

REVIEW OF USDA FOREST SERVICE COMMUNITY-BASED WATERSHED RESTORATION PARTNERSHIPS

APPENDIX B

Reviews of Watershed Projects

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CHATTOOGA RIVER WATERSHED **Completed Winter/Spring 2002**

The Chattooga was the first river system east of the Mississippi River designated as a National Wild and Scenic River in the United States. The basin spans three states-- Georgia, North Carolina, and South Carolina--and is very popular with whitewater boaters, trout fishermen, and other recreation interests. The watershed is part of the upper drainage for the Savannah River basin, which provides water sources for cities within both South Carolina and Georgia. About 68% of the 180,000-acre watershed is in public ownership.

The Chattooga large-scale watershed restoration program was initiated due to a joint proposal to the Chief's office from the Highlands, Tallulah, and Andrew Pickens Ranger Districts. The primary goal was to address water quality problems within the watershed. The Chattooga River Ecosystem Demonstration Project, completed in the early 1990s, had generated a significant amount of data related to sediment and fecal pollution problems in the watershed. However, the Ecosystem assessment demo did not lead to on-the-ground restoration activity. After Total Maximum Daily Loads (TMDL) of pollutants had been established in the Georgia portions of the watershed, interest grew for action to address water quality. The large-scale watershed program was thought to be a way to turn the research data into on-the-ground projects to resolve the water quality issues.

The long-term goals of the two and one-half year old project are: to maintain and enhance the integrity of the Wild and Scenic River ecosystem; to maintain a full range of naturally occurring ecosystems and healthy forests; to provide downstream users with cool, clear water into the next millennium; for public and private watershed interests to share responsibility for the watershed; and to have long-lasting partnerships in place and continue to resolve future watershed issues across all ownerships. The short-term goals are: to reduce identified sedimentation by 50%; to improve riparian areas on public and private lands; and to establish a framework for transitioning the project from a Forest Service to a partnership-based project.

The Project Has Achieved a Number of Successes Including:

- The Forest Service is making an effort to be a role model for other organizations within and outside of the watershed by fixing problems on its lands. Over 100 miles of trails and over 60 miles of roads have been treated, 224 miles of road improved by maintenance, 55 acres of illegal ATV trails have been revegetated, and 23 campsites have been rehabilitated on public lands.
- A number of federal government employees said the watershed program has generated increased communication and collaboration between federal agencies.
- The watershed Demo has helped to generate better communication and coordination among the three Ranger Districts involved with the project.
- The Coweeta Hydrologic Lab and other research programs have provided invaluable "real-world" research assistance.

- After a slow start, the USFS is now beginning to reach out to state and local governments and private stakeholders.
- The watershed Demo has provided some staff within the USFS with the momentum and focus needed to begin to think in new ways about watersheds and partnerships.
- People within and outside of the USFS increasingly understand the need and benefits of the watershed-level partnership-based approach.
- The project coordinator is highly regarded by people within and outside of the USFS.
- The Wyden Amendment has been very useful as a means to fund priority projects off National Forest lands.
- The Regional Office and Forest Supervisors have been supportive.
- People said Jim Sedell and his staff have been very helpful to the project.
- In sum, most people are very supportive of the project, said the USFS has made an admirable attempt to do new things, and hope the project will continue.

While Progress Has Been Made, a Number of Limitations/Obstacles Constrain the Project Including:

- The project is viewed by many non-USFS partners and stakeholders as predominantly a USFS effort, not a true watershed-level partnership-based project. Due to the initial focus on completing projects on federal lands and the initial heavy federal government make-up of the board of directors, few state agencies or local governments, private parties, or non-profits are meaningfully involved and some do not consider themselves actual partners at all. The continued lack of full engagement by key stakeholders in decision-making process and/or on the board of directors may make it difficult to generate long-term support.
- Following the point above, a lack of clarity on key governance issues constrains the project. Through our interviews we heard many concerns raised by people within and outside of the USFS about the decision-making process, resource distribution, and power structure of the Chattooga project. Although improvements have been made, continued efforts will be needed to overcome some of the initial start-up problems related to governance.
- Despite being composed primarily of Forest Service members, the Chattooga River Watershed Board--the governing body for the project--meets quarterly at best which may not be sufficient to develop full understanding, buy-in, and long-term support from the members.
- While communication and coordination between the three Ranger Districts involved with the watershed project have improved, they still often approach issues, treat problems such as road treatments, and make decisions in different ways. This problem underscores the lack of an overall framework for a watershed approach and internal agency integration.
- The Forest Service is struggling with how to innovate as well as how to complete interdisciplinary work due to the way the agency budget is organized, the way that

programs and specialties are divided into siloed functional units, and other internal organizational issues.

- Following up on the point above, the rigid functional silos (e.g. recreation, water/soil/air, forest management) of the USFS organizational structure add to the difficulty the agency faces in getting funding and projects out the door in a timely way, and has created skepticism among some local government, private, and community groups in the Chattooga that the agency can deliver on what it promises. This problem makes it difficult for the agency to be seen as a leader.
- People within and outside of the USFS raise questions about the selection process, scientific credibility, and technical aspects of some of the treatments used for many of the projects that have been implemented. The Chattooga project was initially established to address sediment issues. While stakeholders concur with the need to address sediment, they question some of the road projects that have been chosen to address this issue. Further, a number of public and private stakeholders want to see other ecological issues such as fisheries habitat and native tree restoration become priorities. As additional issues receive more attention, and as a broader array of sediment projects are completed, concerns over the science and technical issues may diminish.
- While the project brought in new funds, it did not include new personnel other than the project coordinator. The additional workload has created stress for existing staff.
- The initial lack of a full-time coordinator hurt the project. However, the expertise of the current coordinator has helped to overcome many of the early start-up problems.
- The project lacks a publicly vetted comprehensive restoration strategy. Although the Coweeta Hydrologic Research Station has produced a sediment assessment for the region, sediment is not the only issue of concern to stakeholders. The lack of a more inclusive watershed-level restoration strategy means that no framework or umbrella exists under which the many organizations and agencies active in the Chattooga can come together to pursue a common vision and goals for the basin. This also may be one of the reasons for the questions we heard about the selection process and scientific and technical aspects of proposed projects.
- Measures of success remain mostly *output*-based (e.g. number of projects completed) rather than *outcome*-based (i.e. results of projects) and the project has not done an adequate job of communicating the progress that has been made. The lack of understanding about what the project has actually accomplished may generate concerns down the road about the results that have been achieved with the investments made.
- The lack of clarity about the agency's long-term commitment to the project may undermine on-going efforts.

Our Analysis of the Limitations/Obstacles Suggests That:

- Although Forest Service employees voice increased understanding and support for the watershed approach and a desire to work in partnerships, through our interviews it became clear that many staff feel constrained by the existing agency structure, systems, budgeting process, and culture. These and other issues suggest that the Forest Service as an institution remains very inwardly focused, which constrains its employee's ability to fully understand or to develop the capacity to make watershed-level partnership-based planning and management part of standard operating procedure.
- Given the complex social challenges and the divergent views about the future of the Chattooga project, the long time frame required for ecological restoration, and the distrust that has historically existed about the USFS among local citizens, it may take quite a while for significant progress to be made in the watershed. Yet, the time frame for progress appears short as off-the-top funding from the Chief's office is ending and people want to see quick results. Expectations may be too high for the project to ever meet the needs of many of the partners.
- Despite the concerns we heard, almost everyone we spoke with voiced strong support for the initial concept behind the large-scale watershed program and for the Chattooga project itself. Most people within and outside of the Forest Service seem to understand that the whole watershed is the scale at which they must work if key problems are to be resolved. Most stakeholders also believe that much progress has been made in the past few years. People see great potential in the Chattooga project and want it to continue.

Based on the Issues Described Above We Recommend the Following:

- Expand meaningful stakeholder involvement in the project. This can be accomplished by holding open houses and stakeholder meetings. The overall governance *structure* of the project should be expanded by either enlarging the board of directors and/or linking or merging the board with another entity within the Chattooga that can provide a wider representation of interests in planning and decision-making.
- In addition to expanding the number of people and organizations involved in the project, the *way* in which they are involved must continually be improved (i.e. improve the governance *systems*). It will be important to hold an open discussion and explicitly decide how information will be gathered and shared, how decisions will be made, and how resources and funds will be distributed. Decisions about how the governance system will operate often determine the degree to which partners are willing to actively participate.
- Develop a comprehensive, well-prioritized restoration strategy and implementation plan that goes beyond sediment issues. The strategy should be developed by an independent, objective team and should be thoroughly vetted with the public.
- As they take time and effort to develop, the project should begin to devise a mix of *output* and *outcome*-based indicators (indicators that measure the effects of the projects in a manner that allow the public to understand how they add up to success). The

combination of outcome- and output-based measures of success may provide a more comprehensive set of indicators for the public. Efforts should also be made to increase the level of communication about these measures so that partners and stakeholders know the progress being made.

- Make explicit efforts to find ways to remove the barriers to flexibility and innovation that exist within the USFS structure, systems, budgeting process, and culture.
- To provide more flexibility in engaging additional stakeholders, the full-time coordinator should be retained but the reporting lines should be shifted so that he reports to the Forest Supervisors, not local district rangers.
- Expand the use of the Wyden Amendment by identifying how other programs around the country are using it more broadly.
- Finally, given the concerns we heard about the need for continued support and direction, it appears certain that the Chief's office must provide continued support and oversight if the project is to achieve success over the long term.

In the following section we discuss these issues in more depth.

Successes

- **The USFS Has Attempted to Lead by Example**

The Forest Service is making a solid effort to serve as a role model for organizations within and outside of the watershed by fixing problems on its lands. Agency staff believe that local governments and landowners will not be open to the Forest Service suggesting that they fix their problems if the agency has not first fixed problems on its lands. Over 100 miles of trails and over 60 miles of roads have been rehabilitated, 224 miles of road maintenance has been completed, 55 acres of illegal ATV trails have been revegetated, and 23 recreational campsites have been rehabilitated on public lands. The effort to lead by example has enhanced the public image of Forest Service. The counties and other local interests have observed the progress and learned techniques that can be applied to their lands.

- **Federal Partnerships Have Been Enhanced**

A number of federal government employees said the watershed program has generated increased communication and collaboration between federal agencies. Work has occurred across the boundaries of each agency. The relationship between the USFS and US EPA, in particular, has been substantially enhanced through the watershed program. One person called this "novel" as the agencies did not work well together in the past. Every person who mentioned this issue attributed the increased collaboration to the large-scale watershed program.

- **The Coweeta Hydrologic Lab and Other Research Programs Have Provided Invaluable Assistance**

A number of Forest Service employees said the ability to fund "real world" research by the Coweeta Hydrologic Research Lab and others has been invaluable. The lab has assessed sediment problems and road treatments, the effects of chemicals leaching from newly constructed roads, the water quality impacts of a wastewater treatment plant near Cashiers, and other issues. Coweeta and other monitoring teams have inventoried over 54 miles of streams.

- **The USFS Is Beginning to Reach Out to State, Local, and Private Entities**

The initial five-year plan for the project was to spend the first two years focused on public land issues and then to shift the focus to working with state, local, and private interests. The idea was for the project to essentially become self-sufficient at the end of five years with organizations other than the Forest Service funding and supporting the project. The Forest Service-federal agency board of directors would essentially fade away. This plan appears to potentially be on track as new partners have recently been engaged and outreach to local governments and the private sector is increasing. For example, the State Foresters from Georgia, North Carolina, and South Carolina have recently been added to the board. The American Chestnut Foundation was recently

contacted about potential involvement in a project to restore native chestnut trees. About \$40,000 has been transferred to NRCS through a cost share agreement to implement best management practices on private agricultural lands impacting the National Forests.

The Forest Service provided 50% of the funding to change the flow regime to allow cool water to flow from Thrift Lake into the Chattooga, thus reducing temperature impacts on trout. The agency also created a challenge cost-share agreement with the county to pave two miles of road that were generating sediment into Wetstone Creek.

The project coordinator helped to organize and find funding for the Stekoa Creek Watershed Group, a stakeholder organization composed of representatives from local governments in Rabun County; and logging, agricultural, development, recreational and environmental concerns. The Stekoa Creek group seeks to resolve TMDL water quality issues in this key sub-watershed of the Chattooga. The Georgia Environmental Protection Division and US EPA provided an \$183,208 Section 319 grant to complete a watershed restoration action strategy for the Stekoa Creek watershed. Feedback from an individual in a leadership role with the Stekoa Creek group was very positive, "The USFS has done almost everything for us. They called the first meeting, staff our meetings, help develop the agenda, and Randy has also found money to study the problems in the river. It's been 100% positive."

- **The Demo Provided Some Agency Staff With the Momentum and Focus Needed to Begin to Think in New Ways**

The USFS has emphasized partnerships and watershed level management for the past 6-8 years. However, lack of funding and staff resources and the everyday workload make it difficult for the agency to engage in this new way of thinking and acting. A number of agency staff we talked with said the watershed program provided, for the first time, the focus and energy needed to allow them to actively test new ideas and operating methods and to engage in watershed-level partnership-based planning and management.

- **Coordination Has Improved Among the Three Ranger Districts**

Because the watershed extends into three Forests and three states, the Chattooga project includes three Ranger Districts. Traditionally, there has been limited coordination between these Districts. People within and outside of the Forest Service said they thought the watershed project helped to improve the coordination among the three Districts.

- **People Within and Outside of the Agency Increasingly Understand the Need and Benefits of the Watershed-Level Partnership-Based Approach**

Many USFS staff members we spoke with said there have been past efforts to get beyond the agency's traditional siloed functional approach and engage in watershed-level partnership-based planning and management. For example, the three District Rangers involved with the Chattooga project were meeting regularly prior to the start of the watershed program with the goal of sharing resources and cooperating. However, these

efforts appear to occur mostly in the "gray area"--working around and tweaking the existing system. Through our interviews we found that the past efforts and the current watershed project have generated growing support for the watershed-level partnership-based approach. Many people inside the USFS said they have come to realize that the watershed approach is the way to accomplish the objectives of the agency. People outside of the agency also said they are beginning to understand the need to address issues throughout the watershed, not just on their lands, and are pleased that the USFS has begun to address issues on public lands.

- **The Coordinator is Highly Regarded**

People from within and outside of the Forest Service consistently praised the current coordinator. People said he was team oriented, is a good communicator, understands how other agencies work, and in other ways is making a positive impact. One person captured the feelings of many by stating, "There has been an improvement in the way the agency is doing business. Most of this is due to the coordinator. It will take a while for his work to pay off." Another person from a group that the coordinator helped organize said, "Without Randy this thing would have not gone anywhere."

- **The Wyden Amendment Has Been Very Useful**

The Forest Service has utilized the Wyden Amendment to rehabilitate 21 miles of county road on lands closely associated with Forest Service lands (i.e. inholdings) and has been used to facilitate the recent cost-share agreement with NRCS. The process is new to the employees involved so they are hesitant to push the authorization very far. However, when the process has been used, it has proven very helpful.

- **The Regional Office and Forest Supervisors Have Been Supportive**

People consistently said the RO and the three Forest Supervisors involved with the project have been very supportive. They have helped resolve problems, provided encouragement, and supported the project in other ways.

- **Jim Sedell and His Staff Have Been Very Helpful**

Numerous Forest Service employees told us that Jim Sedell and his staff have done a great job selling the large-scale watershed concept and supporting their efforts. One person summarized these comments by stating, "Put in a plug for Jim Sedell in the report. He deserves a lot of credit for this project. It should provide a great model for the agency."

Limitations/Obstacles

- **The Project Remains Primarily a USFS Effort, Not a True Watershed-Level Project**

The initial five-year plan was to engage state, local, and private parties after the first two years of operations that would focus primarily on federal lands. Many Forest Service staff said because the first years were to focus on federal lands, and because the Forest Service provided the funding, the original board was composed almost exclusively of agency employees and a few other federal agencies. However, through our interviews we also heard--implicitly and explicitly--other reasons for the exclusive inclusion of Forest Service and federal agencies on the board. Agency staff, for example, were unsure of how to select board representatives from the myriad of interest groups in the area. People were also nervous that the involvement of outsiders would lead to time- and energy-consuming discussions and controversy. In short, they were not sure about how to effectively engage or collaborate with non-federal partners. This led to a decision to keep the project essentially an internal process.

While the strategy of starting with a Forest Service-government agency board may have made sense at the time, it appears to have generated some residual side effects. The project coordinator reports to the board, which is composed primarily of government interests and the USFS in particular, not to a broad-based group, composed of government agencies and non-governmental stakeholders. A number of external partners said they felt the project has a heavy federal bureaucratic "top-down" feel. Because of the dominant initial focus on federal lands--not the whole watershed--no common theme has been developed and no overall strategy has been crafted which could attract or tie together the numerous subbasin watershed groups and agency activities within the Chattooga basin. Many external stakeholders said they feel uninvolved in the project. One local government representative summarized this feeling by bluntly stating, "This is just a Forest Service project."

The Forest Service-federal government flavor to the project can be observed by looking at the current board composition. The USFS still holds 8 of the 15 seats on the Chattooga River Watershed Board (not including alternates) and the US EPA, NRCS, USFWS, and four State Forestry Commissions currently hold the other seats. The State Forestry Commissions were not included until they requested seats on the board, an issue that created some unease. The USFWS has yet to attend a meeting. No local government, private, non-profit, or community representatives hold board seats. At least one organization that was listed as a partner said although they have attended some meetings, they do not consider themselves real partners.

In the past 6-12 months the project coordinator has begun to engage external groups. Continued outreach and involvement may eventually overcome the feelings held by many that the project is primarily a Forest Service-governmental effort. However, the continued lack of meaningful involvement from non-government partners on the board may make it difficult to generate significant long-term civic support for the project.

- **Lack of Clarity On Key Governance Issues Constrains the Project**

Following the point above, through our interviews we heard many questions about the decision-making process, resource distribution, and power structure of the Chattooga project. These concerns are consistent with concerns raised by people when they do not feel included in a decision-making process. It appears it was difficult to get initial buy-in for the project from all of the key players within the Forest Service. Even today, our interviews found very different viewpoints about how the board should be organized, what the future direction of the project should be, and how decisions should be made. For example, many people outside of the Forest Service said they were initially encouraged because they were told that the Chattooga project would include full stakeholder involvement. This point seemed to be underscored when the original business plan was developed. However, when the first work plan was released some people were surprised to see that the focus was almost exclusively on roads, trails, and campground improvements on Forest Service lands. People within and outside of the Forest Service said the lack of meaningful involvement of outside stakeholders in these decisions hurt the project.

While people generally agreed that sediment issues were a problem in the Chattooga, we heard many questions raised by people within and outside of the Forest Service about how and why decisions were made to use a majority of funds for a few road projects primarily in one Ranger District, why specific roads were chosen for treatment when the data apparently showed that other sources were generating more sediment, and how and why decisions were made to downplay or exclude other key issues that members of the public had apparently told the agency they were concerned about early on (such as brook trout habitat restoration, restoring American chestnut trees, and other issues). Even though there appear to be good reasons for the way decisions were made (e.g. some projects had completed environmental assessments and were ready to go while others would take a year or more to prepare), these reasons were apparently not explained thoroughly enough to stakeholders.

In sum, our review found that the lack of clarity on how decisions would be made, how resources would be distributed, and how power would be shared has created problems within and outside of the Forest Service. Although some of these problems seem to have dissipated, the bad feelings generated among some internal and external partners due to these issues have created a sense of discomfort for some. One external partner summarized this by stating, "The project got off on the wrong foot." Another said, "No one is really listening to people outside the agency and the Forest Service has a business-as-usual mindset."

- **The Forest Service Is Struggling with Innovation and Internal Integration**

A number of Forest Service employees said it has been very difficult to get all of the specialties within the agency (e.g. fisheries, wildlife, road maintenance) to work effectively together in the watershed project. This problem is exacerbated by the fact that four states, three National Forests, and three Ranger Districts are involved in the Chattooga project. Each state, National Forest, Ranger District, and field specialty has different goals, budgets and targets. There are many procedural hoops and turf issues to resolve to get the specialties and the different agency units to work in interdisciplinary teams or to share resources. For example, it apparently took three weeks of time-consuming discussions to get a decision on whether \$40,000 could be given to SWCDs in South Carolina for a project on non-Forest Service lands when staff thought the decision should have taken "5 minutes." The problem apparently came down to concerns by some units about lost funding. One high-level agency employee summarized these problems by stating, "Thinking out of the box is very tough. People have put chains on the top of the box and the goal of the large-scale program has been limited due to the agency structure."

- **Structural Problems Threaten to Undermine Community Trust-Building**

Following up on the point above, the rigid functional silos of the USFS have made it difficult for the agency to serve as a catalyst with community members. Local governments, private and community groups in the Chattooga are skeptical that the agency will follow through on its commitments. An historic distrust exists between local citizens and the USFS. The agency must earn the trust of people and to do so it must consistently walk the talk and follow through on its commitments. One misstep can undermine months and years of effort to build trust. Yet, the slow and cumbersome budgeting process and difficulty in getting projects to the ground undermines public confidence in the agency. One USFS employee summarized this problem by stating, "It's hard to be a catalyst and then be the major hold-up in a project."

- **Infrequent Board Meetings May Lead to Reduced Support**

Despite being composed primarily of Forest Service members, the Chattooga River Watershed Board--the governing body for the project--meets quarterly at best. The infrequent meetings mean that some board members have yet to attend a meeting. The lack of active involvement may lead to inadequate understanding of the vision and goals of the project and run the risk of generating insufficient support for the project down the road.

- **People Within and Outside of the USFS Question the Scientific Validity and Technical Treatments Used in Many of the Projects**

One of the most consistent themes we heard through our interviews from people within and outside of the Forest Service, including other government agencies, were questions about the technical aspects of many of the projects that have been implemented. Part of this concern seems to relate to the questions that persist about the major initial emphasis on sediment reduction that led to projects on public lands, trails, and campgrounds. A

number of public agencies and private stakeholders also want to see a broader emphasis on native trees and aquatic habitat restoration. Yet, the concerns seem to go beyond this.

We heard serious questions about the technical expertise being used for some of the projects. For example, staff from one public agency raised significant concerns about the way NRCS assessed the costs of their 3,200 linear foot livestock fencing project on 2nd-3rd order stream that drains into the Chattooga, about the background science that was used to justify the installation of a hypolimnetic withdrawal in a 25-acre headwater impoundment, and about the riprap, dirt, steel plate, right-angle turn, and other actions that were taken on a land swap intended to acquire a defunct trout farm with concrete raceways, and other projects. One government employee summarized these concerns by stating that some of the projects "are just playing in the water." Another said a good deal of money has been wasted on poorly planned projects, some of which may do more harm than good to the watershed.

The public agencies that raised these technical concerns praised the Forest Service and NRCS for their efforts to lead by example and get projects on-the-ground, as well as the positive agency- landowner relationships that have been developed as a result of this work. It will be important to match the partnership development that occurs with technically sound projects. Failed or counterproductive projects will, down the road, undermine the progress that has been made.

- **The Project Lacks a Publicly-Vetted Watershed-Level Restoration Strategy**

The watershed project appears to be operating primarily in an opportunistic manner, initially implementing projects on public lands that were already on the shelf and/or responding to willing private landowners. This approach made good sense in the early stages of the project as it can take 2-3 years to get projects through the NEPA process and it takes time to establish trust with private landowners. However, the lack of a more strategic approach may eventually constrain the project. The continued opportunistic approach alone, pursued without the prioritization framework provided by an overall comprehensive basin-level restoration strategy (that includes but goes beyond sediment issues), seems likely to lead to continued questions about project selection and implementation. The lack of a comprehensive strategy also leaves no mechanism for linking together the many entities in the basin to pursue a common vision and set of goals.

- **Milestones Are Inadequately Communicated and Measured**

The USFS is measuring success so far primarily based on accomplishing the yearly work plan. The agency has attempted to measure the degree to which they did what they said they would do, how well they did it, and how involved partners were. Agency staff also said they were monitoring previous work to determine how well it was holding up, what effect it is having, and how well the partners like what is being done. This type of "output-based" indicator is very reasonable for a new program. However, output-based measures alone do not provide sufficient information about progress. Our review also

found that the milestones of success do not seem to be adequately communicated to the public. It is also unclear how the watershed project will measure whether their long-term goals are being achieved (e.g. do the existing projects add up to success in a way that maintains and enhances the integrity of the Wild and Scenic River ecosystem; maintains a full range of naturally occurring ecosystems and healthy forests; providing downstream users with cool, clear water into the next millennium; leads to shared responsibility, reduces sedimentation by 50%; improves riparian areas.) While it takes time and money to develop effective indicators, the lack of an effective mix of output and outcome-based measures and an effective way to communicate them may lead to concerns down the road about what the public got for the time and resources invested in the project.

- **Lack of Additional Staff Creates Stress for Existing Personnel**

Although the Chattooga watershed project provided additional funds, it did not include additional personnel to do the extra work that was required. Many of the Forest Service employees we spoke with said the project doubled their workload. It requires extra people-- not just extra money--to work through the planning, analysis, public involvement, documentation etc. required to complete the NEPA process and get projects out the door. The lack of additional staff created stress at almost all levels of the agency actively involved with the project.

- **The Lack of a Full-Time Coordinator Initially Hurt the Project**

The governance problems that initially plagued the project, along with the lack of outreach to the State Foresters and potential non-governmental partners, would most likely have been reduced had a full-time coordinator been on board. The ability of a coordinator to reach out and share information with multiple parties in a timely manner, to facilitate communication and decision-making, and develop more effective governance systems could have gone a long way toward preventing some of the bad feelings that to some degree still plague the project.

- **Lack of Long-Term Commitments May Undermine On-Going Efforts**

People from within and outside of the Forest Service said the lack of commitment from the Chief's office and a stable long-term funding source may ultimately undermine the relationships and trust that have been generated by the existing project. Many Forest Service staff said they believe that the devolution of decision-making regarding the continuation of the large-scale watershed programs from the Chief's office to the regions will eventually mean that funding and support for the projects will end. People believe that the regional office has many competing interests and the pressure for business-as-usual will eventually overwhelm the desire to innovate and to continue the Chattooga project. If this occurs, people fear that the new thinking and behaviors that are emerging within the USFS and the commitments made to community groups will be undermined. One Forest Service employee summarized this concern by stating, "If support and funding ends, the fallout will lead to a breach of trust with folks we have agree to do projects with."

Analysis

- **Despite Progress, the USFS Remains Internally Focused and Is Constrained by Internal Barriers**

Although the Forest Service personnel we spoke with voice increased understanding and support for the watershed approach and a desire to work in partnership, through our interviews it became clear that many staff feel constrained by the existing agency structure, systems, budgeting process, and culture. While other government agencies are listed as members of the board of directors, the Forest Service has struggled to bring them into the program as full partners. No local, private, non-profit, or academic entities sit on the board. The Forest Service continues to make decisions about projects on its lands with very little meaningful input from others outside of the agency. Programmatic and budget silos constrain interdisciplinary work and collaborative multi-stakeholder problem solving. Efforts to support or help organize local watershed groups are an extremely important and positive step. However, the full potential of partnership-based programs is achieved only when partner organizations find a synergy by working together such that they can achieve more by working together than they can be working alone. This does not seem to be occurring in all places.

These and other issues suggest that the Forest Service remains too inwardly focused and does not yet fully understand or have the capacity to make watershed-level partnership-based planning and management part of standard operating procedures. One high-level Forest Service employee summarized these problems by stating, "The agency is dabbling with watershed work, but it's not quite ready to take the step. There is always resistance to new ideas. It will take leadership and commitment from the Chief to make watershed work a core part of our mission, but I don't see that happening now."

- **Expectations May Be Too High**

The complex social challenges and the divergent views about the future of the Chattooga project, the long time frame required for ecological restoration, and the distrust that historically exists between local citizens and the USFS, suggest that it may take quite a while for significant progress to be made. Yet, the time frame for progress appears short as off-the-top funding from the Chief's office is ending and people want to see quick results. Expectations may be too high to ever meet the needs of many of the partners.

- **Despite the Constraints, People Are Generally Supportive and Want the Project to Continue**

Despite the concerns, almost everyone we spoke with voiced strong support for the large-scale watershed program concept and for the Chattooga project itself. Most people within and outside of the Forest Service seem to understand that the whole watershed is the scale at which they must work if key problems are to be resolved. They see great potential in the Chattooga project. One person summarized the feelings of many by stating, "It's a great concept. If the project is ended it will be a real loss. This is an opportunity to do things at the scale that can really make a difference." Another person said, "The project has been helpful. It would definitely be a setback if it were ended."

Recommendations

- **Continue to Expand Stakeholder Involvement By Expanding the Current Governance Structure**

To ensure the long-term viability of the project, key state, local, private, and non-profit groups must be fully engaged and invested. Even though the Forest Service has helped to organize and fund projects outside National Forest boundaries, it may be prudent to formally include outside interests on the board of directors, or to somehow transform the board, or merge it with an umbrella group that can pull together the many watershed-oriented programs and activities occurring within the Chattooga basin. The development of a governance structure that engages many of the key interests and which leads to a common vision and goals for the watershed may be key to generating long-term stakeholder buy-in and support for the project.

There are a number of ways in which stakeholder involvement can be expanded. For example, a simple way is to hold a series of open houses and/or stakeholder meetings. One project partner said, "We have continually been told that the agency was going to organize stakeholder meetings, but it never happened." Another way to expand involvement is to restructure the board of directors and project focus. There are a number of ways in which watershed programs can be structured. Each structure requires a different governance system. There is no single appropriate model. The model chosen should be based on the needs of the participants and the goals and critical tasks of the Chattooga project. Options include these and other governance structures and systems:

Joint Ventures: The USFS combines with other organizations to form a new, distinct organization in order to pursue complementary objectives. When in a joint venture, information, decision-making, power, and resources must be equally shared. These mechanisms often must be explicitly described and agreed to in writing by all partners and participants.

Strategic Alliances: Similar to a joint venture, where the USFS joins with others to pursue mutual gain, but a new organization is not created. In this case, the various organizations involved must agree to cooperate with and depend on each other. Clear rules of engagement must be established and agreed to (often in writing).

Informal Networks: Organizations join forces to capitalize on potential efficiencies in the production of specific outcomes (e.g. fundraising, information gathering). Each participating group is responsible for one area of output and the participating organizations are highly dependent on one another for the ultimate delivery of their products. Each entity makes decisions unilaterally, although in consultation with other partners.

Consortiums: The USFS pools its resources with other organizations to procure access to information or technologies, or achieve goals that are too costly or difficult for one entity to do alone. No separate entity is created for the management of this

relationship. Each entity makes decisions unilaterally, although in consultation with other partners.

- **Continue to Improve the Governance Systems**

Each of the governance structures and systems described above operate under different rules of engagement. Once the board has been expanded or in other ways additional organizations have been directly engaged in the project, it will be important to explicitly decide how information will be gathered and shared, how decisions will be made, and how resources and funds will be distributed. Decisions about how the governance system will operate often determine the degree to which partners are willing to actively participate.

- **Develop a Comprehensive Restoration Strategy and Prioritized Implementation Plan**

As improved governance structures and systems are being developed, it may be prudent to develop a comprehensive, scientifically credible restoration strategy and implementation plan. A sound strategy may go a long way toward eliminating concerns about project selection and implementation. It may also provide the umbrella needed to link parties together from throughout the entire basin to work toward a common vision and goals. The information generated by the Chattooga River Ecosystem Demonstration Project and the ongoing research of the Coweeta Hydrologic Lab should form the scientific underpinnings for a watershed analysis and subsequent project prioritization process.

To gain broad public understanding and support, the strategy should be developed by an independent objective multi-disciplinary team. Too many questions will arise if the USFS develops the strategy for its lands on its own. The strategy should also be vetted through a broad-based public involvement process. Meaningfully engagement of state and local government agencies and key stakeholders in the process of developing the strategy will lead to better understanding and undoubtedly reduce subsequent challenges and controversies.

The development of an effective strategy requires agreement on vision, strategy and tactics. *Vision* refers to a picture of the future of the watershed as a restored and healthy system and to a related future of the partner organizations as more effective entities. An effective vision also includes a clear message about why people should strive to create this future. *Strategy* refers to the overall approach--the framework within which you make decisions--that will be used to achieve the long-term vision a partnership has developed. A sample strategy may be to first identify and protect the healthier areas of the watershed and then focus restoration activities around expanding and reconnecting these areas. *Tactics* are the specific actions the partners will take to implement the strategy. For example, federal agencies may target their assessment and land management activities on resolving sediment problems to protect and restore the best remaining areas

on public lands while the states and non-profits may identify and work with parties that own the healthier private land areas to acquire conservation easements and/or help them adopt new management practices. *Implementation plans* detail the specific sequence of steps, time-lines, lines of responsibility, fiscal, and other resources that will be employed to implement all of the tactics consistent with achieving the strategy.

It is important to remember there is a direct link between the vision the partners develop, the generation of new ideas, and the development of an effective strategy. Innovative ideas that lead to synergy between all partners will arise only when partners agree on a common vision and goals and open themselves to new ways of thinking. New ideas will not emerge through business-as-usual. It may behoove the federal and non-federal partners in the Chattooga to spend time to clarify the vision, goals, and strategy they want to use.

- **Begin to Develop a Mix of Output and Outcome-based Indicators**

It takes a good deal of time and thought to develop effective indicators and data gathering systems to measure the extent to which projects add up to long-term success. The process also usually requires a good deal of public involvement and debate. It may therefore, behoove the partners to begin to develop a mix of output- and outcome-based indicators sooner than later, so that they are not caught short if and when questions are raised about the ultimate results that have been achieved in the Chattooga.

- **Explicitly Find Ways to Remove the Barriers to Flexibility and Innovation**

Our review found that employees feel constrained by the existing agency systems, structure, budgeting process, and culture. To make it part of standard operating procedures and to embed the approach in the culture of the agency, watershed-level partnership-based planning and management must be integrated into the agency's goals and policy directives, employee hiring criteria, job performance evaluations, leadership successional planning, budgeting procedures, and other internal protocols and procedures. It must become a standard part of the message and constantly communicated by the Chief and his staff, Regional Foresters, and others within the agency. The budget constraints must be resolved and efforts made to reduce the siloed functionalism that staff seem frustrated by. Explicit steps to resolve these issues will go a long way toward helping the UFSF achieve its goals.

- **Retain a Full-Time Coordinator Who Reports to the Forest Supervisors**

One of the themes we consistently heard through our interviews was the importance of a full-time coordinator. Retaining a full-time coordinator will prevent many miscommunication problems from occurring, provide the resources needed to engage local, state, private and non-profit interests, and help to generate additional funds. One Forest Service employee summarized the need for a full-time coordinator by stating, "We need funds to pay for Randy's salary. If they totally zero out the budget we will not

be able to continue to meet the commitments made to local governments and others. If the rug is pulled out before we meet our five-year plan, it will really hurt."

At the same time, it may be prudent to have the coordinator report directly to the Forest Supervisors (or to the Chattooga board, should it be substantially expanded). Having the coordinator report to the District Rangers involved with the project may have made sense when the initial focus was to complete projects on Forest Service lands. However, now that the emphasis is shifting to a focus on engaging external partners, the coordinator should report directly to those who have a somewhat broader perspective. Shifting the lines of authority in this manner may go a long way in expanding the scope and effectiveness of outreach efforts.

- **Expand the Use of the Wyden Amendment**

Many of the 15 other large-scale watershed restoration projects we have reviewed have used the Wyden Amendment on a much broader basis than the Chattooga program. This suggests that it may be possible to apply the process to activities other than inholdings, as long as the outcomes ultimately benefit public lands. The agency may want to investigate how other Forests are using the Wyden Amendment.

- **The Chief's Office Must Provide Continued Support and Oversight if the Project Is to Achieve Success Over the Long Term**

Although not everyone we spoke with felt this way, a common theme we heard was great concern over the future of the Chattooga watershed program if the Chief turned the project over to the Regional Office (RO). Although people said the RO in Atlanta has been very supportive, they oversee 24 forests and have numerous competing issues to address. Many people said it took an effort from the Washington office--not the RO--to make the large-scale project happen in the first place and they are very skeptical that the project would continue without sustained support from headquarters. One high-level Forest Service employee said, "There is not enough change in the agency yet to allow the project to continue without support from Washington." Another Forest Service employee said, "If this type of work is as important now as it was in 1999 when it started, it's got to be given oversight and be led by Washington."