

A Progress Report on the Creeks and Communities Strategy

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A Progress Report on the Creeks and Communities Strategy

By the National Riparian Service Team



February 2009



Foreword

Before either of us became heads of federal agencies, we were U.S. Forest Service employees. Jack was the project leader for the Range and Wildlife Habitat Laboratory in La Grande, Oregon, and Mike was the lead fisheries biologist in the Washington Office.

As part of the research effort at Starkey Experimental Forest and Range near La Grande, the Forest Service was conducting experiments to determine ways of managing riparian zones with cattle grazing to sustain high productivity, desirable streambank vegetation, and productive fish habitats. In designing our experiments, we consulted with a Bureau of Land Management wildlife biologist who, using his experience and any available research on management regimes to accomplish those ends, was carrying on a crusade. Wayne Elmore already had the title of “Dr. Riparian” bestowed upon him by his colleagues. Entrepreneurial in his approach, he was not deterred by crossing agency and ownership boundaries to pursue his calling, but he was, to a large extent, a one-man show. He knew and preached the gospel: that streams and rivers were the final integrating features of land management—they know no boundaries and run from the headwaters to the sea—and that streams and landscapes would never be as healthy or as productive as they could be unless awareness and responsible management prevailed among all property owners. That philosophy made perfect sense, but boundaries—between agencies, between private and government landowners, and between individuals—stood in the way of improved management.

Due to some odd quirks of circumstance, in 1994, Jack had become Chief of the U.S. Forest Service and Mike became Director of the Bureau of Land Management. Wayne Elmore knew an opportunity when he saw two friends and

colleagues of long standing heading the two largest federal land management agencies. It did not take long for him to appear in Washington, DC, fully prepared to discuss his dream. That dream was to establish a team of consultants that could provide guidance to federal land managers and to private landowners, bringing about the need to have the Natural Resources Conservation Service, which assists private landowners with implementing conservation practices, as a key partner. We were not hard to convince, as the logic seemed impeccable, but our collective staffs found all sorts of reasons that a team of experts from various agencies simply could not and would not work—there were many bureaucratic problems.

We conferred with our counterpart Paul Johnson, then Chief of the Natural Resources Conservation Service, who quickly came to share the vision. We agreed that we would make it work and that Elmore would head the effort. This launched the creation of a team of interagency experts to take on consulting, across boundaries, on management of streams and riparian zones throughout the Western United States.

The original vision was based on the following premises:

1. Changes in laws, regulations, or other “orders” were not apt to lead to the on-the-ground changes in resource conditions that were needed—instead it was essential to integrate ecological, social, and economic factors to achieve success.
2. To succeed, management had to take place in a coordinated fashion across jurisdictional boundaries.
3. Effecting broad-scale changes would require extensive outreach and the creation of a

large cadre of experts with an enhanced understanding of riparian-wetland function and the ability to influence change in land manager and landowner behavior.

Initial efforts focused on providing technical training to large numbers of people responsible for riparian and wetland habitats. The improved understanding was helpful in building a foundation for the effort but did not result in the individual and collective behavior changes necessary to make the desired level of progress in improving riparian areas and streams. Time, experience, and ongoing evaluation of the effort made it apparent that midcourse corrections were necessary. In 2002, while the purpose remained the same, the strategic approach was revised. Training and efforts to provide technical information remained ongoing; however, the primary focus shifted toward improving the integration of ecological, social, and economic factors impacting riparian-wetland issues; working with individuals who were concerned with site-specific circumstances at their locations; and bringing the necessary expertise, management approaches, and resources to bear.

As time passed, we both ended our federal service—followed, in not too many years, by Dr. Riparian. But, as proof that our vision was well-founded, the National Riparian Service Team and the Creeks and Communities Network continue their work, and through them, the vision lives on. They have learned much along the way. Progress has been steady—but slower than all involved would like. Applicable technical information has accrued rapidly, but to no one's surprise, the cultural milieu from which humans respond evolves much more slowly. And, after all, the management of natural resources is more about people than about technical knowledge or innovation. The progress report that follows outlines the evolution of the ongoing strategy and provides real-life examples of what the developed approach to place-based problem solving looks like when applied on the ground. This report will soon be followed by another formal evaluation, which will provide concrete information about this strategy as it continues to evolve.

Jack Ward Thomas

Chief Emeritus, U.S. Forest Service

Michael Dombeck

Chief Emeritus, U.S. Forest Service and
Former Director, Bureau of Land Management

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Executive Summary

“Creeks and Communities: A Continuing Strategy for Accelerating Cooperative Riparian Restoration and Management” (hereafter referred to as the Creeks and Communities strategy) represents an innovative and adaptive approach aimed at building the capacity of land managers and stakeholders to address complex and often contentious issues inherent in managing riparian-wetland resources. It is a continuation of an effort initiated in 1996 by the Bureau of Land Management (BLM) and the Forest Service (FS), in partnership with the Natural Resources Conservation Service (NRCS). Focused primarily in the Western United States, this strategy is implemented by a diverse group of individuals and institutions referred to as the Creeks and Communities Network. This network includes the National Riparian Service Team (NRST), state riparian teams, and agency coordinators.

In 2002, the original strategy was revised based on the findings of an extensive program evaluation covering the first 5 years of implementation that identified a number of shortcomings and challenges. The revisions addressed the need to incorporate more of the principles and practices for dealing with human and social dimensions and to improve the blend and balance of technology transfer and problem solving within activities. One of the primary changes within the new strategy was an increased focus on service trips as a vehicle for achieving cooperative riparian restoration and management.

Service trips are a combination of training and place-based problem solving efforts that are designed to address the technical dimensions of riparian-wetland related issues while at the same time recognizing and addressing the social context within which these issues exist. Service trips often occur over a series of phases and emphasize incorporating and facilitating

respectful communication across a diverse range of stakeholders while also involving the appropriate mix of natural resource specialists. Given the important role of service trips in the revised strategy, this progress report is designed to highlight this type of assistance and shed light on what it looks like on the ground.

This progress report covers the 5 years since the strategy revision and provides a description of the Creeks and Communities strategy, a summary of network activities, detailed case studies conveying the application of the principles and practices that characterize the strategy, and a synopsis of all service trip activities undertaken by the network. A brief review of strategy objectives and activities is provided in table 1. Detailed information on all the network activities is documented in annual accomplishment reports that can be accessed at www.blm.gov/or/programs/nrst.

Although much progress has been made, riparian-wetland areas continue to be a focal point because of the many values and benefits associated with them. The survival and well-being of communities depend upon addressing the long-term need for increasing water supplies, and as the population continues to increase, so do demands and additional causes of conflict. The problem is that the condition of many watersheds, riparian areas, and wetlands is diminished, and their ability to capture, store, and release water more slowly and for longer periods of time is far reduced from what it could be. The nature and scale of this problem suggests the need to continue and expand the application of the Creeks and Communities strategy, as it will take a critical mass of people acting from shared knowledge to create significant on-the-ground changes.

Table 1. Creeks and Communities Objectives and Activities (FY 2003-2007)**Objective 1: Create awareness and understanding of, and interest in, this strategy and invite participation across multiple scales.**

- In addition to producing a bimonthly newsletter, a website, and a variety of other products designed to market the strategy, the network provides briefings and presentations and makes key contacts to introduce the strategy and invite participation. There have been approximately 288 of these activities in the past 5 years.
- Technical references and other products that aid strategy implementation have been developed in response to requests from field personnel to address specific topics or issues (e.g., grazing management for riparian areas, interpretation of proper functioning condition (PFC) checklist items, creation of a PFC database, clarification of monitoring protocols, and development of various riparian training courses).

Objective 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.

- Approximately 193 training sessions were held throughout the Western United States, including Texas and Alaska, and also in British Columbia, Canada, and Chihuahua, Mexico. Training sessions and workshops have had diverse sponsorship and participation.
- Biennial network meetings have contributed to state team development and work-planning efforts. Additionally, the NRST has provided direct support to at least 26 state team activities.
- The NRST has reviewed and provided feedback on approximately 67 projects, products, reports, and plans.
- The NRST has been successful in garnering program support to serve as a "learning lab" for building skills in collaboration and offering special training in consensus facilitation.
- Approximately 100 service trips and expanded trainings have taken place during the past 5 years at the request of various and diverse sponsors.
- The NRST is part of a developing partnership called the Working Landscapes Alliance involving nonprofit, private, and government entities joined in an effort to provide assistance and support to rangeland and ranching-dependent communities. This partnership represents a new and expanded avenue for service delivery with additional opportunities to leverage skills, networks, and resources needed to get work done on the ground and increased flexibility to work more effectively with various communities.

Objective 3: Ensure consistency and effectiveness through activities focusing on program management and accountability.

- Operational planning has become more structured based on program priorities and decision criteria linked to strategic objectives. Network accomplishments are consolidated into annual reports.
- Informal evaluation has led to adaptations during the past 5 years and preparation is underway for a second extensive process that will examine the years following the strategic plan revision.
- The number of NRST activities accomplished through leveraged funding has steadily increased, growing from roughly 5 percent to 65 percent of the activities during the past 5 years.

Introduction

The Creeks and Communities strategy is a continuation of an effort initiated in 1996 by the Bureau of Land Management (BLM) and the Forest Service (FS), in partnership with the Natural Resources Conservation Service (NRCS), titled “Accelerating Cooperative Riparian Restoration and Management.” Activities are focused primarily in the Western United States but have also occurred in Canada and Mexico. The strategy is implemented by a diverse group of individuals and institutions referred to as the Creeks and Communities Network (figure 1). In addition to delivering services in response to requests for assistance, the network also enables coordination, learning, and information-sharing among its members.

Capacity Building

Increasing ability or enhancing capabilities in individuals (managers, users, etc.) and groups (stakeholder groups, communities, etc.). Capabilities are things such as individual skills, interpersonal relationships/networks, and resources (people, equipment, time, and authority) needed to get work done.

provides so many societal values and benefits.

Overall, it represents an unprecedented amount of outreach and education across a wide geographic area to foster relationships, trust, and a common vision as the foundation for collaboration to improve riparian-wetland resources. Under the Creeks and Communities strategy, service trips, which are a combination of training and place-based problem solving incorporating a diverse range of stakeholders, represent the primary vehicle for providing assistance. As a result, they are the focus of this progress report, which covers the past 5 years. The sections that follow provide a description of the Creeks and Communities strategy, a summary of network activities, detailed case studies conveying the

Creeks and Communities is an innovative and adaptive strategy, aimed at building capacity for addressing complex and often contentious issues inherent in managing a part of the landscape that

application of the principles and practices that characterize the strategy (appendix A), and a synopsis of all service trip activities undertaken by the network (appendix B).

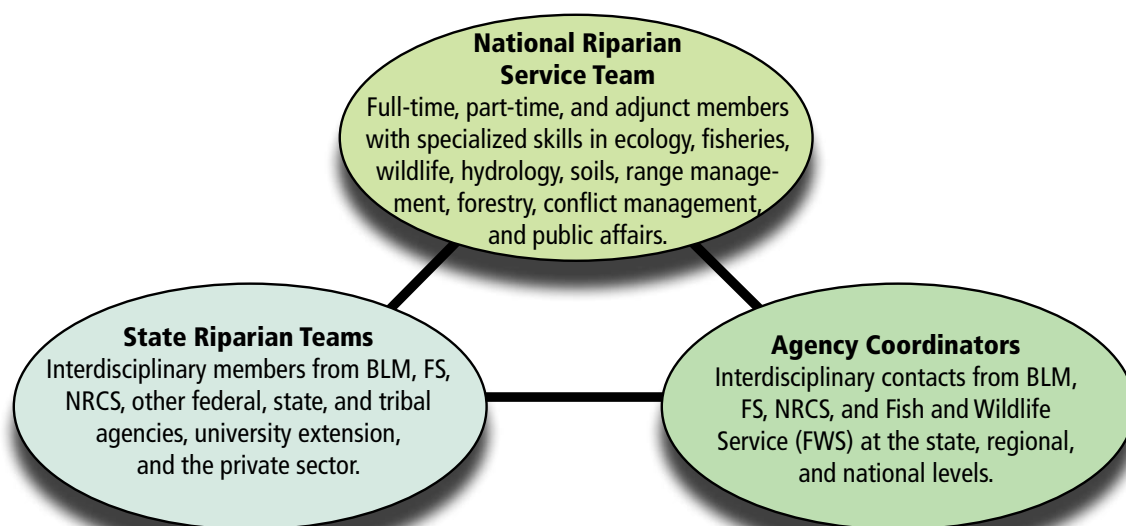


Figure 1. Creeks and Communities Network.



Creeks and Communities Strategy

The Creeks and Communities strategy (RCN 2002) is a revision to the original strategy (NRST 1997) that incorporates the findings of an extensive evaluation (Van Riper 2003). It retains the underlying goals and principles of the original strategy, while making adaptations to the activities and practices to better reflect them. (For more information on the evolution of the Creeks and Communities strategy, see the “Literature Cited” section.) These adaptations address the need to incorporate more of the principles and practices for dealing with human and social dimensions and to improve the blend and balance of technology transfer and problem solving within activities. They are geared toward strengthening the strategy as a vehicle for integrating science and technical information into collaborative decision making, a model that can be applied to many diverse issues.

Collaborative Decision Making

A cooperative process in which multiple parties, often with widely varied interests, work together to discuss and execute a decision.

The revised strategy maintains the recognition that it took a critical mass of people on the land, over time, to bring riparian-wetland resources to their current condition—with many watersheds, riparian areas, and wetlands diminished in their ability to capture, store, and release water more slowly and for longer periods of time. Both strategies are consistent in their premise that the way to reverse this condition is to develop a new critical mass of people who interact with and manage riparian-wetland resources based on shared knowledge of the attributes and processes that support sustainable conditions. Additionally, they both maintain the mission of “achieving healthy streams through bringing people together.” They encourage the creation of forums that enable individuals to interact with each other

more effectively, placing emphasis on providing opportunities for individuals to work cooperatively, across all land ownerships and administrative jurisdictions, to share knowledge and develop a common understanding and vision for riparian-wetland areas on a landscape scale.

The primary differences between the original and revised strategies are the manner in which these forums are created and the percentage of time

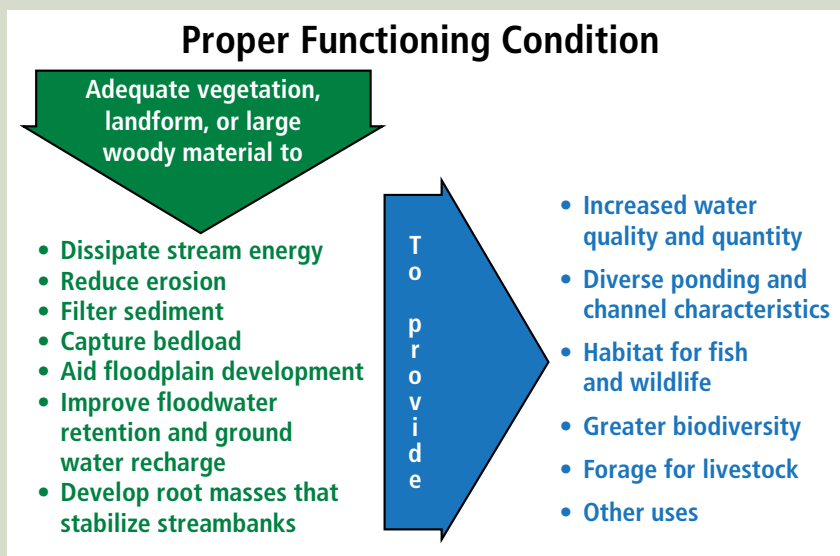
devoted to such activities. Although the revised strategy incorporates a number of changes ranging from an increased emphasis on deliberate outreach to a recognition of the need to partner with other organizations to leverage resources such as expertise and funding, the main focus is on expanding the number, scope, and focus of training and service trips and building a network that is capable of accomplishing this.

Improved Integration of Biophysical and Social Dimensions

As in the original strategy, the Creeks and Communities strategy uses the proper functioning condition (PFC) assessment method (see sidebar). PFC is the foundational tool for building a common understanding of riparian-wetland function and how function forms the basis for the sustainable production of a range of riparian-wetland related values over time. Providing training and conducting PFC assessments were the primary focus of

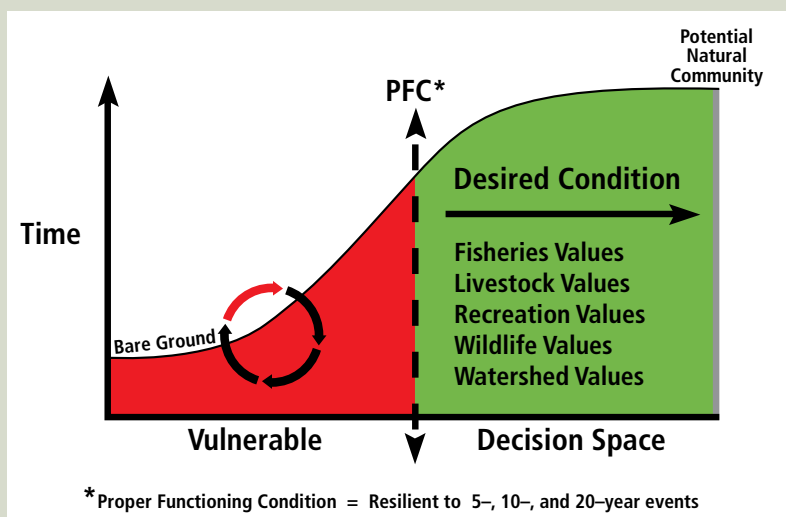
Proper Functioning Condition

The proper functioning condition (PFC) assessment method remains the primary tool for building a common understanding of riparian-wetland resources in an effort to help move people beyond conflict to cooperation. The assessment provides a standardized, integrated approach that fosters agreement and coordinated management among disciplines and landowners by enabling people to learn together. Technical experts (interdisciplinary teams) work with stakeholders to synthesize information regarding hydrology, vegetation, soil, and landform to assess condition relative to physical functionality.



Definition of PFC on the ground (Prichard et al. 1998). A riparian-wetland area is considered to be in proper functioning condition when adequate vegetation, landform, or large woody material is present to achieve the functions listed on the left to produce the values listed on the right.

The term PFC also refers to an on-the-ground condition characterized by how well an area's physical processes are functioning and sustaining that system's ability to produce the values that are often the source of conflict.



Riparian area recovery. This diagram depicts the relationship between function and values. The red section on the left represents a stream system at a time when it is not in PFC and, as a result, is vulnerable to high flow events. It is not until a system reaches PFC over time that it is more resilient and able to produce the benefits and values represented by the green section on the right. Thus, the decision space regarding values does not open up until a system is in PFC.

When systems are below PFC, they are not in a sustainable condition. As a communication tool, PFC not only helps set the sideboards for a discussion of riparian-wetland issues, it also provides common terms, definitions, and concepts important to building a shared understanding and vision among stakeholders.

implementing the original strategy; however, the Creeks and Communities strategy expands the approach in two important ways:

1. Increasing emphasis on helping people use PFC assessment results to address issues. This is done through application relative to management and monitoring in the context of an adaptive management framework, thereby enhancing the value of the PFC assessment method, which is only one step in the process of restoring and managing riparian resources.
2. Purposefully addressing the human and social dimension of riparian-wetland conflicts rather than simply recognizing that they exist. Technical knowledge is a critical element in fostering riparian-wetland improvement; however, issues concerning restoration and management are not purely technical problems that can be resolved by experts and scientific information alone. To effect restoration and improved management on a large scale, conflicts among people must also be addressed. Developing a common purpose or vision for these resources, while considering the range of social factors that influence management decisions and therefore the health of these systems, is a key component in network activities, as is fostering agreement in the science used.

In essence, the Creeks and Communities strategy is focused on providing training and assistance in implementing successful collaborative adaptive management processes for riparian areas (figure 2), which are dependent upon blending biophysical and social dimensions.

Multiphased Service Trips to Bring Science and People Together

Under the Creeks and Communities strategy, service trips represent the primary vehicle for providing on-the-ground assistance with collaborative adaptive management. National Riparian Service Team (NRST) members, who work full-time implementing the strategy, are focused on expanding the service trip model, whereas training and workshops remain the most prevalent activity for state team members, who participate on a part-time and often volunteer basis. The trend, however, is for more state teams to initiate and be involved in service trips and to convene workshops around specific riparian issues.

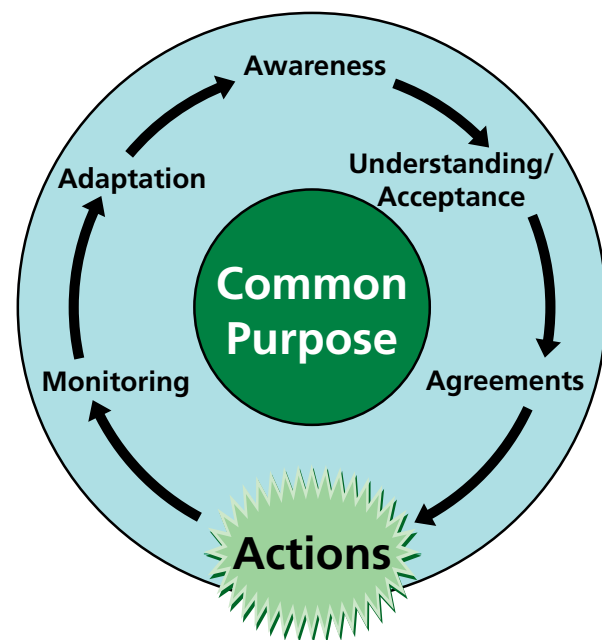


Figure 2. The collaborative adaptive management process is a cycle of increasing awareness, building understanding and acceptance of the issues, reaching agreement on a particular management strategy, taking action, and then monitoring that action and adapting as necessary. At the heart of this process is a common purpose or shared vision that incorporates factors that are often outside the realm of technical expertise.

Service trips involve individuals who have a stake in the situation either because they are connected to that place, concerned with one of the issues at hand, or able to undermine the effort. The goal is to acknowledge and manage elements of a situation with the expected outcome of reaching enough agreement to collectively set objectives, implement a course of action, monitor results, and make adaptations over time.

Service trips have evolved from typically a one-time assistance into a series of activities (multiphased approach) designed to address the particular riparian-wetland issues (e.g., assistance with assessment, management, and monitoring—individually or in combination). In addition to addressing the resource or technical issues, service trips are now designed to address the social context within which these issues reside. While most service trips require multiple interactions with a group, the number of visits, length of each visit, topics covered, and methods used all vary. An important component to understanding the need for, and developing the content and approach of, multiple visits is the situation assessment (discussions with key stakeholders prior to providing actual on-the-ground assistance). This assessment uncovers critical facets (e.g., stakeholder issues or needs) that are unknown or not recognized as important by all parties and informs the design of subsequent steps. It also helps identify the appropriate time for addressing a specific riparian-wetland issue. In some cases, a group is in so much conflict that a session specifically focused on building relationships and fostering respectful dialogue is first needed before any issues can effectively be addressed. In others, the group has a history of working well together and is able to move right into a problem-solving mode. The complexity of the issues and the working dynamic of the group are key factors in determining how many steps may be needed to actually come to resolution.

Principles and Practices

Regardless of the particular design and content of each step (developed from the situation assessment), the following elements reflect the principles and practices incorporated into each.

Bring Affected Interests Together to Build Relationships and Create Learning Environments

Truly successful and long-lasting solutions must meet the needs of both the resource and the community. Such solutions are accomplished through gaining the participation of the widest possible diversity of stakeholders (having different interests, values, knowledge, experience, genders, and perspectives), in any activity, to ensure that a diversity of experience, knowledge, and needs are incorporated throughout the process and to help build understanding and support for decisions. These stakeholders are identified by the scale and nature of an issue.

Place-Based or Community-Based Approach

Grounded in a particular geographic and social locale; tied to a particular piece of ground and the community that resides there.

Once diverse individuals are organized, emphasis is placed on building relationships and learning from each other by engaging people to understand different perspectives and approaches. Conflict management and consensus-building techniques are used to create safe atmospheres

(where communication is nonthreatening, respectful, and attentive to different concerns and perspectives) that support mutual learning and the negotiation of common ground among participants. Value is also gained from tying training to a specific area or using it as a precursor to, or component of, an on-the-ground service trip that addresses actual issues. By making this tie, people have the opportunity to actively apply the information in a hands-on, meaningful way with assistance available, thus reinforcing the knowledge gained.

Develop a Community Information Base –

Another important practice is to build a community or shared information base through joint fact finding. To be useful, scientific and technical information must be understandable to multiple parties and interests who have a range of backgrounds and knowledge. Before this information can be effectively used to inform decision making, all parties must view it as legitimate, valid (believable), relevant, and trusted. A joint fact finding approach not only helps resolve key areas of uncertainty, it also strengthens personal relationships and builds trust among participants. Spending time together on the ground, learning and using a common vocabulary to discuss the situation, helps level the playing field and create a shared knowledge base.

The Creeks and Communities strategy relies heavily on joint fact finding as a way of integrating science and technical information into collaborative decision making. Experienced individuals, who can read the land, work in an interdisciplinary fashion with diverse stakeholders to help them reach agreement on defining the problem and developing alternatives and solutions. A core component in this process is the PFC assessment method and a focus on riparian-wetland function. This helps establish a common vocabulary (terms, definitions, and concepts) and understanding among stakeholders regarding the physical attributes and processes of riparian-wetland areas, what they need to function, and how a properly functioning system produces desired benefits.

Learning fundamental concepts together helps stakeholders frame their conversations and better identify and agree upon the appropriate decision space (see PFC sidebar)—for example, should

they be focused on developing management and monitoring plans for desired future condition or should they take a step back and initially focus on restoring those systems to PFC (i.e., the pathway to desired condition)? In essence, PFC serves as a framework for identifying current resource conditions, limiting factors (what attributes or processes are not in working order), and what additional information is needed. That information is then used to inform other steps in the planning process, such as identifying possible management prescriptions and appropriate short-, mid-, and long-term monitoring options. Using PFC also helps facilitate learning environments by having people focus not on their values, but rather on the attributes and processes of riparian systems that must be in a working order to produce values. Once stakeholders begin to recognize that they each hold basic conditions in common (i.e., properly functioning systems), they can more easily work together to produce a plan designed to provide a range of outcomes that are mutually acceptable and sustainable.

Empower People to Create Change and Leverage Resources –

Finally, the Creeks and Communities strategy is focused on building the capacity within individuals and groups to create change. It is not enough to simply build relationships and increase understanding; the goal is to use this as a means for working together to accomplish restoration and management activities on the ground. The following components are needed before this can occur: individuals must have the required knowledge or know where to get it; they must have good working relationships based on trust; and they must be able to get the resources needed to put a plan into action. The third component is dependent upon identifying solutions

Joint Fact Finding

A process whereby experts and stakeholders work together (preferably on the ground together) to gather, analyze, and interpret information needed to shape scientific inquiry and to make sense of what it produces. The goal is to develop a credible and common base of information from which all interested parties can draw—one that incorporates local and cultural knowledge as well as expert knowledge.

that are financially practical for the individuals required to make them work.

The fundamental objective of any assistance within the framework of the Creeks and Communities strategy is to build the capacity of the participants to cooperatively develop solutions to present and future resource issues without outside assistance. This emphasis is instrumental in determining the design of service trips. While in some situations, technical skill building may actually become less important than building collaborative skills, every situation requires attention to both resource and community needs. The NRST is often asked to evaluate an issue and provide technical advice regarding a solution. Considering the complexity and level of controversy of assignments taken on by the NRST, this is seldom, if ever, completely effective and can serve to create or add to a “dueling scientists” phenomenon. Experience has shown that helping stakeholders develop and implement their own solutions is far more effective than approaches that rely solely on providing expert advice.

Service Trip Case Studies

Following are four case studies highlighting service trips that show a progression of steps involved in a multiphased approach. Each demonstrates the application of principles and practices that are fundamental aspects of the Creeks and Communities strategy and yet the particular design is dependent upon the social and ecological issues and needs identified within each situation. The specific case studies included in this report are not meant to demonstrate the breadth or geographic scope of the network’s activities, but rather to illustrate the depth and makeup of a service trip and what place-based problem solving that blends the social and technical dimensions looks like on the ground. Outcomes indicate that the goal of the Creeks and Communities strategy is being realized through these types of activities. More detailed information on each of the case studies can be found in appendix A.

Community-Based Riparian Assessment

Location: North Fork Crooked River, Prineville, Oregon



Project Summary: Information gathered during the community-based riparian assessment process was used for the subsequent design of management and monitoring plans. Valuable written documentation of riparian condition, needs, learning points, and decisions was provided to support consistent management over time.

Resource Challenge: The North Fork Crooked River is located within Crook County, Oregon, a place where agriculture and natural resources are valued in the face of ongoing demographic and economic transition. Designated a National Wild and Scenic River (WSR) in 1988, the North Fork Crooked River has outstanding scenic and botanical values as well as a sensitive species of frog and redband trout. Issues and concerns include: effects

of dewatering (irrigation) and increased water temperature (Clean Water Act, section 303(d) list) on fish; grazing impacts and whether livestock grazing is a suitable use in the WSR corridor; strongly held values tied to the protection of historical grazing use and water rights; concern over upland condition with a heavy concentration of small diameter trees; disparate opinions regarding restoration approaches; and inconsistent implementation of the 1993 interagency management plan. With the proliferation of lawsuits regarding WSR management in Oregon, the Ochoco National Forest requested help from the NRST to initiate a collaborative process to address the management of the North Fork Crooked River.

Key Partners: FS, Crook County Natural Resources Planning

Committee (CCNRPC), BLM, permittees, private landowners and managers, NRST and network members, U.S. Fish and Wildlife Service (FWS), Oregon Dept. of Agriculture, Oregon Dept. of Forestry, Oregon Dept. of Fish and Wildlife, Oregon State University Extension, Soil and Water Conservation Districts, interested citizens, county planners, Crooked River Watershed Council, Juniper Chapter of the Sierra Club, Oregon Fly Fishers, Oregon Natural Desert Association, and the Deschutes River Conservancy.

Activities:

Prework: The FS, CCNRPC, and NRST hosted a series of meetings with principal partners and other interested parties to develop an inclusive involvement strategy. A situation assessment included a

series of discussions held with key stakeholders to get a sense of existing concerns and issues. Finally, an electronic communication network and website were created for interested parties who were unable to directly participate in the process.

Creeks and Communities

Workshop: A workshop was conducted on a Friday and Saturday to increase community involvement. The purpose was to build a foundation of understanding based on riparian-wetland function and the PFC assessment method and to create a common vocabulary while fostering relationships among diverse stakeholders.

Community PFC Assessment

(5 days, 19 stream miles): An experienced interdisciplinary team

and diverse stakeholders together assessed the North Fork Crooked River and engaged in facilitated discussions regarding current condition, limiting factors, and opportunities.

Community Briefing: The PFC assessment results, along with management and monitoring recommendations, were presented to the community at an evening meeting providing a forum for questions and discussion.

Outcomes: Given the need for both woody shrubs and large woody material in the system, as identified in the assessment, the FS planted riparian shrubs in 2005-2006 and have closed sections of the riparian corridor to firewood cutting. Additionally, the FS and

grazing permittees agreed to change management on some key areas to meet resource needs as identified by the assessment. Monitoring plans were also developed. Two reaches were revisited in July 2008 with stakeholders. It was evident that resource conditions were improving. Time was also spent brainstorming future management strategies to maintain upward trend and meet permittee needs. The FS and permittees made a commitment to a collaborative short- and long-term monitoring strategy.



*"I would say the outcomes are more than I had hoped for.
The education, collaboration, and joint assessments are a wonderful model."*

Larry Timchak (January 2005)
Ochoco National Forest Supervisor

Collaborative Adaptive Management

Location: Swamp Creek, Enterprise, Oregon



Project Summary: A process was developed whereby the FS and other stakeholders could discuss and reach a common understanding on a variety of issues relating to the adaptive management of a cooperative restoration project and a grazing allotment.

Resource Challenge: In 2001, the FS and Wallowa Resources cosponsored a grant for the Swamp Creek Restoration Project to improve riparian areas, fish (steelhead) and wildlife habitat, and recreation and education opportunities, while maintaining grazing. By 2004, the parties involved were concerned the Swamp Creek Restoration Project was not fully achieving stated goals. However, various people had different ideas regarding the condition of Swamp Creek and the severity of grazing impacts. Although additional funding was available for phases two and three of the restoration project, there was disagreement on what the project goals actually were and how

best to achieve them. At the same time, the FS was nearing completion of a draft environmental impact statement (EIS) for the Swamp Creek allotment management plan (AMP). One of the grazing alternatives focused on adaptive management. The FS and the Natural Resources Advisory Committee requested that the NRST help their interdisciplinary team and stakeholders reach a common understanding of specific riparian resource objectives, a management strategy to meet those objectives, and a short-, mid-, and long-term monitoring framework to inform future phases of the restoration project and guide adaptive management within the AMP.

Key Partners: FS, Natural Resources Advisory Committee, permittees, NRST and network members, Wallowa Resources, Oregon State University Extension, Nez Perce Tribe, Oregon Dept. of Fish and Wildlife, National Oceanic and Atmospheric

Administration Fisheries Service, FWS, The Nature Conservancy, and the Grande Ronde Model Watershed.

Activities:

Prework: A situation assessment included a series of telephone discussions with diverse individuals who were directly associated with or concerned about the future management of Swamp Creek. This information was then used to design the workshop.

Creeks and Communities (C&C)

Workshop: A 3-day workshop was held, with 2 days in the field conducting PFC assessments as a group and discussing alternative management and monitoring options and 1 day inside documenting findings and identifying site objectives.

Followup: The group met again to finalize the site objectives and to spend time in the field with the FS

ecologist discussing site potential and how best to proceed with subsequent phases of the restoration project.

Outcomes: Regarding the restoration project, the group concluded that the system had a fair amount of stability as well as an upward trend and that the remaining project money would best be spent somewhere else in

the forest. To meet site objectives, some planting continued, but not as much. In terms of the AMP, the FS incorporated the assessment findings and objectives from the C&C workshop into the adaptive management alternative for the AMP, which withstood various appeals and litigation. The group's actions, including their decision to

cooperatively implement long-term monitoring of vegetation and channel characteristics in addition to the annual stubble height measurements, have helped them progress well in moving toward the objectives identified in 2004. Numerous monitoring efforts and projects have been completed on Swamp Creek since 2004 (appendix A).



"What was learned, agreed to, and set in motion for subsequent years is still talked about today and referenced in the current planning sessions and assessments."

John Williams (March 2007)
Oregon State University

Cooperative Allotment Management Planning

Location: Martin Basin, Winnemucca, Nevada



Project Summary: An educational and collaborative process was employed to address grazing concerns within Martin Basin (MB) as part of an effort to develop an adaptive management alternative in the AMP. The hope is that this process can be expanded to other FS and BLM allotments.

Resource Challenge: In response to the draft EIS for MB, the permittees, in conjunction with numerous other partners, submitted an alternative to Humboldt-Toiyabe National Forest staff, which the staff agreed to incorporate into the final EIS. Generally, the alternative was based on the collaborative development of AMPs. These plans were to use riparian PFC assessments and develop resource management

strategies based on objectives and the use of trend-based assessment and monitoring, rather than annual indicators alone. Throughout the process, a number of resource issues and differences of opinion surfaced. In response to these issues, the Nevada Department of Agriculture, MB permittees, and the Santa Rosa Ranger District jointly requested NRST assistance. The objective was to develop grazing strategies that were acceptable to all parties by establishing a mutual understanding of the resource issues and assessment and monitoring techniques.

Key Partners: FS, Martin Basin permittees, NV Dept. of Agriculture, FWS, NV Cooperative Extension Service, Resource Concepts, Inc. (range consultants), NRST and

network members, NV Dept. of Wildlife (NDOW), NV Cattlemen's Association, BLM, Humboldt County commissioners, and local permittees (beyond Martin Basin).

Activities:

Prework: The requestors took the lead in terms of outreach and workshop logistics. Design of the workshops was developed during numerous conference calls among NRST, network members, and requestors.

Creeks and Communities (C&C)

Workshop: A 1-day introductory workshop was organized to foster group discussion of the situation in MB, explain the C&C strategy and how it might help address issues in

the MB area, and determine group interest in moving forward.

Collaborative Adaptive

Management Workshop: A 2-day community workshop was held, with 1 day spent in the field assessing stream reaches and making changes to the FS matrices when on-the-ground conditions proved different than descriptions and conditions provided. The second day was spent inside working through a root cause analysis as a means for establishing objectives, standards, and monitoring parameters on a specific site.

Community-Based PFC and

Matrix Assessment: Over 2 days, an experienced interdisciplinary team and stakeholders together walked segments of two creeks (6-8 miles) in the MB allotment. The group assessed both PFC and matrices indicators that were developed by the FS to meet the intent of the Record of Decision (ROD) and to determine

whether the terms and conditions established in the Biological Opinion (BO) for Lahontan cutthroat trout (LCT) were being met. The third day was spent inside discussing assessment results, livestock management techniques, and long-term monitoring strategies.

Outcomes: These sessions initiated and enhanced the adaptive management process within the EIS and the ROD, as well as incorporated PFC into the biological assessment (BA), BO, and ROD. The group was able to reach consensus on the ability and process to change the matrices to fit site-specific situations and started the process for focusing on resource specific objectives rather than utilization standards. The group identified the need to monitor trend and developed a practical monitoring strategy involving the FS, permittees, and NDOW that should be possible to accomplish with the available funding

and workforce. The science-based alternative that was jointly developed during the sessions was incorporated into the EIS and the ROD. The EIS was ultimately appealed by Western Watersheds Project. This group is outside the local area and, while not excluded, no deliberate outreach was conducted to invite them to participate in the process. The EIS was remanded back to the FS and a revised EIS is expected to be out for review in the winter of 2008. Regardless of the appeal, working relationships among all individuals involved have improved significantly. The group's new capacity, both in terms of technical knowledge and social dynamics, will be used to address the remainder of streams in the MB planning area. To continue to build capacity within the community, a grazing course has been scheduled for the fall of 2008.



"This process developed relationships and group understanding of ecological processes that will be beneficial in other management decisions, planning processes, etc. in this area and surrounding locales."

Gary McCuin (November 2007)
Nevada Department of Agriculture

Leveraging Resources to Achieve Collaborative Management Objectives

Location: Sprague River Valley, Beatty and Bly, Oregon



Project Summary: Developed partnerships with tribes, federal and state agencies, nonprofit organizations, and local landowners, leveraging resources and increasing access and flexibility to more effectively build the community's ability to solve complex and contentious issues.

Resource Challenge: The Sprague River is a major tributary in the Upper Klamath Basin, an ecological jewel that recently has become a hotbed of controversy due to a variety of factors, including the listing of the shortnose sucker fish and the salmon under the Endangered Species Act (ESA). The situation has been tenuous as to how to keep water in the streams and lakes to protect the fish while also allowing farmers and ranchers access to their irrigation water. At the request of several partners (Klamath Tribes,

Sustainable Northwest, and Klamath Basin Ecosystem Foundation), the NRST engaged in various, and often overlapping, efforts to build community capacity for addressing the range of issues in the Sprague River Valley. Each request led to an additional set of multiple activities.

Key Partners: Sustainable Northwest, Klamath Tribes, Oregon Watershed Enhancement Board, FWS, NRCS, NRST and network members, National Fish and Wildlife Foundation, Klamath Basin Ecosystem Foundation, Oregon Wetlands Conservancy, WaterWatch, Farm Credit Services, Oregon Water Resources Dept., Water for Life, Bancroft Appraisal, Trust for Public Land, Deschutes Basin Land Trust, landowners, The Nature Conservancy, conservation investors, private foundations, Bureau of Reclamation, FS, BLM, Lake County Watershed Council, Timber Resource

Services, Klamath Watershed Council, Oregon State University Extension Service, and E&S Environmental Chemistry.

Requests and Activities:

Klamath Tribes:

Water Resources Task Force Meeting and Water Workshop – NRST members provided an introduction to stream processes, function, and restoration options with a focus on using natural processes and removing or managing human-induced stressors. They also introduced the Creeks and Communities (C&C) approach for bringing people together and how it might work in this area.

Sustainable Northwest:

Yainix Ranch – NRST members aided in the technical design of an "affirmative obligations" easement

for the Yainix Ranch and helped provide the collaborative and scientific framework in which the ranch owners and their partners could come together in mutual understanding and purpose.

C&C Workshop and Living Room to Living Room Approach – Yainix efforts were followed by a situation assessment and C&C workshop with the larger Sprague River Valley community to further discuss restoration obstacles and opportunities. From the workshop, a recommendation emerged for team members to participate in a series of meetings with various stakeholders in landowner living rooms to discuss their needs, issues, and concerns. These meetings became the basis for further visits to individual properties due to improved relationships, trust, and credibility.

Multiparty Monitoring – NRST members conducted a riparian vegetation monitoring course in the Sprague area to raise awareness about the monitoring methods used on the Yainix Ranch and explore their use as a common monitoring system to gauge the health of the watershed by groups that have traditionally mistrusted each others' science and management prescriptions. This course led to a grant for establishing Winward greenline composition transects as part of a long-term riparian vegetation monitoring program for restoration efforts in the Sprague (Winward 2000). To date, 12 landowners are involved in these efforts.

Working Landscape Alliance – NRST, Sustainable Northwest, and various private consultants partnered to form the Working Landscapes Alliance (WLA), which increased access and the flexibility to work more effectively with various communities. With multiyear investments in specific locations, including and beyond the

Klamath Basin, the WLA provides community assistance and capacity building in the areas of resource management, conflict resolution, and development of new incentives and financial tools.

Klamath Basin

Ecosystem Foundation:

C&C Workshops, Watershed Assessment Field Days, and Landowner Visits – NRST and other WLA members assisted with the community outreach portion of the Upper Sprague and Lower Sprague-Lower Williamson watershed assessments. Each season began with a C&C workshop designed to provide landowners with a basic understanding of riparian function and an introduction to the watershed assessment process and the WLA. These were followed by 1 public field day/month that focused on different watershed topics. After each public field day, a series of landowner visits were completed, whereby NRST-WLA members walked stream segments on private property at the invitation of the landowner (and often joined by neighboring landowners) to discuss the condition of their riparian or upland areas and options for management, restoration, and monitoring.

Outcomes: Numerous restoration projects have been undertaken on private lands within the valley. These projects required significant dialogue and coordination among federal agencies, nongovernment organizations (NGOs) and the Klamath Tribes, as well as landowner commitment to innovation and collaboration—both of which were unheard of in previous years. Additionally, an agreement was reached among agency, tribal, and NGO partners that the number one priority for restoration in the Sprague was the proper management of cattle grazing. Finally, the watershed assessment contents and format were

aligned with the PFC approach, which is widely accepted by local NGOs, the tribes, landowners, and some agencies.

There are potential outcomes yet to be realized within the Klamath Basin, as settlement of water adjudication issues among the Klamath Tribes and off-project irrigators remains an issue. Seminal work accomplished by the NRST and WLA in building interest in restoration, guiding local agencies and tribes towards methodologies that focus on function (PFC) as a "foundation" for restoration, and helping to create agreements among landowners and the tribes over riparian management may play an important role in the resolution of these critical issues.



"PFC stands out because it places science in the hands of the average person, getting over the enormous hurdles of power and distrust that often come with restoration intentions and projects."

James Honey (2005)
Sustainable Northwest

Creeks and Communities

Network Activities

Implementation of the Creeks and Communities strategy is an evolving process. The revised strategy has provided a compass and a framework to guide and strengthen network efforts. It also has led to the modification of existing, and the creation of new, venues and protocols for communication and marketing, network development, service delivery, program management, and accountability. This section describes the various network activities, approaches, and emphasis areas integral to achieving the objectives and strategies outlined in the Creeks and Communities strategy. Attention is given to activities that occurred between 2003 and 2007, because a deliberate shift in how activities were carried out began in 2003. Appendix A features case studies that provide a more in-depth look at multiphased service trips. Appendix B provides a synopsis of service trips made from 2003 through 2007. Detailed information on all the network activities is documented in annual accomplishment reports that can be accessed at www.blm.gov/orl/programs/nrst.

Objective 1

Create awareness and understanding of, and interest in, this strategy and invite participation across multiple scales. Within this objective are strategies for outreach and marketing of the Creeks and Communities strategy, as well as opportunities for developing products and technology transfer and information sharing internally and externally, with traditional and nontraditional partners from local to international levels. Efforts are also aimed at demonstrating how this strategy complements and strengthens existing governmental and nongovernmental programs.

Outreach, Communication, and Marketing

Implementing a model on a landscape scale that differs from traditional approaches requires extensive communication. Efforts to demonstrate relevance and foster support occur through briefings, websites, newsletters, and activities that provide opportunities for participation and learning. Key to this element is the importance of knowing and understanding others, along with their interests and initiatives, and establishing relationships that lead to action.

Briefings, Presentations, and Key Contacts – Building awareness and understanding and inviting participation is an important part of implementing the strategy. Network members do a great deal of outreach and communication through targeted contacts, briefings, and presentations that seek to demonstrate the relevance of applying the Creeks and Communities strategy to other individual and organizational values, goals, and operating principles. Over the past 5 years, approximately 288 of these types of activities have been completed.

Technology Development and Transfer

Technical references, as well as less formal information products, are developed in response to requests from field personnel to address specific topics or issues. Requests for information addressing riparian resources are common, and the NRST regularly canvasses the network to gather the most current material available. Experts are convened to facilitate the interchange of knowledge and experience, sometimes resulting in further technology development and transfer.

Product Development – The network recognizes and fills the need for development of special products that both market and support implementation of the Creeks and Communities strategy. Technical references for riparian-wetland soils (Lewis et al. 2003) and grazing management processes and strategies for riparian-wetland areas (Wyman et al. 2006) are two such examples. Others include posters, handouts, PowerPoint presentations, and a guide to understanding and implementing the Creeks and Communities strategy (to be published in 2009).

“Full Stream Ahead” Newsletter – This bimonthly newsletter features articles and announcements of network activities, opportunities, and products relative to both the resource and human-social dimensions of the Creeks and Communities strategy.

Website – The website for Creeks and Communities provides core information about the strategy (brochures, activities, and reports) as well as a number of products (documents, posters, PowerPoint presentations, and references) for network use.

Objective 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. The strategies developed to achieve this objective are referred to as the service delivery aspects; conducting training and workshops that integrate both biophysical and social dimensions and providing expertise in assessment, management, restoration, monitoring, facilitation, and building community capacity for collaboration. Diversification, expansion, and development of the Creeks and Communities Network are also part of this.

Training, Mentoring, and Network Development

Community-based training is offered by the NRST and state riparian teams in the PFC assessment methodology, grazing management for riparian-wetland areas, riparian area monitoring, and conflict management. The NRST also offers mentoring opportunities providing hands-on (learning while doing) experiences that demonstrate what it means to combine the technical and social dimensions and work toward collaborative solutions on the ground. These opportunities are offered to network members and others to help broaden the network and provide tools and techniques that members can apply in their own areas.

Training Sessions/Workshops – Capacity building through training sessions and workshops is still a fundamental activity of the network. The majority of training has been for PFC, with a steady increase in sessions for riparian grazing management and riparian area monitoring. Since the strategy revision, more attention has been given to incorporating practices for integrating the human and social dimensions necessary to improve effectiveness in fostering on-the-ground application of the resource science. In addition, more offerings come about or are centered on a particular issue or set of issues, often serving as a precursor to more in-depth attention by way of a followup service trip. Creeks and Communities workshops are also typically one part of a multiphased assistance effort and are aimed at introducing and experiencing consensus processes in conjunction with learning riparian function as a foundation for problem solving. Sponsorship is diverse and, during the past 5 years, there have been approximately 193 training sessions and workshops throughout the Western United States, including in Texas and Alaska, and in British Columbia, Canada, and Chihuahua, Mexico.

Consensus Institute – This experiential workshop is designed to train participants in facilitating consensus-based processes while addressing various conflict generators. Initially,

a session was held as a capstone activity in 2006 as part of the NRST and Forest Service joint Learning Lab. It was focused on introducing principles and skills for dealing with change and managing conflict. This session also led to followup mentoring of several groups that began applying the processes to address their needs and issues. A second session held the following year dealt with learning to recognize and deal with issues of power and stereotyping. The third and fourth sessions will address scarcity and diversity, respectively.

Grazing Management for Riparian-Wetland Areas Course

– The curriculum for this course was developed by the network and uses the processes and strategies from Wyman et al. (2006). Designed to complement the overall goal of the Creeks and Communities strategy, this course facilitates the application of the principles and practices of riparian-compatible livestock grazing by establishing a foundation of understanding upon which people can collectively address opportunities and solve problems. Attendees learn to develop riparian resource objectives and design grazing management strategies that are practical and foster sustainable conditions using an actual livestock operation situation. Over the years, an increased emphasis on collaborative planning, focused monitoring, and adaptive management has been incorporated. Generally, the course is requested due to a local issue and has led to other stages of coordinated planning and training. The interagency, interdisciplinary training team continues to mentor new instructors in an effort to expand the ability to provide training to local communities.

Riparian Area Monitoring Course – While assessment and monitoring go hand in hand, the

demand for riparian area monitoring training is increasing as people want to move beyond the initial assessment phase. A key practice is to use the PFC assessment results as a basis for setting condition objectives and as a guide to developing a focused monitoring strategy tied to those objectives. Training has primarily focused on monitoring the vegetation component. Most of the training to date has been comprised of teaching the three methods developed by Winward (2000) for evaluating condition trend: greenline composition, vegetation cross-section composition, and woody species regeneration. Other riparian monitoring approaches have evolved and continue to evolve from Winward's protocols, such as the Monitoring Stream Channels and Riparian Vegetation—Multiple Indicator Monitoring (MIM) (Burton et al. 2008), which links short-term riparian indicators with long-term riparian condition attributes. In addition, the network, in cooperation with BLM's National Training Center, has initiated the development of a more comprehensive riparian area monitoring course as well as a course on riparian ecology.

Biennial Creeks and Communities Network Meetings

– These are both developmental and working meetings designed to increase and enhance the ability of the network to be effective in both managing and implementing the initiative. Through presentations that couple theory and principle with practices and examples, participants learn ways to maximize the application of the Creeks and Communities strategy. Network members also use this forum to address pertinent issues and complete 2-year work plans based on the strategic plan objectives. A meeting was convened in FY 2002 to address strategic plan revisions. Subsequent meetings have been held in FY 2004 and FY 2006

"Lessons from this experience will be useful for my facilitation work, especially in land management contexts and where citizen science and adaptive management are key components...The learning lab approach—bringing us into your team field visit—is such an effective method."

Tahnee Robertson, U.S. Institute for Environmental Conflict Resolution Roster Member

focusing on areas identified by the network for improving strategy implementation.

Mentoring and Coaching – Mentoring is an emphasis area for the NRST as it implements national level policies regarding “community involvement” and “collaboration.” While agencies advocate these activities, guidance is often lacking on what they mean or how to put them into practice at the field level. As a result, managers and staff may recognize the merits, but they remain unable to orchestrate a collaborative project on their own. Drawing from a range of expertise, support teams are formed and use coaching, mentoring, classroom instruction, and field work to help agency managers and resource stakeholders develop and engage in collaborative problem-solving activities. The place-based nature of the Creeks and Communities strategy enables individuals, communities, and institutions to build capacity for collaborative stewardship in connection with an existing on-the-ground activity or issue. Throughout all stages of assistance, the support teams work one-on-one with key contacts to mentor them through a series of process steps (e.g., preproject discussions, invitations, advertisements, information management, meeting design and facilitation, followup, and strategic planning).

In addition to building field unit capacity, emphasis is also placed on developing the skills within the Creeks and Communities network needed to convene and facilitate such efforts. Network members participate with the team on specific assignments, especially concentrating on aspects of service trips that are dealing with human and social dimensions. Network capacity is also expanded through the addition of people who already have a background and skills in collaboration and need to become oriented to application within the Creeks and Communities strategy.

Learning Lab Pilot – In 2006, the NRST, implementing the Creeks and Communities strategy, was selected by the Forest Service National Partnership Office as the pilot “Learning Lab” designed to provide people within and outside government an opportunity for experiential learning of a particular collaborative approach. Establishment of “Learning Labs” was one of the activities proposed by an interdepartmental working group chartered to foster cooperative conservation. Mentoring and coaching centered on service trips and approaches for blending technical and social dimensions. Some insights from this pilot project include:

- Experiential training provides an opportunity to change participant beliefs about the importance of collaborative, community-based efforts as well as to change behaviors and impart new skills.
- Seeking out and building the skills of local cooperative conservation champions, regardless of what organization they work for, is important.
- Participants are interested in seeing multiple phases of service trips and how one phase helps inform the development of another phase. They are also interested in more structured training after this experience so they can better understand the range of process techniques and the rationale for using one tool versus another in specific situations.

Support to State Teams – The NRST assists state teams when requested, and state team members also assist each other when needed, fostering the incorporation of new ideas and techniques. Over the past 5 years, the NRST has provided direct support for at least 26 state team activities.

“This training in building consensus around highly charged issues is very powerful. The combination of experiential learning and discussion of the underlying issue is particularly effective for creating facilitators who can get the job done. We need more of this kind of training.”

Pat Opdyke, OSU Extension Service, Washington County, OR

Providing Expertise and Problem-Solving Assistance

The majority of NRST assistance, and some portion of state team assistance, is provided to the field through service trips focused on helping a group (agencies and stakeholders) work through a resource management issue(s) to successful resolution. Situation assessments are done prior to each trip and form the basis for designing content and format. Individuals with deep knowledge and extensive experience are combined into a team, bringing together the different skill sets necessary to address the social and ecological conditions present in a particular place at a particular time. The NRST does not function as an oversight or review team, but rather guides those who have to implement any agreed-upon strategy in the development of their own plans.

Service Trips and Expanded Training Sessions

While service trips are often multiphased, include a training element, and involve a diverse group of participants, expanded training sessions are characterized by a more technical focus with an emphasis on the appropriate context for application of the technology. Ecological, social, and economic factors are addressed, as are issues concerning quality and effectiveness of use. Participation in expanded training sessions may not be as diverse as that of service trips.

Requests for this type of assistance come from agencies, organizations, and individuals, usually brought about because people are in some degree of conflict, and each is evaluated for congruency with the Creeks and Communities strategy and purpose of the NRST. Decision criteria are also applied as part of the process for determining which assignments to accept. Specific operating protocols have been developed for use throughout the process, from the initial contact to the final step. Assistance requires an integrated approach applied by an interdisciplinary team designed to address both information- and values-based conflicts, which often means a series of steps or phases take place.

Approximately 100 service trips and expanded training sessions have taken place during the past 5 years.

Working Landscapes Alliance (WLA) – The NRST is part of a developing partnership with Sustainable Northwest, a nonprofit organization based in Portland, Oregon, and others who have joined in an effort to provide assistance and support to rangeland- and ranching-dependent communities. The WLA uses an approach that identifies and addresses ecological, social, and economic dimensions in concert with application of the Creeks and Communities principles and practices. The WLA is an interdisciplinary team and growing learning network of individuals united by longstanding relationships; shared values; a focus on practical, voluntary solutions; and a shared purpose. For the NRST, this partnership represents a new and expanded service delivery method and access to additional leveraging opportunities. This combination of people allows for access and the flexibility to work more effectively with various communities. With multiyear investments in specific locations, the WLA provides community assistance and capacity building in the areas of resource management and conflict resolution and also in developing new incentives and financial tools. The group is distinguished by its attention to people, relationships, and principles, including working with integrity, valuing diversity, working through conflict, listening with respect, supporting voluntary action, implementing continuous self-examination and improvement, and engaging ranchers as core partners. The approach focuses on growing the capacity of the landscape, the community, and the individual to provide sustainable futures. The WLA has provided assistance in three geographic areas: the Upper Klamath Basin in Oregon, South Phillips County in Montana, and the John Day area in Oregon.

Working Groups and Special Teams – The NRST convenes working groups to address issues important to the network, such as fostering coordinated research, developing guidance for PFC

checklist items, creating a PFC database, clarifying monitoring protocols, and developing riparian ecology and riparian monitoring courses. The NRST also has served or is currently participating on a number of special teams or working groups at state, regional, and national levels to address watershed and aquatic resources management and monitoring, roads and riparian resources, riparian monitoring indicators and guidance, development of agencywide monitoring strategies, collaboration and partnerships, cooperative conservation training and monitoring, and adaptive management.

Review and Advice – The NRST is regularly asked to review and provide feedback and advice on a number of products and projects including agency program guidance, restoration proposals and project designs, special projects and protocols, research proposals, various topical plans, reports and documents, websites, school curricula, grant applications, articles for journals and other periodicals, and draft correspondence for policy guidance. Approximately 67 such reviews have been completed in the past 5 years.

Requests for Information/Referrals – Each year the NRST receives and fills an average of 40 requests for information, for a total of about 200 during the last 5 years. The NRST also refers between 10 and 20 requests for additional information or assistance per year to other more appropriate sources.

Objective 3

Ensure consistency and effectiveness through activities focusing on program management and accountability. *Strategies for this objective include elements of planning, executing, reporting, and evaluating network activities.*

Program Management

Although program management and accountability were implicit in the original strategy, the revised plan outlines specific activities that guide the overall operations of the network. These activities facilitate incorporation of Creeks and Communities into

agency programs and contribute to consistency and effectiveness of strategy implementation.

Planning and Reporting – The Creeks and Communities strategy document provides guidance from which the network creates 2-year, operational work plans that are updated as needed during that time period. Detailed accomplishment reports are compiled annually. Both are distributed to agency managers and posted at www.blm.gov/or/programs/nrst.

Evaluation – During the past 5 years, informal evaluations have focused on network capacity and individual activity review. Timing has been variable and the extent of critique incomplete, but findings have led to making adjustments and trying different approaches. A second, OMB-approved, formal evaluation process is planned that will cover the years following the strategic plan revision. The intent is to examine how well the network has been able to incorporate strategy revisions beginning in 2003, the outcomes or results of network activities, and how effective those activities have been relative to achieving the overall goal of the strategy. Ultimately, the strategy will continue to evolve as evaluation findings are addressed.

Leveraging Resources

In an effort to deal with flat or reduced budgets and staffing levels, both within the network and with clientele, the NRST has made a concerted effort to increase the amount of service delivery activities that are accomplished through leveraged funding as well as in-kind services. Many special projects and products are accomplished jointly with other agencies and organizations. Through a unique indefinite delivery/indefinite quantity (IDIQ) contract specifically for implementing the Creeks and Communities strategy, the network is able to secure needed skills for assignments, projects, and mentoring. The trend for NRST activities shows a steady annual increase in the number of activities accomplished through leveraged funding, growing from roughly 5 percent to 65 percent in the past 5 years.

Looking Ahead

Societal awareness and understanding of environmental issues is growing, as evidenced by increasing concern about climate change and a certainty that demand for water is, and will continue to be, the primary catalyst for regional, national, and global crises. Focusing in the near-term on improving the effectiveness and efficiency of existing water supplies is critical to the survival of many communities; however, the long-term need for increased water supplies must also be addressed. The problem is that the condition of many watersheds, riparian areas, and wetlands is diminished, and their ability to capture, store, and release water more slowly and for longer periods of time is far reduced from what it could be. Furthermore, the scale and complexity involved requires multiple, simultaneous efforts operating in concert addressing ecological, social, and economic factors. While science and technology are key components in developing solutions, an overreliance on these may preclude many of the barriers to coordinated on-the-ground changes from being addressed, principally those that lie in the human and social dimensions. The nature and extent of this problem suggests the need to continue and expand the application of the Creeks and Communities strategy.

To be successful in the continuation of the strategy, ongoing attention must be given to addressing the barriers that affect its implementation and effectiveness. These barriers are both internal to the strategy and related to the external institutional context within which the strategy resides. From an internal standpoint, network capacity for dealing

with and incorporating the human and social dimensions is still low, indicating an important emphasis area going forward. Institutionally, improvements would be characterized by: (1) solid support that is clear through the agency hierarchies, (2) incentives and rewards for nontraditional approaches to problem solving, (3) budget and performance standards that are congruent with this type of work, (4) fully staffed interdisciplinary teams and the latitude to share skills within and across agencies and organizations, and (5) sanctions of the time necessary to implement collaborative practices. The upcoming formal evaluation will provide key insights into additional barriers to network effectiveness and serve to guide future adaptations of the Creeks and Communities strategy.

Creeks and Communities represents a model for blending biophysical and social dimensions that could be further expanded to more of a watershed or overall land health emphasis. The approach, while currently focused on riparian-wetland issues, is applicable to fostering collaborative adaptive management to address any number of resource issues that do not correspond to jurisdictional boundaries. To facilitate this opportunity, NRST and network members will continue to participate in agency-sponsored work groups to help integrate the Creeks and Communities principles and practices into special programs and initiatives, and into agency culture in general. The development of innovative partnerships and strategic alliances outside government, such as the Working Landscapes Alliance, will be critical as well.



Literature Cited

- Burton, T.A., E.R. Cowley, and S.J. Smith. 2008. Monitoring Stream Channels and Riparian Vegetation – Multiple Indicators. BLM/USFS. Idaho Technical Bulletin 2008-01.
- Lewis, L., L. Clark, R. Krapf, M. Manning, J. Staats, T. Subirge, L. Townsend, and B. Ypsilantis. 2003. Riparian area management: Riparian-wetland soils. Technical Reference 1737-19. Bureau of Land Management, Denver, CO. BLM/ST/ST-03/001+1737. 109 pp.
- National Riparian Service Team (NRST). 1997. Accelerating cooperative riparian restoration and management: An interagency strategy. Bureau of Land Management.
- National Riparian Service Team (NRST). 2002. A progress report on the interagency strategy for accelerating cooperative riparian restoration and management. Bureau of Land Management, Denver, Colorado. BLM/WO/GI-02/011+1737. 50 pp.
- National Riparian Service Team (NRST). (Forthcoming.) Guide to understanding and implementing the Creeks and Communities strategy. Bureau of Land Management, Denver, Colorado.
- Prichard, D., J. Anderson, C. Correll, J. Fogg, K. Gebhardt, R. Krapf, S. Leonard, B. Mitchell, and J. Staats. 1998. Riparian area management: A user guide to assessing proper functioning condition and the supporting science for lotic areas. TR1737-15. U.S. Department of the Interior, Bureau of Land Management, National Applied Resource Sciences Center, Denver, CO. 126 pp.
- Riparian Coordination Network (RCN). 2002. Creeks and communities: A continuing strategy for accelerating cooperative riparian restoration and management. Bureau of Land Management, Denver, Colorado. BLM/WO/GI-02/014+6740. 16 pp.
- Van Riper, Laura. 2003. Can agency-led initiatives conform to collaborative principles? Evaluating and reshaping an interagency program through participatory research. Ph.D. dissertation, University of Montana, Missoula, Montana. 321 pp.
- Winward, A.H. 2000. Monitoring the vegetation resources in riparian areas. General Technical Report RMRS-GTR-47. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 49 pp.
- Wyman, S., D. Bailey, M. Borman, S. Cote, J. Eisner, W. Elmore, B. Leinard, S. Leonard, F. Reed, S. Swanson, L. Van Riper, T. Westfall, R. Wiley, and A. Winward. 2006. Riparian area management: Grazing management processes and strategies for riparian-wetland areas. Technical Reference 1737-20. BLM/ST/ST-06/002+1737. U.S. Department of the Interior, Bureau of Land Management, National Science and Technology Center, Denver, CO. 105 pp.



Appendix A:

Expanded Service Trip Case Studies

Community-Based Riparian Assessment

North Fork Crooked River ♦ Prineville, Oregon

"Overall I am very impressed and supportive of the effort. [The Forest has drafted] a letter of follow-up actions that we intend to take. That, on top of participants' efforts to forestall lawsuits and potential improvements on private lands, I would say the outcomes are more than I had hoped for. The education, collaboration and joint assessments are a wonderful model."

Larry Timchak (January 2005)
Ochoco National Forest Supervisor



Background

The North Fork Crooked River (NFCR), a wild and scenic river (WSR), is wholly within Crook County—a county in cultural and economic transition. Livestock operations, timber harvesting, and mining were the earliest economic generators, with ranching beginning in the North Fork and adjacent lands as early as 1850. Thousands of head of livestock (cattle, sheep, and horses) grazed the land and caused significant degradation in the early days, much of which is now in a state of recovery. By the end of the 1800s, water rights were held by local ranchers for amounts equal to nearly all the mid- and late-summer streamflows.

Today, in the face of increasing industrial and residential growth, agriculture remains an important economic factor (cattle production and a variety of crops including alfalfa, wheat, and garlic). Maintaining water resources for agriculture is seen as critical not only for economic agriculture production, but also as a way of protecting and perpetuating open space for biodiversity values. As a

result, the Crook County Court, citizens groups, and other agencies place primary emphasis on improving the management of water resources within the county.

The NFCR, with some exclusion, was added to the National Wild and Scenic Rivers System as part of the Oregon Omnibus Wild and Scenic Rivers Act of 1988. The FS/BLM management plan (1993) classifies the scenery and botanical values as “outstandingly remarkable,” and calls for their protection. The NFCR is also home to redband trout (a sensitive species). However, from the mouth to the headwaters, the river is on the Clean Water Act’s section 303(d) list for temperature. Issues and challenges brought forth from the situation assessment include:

- **Dewatering:** Many people are concerned with water use on private lands. Although these lands are not part of the WSR, there is concern over dewatering and effects on fish (temperature, flows) and other values. Others are firm in their beliefs that water is

appurtenant to the private lands, important to ranch operations, and should not be part of a discussion regarding public land management.

- **Public Lands Grazing:** Some people feel that grazing on public lands in general is an inappropriate use, while others believe that grazing is simply inappropriate within a designated WSR corridor. Some are more concerned that where grazing occurs it is well-managed and done in a way that maintains or enhances vegetation and stream resources. For permittees, these areas can be important to maintaining the economic viability of their operations. In terms of utilization and resource condition, there are very different perceptions among these same groups. Some believe that the resource condition is better now than it has been in the past. Others argue that the grazing pressure is too heavy in some areas and damaging stream condition.
- **Upland Condition:** There is concern over the heavy concentration of small-diameter trees and the need for thinning and burning.
- **Restoration Techniques:** Some people favor engineered restoration approaches, which are typically more expensive but may speed up the stream recovery process. Others prefer the consideration of management options designed to promote natural recovery while allowing livestock grazing. For some people, the WSR designation brings out additional concerns regarding the appropriateness of certain restoration techniques because of the language in the act call for the “free-flowing” nature of the designated river reach.
- **Analysis Paralysis:** There is concern that the FS is embarking on another planning

process for the NFCR. A management plan was created in 1993, but many of the management and monitoring recommendations were not implemented.

- **WSR Litigation:** There has been an increased amount of successful litigation by environmental groups regarding WSR management in Oregon, leading to court-ordered deadlines for plans to be developed and livestock to be removed until plans were finalized. Litigation on the NFCR would divert resources from accomplishment of on-the-ground restoration and management and make it difficult to build community relationships.

Community-Based Assessment Process

In response to these concerns, the staff at the Ochoco National Forest chose to proactively initiate a community-based assessment. The information gathered would be used in ongoing allotment planning.

The forest staff requested NRST assistance to:

- Identify the level of functionality of the riparian corridor during a field review
- Determine the factors contributing to current conditions
- Evaluate the capability and potential of the system
- Work with forest staff and involve interested publics in the process
- Prepare a written assessment of the situation
- Provide management and monitoring recommendations

Partners

The Wild and Scenic Rivers Act of 1968 espouses the need for partnerships among landowners (federal agencies and tribal, state, and local governments) in determining the future of these rivers. The ensuing PFC assessment was designed to focus on three

segments of the wild and scenic river, including FS land, BLM land, and private land. Given the importance of watershed management to the county, Crook County Natural Resources Planning Committee (CCNRPC) was also a principal partner in this effort, along with the Ochoco National Forest and the NRST (and associated network members).

Other participants included: BLM, FWS, interested citizens, federal grazing permittees, private landowners, Juniper Chapter of the Sierra Club, Oregon Natural Desert Association (ONDA), Oregon Fly Fishers, Oregon Department of Agriculture, Oregon Department of Forestry, Oregon Department of Fish and Wildlife, Oregon State University (OSU) Extension, OSU Rangeland Resources Department, soil and water conservation districts, county planners, and the Deschutes River Conservancy.

Process Steps and Timeline

Planning Meetings with FS, CCNRPC, and other interested publics:

November 6, 2003 – Kickoff meeting, brainstormed 130 person contact list

January 22, 2004 – NRST–community briefing on riparian function and PFC assessment method

March 11, 2004 – FS–NRST interdisciplinary team (IDT) meeting

March 23, 2004 – Meeting of diverse group of agency employees and interested publics to design a community involvement strategy

Electronic Communication Network:

The FS district ranger and public affairs specialists established a website enabling interested individuals to access meeting/workshop notes, progress updates, and assessment results (<http://www.fs.fed.us/r6/centraloregon/projects/units/paulina/northfork/index.shtml>). The district ranger also sent regular e-mail communications to those on the contact list.

Situation Assessment:

April-May, 2004 – Conducted informal discussions with individuals directly associated

with or concerned about future management of NFCR. A discussion report was developed and recommendations were made regarding the design of subsequent steps.

Creeks and Communities Workshop:

May 14-15, 2004 – Held a community workshop with 27 diverse participants. The purpose was to explain the PFC assessment method, create a common vocabulary, and build relationships among participants. The first day was a classroom session on a Friday, and the second day was spent in the field on a Saturday. A workshop report was created and posted on the project website.

Community PFC Assessment:

July 19-23, 2004 – Representatives from NRST, Ochoco NF IDT, CCNRPC, and a variety (somewhat different each day) of interested government employees and citizens/landowners/user groups walked and assessed 10 stream reaches (8 FS, 1 BLM, 1 private), approximately 19 miles of stream.

Community Results Briefing:

October 26, 2004 – PFC assessment findings and management/monitoring recommendations were presented at a community meeting. Information stations on the PFC assessment, grazing management, and WSR were hosted by the NRST and FS.

PFC Assessment Report:

December 30, 2004 – The draft report was sent out for review.

February 10, 2005 – The final report was available on the website.

Evaluation and Followup Meeting:

January 21, 2005 – Held a meeting with NRST, FS, and CCNRPC members to discuss the process—what worked well and what didn't work well—and offer advice. FS also provided an update on the next steps.

Assessment Results and Recommendations

The PFC assessment method described in Technical Reference 1737-15 (Prichard et al. 1998) was used to complete the field assessment. The Forest IDT and the NRST reviewed existing references and files to gain an understanding of the reaches being assessed. Standard checklist forms were completed in the field by the IDT and assessment participants, and included the interdisciplinary discussions regarding the potential of each reach, current functional condition, and management and monitoring recommendations.

Management and monitoring recommendations were presented as ideas to be discussed by the collaborative group to develop the best course of action in each instance:

- Continue to seek public involvement in the understanding and management of the natural processes that are moving the NFCR toward full ecological potential.
- Continue to monitor the “necklace pools,” where flowing water has scoured the fine sediment soils resulting in an overwidened pool, to determine how the channel type is evolving. This monitoring will also provide an opportunity to arrest related headcuts that are believed to be too severe to maintain the current upward trend.
- In an IDT and community group forum, discuss the divergence of opinions on how to deal with the current constructed channel in William’s Prairie, which is failing, to determine a solution for this issue. The original design group should be included in this discussion to provide important background and original thought processes used for the project.
- Manage grazing to ensure that the woody shrub species are colonizing and maturing and to improve distribution at a small area of livestock concentration called the “pinch point.” Also evaluate grazing management practices and make necessary changes to improve distribution and enforce compliance, or consider use of exclusion to allow recovery in the small reach where there is a downward trend.
- At a minimum, include in monitoring plans the measurement of vegetation attributes needed for attainment of PFC, which may involve the selection of designated monitoring areas (DMAs) to represent more than one reach. Stubble height should only be used in combination with long-term monitoring of vegetation and channel parameters.
- Enforce the riparian firewood cutting regulations. Use educational materials such as signs, the personal use firewood synopsis, or other means to inform the public of the need to retain large woody material in the stream and riparian zone.
- Consider suggestions provided by the collaborative group concerning the improvement of fisheries habitat. Some of those included allowing natural recovery processes to work over time through appropriate livestock management, channel construction to increase sinuosity and narrow the channel, channel manipulation, and placement of large woody material. No matter what next steps the forest staff and community decide to take for further recovery and management in the catchment (watershed), the foundation should always include natural recovery and riparian-wetland function and the recognition that implementation of engineered projects comes with both cost and an associated hydrologic and structural risk.

Lessons Learned

The following information was gathered during a followup meeting and additional post project review.

What worked well?

- There was commitment from FS line officers, staff, and knowledgeable IDT members to make it work.
- The spirit and actuality of being all-inclusive in inviting participation resulted in a high level of public involvement.
- The workshop was well run, information transfer and learning was effective, and there was diverse participation.
- The field assessment was very valuable and worked well for those that participated.
- The qualitative PFC assessment addressed key concerns and challenges of the NFCR (whole system perspective, good management information, scientific consensus on limiting factors).
- Communication gaps between public and agency folks were partially filled, and different opinions were openly discussed.

What didn't work well?

- More public involvement, as well as ways to keep the public involved throughout the process, was needed, especially involving ranchers and people from town in field assessments.
- There was a failure to meet with FS staff before the public meeting, so they felt uninformed about the NRST's products and role.
- The first meeting's objectives and process were not clearly understood. The team's facilitation method of allowing each person to speak uninterrupted resulted in some private individuals feeling attacked when critical comments were made about their management.
- The opportunity for line officer involvement during initial discussions and

FS involvement in closeout discussions after each process step was missed.

- The public information stations at the community results meeting were not well used by attendees.
- There were too many side conversations, particularly in the field.
- Better descriptions were needed of water quality, flow, upland character and condition, the context of PFC, and indicators of upward trend and better use could have been made of historical information and local experts.
- There was dissatisfaction over the lack of discussion about dewatering concerns.
- Relying solely on the local unit to conduct sufficient prework, including gathering and understanding local biophysical information up front, was not effective.

Advice to NRST?

- Continue targeting assessments at the watershed scale.
- Bring local public affairs officer into the process early.
- Improve startup coordination.
- Rather than simply requesting that the local unit conduct prework, NRST members should work one on one with them to gather the necessary biophysical information up front.
- Use personal outreach before every meeting.
- Continue to split NRST and Forest IDT into different vehicles in the field.
- Keep group together in the field better; continue to use "reach closeouts."
- Set ground rules for listening with respect (side conversations).
- Mentor agency facilitators, line officers, and IDT throughout the process.

Advice to FS?

- Keep NFCR on hot burner.
- Continue to communicate with those on contact list.

- Work with ranchers one on one to build trust, while remaining inclusive in the process.
- Use this type of approach on other projects.

Next Steps

Throughout the community-based assessment process, there were numerous opportunities to gather input from individuals. In each instance, the FS was quick to review and respond to this input. Following the October community results briefing, FS staff met to review and address the comments gathered. FS officials presented a draft response letter at the January 21, 2005, followup meeting. The next steps were to design an implementation and monitoring plan with continued community involvement.

Where Are They Now?

Lookout Mountain Ranger District employees and the district ranger met with the grazing permittee in August 2005 to discuss a small area of livestock concentration called the “pinch point.” The permittee had recently acquired this area and all agreed on the need to determine if the stream was in a recovering or degrading trend. Photo points were established at the pinch point in three locations. Photos were taken in 2006 of pre-, mid-, and postseason grazing time periods. Midseason photos were taken in 2007.

The district ranger and district range specialist met with another permittee in a lower section of the river in May 2005. FS staff and the permittee met to discuss the North Fork pasture and agreed to rest three reaches for 3 years but maintain the pasture as a gathering area. The pasture was rested for 3 years as agreed; however, some use by cattle occurred almost every year. A date was set in July 2008 to

reexamine the three reaches with the people involved in the original PFC assessment to determine current status and decide if and how grazing could be resumed.

Lookout Mountain District employees also discussed the possibility of installing a cattle guard at the downstream end of reach 6 to help control cattle access to the river. No decision has been made at this time. District employees planted riparian shrubs in 2005 and 2006 in the North Fork pasture. A survey was completed in September 2007, and the survival rate was estimated to be about 40 percent. There are designated monitoring areas established along the NFCR; they were not altered. District employees continue to monitor stubble height on these sites; however, the NRST recommended also including a long-term monitoring component. The assessment pointed to the need for large woody debris in the riparian system, so “No Firewood Cutting” signs were posted in 2005.

Paulina Ranger District employees have completed an environmental assessment for authorizing livestock grazing on the Roba allotment in the lower reaches, which includes monitoring the ecological status. Although the proposed action included early season grazing for a short time period, the permittee agreed to long-term rest for the riparian pasture. Some additional fencing is needed to prevent cattle access to the lower end of the river, and the FS and permittee have worked together to plan the location and installation of this fencing. The Roba AMP, PFC assessment report, and case study provide valuable written documentation of riparian conditions, needs, learning points, and decisions that enable consistent management over time. FS employees and community members would benefit from planned reviews at regular intervals to discuss accomplishments and actions and review any monitoring data.



Collaborative Adaptive Management

Swamp Creek ♦ Enterprise, Oregon

"The National Riparian Service Team has been invaluable for us in Wallowa County. We invited them to come and assess the progress that was being made on Swamp Creek, where efforts of improved management and riparian projects were ongoing, however, we didn't have agreement on appropriate next steps to take. The progress made by the group was exceptional. This was because during the visit all parties had the opportunity to participate in the team's assessment tour, the educational forum and the follow-up meeting. What was learned, agreed to and set in motion for subsequent years is still talked about today and referenced in the current planning sessions and assessments."

John Williams (March 2007)

Oregon State University



Background

Historically, this portion of Swamp Creek was privately owned. Past uses of the area included logging, homesteading, roads and heavy grazing. Today, in public ownership, it is part of a large FS allotment (19 pastures) grazed by four different permittees.

In the late 1980s, the permittees' management focus on the allotment began to shift from simply maintaining a viable livestock operation to improving riparian area management, addressing the ESA requirements, dealing with pressures from environmental groups to better manage or remove grazing from public lands, and balancing other public land use policy changes. As a result, several agencies and permittees began discussions of how best to manage and improve riparian areas within the Swamp Creek watershed. Restoration projects have taken many forms such as plantings,

fencing, instream structures and different grazing management strategies. Additionally, many of these projects have been implemented cooperatively on both private and public lands. One such example is the Swamp Creek Restoration Project.

In 2001, the FS and Wallowa Resources (community-based nonprofit organization) cosponsored a grant for the Swamp Creek Restoration Project. The goal of this multiyear planting and fencing project was to draw beavers back to the area to help the downcut stream channel aggrade and reconnect with the old floodplain. The intent of the project was to improve riparian areas, and fish (steelhead) and wildlife habitat, as well as recreation and education opportunities, while maintaining grazing.

By 2004, the parties involved were concerned the Swamp Creek Restoration Project was not fully achieving stated goals. However, various people

had different ideas regarding the condition of Swamp Creek and the severity of grazing impacts. Although additional funding was available for phases two and three of the restoration project, there was disagreement on what the project goals actually were and how best to achieve them. At the same time, the FS was nearing completion of a draft EIS for the Swamp Creek AMP.

Upon receipt of the FS request for NRST assistance, a series of phone discussions with a primary group of stakeholders was initiated to get a better understanding of the current situation and its historical development, overarching issues/concerns/conflicts, points of agreement and disagreement, group/relationship history, and individual expectations for NRST assistance and to identify other key players and increase individual commitment to participate. The extensive information obtained during these discussions helped the NRST in deciding to accept this assignment and indicated that a subsequent situation assessment was not needed. The information was then used to design the upcoming community session.

The discussions revealed that the community had a long history of working together to address natural resource issues. Specifically, various entities had been working together since 1992 to develop the Wallowa County–Nez Perce Tribe Salmon Habitat Recovery Plan in advance of listing the Snake River Chinook salmon under the ESA. This plan reviewed the watershed conditions in the county and offered a menu of possible solutions to address the needed actions. In 1996, the Wallowa County Board of Commissioners appointed the Natural Resources Advisory Committee (NRAC) to implement the salmon plan, which was updated and expanded to include a multispecies strategy in 1999 following the listing of summer steelhead and bull trout. Three of the Swamp Creek permittees were involved in this effort. One result of their participation in this effort was that they began working with the FS to look at Swamp Creek and assess what could be done to benefit the resource and preserve their way

of life. As part of this effort, a number of training sessions were sponsored on the forest, including PFC assessment, stubble height monitoring, and grazing management for riparian-wetland areas.

Because of the historical working group, there was a high level of existing capacity in this area (both in terms of technical knowledge and good relationships as well as financial resources). While many folks did not agree with each other, all were able to have civil, professional, and respectful discussions (county commissioners and citizen-based natural resource planning committee, environmental organizations, university extension, and Wallowa Resources). The permittees were viewed as open, honest, and “willing to work hard and do what’s right for the resource.” FS IDT members got along well despite high turnover.

While there were good working relationships among the parties involved, it was apparent that the group was at an impasse over an information conflict (disagreement over data, assumptions made, or lack of data). Some of the concerns included:

- Swamp Creek was private land prior to FS acquisition, and some felt the area is currently suffering “legacy effects” from historical uses.
- Since Swamp Creek supports a steelhead fishery, ESA consultation on grazing recommended avoiding grazing in streams during spawning. As a result, riparian areas were grazed during late summer. Some felt that this increased resource pressure in areas that were just coming out of 4-year drought in 2004 (permittees voluntarily took limited use to aid rangeland recovery).
- There was concern about bank instability and how to best manage it. Some believed the stream system was in the process of recovering; however, existing cut banks continued to contribute sediment to the system, negatively affecting fish habitat.

- Another primary concern centered on vegetation issues, particularly the lack of willow and alder regeneration. In the past, Swamp Creek supported both willow and beaver. Some believed that willow and alder (and beaver) should still exist in this system and that livestock grazing was hindering this. Others felt that the site potential had changed over time and the area could no longer support these woody species.
- Individuals were divided over the relative contribution of livestock grazing to these various concerns and how best to manage and monitor livestock use in the future. Suggestions ran the gamut from reducing grazing, fencing out riparian areas, removing water access points, intensifying herding efforts, to leaving the current management system in place.

Collaborative Adaptive Management

In an effort to address these concerns, the Wallowa-Whitman National Forest opted for a joint, field-based, problem-solving session. As determined during the discussions, all parties wanted access to an outside perspective/opinion and were satisfied with the selection of the NRST. The forest staff requested that the NRST help their IDT and the community reach agreement on specific riparian resource objectives, a management strategy to meet those objectives (an alternative that could be analyzed as part of the National Environmental Policy Act [NEPA] process), and a short-, mid-, and long-term monitoring framework in order to guide adaptive management.

As previously noted, the forest staff was also in the process of completing a draft EIS for the Swamp Creek allotment. One of the grazing alternatives in the EIS focused on adaptive management, and the group needed help agreeing on the information to be incorporated into the final alternative. In short, the group needed a process for discussing, negotiating, and reaching agreement on a variety of

issues: site potential, current condition, ability to get to desired conditions while continuing to graze, a streambank assessment tool, the type of restoration needed, the type of management system needed; and a cooperative monitoring strategy that is simple to comply with, incorporates riparian and terrace utilization, focuses on standards and indicators that relate to desired conditions, sets a reasonable recovery timeframe, and accounts for wildlife utilization.

Partners

Wallowa-Whitman National Forest, NRAC, permittees, Wallowa Resources, OSU Extension, Nez Perce Tribe, Oregon Department of Fish and Wildlife, National Oceanic and Atmospheric Administration (NOAA) Fisheries Service, FWS, The Nature Conservancy (TNC), and the Grande Ronde Model Watershed.

Process Steps and Timeline

This assignment was conducted jointly by the NRST and Oregon State Riparian Team.

Situation assessment for NRST:

June 2004 – Had discussions by phone with a number of diverse individuals directly associated with or concerned about future management of Swamp Creek. A cursory discussion report was developed and recommendations were made regarding the design of subsequent steps.

Planning meetings:

July 16, 2004 – Held a session planning conference call with NRST, forest staff, and the district ranger.

Collaborative, adaptive management workshop:

August 17-19, 2004 – Held a community workshop with 35 diverse participants. The first 2 days were spent at various field sites (hotspots) conducting riparian assessments as a group and discussing management and monitoring options. The third day was spent inside documenting findings and reaching

agreement on site objectives and brainstorming a variety of management and monitoring options.

Followup group meetings:

September 20, 2004 – The group (without NRST) met to finalize the (wildlife) site objective for Swamp Creek and brainstorm management and monitoring options.

October 1, 2004 – The group met in the field again with the forest ecologist to further investigate the site potential of Swamp Creek and determine how to proceed with subsequent phases of the restoration project.

The forest staff then took that information, prioritized monitoring strategies, and built a plan for group review and ultimate inclusion into the NEPA adaptive management alternative for the Swamp Creek allotment.

NRST letter:

October 1, 2004 – The NRST sent out a follow-up letter highlighting agreements and providing additional information on vegetation and grazing management and the BLM/FS memorandum of understanding for cooperative monitoring.

NRST review of plan:

April 2005 – The NRST reviewed and commented on the FS adaptive management alternative.

Results, Recommendations, and Next Steps

The group determined that although the functionality of Swamp Creek had been impacted by historical management practices and natural events, the current condition indicated that the system is in a state of recovery. Management in recent years had allowed an upward trend on the riparian-wetland vegetation attributes, which is very important for the dissipation of stream energy associated with high waterflow. Key parts of the discussion were centered

on the site potential, including vegetation species,¹ water gap hardening and placement, streambank stability, browse monitoring methods, offsite water development, fencing, and trend of the overall drainage. Objectives were then developed for both the livestock grazing allotment and an ongoing riparian restoration project.² In addition, the group agreed that long-term monitoring of vegetation and channel characteristics will be implemented and the data used in conjunction with the annual stubble height measurements being taken.

Lessons Learned

The use of a situation assessment proved to be very important for a number of reasons:

- Further discussions with the requestor helped expand the list of participants in initial discussions and sessions to include the restoration project cosponsors and funding organizations, as well as Forest staff, NOAA Fisheries Service, and the permittees.
- The discussions helped NRST understand the nature of the conflict and group. Given the results, the NRST was able to immediately focus on the technical information rather than spending a lot of time building relationships within the group. Furthermore, the discussions helped NRST understand the specific resource questions and prepare to address those issues during the 3-day session.

¹ Many thought the site should be a willow/sedge plant community with beaver dam complexes. At the time of the assessment, the site was an alder/small seed bulrush/common snowberry site, with a few willows found on the floodplain.

² Regarding the restoration project, the group went back to the field with the forest ecologist (Oct. 2004) to reevaluate site potential. The ecologist agreed that the system had a fair amount of stability, as well as an overall upward trend, and that the potential is likely an alder dominated system with some willow. The conclusion was reached that the money might be better spent somewhere else in the forest that is not as stable or in an upward trend. As a result, the group will continue to plant some willow during subsequent project phases—but not as many.

- Finally, the discussions helped NRST understand the depth of the questions/concerns and the amount of time required to address issues at this depth. This understanding resulted in a decision to narrow the scope of the original request from two streams to one, which allowed adequate time for the type of in-depth conversations that were needed.
- Rather than the standard operating protocol where the NRST provides a long and detailed report following an assistance trip, the decision was made to add a day for group planning that ultimately resulted in the group producing their own documentation. The feedback received was that group documentation of findings, strategies, and actions was an effective process that helped build group ownership. As a result, the NRST has shifted to using this type of approach more frequently.

The success of a visit by the NRST is dependent more upon what happens after the visit than what happens during the visit. It is important to have the right people participate and have the appropriate conversations at key locations; however, the followup action by those involved is what will determine success or failure.

Wallowa County has been working collaboratively for many years on natural resource issues and in particular issues that involve the federal government and county cooperation. The success of this type of project is not something that just happens, it is due to the long history of Wallowa County's efforts to work together to develop open and honest communications and to be prepared to take

advantage of opportunity when it becomes available, such as the NRST visit.

Wallowa County represents a population with a diverse set of interests. Some have different visions about expectations and end results pertaining to natural resources. One thing is for certain, livestock producers play a significant and positive role in all natural resource issues and are very willing to work with other interest groups to solve differences, as demonstrated by this case.

Wallowa County has progressed very well in moving toward the objectives identified in 2004. Much of this is due to the FS seeking funding sources to get many of the projects done, although some progress is still limited by lack of funding or personnel. Much of the success is due to the permittees' active involvement and support and the interest of other local agencies.

The NRST was critical in the success of this overall project. There were many different ideas among members of the local group, and working with the team made it possible for all folks involved to have a voice and be listened to and respected for their input. Given the large diverse group that was involved in this project, total consensus was not reached on a few discussion points, but complete consensus is not always expected in these situations. In the instances where consensus could not be reached, the working group agreed to disagree while continuing to work cooperatively toward the shared goal of improving or maintaining wildlife, riparian, and fish habitat while at the same time allowing for other uses (such as grazing in this case).

Although the permittee on the adjacent allotment further up in the watershed did not participate,

"In 2004 this 3-day meeting took place ...[that]...helped both sides come to more of an understanding of each other's interest and move forward. We agreed to work to implement more monitoring and to give the creek some time to see if the restoration work already completed would give the desired effects that we hoped for. As time has passed, the permittees are still dedicated to this process and are working hand in hand with the Forest Service to reach the desired goals"

Rod Childers, permittee (2008).

he later became interested through talking to and observing some of the efforts of the Swamp Creek permittees. This peer-to-peer learning has resulted in his willingness to make improvements on his allotment, benefiting overall watershed health.

Where Are They Now?

A final EIS and record of decision that combined 11 different allotments to allow efficiency in planning for new AMPs was published in 2005. The objective and the corresponding management and monitoring strategies for Swamp Creek that were developed by the group were incorporated into alternative 3 of the EIS, which was the adaptive management alternative. Although appealed by a number of environmental groups, the FS upheld the decision and, in 2006, the Center for Tribal Water Advocacy filed suit. In response, the permittees filed for and received intervenor status. The Center for Tribal Water Advocacy withdrew their suit in May 2007. "I believe the NRST findings played a big role in showing the judge that all parties involved in the EIS had done their jobs" (Rod Childers, permittee, 2008).

Estimated progress toward meeting the objectives for the Swamp Creek riparian area are as follows:

Objective 1: Improve hardwood diversity (upland/riparian) in the Swamp Creek watershed, within site capability.

This objective entailed monitoring existing plantings, caging and monitoring native shrubs, planting others as appropriate, and assessing the site for research possibilities. The existing plantings, new plantings, and caged native plants have shown tremendous success in survival and vigor. It is estimated that 90 percent of these plants have survived and thrived during the past 3 years.

To assess the effect of grazing on the hardwoods, a small control plot will be constructed during the summer of 2008 to exclude livestock grazing, which will enable a comparison between rates of riparian recovery with and without livestock grazing.

Objective 2: Improve riparian/wetland vegetation to increase stream bank stability and appropriately process sediment.

Working towards this objective involves the hardwood plantings from objective 1 along with other strategies. To date, the water gaps that were being constructed during the visit have been completed and several upland water sources have been reconstructed to improve distribution. Adaptive management continues to be used as a way to adjust and improve on the structures and to ensure utilization of vegetation meets standards.

Current plans for 2008 include hardening of water gaps, moving and redesigning one of the gaps with a larger funnel type approach, and adjusting fences on others to limit adjacent streambank disturbance and reduce gap size. Within this objective, group members also discussed strategies such as caging selected cutbanks, cutting livestock trails, using low-moisture supplements, and seeding appropriate grass species; however, these have not been initiated yet.

Objective 3: Maintain grazing opportunities and strive to provide a sustainable and economically viable livestock operation while allowing for natural recovery processes.

Strategies to work towards this objective are continually in motion through grazing management and cooperation with Swamp Creek permittees, who strive to meet standards and are very quick to respond to any issues and try new strategies. For instance, this year the FS and permittees are pursuing, through consultation, the possibility of grazing some riparian pastures in the spring months rather than in the hot summer months.

Objective 4: Improve vegetation to provide fish and wildlife habitat for a diversity of species.

Specific strategies for this objective included gathering baseline information for wildlife and aquatic species and monitoring for a change in vegetation and wildlife species. This strategy is being accomplished as a secondary benefit from the

previous objectives and projects, including removing 40 instream structures, plantings, installing cages, hardening gaps, increased monitoring, and providing for upland water developments.

Monitoring Projects Completed Since Summer of 2004

- Annual utilization—terrace and greenline consistently meeting standards
- Streambank alteration assessment—planned for 2008
- Photo monitoring—completed annually
- Survival inventories—in 2004, 95 percent survival; from 2004 to present, 90+ percent (90 percent overall)
- Well monitoring—two sites with three wells each—established in 2006
- Fish populations—redd counts and fry counts have been used to monitor fish
- Inventory heritage resources—done in 2005 as part of the Lower Joseph Creek EIS
- Channel morphology measurements

Projects Funded by Bonneville Power Administration and Others

- Offsite waters—Cleaned five ponds, restored several springs in 2005-2006
- Removed 40 instream structures in 2005-2006
- Water gap hardening and fence adjustments in 2008—moving one gap and adjusting some fences and also hardening these gaps
- Lower Joseph Creek watershed assessment (2008 budget = \$80,000)
 - Three PFC assessments
 - Three riparian vegetation monitoring sites (Winward 2000) will be established; also, streambank condition assessment
 - Rereading or establishment of six condition and trend plots
 - Completing eight interpreting indicators of rangeland health plots
 - Surveying for threatened, endangered, and sensitive species
 - Surveying and mapping for noxious weeds
 - Inventorying the public land improvements



Allotment Management Planning (NEPA)

Martin Basin ♦ Winnemucca, Nevada

"The process required a tremendous amount of effort and time; however, the outcomes were significant and valuable to all concerned. This process developed relationships and group understanding of ecological processes that will be beneficial in other management decisions, planning processes, etc. in this area and surrounding locales."

Gary McCuin (November 2007)
Nevada Department of Agriculture



Background

In the summer of 2005, the Humboldt-Toiyabe National Forest was in the process of completing an EIS for grazing allotments in compliance with the Rescission Act, which requires environmental analysis be completed on all FS grazing allotments prior to renewal of 10-year permits. The forest staff set out to complete this task by lumping allotments together within each ranger district and issuing a programmatic EIS for each district. The Martin Basin Rangeland Project Area within the Santa Rosa Ranger District was the first with a completed draft EIS.

Following the release of the draft EIS, the Martin Basin permittees, in conjunction with Nevada Cooperative Extension Service; University of Nevada, Reno, College of Agriculture, Biotechnology, and Natural Resources; Humboldt County; Nevada Department of Agriculture; and local rangeland consultants submitted an alternative

to the forest staff, which they agreed to incorporate into the final EIS. Generally, the alternative was based on the collaborative development of AMPs. Riparian PFC assessments were to be used to clarify riparian resource issues. Plans were to develop resource management strategies based on objectives and the use of trend-based assessment and monitoring, with a focus on adaptive management rather than on annual indicators, for both riparian and upland communities.

Throughout the NEPA process, a number of resource issues and differences of opinion surfaced (current resource conditions and grazing impacts, Lahontan cutthroat trout (LCT), and opportunities/techniques for proper and sustainable grazing). Central to the overall conflict was using the FS's matrices outlined in the EIS (which generally described the relationship of ecological condition) as a basis for prescribing levels of riparian and upland utilization standards (guidelines) for grazing.

Collaborative Adaptive Management

In response to these issues, the Nevada Department of Agriculture, the Martin Basin permittees, and the Santa Rosa Ranger District jointly requested NRST assistance. They sought help to open a dialogue regarding the establishment of a collaborative education and resolution effort among the Martin Basin permittees, FS, FWS, Nevada Department of Wildlife (NDOW), and other interested parties. The objective was to establish a mutual understanding of the resource issues and assessment and monitoring strategies to collaboratively develop grazing strategies that were acceptable to all parties. The ultimate goal was to develop an ongoing educational and collaborative strategy focused on resolving conflicts in Martin Basin, as well as in neighboring FS and BLM allotments.

Partners

Martin Basin permittees, Resource Concepts, Inc. (range consultants), FS, BLM, FWS, NDOW, Nevada Department of Agriculture, Nevada Cooperative Extension Service, Nevada Cattlemen's Association, Humboldt County commissioners, and local permittees.

Process Steps and Timeline

This assignment was jointly conducted by the NRST and the Nevada State Riparian Team.

Planning meetings:

March – May 2005 – Completed a series of conference calls between requestors and NRST. The requestors took the lead in setting up the workshops and conducting the outreach.

Introductory workshop:

June 8, 2005 – Conducted a community workshop with 30 diverse participants. The purpose was to begin to build relationships among participants, explain the Creeks and Communities strategy, discuss examples of how riparian recovery can be compatible with grazing, and provide an overview

of an adaptive management approach. The intent was to foster group discussion of their situation and show how a collaborative process to identify, assess, and positively affect on-the-ground riparian conditions might be applied to help address and resolve issues in the Martin Basin and Winnemucca area. At that time, a planning meeting to design the next steps was scheduled among the FS, NDOA, and NRST, with an open invitation for group members to participate.

Collaborative Adaptive Management Workshop:

August 4-5, 2005 – Held a community workshop with 16 participants. The first day consisted of visits to three field sites on Cabin Creek where short reaches were assessed to build a common understanding of stream function and the ecological condition matrices among participants. This was followed by a discussion of how the FS and permittees could jointly approach working out changes to the matrices where site-specific conditions were determined to be different than the descriptions and conditions provided in the matrices. Additional time was spent in developing an approach for AMP development among permittees and the FS. The second day was spent inside working through a root cause analysis as a means for establishing objectives, standards, and monitoring parameters on a specific site. The root cause analysis was a critical element of understanding both the current condition of streams and also the likely evolution the stream must go through as it improves over time. The large group then broke into smaller groups to discuss consultation for LCT, EIS and record of decision (ROD) contents, and definitions.

FS and FWS decision:

June 2, 2006 – The FS ROD determined that current grazing management would continue in the Martin Basin Rangeland Project Area until more specific ecological assessments were completed on various vegetation communities within the project area. Additionally, the FWS biological opinion (BO) described specific standards for livestock management in streams that contain LCT. These

requirements could be modified based on the completion of site-specific ecological assessments of the specific stream reaches.

New NRST request:

June 28, 2006 – The second request for the NRST was submitted by the Santa Rosa Ranger District for assistance in assessing and monitoring specific streams to gather data for the purpose of determining if the terms and conditions in the BO for LCT are being met. To meet the intent of the ROD, this was to be done in a collaborative manner and support an adaptive management approach as well as the development of appropriate standards.

The expected outcomes were: 1) a collective understanding of site potential and capability, 2) baseline information on the physical functioning condition of the two streams assessed as well as specifics and rationale for the components of a monitoring strategy, 3) understanding and agreement relative to both physical functioning condition and ecological condition and how they are linked, 4) a sense of how to deal with the elements of uncertainty, including initial use of the matrices as guidelines, the time it may take to determine change in stream systems, and both the human and financial capacity to do adequate/required assessment and monitoring.

Community-Based PFC and Matrix Assessment:

July 17-21, 2006 – The NRST and other participants, including agency personnel and permittees, walked segments of Three Mile Creek (1-2 miles) and the South Fork of Indian Creek (5-6 miles) assessing both PFC and the matrices indicators. The third day, the group discussed the assessment results, livestock management techniques, and long-term monitoring strategies.

Results, Recommendations, and Next Steps

Following community workshops designed to build relationships among participants and provide

information and hands-on experience in assessing riparian condition and applying an adaptive management framework, stakeholders conducted their assessments together. Using the understanding of the attributes and processes that drive physical functionality of streams gained from the PFC assessments, the group then related the current status of the stream reaches to their potential and long-term desired condition. This actually afforded the group a chance to work out a change to the matrix as it applied to Three Mile Creek. The existing condition of the stream reaches assessed did not indicate a need for a change in livestock management. However, an enclosure was under construction to make management easier and more effective, and there was discussion as to whether it was being built in the best location.

The group also identified the need to monitor trend for at least two purposes: 1) although the stream reaches were either in PFC or were functional—at risk with an upward trend (indicating reasonable assurance that current management was adequate to meet objectives), they were not yet at desired condition in relation to water quality and aquatic habitat (particularly for LCT, a federally listed threatened species), and 2) changes in livestock grazing strategies (either purposeful or inadvertent, e.g., problems with implementation) or climatic changes, could lead to a reversal of the existing upward trend. The group then used the information acquired to this point, as well as their collective knowledge and experience, to run through a root cause analysis to isolate livestock-related factors for the purpose of identifying appropriate annual, short-, mid-, and long-term indicators that would be monitored to detect and document trend in stream and riparian condition. From this list, a practical monitoring strategy was developed involving the FS, permittees, and NDOW, that should be possible to accomplish with the available funding and workforce. In this case, the primary indicator chosen by the group as a short-term management indicator for when to move livestock from the riparian areas was not an herbaceous utilization standard, but forage preference—detection of when

livestock switched from use of herbaceous to woody species.

These sessions initiated and enhanced the adaptive management processes within the EIS and the ROD, as well as incorporated PFC into the Biological Assessment (BA), BO, and ROD. The FWS was involved in the process and in agreement with the PFC methodology and focus on functionality of riparian systems for resource assessment and management. The group was able to reach consensus on the ability and process to change the matrices to fit site-specific situations and start the process for focusing on resource specific objectives rather than utilization standards. The science-based alternative that was jointly developed during these sessions was incorporated into the EIS and the ROD. Finally, permittee understanding and involvement in monitoring has increased.

Lessons Learned

Adaptive management plans must provide both flexibility sufficient to efficiently make changes necessary to deal with uncertainties encountered in management of natural resources and assurances that changes will be made to ensure that resource conditions will improve as promised in a timely manner.

A strong sponsor(s) is critical to success. For example, in this instance Nevada Department of Agriculture worked hard to ensure that the grazing community participated. Their participation was vital to building an understanding of the resource concerns (real and/or perceived) and how the management of livestock was related to those resource concerns and to obtaining commitment to develop and implement management and monitoring strategies to effect the desired change in resource condition. Of equal importance was the opportunity for permittees to make available their extensive local knowledge and experience and have that expertise incorporated at the assessment, planning, implementation, and evaluation levels. On the other hand, while working relationships

across all individuals and organizations that participated in the workshops improved, the ROD was appealed by the Western Watersheds Project, an environmental organization that did not participate in the workshops. In hindsight, they should have been invited to participate at some point after the initial agreement among local interests and FS to pursue the collaborative approach.

To be successful, an adaptive management plan requires that stakeholders commit to sharing the assessment and monitoring workload. In return, stakeholders must be accorded a “place at the table” when assessment and monitoring results are interpreted and subsequent management responses developed.

This type of an approach helped to build understanding of ecological processes, agency management, and policy. More importantly, though, it helped increase group understanding of individual wants, needs, and desires. Once people began to listen to each other and focus on the functionality of ecological systems with a common language, it became apparent that what were seen as divergent goals were really different perceptions and verbiage for very similar goals. Group processes require a lot of time and effort, but eventually results can be far superior to individual or factional input into planning and management.

Where Are They Now?

The EIS was remanded back to the forest and district by the regional office, with a request to expand documentation of existing conditions and trends, including uplands, with monitoring to address an internal conflict between deteriorated conditions described in the EIS and continued similar grazing proposed in the ROD. The local staff reviewed numerous historic photos as well as vegetation transect data and related local conditions. Photos on 78 sites have been retaken to document trend and generally show demonstrable improvement. A revised EIS is expected to be out

for review in the spring of 2008. Following that, AMPs will be developed or finalized.

Regardless of the fact that the EIS/ROD was appealed, working relationships among all individuals and organizations who participated in these sessions have improved significantly. The Nevada State Riparian Team continues to

communicate with agency personnel, permittees, and others to encourage further joint efforts. The new capacity, both in terms of technical knowledge and social dynamics, will be used to address the remainder of the streams in the Martin Basin planning area. To continue to build capacity within the area, a grazing course has been scheduled for the fall of 2008.



Leveraging Resources to Achieve Collaborative Management Objectives

Sprague River Valley ♦ Beatty and Bly, Oregon

"From our experience in the Klamath Basin, [the Creeks and Communities Strategy] the PFC methodology and cadre system provide an excellent framework for assessing the condition of riparian-wetland areas, creating a common vocabulary between different interest groups that allow for objective discussion of desired function, and a simple, science-based framework for guiding restoration, and monitoring and evaluating the impact of management changes. [This strategy and] PFC stands out because it places the science in the hands of the average person, getting over the enormous hurdle of power and distrust that often come with restoration intentions and projects. The other values it provides are a relatively cost effective way to assess where the highest ecosystem value can be had from investing limited restoration dollars, and how to move toward watershed-scale restoration with limited dollars."

James Honey (2005)
Sustainable Northwest



Background

The Klamath Basin is an ecological jewel. Nearly 80 percent of the waterfowl on the Pacific flyway overwinter there, and the river was once the third most productive salmon system in the U.S. The Sprague River, a major tributary in the upper basin, provides habitat for the endangered Lost River and shortnose sucker fish, as well as threatened cutthroat trout (and historically, Chinook salmon and steelhead). The listing of suckers and salmon under ESA has strained relationships among tribes, fishermen, and agricultural operators.

The situation has been tenuous as to how to keep water in the streams and lakes to protect the fish while also allowing farmers and ranchers access to their irrigation water. Like many other places in the

western U.S., the water rights in this area have not been adjudicated, and as a result, there is significant, recurring insecurity for both agricultural operators (who fear water shutoffs such as those that occurred in 2001) and fish managers (who feel that low flows correlate to massive fish kills such as those that occurred in 2002).

Although the situation in the Klamath Basin is typically conveyed as a straight "fish versus farmer" conflict in the media, the issues are much more complicated than that:

- This is an area where forestry, agriculture, and commercial fishing have all been heavily impacted by the competition for water and the condition of the river and tributaries. Rising land values and low

commodity prices continue to imperil agriculture. Power rates were widely predicted to rise much higher as a result of the ongoing relicensing process on the Klamath dams, further exacerbating the economic difficulties faced by farmers. Farmers had historically paid very low rates for electricity due to negotiations during the early days of the Klamath Irrigation Project and associated Klamath Hydropower Project (owned by PacifiCorp).

- There is a cultural conflict stemming from the loss of tribal lands and termination of federal recognition status in the 1960s and loss of treaty rights in terms of abundant fish and wildlife populations. The tribes hold a strong interest in the management of their former reservation lands now primarily public land managed by the FS, and have an express mission to rebuild their land base. They also hold a senior water right in the unadjudicated basin.
- Tension and conflicts exist among groups of scientists and competing science, among government agencies and private consultants trying to “sell” their programs to private landowners, among the different tribes that make up the Klamath Tribes, among project irrigators and off-project irrigators, among farmers/ranchers and commercial fisheries, and among environmental organizations and agriculturalists. All of these conflicts have resulted in years of expensive lawsuits.

In 2001, the Department of the Interior shut off water to the Klamath Irrigation Project in mid-growing season to protect both the coho salmon and sucker fish. The height of the conflict over the loss of irrigation water occurred in September 2001. Opposing forces from all sides, including many outside supporters, were gathered at the headgates; tensions were very high and strong and there was concern that violence was near to the surface. An unconnected event, the attack on the

New York towers, occurred, and after that, the civil disobedience and tension diminished according to some of the people who participated in discussions. Then in 2002, a large salmon kill (over 35,000) further escalated conflicts. As often is the case, these crises created the impetus for people to begin to think about ways to do things differently in the basin and to harness the energy brought about toward something positive. (Note that in 2006, much of the Pacific salmon fishery was closed almost the entire season, from northern California to Washington, in order to protect returning Klamath salmon, whose numbers had been so impacted by the 2002 kill.)

Process Steps and Timeline

The NRST has worked in the Sprague River Valley for a number of years. To clearly communicate this involvement, a review of the process steps and timeline is presented below. Because of the complexity of this case, a discussion of partners; results, recommendations, and next steps; lessons learned; and where they are now will be incorporated into each process step as appropriate. While this timeline outlines NRST involvement in the Sprague, it represents only a portion of the various activities undertaken by multiple individuals and organizations across the larger Klamath River Basin, from the headwaters to the Pacific, in an effort to create collaborative solutions to these complex problems. All of these efforts helped foster the positive contributions of the NRST work in the Sprague River Valley.

Klamath Tribes Water Resources Task Force Meeting and Water Workshop:

April 2003 – Team members participated in this meeting and provided an introduction to the Creeks and Communities strategy. At this time, the tribes were facing significant choices relating to watershed management and the successful restoration of functional aquatic ecosystems. The purpose of this meeting was to provide some fundamental information to build on in future sessions to help with management and restoration. In addition

to providing an introduction to stream processes, functions, and restoration options, team members also explained the approach used to bring together people who are most affected by the consequences of changes to management and restoration. The team laid out some potential steps for moving forward:

1) a series of stakeholder discussions and the creation of an environment conducive to bringing people together, 2) a workshop where people learn about how streams function and the relationship of those functions to restoration choices, 3) site-specific consultations with landowners and/or groups of citizens to evaluate conditions and begin formulating possible activities, and 4) assistance with developing specific plans and determining financial resource needs and availability.

May 2003 – The NRST participated in a workshop sponsored by the Klamath Tribes. Inter-Fluve, Inc., an engineering restoration firm, provided 3 days of training to various technical experts and scientists. The remainder of the time was devoted to group interaction aimed at bringing better focus and common terminology to restoration work within the basin. The team's role in this workshop was to expand the discussion regarding restoration options. The team provided information on how to foster riparian recovery by working with natural processes and removing or managing human-induced stressors before planning and implementing more invasive interventions, such as stream channel reconstruction. The importance of understanding the functioning condition of riparian systems was a key component of this conversation.

Yainix Ranch Request to NRST:

June 2003 – The NRST received a request from Sustainable Northwest to work on the Yainix Ranch Project at the confluence of the Sprague and Sycan Rivers in the Upper Klamath Basin. This request was a result of Sustainable Northwest's interaction with team members in several settings: the Consensus Institute and the Klamath Tribes' water workshops, in addition to the landowners' familiarity and past experience working with Wayne Elmore, recently retired from leading the NRST. The request

was twofold: 1) provide technical expertise in the development of a new and innovative working lands conservation easement, and 2) sponsor a Creeks and Communities workshop to further community dialogue on restoration obstacles and opportunities.

Background: The Yainix Ranch was purchased in 2002 by Taylor and Becky Hyde, a husband and wife team who both come from long-time ranching and conservation-minded families in Oregon and who were deeply affected by the ongoing polarization within the Klamath community following the shutdown of water in 2001. In an attempt to demonstrate that sustainable cattle ranching and systematic land restoration could be combined with and successfully pursued in the context of a broadly conceived partnership, the Hydes purchased one of the most visibly degraded properties in the Sprague River Valley as the setting for this experiment. What was once a flourishing wet meadow had become, by 2002, a desiccated floodplain with denuded and collapsing banks, as a result of decades of poor land management. The property provides telling evidence as to why the Sprague and Sycan Rivers—once teeming with redband trout, salmon, and the listed shortnose and Lost River suckers—were now contributors of silt, nutrients, and warm water into the larger Klamath system. In the Hydes' eyes, the ranch was a surrogate for all the reasons why the fish, the greater landscape of the basin, and their community were imperiled. They believed that if they could fix the ranch—and involve diverse community members in the effort—the basin itself and all of its residents could benefit from the lessons learned.

Partners: In an effort to make this a reality and demonstrate the options for the sustainability of agriculture and ecological function in the basin, the Hydes brought together numerous partners: Sustainable Northwest (SNW), the Klamath Tribes (government and biologists and individual tribal leaders), Oregon Watershed Enhancement Board (OWEB), FWS, NRCS,

National Fish and Wildlife Foundation (NFWF), Klamath Basin Ecosystem Foundation (KBEF), Oregon Wetlands Conservancy, WaterWatch, Farm Credit Services, Oregon Department of Water Resources, Water for Life, Bancroft Appraisal, Trust for Public Land, Deschutes Basin Land Trust, individual neighboring landowners, and a host of private conservation organizations.

Other critical partners included conservation investors (or stewardship investors), a group of urban investors who made financial contributions to leverage the Yainix conservation easement in order to lower stocking rates and restore the area while still making the necessary ranch payments. These investors helped complete the Yainix purchase, but with the full understanding that the management of the ranch would remain with the Hydes. Private foundations played a role in providing assistance for staffing the overall process, from convening meetings to followup conversations and planning with partners to the legal design of conservation easement and investment vehicles.

Working Lands Conservation Easement:

July 2003 - October 2004 – As a result of numerous consensus-based meetings and field trips, the various partners agreed upon an innovative “affirmative obligations” perpetual conservation easement that was financed through NRCS and OWEB. This easement set history in the basin for two reasons. First, the Hydes decided that the best repository for the easement was with the Klamath Tribes, which signaled a significant role reversal with the tribes holding in conservation trust the lands of non-Native Americans. (This land had originally been part of the Klamath reservation, divided into Indian allotments, and subsequently sold to nontribal members. Hence the tribes retain a very close cultural connection to these lands.)

Second, the easement established an outcome-based plan for the restoration of the Yainix

Ranch. Rather than prescribe how the Hydes should manage the ranch, the plan set forth a description of what the various partners wanted the ranch to look like in the future and gave the Hydes a free hand in managing the ranch so long as they managed it for the collaboratively set outcome. The NRST helped in the technical design of the plan and easement and provided the collaborative and scientific framework in which the Hydes and their partners could come together in mutual understanding and purpose. In the end, the partners agreed to a multiparty management and monitoring strategy designed to restore the river to a minimum of PFC.

The strong relationships developed among the Yainix Ranch partners have facilitated solutions elsewhere. The trust built between the Hydes and the Klamath Tribes has resulted in the first full water settlement in the basin’s recent adjudication, which was achieved outside of the court system. At Yamsi Ranch on the Williamson River, the Hyde family reached an agreement on water rights with the Klamath Tribes that ensures the ranch has perpetual access to water in exchange for their commitment to collaboratively manage and sustain a wetland corridor along the river’s headwaters. Additionally, the tribes and other landowners are embracing PFC as a minimum ecological condition and communication tool when dealing with water allocation and river restoration issues within the basin.

Creeks and Communities Workshop: The second part of the Yainix Ranch request was to host a Creeks and Communities workshop in the Sprague River Valley to further community dialogue on restoration obstacles and opportunities. The first objective was to involve Sprague Valley landowners in a forum in which they could learn about the state of the watershed and engage in dialogue with other interests about options for restoration. The second was to receive feedback from the wider landowner community on the various tools and restoration

techniques being implemented at the Yainix Ranch.

October 2003 – Presession discussions were conducted both by phone and in person in order to get a better understanding of the situation in the Sprague River Valley, identify key players, and create interest in workshop participation.

November 2003 – A Creeks and Communities workshop was held. Initially, participants included about 40 landowners, Beatty community members, NRCS, FWS, SNW, tribal council members, and tribal agencies. However, within the first few minutes of introductions, during which individuals were describing their view of the situation in the Sprague River Valley and how it came to be that way, about half of the participants (primarily tribal members and landowners) left the workshop because the tensions were too high for them to engage in frank conversation at that time. The workshop progressed with the remaining individuals and helped build a common understanding of riparian function, PFC, and the Creeks and Communities approach among participants.

While the group felt that this type of approach was appropriate, they noted that innovative ways to bring people together needed to be crafted. In their words, landowners in the basin were overwhelmed with meetings, information, competing science, and agency programs. To be effective, the group felt it was necessary to:

- Begin to bring landowners together through a “living room to living room” approach. Rather than trying to pull together a large meeting with many diverse interests, the feeling was that it would be best to work with people on their terms and schedules.
- Provide landowners with opportunities for private assistance because they often do not want to work with government entities.

- Help landowners develop a common understanding of the fundamental sciences related to riparian-wetland function and restoration to help them sort through the myriad of conflicting information.

Once relationships were developed using this type of an approach, it would be appropriate to work with the tribe, agencies, and landowners to reconvene a second workshop. This second workshop was held in May 2005.

Living Room to Living Room

Listening Sessions:

2004-2006 – Following up on recommendations from the November workshop, a series of meetings were convened over a period of time in individual landowner living rooms or on their portions of the river or in a place they considered their turf (e.g., the Bly Senior Center). Participation ranged from a single rancher to multiple families coming together in a nonthreatening environment. These were basically listening sessions where landowners talked about their needs, issues, and concerns. Normally arranged by individuals or by KBEF, dialog was informal with an occasional PowerPoint presentation used to demonstrate how streams can change. The team learned about opportunities to clarify or explore problems, which became the basis for further visits to individual properties due to improved relationships and credibility.

The purpose of these dialogue sessions was to listen so that the team could become grounded in landowner needs, help design outreach and assistance, connect with people who would not normally attend a community meeting, and discover ideas for collaboration where trust was lacking or among perceived adversaries. These sessions were critical to dispelling myths, revealing opportunities, increasing access to resources, and ultimately, increasing landowners’ interest in contributing to watershed-scale restoration efforts. By connecting many of these sessions to representatives of local nongovernmental organizations (NGOs), the team helped broker improved relationships and trust

among landowners and the nonprofit organization staff who could help navigate federal and state programs to put together effective restoration assistance.

Klamath Watershed Conference: Communities, Resources, and Restoration

February 2004 – Team members hosted a mini workshop during this conference as an introduction to the Creeks and Communities strategy. The twofold purpose of this session was to discuss how streams function and the importance of groups and communities working together to implement successful watershed improvements and solutions.

Creation of the Working Landscapes Alliance:

January 2005 – Following the working partnership that was created among SNW, the NRST, and select private contractors during the Yainix Ranch Project, a more formalized partnership was developed to provide opportunities for dialogue on other activities and programs that could help catalyze and support greater range and ranchland restoration across the Western U.S. Given the diverse disciplinary and organizational makeup of the Working Landscapes Alliance³ (WLA), the group is able to gain entry into communities that might otherwise be denied to a strictly government entity. Additionally, the alliance is able to share in leveraging resources in ways that enable them to provide long-term (3-5 years) investments in specific places.

The WLA is an interdisciplinary team and growing learning alliance of individuals from government, the nonprofit and private sectors, and ranching interests, united by longstanding relationships; shared values; a focus on practical, voluntary solutions; and a shared purpose to:

Support the emergence of sustainable working ranches and landscapes through restoration and conservation of ecological health, creation of dynamic local and regional economic opportunities, and honoring and

engaging the full diversity of people and cultures that share the Western landscape.

The WLA endeavors to address whole landscapes, working across the boundaries of institutions, ownerships, and technical disciplines to reveal the ecological, economic, and social connectivity of a functioning system. The core approach focuses on growing the capacity of the landscape, the community, and the individual to provide sustainable futures. Tools and services are focused on dealing with the conflict and polarization, ecological conditions, and economic uncertainty that many Western communities are facing. The following strategies are used:

- **Addressing conflict and polarization:** At the heart of this strategy is the realization that fundamental issues are frequently neither technical nor economic, but are about people's ability to identify problems correctly, mobilize the resources to address them, and agree on a common purpose. Thus, the focus is on working constructively with diverse stakeholders and fostering dialogue and trust as the basis for innovations that meet the needs of all. Key to the success of this strategy is spending time together on the ground.
- **Addressing ecological conditions:** This strategy is focused on creating a common vocabulary with land managers about ecosystem function and adaptive management plans that restore proper function and sustain natural values. Experience has proven that one of the most important steps to improving ranch management for natural watershed function and fisheries is to level the playing field by developing a common understanding of how riparian areas and entire watersheds function and by providing the tools to assess, plan, implement, and monitor management changes and restoration activities. This approach, which focuses

³ For more information on the WLA, visit <http://www.sustainablenorthwest.org/rangelands/WLA-summary.pdf>.

on bringing about understanding rather than demanding changes, forms the core framework for establishing ecological goals, conducting individual assessments, and providing followup assistance.

- **Addressing economic uncertainty:** This strategy is based on the recognition that the biggest barrier for many programs is that they do not take into account various economic drivers such as the fact that people who are in tight commodity markets (like ranching and agriculture) often cannot afford the real or opportunity costs associated with restoration practices. The bottom line is that, in the face of these pressures, it is unrealistic to expect change if there isn't some form of reciprocity. The WLA works to address this through developing ways to: 1) add value to traditional ranch products and diversify the economic uses of working landscapes, and 2) address the growing disconnect between high real estate values and low agricultural income, such as identifying capital to invest in sustainable ranch systems.

Klamath Basin Ecosystem Foundation Request to WLA:

December 2004 and 2005 – KBEF submitted two requests asking that WLA lead the community outreach component of their OWEB-funded Upper Sprague watershed assessment project. The purpose was to educate landowners in basic watershed function and opportunities for compatible river restoration and to share the model with other communities. This same request was resubmitted in 2006 for the Lower Sprague-Lower Williamson watershed assessment.

Background: The Upper Sprague and Lower Sprague-Lower Williamson watershed assessments were part of an effort to complete community-based assessments on the seven subregions of the Upper Sprague Basin. The assessment process was a collaborative effort

implemented by KBEF, in partnership with the Klamath Watershed Council (KWC).⁴ The objective was to involve local communities in a pragmatic and scientifically rigorous planning process to help resolve conflicts over the basin's resources by prioritizing restoration. The threefold goal of this effort was to:

1. Develop rigorous and broadly supported understanding of watershed conditions and functions that can serve as a basis for restoration and stewardship activities.
2. Conduct assessments in such a way that the results, whether understandings or activities, are genuinely "owned" by local communities and resource management entities.
3. Increase landowner interest and willingness to engage in restoration efforts so that watershed assessment "outreach" would not simply produce a document, but increase restoration activity and interest.

KBEF completed the first in this series of watershed assessments in 2004 on the Upper Williamson River. The assessment process went well, but the feeling was that the true value was in the community field days and the opportunities for interaction, relationship building, and learning (rather than the technical assessment process itself). In addition, the relationship between on-the-ground conversations that occurred during those field days and the larger assessment process was inadequate.

Seeking to improve the community outreach component of the effort in 2005 and 2006, KBEF decided to incorporate the principles and practices espoused by the WLA (including consensus-building, PFC, and an upland discussion guide) as a conceptual bridge between the technical and community outreach

⁴ These two entities have now merged to become the Klamath Watershed Partnership.

components of the assessment process. Specific objectives for WLA involvement included:

- Establish a common language for talking about watershed function.
- Generate and facilitate conversation about general ecological processes in terms of specific sites and issues.
- Assist in bridging the gap between the ecological dynamics of watershed function and the social dynamics of interested communities.

Partners: Sprague River landowners, Klamath tribes, FWS, NRCS, Bureau of Reclamation (BOR), FS, BLM, TNC, NFWF, Lake County Watershed Council, Timber Resource Services, KBEF, Yainix Partnership, KWC–OSU Extension, OWEB, E&S Environmental Chemistry (consultants for assessment), and SNW.

Creeks and Communities Workshops, Watershed Assessment Field Days, and Landowner Visits:

May 2005 – A Creeks and Communities workshop was held to accommodate both the KBEF request for assistance in regard to the watershed assessment and the tribe, agency, and Beatty landowner request for a followup workshop from 2003. On day 1, a meeting was held in Bly to kick off the watershed assessment process. The meeting was geared toward providing landowners in the Upper Sprague Basin with a basic understanding of riparian function and an introduction to the watershed assessment process and the WLA. Approximately 15 people attended. On day 2, a separate workshop was held in Beatty in an effort to engage the tribes, federal agencies, NGOs, and select Lower Sprague-Lower Williamson landowners as a followup to the 2003 session. Approximately 20 people attended. On day 3, participants from both workshops spent the day in the field.

June, July, August 2005 – One day each month, a public field day was held to discuss different topics, such as the Sycan Marsh, PFC, watershed function and the tie between uplands and riparian areas. These field days were all well attended, with attendance ranging from 20 to 60 or more people, including 40 landowners plus another 35 NGO, agency, tribal, or restoration professionals. The Sycan Marsh field day was a particularly significant event, because TNC was frequently held up as one of the groups that had come in and impounded water on the Sycan, which had previously flowed all summer. TNC was also viewed as hostile to having local people visit the marshes. Many bad feelings went away during this session, as the public was able to actually see the marshes and gain a much better understanding of how they were managed.

Following each public field day, a series of landowner visits (six total) were completed, during which WLA members walked stream segments on private property at the invitation of the landowner to discuss the condition of their riparian or upland areas and some options for management, restoration, and monitoring. Each landowner received a written report for their property. Often, a landowner would invite neighboring landowners or other members of the public to participate as well.

May 2006 – Following the same approach as the previous year, a Creeks and Communities Workshop was held to kick off the Lower Sprague-Lower Williamson watershed assessment. On day 1, an indoor session, which was designed to provide a basic understanding of riparian function and an introduction to the watershed assessment process and the WLA, was held. The group spent day 2 in the field.

July, August, September 2006 – Again, following the same approach as the previous year, a public field day was held each month,

followed by a series of landowner visits (four total). The public field days focused on Chiloquin Dam removal, examples of engineered restoration projects (meander cutoffs) and headcut repairs, and assessing PFC on the intermittent reach through Wright Meadow.

Fall/Winter 2006-2007 – Following the outreach portion of the watershed assessment efforts, NRST members were significantly involved in facilitating effective dialogue among conflicting stakeholders to come to an agreement on a format and approach for the resulting Upper Sprague watershed assessment. A separate contractor (E&S Environmental Chemistry) had been retained by KBEF to gather data and produce the base “draft” for the Upper Sprague assessment. When this document was unveiled to an advisory group that included landowners, state and federal agency personnel, and NRST members, there was enormous discontent over the fact that it had very little relation to the “approach” (focusing on riparian function) that had been associated with the previous field seasons and outreach.

NRST staff and WLA contractors provided key leadership to guide the advisory team to entirely restructure the assessment draft. They were also involved in heavily editing and adding new information to the base draft developed by E&S. While not a traditional use of NRST staff time, in this case the effort was deemed important for two reasons: first, it created a cohesive group of diverse stakeholders who have now been able to work together to move onto other watershed assessments (Lower Sprague), and second, it established a watershed assessment that could link up to the fundamental actions that NRST and WLA have been promoting as a foundation for restoration at watershed scale. Otherwise, there would have been a complete disconnect between the assessment document and the

growing consensus on vegetation recovery and management as a first step in river restoration.

Outcomes: Most of the outcomes relate directly to the use of the PFC methodology as a way to teach, discuss, and document basic ecological principles; to create a shared understanding of restoration needs among landowners and others; and to relate ecosystem function to values such as endangered species habitat, cattle forage production, water quality and quantity, and other desired results of active management. This methodology, used within a context of collaboration and dialogue that brings together all affected interests to review ecosystem conditions, discuss driving forces, and strategize solutions, has helped move landowners from high levels of mistrust to fairly enthusiastic engagement, creating significant opportunities for restoration and project implementation with local agencies and NGOs.

Specific outcomes of the 2005 field season include:

- KBEF, KWC, and federal agencies implemented numerous (6-10) restoration projects with landowners visited during the field season.
- Significant dialogue and coordination occurred in project selection, design, and funding among federal agency staff, NGOs, and the Klamath Tribes.
- Area landowners sought innovative ways to strengthen their ranching operations through restoration and explored collaborative pathways for their long-term sustainability that would have been unheard of in previous years.
- Agency, tribal, and NGO personnel have moved an agreement through the Hatfield Science Team (a subgroup of the Hatfield

Upper Klamath Basin Working Group) that the number one priority for restoration in the Sprague Basin was making a change in cattle management because cattle grazing has been the driving factor behind habitat degradation and can be addressed relatively inexpensively, while truly achieving watershed-scale improvements.

Specific outcomes of the 2006 field season include:

- Restoration consultations and recommendations were provided for additional landowners.
- Additional restoration projects were initiated.
- The Upper Sprague watershed assessment contents and format were reoriented to focus on relevant data and connect with the PFC approach, which had grown to be widely accepted by local NGOs, landowners, some agencies, and Klamath Tribes.

Multiparty Monitoring:

June 2005 – A training session for riparian vegetation monitoring was conducted in Beatty to raise awareness about the Winward (2000) monitoring methods (greenline composition, vegetation cross-section composition, woody species regeneration), which were the methods that had been selected by the tribe to quantitatively determine progress under the Yainix easement and to supplement PFC assessments. Participants included the Klamath Tribe, local landowners, NRCS, private consultants, and TNC. The objective was to explore this approach as a common monitoring system that could be used to gauge the health of the watershed by groups that have traditionally mistrusted each others' science and management prescriptions. Team members worked with the Yainix Partnership to install riparian vegetation monitoring transects on the Sycan River at Yainix Ranch.

2006-2008 – Through NRCS funding, followed by a BOR grant to the tribe, members of the WLA and

OSU are setting up riparian vegetation monitoring (Winward 2000) as part of a long-term monitoring program for restoration efforts. The following steps describe the scope of work:

- Identify Sprague Valley plant community types and establish greenline stability class ranking.
- Lay out a network of riparian vegetation transects in Sprague Valley and within the Wood River system.
- Create a product with plant descriptions and photos for landowners; identify common stabilizers and include rankings for bank stability.
- Document findings.

Current Situation (Spring of 2008):

From 2006 forward, a set of negotiations have taken place in the context of the relicensing of PacifiCorp's hydropower operations in the main stem Klamath River. These negotiations have brought together most of the critical basin stakeholders, including four federally-recognized tribes, agricultural communities (project and off-project), federal and state agencies, and conservation groups. In January 2008, a proposed Klamath Basin restoration agreement was released with the endorsement of the great majority of these parties. The agreement lays out an integrated set of actions including dam removal, increased flows for fish, significant increases in restoration investment, as well as economic development investments to diversify revenue for the agricultural and tribal communities. The goal of the agreement is to deliver sustainability, both of threatened species and of rural communities (tribal and agricultural), that has been plagued by chronic instability and economic challenges.

The Klamath Basin restoration agreement leaves open a door for settlement of adjudication issues among the Klamath Tribes and off-project irrigators—something that was not successfully accomplished during the negotiations. At present, there is widespread discussion about options to accomplish this settlement, which appears to

hinge, in part, on monitoring and quantifying restoration across the off-project areas, including the Sprague River Valley. Seminal work accomplished by the NRST and WLA in building interest in restoration, guiding local agencies and tribes toward methodologies and approaches that focus on function (PFC) as something of a “foundation” for restoration, and helping to create agreements among landowners and the tribes over riparian management may play an important role in the resolution of this critical issue.



Appendix B:

Synopsis of Service Trips and Expanded Training Sessions, 2003-2007

Location	Requestor/Sponsor	2003	2004	2005	2006	2007	Multi-funded
Arizona							
Little Colorado River	Private landowner	S					
Phoenix – Riparian Grazing Training	National Riparian Service Team		N				X
Patagonia – Riparian Grazing Training	Red Rock Watershed Group, Canelo Hills Coalition, University of Arizona				N		X
California							
Beckwourth Ranger District, Plumas National Forest	Partnership of California Trout, Five Dot Land and Cattle Company, Plumas National Forest, and California Cooperative Extension	N					
Scott River Watershed	Siskiyou Resource Conservation District		N				X
Mount Pleasant Research Natural Area	Plumas National Forest				N,S		X
Dorrance Ranch	Monterey County landowners			S			
Ansel Adams and John Muir Wilderness	Region 5 FS			S			
Willows – Riparian Grazing Training	Mendocino National Forest			N			X
Sagehen Experimental Forest	Tahoe National Forest			N,S			X
Canada							
Bowker Creek	Municipality of Victoria				S		
Colorado							
Alamosa National Wildlife Refuge	FWS			N,S	N,S		X
Northwest Colorado	BLM		S				
Grazing Allotment Review	White River National Forest				S		

Location	Requestor/Sponsor	2003	2004	2005	2006	2007	Multi-funded
Idaho							
Pleasant View Allotment	BLM Pocatello Field Office	N,S					X
East Fork Allotments	Sawtooth National Recreation Area	N					
Vital Signs Project, Great Basin and Columbia Plateau	National Park Service		N				X
Salmon-Challis National Forest	Challis Experimental Stewardship Group		N				
Bayhorse Allotment	Challis Experimental Stewardship Group				N		
Northern Idaho	Coeur d'Alene Tribe	S					
Various BLM Field Offices	BLM ID State Office				S	S	
Mexico							
Madera, Chihuahua	USFWS, NGOs Pronatura, Fuerza Ambiental, Sierra Madre Alliance		N,S				X
Penitas Ejidos	Municipality of Madera			S			
Montana							
Whitetail Butte Allotment	Lewis and Clark National Forest, Checkerboard Ranch	N,S					X
Matador Ranch	Rancher Stewardship Alliance, The Nature Conservancy			N		N	X
Big Hole Watershed	Montana Riparian Team				N,S		X
Havre, Malta, Glasgow Field Offices	BLM State and Field Offices, Montana Riparian Team				N,S		X
Nevada							
Soldier Meadows Allotment	NV Dept of Ag, University NV Reno, BLM		N				X
Northeast Nevada Ranches/Allotments	Northeast Nevada Stewardship Group			N,S			X
Martin Basin Rangeland Project (three visits)	Humboldt-Toiyabe National Forest, NV Dept. of Ag., NV Dept. of Wildlife, Univ. NV Reno, permittees, FWS			N,S	S		X
Northeast Nevada Ranches	Private landowners	S					
Truckee River	Washoe County Conservation District				S		
Cottonwood, Hubbard – Vineyard Ranches	Shoesole HRM Group					S	
Wet Meadow Restoration	Plumas County					S	
Steamboat Creek	City of Reno					S	

Location	Requestor/Sponsor	2003	2004	2005	2006	2007	Multi-funded
New Mexico							
Cebolla Canyon, El Malpais National Conservation Area	BLM Albuquerque District	N					
Palluche Wash	BLM Farmington Field Office	S					
Valles Caldera National Preserve	Board of Trustees			S	S		X
Oregon							
Yainix Ranch, Sycan River	Sustainable Northwest (NGO) and landowners	N					X
Catlow Basin	Catlow Conservation Agreement Working Group, Roaring Springs Ranch, BLM Burns District, FWS Malheur Wildlife Refuge, OR Dept. Fish and Game	N,S					X
Tiller Ranger District	Umpqua National Forest, permittees		N				
Drews Valley Ranch	OR Watershed Enhancement Board, NRCS		N				X
North Fork Crooked River Wild and Scenic River	Ochoco National Forest, BLM, Crook County Natural Resources Planning Committee		N	N			X
Malheur National Forest	Malheur National Forest		N	N			X
Yamsey Ranch, Williamson River	Sustainable Northwest, ranchers, National Fish and Wildlife Foundation		N				X
GI Ranch Allotment	Rancher, Ochoco National Forest		N				X
Swamp Creek	Wallowa-Whitman National Forest		N,S				X
Rattray Allotment	BLM Prineville, OR Natural Desert Assoc.		N				X
Forrest and Oxbow Ranch Properties	Bonneville Power Administration, Warm Springs Tribe			N,S			X
Upper Sprague River Watershed	Sustainable Northwest, Klamath Basin Ecosystem Alliance, Sprague Watershed Council			N	N	N	X
South Fork Crooked River	BLM Prineville District			N,S			X
John Day River Basin	BLM Prineville District				N		X
Lake County	Lake County SWCD, Fremont-Winema National Forest, J-Spear Ranch, Lake County Resources, two watershed councils				N,S		X
Thomas Creek, Lake County	Lake County SWCD, Fremont-Winema National Forest, private landowners and watershed council					N,S	X
John Day Community	Grant County Court, Malheur National Forest					N	

Location	Requestor/Sponsor	2003	2004	2005	2006	2007	Multi-funded
Oregon							
Shurtz Creek	Malheur National Forest and OR Cattlemen's Association.			S			
Grazing Allotment Review	Deschutes National Forest					S	
Prineville – Riparian Grazing Training	Oregon State University Extension	N					X
Enterprise – Riparian Grazing Training	Oregon State University Extension	N					X
Burns – Riparian Grazing Training	Harney County Watershed Council, Harney County Soil & Water Conservation District				N,S		X
Pennsylvania							
Allegheny National Forest	Allegheny National Forest		N				
South Dakota							
Sioux Ranger District	Custer National Forest			N,S	N,S		X
Texas							
Browning Ranch, Blanco County	Ranch owner/manager			S			
Bear Creek, Kimble County	Landowner					S	
Utah							
Salt Creek, Canyonlands National Park	National Park Service					N	X
Grazing Allotment Review	FS, Farm Bureau, and permittee		S				
Santa Clara River	NRCS			S			
Enterprise Area	Dixie National Forest			S			
Monticello Field Office	BLM Monticello			S			
Virgin River	Interagency Group				S		
Arch Canyon	BLM Monticello					S	X
Washington							
Newport and Sullivan Lake Ranger Districts	Colville National Forest	N					X
Spokane County	Spokane County Conservation District		N				X
Little Pend Oreille National Wildlife Refuge	FWS					N	X
Reardon – Riparian Grazing Training	Lincoln County Soil & Water Conservation District, Washington State Dept. of Ecology and Washington State University Cooperative Extension					N	X

Location	Requestor/Sponsor	2003	2004	2005	2006	2007	Multi-funded
Wyoming							
Green Mtn. Common Allotment	BLM Lander Field Office	N,S	N,S				X
Wyoming Field Days	Wyoming BLM, Wyoming Riparian Team			N,S			X
Cody Field Office	BLM		S				
Various BLM Field Offices	BLM Wyoming State Office				S		
Smith Fork Allotment	BLM Kemmerer Field Office					S	
North-Central Wyoming	BLM Worland Field Office					S	
Afton – Riparian Grazing Training	Bridger-Teton National Forest	N					X
Sheridan – Riparian Grazing Training	Ruby Valley Conservation District, Ruby Watershed Council		N				X

N = National Riparian Service Team

S = State Riparian Teams

X = NRST service trips accomplished with financial contributions beyond team funding. Sources include state riparian teams; federal, state, and tribal agencies; local organizations; nongovernment organizations (NGOs); etc.

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