips, and place-based problem solving. PFC is just one tool within the strategy and its purpose is to provide information but also increase awareness and ultimately change behaviors on the ground. Therefore, even in technically focused PFC training sessions, it is important to pay attention to the social and human dimensions. To evoke changes in behaviors, an effective learning environment needs to be created. This requires the use of facilitation tools and techniques. Creating this environment can be done, for example, the Nevada State Team.

Chuck Petersen presented activities the Nevada State Team has used in its PFC training and service trips to integrate social dimensions. For one, know your audience by making advanced calls to some of the participants to gauge attendees' perspectives, concerns, and questions. Based on this insight tailor your message; consider varying the course length and presentation format. Do a grounding each day. Many people underestimate the power of grounding and how it opens the door for people to approach each other. Have people sit and/or stand in circles. It can make them uncomfortable at first but they will get accustomed to it; a circle equalizes power. Observe interactions among participants during the course. Encourage discussion through use of circles, food, and social activities. Encourage participants to move beyond PFC assessments, and use C&C principles and practices to achieve cooperative riparian restoration. Always have a closing session. It is a chance for people to voice how they were influenced by the training. Questions you can pose in the closing: Were your expectations met? How did you feel about the training?

The ultimate objective is getting the issues on the table. PFC can be used as a springboard for decision-making. Once the information is gathered (through PFC) you go into decision making status and that is when conflict arises. If you have integrated some social dimension activities such as the grounding, using circles, speaking in turn and listening with respect, etc., then community members have already started working together in a collaborative fashion.

14. Using the Creeks and Communities Contract Carol Connolly, NRST (Handout)

Currently, the NRST has a sole source, Indefinite Delivery Indefinite Quantity (IDIQ) contract in place to assist with implementation of the C&C strategy. An IDIQ contract provides for an indefinite quantity within stated limits of specific supplies or services to be furnished during a fixed time period or until a specified dollar amount is reached. This particular contract is written so any agency within the Department of Agriculture or Department of Interior can use it. For the NRST and others, this contract provides availability and access to a specialized group of professionals for the purpose of implementing the C&C strategy. The contract clearly states that

all work shall be performed in accordance with the document *Creeks and Communities: A Continuing Strategy for Accelerating Cooperative Riparian Restoration and Management*. Applicable activities within the scope of the contract correspond to the strategy objectives and include outreach, communication and marketing, community-based training and problem solving assistance, product development, and mentoring.

The contract was awarded to Full Stream Consulting, Inc., owned and operated by Wayne Elmore, Riparian Specialist. Under this contract, Full Stream Consulting is required to provide a number of natural resource specialists of various disciplines as well as specialists in conflict facilitation. Carol Connolly from the NRST is the Contracting Officer Representative for the contract. Carol can be reached at carol_connolly@blm.gov or (541) 416-6892. Please note that all requests for use of the contract must be initiated through the NRST.

15. Ranching Heritage Alliance Case Study Wink Crigler, Dave Smith, Carey Dobson, Jeff Rivera and Judith Dyess (PowerPoint)

Panel members noted that Sandy Wyman, NRST member, has been instrumental in this project both as a range specialist and in building relationships. A lot of credit goes to her and they wish she would have been able to attend this meeting. Mike Lunn provided some comments prepared by Sandy relaying that this work began in 2003 and activities are continuing today with this collaborative group. It's important to realize that nothing happens overnight and to be prepared for long-term commitment. The story begins in October 2003 when two local ranches were selected as two of ten "pilot" ranches for cooperative agreements with the University of Arizona, USFS and the NRCS. A series of rangeland ecology workshops followed, along with rancher focus groups, and facilitated group discussions with permittees regarding the revision of the Apache-Sitgreaves National Forest Plan. The NRST got involved in 2008 conducting a riparian grazing course that includes working collaboratively in teams to develop grazing alternatives based on an understanding of riparian-wetland function. Shortly after this, the Ranching Heritage Alliance was formed and established goals of continued learning and collaborative problem solving. This was followed by the NRST conducting a consensus building workshop where stakeholders were able to learn and practice various tools and techniques relative to confronting and managing conflict and developing best outcomes. The Alliance believes it is important to have specific resource-related discussions together, on the ground to build a common understanding.

Wink Crigler, Rancher - Wink was born and raised on the X Diamond Ranch near Springerville, Arizona; she loves the land and the lifestyle. She went to college but returned and has lived there her whole life. After her father passed away, the ranch was split up in 1991 and times were difficult. In 2002, she pursued her vision to bring the ranch back together. With the help of the USFS she was able to acquire some allotments that had been part of her family's original allotment. Then Jeff Rivera, District Ranger from the USFS, called and asked her to come in to the office. He said some of her allotments on the East Fork of the Little Colorado River had high riparian values and the stream needed to be fenced. She got emotional, but she didn't lose her temper. Once at home she determined that she had to figure out how to work through this. She made a deal with Jeff - she wouldn't graze the area if he wouldn't make her

fence it until they found the science for, or against fencing. Wink got involved with the University of Arizona, the NRST and other partners, in search of solutions. Meanwhile, Jeff kept reminding her that fencing might have to happen, but they also agreed that they should have a field day and go look at it together. Dave Smith from the USFWS went on the field trip as well. They all agreed that they could create a management strategy that would be conducive to riparian health, likely not have to fence, and be supportive of Wink's ability to ranch and make a living. The group kept going, and NRST kept helping. Now 65-85 people come together to discuss riparian and ranching issues and are able to resolve most of them. Now, if either Wink or the USFS has something to say, they talk.

Dave Smith, USFWS - Jeff called Dave and said "We are about to spend a lot of money on this fence. Can we go look at the area again before we go to that effort?" The biological concern about the area was that it was habitat for the Apache Trout and the Southwestern willow flycatcher. In 2005, this portion of the Little Colorado River was designated as critical habitat for the flycatcher. Dave spent time in the field, inserting clean rebar into the soil along the creek and pulling it out in 2-3 weeks to examine the level of rust to determine the presence of oxygen in the system. Willows need oxygen, and the rebar indicated that this system likely did not have enough to support the willows required to provide sufficient flycatcher habitat with, or without grazing. The narrow geography of the area indicated that if willows were present they would be distributed in thin lines and not likely support flycatchers. With the help of the NRST, Multiple Indicator Monitoring (MIM) training was conducted. Forty people including ranchers and USFS employees attended. Dave noted that it was valuable to have everyone out in the field together where they could see and agree that this area wasn't likely to be appropriate habitat for the willow flycatcher. With a limited grazing season there would still be high stubble height and good bank stability which would maintain trout habitat.

Carey Dobson, Rancher (fourth generation sheep and cattle) – Carey began by saying he didn't used to know about streambanks or what "lentic" was, but once he got out in the field with fellow ranchers, scientists, and agency personnel he saw what they meant. He also learned what he should be doing relative to providing sound riparian habitat. Carey acknowledge that the work Jeff Rivera has done, being willing to step out of the box, has benefited his, and many other ranching families. Carey reminded the audience that you need to be on the ground with the permittees and everyone who wants to be involved. He said that he knows sheep and cows but didn't know about riparian health. He asked agency personnel to try and not get frustrated with permittees because they don't know the conditions being sought. Once everyone gets together, and gets into the field to talk, ranchers can understand the desired outcomes.

Jeff Rivera, USFS District Ranger - From the line officer's point of view there are natural resource conflicts in which there is not a win-win situation for all involved. Collaboration is not a compromise. He is trying to build a partnership where people help each other meet their objectives; often our objectives are similar. As the line officer, Jeff feels it is his responsibility to set the tone for collaboration. He was asked to address the obstacles to collaboration. The existing NEPA decisions can be an obstacle. He believes that NEPA decisions should be amended when appropriate; if it was a poor decision, don't just live with it. Relative to NEPA, maximize flexibility - for example setting the exact date cows come off an allotment is

impossible, use guidelines versus standards. This advice is consistent with Chapter 90 direction in the USFS Handbook incorporating an adaptive management approach. If you don't get it right the first time, you adjust and that benefits the resource and the permittee. Other obstacles include the law, policy and regulations. Line officers should be looking at the intent of the law and avoid deciding upon a course of action just because "we have always done it that way." Lastly, personalities, attitude and culture can be obstacles to collaboration. He recommends looking past personalities; have patience with staff and permittees. Avoid the attitude of "us versus them" and mentor new employees and permittees. Less conflict means that the USFS is more productive. Working collaboratively is the right thing to do.

Judith Dyess, USFS Region 3 - There are no cookbook answers in natural resource management - the issues are diverse and so are the solutions. Judith discussed different definitions of collaboration and what it means to "labor" and work jointly with others. From a regional office perspective, there are numerous ways to get assistance (financial and other) with collaborative efforts. There are cost reimbursable agreements; for example the USFS works with Universities on mutual benefit agreements that can assist with situations on the ground. Challenge cost share agreements, require a 50:50 match with a non-federal entity, but they too can be helpful. There are tools to get funding, but there are also a lot of moving parts with these programs.

16. BLM Riparian Activities Gordon Toevs, BLM National Riparian Lead (PowerPoint)

Gordon provided updates on several programs and initiatives impacting or related to the BLM's riparian resources. Regarding the Department of Interior's Climate Science Centers (CSCs), and the Landscape Conservation Cooperatives (LCC's); there is still a lot of discussion underway regarding their future roles and responsibilities and how they will fit into existing structures. However, Director Abbey has expressed interest in the BLM taking the lead in organizing the Great Basin LCC. Rapid Ecoregional Assessments (REAs) are a significant change in the way BLM fulfills their multiple-use mandate and are a significant commitment relative to data management. REAs are meant to inform decisions and will be used to help determine best sites for renewable energy development. The development of the Riparian/Aquatic Geodatabase is a field-driven activity from practitioners on the ground and the number one priority of state and field offices. Policy and guidance directing geodatabases was provided. Resource Management Plan (RMP) Evaluation is being done at the request of OMB, using progress being made toward meeting riparian objectives in the RMP as a measure of plan effectiveness. The National Operation Center (NOC) has received approval for reorganization and is preparing to fill a riparian/fisheries position. Gordon also reminded the group that the Washington Office needs information from the field to effectively tell the success stories to those controlling funding. See the PowerPoint presentation for details and maps at www.blm.gov/or/programs/nrst.

17. Canada Riparian Service Team Report Cori Barraclough, Aqua-Tex Scientific Consulting (PowerPoint)

Members: Patrick Lucey, Cori Barraclough, Brian LaCas, Lehna Malmkvist, Patricia Malcolm (inactive), Les McDonald, and Sarah Buchanan. The cadre is slowly growing with many of the members joining as graduate students.

In 2008, the team conducted a PFC assessment on three creeks as part of an Integrated Stormwater Management Plan (2008). This resulted in a request to develop a watercourse and ditch management manual and program for city staff. "Introductory PFC" was taught twice in 2008 with members of Tribal Nation, city staff, and city council members. In 2009, another PFC assessment on several creeks was conducted as part of an Integrated Stormwater Management Plan (2009) which is part of their Liquid Waste Management Plan (sewage and stormwater). The team repeated a PFC assessment on a property resulting in a 5-year restoration plan and elevation of risk profile within the University management team.

Patrick reviewed three major projects being completed by graduate students:

- Valuing ecological systems and services and community design- implications for the private market and local governments." Daniel Hegg. M.Sc., University of Victoria. 2009. Industrial Sponsor and Co-Supervisor.
- Evaluation of Urban Ecological Health and Resilience; Swan Lake Watershed as a Case Study, Saanich, B.C. Lise Townsend. M.Sc. University of Victoria. 2009. Industrial Sponsor and Co-Supervisor
- Carbon Sequestration potential of the riparian wetland in the Bateman Centre situated in Hatley Park, Victoria BC. Mariana Cernelev. M.Sc. Candidate. Royal Roads University. 2010. Thesis Supervisor.

Major reports linking riparian health and economics prepared by team members:

- "Assessment of Stormwater Treatment via Engineered Ecology™ Treatment Systems and Stream Restoration"; and
- "Nature's Revenue Streams™: Five Ecological Value Case Studies" were published in December 2008.
- "Living Water Smart BC" is the BC government's new 2008 Water Plan- served as advisors

The cadre moved into the digital age. They published their first GIS layer showing PFC ratings for four rivers and creeks on a municipal, publicly accessible website (www.Saanich.ca). GIS layers will be developed for two more creeks and be available on a region-wide Natural Areas Atlas (web-based). During the 2010 Olympics, the cadre had a touch screen display in the British Columbia Pavilion of their work in stormwater management.

Cori advised that we need to be willing to suspend our beliefs about our culture, especially the cities we live in. Our cities were developed based on Roman designs, where they had concrete but not steel and relied upon gravity. These material factors influenced the ultimate lay-out of cities, which has contributed to modern urban sprawl. We can do things differently; smart, clean and green cities, ones that function like forests. To do so, we must consider all three critical aspects of the issue: ecology, sociology, and economics. We don't hear enough about economics relative to the C&C strategy.

18. AZ State Riparian Service Team Report Dave Smith (PowerPoint)

The Arizona Team was active in 2008 and 2009. A major project was assisting with the Ranching Heritage Alliance workshops in Springerville. The team conducted and participated in several riparian and consensus building workshops and assisted the NRST with a PFC workshop in the Grand Staircase-Escalante National Monument. Sandy Wyman (NRST) helped us with PFC training in Stafford attended by new employees from the BLM, personnel from several agencies and also permittees. Team members participated in two “Arizona Rivers Workshops” developed by the University of Arizona. High school science students spend 10 days touring Arizona’s rivers and streams, investigating hydrology and riparian ecology. During water quality and aquatic macro-invertebrate sampling, Dave discovered that kids and teachers get really excited about the sampling nets and the data they collected.

Dave assisted the White Mountain Apache Tribe conduct a river assessment and to establish monitoring stations. The USFWS Tribal liaison was helpful in working efficiently with the Tribe and understanding various cultural differences. Three trips were made in two days where Tribal members were active in participating in data collection. Team members also assisted the NRCS with a programmatic consultation on EQIP projects. The Arizona Team had a lot of interaction with many user-groups, for example Tribes, getting around the state and accomplishing quite a bit, not just PFC workshops. The challenge is that the team currently just consists of Dave Smith because the other members have moved. This year Dave will be involved in a workshop with the Ranching Heritage Alliance in August on a cooperative plan with five ranches.

19. OR State Riparian Service Team Report Jimmy Eisner

In 2008, the Oregon Team did PFC training in Burns. 2009 was a ‘down’ year but 2010 will be an active one. Plans include PFC training in Prineville and in eastern Oregon working with the neighboring state of Idaho. Two grazing classes with Sandy Wyman’s (NRST) help in Vale and Medford, and a service trip with the Oregon Department of Agriculture.

The strength of the team is its diversity, with members from the BLM, USFS, Umatilla Tribe, and Oregon State University Extension. A great addition to the team is Marissa Meyers from the USFWS. She does an Endangered Species Act (ESA) presentation which helps calm fears of the workshop participants, and she dispels myths about PFC. The team’s training has been improved by going to the field site the day before the session to take photos that they then incorporate into the next day’s classroom sessions.

A challenge is getting enough instructors to conduct service trips and training in the future, and there have been a lot of requests for trips in 2010. Also Jimmy has been given about five days a year to be away from his District and that isn’t enough time to lead the team. Jimmy thinks the team needs to do more team building because they are scattered all over the state so this fall they are planning to do a float trip together.

20. Revision of the Proper Functioning Condition (PFC) Assessment User Guides (Technical References 1737-15 and 16) Steve Smith, NRST (Collective Statement Appendix C)

Steve Smith introduced the topic of revising the Proper Functioning Condition (PFC) Assessment User Guides (TR's 1737-15 and 16) relaying some of the issues and ideas that have come up over the past several years. He then opened the floor for discussion. After the discussion, meeting participants were asked to write their responses to the following two questions on index cards:

- Do you feel that the PFC TR's need to be revised? Is one TR more important to address than the other?
- If so, what specific items and portions of the TR do you feel need to be upgraded or added?

Responses are combined into collective statements and will serve as a record of meeting participant's viewpoints to be used later when addressing the issue of revising the technical references.

21. State Team Work Plans Janice Staats, NRST

Every two years a C&C Network work plan is developed and consists of the combined work plans of the NRST, State Teams and Agency Coordinators. A segment of time is scheduled at each biennial meeting for team members and coordinators to meet face to face to discuss ideas and activities and finalize their plan. Once completed, Janice Staats, NRST, will compile them into the FY2010-2011 Plan of Work and share with the Network and agency program managers. The strategic plan provides the management framework and mechanism whereby decisions are made to develop operational direction that is responsive to change. The work plan serves as an operating plan and contains the emphasis areas, projects and activities selected by the Network to accomplish the goal, objectives, and strategies outlined in the document "*Creeks and Communities: A Continuing Strategy for Accelerating Cooperative Riparian Restoration and Management.*"

C&C Network work plans are posted at <http://www.blm.gov/or/programs/nrst/index.php>.

22. TX State Riparian Service Team Report Russell Castro

The Texas Team has 13 interdisciplinary members, including range management and soil scientists, although they are looking to add a forester and a geo-morphologist to the team. Most of the team is from the NRCS. The Texas team has a large state to cover. Only about 21% of Texas streams are perennial, so most of their work is on intermittent streams. Their first meeting just occurred where they developed a list of goals that include developing a riparian plant list, stability ratings, and regional curves, customizing a PFC check list, and building a photo bank.

The team conducted a refresher course for members and has already helped deliver 20 workshops with the Nueces River Authority and helped with the development of a riparian plant field book. They conducted workshops with Texas Parks and Wildlife and the City of Arlington, and presented information about the Texas Riparian Team at the national Master Naturalist

Conference. One team member developed a riparian-related publication. They are working on a team budget so they can attend Network meetings and other training.

Impacts made by the team include getting out and creating awareness of riparian systems, notably the work they have done with Sky Lewey and Nueces River Authority. The State Conservationist (NRCS) attended one of the Nueces River workshops and is very supportive of the team's work. Manpower is a challenge and they would like to recruit someone from Texas Parks and Wildlife onto the team. The team has only existed for 1.5 years and is too new to know if they have failed or not, and too new to know what they would do differently. To advance the C&C strategy, the team is working with non-government organizations, helping with the development of Ecological Site Descriptions, and continuing to develop the plant stability list. In addition to using PFC they use the Stream Visual Assessment Protocol, Version 2 (SVAP2). (see session #27). Everyone was invited to visit Texas!

23. ID State Riparian Service Team Report Bryce Bohn (PowerPoint)

The team has a mix of disciplines and affiliations. Members include: Dan Kotanski (BLM hydrologist), Arn Berglund (BLM fish biologist), Meribeth Lumpkin (IDL lands specialist), Erv Cowley (range/riparian Specialist consultant), Tim Burton (fish biologist consultant), Walt Poole – Idaho Fish & Game biologist), Nika Lepak (BLM range specialist) Gina Rone (FS soil scientist), Scott Hoefler (BLM fish biologist), Paul Drury (water engineering consultant) and Melanie Vining (FS hydrologist). A summary of ID Team activities is listed below:

FY 2008 – Steve Smith Team Leader

- PFC and stratification for monitoring in Salmon, ID (60 participants)
- University of Idaho PFC overview and monitoring (30 undergrad and grad students)
- MIM training with the FS/BLM, in Challis, ID (20 people attended)

FY 2009 - Steve Smith and Tim Burton leave and Bryce becomes team leader spending time in 2009 learning what that means, meanwhile:

- Lentic PFC training in Challis, ID (17 participants)
- Lotic PFC training in Shoshone, ID (23 participants)
- MIM overview training (Jarbidge and Shoshone Field Offices) in Shoshone, ID (32 participants)
- Recruited 5 new members to the state team; 3 BLM and 2 FS
- Prepared and distributed a flyer announcing the services of the Idaho Team

FY2010 - Most requests now are for lentic systems and the team anticipates a large demand for MIM training. They have produced a 1-page Idaho Riparian Team flyer; it is going out for review and then will be available to potential customers. Plans for 2010 include:

- Begin baseline inventory of the riparian resources in the Owyhee NLCS
- Wetland mapping of the Owyhee NLCS with the FWS
- Develop state-wide riparian inventory and monitoring IDIQ for use by field offices
- Shoshone Field Office has a prototype PDA version of the PFC that will be field tested

- MIM training for Jarbidge Field Office
- University of Idaho rangeland monitoring course
- Oregon/Idaho PFC training
- Willing to volunteer to begin migrating legacy PFC data into new national riparian database
- Begin to insert new cadre members into trainings

24. CO State Riparian Service Team Report Jay Thompson (PowerPoint)

The Colorado team is still seeing a demand for lotic workshops. We need a letter from NRST to Forest Supervisor level to secure participation of Forest Service members on the Colorado team. Jay asks managers to attend the team's service trips, and if they cannot attend he asks if they will send the assistant Field Office Manager. He believes it is time to conduct briefings with agency leaders again.

FY2008- 2009 Accomplishments: Conducted 4 PFC workshops in Denver, Meeker and Canon City; sponsored MIM training in Glenwood Springs; total participants = 105:

- 54 Federal agency employees (BLM, USFS, NRCS, EPA, USGS, FWS, and BOR)
- 19 Colorado Division of Wildlife
- 10 State or County Government
- 8 Non-profit or watershed group
- 6 Consultants (all Denver)
- 5 Students (college)
- 2 Ranchers
- 1 Mining Company representative

The impacts of the team's workshops include having over 60 employees of the Colorado Division of Wildlife attend a PFC workshop since 2001. This has enhanced communication between DOW and federal employees when working cooperatively on riparian projects. In 2008-09, the Colorado Riparian Team trained a higher proportion of Federal employees (51%) than in past years (typically 40%). The demand for PFC training for federal employees is strong. Our use of stream demonstration trailers at workshops has increased demand for the trailers by those who have attended workshops.

Team successes included updating power-point presentations and handouts, attracting Colorado Division of Wildlife employees, maintaining a diverse training team. Failures were the inability to recruit additional BLM employees, USFS support at the regional office level for the team, a session held in the eastern plains with the Rocky Mountain Bird Observatory.

The greatest challenges are: (1) keeping team members involved and motivated; (2) finding time each year for workshops, updates, and refinements; (3) convincing supervisor's each year that this work is critical and benefits the agency, and (4) keeping presentations fresh and being an enthusiastic instructor. The team is evolving and changing; there was some turnover with loss of team members Derek and Dan. The team is hoping to begin offering lentic workshops in 2011,

provide more outreach and service trips and have a session in Denver each year. Advancing C&C Strategy in Colorado:

- The word is out – over 1,000 students have attended a workshop since 1996
- More service trips – both by NRST and by the Colorado Team
- Encourage more managers to attend workshops and service trips
- Greater acceptance and understanding of C&C at the highest levels of the agencies

25. BLM's National Operations Center (NOC) Update Jay Thompson, BLM COSO

Jay Thompson recently completed a detail in the BLM's National Operations Center (NOC) office in Lakewood, Colorado and provided an overview. The BLM's Division of Resource Services includes various branches important to riparian resources including technical operations, resource data, and assessment and monitoring. Changes within NOC include a focus on workload, not just individuals. NOC employees will be able to respond quickly to needs and opportunities (i.e., eco-regional assessments). NOC will be better able to work across boundaries and communicate both within and outside BLM. Recently retired from his position at NOC, Don Prichard served as the fisheries and riparian technical lead and the liaison with the National Aquatic Monitoring Center (NAMC aka "The Bug Lab") and the NRST. The position recently vacated by Prichard will be advertised within 4 months. Some of the duties will likely include providing assistance in development of the riparian database and will provide user support once the database is deployed. The "Bug Lab" is now under NOC versus the Washington Office. Scott Miller is the inter-rim director of the laboratory, which still processes a lot of invertebrate samples but also has a new focus and direction:

- Assist BLM Field Offices and other agencies with designing and conducting monitoring and aquatic resource inventories
- Coordinated research to address land management issues and establish long-term monitoring sites
- Communicate with Federal and State agencies, conservation groups and universities to improve the quality and consistency of aquatic inventory and monitoring procedures being conducted on public lands

Jay also reported having presented Don Prichard with a retirement recognition award. Included was a notebook of entries from many Network members relaying their memories, experiences and expressing gratitude for all Don has done. Don was instrumental in the development of the BLM's Riparian Program and the C&C Network - he was a teacher and mentor to many and will be sorely missed.

26. Streambank Alteration Discussion Steve Smith, NRST

There has been a lot of misunderstanding about how to use streambank alteration as a riparian monitoring indicator. Steve talked about the same difficulty surrounding use of stubble height as an indicator and the eventual commissioning by ID BLM and Region 4 FS of a team led by the University of Idaho to examine the issues and offer guidance. The Stubble Height Review Team Report gave insights and recommendations regarding the appropriate use of short-term and long-

term indicators in riparian management. Although streambank alteration was addressed in the report, there was little detail presented relative to that indicator.

The application of annual streambank alteration by livestock (and other ungulates) continues to create controversy across the West. At the heart of this controversy is a debate over the scientific basis of this indicator, how it should be defined and measured, and how it should be used by the agencies' in riparian management. Because decisions are currently being made that may have significant ramifications, it is important that this issue is addressed in a timely manner. The NRST has proposed the establishment of a technical team to review the concepts associated with use of annual streambank alteration by ungulates and its relationship to long-term stream conditions, and make recommendations on its use to the Forest Service and the Bureau of Land Management. Specifically, the team would be asked to:

1. Review and report on the scientific basis of the concepts associated with use of annual streambank alteration by ungulates. This would include a thorough review of the existing research science relative to streambank alteration.
2. Review recent legal findings and biological opinions where streambank alteration has been addressed
3. Review existing procedures used to monitor annual streambank alteration by ungulates.
4. Make recommendations to the agencies regarding the appropriate use of annual streambank alteration in the management of streams.

The Stubble Height Review Team Report provided an excellent comprehensive review of, and recommendations for, the appropriate use of short-term indicators such as streambank alteration. Therefore, if established, a Streambank Alteration Review Team would use the findings of the Idaho Stubble Height Review Team's Report (as well as the Stubble Height Implementation Team's work that provided guidance for applying the recommendations) as a foundation upon which to add clarity and foster consistency in how the agencies use streambank alteration as a specific indicator. There is no need to repeat the work of either the Stubble Height Review Team or the Implementation Team. Rather, this effort would serve to add specific detail on streambank alteration to the work of both of the aforementioned teams.

For additional feedback on this idea, Steve initiated the group discussion by asking the following two questions:

1. Are you (or your customers/colleagues) experiencing difficulty or controversy in monitoring or applying streambank alteration?
2. Do you see a need to work towards the establishment of a Streambank Alteration Review Team?

The majority of audience members who spoke up said "yes" to both questions. To question number one responses included the need for a consistent definition to reduce the current vagueness, and that a rationale for thresholds needed to be established. To question number two, a response was that there was a need for more science and clarification. It was noted that there is more to this issue than the specifics of streambank alteration, i.e., building understanding and application of recommendations. Steve encouraged network members to not shy away from this

issue and reminded the group that the Network is meant to serve and perhaps should be drawn to such controversy.

27. NRCS Riparian Activities Gene Fults (PowerPoint)

Riparian Ecological Site Descriptions (ESDs) – ESDs are based on Rosgen’s stream classification system and channel evolution models. The scale at which ESDs are developed varies; because they are tied to soils the scale is often determined by soil maps. In riparian systems, the reach often determines the ESD scale. Work began on ESDs in 1994 and there are approximately 18,000 available. Only 7% of the workload has been accomplished, primarily because, until recently, working on them was a collateral duty. Workshops have been held around the country since 2007 and a new dedicated Forest Riparian ESD team was established in 2009. Agency efforts to develop ESDs are increasing. There are National Ecological Site Inventory Teams throughout the country with the leadership office in Lincoln, Nebraska.

Stream Visual Assessment Protocol, Version 2 (SVAP 2) – SVAP2 is a basic level ecological assessment using qualitative features. It is a relatively easy-to-use tool for evaluating the condition of aquatic ecosystems associated with wade-able streams. Sixteen elements are evaluated including channel features, canopy cover, nutrient enrichment, invertebrates and salinity. Background information relevant to ecological processes and functions of stream/riparian ecosystems is incorporated into both versions of the SVAP2. The protocol allows for variation depending on location. Ideally, an interdisciplinary team conducts SVAP and that is encouraged, however, often a NRCS conservation planner is using the protocol with a landowner. SVAP2 is intended to be used as a planning tool for identifying resource concerns on private agricultural situations. The riparian area processes and functions assessed with lentic and lotic PFC will complement and improve elements of SVAP2 aquatic assessments, particularly on Western agricultural lands. For more information: USDA, NRCS, National Biology Handbook, Subpart B-Conservation Planning, Part 614: Stream Visual Assessment Protocol Version 2.

Gene also reviewed and provided a summary regarding NRCS conservation programs and practices being implemented throughout the country.

28. Engaging Private Landowners: Nueces River Authority Riparian Network Development Case Study Sky Lewey (PowerPoint)

Sky Lewey is an employee of the Nueces River Authority (Authority), a division of state government charged with protecting and developing surface water resources within the Nueces River Basin of Texas. The Nueces River Basin (Basin) is 17,500 square miles of water producing land, much of it semi-arid desert. It provides drinking water to hundreds of thousands of people, recharge for two of Texas’ major aquifers and provides most of the water for the Laguna Madre estuary. Almost all riparian land in the Basin is privately owned, and there are rapid changes in ownership. Many people recognize the value of water resources in the Nueces River basin but few recognize the riparian potential. Because water is such an important commodity, landowners

are beginning to manage land for water production, not just for traditional production of cattle (etc.) and as a result, they are seeing the role of the land differently.

There is a lot of confusion over riparian function versus values. We are accustomed to looking at a stream, sometimes just on a map, and demanding certain values from it, such as so many acre feet for irrigation, but rarely if ever, do we talk about river function. Often the stream cannot produce these values, creating blame and translating into conflict and competition. We seldom evaluate a stream in terms of its functionality, and then only in reaction to impairment when value measurements are not meeting our expectations. If people are aware that values, such as abundant clean water, result from riparian function, they will make better decisions, thus the Authority is challenged to cultivate awareness of riparian function.

The Authority is charged with “delivering the right information to the right people.” Creating and working with the Riparian Landowners Network entails challenging the numerous myths around rivers (i.e. floods are bad, etc.). Our marketing plan is to develop a concise, strong message, capitalize on enthusiasm, and deliver in a place where landowners are comfortable and want to be, “their neighbors’ place” for example. Nueces River Authority’s actions are not conflict driven. We go where we are invited. With help from the NRST, we began a series of workshops designed to bring information to those who can really use it. Twenty one-day workshops, with over 400 participants representing about 10% of the Basin, have been completed. In addition, one-on-one consults were done to help people understand their riparian areas and share information with their neighbors. In 2008, we started an information campaign. Landowners did not know their riparian plants even though vegetation is critical to dissipating stream energy. So with sponsorship from the Texas Grazing Lands Conservation Initiative and Texas Wildlife Association Foundation, we published a field guide that presents common riparian plants by their function; “Your Remarkable Riparian: A Field Guide to Riparian Plants within the Nueces River Basin.”

We are seeing paradigms change; one example is that a common vocabulary is emerging. Before and after tests given at workshops indicate that participants now see the value of floods (sediment building) and the value in woody debris. Workshop participants are becoming sensitive to the need and benefit of special grazing treatment for riparian areas. More needs to be done; the demand for riparian function information is growing outside of the Nueces River Basin and we need state-wide support for riparian appreciation efforts. Studies are needed, in Texas, that examine the relationship between riparian function – sediment removal – water storage. We need funding to continue the outreach and education to landowners. In the future, we want to demonstrate that the ecosystem services provided by a functioning riparian system have a market. We are going to try and put (riparian) products with a market; we are not sure how we will do it, or how long it will take, but that is the direction we are going.

29. Riparian Monitoring - A Perspective from the Field Dave Smith (PowerPoint)

The U.S. Fish and Wildlife Service (USFWS) does not have a specific, agency-wide “riparian” program, and with the exception of the National Wildlife Refuges, the USFWS does not manage land. Most of the earlier habitat emphasis was on wetlands, primarily lentic systems. The

USFWS is the principal Federal agency that provides information to the public on the extent and status of the Nation's wetlands. A Congressional mandate also requires USFWS to produce wetlands status and trends reports for the nation and to report to the Congress at periodic intervals. The National Wetlands Inventory (NWI) Program was established by the agency in 1974 to conduct a nationwide inventory of U.S. wetlands to provide its biologists and others with information on the distribution of wetlands to aid in wetland conservation efforts. Annual progress reports have been produced for internal uses, but the NWI has never produced a national status report for public distribution. NWI data are available in a variety of base maps through "Wetland Mapper" and on a current aerial image via a link to Google Earth. The USFWS has produced the Biological Report titled National List of Plant Species that Occur in Wetlands: Southwest Region.

The Partners for Fish and Wildlife Program can pay up to \$25,000 per project on private and tribal lands. The emphasis is on focal areas concentrated around important watersheds such as Verde River, Gila River, Big Sandy River and the San Pedro River. The Chesapeake Bay Field Office developed a stream restoration program which provides assistance in evaluating and restoring stream systems: SHARP: Stream Habitat Assessment and Restoration Program which focuses on training and education in stream assessment and restoration, technical assistance, and design and construction of demonstration projects.

30. Holding on to the Green Zone: A Youth Program for the Study and Stewardship of Community Riparian Areas - Program Overview Betsy Wooster

Betsy reviewed the history and development of "Holding on to the Green Zone: A Youth Program for the Study and Stewardship of Community Riparian Areas." The project began in 1999 when the BLM and the USDA Cooperative State Research, Education and Extension Service and other partners provided funding for the Youth Riparian Education Initiative. The program has recently produced two valuable products, a Leader Guide and a Student Action Guide.

The Student Action Guide introduces riparian areas, describes characteristics and demonstrates functions through various indoor and outdoor activities. Indoor activities focus on the roles and interrelationship of water, soils and plants, with demonstrations that can be done indoors or outside. In the outdoors, students "Get into the Zone" as part of a land management team. Teams focus on water, ecology, soils, biology, and physical geography. A key feature is the opportunity to record observations. Emphasis is placed on students synthesizing what they have learned and sharing that knowledge with others. This curriculum encourages young people to observe and ask questions; program developers want to teach young people how to think not what to think. Correlations to the National Science Education Standards were made which is important for any science teacher.

Currently, program developers and supporters are working to ensure that these final products are available to people who can use them. The Leader Guide advises users to get the help of natural resource professionals, and it is hoped that C&C Network members will assist. The program was designed to be used by teachers and youth group leaders but it is very likely it can also be

used with adult audiences, just learning the common riparian vocabulary. Future ideas include additional teacher workshops, teacher conferences, on-line tools, social networking, training DVD's and webcasts and training for High School Youth Leaders.

Betsy asked for input and participation from Network Members! They need help getting the word out about the program. There is a need for resource specialists to help teachers and youth leaders implement the program. Ideas on future implementation are welcome.

31. Holding on to the Green Zone: A Youth Program for the Study and Stewardship of Community Riparian Areas - Implementation in Central Oregon Brian Wachs

Oregon public school teacher, Brian Wachs, has been implementing the “Holding on to the Green Zone” riparian education program for several years. Brian noted that most states are requiring educators to teach many of the topics covered in the Holding on to the Green Zone curriculum; therefore, the program can be a very relevant tool for teachers. During his presentation, it became obvious that Brian’s energy and passion, along with the curriculum, have produced stellar results in getting students into riparian habitats.

The Green Zone guide is geared towards 5th grade but Brian has found it is easily adapted to grades 9 through 12. He has been successfully using this material with students in his Crook County High School science classes and when used in conjunction with the PFC technical references, the needs of older or more advanced students are met. Students don’t always understand everything within the technical references, but they don’t need to; meanwhile these resources provide a challenge. Brian also found the program was successful with students below the class average and that the variety of learning activities, including the hands-on aspects can support students who may not respond well to traditional teaching methods, allowing them to be successful. In his power-point presentation, Brian described the following four processes from the guides:

Inquiry Process with the Leader Guide and Action Guide - Brian admitted to not having all of the answers about riparian systems and more importantly his objective is to teach the process of inquiry and problem solving. Therefore, he doesn’t give his students all of the answers, but provides them with the situation and tools: the Green Zone guides, access to riparian professionals, etc., so they can come up with the answers themselves. He has his students work through the process and activities in the Action Guide as independently as possible. Students also participate in hands-on activities and field trips.

Direct Instruction with Natural Resource Professionals - Instruction provided by experts during the program is invaluable and deepens students’ understanding, enriching their experience. Students also have opportunities to demonstrate what they have learned. Organizations helping to implement the Green Zone curriculum in central Oregon include the BLM, USFS, Oregon Department of Fish and Wildlife, County Government, and members of the private sector. Invitational instructors from the Network provided both PFC and Multiple Indicator Monitoring (MIM) training.

Students Become the Teachers - Students of the Green Zone program can turn around and teach, in a variety of settings, many other age groups. Brian's students have instructed grade school students in the classroom and in the field.

Student Employment - Brian has worked with natural resource agencies and others to generate opportunities for students to get paid for the information gathered while participating in the Green Zone. Students know that their results must be of high quality to be paid for their efforts, and they are capable of producing good work especially after negotiating about the results needed. Students can then report on projects which not only tests their understanding of what they have learned about riparian systems but provides them valuable experiences and feedback in real-life settings.

Brian's Message to Network Members: Don't under estimate the marketing power students using the Green Zone have on their parents and others. This place-based education can foster land stewardship. Students are ready and available to help fill in information gaps about local riparian areas. With your participation in this program you will inspire young citizens, and they, in turn, will make a positive difference in the world. This program relates to long-term sustainability on the landscape because when you bring kids onto the lands and they experience the processes of a system, they start to understand and often take on land stewardship.

Joel Holtrop – Deputy Chief, National Forest Systems

Joel Holtrop, Deputy Chief, National Forest Systems, was in Reno attending several partnership meetings and took time to stop in and address the participants at the Network meeting. He has long been familiar with and supportive of the C&C effort, acknowledging the work being accomplished. Joel made the point that this initiative is helping the Forest Service meet the Secretary's emphasis of an 'all lands' approach in the restoration and management of riparian-wetland resources. The cross-jurisdictional cooperation realized is helping address water quality and quantity issues throughout the west and promote strategies that lead to increased resilience; both congruent with the agency's water and climate change strategies. The inclusive and participatory nature of this strategy is resulting in more effective integration of science and technical information into collaborative decision making, and serves as a model for dealing with natural resource conflict. He particularly indicated his support for the youth education and mentoring efforts occurring and closed by recognizing the service provided by the Network to agencies and attendant communities, encouraging the group to continue this work.

32. Monitoring with a Purpose - Linking Inventory, Assessments, Management and Monitoring Steve Smith (PowerPoint)

In the 2009 telephone interviews mentioned at the beginning of this report, 80% of respondents asked to have the topic of riparian monitoring emphasized in the 2010 meeting, specifically the issue of how to go beyond PFC and incorporate monitoring into Network service delivery. The following presentations were developed followed by a panel and group discussion:

- MIM Intro/Overview and Procedures
- Riparian Monitoring Approach on the Missoula Field Office, BLM

- Riparian Monitoring Approach in Region 5 USFS
- Riparian Monitoring Panel and Group Discussion

When considering how PFC and monitoring are linked, it is necessary to describe the inventory, monitoring and evaluation process in a systematic and sequential manner. There is no perfect, mutually exclusive step-by-step process; however, Steve presented a reasonable sequence modified from TR 1737-15 (page 21) and several other documents. Supporting information, explanations, and examples for each of the seven major steps listed below can be found in Steve's PowerPoint presentation.

Steps of Inventory, Monitoring and Evaluation:

1. Inventory existing and potential conditions, and stratify reaches/complexes/sites.
2. Complete broad scale assessments (i.e., PFC) and locate Designated Monitoring Areas (DMAs). (*PFC provides necessary broad scale perspective and while completing it, the interdisciplinary team has the opportunity to locate representative DMAs.*)
3. Prioritize reaches, complexes or sites for management, restoration, and/or monitoring.
4. Collect baseline monitoring data on DMAs and define objectives.
5. Implement management and/or restoration actions.
6. Monitor DMAs. (*Create a monitoring plan for an area or unit that includes a prioritization strategy.*)
7. Analyze and evaluate data; adapt management if acceptable progress towards objectives is not being made.

Ultimately, successful riparian management is dependent upon bringing science and people together, hence the C&C strategy. The strategy is characterized by a cycle of increasing awareness, building understanding/acceptance of issues, reaching agreement on a particular management strategy, taking action, and then monitoring that action and adapting as necessary. Although having the technical knowledge to improve streams is critical, conflicts among people must be resolved if we are to effect conservation on a large scale.

Examples of how the NRST is involved in monitoring include:

- Insuring monitoring specialists and focus within service trips.
- Co-authoring MIM, coordinating MIM TR publication, working to build MIM training cadre.
- Working with NTC to develop and deliver riparian ecology and riparian monitoring training sessions.
- Including riparian monitoring module in riparian grazing training sessions.
- Building electronic "Riparian Bookcase" to include riparian monitoring literature.
- Helping customers better integrate processes and activities, including monitoring, by working with agency riparian coordinators.

State Riparian Teams can strengthen their involvement in riparian monitoring by:

- Teaching process integration during PFC trainings to provide context for monitoring.

- Doing mini-situation assessments prior to trainings to determine which monitoring process steps to emphasize.
- Conducting briefings to inform potential audiences of State Team services, including assistance with monitoring.
- Recruiting specialists with experience in the steps of monitoring to serve as team members.
- Committing to learn more about monitoring and offering to serve on monitoring teams.

33. Multiple Indicator Monitoring (MIM) Overview Erv Cowley, Tim Burton (PowerPoint)

Erv presented a thorough overview of the MIM protocol. The University of Idaho Stubble Height Review Team determined that annual indicators, such as stubble height, are only useful for interpretation of trend when coupled with corresponding long-term indicators. They recommended development of monitoring tools that can be implemented in conjunction with stubble height and other short-term indicators, not requiring a great deal more time. The subsequent MIM technique addresses long-term monitoring of vegetation composition on the greenline, streambank stability and regeneration of woody species to measure if management objectives are being met. Within riparian complexes, DMAs are selected. The greenline and use of plots are components of MIM. Attributes measured include: vegetation (greenline vegetation, woody species use and height class, and stubble height), streambank alteration and stability; and stream channel characteristics (substrate, residual pool depth, and pool frequency). Tim addressed repeatability, precision and the statistical aspects of MIM. A more comprehensive account can be found in the PowerPoint presentations. In addition, after extensive testing and evaluation, Technical Reference 1737-23 (Multiple Indicator Monitoring of Stream Channels and Riparian Vegetation) is scheduled to be published this fiscal year. More details can be found at rmsmim.com.

34. Riparian Monitoring - A Perspective from the Field Jo Christensen (PowerPoint)

Jo presented a humorous and creative perspective regarding relevant monitoring of riparian resources by field personnel. The BLM Missoula Field Office serves Montana, South Dakota and North Dakota - a large area with diverse landscapes. Throughout Montana, the steep geography leads to a lot of cattle being funneled into riparian zones. Issues driving the range-riparian monitoring are the Bull Trout Biological Opinion, maintaining habitat conditions for special status species and supporting the range program. The office monitors primarily riparian and aquatic monitoring on grazing allotments and measuring the effects of restoration and specific management activities, such as recreation.

The central theme for their work is “Don’t monitor everything - just monitor a few things – but do it well.” Jo defines “good” monitoring as being:

- Reliable - answers a question with a reasonable degree of statistical confidence
- Relevant - provides information to inform management decisions
- Practical - provides information you need-when you need it- at the right scale- and in a useable format

The most important thing in monitoring is the question. Know your question, set your objectives and then select monitoring methods. Jo discussed common challenges to monitoring and shared solutions that have worked for her. Relative to the lack of time; she recommended some specific piece of technology and recommends relying upon the experts and hiring good people. As a fisheries biologist, she hired an expert in riparian plants and had it be ½ of her job to teach Jo grass, sedge and willow identification. Monitoring can be tedious, so take care of your workers. Challenges to good monitoring include time and resources (money, etc.) but she suggested comparing the costs of monitoring versus litigation. To get the support and resources you need, never pass up on an opportunity to show off your work. Take a lot of photographs; when it comes to securing support and resources, a photograph can be worth a thousand p-values.

35. Riparian Monitoring Approaches in the Field - USFS Region 5 Dave Weixelman (PowerPoint)

In 1999, the USFS implemented a long-term monitoring project to determine the condition and trend for key range sites in meadows and streambanks. With regular funding of \$150,000 per year, the project offers consistent methods, answers key questions for range management, and the results are used in NEPA for rangelands. Along streambanks, greenline methods (Winward 2000) are used to document the percent late seral stage plant communities and woody regeneration, and to generate a Winward stability rating. In meadows, the rooted frequency method is used to document ecological condition e.g., percent late seral plant species, root depth, and percent bare ground. All plots are permanently marked, and to date there are 837 plots. Results are available from 1998-2008, including condition of 594 key meadow sites and 5-year trend in 559 meadow sites, and condition for all greenline plots from 1999-2008. Dave reiterated the value of providing this information which addresses important questions in range management, noting that because the results are used in NEPA work, the program is supported. Consistent funding and a dedicated team are mandatory for this long-term monitoring effort.

36. Riparian Monitoring - Panel and Group Discussion Steve Smith (Collective Statement Appendix C)

This session was designed to facilitate and allow for discussion among meeting attendees with panel members available to address any specific issues directed at them, as well as provide discussion points if necessary. Meeting attendees brought up a broad and varied spectrum of issues, and most comments did not have a subsequent conclusive discussion but were left open to further discussion. The major themes of conversation were about MIM; how to move forward with training people and its use in future monitoring including addressing water quality issues. Also, the value of nested frequency and how the USFS is using functional groups in their riparian monitoring in northern California. There were a number of questions and comments about various aspects of monitoring that are not documented here due to the level of detail involved, however, most of the major topics are included below:

Comment - Nested frequency can be a viable method to look at vegetation responses within seasons, such as responses to changes in precipitation and pre-and post-management actions.

Q - What are the plans to provide more MIM training, especially given that the experts in MIM are so busy?

A - Because of the level of complexity in MIM, it takes time to learn how to do it well which is needed in order to teach it. Likely the State Teams won't be doing MIM training; however, we would like to get 7 to 8 people who really understand MIM committed to training others. We are concerned about quality control relative to MIM; we will keep the number of people teaching the protocol small in order to ensure consistency.

Q - Have you considered producing a DVD or compact disc that teaches MIM?

A - Yes, but we don't want people to think they can just watch a video and be able to do the methodology well.

Comment - MIM was built on a lot of existing protocols, such as the Winward's methods. A data analysis module was developed that converts older Winward greenline data for use in MIM.

Q - Has there been any testing of MIM being used on intermittent streams?

A - No testing, but yes, some aspects of MIM could be used with intermittent streams but how to use the data could be a challenge.

Q - How successful is MIM in addressing water quality and endangered species act issues?

A - We (BLM –Montana) have used MIM data in bull trout situations and in our NEPA monitoring.

A - MIM data collected on a reference or control site was used in defense of a NEPA-related decision.

Comment - Ground-water dependent monitoring protocols are being field tested this summer.

Q - Have you thought about publishing MIM in peer-reviewed literature (hard science literature) versus agency-reviewed literature?

A - Point well taken, yes, we need to do so. Up to this point, it has been a ground-up process, but the protocol we decided upon for MIM is based on a lot of data: 8,000 plots over six years. This isn't a two-year thesis project but is based on a lot of practical use over time.

A - Some of the indicators in MIM will likely be used in 'take' issues (relative to ESA) but we have to be careful what data are used and how it's used.

Q - Dave, how do you come up with ecological functional groups? And can you see a tie to MIM?

A - We used ecological functional groups to classify species as "increaser or decreaser" type groups. It is helpful to build matrices of plant features to define functional groups of plants. We need to publish our work to address such questions. We are still in the early stages of classifying riparian plants by their functional characteristics and are trying to move the original Winward early seral to functional groups.

Q - To what degree do you think plants will be in the same functional group in various geographic locations?

A - The hydrological settings of the area you are monitoring will have a major influence on which functional group a plant will fall into, so a species could be in different groups depending on the site specific conditions.

Comment - We need to classify lentic sites by their hydrological regimes; many plant species live in a range of hydrological conditions, therefore the same species may be considered a late or early seral species based on how wet the site is.

People were then asked to record their responses to the following questions on index cards:

- What are some of the greatest challenges you (or your peers/customers) face implementing riparian monitoring on your units?
- How can you (State Riparian Teams) help C&C customers in your states improve their riparian monitoring efforts?

Responses are combined into collective statements and will provide insight to the NRST and others about the challenges Network members are facing as well as potential solutions.

37. Closing and Final Thoughts Steve Smith, Mike Lunn (Collective Statement Appendix C)

Steve reflected on the number of years the Network has been implementing the C&C strategy and how meaningful and rewarding it has been. More specifically, he encouraged participants to take a mental image of what State Teams were doing in 1996, and now in 2010. The trend is towards innovation and creativity and meeting the four principles of service: (1) identifying your customer, (2) communicating your services, (3) carefully listening to their needs, and (4) delivering with professionalism and effectiveness. He also asked that the Network help colleagues and others recognize the benefit of bringing communities along with us and sharing ideas for resource management. Involve communities now or pay later. Consider the value you are taking back to your unit by being in this Network. Sit down and talk with your supervisors about the strategy and how it benefits the resource and the ability to meet agencies' objectives. Keep things simple, as Einstein said "Any intelligent fool can make things bigger, more complex, and more violent. It takes a touch of genius -- and a lot of courage -- to move in the opposite direction." Mentor younger colleagues – a sports analogy - Where are our first draft picks? Customize your service to needs and remember that "The road to success is always under construction" (Paul Brown, founder and coach of Cleveland Browns and Cincinnati Bengals). Finally, a big THANK YOU to members of the NRST, especially meeting project lead Carol Connolly, presenters and attendees, for your time and participation.

Mike continued by asking four audience members to address questions about their experiences at the meeting and how Network members can stay relevant. Some of their comments follow:

- As I've been learning about PFC, I've picked up that it is not a monitoring tool.
- Update the TR and get the newest date on it, and get MIM published so it can be used as a reference.
- Maybe you need to include more people like me (that are out of the traditional riparian monitoring loop) to keep us abreast of these national riparian issues.
- This meeting is a great opportunity to bond and refresh acquaintances.

- If you are an agency worker, know that you carry a stigma (stereo-type) with you; and you'll need to spend extra time to get stakeholders beyond that stereo-type in order to get your work done.
- This is the best meeting we have had in a few years.
- We need help getting the Environmental Protection Agency involved in the Creeks and Communities Strategy.
- I liked having the state activity reports scattered throughout the meeting.
- We need to continue to look for ways to go beyond boundaries.
- The most interesting parts of the meeting for me were the private land issues in Texas, Arizona and the work being done in Canada.
- Acronyms! Too many to understand.
- I'm thrilled to have seen the higher leader support from the Forest Service for this program.
- Future meetings should include more private folks and issues; more non-federal people.
- It was good to see more U S Fish and Wildlife Service people here but we also need more State Game and Fish personnel to these meetings and on state teams.
- Let's clone Brian (Wachs)!

In closing, participants were asked to write their responses on index cards to the two questions below; a collective statement with this feedback will help inform development of the 2012 Network Meeting:

- What aspects of this meeting went well?
- What would you suggest we do differently in 2012 in terms of both process and focus?

Preliminary Meeting Evaluation

Closing exercises of the meeting are designed to serve many purposes including providing feedback about what participants liked and did not like about the meeting. The overriding response was that the meeting was a success and will assist network members in their ability to assess and monitor riparian systems and work effectively with communities. A cursory summary of the most prevalent written comments about what meeting attendees liked best about the meeting include: (1) hearing from the private sector about the positive impacts the C&C strategy is having in their communities, (2) the diversity of topics addressed, (3) the quality of presentations and presenters, (4) opportunities to connect and visit with Network members, and (5) good facilitation, including adhering to the agenda. Meeting attendees noted that reports by State Teams were very good and provided ideas for future work and thus were a valuable asset to the meeting. The things participants did not like about the meeting were primarily about the meeting being held in a casino that allows smoking and had little to do with the content of the meeting or the manner in which it was held. However, all feedback, including collective statements, will be further examined to inform the NRST about the meeting.

Planning for the 2012 C&C Network Meeting

To continue crafting relevant and effective Network meetings, the NRST will once again have Kelli Stone of Two Birds One Stone, LLC, conduct telephone interviews in the fall of 2010 with a sub-set of this year's meeting attendees. The purpose is to further ascertain and document what 2010 meeting attendees found effective and what they would like to see emphasized or included in the 2012 meeting.

APPENDIX A: Definitions of Acronyms

BLM	Bureau of Land Management
C&C	Creeks and Communities
CSC	Climate Science Centers
DMA	Designated Monitoring Area
DOI	Department of Interior
EPA	Environmental Protection Agency
IDT	Inter-disciplinary Team
LCC	Landscape Conservation Cooperative
MIM	Multiple Indicator Monitoring
Network	Creeks and Communities Network
NOC	National Operations Center
NRCS	Natural Resource Conservation Service
NRST	National Riparian Service Team
NTC	National Training Center
OMB	Office of Management and Budget
PFC	Proper Functioning Condition
REA	Rapid Ecoregional Assessments
RMP	Resource Management Plan
SVAP2	Stream Visual Assessment Protocol, Version 2
TR	Technical Reference
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
WO	Washington DC Office (Federal Agency)

APPENDIX B: Agenda of the 2010 Creeks and Communities Biennial Network Meeting

 <p>COOPERATIVE riparian RESTORATION</p>	<h3>Creeks and Communities Biennial Network Meeting</h3> <p>March 2-4, 2010 • Silver Legacy • Reno, NV</p>
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Theme: Creeks & Communities: Staying relevant to agencies and communities

Meeting Objectives:

- Diversify the Creeks and Communities Network and enhance skills
- Foster accountability and support for Creeks and Communities
- Facilitate coordination and learning among Network members

Tuesday, March 2, 2010

7:30 – 8:00	Registration
8:00 – 8:05	Welcome/Logistics - Carol Connolly, National Riparian Service Team
8:05 – 8:30	Creeks & Communities Meeting Theme and Overview - Steve Smith, National Riparian Service Team
8:30 – 10:30	Introductions/Grounding – Mike Lunn, Sustainable Solutions
10:30 – 11:00	<i>BREAK</i>
11:00 – 11:45	NRST Report – Susan Holtzman & Laura Van Riper, National Riparian Service Team
11:45 – 1:00	<i>LUNCH</i>
1:00 – 1:45	State Riparian Team Reports Nevada – Sherm Swanson, NV State Riparian Team Leader Utah - Justin Jimenez, UT State Riparian Team Leader California – Dave Weixelman, CA State Riparian Team Leader
1:45 – 2:15	<i>BREAK</i>
2:15 – 3:20	The Cows and Fish Process: Working with producers and communities on riparian awareness – Norine Ambrose, Program Manager, Cows and Fish

- 3:20 – 3:30 Short break to set up leadership panel
- 3:30 – 4:30 Agency Program Leads
Natural Resources Conservation Service – Gene Fults, Rangeland Management Specialist, West National Technology Support Center
Bureau of Land Management – Rob Roudabush, Division Chief, Rangeland Resources
U.S. Forest Service – Ralph Giffen, Assistant Director, Rangelands
- 4:30 – 4:45 Closeout
- 6:30 – 8:00 Optional Evening Session: The Water/Energy Nexus
 Patrick Lucey, Aqua-Tex Scientific Consulting, B.C., Canada
 Cori Barraclough, Aqua-Tex Scientific Consulting, B.C., Canada

Wednesday, March 3, 2010

- 8:00 – 8:05 Housekeeping
- 8:05 – 8:50 State Team Reports
 Wyoming – Mark Gorges, WY State Riparian Team Leader
 Montana – Mike Philbin, MT State Riparian Team Leader
 New Mexico – Steve McWilliams, NM State Riparian Team Leader
- 8:50 – 10:00 Integration of the Social Dimension
 Laura Van Riper, National Riparian Service Team
 Chuck Petersen, Natural Resources Conservation Service
- 10:00 – 10:30 *BREAK*
- 10:30 – 10:45 Using the Creeks and Communities Contract - Carol Connolly, National Riparian Service Team
- 10:45 – 11:45 Ranching Heritage Alliance Case Study
 Sandy Wyman, National Riparian Service Team
 Wink Crigler, X Diamond Ranch, Arizona
 Carey Dobson, Timberline Ranch, Arizona
 Judith Dyess, U.S. Forest Service, Region 3
 Jeff Rivera, Apache-Sitgreaves NF, Alpine Ranger District
 Dave Smith, U.S. Fish & Wildlife Service, Arizona
- 11:45 – 12:15 BLM Riparian Activities – Gordon Toevs, BLM National Riparian Lead
- 12:15 – 1:30 *LUNCH*

- 1:30 – 2:15 State and Provincial Team Reports
 Canada – Cori Barraclough, Canadian Riparian Team Leader
 Arizona – Dave Smith, AZ State Riparian Team Leader
 Oregon – Jimmy Eisner, OR State Riparian Team Leader
- 2:15 – 2:45 *BREAK*
- 2:45 – 4:00 Revision of the PFC User Guides (TR-1737-15 & 16): A Facilitated Group Discussion – National Riparian Service Team
- 4:00 – 5:00 State Riparian Team Work Plans – State Team breakouts
 Janice Staats, National Riparian Service Team

Thursday, March 4, 2010

- 8:00 – 8:05 Housekeeping
- 8:05 – 8:50 State Team Reports
 Texas – Russell Castro, TX State Riparian Team Leader
 Idaho – Bryce Bohn, ID State Riparian Team Leader
 Colorado – Jay Thompson, CO State Riparian Team Leader
- 8:50 – 9:10 Streambank Alteration: Group Discussion
 Steve Smith, National Riparian Service Team
- 9:10 – 9:30 Natural Resources Conservation Service Riparian Activities
 Gene Fults, West National Technology Support Center
- 9:30 – 10:00 *BREAK*
- 10:00 – 10:40 Engaging Private Landowners: Nueces Case Study
 Janice Staats, National Riparian Service Team
 Sky Lewey, Nueces River Authority, Texas
- 10:40 – 11:00 U.S. Fish & Wildlife Service Riparian Activities
 Dave Smith, U.S. Fish & Wildlife Service
- 11:00 – 11:50 Holding on to the Green Zone: A Youth Program for the Study and Stewardship of Community Riparian Areas
 Janice Staats, National Riparian Service Team
 Betsy Wooster, BLM Environmental Education & Volunteer Coordinator
 Brian Wachs, Crook County High School Science Teacher, Prineville, OR
- 11:50 – 1:00 *LUNCH*

APPENDIX C: Collective Statements resulting from the 2010 Network Meeting Discussions and Closing (Each person's words are kept as they were written and organized by emphasis or theme; any words added in putting the statements together are in *italics*.)

TR Revision

1. Do you feel that the PFC TR's need to be revised? Is one TR more important to address than the other?

Yes, do both. Yes, both equally. Both *are* important to review. Yes. Yes, it is time for revision. Yes, both need some revision. Yes (*revision is needed*) – mostly just updates/clarification. Up-dated, yes, both. Yes, the TRs need to be revised. Review for relevancy and update as needed. Yes, lotic then lentic. Lotic (TR-15) is used more frequently and is the highest priority but it would be great to have both revised. TR 15 is definitely used most, but both need to be updated. No, one TR is not more important to address than the other.

Yes, Lotic TR-15. Lotic – yes – reprinted - more important. Yes. I think 1737-15 is more important. Lotic – update *and* revised. Yes, TR-15 first. Yes – tweaked – 15 most important. TR-15 needs the most updates. 15 but 16 is close. The Lotic manual definitely sees more use. Yes, probably the lotic TR, it is probably used more than the lentic. Revisions to green book 15 are more pressing due to fact that it is most often used and is focus of most of our efforts. Not that it (TR-15) is more important, but maybe it should be done before the lentic TR. It's true that lentic systems are more varied but lotic are the ones we deal with most in our area. I would choose 15 first. Mainly 15, it's the one I've used more. Seems more of a need for Montana for lotic.

TR 1737-16 is possibly more important. One at a time, lentic first because there will be more assessments on lentic in coming years. TR-16 needs some corrections. Purple-16 tends to be more difficult to come to grips with. Agree that lentic needs a re-look – deal with complex meadow/wetland systems.

Not much revision is needed. I don't think there is a burning need to revise them, but some additional information on process and application could improve consistency. The manual could be more user friendly with addition of explanations, examples, and photos. I prefer to characterize the work as an update, rather than revision. There is much of great value in the TRs. I suggest *that* the size of document and existing content remain essentially the same. Most is working; keep it. Updates/supplement.

Do NOT change the questions! Tweak clarification. Keep the same check list as a base, work on interpretation. Overall- clarify some of the explanations – don't change questions. Questions *are* OK. Do not change any questions; only update the instructions, scientific background, etc.

Suggest no supplement. Consider a supplement to existing TR. No supplements, keep in one document. In TR's, as in planning, don't do a supplement. It's a royal pain to get partway through a document and realize that you need another book to get the whole picture. Complete new document (for TR 15 and 16) with new date. I do not like the idea of supplements. I think creating a new document with everything in it is important. Having 2 documents to go to is not a good idea. Revise the

entire TR (no supplement) and give it a new publication date. Keep to one document for each TR. The document needs to stand alone.

Alaska has worked with NRST and NOC to develop a PFC process that is workable in Alaska. TR's 15 and 16 fit into this process in an acceptable, workable manner even though they have designed to be more specific to western states. It is not necessary to redo either of them for Alaska (pictures, examples, etc) because it would add volume without much universal benefit.

I have not used PFC yet due to my new status as a BLM wildlife biologist.

Consider a PFC guide for ephemeral systems.

2. If so, what specific items and portions of the TR do you feel need to be upgraded or added?

Clarification of terms. Keep the foundation, make corrections and clarifications. Correct errors and add clarification on items. Not rewrite entirely, but update. Minor clarification of definitions would be okay as discussed in group discussion. Don't change items as written – except maybe figure out a way to word #5 (lotic) better! Involve more junior staff who do not have the expertise and history so extensively so assumptions aren't made on meaning/wording, etc., No changes to questions.

Pre-work. The need for pre-work. The importance of pre-work and what information to consider would be a good addition. Pre-work could be more fully described as discussed. Pre-work – gauge data, aerial photographs and GIS. Quick reference guide on data and information needed prior to going to the field this is needed in the TR as a separate check sheet. Strengthen pre-work section. Stratification of streams – riparian complex – using PFC to do this.

Interdisciplinary Team. Under what circumstances do we need integrated, journey-level teams, and when *is it not necessary to worry about not having such a team?* How to apply when journey-level interdisciplinary team is not available. Establish criteria based on knowledge and/or pre-work needed to qualify as a representative of a discipline for each district.

Perennial, intermittent, ephemeral guidelines. There is a difference between perennial and southwest dry. Clarification *is needed* on how to determine if a stream is intermittent, ephemeral, or perennial. Include discussion of what I refer to as “desert ephemerals” but have been referred to as “flashy” systems in this workshop. This could be handled through supplemental guidance. Address arid systems; where base flows are much, much lower than bank-full flows. How to address each question under these situations. Too many people think PFC doesn't work under these conditions. Discussion as to applicability of checklist for intermittent and flashy stream systems.

Relation to classifications. Put a spot to put a Rosgen classification.

Clarification of potential versus capability and how to apply it. The definition of potential and capability. Potential and capability and the use of these in assessment. Expansion of potential and capability in a supplement form. Potential/capability. With respect to potential, could use some discussion when potential has been altered, i.e., changes in flow regime, down cut-incision, broad cobble-boulder control system where fines are not being captured. Shall we make a distinction between

potential and desired future condition? For potential, emphasize that the interdisciplinary team is clear on this. Ensure that the current state of vegetation reflects the known transition (state and transition models). I agree with Janice, potential and capability is a big issue. We see a lot of let's say, "cowpologists" using capability as a crutch or excuse as to why almost any system can't be expected to reach potential. I'd like to see more overt discussion discouraging leaning on capability as an excuse whenever we see something in the field that's not in acceptable condition. Some "problems" with potential and capability may be more related to field interpretation and not teaching. Confusion might be due to use of 2 terms to describe essentially one situation? Clearer explanation of capability and potential. Potential and capability needs work. Consider Erv Cowley's suggestion that we only use potential under current conditions. Determination? What is potential? Discuss natural past and future climate change and the notion of changing potential over long time periods (geologic time) and natural incision.

Show how the questions are linked (a yes/no on one question will often result in a yes/no on other questions). TR-15 needs the relationship between questions. TR-16 has some errors on the question relationships.

Clarify what notes should be collected in the notes in order to tell the "story."

Consider changing Yes/No to True/False in order to eliminate the confusion on the "not" questions. *For example, question #5 in TR 15 and questions 2, 6, 14, and 16 in TR-16.* The strange "double-negative" questions raise too many questions for field technicians and ID teams. I agree with rewording the double negative question.

Clarify the use of "liners." Do "tweeners" count or not?

Improve photos and examples. Update photo examples.

Quantitative need or not. Provide more detail on assessing each question qualitatively. Provide information on how to address questions quantitatively if they simply cannot be answered qualitatively (critical issues, controversy, or agreement cannot be reached in the field). Using quantitative to validate checklist calls – How To.

Appropriate, suitable application of methods. Application to management. For both TRs, clarification on where PFC is appropriately used and where not (e.g., seasonal flows or wetlands). I haven't done any PFC for a few years, so I can't point to specific question, but if there is a way to put the process more front and center, it would help to decrease improper application of the methods, i.e., not stratifying the reaches when channel type changes, etc. A better discussion on application, what the tool should be used for, assessment vs. monitoring. Better explanation/emphasis on integration of PFC into the Creeks and Communities strategy, I strongly agree with the comments made by the Cow and Fish presenter. Consistency, connect interpretation and training. Additional emphasis on quality control. Really emphasize qualification.

Update to the latest science. Update supporting science and methodology section. Update supporting science sections for each question. Strengthen and update "supporting science/quantitative methodologies" section for each item. Focus on thought and science and interpretations that support the checklist items. Link to methods for monitoring if a "no." Need to suggest one measurement tool.

Have updated references. Incorporate information from Winward 2000, e.g., stability ratings, cover %. Vegetation, plant association, etc. and should be updated. Add updated references to MIM and other contemporary tools. Identify MIM as example of quantitative monitoring tool compared to PFC being a qualitative assessment tool. Discussion of Stream Visual Assessment Protocol (SVAP), Rapid bio-assessment, and any other tools to PFC and describe differences

Hydrology and Scale. Discuss that the relative magnitude to events that systems can be stable through (e.g., “E” channels in PFC may withstand 100-year events, other channel types may unravel at “potential” in a 35-year event. Address the issue of scale on watershed, rivers, the resilience of riparian vegetation; for example a 25-year event on a 100 mi² watershed vs. 2,000 mi² watershed. Develop the idea of a scale, both below and above PFC. Address the reach scale issue.

Water Quality. Discuss the connections to water quality among attributes. Part of the overall audience for the TR are our regulators. We should take the opportunity in this document to address in a more complete manner water quality. When we have processes or attributes that have a tie to water quality such as width depth ratio, we should explain the benefit to water quality, beyond just sediment which is well described. I skimmed the checklist and was surprised that there was not a category for aquatic invertebrates or addressing water quality issues such as macro-invertebrate diversity, presence of algal mats, etc.

Include a ground water discussion. It is related to many of the check list questions (# 1, 3, 4, 6, 9, 10, 14, 16, 17). With the development of the ground water program as a fully functional parallel program, there is a NEED for the evaluation protocol (in pilot now) for groundwater dependent ecosystems to mesh with PFC and its concepts. Look at the ground water program (FS Manual) for the definition of groundwater, it includes most stream systems. Additional groundwater material would be useful.

The interpretations of the functional-at risk and nonfunctional definitions by newcomers seems to be confusing. FAR say “an attribute makes them susceptible to degradation” – this often is interpreted as degradation is not occurring, or NF definition “stream is clearly not providing adequate.....,” this becomes interpreted as any question that is checked “no” in these sections makes the stream rated as NF. The result is that many discussions often feel can be rated as FAR. Even though the instruction portion of the class addresses this more clearly, the manual might be able to better discuss these definitions. Those of us involved with riparian understand the difference, but my experience is that brand new people have difficulties with this definition.

Weeds, invasives. Tend to overlook weeds as an indicator of stream degradation. Usually weeds indicate were losing key species and leaving open spaces for invasive and other undesirable species to come in. By noting weed species and locations we can better map riparian areas that need treated. Some discussion on invasives and their impact on functionality (i.e. tamarisk).

Specific checklist items mentioned:

- Question #1: how to use gage data, regional curves, watershed information to properly identify the floodplain consistently and accurately.
- I dislike the phrasing of question #2 (beaver dams). Many systems have obviously, or sometimes not as obviously, supported beaver in the past. When those dams are gone, we tend to blithely mark “N/A” on Q2 and proceed. I have to push to get a discussion of past/potential

beaver activity in the comments. I can't suggest how to reword it but I don't like the implication it gives now, that oh well, the dams are gone, next question.

- Question #5 “upland and watershed not ____” needs more clarification. What is upland? For Q5, is “riparian degradation” - change to channel structure or change to water and habitat quality i.e., from sediment? Checklist question #5 needs clarification. Clarify “upland watershed.” #5 - Upland watershed not contribution to degradation – often this is obvious issues in upland, but sometimes hard to see immediate impacts on stream channel, more guidance on how to answer this question. Share Canadian Riparian Team's Lotic item #5 with whole network.
- TR-1737 -15 – items #6 and #7. As far as #6, diverse age class is much more complex than is indicated in either the question or the narrative. Same goes for item #7. We have field personnel stumbling over these 2 questions because of lack of clarity. *Question #7* – is two species really diverse? I think this wording trips people up. May also want to split some of the vegetation questions to separately address herbaceous and woody components (sometimes you may be lacking in woodies, but herbaceous is considered diverse – may allow some users to overlook that missing or repressed component.
- Item #8 – In question talk about “soil moisture characteristics.” In write up if talks about water table being maintained – shown by obligate wetland plants. In our deep (E6's) flashy streams we will not have a high water table. We will have FACW to FACU plants and moist soil conditions.
- Question #9 *needs* clarification, and *so do* other questions. TR-15 question #9 – dominated. Need to clarify dominated; *it* does not necessarily mean “enough of” it means of all the vegetation there, what is there the most of? Upland or wetland –composition measurement. This was confused in the conference two years ago in the vegetation breakout session. The leaders did not agree on it. Incorporate updated material (i.e., white paper on Question #9). *In fact*, Integrate white paper on questions 7, 9 11 into TR 1737-15
- TR-15 Items #8, 12 and 13 need to be revised.
- Item # 12 and 13 – Different interpretations as to when wood is needed in the different types and size of streams. Large enough to stay for a period of time to operate as a “hydrologic modifier.”
- TR-15, Q#16 – vertical stability – this needs to address cumulative bank damage (bank shear).
- Clarify question #17 of 1737-15. What is meant by watershed. “Watershed?” Does it include the stream and uplands, or just the uplands, etc?
- *I have a specific suggestion for Page 12* – Soils and water quality attributes and processes are included in Table 1, but not in the questions. I have had a lot of questions about this. Suggest dropping from the table.
- Lentic #7 – how is *safe* passage of flow relevant to *function*?
- Hummocks – need current research, methodology, and examples of what is good (OK) or bad (not okay). In depth discussion of hummock repair and problems “abnormal heaving.”

Provide a consistent training PowerPoint, allow photos to be edited but keep content consistent.

PFC Lite for non journey-level. Create a companion C&C booklet that isn't as technical, following Cows and Fish example.

3. Do you have any suggestions regarding the process of convening a diverse team to address the revisions?

Have one workgroup then send out for comments. Small team to create draft, diverse committee to review and get diverse perspectives on final. Keep the actual “core” writing team small in size (4-6) but have the draft product reviewed by a larger group, set a hard deadline for their review. I think a core writing team with a bigger review team is a good suggestion. Writing team needs a dedicated “lead” to keep team focused and moving forward. Two teams, one smaller group to do actual rewrite, one group to review (larger, more diverse – private sector, universities included). I recommend a team of agency experts be convened to work on the revision.

Two concurrent teams is also a good idea but they must be linked somehow.

Inter-agency team but keep at journey level. Multi-agency. Use folks who have used the TR’s extensively and from a wide range of disciplines. Include multiple levels of users: field, state/regional, management, research. Leading ecologists from each government agency need to be involved to enlist buy-in. Also, experienced users need to be involved. Interagency with both experts from high enough up to ensure buy-in and experts from “field” level people, people who have a lot of experience working with the process. Keep it limited to technical specialists; these are Technical References. Interdisciplinary. Convene agency experts for 3 con teams hydrology, soils and vegetation. Each team would then update in their respective disciplines, then have broader review teams. A mixed group: inexperienced people to proof understandability; experienced people to improve definitions and content. Invited team from key supporters of the vision of the Network. Multiple interests, not just agency and not just grazing. Include others (NGO’s, producers, universities, etc.,) with appropriate background.

Get line officer support. Line officer-staff level to improve buy in for process.

Ask for volunteers. Do a call for participant. Circulate the call widely.

Suggested people. Paul Summers – Ground water. I’d be delighted to help with TR 1737-15 (Sherm Swanson). It would really help to have folks like David Merritt (USFS), Brett Roper (FS) since they are experts who may have concerns with the value of the assessment.

How. The group needs to start with the premise that the guides will not be rewritten but merely tweaked to include the latest science. Have state teams come up with new/revised questions, and then give to a diverse team. Do in a few concentrated meetings/session. Web meeting.

Go out for a review by all partners. Take the comments and have them integrated into the TRs by small group. Incorporate into TRs as appropriate. Internal review and print. Open this up for review by all users. At this level a system to manage comments would have to be developed *before* reviews could be undertaken. Email all agencies in natural resources and let everyone make comments. Start with BLM District/FS Supervisory Offices/NRCS Area office, interdisciplinary teams, then the field unit, the users, including landowners, need to have input. Have the riparian at the field office/unit level consolidate input to next level then the state/region level.

Workload. NRST workload of requests is too large to take this on without some MAJOR workload shifts. I doubt agency folks have time to take on this task so I would suggest using a third party contract (maybe the IDIQ) to get this done in a timely manner.

Monitoring

1. What are some of the greatest challenges you (or your peers/customers) face implementing riparian monitoring on your units?

Interest. Increase their awareness of the positive outcomes of monitoring. Getting past notion that simply doing PFC is sufficient for monitoring. Create more awareness of need to monitor riparian areas.

Trained staff. Steep learning curve for many. Lack of training (some cases). Lack of knowledge about monitoring protocols. Teaching new employees monitoring techniques. People do not link all the steps and processes within which monitoring exists. The capability/expertise at the field office level. Too many projects not enough trained people. Consistent expertise. Lack of trained folks. Teach the adaptive management philosophy.

Missing pieces of interdisciplinary teams: lack of trust between disciplines differences in skill level. IDT team collaboration. I'm new to my office but monitoring challenges that I foresee are that the range folks are new and not well-versed in riparian or PFC and they are overworked. Staff whose only purpose is to show livestock are bad. Addressing traditional issues that arise from the turbulent boundary between water science and water management (Peter Cullen 1990).

Funding. With extremely short funds and difficulties getting to sites, following monitoring gets low priority. Priority > funding. Money for people, equipment, etc., There will be funding issues and therefore resistance to incorporating quantitative monitor protocols. Funding: lack of. Money and people. Funding to improve riparian areas through awareness: monitor, management change – desire for better health and function is there, but no money or support mechanism to get there. Lack of funding to hire seasonal staff to collect monitoring data. Monitoring was almost not funded this year by that agency despite its required.

The time requirements. Time, money and expertise. The current challenge I have is having the time to collect monitoring data based on current workloads. Time and resources are focused on litigation and Freedom of Information Act *requests* (FOIAs), rather than on the ground work. Also lack of time. Time and money to accomplish appropriate monitoring. Time. Time and money to do it. Time and money. It takes too long to collect quantitative data. Sometimes, the amount of time needed. Time – Expertise – Interest. Time and training to do monitoring. How can I get more of your (every professional in Natural Resources) time and expertise to train my people to provide higher quality data?

Workloads. Manpower and funds to conduct monitoring work. Demands by workload. Grant, oil and gas workloads. Work load doing other things. Competing workloads – permits vs. stewardship. Change in focus in so many other demands. Work force.

Buy-in from management. Leadership support. Line support for adequate monitoring and training for monitoring. Line staff indifference. The consistent or long-term support from management (at Field Office level). Lack of FS support at the WO level results in lack of support at the field level. Low priority for managers. Having managers understand the importance of monitoring, and have them prioritize money for training on monitoring. Managers do not support the IDT time to do it. Getting the agencies to do it. They just don't do it. Watershed management and integrated resource management not social, economic or governance priority. I am on a state team but due to a lack of urgency the perception of Regional Leadership is not supportive. Consequently and sadly, my time is not funded to assist our team. Washington Office/Bureau funds projects and widgets like that but funding monitoring is not a priority. Indifference by management, i.e. Managers without resource background don't understand importance. Getting buy in to the process both within agencies and to those outside of government. Managers just don't get "it." They don't make their people do it.

Limited governance and policy. Centralized process and direction lacking. Lack of an overall plan. Piece-meal monitoring. Motivation for it, no question. Absent some regulatory mandate. Internal accountability. Too much "not invented here" mindset so rejecting good tools and opportunities. Time, funding, management direction. Getting agencies (Federal land management agencies) to stop moving their management/standards targets, i.e., 6" maximum stubble height or 6" minimum or 6" average or ? Establishments of upper level priorities.

Issues:

- **Bank alteration.** Streambank alteration trigger values are established in INFISH (applies to all FS lands within Infish Record of Decision or Biological Opinion. Violation is grounds for reinitiating formal consultation and ceasing grazing until completed. Follow through changing strategies for management.
- DMA selection.
- Desired future condition.
- Getting results into report.
- Ephemerals.
- **Riparian plant identification.** Species identification.
- **Quality control.** Relevant data collection.
- Complete lack of monitoring data.
- Complex problems.
- Need to get this work into published form.
- Providing the right information to the groups that need it the most.
- Lawyers who do not know what they are talking about.

Community relations. i.e., Can't trust the Feds. Perception that Feds are conspiring toward long term goal of no cows on public lands. Disagreement by permittees that what we are measuring is really "bad." Getting more on the ground movement from producers. Grazing permittees with a sense of entitlement – that BLM owes them the right to make a living off the public land in the way that they choose. Really need to bolster the state teams' role with the agencies, states, and private parties.

Putting adaptive management in NEPA. Sense of irrelevance because of a false belief in the ability of agencies to practice adaptive management. Good objectives. Ability to set objectives based on function and values. Document questions that monitoring will answer.

Data management across networks. Filling in gaps and getting data “on-line” with new databases. Use of IT to lighten load.

NA. Un-necessary for most NRCS work. Monitoring on private lands!! No authority or control needed!!

2. How can you (State Riparian Teams) help Creeks and Communities customers in your states improved their riparian monitoring efforts?

Introduce concepts and methods. Make FS districts, BLM field offices, and other agencies, NGOs aware of the service the state teams can provide. Get the word out. Awareness and importance of monitoring to the recovery/sustainability of the riparian ecosystem. Begin to talk about it a lot more. Do briefings. Encourage people to learn and network. Demonstrate the need to monitor. Demonstrate the benefits of monitoring. I can provide workers (minions) who will work and provide help for only the opportunity to learn. Salesmanship as part of on-going PFC training. Clearly linking how PFC and monitoring are inter-related. Provide information as to what and why certain attributes need to be monitored. By showing them how to do it, why it’s important, and what they can learn. Work more with the landowners and public. Let the public know that we are available and understand what we do – more public outreach. Provide publications to agencies and public. By getting information and handout out to interested publics and agencies not involved in the process. Expand outreach to universities to engage/employ more young people in these efforts. Earlier education on importance of riparian function to social resilience. Advance this as America’s Best Idea for 21st/ century, regenerative and adaptive. Beat them over the head with the law and the commitments that our agencies have made. Have lawyers run wording through specialists.

Providing expertise for monitoring. Be better at it ourselves (do it). Recruit riparian monitoring expertise people to (state) team. Help support and find new riparian team members. Advice to state team: hire more qualified people or/and bring on new folks to train. State teams. Have members that are available to be on the team. Interaction w/ NRST. Improve networking. The best way I see to help is to just be as knowledgeable and patient as possible. Be patient. Man power – limited!! Expand to non-traditional agencies.

Training. Workshops. Provide more opportunities for workshops. I can provide trainings. Facilitate some MIM Training sessions. Offer MIM Training. Provide training and follow up MIM training with MIM implementation assistance. Offer Greenline training since MIM training will be years away. By providing appropriate training and field visits when asked. More open training on PFC and monitoring. Provide training. Teach monitoring classes. Conduct monitoring workshops with clientele bringing in their real problems. Training. Have Steve and Tim come down every year to hold a class – seriously despite the training our customers aren’t going out and doing it. Provide access to training opportunities such as MIM workshops. Focus on training and basic education on relevance of riparian function to politicians and judges. Education on riparian function. Education on upland function give land use. Education using function as an analyses tool. Do everything possible to educate them or at least advocate getting them educated in riparian management. Education through PFC and school kids. Stay active and continue to respond to requests for training – requires Supervision support.

Starting. Work w/ people to set objectives. Set attainable objectives. Expand on helping field folks determine potential and capability. Provide guidance to accomplish monitoring to answer the question. Create a reason to monitor, a common question. Help people identify specific monitoring questions and only then start telling them at potential. Monitoring plan design that includes hierarchical planning. 1-800-ask-TimB. Have a clearing house of data for public access. Increase service trips. Include partners in on-the-ground monitoring as we often do with PFC. I can provide tools, equipment to the employees, in my agency.

Protocol development and review. Get MIM peer-reviewed. Develop a tool that private landowners may use to monitor on farm/ranch riparian ecosystems. Techniques and monitoring methods. Continue network/team approaches to increase consistency and constructive challenges/review of approaches/methods – all leads to better programs.

Support through management team. Have management support for riparian leads to put time and effort into service to customers. WO Support to state management teams. Support to management for monitoring. Provide IM to push MIM a centralized method and an agreed upon approach. Develop/implement a performance metric that funds and integrates effectiveness monitoring to adaptive management for all line officers. Reach upper management such as SO, DM staff(s). Work w/SO and WO to secure funding for support. Focus support of time and money to team members. Difficult- but getting more training to managers.

Get examples of obvious success. Highlight success stories.

Meeting Feedback

1. What aspects of this meeting went well?

Diversity of attendees – geography, age, sex, backgrounds. Good variety of participants. Broad group represented, lots of expertise. Knowledgeable people. Private landowner presence. Most of the non-agency participants, fresh/realistic perspective. Participant attitude. Number of attendees – clear quorum.

Leadership presence. *It was good luck getting some Washington Office (WO) brass to come over from other meetings in town. WO “support-by-being here” showed interest and value of the program. Also nice to hear from WO leads.*

Meeting facilitation was outstanding. Sticking to schedule – very impressive! Good facilitation. The meeting was kept on schedule. Kept to the schedule. Stayed on schedule. Stayed on time. Tight schedule. Liked staying on time. Speakers kept to timelines. Staying on time. Kept to the agenda time frames. Logistics of meeting.

Location. Stay in Reno. Adequate travel time.

Networking. How different disciplines were able to cross pollinate. Interaction between State teams – idea exchange and etc. Excellent opportunity to reconnect, exchange of ideas and thoughts. Ways to

keep my work relevant. Networking between individuals and Cadres; resource sharing. Sharing of information/dialogue. Sharing of information. Networking, network opportunity. Opportunity to connect with WY riparian team (7 of them). Long breaks and lunch, I networked my head off. Socializing and networking. Time for interaction. The interaction between everyone. Lots of time (mostly) for questions and networking.

Break-time. I liked the interaction at the breaks about the topics presented before the breaks. Appropriate breaks. Good, long breaks for networking. Good amount of breaks for discussion among members. The long breaks for talking with people. Long breaks for networking. The long breaks. Breaks. Built in time for discussion, networking. Many breaks to allow for socializing and networking. Relatively long breaks allowed conversations. Getting everyone together with long breaks. Lotsa breaks.

Agenda, timing, interaction. Basing the meeting from the interviews worked well. Length of time for sessions and enough time for talks. Knowledge of presenters and time for Q&A. The structure, content and flow of the agenda. The flow and all the parts were GREAT. The pace. It flowed well from 1 presentation to another. Timelines of information disseminated.

Quality speakers! Some great public speakers. Level of experience and expertise. Mostly very good presentations. Interesting speakers. Talks went well, sometimes too long – same amount of information could have been presented in shorter amount of time. The organizers did an excellent job of inviting top notch *speakers* which drew a highly interested, motivated audience. Great scientists doing social stuff.

Good mix of speakers and topics. Diversity of topics/presenters. Good blend of technical and social. Good make up of social-oriented and technical-oriented presentation kept it interesting. The variation in panels/single presenters/state reports helped. Topics are very relevant especially to my program. Lots of variation. The various topics. Lots of variety in topics and speakers. Organization and presentation of topics. Well organized agenda. Interesting and helpful agenda. Subject matters were applicable to issues at hand. Diversity of speakers, topics. I liked the variety and diversity of topics, it kept the meeting interesting and exciting. Good overall program. Great information sharing. Interesting presentations with relevant topics. Good mix of information from generalists to subject matter experts. I felt the whole meeting was conducted very well.

Everything was relevant – lots of evidence of C&C relevance. The subjects discussed are very relevant to our immediate and long term goals for riparian management. Topics were pertinent and relevant. Large number of relevant topics. The continuing strength of the Network was tapped for exciting developments. Extending C&C concepts into new areas beyond PFC. Various agencies prospective on PFC. C&C framework keeps us focused on the fact that we manage lands in use; a working landscape. This was brought home by the Cow-Fish presentation and WO comments on livestock grazing. The focus on eco-processes, social equity, and economics viewed as a triad is the reason the C&C process works over and through so many diverse groups. Better take home information than past meetings. More Cadre level relevance than past meetings. Sharing as a group and seeking solutions for cause, not *just* the agencies.

Participation by all. Discussion. Audience interaction sections. Everyone got a chance to talk and voice questions. Well organized, good interactions. Once again, the trans-boundary invitation to attend and to present some of our work in the private sector and in urban landscapes.

Collaborative aspects. Personally liked the social science discussion – communicating with the public. Liked information on facilitation of gatherings. Our team thought the discussion/presentation on social aspects of C&C was very helpful. Integrating social elements.

Panel discussions. Enjoyed panel discussions. Very good panels. Being new to all this I thought the panel discussions were very informative. Panel discussions provided thoughtful extension of ideas/concepts while integrating many areas of expertise and allowing anyone to contribute.

Recognition from upper management. Top agency leadership showing up and giving personal endorsement to C&C. Thanks and you deserve the award.

Grounding. Grounding → very useful. GROUNDING –yes, yes, yes.

State reports. Crucial to know what Cadres doing. Good to see how other teams are changing. Team reports to give ideas on what we can do in our own districts, etc., I liked the state reports and the excellent discussion on riparian issues that will better help me do my job more efficiently. Update by groups – state teams. State cadre reports especially_Canada. State reports. State updates. State reports – sharing what's working. State teams talking about impact of their work –NRST should do that too. State/Provincial Team reports. State updates. Breaking up the state team presentation and the agency presentations. Inter-mixing states among the presentation was great. Spacing out the State reports. Splitting up the state presentations over 3 days. The spreading out of State reports. Interspersing the State Cadre talks throughout. Breaking up the state team presentations.

Opportunity for state *team* meetings. State team breakouts.

Case studies. Case studies. I liked the presentation from people that are doing the ground work, those folks that are actually implementing what is being taught; the success stories. Presentations by non-federal entities – gives hope for the future and recognition of the value of our processes. The private talks showed how this is relevant to the private sector. Talks that provided real world successes and the path to that success. Talks by individuals (not agency) of using and applying PFC. Real life examples of C&C at work. Success and failure stories. Formal “experienced-based” presentations. Case studies Nueces Ranchers. Case studies were very good: Ranching Heritage, Nueces. Nueces Case Study, Apache-Sitgreaves Case Study. Liked the input from Canada and Texas (Nueces River Authority). The case studies were very informative: Ranching Heritage, Nueces Case Study. AZ Heritage group/Nueces group. Case studies – AZ, TX.

Cows and Fish. Cows and Fish presentation. Cows and Fish. Alberta PFC Like. Cows and Fish process.

Introduction to Holding onto the Green Zone and teacher's presentation. Ideas for the future – Brian Wachs presentation was great. Holding on the Green Zone. Green Zone w/ Brian Wachs. The energy Brian Wachs brought. Other uses of PFC, school system education.

Excellent evening presentation. Reports from Canada.

Appreciated the streambank alteration discussion.

Riparian activities by agencies – could include other organizations.

Technical Reference update discussion.

Monitoring session. The monitoring section was very good. Monitoring session: always needed. The monitoring panel connected to management. The monitoring section and panel discussions. Jo's practical approach to monitoring. The examples of monitoring and the explanation of Multiple Indicator Monitoring (MIM) were great. New information and methodologies (MIM). Like hands-on monitoring information. Monitoring discussions. Monitoring discussion. Monitoring discussion. Monitoring discussions. The technical stuff on day 3. Discussions re: available data and manuals: NRCS (Gene Fults); MIM.

Media, could hear and see well. Good sound systems.

Documents at back table. Powerpoints to NRST Web Site.

I learned a lot. Being new to all this I thought the wealth of resources that were provided will be helpful to me down the road. We (I) always learn more and take away more than we leave.

2. What would you suggest we do differently in 2010 in terms of both process and focus?

Outreach. Increase personal phone calls inviting key participants (public, landowners, etc.). Seems academia and extension communities are missing – target invites. Bring in the new, younger employees so they get the energy and enthusiasm for this program. Achieve more balance between Federal Agency staff and outside (state, private landowners, environmental groups, consultants, educators). Although the focus/participants were from a broad spectrum of areas, perhaps more variation (agencies, private, education) would enable different discussion. Better private sector coverage. Closer link to EPA and other agencies with interest in outcomes of NRST objectives. Invite other agencies- WO. Try to get more managers to meeting from the field level.

Location. Rotate location. Not Reno or at least not a casino. Please hold this somewhere else than a casino! Address 2nd hand smoke from outside of room. Personally I did find the cigarette smoke in and just outside the meeting room rather problematic and there was more than once not enough hot water, etc, at breaks. Pick a hotel w/ free/reasonable access to *internet*. Meet on a creek. Do some outdoor activity.

Process was fine. Process: keep as is. I like the current process. Would not change the process of the meeting. Keep it the same. Will need to do interviews for next session.

Process change. Try to encourage interaction among those who do not ordinarily interact which could be accomplished through assigned seating to deliberately force participants to interact with others or through small working or discussion groups. Still may need a means to bring about a "forced" mixing of the "cliques," yeah, even within this group. I think breaking up into groups to either solve problems or develop next steps for making progress. The development of a set of priorities to work on and

participants to contribute, however, meeting was excellent. Present problems on the ground to group and brainstorm. More problem solving opportunities such as in small groups. Example 1: Working session on objective development. Example 2: Working session on communication of riparian values. *One* group exercise such as at Consensus Institute; possibly invite Chadwick. Perhaps some breakouts to allow separate discussions to technical and less technical information. Longer breaks. More optional night presentations. In terms of order, perhaps more detailed/content presentations (mostly Thursday this year) *before* some or all the state updates which had little detail/content and a lot of repetition as that might have inspired more food for thought on those topics early in workshop. Management support – i.e. funding/make it a priority work (above planning). Handouts of all presentations to track and write notes.

Shorten the grounding, it tires me out and makes it hard to focus on the rest of the 1st day. I like the grounding, however with so many people *it is* very overwhelming to pay attention for so long, also feels impersonal. Not sure how to change it, but perhaps breaks during it? Shorten the initial grounding process, 2 hours is a long time for introduction, *even though* I know this is important aspect of the meetings. More facilitation of smaller group discussion (so newer members can meet long term members more easily).

Suggested focus/themes:

- Keep the focus on what the team and the network experiences as needs, innovations, direction opportunities, relevance, and emerging issues.
- 2011 may dictate the focus for 2012.
- Just keep relevant to organization goals and objectives considering changes in leadership and policy.
- Possible theme: Application.
- Focus on restoration – possible theme for next time.
- Focus: Jumble/mix of topics. I rather like an orderly progression in the hierarchy → National Scope → to regional scope → specific local scope (state reports) then the science.
- Focus: update i.e., Latest science and technology.
- Focus: PFC → monitoring → assessment → collaborative.

Suggested agenda topics:

- State reports again.
- **Keep blend of technical/social.** Focus of next meeting: updating (tweaking) manuals and in depth training on good group facilitation techniques. Successful collaboration panels – getting initial buy-in! Keep a balance of technical and social in the future when explaining social techniques avoid words like important and add some references. More information/focus on service trips. Feature a segment of the C&C Evaluation. Focus: Keep a blend of social – technical – economic topics. Sing Kumby-ya in a circle.
 - It feels to me like the C&C strategy is beginning to assume that maintenance of livestock use everywhere, is the priority. As in Jo's talk on Thursday, if the only place a cow can stand is on the creek, and they look like that, then maybe that's not an appropriate place for livestock grazing. I get the need not to scare producers away, but the subliminal message that grazing is always ok isn't good either.
- Less on collaboration.

- **Focus on additional case studies.** More case history/panel discussion. Reports on Green Zone success or failure would be good. Continue with examples of C&C in action and show results. More good case studies. Some landowner input.
- Roll out the newly revised TRs.
- Offer vegetation classes/specific identification pamphlets, for example, specific area similar to Nueces.
- Not necessarily different, but continue to provide updates and information so we can stay current and relevant.
- Idea: Have some pre or post session training offered. i.e., Train the Trainer for MIM.
- Carbon sequestration of wetland riparian areas.
- **Update on Streambank Alteration.**
- Maybe a better explanation of how the group open discussion (TR 15,16 update) will be incorporated.
- Objective (to) → action selection and design (to) → monitoring (to) → effectiveness discussion.
- **More on monitoring.** Relate MIM, PFC, states in transition, create crosswalk if possible. Focus more on monitoring efforts, both training efforts and on the ground efforts. Monitoring discussion earlier in the week. Update on MIM. Focus more on monitoring up front in agenda. Focus on MIM data and its relation to other protocols. MIM's applicability to the various stream, wetland, and upland programs.
- Focus: Reports.
- Reference to academic training and education programs. Colleges, undergraduates, graduates need integrated programs.
- More focus on economic leg of NRST.
- **Beyond PFC.** Expand beyond PFC and MIM (non-NRST products). Include associated resources, i.e., riparian tie to water quality, fisheries. Have a session with a focus on how to convince the regulatory agencies to properly utilize various methods within the C&C suite of programs. Relationship to water quality, benthic, and pelagic communities and the various restoration programs.
- **Lentic systems:** this meeting was very lotic-centric. Need to have a section on lentic systems.
- **Change up agency leader panel,** that doesn't connect well with me. We want them present and participating but do something different. Minimize or redesign "WO Panel." Shorter or brief WO. Keep agency program leads individual discussions but eliminate agency panel. The agency leads on Tuesday said very little that was relevant to the C&C program. Have more time for question/answer with the D.C. agency folks.
- Allow 1 more hour for Cadre's to complete/discuss their work plans.

Being it's my first meeting, I'm not sure. Because I'm new, nothing in particular struck me as out of place. This meeting will provide a good baseline for my input on the next meeting. All-in-all, have no complaints or suggestions.