Resources for Collaboration—A Selected Annotated Bibliography on Collaboration

This document is part of the Fuels Planning: Science Synthesis and Integration Project, a pilot project initiated by the U.S. Forest Service to respond to the need for tools and information useful for planning site-specific fuel (vegetation) treatment projects. To gather information relevant to public attitudes and beliefs about fuels planning, a team of social scientists posed six questions that address the tasks and challenges faced by fuels treatment planners:

- What information and tools are available that help land managers and communities collaborate in developing fuel treatment programs?
- What information and tools are available to help managers work with communities to communicate the risk and uncertainty of fuels treatment projects?
- What information and tools are available to evaluate the social acceptability of fuels treatments?
- What information and tools are available to encourage more active involvement of private property owners in the fuels management process?
- What information and tools are available to describe and evaluate the aesthetic impacts of fuels treatments?
- What information and tools are available to help us understand and evaluate the social impacts of wildfire?

Scientists from universities and public agencies across the country were engaged to find research that addressed each question. A series of documents were produced from this search: an annotated bibliography of relevant research, a synthesis of the research found, and managers'

fact sheets highlighting key findings from this research. In this document we present the annotated bibliography supporting the synthesis on collaboration. This bibliography was completed in 2004, so it does not include the most recent research published on collaboration. It does identify resources that will help land managers work collaboratively with the public to produce better projects.

The synthesis on collaboration can be found at:

http://www.ncrs.fs.fed.us/pubs/viewpub.asp?key=3123

Further information on the Fuels Planning: Science Synthesis and Integration Project can be found at:

http://www.fs.fed.us/fire/tech_transfer/synthesis/synthesis_index

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A Selected Annotated Bibliography on Collaboration

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Adler, Peter S.; Barrett, Robert C.; Bean, Marcha C.; Birkhoff, Juliana E.; Ozawa, Connie P.; Rudin, Emily B. 1999. Managing scientific and technical information in environmental cases: Principles and practices for mediator and facilitators. U.S. Institute for Environmental Conflict Resolution Western Justice Center Foundation. 76p. [Available online: http://www.resolv.org/pubs/envir_wjc.pdf].

The purpose of this report is to identify and refine the key principles associated with managing scientific information in environmental conflicts. This is a challenging task because environmental disputes are generally passionate, urgent, and time consuming. The authors of this report contend that by using science more wisely more environmental disputes will be resolved. This report provides insight about gathering information, using models, and the role of the stakeholder. It also provides guidelines for mediators and facilitators to utilize when confronted with an environmental conflict, including: how to acquire substantive knowledge, the pre-case consultation, assessing the conflict, process design, the initial meetings, structuring and managing discussions, working with experts, negotiating and problem-solving, and implementation.

Anderson, E. William; Baum, Robert C. 1988. How to do coordinated resource management. Journal of Soil and Water Conservation. 43(3): 216-220.

Coordinated resource management planning (CRMP) is a process that allows the owners, managers, and users of natural resources to work together to develop and execute a plan for managing natural resources and dealing with the challenges and disputes that arise. In this article, Anderson & Baum speak to those who enjoy a degree of authority over the resources in their area, assuring them that resource owners and managers do not have to abrogate their power (even if they must consider the viewpoints of others) (216). This said, the authors explain how to work through a CRMP process. The process is divided into several steps: initiating a CRMP effort, collecting relevant data, deciding the make-up of the planning group, scheduling, deciding on formats for discussion, choosing a resource management system, signing a so-called, "gentlemen's agreement," making a prioritized to-do list, and conducting periodic reviews. This chronological CRMP procedure, based on practical experience at the field level, is valuable for its plain-talk about learning to tolerate and manage "irritating and obnoxious ... extremists" (217), preventing the rise of factions within the coordinated group, and setting up the meeting room for maximum usability and comfort (220). Throughout the article, the focus remains on the role of the moderator, who is supposed to promote a sense of involvement and minimize conflicts. While interested in fostering coordinated management practices, this article does not attempt to revolutionize the way natural resources are currently managed. Group discussions do however expose participants to the views of others, inspiring them to "amend the viewpoints that they had at the beginning" (220). For Anderson & Baum, this is the social change that results from CRMP.

Arganoff, Robert; McGuire, Michael. 1999. Managing in network settings. Policy Studies Review. 16(1): 18-41.

The authors discuss networks as a new form of public administration and make recommendations for

managers based on their evaluation of hundreds of networks for economic and rural development and rural strategic planning. Since much public administration now relies on interorganizational coordination, managers must learn to build linkages to key partners while still maintaining internal agency functions. Management networks are non-hierarchical, and may include formal (e.g., contracting arrangements) and informal (e.g., collegial relationships) linkages. Networks help managers coordinate and facilitate joint efforts. A major benefit of working in network settings is the ability to rapidly adapt to changing conditions. However, the network must function well for this flexibility and adjustment to occur. Managers should work to maintain the network by adding new entities when needed, minimizing turf battles, and avoiding hierarchical and bureaucratic ways of doing business. For efficient management, networks more spend time focused on projects, not network structures. Skills for effective network management include: persuasiveness, a confidence about achieving the collective purpose, the ability to identify and tap necessary resources from multiple sources, the ability to engender trust in others, and the ability to understand and utilize knowledge from many different disciplines (e.g., engineering, environmental sciences, finance, marketing, law, planning). Clearly, operating in network settings places unprecedented time demands on managers. Other challenges to network management are loss of individual control over a process, difficulty in achieving accountability within the network, and the reality that some may use networks and "rhetoric of collaboration" to manipulate others.

Arnstein, Sherry R. 1969. A ladder of citizen participation. Journal of the American Planning Association. 35(4): 216-224.

While citizen participation in collaborative and community efforts may be widely applauded and encouraged, with less powerful groups and those with limited resources, participation may be given only token support. This perspective forms the foundation of this 1969 article. The precepts presented are poignant and applicable for today's collaborative efforts regarding how citizens participate and how the "powerful" encourage, discourage, or give token support to citizen participation. There are varying levels of citizen participation in community projects, ranging from nonparticipation to participation with citizen control. The imagery of a ladder is employed, with each rung representing levels of participation; eight rungs are placed into three different categories. Non-participation consists of manipulation and therapy (educating and curing of 'illnesses'). Tokenism exists in varying degrees ranging from informing, consultation, and placation. Citizen power also exists in different degrees, ranging from partnership to delegated power to citizen, or community, control. Efforts and projects that have real citizen participation, versus projects that nod to citizen participation, demonstrate and facilitate citizen power. Citizen power insures the contributions of vulnerable populations in determining their future and in controlling their community. There are, however, valid arguments against community control that need to be addressed (potential for separatism, cost, efficiency, potential for control without the resources to succeed, etc.) while encouraging citizen participation.

Aspen Institute: Rural Economic Policy Program. 1996. Measuring community capacity building: A workbook in progress for rural communities. The Aspen Institute. 166p. [Available online: http://www.aspeninstitute.org/atf/cf/{DEB6F227-659B-4EC8-8F84-8DF23CA704F5}/MEASURING_COMMUNITY_CAPACTIY_BUILDING.PDF]

This is a workbook designed for rural communities to measure community capacity and community capacity building. While the workbook is written in a tone and with content more specific to community groups and workers, its content would be useful to anyone wanting to collaborate with communities or community groups on a variety of projects. The introduction introduces the reader to the concept of community capacity and what it takes to build community capacity, working from the premise that all communities have at least some amount of capacity and capacity building activities taking place. The authors then identify eight outcomes which they believe are indicative of community capacity building, including 1) expanding diverse, inclusive citizen participation; 2) expanding leadership base; 3) strengthened individual skills; 4) widely shared understanding and vision; 5) strategic community agenda; 6) consistent tangible progress toward goals; 7) more effective community organizations and institutions; and 8) better resource utilization by community (11). The

remainder of the workbook is organized according to each of these outcomes, with indicators and subindicators of each outcome presented, along with possible measures for assessing that outcome. A useful section on how to get started and proceed with measuring community capacity building is also included.

Baker, Mark; Kusel, Jonathan. 2003. Community Forestry in the United States: Learning from the Past, Crafting the Future. Washington, DC: Island Press. 247p.

Beaulieu, Lional J. 2002. Mapping the assets of your community: A key component for building local capacity. SRDC Series #227. Mississippi State University: Southern Rural Development Center. 14p. [Available online: http://srdc.msstate.edu/publications/227/227_asset_mapping.pdf]

Needs assessments are commonly performed as the first step of community health projects to determine community issues requiring attention. Beginning a community project, however, by focusing on the deficits and negatives can be counterproductive. Focusing on and recording the strengths, or assets, of a community—its residents, institutions, and informal organizations—is suggested as a starting point instead. Asset mapping assumes and affirms that strengths and abilities are already present in a community, an important lens through which to view communities regardless of their size, locale, demographics, and so on. This document is a guide, of sorts, for determining community assets. It provides supporting forms that can be used to assist with assessing and recording community assets in the three areas listed above (residents, institutions and organizations). Also provided are ideas on how to link these assets both within the community and with external assets to effectively build community capacity. The document and supporting forms can be found at http://srdc.msstate.edu/publications/series.htm .

Belden Russonello & Stewart Research and Communications 2001. Collaborative process: Better outcomes for all of us: Communications recommendations and analysis of 54 interviews with decision makers on environmental issues in the western U.S. Washington, D.C., The Emily Hall Tremaine Foundation and Partners: 36. http://www.merid.org/PDF/BRS_Report.pdf

Fifty-four environmental decision makers were interviewed about the benefits and difficulties of collaboration for land use and other environmental issues. The interviews revealed that, in general, government decision makers were more enthusiastic about collaboration than environmentalists and businesspeople. In spite of some suspicions about the collaborative process, most interviewees agreed that collaboration, while not without limitations, should be used to resolve conflicts and reach decisions. In this report, the researchers identify six common ingredients of effective collaborations: a shared goal, trust, patience, leadership, pressure to collaborate, and a sense of egalitarianism. A number of pitfalls are also identified, key among them a lack of trust, an imbalance of power, and participant impatience. Interestingly, the conclusions drawn from these interviews have to do with how to talk about collaboration. The interviews revealed that bellicose terms such as "conflict resolution" and "adversaries" were harmful to collaboration's image. Also, language of results (e.g. "enduring results" and "better outcomes") was perceived as more important than language related to process (e.g. "a democratic approach"). The researchers used these and other points about the language of collaboration to create this collaboration mantra: "Collaboration results in better outcomes for us all." This happens when people of different interests sit down together to seek common ground and to create solutions that will benefit the whole community (10).

Bentrup, Gary. 2001. Evaluation of a collaborative model: A case study analysis of watershed planning in the Intermountain West. Environmental Management 27(5): 739-748.

In 1995 Steve Selin and Deborah Chavez proposed a model for collaboration on environmental planning and management. This article critically evaluates that model, analyzing it in context of several case studies in the United States. The author begins by comparing collaborative-based

planning to traditional participatory planning, identifying a need for watershed planners to understand collaboration before attempting to use the process in planning efforts. The author next provides his interpretation of Selin and Chavez's model, modifying some of its terminology to make it more familiar to environmental planners. The objective of the article is not to determine the value of collaboration but rather to consider whether or not the model is a valid representation of collaborative processes. The author provides background information about the three partnerships considered in the study, which included the Animas River Stakeholder Group of San Juan County, CO, the Little Bear River Group of Cache County, UT, and the Willow Creek Project of Camas County, ID. In all three partnerships project efforts centered on watershed restoration, though factors such as spending, stakeholders, and land ownership varied substantially. The author reconsiders each component of the model in light of the case studies, citing both strengths and weaknesses of the model. While the author does recommend several modifications to the model, he concludes that the model can serve as a helpful tool to coordinators interested in collaboration.

Bergstrom, Arno, Clark, Richard, Hogue, Teresa; Iyechad, Ted; Miller, Jeff; Mullen, Steve; Perkins, Daniel; Rowe, Ellen; Russell, Juanita; Simon-Brown, Viviane; Slinski, Margaret; Snider, B. Alan; Thurston, Flossie. 1996. Collaboration framework — addressing community capacity. Fargo, ND. The National Network for Collaboration: 19. [Available online: http://crs.uvm.edu/nnco/collab/framework.html]

In order to assist those interested in starting a collaboration, already embroiled in a weak collaboration, or engaged in evaluating an ongoing collaboration, the National Network for Collaboration developed the Collaboration Framework, a collaboration model that is explained and endorsed in this publication. The Framework is a diagram that displays the essential elements of collaboration (grounding, core foundation, process and contextual factors, impact measures, and outcomes). In sum, the diagram conveys the idea that collaborations can reach the outcomes desired by constituents if they are based on diversity and moral principles, if they operate in the right political, historical, and financial climate, and if they follow a sustainable procedure that allows for communication and effective leadership. This publication describes the elements of the Collaboration Framework in great detail, and then discusses each of the twelve process and contextual factors, which include leadership, communication, political climate, and resources, to name a few. Because collaboration has been likened to "teaching dinosaurs to do ballet," many collaborations produce unimpressive results or simply crumble to the ground. This guide was created to give direction to existing or nascent collaborations, encourage open and honest communication, help collaborators access untapped resources, and trouble-shoot for problems in a malfunctioning collaboration.

Bernard, Ted and Young, Jora. 1997. The Ecology Of Hope: Communities Collaborate For Sustainability. Gabriola Island, B.C.: New Society Publishers. 240p.

This book advocates natural resource sustainability by presenting case studies of sustainable living in the United States. In the first section of the book, History Retold, the authors attempt to provide context for the case studies by discussing the evolution of humankind's understanding of the earth and the universe. The authors address Nicholas Copernicus' assertion in 1543 that the earth is not the center of the universe, an idea that was rejected long after its discovery. In addition, the authors include a brief history of American conservation, discussing the work of Theodore Roosevelt and Aldo Leopold among others. The second part of the book, A Collection of New Stories, presents the case studies, eight in all. Each case demonstrates the success of sustainability, demonstrating that people can depend on their environments without destroying them. The case studies take place across the country and include: a sustainable lobster fishery in Monhegan, Maine, the restoration of Chattanooga, Tennessee following the destruction of the Industrial Age, the preservation of undeveloped shoreline along the Eastern Shore of Virginia, forest management in Menominee, Wisconsin, collaboration between environmentalists and cattle ranchers along the U.S. and Mexican border, protection of king salmon in California, forest management in Plumas County, California, and restoration efforts in southeastern Ohio and Chicago. The third and final section of the book, entitled

the Moral of the Story, attempts to make sense of the collective lessons provided by the case studies. The authors lay out characteristics of a sustainable relationships between people and the earth that include having knowledge of the ecosystem, being willing to accept change, and having a sense of place. A commonality between the case studies was collaboration, as the stories involved leaders and operators working together. Overall the message of the book is very optimistic and pro-conservationist. The authors acknowledge the large amount of negative change that humans have inflicted on the earth but are confident that a shift toward sustainability can and will occur.

Birkholz, Anne; Lineback, Pat. 2001. Technology and collaboration improve interagency fire planning. Natural Resource Year in Review, National Parks Service, U.S. Department of the Interior. 2003. [Available online: http://www2.nature.nps.gov/YearInReview/yir2001/07_collaboration/07_4_birkholz_SEKI.html]

The Southern Sierra Geographic Information Cooperative, established in 2000, relies on interagency collaboration to preserve natural resources, improve public and firefighter safety, protect property, and minimize wildfire costs to taxpayers. Fire management is becoming more and more complex due to human infiltration of wildlands, new information on the role of fire in ecosystems, and the difficulty of reducing hazardous fuels. In the Sierra Nevada, increased fuel loads pose a wildfire threat in a place where public and private lands converge. Collaborative planning is necessary to achieve fuel reduction in this region, but collaboration has proven difficult because technology, business practices, and information differ from agency to agency. The SSGIC has recognized this impediment and is attempting to standardize data and business practices across agency lines. The organization is in the process of developing a website (http://ssgic.cr.usgs.gov) to provide software and data downloads for agencies interested in joining the SSGIC network. Fire managers across the country have already recognized the value of collaboration for fuel reduction. The SSGIC is making standardized tools and information available to encourage coordinated fire planning across landowner boundaries.

Blahna, Dale J.; Yonts-Shepherd, Susan. 1989. Public involvement in resource planning: toward bridging the gap between policy and implementation. Society and Natural Resources 2: 209-227.

This article evaluates the public involvement methods used during the US Forest Service planning process, according to factors derived from NEPA and NFMA, and literature on USFS public participation processes. Their results show that most forests did not abide by all of the public involvement standards. They identify barriers to providing effective public involvement and suggest methods of improving public involvement during the planning process.

Bliss, John; Aplet, Greg; Hartzell, Cate; Harwood, Peggy; Jahnige, Paul; Kittredge, David; Kewandowski, Stephan; Soscia, Mary Lou. 1999. Community-based ecosystem monitoring. Journal of Sustainable Forestry 12(3/4): 143-167.

Community-based ecosystem monitoring, also referred to as multi-party monitoring, is observation and measurement by community members for the purpose of learning about ecological and social factors. This article describes issues related to community-based or multi-party monitoring, including: building social capital through monitoring, monitoring and the adaptive management decision-making cycle, how to identify monitoring goals and participants, selecting social and ecological indicators, scale of monitoring, developing a monitoring protocol, and evaluation and adaptation. Real-world examples are provided to illustrate each of these aspects of multi-party monitoring. The authors also discuss challenges to community-based monitoring.

Blumberg, Louis. 1999. Preserving the public trust. Forum for Applied Research and Public Policy. 14(2): 89-93.

This article explains why the Wilderness Society disagrees with public lands management collaborative processes that fail to include a full representation of public interests. The author states,

"local control over environmental management can only dilute environmental standards and weaken the laws and regulations that protect public land" (89). The article begins with a description of the current state of public participation under the National Environmental Policy Act, followed by a section describing the changes Forest Service management has undergone. Blumberg argues the current public participation processes need to be improved with fair representation of all national interests, and agrees that collaborative "efforts can play an important role in helping to shape better decisions" (92). He concludes the article with a section of guidelines for evaluating and identifying whether a collaborative processes is sound and beneficial. These factors are: adequate representation, clear rationale and purpose, open process, appropriate scale, environmental protection, legal and scientific consistency, mechanisms for implementation, funding, and accountability (92-93).

Blumberg, Louis; Knuffke, Darrell. 1998. Count us out: Why the Wilderness Society opposed the Quincy Library Group legislation. Chronicle of Community 2(2): 41-44.

This article provides the Wilderness Society's reasoning for opposing the Quincy Library Group legislation. Although the group does support some consensus processes, they believe the Quincy process was exclusive, undermines public rights and NEPA and NFMA processes, is harmful to the environment and provides a cover for bad public policy. For a more thorough description of the Wilderness Society's stance on collaboration, refer to Blumberg 1999.

Borchers, Jeffrey G.; Kusel, Jonathan 2003. Toward a civic science for community forestry. In: Baker, M.; Kusel, J. Community Forestry in the United States: Learning from the Past, Crafting the Future. Washington, DC: Island Press. 147-163.

Included in a book about community forestry, this chapter explores the applications of civic science modern times. The authors begin by discussing the shortcomings of traditional science, including its inflexibility and failure to adapt to change. Though scientists are traditionally considered experts, community forestry recognizes scientific uncertainty and the unpredictability of the future. One of the primary goals of community forestry is to create a healthy relationship between communities and their environments, and the strategy employed is much more democratic than those of traditional science. After providing background information on the topic, the authors include a model that demonstrates the partnership between the public, science, and agency in civic science. While community forestry obviously provides advantages to citizens, the authors point out that scientists may also benefit through shared responsibilities and costs. In addition, recent challenges to the credibility of science can be addressed and often eliminated through civic science by allowing nonexclusive participation and mutual learning.

Born, Stephen M.; Genskow, Kenneth D. 2000. The watershed approach: An empirical assessment of innovation in environmental management. Learning from Innovations in Environmental Protection. Washington, D.C., National Academy of Public Administration: 62. [Available online: http://www.napawash.org/pc_economy_environment/epafile0701.pdf]

The authors evaluated six collaborative watershed initiatives (two in Washington, two in Wisconsin, and two in North Carolina), and found that all of them produced demonstrable environmental progress. The authors argue, however, that environmental outcomes should not be used as the principal measure of success, in part because of the time required before environmental change is measurable. They recommend using intermediate environmental results (e.g., changes in management practices, increased scientific capability within the group) and institutional outputs (e.g., educational materials) to assess progress in collaborative resource management groups. Based on the six case studies, the authors conclude the following: 1) There is no single model for collaborative watershed groups; in fact, these groups need to evolve to address changing conditions. 2) It takes time (years) for a collaborative group to develop the capacity to address major watershed issues. 3) Governmental agencies and staff provide critical sustenance in the form of funding, staff, and organizational support, scientific information and analysis, shared leadership, supportive program management, and recognition / legitimacy. In fact, governmental agency collaboration and financial support appear

essential for success (p.55). 4) State and federal agencies must have a sustained field presence in order to be effective partners. 5) A high degree of organizational formality within the collaborative (e.g., charters and bylaws) appears necessary for effective functioning and accountability. 6) There should be a sound scientific basis for plans, decisions, and management actions. 7) Since partnerships involve multiple and ongoing interactions, even successful partnerships require more time investment than traditional top-down environmental management. The authors make special note of the importance of USDA units that are decentralized and have a local field presence which provided important technical assistance, funding, and capacity-building programs directly at the local level (62).

Borrini-Feyerabend, Grazia. 1996. Collaborative Management of Protected Areas: Tailoring the Approach to the Context. Issues in Social Policy. 2003.

This didactic article on collaborative management of protected lands and natural resources begins with the story of Caleb, a Ugandan tribesman. Caleb has received a permit to collect vines inside a protected area (PA). In return, he assists the park's authorities by keeping an eye out for poachers and wildfires. This teamwork illustrates effective collaborative management (CM) of a protected area, which is essential for reconciling differences between local residents with strong ties to the land on one hand, and bureaucrats, capitalists, and tourists on the other. Borrini-Feyerabend's article, which she describes as a synthesis of "general points of reflection," speaks to those with an interest in initiating a CM process and encourages readers to view all interested parties as potential "stakeholders" who ought to play a role in decision-making concerning the PA (29-30). However, the author repeatedly stresses that collaborative endeavors must be tailored to suit the situation's economic, political, institutional, and cultural context. Although multi-lateral involvement is a must, the author diagrams a continuum of participation ranging from almost complete control by a governmental agency to total management by traditional authorities and resource users. The author describes the CM process in considerable detail — gearing up for a partnership, developing an agreement, implementing it and reviewing it on an on-going basis — but she stresses the point that step-by-step guides to successful collaboration cannot suit the specific needs of every community.

Brendler, Thomas; Carey, Henry. 1998. Community forestry, defined. Journal of Forestry 96(3): 21-23.

This article discusses community forestry, a relatively new practice in the United States. The authors define community forestry as the management of forests with the goal of benefiting the local population. Three components of community forestry are identified: the residents have access to the land and its resources, the residents take part in decision-making regarding the forest, and the community takes steps towards protection and restoration of the forest. The two goals achieved through community forestry are economic development and forest protection. The interdependence of these goals makes them inseparable, as without one the other cannot be attained. In the United States community forestry has surfaced primarily in the West where there is an abundance of public land and in rural areas where residents live most intimately with the land. Unlike many other forestry practices, community forestry involves a large amount collaboration toward common interests. Those involved care about the land as it is a source of livelihood for the community.

Brick, Phillip D.; Snow, Donald; Van de Wetering, Sarah, Eds. 2001. Across The Great Divide: Explorations in Collaborative Conservation and the American West. Washington, DC: Island Press. 256p.

Presented as a series of essays, this book examines collaborative conservation in the western United States. The introduction provides an overview of the topic, outlining characteristics of collaborative conservation without committing to a formal definition. The process is described as crossing boundaries and instigating community involvement with the goal of preserving natural resources. The first section of the book consists of three essays that examine the development of collaborative conservation. The process emerged in the 1990s as an evolution of alternative dispute resolution (ADR) in the 1970s. The next section of the book focuses on the West, and how changes over the last

century have created a need for new methods of attaining conservation. The third section of essays presents case studies of successful collaborative efforts. All the examples are from the West and include the Quincy Library Group in northern CA, the Applegate Partnership of southern OR, and collaboration to restore the Clark Fork basin in MT. In addition to presenting the circumstances and outcomes of each case, the essayists attempt to analyze and draw understanding of the underlying processes. The final two sections of the book attempt to critically analyze collaborative conservation. Essays are presented representing very diverse perspectives on the topic, with some praising the process and others questioning its validity. Despite the negative criticisms presented in some essays, the overall message that the essays collectively convey is that collaborative conservation is a promising process for the present demands of natural resource management.

Brick, Phillip D.; Cawley, R. McGreggor, Eds. 1996. A Wolf in the Garden: The Land Rights Movement and the New Environmental Debate. Lanham, MD: Rowman & Littlefield Publishers. 323p.

The use of collaboration in public participation processes will be central to developing environmental management decisions that addresses local, state, and national level issues and concerns. This collection of essays presents views from environmentalists and land-rights activists to explore the promise and perils of place-centric environmental activism and the positive influences the land-rights movement could have on the environmental movement. The editors suggest that the grassroots, broad interest-based strategy of the land-rights movement would provide a coherent strategy and help restore political vision to the environmental movement (10). Rather than having abstract arguments, future discussions may focus on specific places where real people live, work, and play (307). The book begins with a section describing the land-rights — environmental debate, followed by a section analyzing this debate both politically and in the media. The third section presents ideas useful for moving beyond this current debate. The final section further defines place-based concepts and the barriers to environmentalism at the local level, which the editors believe is central to protecting the environment. Annotations are also written for Chapters 6 (Budd-Falen 1996) and 8 (diZerega 1996).

Britell, Jim. 2003. Essay #10: Partnerships, roundtables and Quincy-type groups are bad ideas that cannot resolve environmental conflicts. 2003. [Available online: http://www.britell.com/use/use10.html]

This piece, and similar essays found on Britell's website, provides some of the common reasons among environmentalists for not participating in collaborative or consensus processes. He summarizes his argument by stating, CHECK THIS "Consensus processes are powerful tools, but can artificially manufacture consent and agreements that ordinary political processes are unable to do." In addition Britell argues that "forest activists are not well prepared to take on this new role as they are neither funded nor equipped with the tools to replace the monitoring, enforcement and proper sale preparation that agencies are legally tasked and funded to perform, nor are they able to become a decision maker over local specific applications of federal land policy regulations." He then discusses how the neo-liberal worldview, which views the role of the government in strictly economic terms, has influenced the movement toward collaboration, and weakens the necessary opposition from forest activists.

Brunner, Ronald D.; Colburn, Christine H.; Cromley, Christina; Klein, Roberta; Olson, Elizabeth. 2002. Finding Common Ground: Governance and Natural Resources in the American West. New Haven, CT, Yale University Press. 320p.

The growing problems of governance — more single-issue politics and gridlock, more breakdowns in accountability, and more litigation in the courts — are crying for solution and the authors recommend community-based initiatives. The book consists of six chapters, the first of which explores the present condition of governance and discusses why community-based initiatives can better the situation. The next four chapters focus on specific cases of collaborative efforts in the West: the restoration of wolf populations in the Northern Rockies, the management of the Upper Clark Fork River basin in southwestern Montana, bison management in Yellowstone, and the Quincy Library Group of southern

California. The final chapter steps back and considers the collective lessons provided by the case studies. Policy change is discussed as a necessity for increasing the number of successful community-based initiatives. In addition, separate sections regarding the roles of the Forest Service, environmental groups, and researchers and educators in community-based initiatives demonstrate the complexity of collaborative processes. The authors end by arguing that building a record of successful collaboration functions to prevent frustration or failure in future efforts by providing lessons to those willing to learn.

Buckle, Leonard G.; Thomas-Buckle, Suzanne R. 1986. Placing environmental mediation in context: lessons from 'failed' mediations. Environmental Impact Assessment Review 6: 55-70.

How does one determine if a collaborative effort has been successful at solving the problem at hand? This question is addressed in the article, as well as a discussion of how to turn failed mediations into a positive situation.

Budd-Falen, Karen. 1996. Protecting community stability and local economies: Opportunities for local government influence in federal decision and policy making processes. In: Brick, Phillip D.; Cawley, R. McGreggor, Eds. A Wolf in the Garden: The Land Rights Movement and the New Environmental Debate. Lanham, MD: Rowman & Littlefield Publishers, Inc. 73-83.

This chapter promotes the belief that citizens and their local governments have the authority to protect local tax bases and private property rights through involvement in federal land management decisions. Congress, the courts, and federal regulations require federal land management agencies to protect the stability of communities surrounding federal lands. Yet a definition of community stability is still to be determined. The author argues that in order to protect this stability, local governments must participate in federal land management decision processes. She then lists Forest Service, Bureau of Land Management, and Endangered Species Act regulations specifically requesting local government involvement in decision processes, and concludes with methods for improving local government involvement.

Bureau of Land Management and Sonoran Institute. 2000. A desktop reference guide to collaborative, community-based planning. Tucson, AZ, Sonora Institute. [Available online: http://www.sonoran.org/pdfs/desktop%20ref%20guide.pdf]

A joint workshop of the BLM Tucson Field Office and the Sonoran Institute in 2000 formed the basis of this reference guide to community-based collaborative planning. Workshop participants discussed the value of partnerships between government land managers and the broader community. They were also encouraged to share their experiences with collaboration and ideas for improvement. This guide presents the workshop's principles and recommendations for building a strong collaboration. It also clarifies the ramifications of the National Environmental Policy Act (NEPA) and the Federal Advisory Committee Act (FACA). Case studies from California, Colorado, Arizona, New Mexico, and Nevada illustrate the challenges and rewards of pursuing community-based collaborations. Throughout the guide, the BLM is praised for its role in innovative approaches to land management, but the point remains that successfully balancing land protection and exploitation will require the full participation of the American public. The overall message is that collaboration increases trust, improves working relationships, leads to fair decisions about resource allocation, and creates a sense of common ownership, management, and responsibility for the land. The guide closes with eight parting instructions on how to communicate, take risks, and stay flexible to obtain the full benefits of collaboration.

Burns, Michele; Cheng, Anthony S. 2003. A neighbor-to-neighbor approach to community involvement in wildfire mitigation and fuels management: A field guide for wildfire mitigation education specialists. Fort Collins, CO, Interior West Center for the

Innovative Use of Small Diameter Wood: 34.

Initiating and sustaining fuels management is a long-term investment of time, relationship-building, and collaboration at the neighborhood and community levels (1). This guidebook provides methods to prepare for a collaborative wildfire mitigation effort. It is separated into three sections that cover the principles of a collaborative community approach, methods for engaging citizens at the local level, and a "toolkit" of checklists and worksheets useful to community level fire mitigation processes.

Burns, Sam. 2001. A Civic conversation about public lands: Developing community governance. Journal of Sustainable Forestry 13: 270-290. [Available online: (paste link into browser)
http://www.haworthpress.com/store/ArticleAbstract.asp?sid=EKVK0K5B09U99LU50VHDRCBB7G4757C3&ID=9008]

Traditional methods of planning, management and conservation of public lands have not been effective. Consensual problem solving that includes communities, not just agencies, needs to be present for effective ecosystem management. The 1990s brought forth a new ideal — community based ecosystem management (CBEM) — as a form of land stewardship. Ten factors are identified that contribute to the development of CBEM. Factors discussed, for example, are the weaknesses of traditional practices and science regarding sustainable land management, the characteristics and history of agencies regarding land management and the experiences and perspectives of communities and individuals. For CBEM to be effective and appropriate, several processes will have to be implemented, including the formation of new relationships and institutions, collaborative learning, and the development of community capacities through civic conversation and community (or civic) governance (277). Based on several land planning projects in Colorado, practices and elements that define civic governance were identified: relationship building; collaborative (or social) learning that combines scientific and community knowledge through a democratic process, creating 'civic literacy'; capacity building (building skills and competencies in community members and agency personnel); and implementation. Whether implementation is best done as a systematic and formally governed or communal process is not yet determined. A community-based ecosystem management system, however, will require the commitment of individuals and a display of civility, along with civic participation.

Burns, Sam; Richard, Tim. 2002. Four Corners Sustainable Forests Partnership 2001-02 Demonstration grants program evaluation report. Durango, CO, Fort Lewis College, Office of Community Services: 50. [Available online: (paste link into browser)
http://ocs.fortlewis.edu/02%20fcsfp%20evalreprt_noappndx.pdf

The 1990s brought a shift in forest management, with scattered communities throughout the U.S. engaging in community-based forest management projects. These efforts contributed to the understanding that collaboration between multiple sources — local, regional and national — was needed. The projects also contributed to the understanding that multiple approaches and activities are need to address the issues related to the improvement of forest health. This report is an evaluation of community-based forest management demonstration projects funded by the Four Corners Sustainable Forests Partnership encompassing the four Western states of Utah, Colorado, Arizona and New Mexico. Projects were either in their first, second or third year of funding. A set of attributes characterizing capacity was used to form the basis of the evaluation. The presence and integration of, and relationship between these attributes defined project well-being. Attributes looked at were partnership organization, collaboration, economic strategy, workforce and training, technical assistance, restoration forestry, technology and cost effectiveness, market development and marketing, information and exchange and monitoring. The evaluation results are organized and presented in sections according to these attributes. Each section closes with observations about and recommendations for fostering that capacity.

Busenberg, George J. 1999. Collaborative and adversarial analysis in environmental policy. Policy Sciences 32: 1-11. [Abstract available online:

http://www.riskworld.com/Abstract/2001/SRAam01/ab01aa038.htm]

This article compares two models utilized in natural resource management to resolve disputes, (1) groups opposing each other in a debate, and (2) collaboration. The theoretical and practical results of this analysis conclude, "in the adversarial form of analysis, groups opposing each other in a debate generate competing technical analyses to support their clashing policy arguments. The fundamental problem with this 'dueling scientist' approach is that the participants in the dispute often recognize the potential for distorted communication *in these competing knowledge claims, in that each group can manipulate its analysis to favor its policy position. The resulting suspicion makes it difficult for any one participant to generate knowledge claims that will be credible to the other participants. Therefore, adversarial analysis creates the risk of delay and deadlock in the policy process, because the participants are denied a common ground of technical knowledge upon which to negotiate policy agreements (1)." On the contrary, "in collaborative analysis, the groups involved in a policy debate work together to assemble and direct a joint research team, which then studies the technical aspects of the policy issue in question. Representatives from all the participating groups are given the ability to monitor and adjust the research throughout its evaluation. Collaborative analysis aims to overcome suspicions of distorted communication by giving each group in the debate the means to assure that the other group members are not manipulating the analysis (1)."*

Carr, Deborah S.; Selin, Steven W.; Schuett, Michael A. 1998. Managing public forests: Understanding the role of collaborative planning. Environmental Management 22(5): 767-776. [Abstract available online: http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=9680544&dopt=Abstract]

The goal of this article is to analyze collaboration in federal land management agencies. The authors discuss the results of two studies, one of Forest Service managers and the other of external partners. The article is well organized and includes an introduction followed by separate sections: Methods, Results, Findings and Recommendations, and Conclusion. The researchers collected the data from each study by using a 45 minute questionnaire delivered over the telephone. Though each study provides interesting information independently, evaluation of the two studies together allows readers to compare the perceptions of Forest Service employees to those of their external partners on the topic of collaboration. The results reveal a surprising number of similarities. For example, both parties viewed collaboration as beneficial and both were most enthusiastic about the trusting relationships formed through the process. Additionally, both groups viewed the organizational culture of the Forest Service as the most significant obstacle to successful collaboration. While the groups were alike in these ways, the studies also revealed notable differences. For instance, each group viewed the motivation of the other group in collaborating as different, showing mistrust between the parties. Also, the Forest Service viewed collaboration as a cost and time effective process, while the external partners did not. The authors conclude by reminding the reader that collaboration does not make sense in all situations, but that collaborative efforts such as those initiated by the Forest Service represent a new and promising approach to land management.

Cestero, Barb. 1999. Beyond the hundredth meeting: A field guide to collaborative conservation on the west's public lands. Tucson, AZ, Sonoran Institute. 80p. [Available online: (paste into browser) http://nps.sonoran.org/library/beyond_meeting.pdf]

This report attempts to resolve a major source of difficulty in the world of collaboration: miscommunication. Although collaboration has been recognized as an innovative, effective approach environmental decision-making, planning, and management, advocates of collaboration have not learned to speak a common language. This guide endorses a specific taxonomy and framework for collaboration. It also identifies lessons learned and remaining challenges to help public land managers, policymakers, conservationists, resource users and concerned citizens engage in a productive dialogue on environmental issues. The report is segmented in three parts: Section I imparts the nuanced vocabulary that readers will need in order to work through the field guide. Formal organizational structures such as advisory councils, dialogue groups, and partnerships are described and categorized as either place-based or community-based initiatives. Next, the guide lists outcomes of

collaboration and indicators of collaborative success. Section II presents the characteristics, lessons, and outcomes of collaborative conservation initiatives in Idaho, Montana, Oregon, Colorado, and Utah. These cases are categorized as either place/community-based initiatives or policy/interest-based initiatives. Finally, Section III lists the key ingredients for cooking up a collaboration. At the end, the report returns to the case of the Quincy Library Group, which was introduced in the beginning as one of the most controversial cases of public land conservation. Readers are encouraged to maintain an open and inclusive process, understand environmental law, engage agency personnel, and encourage broad representation to avoid meeting the fate of the QLG. In the end, the report draws attention to the limitations of collaboration and to the indispensability of evaluation.

Chaskin, Robert J. 2001. Building community capacity: A definitional framework and case studies from a comprehensive community initiative. Urban Affairs Review 36(3): 291-323.

Community capacity and capacity building are concepts often discussed in the context of community initiatives and community-based projects. These concepts, however, are not well-defined or readily transferred from theory to practice. The term 'capacity' may be used to describe a wide array of characteristics of organizations or individuals within a specific community or within a specific field. This article offers a new framework, derived from literature, interviews with persons involved with community efforts, and two case studies, for defining and understanding community capacity. This framework proposes that there are six interrelated dimensions of community capacity and capacity building. Three dimensions are directly related to capacity and include characteristics (sense of community, commitment, access to resources, etc.), levels of social agency (individual, organizational, networks), and function (governance, planning, etc.). The fourth dimension is concerned with strategies and processes involved with the advancement of capacity, such as leadership and organizing. The fifth dimension has to do with intervening factors like safety, migration patterns and so on; and the final dimension is outcomes. Using two community-based projects as examples, the remainder of this article discusses how community capacity might be built, discussing such items as creating new institutions or strengthening new ones, developing leadership and organizational skills, and more.

Chaskin, R. J.; Brown, Prudence; Venkatesh, Sudhir; Vidal, Avis. 2001. Collaborations, Partnerships, and Organizational Networks. Building Community Capacity. Hawthorne, NY: Aldine de Gruyter. 123-157.

In this chapter, the authors speak to communities working toward a wide range of goals related to community capacity, whether maximizing the community's influence on policy decisions, increasing its capacity for producing and offering goods and services, or creating/renovating institutions and social structures for decision-making. These sizeable goals could not be accomplished by a single organization or individual. Because organizations and community activists are limited in the amount of material, fiscal and political resources available to them, they stand to benefit by joining hands with others who have similar interests and aspirations. The authors' goal is to help communities reshape their organizational infrastructure. They believe that parties interested in collaboration must build positive relations between organizations and individuals. This will improve access both to resources and to a predetermined structure for communication and teamwork. To build such relations, the authors propose strategies such as establishing mediatory broker organizations and selecting the right players to participate in collaborative undertakings.

Chavis, David M.; Pretty, Grace M.H. 1999. Sense of community: Advances in measurement and application. Journal of Community Psychology 27(6): 635-642.

This article is the introduction to and summary of articles presented within a special issue of this journal in which "sense of community" (SOC), identified as an important contributor to civic participation and catalyst for social change and justice (640), was reviewed and reported on in various contests and contexts. Sense of community was discussed in terms of measurement, level (individual versus group), relationship to neighborhoods, and relationship to community history. The

SOC Index is commonly used to measure SOC, but there is a need for a measurement that is more specific to and inclusive of the experiences of all those who make up communities. Although SOC is largely an individual process, examining and assessing it at the neighborhood (or community) level as well, then applying the results are important steps before engaging in community projects or other interventions. The influence of neighborhoods must be considered when looking at SOC, as must the history of the community and residents' identification with and attachment to the place where they live.

Cheng, Anthony S. 2002. Fire social science research: opening remarks. Fire, fuel treatments, and ecological restoration: proper place, appropriate time, April 16-18, 2002, Fort Collins, CO, USDA Forest Service Rocky Mountain Research Station. [Available online: (paste link into browser) http://www.fs.fed.us/rm/pubs/rmrs_p029.pdf]

Chrislip, David; Larson, Carl E. 1994. Collaborative Leadership: How Citizens and Civic Leaders Can Make a Difference. San Francisco, CA: Jossey-Bass Nonprofit & Public Management Series. 224p.

Arguing that traditional leadership has failed to deal adequately with the challenges facing modern society, the authors call for a new era of collaborative leadership and civic engagement, in which individuals and organizations representing different sectors work together to effect social change. In their analysis of what made collaboration successful in six case studies, Chrislip and Larson point out that the support of high-level, visible leaders brings credibility to a collaborative effort and are essential to its success. However, those who lead collaborative efforts can not fall back on the traditional hierarchical, political and confrontational models of leadership, but must bring a new vision of leadership and new skills and behaviors which facilitate communities and organizations collective efforts to "realize their visions, solve problems, and get results" (p.38).

Chrislip, David; Larson, Carl E. 1995. Pulling together: Creating a constituency for change. National Civic Review: 21-29.

Ineffective ways of dealing with public issues in the past have created division or gridlock among citizens, agencies, and public officials. Successful collaborative efforts, that include the appropriate people, are a way of giving voice to citizens and a vehicle for reconciling the gridlock and division. Identifying the appropriate people, however, must be given thought. For both practical and moral reasons, inclusion must be a guiding principal for identifying collaborative stakeholders. Practically, including those with the necessary skills and knowledge increase the odds that collaboration will be successful. Inclusion also protects against action being obstructed by those not included, as well as against temporary gains being made by one group but then undone by others. Morally, inclusion is a means of connecting members of the community and the larger society. Specifics regarding how to put the ideal of inclusion into practice while initiating a collaboration are given and focus predominantly on identifying stakeholders and gathering the stakeholder group together. A helpful set of questions is given to assist with stakeholder identification, including, for example: "What are the perspectives that are necessary to credibly and effectively define problems/issues and create solutions?"; "Who are the people who cause or are affected by the problems/issues relevant to this project?"; "Who will be affected by the solutions?" Developing and implementing processes on how to assist diverse groups in working together effectively is the necessary next step.

Cigler, Beverly A. 1999. Pre-conditions for the emergence of multicommunity collaborative organizations. Policy Studies Review 16(1): 86-102.

The author conducted telephone interviews with representatives of several collaborative organizations from across North America. The sample only included long-term, stable groups with formal processes and structures. Less formal networking partnerships were not studied. She found that formation of these organizations is often triggered by a disaster event. Collaborative organizations usually require public incentives to support capacity-building and maintain the collaboration. The formation of these

groups is often due to the efforts of an identifiable policy entrepreneur, and their maintenance depends on an early focus on visible and effective actions and an emphasis on collaborative skills building.

Coggins, George C. 1999. Regulating federal natural resources: A summary case against devolved collaboration. Ecology Law Quarterly 25: 602-610.

This article argues against local control of public lands management decisions for four main reasons. First, the author states that it is against the Constitution for anyone but Congress, which has delegated authority to the federal agencies, to create policies regarding public land. The author argues that collaborative decision-making is an abdication of agency responsibility and therefore is unlawful. Second, the author argues collaboration has historically been "tried and found wanting" (604). Third, the author finds the theoretical underlying premises for collaborative decision-making to be false or unproven. Finally, the author views the process as a means for co-optation, which will undermine national interests. This article illustrates the main critiques of collaboration, explaining why some affected parties choose not to participate in such processes.

Coggins, George C. 2001. Of Californicators, Quislings and crazies: some perils of devolved collaboration. Across the Great Divide: Explorations in Collaborative Conservation and the American West. P. D. Brick, D. Snow and S. B. Van de Wetering. Washington, DC: Island Press. 163-171.

This article describes reasons for not being involved with collaborative processes. The author "concludes that the law and its processes, imperfect as they are, are still far preferable to local negotiation as means for resolving public resource issues" (164). "The first part of the essay argues that collaboration as currently envisioned is seriously flawed. After describing briefly the context of the New West and the new legal standards governing the public lands, the essay elaborates on some of the arguments against collaboration/consensus (164)," focusing on five of the assumptions underlying collaborative practices.

Colvin, Roddrick A. 2002. Community-based environment protection, citizen participation, and the Albany Pine Bush Reserve. Society and Natural Resources 15: 447-445.

The U.S. Environmental Protection Agency (EPA) supports community-based environmental protection (CBEG) with the belief that it promotes: "1) a comprehensive identification of local environmental concerns, 2) priority and goal setting that reflect overall community concerns, and 3) development of long-term solutions" (447), as opposed to traditional environmental protection methods that fall short on inclusive citizen participation and in managing conflict among stakeholders. Two principles of CBEG (there are six total) are related to participation: "work collaboratively with a full range of stakeholders" and "monitor and direct efforts through adaptive management" (449). Citizen participation is divided into four broad types and includes voting, public referendum (e.g., initiatives as policymaking tools), nonbinding direct-involvement (e.g., public hearings), binding direct policy-making (e.g., negotiated rule making). Four criteria for assessing citizen participation are summarized in the literature and include: provision for amateur participation, the degree of citizen involvement in decision-making, the degree of communication (transfer of values, information, and knowledge) that takes place between participants, and the degree of citizen equality with other participants in decision making. To examine if CBEG does, in fact, more readily encourage and incorporate citizen participation, a case study of the Albany Pine Bush Preserve was considered, looking at these criteria. Surveys sent to participating organizations and a content analysis of newspaper articles was conducted to answer this question. Of the four criteria, only the one concerned with communication was met. The authors conclude that CBEG does have potential for increasing citizen participation and enhancing environmental quality. They suggest focusing on binding types of citizen participation and creating and offering incentives for stakeholder participation, perhaps through making EPA Technical Assistance and Community Assistance grants more readily available, or by making more resources available to projects that encourage and elicit strong citizen participation in the beginning.

Committee of Scientists 1999. Sustaining the people's lands: Recommendations for stewardship of the national forests and grasslands into the next century. Washington, D.C., USDA Forest Service: Uneven pagination.

The Committee report discusses capacity-building needs for forest stewardship, including: capability, trust, collaborative relationships, understanding, joint fact-finding, dealing with conflict, will, and a learning organization. Chapter 4, Collaborative Planning for Sustainability, identifies innovative collaborative approaches that the agency can use to better achieve long-term sustainability. The chapter includes descriptions and examples of monitoring, evaluation, and adaptation and discussions of the opportunities and challenges posed by the National Environmental Policy Act (NEPA) and the Federal Advisory Committee Act (FACA). It also addresses ways that the appeals process may present a barrier to collaboration and offers suggestions for reforming the appeals process.

Conley, Alexander; Moote, Margaret A. 2001. Collaborative conservation in theory and practice: A literature review. Tucson, AZ, Udall Center for Studies in Public Policy, University of Arizona: 33.

Begun as a briefing paper for a workshop of the Consortium for Research and Assessment of Community-based Collaboratives, this bibliography of writings on collaborative and community-based conservation is organized in two sections — Collaborative Conservation in Theory (works serving as philosophical justification and frameworks) and in Practice (description and assessment of actual cases in the United States). This well-organized collection of literature through 2000 clusters the references with useful summaries and serves as a useful reference guide to the theory, practice and implications of collaborative conservation.

Conley, Alexander; Moote, Margaret A. 2003. Evaluating collaborative natural resource management. Society for Natural Resources 16: 371-386.

This article addresses the importance of evaluation as seen by the participants, facilitators, policymakers, funders, advocates, and academics. It explores ideas of who should perform the evaluation; be it an individual self-evaluation, a group evaluation, or one performed by an unrelated third party. This article also discusses what should be evaluated and offers criteria for defining "successful" partnerships. Although there is no concrete set of guidelines for performing an evaluation of a collaborative group's progress, this article offers baseline suggestions to get started, as well as practical evaluation methodologies that can be applied to collaborative groups with varying interests and goals.

Connick, Sarah; Innes, Judith E. 2003. Outcomes of collaborative water policy making: Applying complexity thinking to evaluation. Journal of Environmental Planning and Management 46(2): 177-197.

This article puts forth a new way of thinking about the evaluation stage of collaboration. During an evaluation, participants may report being unable to reach or implement an agreement. This does not necessarily mean that the collaboration process was a failure. The authors believe that evaluations should look for more than just immediate results. The very process of collaboration, which facilitates dialogue, reconciles differences between long-time enemies, and allows stakeholders to build a common vision, should be taken as a sign of progress. To increase awareness about the less visible outcomes of collaboration, the authors provide nine qualitative measures for evaluation. These outcomes are based on water policy making efforts in California. They include putting an end to stalemates, agreeing on the 'facts' of the matter, and influencing the attitudes, behaviors, and actions of stakeholders.

Corson, Corinne; Sturtevant, Victoria 2003. Reducing wildfire risk: Communities and agencies building capacity through collaborative fire planning. Society and Natural Resource

Management (submitted for special issue on fire).

Cortner, Hanna J.; Burns, Sam; Clark, Lance R.; Sanders, Wendy Hinrichs; Townes, Gus; Twarkins, Martha. 2001. Governance and institutions: Opportunities and challenges. Journal of Sustainable Forestry 12(3/4): 65-96.

This policy analysis article identifies several policy issues that community-based ecosystem management groups must deal with, including: existing laws and policies; the role of government and policy tools such as money, policy directives, and mandates; mechanisms for cross-jurisdictional management; agency and professional cultures; and power distributions. For each of these issues, the authors present a vision for enhancing collaborative ecosystem management; identify success stories, barriers, and challenges; and make recommendations for addressing the challenges.

Cortner, Hanna J.; Moote, Margaret A. 1999. Collaborative Stewardship in Action: Building a Civic Society. The Politics of Ecosystem Management. Washington, Washington, DC: Island Press. 91-108.

Coughlin, Chrissy W.; Hoben, Merrick L,; Manskopf, Dirk; Quesada, Shannon. 1999. A systematic assessment of collaborative resource management partnerships. Ann Arbor, School of Natural Resources, University of Michigan. 2003. [Abstract and PDF are available online: http://www.snre.umich.edu/ecomgt/pubs/crmp.htm]

This thesis reports on a thorough examination of over 450 collaborative processes throughout the United States, illustrating the variability in methods, objectives, and outcomes among partnerships. The authors provide a brief description and history of collaboration in Chapter 1, followed by a chapter on their methodology. Chapter 3 discusses the debate over collaboration by summarizing arguments for and against it. The following chapter is an analysis of partnership characteristics, specific to the context of the situation being resolved. This leads into the following ten chapters, each of which provides a detailed description of a selected case study. The concluding section analyzes the outcomes of these processes, and how the partnerships addressed challenges and opportunities that arose during the process. These include methods for ensuring representation, facilitating discussions between competing interests and varying capabilities, and incorporating social, scientific, and economic issues. This report is a useful resource for forest managers as it provides an in-depth discussion of collaborative partnerships.

Creighton, James L. 1992. Involving citizens in community decision making: a guidebook. Washington, D.C.: Program for Community Problem Solving, National Civic League.

Although focusing on community decision-making processes in general, this book offers basic guidance on developing effective collaborative public participation processes.

Crowfoot, James; Wondelleck, Julia. 1990. Environmental Disputes: Community Involvement in Conflict Resolution. Washington, DC: Island Press.

Curtis, Allan; Shindler, Bruce; Wright, Angela. 2002. Sustaining local watershed initiatives: Lessons from Landcare and Watershed Councils. Journal of the American Water Resources Association 38(5): 1207-1216.

Based on several years of research on Landcare groups in Victoria, Australia (by Curtis) and on watershed councils in Oregon (by Shindler and Wright), the authors make several recommendations regarding the appropriate scale of and achieving broad participation in these collaborative groups. Two of their conclusions are of particular interest to government agencies. 1) Success depends on substantial government support and investment in these efforts. "It appears that in both Victoria and

Oregon there has been the assumption that, over time, [watershed groups] would become independent of government funding. This is unrealistic for most groups, given the amount of time people have available for volunteer activities, the low profitability of many on-property enterprises, the scale of problems faced," and the fact that there are large public benefits from the work the groups undertake (p.1212). 2) It is critical to establish trust between agency staff and citizens, in part because citizens' trust in individual agency staff builds public trust in the agency's competency. "Trust is more likely to be established and maintained where agencies articulate their reasons for involving landowners and then make good on their commitments" (p.1214).

Daniels, Steven E.; Cheng, Anthony S. 2004. Collaborative Resource Management: Discourse-based Approaches and the Evolution of TechnoReg. Society and Natural Resources: A Summary of Knowledge. M. J. Manfredo, J. J. Vaske, B. L. Bruyere, D. R. Field and P. J. Brown. Jefferson, MO: Modern Litho. 127-136.

The term Techno-Reg is introduced to describe conventional wisdom on natural resource management. In the past, it has been thought that scientific approaches to management should be written into law and sanctioned in a consistent way. Tecnho-Reg often ignores local issues and denies that management choices are based on subjective values as well as science. The authors promote democratic, discourse-based approaches which could complement, supplement and enhance management decisions depending on Techno-Reg. The authors explore discourse management, touching on social and political history, theoretical background, key lessons from the past, and criticisms of such an approach.

Daniels, Steven E.; Walker, Gregg B. 2001. Working Through Environmental Conflict: The Collaborative Learning Approach. Westport, CT: Praeger. 328p

This book provides a thorough overview of the collaborative learning approach, one method for developing a collaborative process. Based on the premise that the current nature of natural resource policy issues has changed from relatively simple or "easy" problems, to far more complex or "wicked" ones, the authors propose this approach as a framework for improving natural resource decision-making situations. Collaborative learning addresses the fundamental policy paradox of incorporating both technical information and maintaining open processes, by creating opportunities for working through. This approach is based upon the theoretical foundations of adult and experiential learning theory, systems thinking, and communication. After revealing its origins, the authors describe the basic techniques of collaborative learning, with the caveat that each process requires situation-specific methods. This is followed by case study examples of collaborative learning used in natural resource planning. The book concludes with a summary of recurring themes, persistent challenges, and future directions for the collaborative learning process.

Daniels, Steven E.; Walker, Gregg B.; Carroll, Matthew S.; Blatner, Keith A. 1996. Using collaborative learning in fire recovery planning. Journal of Forestry 94(8): 4-9.

The authors of this article organized and implemented a large-scale collaborative effort following fires in the Wenatchee National Forest in central Washington in the summer of 1994. They brought together community members and foresters for the first time to work collectively to decide how the burned forest should be managed. Wenatchee National Forest personnel initiated the effort because they expected conflicting opinions would arise regarding rehabilitation of the burned area. The project, entitled the Fire Recovery Collaborative Learning Project, took place between October 1994 and April 1995. Those involved in the project began by participating in education and training, followed by collaborative learning workshops and interdisciplinary team planning. After the project the authors kept in touch with many of the participants, most of whom gave positive evaluations of their experiences. In analyzing the success of the project, the authors point out that collaboration should have the goal of progress rather than solution in mind, as finding a quick resolution that satisfies the whole is not immediately possible. The article also includes an informative textbox entitled Collaborative Learning Defined. The textbox provides an comprehensive definition of collaboration, which involves working towards improvement, learning before decision-making, and communicating

and negotiating constantly. The textbox also provides a theoretical definition of collaboration, explaining the process as a hybrid between soft systems methodology (SSM) and alternative dispute resolution (ADR). SSM promotes learning and emphasizes systems thinking while ADR deals with value differences and handles strategic behaviors. All four components are part of collaboration. Overall the article provides a specific case of successful collaboration, using the example to draw understanding of the process and its implications in forestry.

Diduck, Alan; Sinclair, A. John. 2002. Public Involvement in environmental assessment: the case of the nonparticipant. Environmental Management 29(4): 578-588.

Uses multiple methodologies to analyze barriers to participation in an environmental assessment case study in Canada. The barriers are either structural, with the strongest being the belief that the decision was foregone, or individual, with not being informed or invited as the greatest barrier.

diZerega, Gus. 1996. Environmentalists and the New Political Climate: Strategies for the Future. A Wolf in the Garden: The Land Rights Movement and the New Environmental Debate. P. D. Brick and R. M. Cawley. Lanham, MD: Rowman & Littlefield Publishers. 107-114.

This chapter discusses the strengths and weaknesses of three broad environmental strategies — federal legislation and regulations, community-based approaches, and market incentives. The author concludes, as the editors of this book have, that increased use of place-based initiatives and a combination of the three strategies will result in increased protection of the environment.

Duane, Timothy P. 1997. Community participation in ecosystem management. Ecology Law Quarterly 24(4): 771-797.

This essay addresses the requirement of community participation in ecosystem management efforts. The definition of community includes three types — communities of place or geography, of identity or social characteristics, and/or of interest. Duane begins with a description of 'community' and the current representation of communities of interest in natural resource management. He then discusses social capital, organizational capacity, and types of conflict as factors influencing collaboration. The remainder of the essay compares two case studies, the Inimim Forest management plan and the Quincy Library Group, and discusses the factors that determined whether the collaboration included diverse participants. Duane concludes, "Community participation requires careful design and considerate implementation, where all communities can contribute to communicative rationality. This includes communities of interest as well as place" (797).

Dukes, E. Franklin; Firehock, Karen. 2001. Collaboration: A Guide for Environmental Advocates. Charlottesville, VA: University of Virginia. 72p.

This book provides concise information for forest managers to consider when developing a collaborative process. By addressing the issues discussed in this book, managers may increase the involvement of potential non-participants while improving the effectiveness of the collaborative process. The fundamental goal of this publication is to provide environmental advocates, and others interested in conserving natural resources, with the ability to determine whether and how to participate in collaborative approaches to environmental management. This guide provides the background, history and description of collaborative processes; arguments for and against collaboration; factors to consider when deciding whether to participate; the methods for designing a principled and effective collaborative process; a description of best practices during a collaborative process; a summary of the role of science in collaboration; and methods for concluding the process, making legitimate agreements, and conducting an evaluation of the collaborative effort.

Dvornich, Karen M.; Tudor, Margaret; Grue, Christian E. 1995. NatureMapping: Assisting management of natural resources through public education and public participation. Wildlife Society Bulletin 23(4): 609-614.

This article describes how natural resource managers in Washington state engaged volunteers, primarily students through schools, to assist with information gathering, to form partnerships, and to develop educational tools, through a program called NatureMapping. NatureMapping *was designed to promote and facilitate information exchange between several parties (natural resource agencies, academia, planners, communities, and schools), with 'many-to-many' instead of 'one-to-many' partnerships being cited as vital to the development and sustenance of the program. Nine reasons are given why partnerships within this program have developed and grown: data needs, budget cuts and limited resources, chance to improve relationships between agencies and publics, needs of and opportunity for researchers to access data, opportunity and need for educators to make programs useful to agencies and citizens, chance for community members to contribute to community projects, allows teachers the chance to incorporate scientific information and processes into curriculum, and provides complement to existing education programs.*

Ecological Restoration Institute; Forest Trust; Four Corners Institute; National Forest Foundation; U.S. Department of Agriculture. 2003. Multiparty monitoring and assessment guidelines for community based forest restoration in southwestern ponderosa pine forests. Albuquerque, New Mexico, USDA Forest Service - Collaborative Forest Restoration Program. [Available online: http://www.fs.fed.us/r3/spf/cfrp/monitoring/]

This is a manual on conducting community-based, multiparty monitoring of forest restoration projects. It was developed collaboratively by a group of over 40 individuals with expertise in monitoring. The manual describes how to set up a multiparty monitoring group and process; how to identify monitoring goals and select the best indicators for measuring trends toward or away from those goals; examples of ecological, social, economic, and cultural indicators and measures; and data collection and analysis methods. It includes several examples.

Environmental Protection Agency. 1997. Community-based environmental protection: a resource book for protection of ecosystems and communities. Washington, D.C. [Available online: http://www.epa.gov/ecocommunity/tools/resourcebook.htm]

Community-based environmental protection (CBEP) has emerged as a new way of thinking about environmental protection. In the past, environmental protection efforts were aimed at a single problem or pollutant. This narrow-minded 'command and control' approach ignored the complexity of pollution, which can have far-reaching, subtle consequences on human communities. CBEP looks for the bigger picture of environmental protection by considering the total health of an ecosystem and the long-term relationship between human beings and their natural environments. A major expectation of CBEP is that community members take responsibility for the health of their habitat by initiating collaborative environmental protection projects that balance economic and environmental concerns. In this resource book, numerous case studies show community-based programs in action across the US. The book's goal is to educate readers on how to initiate a CBEP project, how to assess the condition of local ecosystems, and how to choose the right ecosystem protection plan among the many options that are available. Because EPA speaks to academics and laypeople alike, appendices provide a glossary of ecosystem-related terms, EPA and various NPO contacts, and general information about the interplay between human communities and their environments.

Everett, Yvonne. 2003. Community participation in fire management planning: The Trinity County Fire Safe Council's Fire Plan. Fire Conference, Pacific Southwest Research Station, U.S. Department of Agriculture.

A case study of the Trinity County collaborative fire management planning effort where citizens contribute to the creation of GIS layers identifying values at risk in the landscape and fuels reduction treatments that could protect these values. This participatory effort identified employment opportunities and mechanisms for local workforce capacity building in fire management, identified mechanisms for enhanced communication and coordination among all actors, promoted public education and involvement, raised funding for fire management activities, tested alternative

approaches that could reduce or eliminate regulatory barriers to project implementation, and developed monitoring protocols for review and maintenance of projects. This case study provides compelling evidence for the value of "community grounded efforts to tap into and share local knowledge, expertise and energy ... clearly community capacity is being strengthened through the relationships developed among its members and with the community at large" (Pagination unknown, in press).

Everett, Yvonne, Towle, Phil, et al. 2002. Community participation in fire management planning: a case example from Trinity County, California. Klamath Fish and Water Management Symposium, Arcata, CA, Klamath River Inter-Tribal Fish and Water Commission and Humboldt State University. [Available online: (paste link into browser) http://www.fao.org/documents/show_cdr.asp?url_file=/docrep/005/AC798E/ac798e0k.htm]

Fairbanks, Frank, Gardner, Henry. 2001. Managing wildland fire: Enhancing capacity to implement the federal interagency policy. Washington, DC: National Academy of Public Administration. 142. [Available online: http://71.4.192.38/NAPA/NAPAPubs.nsf/17bc036fe939efd685256951004e37f4/c8471bdde4668a6085256b74005a0415?OpenDocument].

Firewise Communities/USA Website 2003. Firewise Communities USA website. [www.**firewise** .org/**usa** **]**

Fisher, Roger; Ury, William L. 1981. Getting to Yes: Negotiating Agreement Without Giving In. New York: Penguin Books.

Foster, Bryan. 2003. Enchanted partnerships. American Forests. 109: 29-32.

In 2000, the USFS set up the Collaborative Forest Restoration Program (CFRP), a grant program that encourages the public to create their own projects and seek funding from the FS. This system promises to revolutionize the way projects are created and financed — traditionally, the FS proposes its own projects and then attempts to garner public support. In 2001, the FS funded several community projects in New Mexico, some of which focused on thinning congested forests for stream restoration, purchasing tools and machinery, training local workers to take on small thinning projects, and monitoring forest health. This article tells the story of three projects in rural NM towns that have benefited from FS CFRP grants. In each case, the FS has provided employment for local people of all ages, supplied forest products for various businesses, and inspired the public to create projects to reduce wildfire risk and promote ecosystem health.

Frentz, Irene; Burns, Sam; Voth, Donald E.; Sperry, Charles. 1999. Rural development and community-based forest planning and management: A new collaborative paradigm. Fayetteville, AR: University of Arkansas. 114.: 117 (Plus 114 pages of appendices). [Available online: http://www.uark.edu/depts/hesweb/rsweb/NRI_PDF/webpubs.html]

This is a comprehensive report designed to inform Forest Service personnel on how to improve relationship building with communities near natural forests. It also addresses how the Forest Service's Rural Community Assistance Program might facilitate relationship building. The introduction presents background regarding Forest Service and public participation practices, assumptions regarding the benefits and processes of community - Forest Service relationship building and existing Forest Service - community relationships. The next section describes data collection procedures and methods. Researchers examined and present descriptions of 22 community projects near national forests throughout the United States; interviews were conducted with 119 individuals from several community

agencies and organizations. Results indicated that most projects were more concerned with community development, with some also concerned with natural resource and forest planning. Reportedly, projects led to community changes in several areas, including the economy, community amenities, revitalization and relationship building. Contributing to project success was diverse participation, relationship building, resource availability and effective project processes. Factors related to the Forest Service, intracommunity relationships and lack of available resources hindered the success of projects. The majority of those interviewed believed Forest Service - community relationships were good, yet at the same time identified areas for improvement. The authors concluded that Forest Service - community relationship building is needed, but fraught with obstacles and difficulties. Accordingly, they devised sets of recommendations, each directed to different types of personnel, in the areas of leadership, legal authority, funding, training, interagency cooperation, project targeting and community capacity building. A comprehensive section presenting, describing and explaining these recommendations is included in the report, as is a section on policy implications in the context of these recommendations.

Frentz, Irene C.; Voth, Donald E.; Burns, Sam; Sperry, Charles W. 2000. U.S. Department of Agriculture — Community relationship building: recommendations. Society and Natural Resources 13: 549-566.

Citing the need for the U.S.D.A. U.S. Department of Agriculture to build relationships with communities in the context of ecosystem management, forest planning and community well-being, this article presents policy recommendations intended to enhance and facilitate collaborative relationships. These recommendations were first developed by looking at 22 community projects near national forests. The projects were organized into three different categories, with either forest planning, a particular natural resource, or community development being the primary focus. The majority of the projects received funding from the Forest Service's Rural Community Assistance (RCA) program. Interviews were conducted with key informants and asked about community-Forest Service relationships, collaboration potential, and their RCA funded project. Interviewees were grouped into one of six types: district rangers, forest supervisors, National Forest System Deputy, Rural Community Assistance leaders, Rural Community Assistance coordinators, and community leaders. Once the recommendations had been devised and organized by group, they were presented in survey form to the interviewees for verification regarding interpretation and to rate agreement with the researchers' assumptions and recommendations. Overall, the recommendations were strongly supported by the interviewees, a point the authors say could be considered expected given that the individuals who verified the recommendations were the ones who originally informed the recommendations. Instead, the authors suggest that confirming the validity of the recommendations, particularly in the context of policy that might not provide for the enactment of the recommendations, is important since they are what have been identified as necessary by those who are situated in and involved with community-agency collaborations. The authors note that policy changes must take place within the Forest Service in the areas of leadership, legal authority, funding, training, interagency cooperation, project targeting, and community capacity building in order to seriously promote and sustain collaborative efforts and relationships.

Germain, Rene H.; Floyd, Donald W; Stehman, Stephen V. 2001. Public Perceptions of the USDA Forest Service public participation process. Forest Policy and Economics 3: 113-124.

This study used a nationwide survey of 178 appellants of Forest Service management decisions to examine participant perceptions of the public participation process. The results establish that public participants who appeal agency decisions are dissatisfied with the equity of the public participation process. It was also found that "participants desire more collaborative approaches to public participation, but are not always willing to adequately engage in the process, often choosing to meet their objectives through reactive, conflict-based means" (113). This article provides evidence that early participation, representing diverse interests, in forest planning processes is important for developing a sustainable decision.

Gobster, Paul H.; Hull, R. Bruce, Eds. 2000. Restoring Nature: Perspectives from the Social Sciences and Humanities. Washington, DC: Island Press. 316p.

The Chicago restoration controversy of 1996, in which restoration efforts were seriously questioned and eventually halted by concerned members of the public. This book explores the process that took place throughout that conflict, from its inception to the final conclusions of human nature. It explores ideas about human perception and values, social issues as they related to the biological or environmental sciences, and the need for better public environmental education. It explores the what, how, where, *and* why *critics are opposed to restoration through philosophical discussion and empirical findings. At the heart of this disagreement may be the differing manners in which restoration is defined. The book begins these discussions under a philosophical tone; however, later chapters provide pragmatic advice to managers to ensure restoration projects can be implemented and succeed.*

Godschalk, David R., D. W. Parham, et al. 1994. Pulling Together: A Planning and Development Consensus-Building Manual. Washington, DC: Urban Land Institute. 145.

An earlier guidebook for developing consensus-based planning, sponsored by the Program for Community Problem Solving, to help community leaders "'get things done' with collaborative decision-making tools." (iii) While the intended audience is civic leadership (e.g., Chamber of Commerce and Downtown Association), natural resource managers can find some easily accessible guidelines for dealing with conflict, designing a collaborative process, building consensus and solving problems and facilitating meetings.

Goergen, Michael T.; Floyd, Donald W.; Ashton, Peter G. 1997. An old model for building consensus and a new role for foresters. Journal of Forestry 95(1): 8-12.

This article explores the history behind modern difficulties in forest management in the United States. The authors discuss the formation of the Constitution by the Federalists, led by James Madison. The Federalists believed in individual rights and freedoms and so constructed a constitution based on checks and balances rather than on true democracy. The authors suggest reconsidering an alternative model developed by the republicans of the time, not to be confused with contemporary republicans. Classical republican ideology places the interest of the whole over the interests of the individual and assigns responsibilities along with individual rights. In addition, classical republicanism advocates working collectively toward a common goal. Near the end of the article the authors address several issues related to applying the republican model in forest management, such as larger time requirements and reconciling differences in local, regional, and national interests. The authors conclude by acknowledging that most foresters are not yet equipped to meet the challenges of working collectively. They recommend that opportunities to develop this skill and apply classical republicanism to forestry be made available.

Goodman, Robert M.; Speers, Marjorie A.; McLeroy, Kenneth; Fawcett, Stephen; Kegler, Michelle; Parker, Edith; Rathgeb Smith, Steven; Sterling, Terrie D.; Wallerstein, Nina. 1998. Identifying and defining the dimensions of community capacity to provide a basis for measurement. Health Education & Behavior 25(3): 258-278.

As community capacity is important to all community development efforts, particularly those focusing on health promotion and community health, the Centers for Disease Control and Prevention (CDC) sponsored a symposium where community health researchers and CDC specialists were charged with the task of determining essential dimensions of community capacity. Through participatory methodologies, the group determined and defined the following "integral dimensions": citizen participation, leadership, skills, social and interorganizational networks, sense of community, understanding of community history, community power, community values, and critical reflection (259). Each dimension is further defined by subdimensions, qualities and characteristics that make each dimension particularly useful in the context of community development and community health. Social networks, for instance, has five subdimensions, including cooperative decision making,

reciprocal connections, overlapping with other networks, the formation of new connections, and supportive interactions. The authors advise that this is not an exhaustive list of what makes up community capacity, nor should these items be made into a checklist, rather they should be used as a foundation for discussion regarding what is appropriate for the community under consideration.

Gray, Barbara 1985. Conditions facilitating interorganizational collaboration. Human Relations 38: 911-936.

Gray, Barbara 1989. Collaborating: Finding Common Ground for Multi-party Problems. San Francisco, CA: Jossey-Bass. 358p.

Gunton, Thomas I.; Day, J. C. 2003. The theory and practice of collaborative planning in resource and environmental management. Environments: A Journal of Interdisciplinary Studies 31(2): 5-20.

Gunton and Day draw on recent theoretical and scientific analyses to conclude that collaborative planning (CP) holds great promise for the public interest, environmental health and resource sustainability. The authors present ten guidelines to success through CP, such as promoting equality among stakeholders, working under reasonable timelines, and measuring success on many different outcomes. Article includes recommendations for essential future research. Studies have shown collaboration to be successful, but the democratic principles that support collaboration are equally significant.

Harris, Elizabeth; Huntley, Chase; Mangle, William; Rana, Naureen 2001. Transboundary collaboration in ecosystem management: Integrating lessons from experience, university of michigan school of natural resources & environment. 2003. [Available online: http://www.nps.gov/cgi-bin/intercept?http://www.snre.umich.edu/emi/pubs/transboundary/TB_Collab_Full_Report.pdf]

The holistic view of ecosystem management demands communication and coordination among various agencies, stakeholders, and governments that can extend over jurisdictional boundaries. This nontraditional approach to management faces special challenges when international borders come into play, as illustrated by the Flathead Basin area of Montana, US, and British Columbia, Canada. Protecting this threatened area means working with stakeholders interested in development and resource extraction on both sides of the border. Initiating this collaboration has been no easy task. The purpose of this study was to investigate transboundary resource management in light of contemporary case studies from Canada, Mexico, and the US. The researchers asked how transboundary collaborations are implemented, how they gain legal legitimacy, what challenges they face, and how they rise above some of these challenges. In the findings section, the researchers describe four types of barriers that hinder transboundary collaborations, as well as solutions to these legal, communicative, socio-cultural, and economic obstacles. They finish by sharing lessons that might aid stakeholders in the Flathead Basin or other regions bridging international borders. They conclude that it is possible to overcome international borders in working toward successful collaborative ecosystem management.

Haynes, Richard W., McCool, Stephen F; et al. 1996 . Natural resource management and community well-being. Wildlife Society Bulletin 24(2): 222-226.

The ideal of natural resource management and community stability has changed from one where it was believed people can both live in and obtain their livelihood from a given place, to recognizing that not only must extractive use be attended to, but that federal lands are also important in other contexts, such as recreation and biodiversity. Rural communities are affected by external and macrolevel factors that contribute to their change and evolution, and that affect their stability and well-being. How natural resources are managed, as commodities, amenities or opportunities, can contribute to

change and instability within smaller rural communities. Using results from the Interior Columbia Basin Ecosystem Management Project (ICBEMP), it was found, however, that isolation of small rural communities from broader and "diversified economies" contributed more to instability than did changes in the extraction industries. Natural resource management agencies can contribute to the resiliency of communities to adapt to change by "collaborating" to build on a community's strengths (225), by educating communities about what causes change, by exploring and assisting with new opportunities and by trying to balance national interests and local needs.

Hummel, Mark; Freet, Bruce. 1999. Collaborative Processes For Improving Land Stewardship and Sustainability. Ecological Stewardship: A Common Reference for Ecosystem Management. W.T. Sexton, A. J. Malk, R.C. Szaro, N.C. Johnson. Oxford, England: Elsevier Science Ltd. 3: 97-129.

This chapter begins by generally defining collaboration, and providing the circumstances under which it emerged in the context of land stewardship and sustainability. Three types of collaboration are identified and described: information-sharing processes, partnerships, and agreement-seeking processes. Information-sharing processes simply involve working together to exchange information and ideas. Unlike other collaborative processes, no resolution is expected from the process, but rather groups or individuals should expect to benefit by sharing their knowledge and gaining insights from others. Following several suggestions on how to initiate and implement information-sharing processes, the authors include four case-studies as examples: Mitkof Island Landscape Design, Anan Creek Management Environmental Assessment, Spring Mountains National Recreation Area Forest Plan Assessment, and Sedona Wastewater Treatment Planning. While the examples are generally success stories, challenges and failures within each effort are also mentioned. Partnerships are another type of collaboration, and involve working collectively towards a goal that could not be achieved independently. Partnerships are successful when all parties involved share a mutual interest and when all will benefit from working together. The authors make several suggestions about forming partnerships, recommending that objectives be clearly defined and that parties remain open-minded and flexible throughout the process. A third type of collaboration, agreement-seeking, entails reaching consensus. While information-sharing processes and partnerships do not necessarily lead to a resolution, in agreement-seeking processes parties expect to reach a solution. The authors include three case studies as examples: Seattle City Light Settlement Agreement, Reduced Air Pollution from the Centralia Power Plant, and McNeil River Advisory Group Consensus Agreement. The authors conclude by summarizing important points from the chapter. They argue that while collaboration can take on many forms, all types involve building relationships, focusing on interests, and providing for mutual learning.

Huntington, Charles W.; Sommarstrom, Sari. 2000. An Evaluation of Selected Watershed Councils in the Pacific Northwest and Northern California. Eugene, OR: Trout Unlimited and the Pacific Rivers Council.

Imperial, Mark. T. 1999. Institutional analysis of ecosystem-based management: the institutional analysis and development framework. Environmental Management 24(4): 449-465.

In recent years there has been an increase in the number of proponents for collaborative approaches to ecosystem management; however, there has been little effort spent on understanding the "administrative and institutional challenges surrounding ecosystem-based management" (449). This article addresses how the institutional analysis and development (IAD) *framework will aid researchers in better understanding institutional design and performance. IAD is a useful tool for this analysis because "it recognizes the full range of transaction costs associated with implemented policies,... it draws attention to the contextual conditions that can influence institutional design and performance, ... [and avoids] bias with respect to institutional arrangements used to implement these programs" (453). "The IAD framework suggests that three basic categories of variables influence the pattern of interactions among individuals and organizations in an action arena. First, interactions are*

influenced by the explicit and implicit assumptions about the rules used to order relationships between individuals (or organizations)…. Second, the IAD framework suggests that to be effective, rules must also be compatible with the underlying physical and biological setting…. Finally, the IAD framework argues that interorganizational relationships will be influenced by the attributes of the community where the actor is located" (454).

Imperial, Mark T.; Hennessey, Timothy. 2000. Environmental governance in watersheds: the role of collaboration. Prepared for presentation at the 8th Biennial Conference of the International Association for the Study of Common Property (IASCP), May 31-June 3, 2000. Bloomington, Indiana, School of Public and Environmental Affairs, Indiana University: 30. [Available online: http://dlc.dlib.indiana.edu/archive/00000279/]

The authors conducted qualitative, comparative case studies of six watershed management programs from across the United States to determine the types of collaborative activities being used to implement watershed management plans and the public values or costs resulting from these collaborative efforts. All of the cases involved multiple networks, including short-term, project-based collaborations to development of shared goals or policies that were contained in a formal document such as a watershed management plan" or MOUs (p.11). The authors found that the watershed management programs added value in a number of ways, including: environmental improvements (e.g., construction of sewers, establishment and utilization of Best Management Practices, habitat restoration projects); better governance (e.g., new planning efforts, changes to decision-making regulations); financial savings (cost effectiveness of sharing resources and using volunteers); greater job satisfaction; and capacity-building (public involvement in government meetings, planning, and monitoring activities). The authors also found that, contrary to common assumptions, a history of prior conflict among partners did not keep them from finding ways to work together to address common problems. In concluding, the authors state point out that while the six collaborative watershed efforts had environmental, social, and governmental benefits, collaboration is neither the only nor always the most desirable way to function. Unilateral agency action, legislative action, legal action, lobbying, etc., all have their place.

Ingles, Andrew W.; Musch, Arne; Qwist-Hoffmann, Helle. 1999. The participatory process for supporting collaborative management of natural resources: an overview. Rome, Food and Agriculture Organization of the United Nations. 2003: 79. [Available online: http://www.mekonginfo.org/mrc_en/doclib.nsf/0/ACD58F2D227B4F304725689B0016B686/$FILE/FULLTEXT.html]

This report provides an overview of collaborative processes with methods for promoting public participation in natural resource management processes. The authors consider participation to be a method for achieving specific goals and thereby improving resource management. The report begins by defining participation, and methods of collaboration, and the role of each in natural resource decision-making processes, and is followed by a chapter that focuses on the steps to take during a participatory process. The following chapter provides a general description of stakeholder groups and summarizes potential barriers to each group's participation in the collaborative process. The authors identify four major groups or stakeholders, which are broken down into subgroups as needed. These are: Users, Governments, Development Agencies, and Other Private stakeholder groups. The report concludes with a discussion of internal barriers to participatory processes, and methods for overcoming the barriers discussed throughout the report.

Johnson, K. Norman; Agee, James; Beschta, Robert; Dale, Virginia; Hardesty, Linda; Long, James; Nielsen, Larry; Noon, Barry; Sedjo, Roger; Shannon, Margaret; Trosper, Ronald; Wilkinson, Charles; Wondolleck, Julia. 1999. Sustaining the people's lands: recommendations for stewardship on the national forests and grasslands into the next century. Journal of Forestry 97(4): 6-12. [Available online: (paste

link into browser) http://permanent.access.gpo.gov/lps3108/cosfrnt.pdf]

In December 1997, under the advice of Secretary of Agriculture Dan Glickman, a cohort of 13 interdisciplinary scientists convened to gather technical advice regarding the Forest Service's land and resource management planning process from various Forest Service employees, tribal members, state and local governments, and members of the public . The committee was asked to recommend how best to accomplish resource planning within the existing environmental laws and statutory mission of the Forest Service; to provide technical advice on planning and provide material for the agency to consider in revising planning regulations; to recommend improvements in coordination with other federal agencies, state and local government agencies and tribal governments; and to suggest a new planning framework that could last a generation (6). These topics were discussed with various stakeholders throughout the United States and a summary of the findings have been provided in this article. For example, specific issues such as user fees, timber production and harvest, silvicultural systems, timber supplies, the appeals process, public involvement, and spatial scales are all addressed.

Johnson, Lawrence J.; Zorn, Debbie; Tam, Brian Kai Yung; Lamontagne, Maggie; Johnson, Susan A. 2003. Stakeholders' views of factors that impact successful interagency collaboration. Exceptional Children 69(2): 195-209. [Available online: (paste link into browser) http://journals.sped.org/EC/Archive_Articles/VOLUME69NUMBER2WINTER2003_EC_Article%205.pdf]

This article begins by discussing the findings of past research on what interagency collaboration is, why collaboration is useful, and how it can be complicated by various barriers. However, it points out a lack of research on the subject of interagency collaboration at the state level. In order to fill this research gap, the researchers interviewed thirty-three stakeholders from nine state departments and three private social agencies in Ohio. The interviewees were divided into two categories: Program Chiefs (state officials) and Program Specialists (consultants, program coordinators, or training specialists). The researchers observed that P's and P's disagreed on which factors jeopardized interagency collaboration and on which areas they would like to change in future collaborations. In spite of some discordant responses, the researchers identified seven common factors linked to successful interagency collaboration: commitment, communication, strong leadership from key decision makers, understanding the culture of collaborating agencies, providing adequate resources for collaboration, minimizing turf issues, and engaging in serious preplanning.

Kanter, Rosabeth Moss. 1994. Collaborative advantage: the art of alliances. Harvard Business Review 72(4): 96-108.

Alliances within any field are important to successful projects, business notwithstanding. What goes into successful collaborations between business and companies can be applied to collaborative natural resource management. Specifically, collaboration means being a good partner, with partnerships managed on a human level creating what the author calls a "collaborative advantage." Three key characteristics of business partnerships were identified: they require interpersonal relationships that result in learning, both partners must benefit from these evolving systems, and collaboration rather than only exchange must take place. Using a metaphor that compares alliances to relationships between people--courtship, engagement, discovering differences, finding ways to get along and connect the differences, discovering changes through accommodation — key processes of each phase, and ways to work through the difficulties, are given. Working collaboration takes place when companies are able to work through the difficulties and realize value from the collaboration through the integration of five areas. Areas to be integrated include strategic (continued contact amongst leaders), tactical (connecting middle managers and leaders), operational (making available necessary information and resources for those doing the work), interpersonal (growing network of connections between people), and cultural (communication skills and cultural competencies).

Kauffman, M. and J. Grishkin 2004. Collaborative Stewardship: A Community

Guidebook to Collaboration and Monitoring of Stewardship Projects: 32.

Kauffman and Grishkin's guidebook is a primer on stewardship contracting, an innovative management scheme that facilitates multiparty cooperation and allows land managers to communicate meaningfully with rural communities. This guidebook includes basic concepts, guidelines, and tools for group work (such as worksheets and tables). It also covers the legal side of the stewardship contracting movement and shares lessons learned in successful stewardship projects. The guidebook ends with a chapter on multiparty monitoring and a comprehensive glossary.

Kavanaugh, Stephanie; Block, Nadine; Rana, Naureen. 2002. Farm Bill 2002 Forum: Review and discussion of forestry opportunities. Washington, DC: Pinchot Institute for Conservation: 25 plus appendices. [Available online: http://www.pinchot.org/pic/farmbill/forum.html]

Kegler, M. C.; Steckler, A.; McLeroy, K.; Malek, S.H. 1998. Factors that contribute to effective community health promotion coalitions: a study of 10 project assist coalitions in North Carolina. Health Education & Behavior 25(3): 338-353. [Abstract available online: http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=9615243&dopt=Abstract]

Kellert, Stephen R.; Mehta, Jai N.; Ebbin, Syma A.; Lichtenfeld, Laly L. 2000. Community natural resources management: promise, rhetoric, and reality. Society and Natural Resources 13: 705-715.

Community natural resource management (CNRM), referred to by a host of terms (e.g., buffer zone management, social and community forestry, community wildlife management), is an approach that promotes socioeconomic development of local communities, community empowerment through the participatory process and biological conservation. This article looks at the experience of CNRM through five case studies, two in Nepal, one in Kenya and two in the United States (Washington State and Alaska). Six variables--equity, empowerment, conflict resolution, knowledge and awareness, biodiversity protection, and sustainable utilization--were examined and compared between the cases. Data collection included multiple methods (surveys, interviews, participant observation, etc.). Generally, the authors concluded that there was more evidence of problems and deficiencies than of success with CNRM implementation. Success tended to focus on socioeconomic areas; whereas failure was in the area of biodiversity protection. Moreover, it is difficult to reconcile the three objectives of CNRM; because CNRM is complicated, its implementation is difficult. The authors noted that a persistent and pronounced obstacle to implementation was the management of the behavior of organizations and institutions, thus determining that the success of CNRM may require institution building. Accordingly, they suggest more focus on institution building and public education.

Kemmis, Daniel, Ed. 1996. Community and the Politics of Place. Norman, OK: University of Oklahoma Press. 150p

KenCairn, Brett. 2000. Public agencies in collaboration: a panacea to gridlock or the next big debacle? Presentation prepared for the National Leadership Conference, Yale University, October 2000. Flagstaff, AZ: Indigenous Community Enterprises. 13. [Available online: http://www.redrockforests.org/tfc/MLSNF_VISION.htm]

This article was written by a community organizer and sociologist based on his 20 years of experience working with collaborative forestry groups in the western United States and informal interviews with leaders of community-based forestry initiatives around the West. It presents nine basic failures on the part of agencies, particularly the Forest Service, then offers several suggestions to agency leaders for improving agency effectiveness in collaboration. This article is used in the U.S. Fish & Wildlife

Service's training notebook as well as some Forest Service venues. The author's basic observation is that "it has been the consistent experience of leaders in these community-based NGOs that the agencies, particularly the National Forest System, is consistently failing to be an effective partner in these forest management collaboratives" (p.2). The article uses examples from five collaborative forestry efforts to illustrate the following findings: 1. Agency staff don't understand what it means to be a partner in a collaborative effort. 2. The agencies lack adequate resources for partnering. 3. The procurement division of the USDA Forest Service "is consistently apathetic or hostile to collaborative approaches" (p.6). 4. Legal and administrative authorities are either inadequate or not clearly understood by line officers. 5. "Long delays, poorly prepared documents, and confusing procedures foster apathy and increasing antipathy at the community level" (p.7). 6. The agencies lack mechanisms for documenting and learning from experiences with collaboration. 7. The agency is unable or unwilling to make long-term commitments. 8. Forest workers are either not included in or actively excluded from collaboration with the agency. 9 . "The few agency employees taking big risks in the field are not getting adequate support, [so] many are burning out and leaving" (p.8). The remainder of the article offers solutions for addressing these problems.

Kenney, Douglas S. 1997. Resource Management at the Watershed Level: An Assessment of the Changing Federal Role In the Emerging Era of Community Based Watershed Management. Boulder, Colorado, Natural Resources Law Center University of Colorado School of Law: 66.

This report describes the historical and institutional framework behind water management activities at the watershed level. Within this report, there are 13 case-studies outlining collaborative group efforts within western watersheds. Each case-study describes the area and problem, the origins of the watershed effort, the structure and function of the watershed group, the federal role within the group, and the success and failures associated with the federal role.

Kenney, Douglas S. 1999. Are Community-Based Watershed Groups Really Effective? Chronicle of Community. 3: 33-37. [Available online: http://www.ncl.org/cs/conversations/documents/chrislip_watershed.doc.]

Defining success is an important aspect of evaluating effectiveness. This article explores several options that agencies or collaborative groups can use to define and measure the success of their efforts, including: improved health of the natural resource, improved trust between stakeholders and managers, increased communication between parties, an expansion and implementation of the decision-making process, and implementation of new management and planning processes. The author also warns about using the "least common denominator" as means for making decisions in collaborative groups, in which parties agree to "settle" on a decision that meets the minimum requirement for all involved.

Kenney, Douglas S. 2000. Arguing About Consensus: Examining the Case Against Western Watershed Initiatives and Other Collaborative Groups Active in Natural Resources Management. Boulder, Colorado, University of Colorado School of Law Natural Resources Law Center: 72.

In this report, Kenney addresses "the working assumptions that currently separate the proponents from the skeptics" (vii) in watershed initiatives. This includes issues such as: common arguments for and against collaborative groups; resource management and problem-solving in a new era; issues of defining and measuring success; and working definitions of success. In addition, the following five questions are addressed through an extensive literature review. (1) Are traditional means of management and problem-solving reasonably effective, or is the existing system fundamentally broken? (2) Will traditional means of management and problem-solving work in the future? (3) What is the relationship between the traditional and alternative mechanisms of problem-solving? (4) Is there a cause-and-effect relationship between organizational achievements and subsequent on-the-ground success? (5) How does the consensus decision-rule typical of collaborative groups influence the quality of decision and decision-making exercises? The conclusion of this report discusses democracy

in the western United States and the future of democratic reform.

Kenney, Douglas S.; McAllister, Sean T.; Caile, William H.; Peckam, Jason S. 2000. The New Watershed Source Book: A Directory and Review of Watershed Initiatives in the Western United States. Boulder, CO: Natural Resources Law Center, University of Colorado School of Law: 455.

On this edition of the Source Book*, a directory of 346 western watershed initiatives is provided. Additionally, concise case studies are provided for 117 of these efforts, based primarily on a watershed survey conducted by the Natural Resources Law Center from 1998-2000. A wide variety of statistical information is provided regarding this set of watershed initiatives, covering issues such as resource problems of interest, breadth of participation, specific goals and activities, funding and related resources, and accomplishments. Results from a second survey are also included, documenting the experiences and impressions of 276 watershed initiative participants in Oregon. A brief overview of community-based forestry partnerships is also provided, as these efforts are thought to be close relatives of watershed initiatives. Additional topics covered include the legal framework within which community-based groups operate, and a detailed look at a particularly active western watershed initiative: the Animas River Stakeholders Group (xii). In addition, the legal and administrative components of community-based conservation are also addressed. One chapter is devoted to forestry partnerships. By reviewing this book, forest managers can develop a better understanding of current collaborative efforts - their similarities and differences, methods for organizing the process and incorporating interest groups, and approaches that have or have not worked in the past. In addition, the discussion of legal and administrative components of community-based conservation might be of interest.*

Korfmacher, Katrina Smith. 1998. Invisible successes, visible failures: paradoxes of ecosystem management in the Albermarle-Pamlico estuarine study. Coastal Zone Management 26(3): 191-212.

Kostishack, Peter; Rana, Naureen. 2002. An introduction to the national fire plan: history, structure, and relevance to communities. Washington, DC, Pinchot Institute for Conservation: 55.

Developed as material for community workshops on the National Fire Plan, this report provides an overview of the major issues addressed in the plan (firefighting, rehabilitation and restoration, hazardous fuels reduction, community assistance, and accountability) and funding (appropriations) available to address each of these issues. It also discusses the roles of federal agencies, the states, and other stakeholders in implementing the plan and key programs that provide assistance to community-level projects. Discussion points are included at the end of each section. There are several collaboration opportunities authorized and/or funded under the National Fire Plan, including: 1) the National Wildfire Coordinating Group and the Office of Wildland Fire Coordinator; 2) State Fire Assistance programs (including FIREWISE), 3) Volunteer Fire Assistance Programs, 4) Economic Action Programs (including the Rural Assistance Program), and 5) Community and Private Land Assistance Programs. Each of these program areas is described in some detail. Other sections discuss opportunities for community involvement in National Fire Plan work. Appendices include a glossary of terms, a chart depicting federal-level coordination of the National Fire Plan, more detailed appropriations information, answers to frequently asked questions, and contact information for more information.

Kusel, Jonathan; Adler, Elisa, Eds. 2001. Forest communities, community forests: a collection of case studies of community forestry prepared for the seventh american forest congress communities committee. Taylorsville, CA, Forest Community Research.

The Seventh American Forest Congress, held in Washington, D. C. in February 1996, brought together policymakers, businesses and representatives from conservation organizations to discuss the

future of American forests. The Congress was based on the conclusions of regional roundtables held prior to the convention that brought together representatives from diverse sectors of society and concluded that traditional and current forest management practices were not working. In the context of the official objective of the Congress to develop "a shared vision, a set of principles and recommendations that will ultimately result in policies for out nation's forests that reflect the American peoples' vision and are ecologically sound, economically viable, and socially responsible," (1) a communities committee was formed. This committee was charged with the task of looking at the interdependence between forests and community well-being, while promoting improvements in structures that affect communities to assure community and ecosystem health, stewardship practices within communities, diverse participation, collaboration and the acknowledgement of responsibility for forest health among various stakeholders. To inform their endeavors, the committee examined 13 community-based forestry projects, with the assumption that healthy ecosystems depend on healthy communities. Therefore, a community's history, in general and with management agencies in specific, along with their capacities, must be understood to understand its relationship to and potential for ecosystem management. Case studies were located throughout the nation and are both rural and urban in focus. They are presented after a brief methods section and are organized according to three themes: natural capital, from process to practice and stewarding the land. Case studies identify barriers and incentives for community participation in forest management, address process issues, discuss linkages within and without the community and the impact of the project on both participating and nonparticipating community members. In the conclusion, it is suggested that community-based projects exist more because of the failure of traditional methods than on the success of community-based approaches, indicating that community members did the work "because they had to" (217). It is also suggested that community members participated because they wanted to incorporate a voice that adds local knowledge and perspectives that can better comment on forest conditions, a voice that had been ignored by policy and management practices in the past.

Kusel, Jonathan, L. Williams, et al. 2000. A report on all-party monitoring and lessons learned from the pilot projects. Taylorsville, California, Forest Community Research: 27.

All-party monitoring is defined as a process for engaging diverse stakeholders in community-based, collaborative work and as a process for bridging different viewpoints. "When stakeholders participate together in a process that respects independent viewpoints but involves common points of observation and mutual discussion, disparate views can be bridged" (p.3). Lessons learned from all-party monitoring include: 1) it works best when participants agree on a vision and set of goals; 2) diverse interests are critical because they bring different kinds of information; 3) there should be a mix of quantitative and qualitative data at different scales; 4) an accessible data repository and transparent data collection methods are important for trust-building; 5) local projects affect and are affected by large-scale (regional and national) factors; 6) "institutional limitations constrain agency ... involvement in all-party monitoring, but agency involvement is nonetheless necessary for success;" 7) all-party monitoring is a social and political process as much as it is a scientific process.

Lange, Jonathan I. 2001. Exploring paradox in environmental collaborations. Across the Great Divide: Explorations in Collaborative Conservation and the American West. P. D. Brick, D. Snow and S. B. Van de Wetering. Washington, DC: Island Press. 200-209.

This chapter explores several of the paradoxes associated with collaborative processes, several of which address the issue of non-participation by affected parties. The discussion includes the paradox of entry into the dispute resolution, where collaboration emphasizes voluntary participation yet parties often feel pressured to do so; the paradox of decision-making power, when participants commit to a partnership but the ultimate decision still lies with the Forest Service; the paradox of identifying stakeholders, since people can often represent multiple interests; the constituency paradox, which occurs when there are inconsistent views within a 'stakeholder group' (i.e. - environmentalists, or ranchers) and thus all views are not represented; and the mainstreamer paradox in which 'radical' stakeholders are prevented from partaking in the process so an agreement may be reached, although collaboration seeks representation of interests.

Lawrence, Rick L.; Daniels, Steven E.; Stankey, George H. 1997. Procedural justice and public involvement in natural resource decision making. Society and Natural Resources 10(6): 577-590.

This article describes procedural justice, a theory based on balancing self-interest and group value models of behavior, during the process of public involvement in natural resource decision-making processes. The authors describe the current state of public involvement in natural resources and its relation to the concept of procedural justice. More specifically, they address the impact of procedural justice theory on interest group participants and on nonparticipants, as well as methods for measuring procedural fairness in natural resource processes.

Leach, William D. 2002. Surveying diverse stakeholder groups. Society for Natural Resources 15: 641-649.

Based on their analysis of surveys of participants and non-participants in 48 watershed partnerships in Washington and California, the authors demonstrate that bias can be introduced into the evaluation results depending on who within the collaborative group is evaluated. They found that group collaborators and facilitators are twice as likely to report success than other group participants, state and federal agency representatives also tend to report higher levels of success than the average, and participants tend to be more polarized than non-participants. Therefore, researchers should avoid surveying or interviewing only group coordinators or only agency representatives, and should include informed non-participants in their sample.

Leach, William D.; Pelkey, Neil W. 2001. Making watershed partnerships work: a review of the empirical literature. Journal of Water Resources Planning and Management 127(6): 378-385.

Watershed partnerships have become common over the last few decades, and a growing amount of literature on the topic has also emerged. This article provides a holistic review of the empirical literature published in the US, Australia, and Canada from 1990-1999. In all 37 studies were considered, the majority of which were journal articles. The goal of the review is to provide a meta-analysis of what research suggests about successful watershed partnerships. In reviewing the literature 28 recurring themes were identified, of which funding and the participation by an effective leader, coordinator, or facilitator were the most common. In order to make the data more manageable, factor analysis was applied to the 28 themes. This allowed for the creation of four factors: balance between resources and scope, flexibility and informality, Alternative Dispute Resolution theory variables, and institutional Analysis and Development theory variables. Following discussion of their analysis the authors provide theoretical and practical conclusions, the most important of which is that local circumstances play a large role in partnerships and therefore complicate the development of formulas and theories.

Leach, William D.; Pelkey, Neil W.; Sabatier, Paul A. 2002. Stakeholder partnerships as collaborative policymaking: evaluation criteria applied to watershed management in California and Washington. Journal of Policy Analysis and Management 21(4): 645-670.

Evaluating the success of a collaborative group is a challenging task, with a variety of criteria and variables to be utilized. This article discusses the conceptual and the practical means for measuring successes within collaborative groups, and then analyzes the efforts of several watershed groups in California and Washington. The specific achievements of each watershed group are detailed, as is the length of time each group took to achieve the success. The authors discuss what types of issues best suited to collaborative planning. Six specific criteria are outlined for performing an evaluation. Reasons for evaluating collaborative groups: 1) participants need to see the energy they have spent in the collaboration process was not futile, 2) funders need to understand the risk associated with providing funding to the collaborative effort.

Lee, K. N. 1993. Compass and Gyroscope: Integrating Science and Politics for the Environment. Washington, DC: Island Press.

Lejano, Raul P.; Davos, Climis A. 1999. Cooperative solutions for sustainable resource management. Environmental Management 24(2): 167-175.

The authors of this article address difficulties in the functioning of environmental management partnerships, focusing on problems of allocation of resources and/or costs. Cooperative n-person game theory is applied, providing insight to the circumstances for stimulating and maintaining cooperation among stakeholders. The authors conclude that cooperation succeeds when all stakeholders recognize the advantages of working together as opposed to separately, and when allocation is considered equitable. The authors acknowledge the difficulty in applying complex mathematical theory to actual situations, but argue that the concepts can enhance understanding of cooperation in sustainable resource management.

Linden, R. M. 2002. Working across boundaries: making collaboration work in government and nonprofit organizations. San Francisco, Jossey-Bass.

This book is a general guide for preparing and establishing collaborative processes. Linden includes a summary of reasons for using collaboration, methods for selecting potential collaborative partners, guidelines to determine whether the circumstance is appropriate for collaboration, methods for avoiding common obstacles and improving the process, and characteristics of effective leadership.

Little, Jane Braxton. 1996. Forest communities become partners in management. American Forests 102(3): 17-22.

This brief article discusses the rise of local forest management in the US, focusing on the Applegate partnership in southwestern Oregon and a community partnership in Hayfork, California near Trinity National Forest. In both instances, communities collaborated to move past conflict and gridlock with the goal of managing forests over time. The author includes quotes from key players in each partnership, emphasizing the motives and positive outcomes of the community partnerships. Though the included examples illustrate successful collaborative efforts, the author acknowledges obstacles that prevent community partnerships from working. For example, the Forest Service has become increasingly interested in public participation in decision-making, but has been restricted from action by conflicting federal legislation. The author concludes that the promises of community partnerships in restoring forests and improving local economies remain uncertain, but that taking the risk to collaborate has often proved beneficial to all parties.

Liz Claiborne Art Ortenberg Foundation 2002. Next year country: views from Red Lodge, Liz Claiborne Art Ortenberg Foundation: 61.

The Workshop on Collaborative Resource Management in the Interior West took place in Red Lodge, Montana, in October 2001. True to the spirit of collaboration, the workshop drew in legislators, public agency VIPs, ranchers, farmers, conservationists, and mining industry representatives, among others. The collaborators, who came from across the western states and from Washington D.C., worked productively in a synergetic atmosphere. This report includes workshop proceedings and three final sets of recommendations. Recommendations are grouped under the headings, "Regulatory Flexibility," "Experimental Programs and Pilot Projects" and "Building Community Capacity for Collaboration." Also included are a list of workshop attendees, a glossary, and case studies of collaboration on natural resource management related issues.

London, S. 1995 . Collaboration and community: a paper prepared for pew partnership for civic change. 2003.

This paper is a concise and easily accessible review of literature on collaboration. The author presents a summary of the many definitions of collaboration, discusses when collaboration is an appropriate method, the characteristics of collaboration and the different forms of collaboration (e.g.,

public-private partnerships, search conferences, interagency collaboration, etc.). He also distinguishes between the different forms of cooperation, as well as between development (tending toward collaboration) and advocacy (tending toward confrontation). The principles of collaboration (democratic, inclusive, commitment of key leaders, interdependence) are highlighted and defined, as are the processes of collaboration, which are distilled into three main phases: problem-setting, direction-setting, and implementation, as based on a the manual "Collaborating: Finding Common Ground for Multiparty Problems," by Barbara Gray (1989). Also discussed are the necessary qualities for collaborative leadership, which focus on facilitation skills, and the difficulties of collaboration. A final section addresses specific ways to build collaborative communities through increasing social capital via strengthening the settings in which citizens participate in daily life — libraries, cafes, community centers. Also suggested are eight steps summarized in Schindler-Rainman and Lippit (1993).

Loucks, Andrea Bedell. 2002. Strengthening the ties that bind. Washington, D.C., The Aspen Institute and Pinchot Institute for Conservation: 28.

The report summarizes results of a workshop of community forestry group representatives and Forest Service representatives who came together to identify key issues, problems, and successes related to collaborative natural resource management and develop suggested improvements in contract or project administration. Workshop participants identified four areas where community-based organizations *do or could contribute to collaborative resource management: 1) by providing local leadership and finding common ground among diverse interests; 2) by providing local knowledge, skills, and a record of past conditions, activities, and decisions; 3) by building and maintaining support for the USDA Forest Service; and 4) by demonstrating strength and offering models for collaboration. They also identified six areas where the agency does or could support collaborative resource management: 1) by establishing clear direction for place-based collaboration, 2) through capacity building, 3) through staff transition planning, 4) by improving the NEPA process, 5) through funding and budgeting, and 6) by providing incentives to collaborate. The report also identifies recent and existing collaborative efforts within the Forest Service that have begun to address some of the issues raised at the workshop. Appendices to this report include a list of key findings/recommendations from the 2001 Forest Service Partnership Authorities Workgroup, the June 18, 202 Work Plan Overview from the agency's Partnership Task Force, and names and contact information for members of the newly instituted Collaboration Support Team.*

Loucks, Andrea Bedell; Kostishack, Peter. 2001. Partnership with the USDA Forest Service: improving opportunities and enhancing existing relationships. Washington, DC: Pinchot Institute for Conservation: 19.

The material presented in this policy analysis report combines highlights from an August 2, 2001 workshop attended by Forest Service partners from the private, nonprofit, and government sectors as well as results of interviews and written survey responses. The report also draws on several years worth of proceedings and briefings that discussed Forest Service's role in collaborative natural resource management. The report is organized around five institutional layers: 1) legal authorities, 2) interpretation of authorities, 3) administrative policies, 4) funding issues, and 5) organizational culture. Problems and recommendations are identified for each component. Notably, this study found that, while there is a general frustration in partnering with the Forest Service, agency partners came up with relatively few recommendations that target specific laws or suggest legislative changes. This and other observations led the authors to conclude that building knowledge and capacity for partnerships between the Forest Service and other entities in part requires educating agency partners so that they can better understand how the agency functions.

Lowrie, Karen W.; Greenberg, Michael R. 2001. Can david and goliath get along? Federal land in local places. Environmental Management 28(6): 703-711.

This article discusses results of a case study evaluating the success of the Department of Energy (DOE) at involving local government in decisions. The study focuses on the questions: "(1) In general,

how do local planners feel about federal government relationships with them? (2) Do local planners feel differently about the DOE than they do about other federal agencies? (3) What reasons explain any differences observed in answer to the second question" (703). The authors provide reasons why local officials do not become involved and recommend several methods to improve federal-local communications. Central to these recommendations, the authors state, "clearly a balance needs to be reached that allows for meaningful local input into plans and decisions that affect nearby communities but also protect broader national interests and missions at the sites" (710).

Machlis, G. E., A. B. Kaplan, et al. 2002. Burning questions: a social science research plan for federal wildland fire management. Moscow, University of Idaho.

Main, Martin L. 1996. Protection and restoration of a fire-adapted ecosystem in southwestern oregon: a case study. Forest Resources. Seattle, University of Washington: 92.

This thesis describes a case study in Southwestern Oregon. The author explains the efforts of his company to improve forest ecosystem health through adaptive management. The bulk of the thesis discusses the company's work on a piece of private property within the area. The owner of the land initially requested that no living trees be removed, but after learning more about the history and current state of his property he agreed to more aggressive land management. One of the primary goals of the management efforts was to prevent catastrophic fire in the area, which was a high-risk due to over a hundred years of fire suppression. Following several years of work on the property, the owner and author decided to extend beyond property boundaries and consider the health of the entire Hamilton Creek Watershed. The land that makes up the watershed is highly segmented, and so consideration of the whole required the collaboration of several owners, including four non-industrial private landowners, two government landowners, and a land trust organization. Though the collaboration involved diverse individuals and agencies, collaborative efforts led to shared goals and several positive outcomes. The owners worked collectively to develop the Hamilton Creek Coordinated Resource Management Plan (CRMP), a nonbinding agreement describing how the land should be managed. The author outlines several reasons why the partnership was successful, including the group's noncompetitive nature, the presence of adequate funding, and participatory rather than leader-dominated structure. The author concludes by acknowledging the difficulty of coordination across property lines while also stressing its importance to ecosystem health.

Mandell, Myrna P. 1999. The impact of collaborative efforts: changing the face of public policy through networks and network structures. Policy Studies Review 16(1): 4-15.

This article is the introduction to a special issue of Policy Studies Review *devoted to articles on networks and collaboration. The author presents the following continuum of collaborative efforts, ranging from loose coalitions to lasting structural arrangements: 1) "linkages or interactive contacts between two or more organizations;" 2) "intermittent coordination or mutual adjustment of the policies and procedures of two or more organizations to accomplish some objective;" 3) "permanent and/or regular coordination between two or more organizations through a formal arrangement (i.e., a council, partnership, etc.) to engage in limited activity to achieve a purpose or purposes;" 4) "a coalition where interdependent and strategic actions are taken, but where purposes are narrow in scope and all actions occur within the participant organizations themselves or involve the sequential or simultaneous activity of the participant organizations;" 5) "a collective or network structure where there is a broad mission and joint and strategically interdependent action [and] the structural arrangement takes on broad tasks beyond the simultaneous actions of independently operating organizations" (p.6). The author also offers the following issues for further discussion. The emphasis is not just on building trust but rather on establishing predictability and reducing vulnerability. [There is a] need to recognize the 'other face' of trust, which is power and influence in networks. Instead of 'empowering' communities, people in networks are involved with learning how to 'unleash' the potential that is already there. [There is a] need for 'systems integrators' and 'facilitators' rather than leaders (p.13). "Plans and rules laid down by professionals and/or funders may do more to hamper the process in networks than to help it. ... In these efforts there are a multitude of perspectives, and 'reality' is relative. Behavior is based on perceptions rather than what we know" (p.14).*

Mandell, Myrna P. 1999. Community collaborations: working through network structures. Policy Studies Review 16(1): 42-64.

Based on the evaluation of four community efforts in Southern California focused on the well-being of children and families, new roles and relationships between government and communities are suggested, as are new roles and capacities needed in community members. Community collaborations, what the author terms network structures, require facilitation not management. Recognizing that community members have skills, competencies, and power that can be "developed and diffused," and that leadership can and should come from the community is important. Evaluation of success should be wider in definition and include the perspective of participants and their conceptions of success. Community collaborations increase the knowledge of community members, thereby increasing their expectations of the government and services, but "champions" and "sponsors" must be identified within the community before community members' potential can be realized (57). Champions are those who initiate and sustain the effort, whereas sponsors are individuals and organizations who give the effort legitimacy and credibility. Social capital, built through human interactions that build trust and common bonds, and through an understanding of the importance of working together, must be present.

Manring, Nancy J. 1993. Reconciling science and politics in forest service decision making: new tools for public administrators. American Review of Public Administration 23(4): 342-359.

In the early 1990s, many agencies began implementing alternative dispute resolution (ADR) approaches as means to resolve environmental conflicts. This article discusses how the use of ADR within the Forest Service affected the traditional scientific decision-making procedures. Although many environmental and natural resource professionals feared using ADR would compromise their decision-making authority or compromise the clout of their professional judgments, the research findings for this article proved these ideas to be untrue. In fact, these findings indicated increased strength in scientific decision-making through the use of ADR and the preservation of their professional judgment.

Margerum, Richard D. 1999. Integrated environmental management: the foundations for successful practice. Environmental Management 24(2): 151-166.

This article describes Integrated Environmental Management (IEM) as "a holistic and goal-oriented approach to environmental management that addresses interconnections through a strategic approach." The author [then] draws on twenty-three case studies from the United States and Australia, a survey of 285 Australian stakeholders, and the literature to produce a framework for IEM. The framework identifies 20 elements that — if attained — will increase the likelihood of "successful" collaboration (p.151). These elements of success include: an organization or government body that provides resources to support the collaborative effort; major stakeholders' willingness to participate; membership deemed legitimate; skilled leadership; clear decision rules; an ability to identify and manage conflicts; consultation with the general public; and management decisions based in sound science.

Margerum, Richard D. 2001. Organizational commitment to integrated and collaborative management: matching strategies to constraints. Environmental Management 28(4): 421-431.

This retrospective article assesses several years' worth of the author's research on collaborative environmental management in the United States and Australia (qualitative case studies of 34 groups conducted using interviews and surveys). The article focuses specifically on the different strategies groups have used to gain commitment among the various partners. Six strategies were identified: legislative, contractual, facilitational, financial, and interpersonal. Most groups used a combination of two or more of these. Legislative *strategies change power and jurisdictions and can also create a new hierarchical organization authorized to carry out integrated management (e.g., Lake Tahoe Regional Planning Authority).* Contractual *strategies use a joint written agreement which may or may not be*

legally binding. A contract or joint agreement *well usually identify management objectives and actions, list the organizations responsible for implementation, and set out agreed principles of coordination (e.g., Memorandum of Agreement)*. Facilitational strategies *utilize professional facilitators to convene the parties, manage the process, and support facilitation. Facilitational strategies are most commonly used in cases where trust is a big issue.* Financial *strategies direct funds into a common pool which becomes the incentive for organizations to participate. Funding sources may include legislative allocation, foundation support, or the organizations themselves. The disadvantage of this strategy is that cooperation may only last as long as the funding does.* Interpersonal strategies *are based on relationships between individuals that involve mutual trust and understanding. This approach, while important in all of the cases, can also be ephemeral, dwindling as people move on or new participants join the process.*

Mattessich, P. W., M. Murray-Close, et al. 2001. Collaboration: What Makes It Work. A Review of Research Literature on Factors Influencing Successful Collaboration. Saint Paul, Amherst H. Wilder Foundation.

Essential background reading for anyone with an interest in collaboration, this reader-friendly handbook provides a working definition of collaboration and outlines twenty characteristics of a successful collaborative effort. These twenty traits are grouped under six subheadings (environment, membership characteristics, process/structure, communication, purpose, and resources), and include such factors as adaptability (#3E), ability to compromise (2D), and open and frequent communication (4A). The heart of the text gives a detailed explanation of these twenty keys to collaborative success and offers real-life examples from case studies taken from the authors' research. Appendices provide a detailed description of collaboration (as distinguished from cooperation and coordination), a description of the authors' methodology, useful links to collaboration experts, and a chart that gives an overview of the findings of almost forty studies on collaboration. An extensive bibliography may be useful for readers embarking on further research. Throughout the handbook, the metaphor of a garden is used to convey the notion that, like a vegetable garden that depends on sunlight, water, and fertilizer to bear fruit, collaborations grow and produce results only in the presence of a mix of interrelated factors. The authors acknowledge that a successful collaboration may not demonstrate all forty factors, but they encourage readers to cultivate as many as possible. The findings presented in this source are valuable for their potential for broad application. Generalizations are grounded with specific examples that many readers, whether interested in collaboration or already engaged in the process, will be able to relate to.

McAllister, W. K. and D. Zimet 1994. Collaborative planning: cases in economic and community diversification, USDA Forest Service: 104.

Many communities that are traditionally dependent on revenue from the production of natural resources are seeking to diversify the local economy in hopes of increasing employment and ameliorating the quality of life. In many such cases, collaborative planning has helped concerned citizens and organizations work toward the community's goals. In this report, twelve case studies demonstrate the outcomes of collaborative planning in natural resource dependant communities. The case studies were chosen from across the United States, with a special focus on the Pacific Northwest. The report mentions that no single guidebook can work for all rural communities wanting to diversify the local economy. However, its "closing thoughts" section expresses the idea that initiating dialogue on local issues (some of which are listed in chapter three) and encouraging reflection on the community's past, present, and future holds great promise for communities on a global scale.

McCloskey, Michael. 1996. The skeptic: collaboration has its limits, High Country News. 2003. [Available online: http://www.hcn.org/servlets/hcn.URLRemapper/1996/may13/dir/Opinion_The_skepti.html]

This article, submitted by the Sierra Club chairman, argues against the use of collaborative efforts in national environmental planning. For a thorough explanation of his argument refer to McCloskey 1999.

McCloskey, Michael. 1999. Local communities and the management of public forests. Ecology Law Quarterly 25(4): 624-629.

This article describes the author's perception of the consequences of collaboration and local control, and reasons for not participating in such processes. McCloskey believes collaboration leaves non-local citizens out of the decision-making process, substituting minority for majority rule. He believes this is an aegis for promoting the agenda of the business community, and therefore preventing the intervention of politicians and agencies. According to the author, a lack of participation by non-local interests marginalizes them, causes business interests to dominate the process, decreases the amount of widespread public discussion of the issues, and causes difficult issues to be laid aside by the small collaborative group. In order to include a broad set of public interests during the collaborative process, forest managers must address these concerns.

McClurg, S. 2002. The water forum agreement: a model for collaborative problem solving. Sacramento, CA, Water Education Foundation: 24.

This resource is a patchwork exposition of the Water Forum Agreement, a collaborative effort that brought together agriculturists, environmentalists and urbanites. The goal was to provide the Sacramento region with enough water while preserving the inherent aesthetic, recreational, and environmental value of the Lower American River. This booklet describes how the Agreement was reached through "interest-based negotiations," which required interested parties to scrutinize the underlying causes of their demands. The participants worked through a process of five phases in order to decide on seven actions, nine assurances and four caveats, all of which are catalogued here. This thorough account of the WFA is meant to allow readers to decide whether to attempt interest-based negotiations in their habitats.

Moore, Elizabeth A.; Koontz, Tomas M. 2003. A typology of collaborative watershed groups: citizen-based, agency-based, and mixed partnerships. Society and Natural Resources 16: 451-460.

Many scholars on collaboration in natural resource-management have emphasized the uniqueness of partnerships with regards to goals, strategies, and outcome. While the authors of this article acknowledge differences among partnerships, they suggest that commonalities emerge when partnerships are considered in groups based on member composition. The article presents the results of a study that applied a typology to partnerships, separating them into citizen-based, agency-based, or mixed categories. The study examined 64 watershed groups in Ohio, and involved two phases. The researchers first conducted a broad survey of all of the groups using a mailed questionnaire, and then conducted interviews with 6 of the initial 64 groups. The results of the study indicate that when partnerships are considered as groups based on member composition applying theory becomes much more feasible. The authors end by recommending additional research be conducted regarding theory and collaboration, emphasizing the importance of understanding the process prior to implementation.

Moote, Ann. 2003. Form and function of large scale collaborative planning processes. Flagstaff, AZ, Ecological Restoration Institute, Northern Arizona University: 10.

Moote, Ann; Becker, D. 2003. Exploring barriers to collaborative forestry, Ecological Restoration Institute Northern Arizona University: 28.

This straightforward report is based on a workshop held at Hart Prairie, in Flagstaff, Arizona, from September 17-19, 2003. The workshop was inspired by a perception that collaborative forestry groups across the West were experiencing frustration, burnout, and diminished faith in the collaboration process. Workshop participants hoped to breathe new life into collaboration efforts by identifying impediments to collaboration and making recommendations to confront these challenges. The report lists and describes eight barriers to collaboration ranging from confusion about the purpose and role of collaboration, to legal challenges, to inadequate funding. The report makes recommendations to

Congress, land managers, and other players in collaborative forestry. It closes with a roster of workshop participants.

National Academy of Public Administration 2003. Resource materials for participants in the academy's wildfire workshops on hazard mitigation and enhanced local preparedness. Washington, DC, National Academy of Public Administration: 177.

Chapter 7 of this report deplores the increasing difficulty of fighting fire in the wildland-human interface. This task is becoming increasingly expensive and difficult because more and more people are migrating into the nation's wildlands. These property owners are attracted to the natural beauty of undeveloped regions, but they are rarely prepared to take the necessary precautions to protect themselves from the looming threat of wildfire. They expect the federal government to supply financial and human resources to protect their property, and they depend on insurance companies to mitigate their losses. This publication denounces homeowner passivity. If states and local governments are to continue to allow property owners to infiltrate wildlands, they must encourage a proactive approach to avoiding the serious costs and dangers of wildfire. If people are to continue to move into remote and forested areas, new developments must be made less hazardous and more defensible (68). Furthermore, communities living in interface environments must build partnerships for fuel treatment, wildfire hazard reduction, and more effective multi-unit firefighting: projects that the federal government cannot be expected to fund all alone (70). Because community education and voluntary action has been relatively unsuccessful, NAPA encourages community-based collaborative approaches to reducing wildfire vulnerability. Chapter 7 describes several projects that serve as models, such as Project Impact, Fire Learning Network, and Firewise Communities/USA. Appendix 1 provides case studies taken from Flagstaff (AZ), Prescott (AZ), and San Diego, which highlight community approaches to wildfire mitigation, project funding, use of small-diameter timber and other by-products, fire-safe construction and vegetation management, public outreach, and the challenges of forward-looking collaborative projects.

National Wildfire Coordinating Group 1999. Establishing fire prevention education cooperative programs and partnerships. Boise, ID, National Interagency Fire Center.

A guide for creating cooperative community fire prevention programs, particularly in the wildland/urban interface. Although cooperation is their key term, it is used interchangeably with collaboration and the message is that fire prevention agencies must form alliances in order to partner with community organizations in reaching their common goals of wildfire education and suppression. This "nuts and bolts" guide outlines a six-step process for establishing partnerships — identify partners and get commitment, define the current situation, define roles and responsibilities, set goals and objectives, document and implement the plan and evaluate and revise the plan — and lists facilitators and obstacles to effective cooperation. It also describes various programs for fire prevention assessment, education and networking in the community; appendices include sample bylaws, agreements and operating plans.

Natural Resources Law Center. 1998. The state role in western watershed initiatives. Boulder, Colorado, University of Colorado, Natural Resources Law Center: 91.

Sections on the history and context of the watershed movement, state watershed approaches, and recommendations to states are probably not of interest, but section ii, Experimentation with Watershed Initiatives, may have some useful lessons for fire managers. Based on observations and discussions with representatives of many collaborative watershed groups, the authors identify five success factors: 1) leadership, which may best come from a paid facilitator or coordinator; 2) participation of key stakeholders, including locally respected individuals who bring credibility, 3) appropriate scope 4) resource, which include funding, technical information and expertise, and the authority and capacity to implement projects; 5) credible and efficient decision-making and implementation processes.

Natural Resources Law Center. 2000. Laws influencing community-based conservation in colorado and the american west: a primer. Boulder, CO, University of Colorado, Natural

Resources Law Center. [Available online: www.colorado.edu/law/centers/nrlc/publications/Yampa.PDF]

This report summarizes and interprets the major laws that govern the decision-making process (FACA and NEPA), the major laws governing public lands and management (NFMA and FLPMA), key regulatory programs for resource protection (ESA and CWA) and other relevant federal laws (WSRA and CERCLA).

Nelson, Kristin C. and Steiglitz, Barry S. 2000. Community relations, conflict management, and collaborative partnerships. Human Dimensions of Natural Resource Management: Emerging Issues and Practical Applications. D. C. Fulton, K. C. Nelson, D. H. Anderson and D. W. Lime. Saint Paul, MN, Cooperative Park Studies Program, University of Minnesota, Department of Forest Resources: 114-125.

In its 1999 mission statement, the U.S. Fish and Wildlife Service (FWS) acknowledged the "human dimension" of land and resource management. The FWS has also promised to create and strengthen nontraditional alliances with states, Tribes, nonprofit organizations, academia, and the business community (116). So, agency managers would benefit from a better understanding of conflict management and collaborative partnerships. This article explains conflict management, collaborative partnerships, and community outreach, illustrating each topic with a case study from the Florida Keys. Barry Stieglitz, who began working in community relations for the Florida Keys FWS in 1995, hired a communications specialist to assess the complex relationship between the FWS and an eclectic group of non-agency stakeholders. This specialist made six communication recommendations, which are listed with the author's commentary. Community support, sound and accessible science, effective communication, a positive FWS image, people-skills training, open communication, and shared responsibility are highlighted as essential aspects of successful management. Next, the article deals with the topic of conflict resolution, describing a continuum of conflict management ranging from negotiation, to facilitation, to mediation, to arbitration. Finally, collaborative partnerships are touted as the best way to approach conflict resolution, complex problem solving, successful implementation, and trust building (123). Finally, the authors call for more social science research on collaboration on issues related to community relations, conflict management, and collaboration.

Norris-York, Dover A. 1996. The federal advisory committee act: barrier or boon to effective natural resource management? Environmental Law 26: 419-446.

This law review article lays out the basic purposes and requirements of the Federal Advisory Committee Act, and then describes the factors that make implementing FACA problematic, which include onerous procedural requirements and ambiguous language about when FACA applies and when it does not. The author goes on to describe the BLM's Resource Advisory Councils created by the Department of Interior's Rangeland Management Plan, as a model for appropriate application of FACA.

NRLC, N. R. L. C. 2000. Laws influencing community-based conservation in colorado and the american west: a primer. Boulder, Colorado, University of Colorado, Natural Resources Law Center: 51.

This report summarizes and interprets the major laws that govern the decision-making process (FACA and NEPA), the major laws governing public lands and management (NFMA and FLPMA), key regulatory programs for resource protection (ESA and CWA) and other relevant federal laws (WSRA and CERCLA).

Paulson, Deborah D. 1998. Collaborative management of public rangeland in wyoming: lessons in co-management. Professional Geographer 50(3): 301-315.

This article compares Coordinated Resource Management (CRM) groups in Wyoming to co-management theory. While many aspects of CRM appear to meet the co-management ideal, in practice

they do not achieve the power-sharing that is the hallmark of co-management. Not only are there no structures in place to facilitate a shift in power, there is no agreement on the legitimacy of different stakeholder groups and no effective process for dealing with strongly divergent values or interests. These issues (who has a right to participate and how to collaborate in the face of divergent goals) are major problems yet to be worked out in this country.

Paulson, Deborah D.; K. M. Chamberlin 1998. Guidelines and issues to consider in planning a collaborative process. Laramie, WY, Department of Geography and Recreation, University of Wyoming: 14.

A research project providing some general guidelines and principles for collaboration on land use issues in the western US. Acknowledging the large body of collaboration research and the numerous guidelines that have already been advocated, the researchers wondered whether the literature on collaboration matched up with the real-life experiences of people engaged in collaborative processes. The researchers analyzed three case studies of collaboration from WY, NM, and CO. They also distributed surveys that were completed by twenty-seven collaboration practitioners. The case studies and surveys revealed that different practitioners preferred particular collaboration methods and were reluctant to consider other models. Practitioners held widely varying definitions of collaboration. However, Paulson & Chamberlin managed to draw eleven general guidelines for collaboration, which are listed and explained (with quotes from interviewees) in this report. The conclusion identifies unresolved issues pertaining to power relations among collaboration participants, and also questions the power potential for collaboration as a societal institution. Finally, a few obstacles to collaboration are mentioned, among them inflexible agency policies and suspicious attitudes toward federal agencies and land users.

Pinchot Institute for Conservation 2001. Collaborative stewardship training opportunities: a report to the USDA Forest Service. Washington, D.C., USDA Forest Service: 53. [Available online: www.swstrategy.org/library/PIC_Collaborative_Training.pdf]

In preparing to convene, facilitate, and communicate with stakeholders in a collaborative setting, the agency must develop certain skills and abilities, available through collaborative training. This report outlines eight institutions, with descriptions of the collaborative training opportunities they offer to the Forest Service.

Pinkerton, Evelyn W. 1992. Translating legal rights into management practice: overcoming barriers to the exercise of co-management. Human Organization 51(4): 330-340.

"Co-management can be generally defined as power-sharing in the exercise of resource management between a government agency and a community or organizations of stakeholders" (331). While not limited to aboriginal groups, most cases of co-management in North America are between tribes and federal agencies. This article is a detailed policy analysis a co-management agreement between an Indian tribe and the State of Washington. The author found that networks and alliances of stakeholders (both governmental and non-governmental) and appeals to the general public allowed the group to effectively overcame resistance from industry and one government agency.

Pipkin, J. and H. Doerksen 2000. Collaboration in natural resource management: selected case studies. Washington, D.C, U.S. Department of the Interior: 216.

Prepared as a background resource for an interagency training course on collaboration in resource management, this report speaks clearly and informatively to managers with a set of principles of collaborative management distilled from a set of case studies, which follow. It argues compellingly that collaboration has become crucial in natural resource management, and demonstrates a number of manners, "large, medium and small," in which it is being practiced. Although many of their principles are found in other research on collaboration — agreement on common goals, strong leaders, trust, outreach and support from headquarters — this document explores the role of science and adds to its

principles "science underpinning," information management, and adaptive management. One case study is of fire management across agencies through the National Interagency Fire Center, established in 1995, the National Wildfire Coordinating Group, created in 1976, and the Joint Fire Sciences Program, funded in 1998 by Congressional appropriation.

Porter, D. R.; D. A. Salvesen, Eds. 1995. Collaborative Planning for Wetlands and Wildlife. Washington, DC: Island Press.

Collaborative efforts vary largely in their goals, scope, and successfulness. This book focuses on specific instances where groups worked together to resolve conflicts over development and the protection of wetlands and/or wildlife. The introduction discusses the shortcomings of other strategies and why collaborative area-wide planning is a good alternative. The editors aim to create a record of past successful instances collaboration and to derive from it recommendations for successful planning. The majority of the book consists of chapters on individual cases of collaboration from across the nation. The locations where the case studies took place include the Colombia River area of Washington and Oregon, the East Everglades of Florida, Chesapeake Bay, and the wetlands of Anchorage, Alaska. Many chapters include maps, tables, and photographs to aid the reader. Following the presentation of the case studies the editors include a lengthy conclusion that provides lessons and recommendations. A section entitled Guidelines for Collaborative Planning outlines the requirements for successful collective efforts. These components include political leadership, community planning and management, and mediation to resolve conflicts. The editors end by reemphasizing the primary message of the book: while collaboration requires a lot of time and resources, its results and long-term benefits are often worth the effort.

President's Council on Sustainable Development. 1997. Lessons learned from collaborative approaches. building on consensus: a progress report on sustainable America. Washington, D.C., New National Opportunities Task Force. 2003.

Lessons Learned from Collaborative Approaches is embedded in the 1997 report from the President's Council on Sustainable Development. The Council was created in 1993 by former President Clinton out of concern for environmental and economic sustainability. In this chapter, a working group presents its findings based on a review of academic literature on collaboration and several high-profile case studies. The working group reached five general conclusions about collaboration, three of which focus on the underappreciated importance of evaluation. Next, the objectives, processes and participants of a typical collaboration are listed. Finally, the group reemphasizes the importance of evaluation, which is described as an indispensable step that allows participants to make corrections during the course of a project and carry out a thorough assessment following project completion.

Preston, M. and C. Garrison 1999. The ponderosa pine forest partnership: community stewardship in southwestern Colorado. Cortez Colorado, The Ponderosa Pine Forest Partnership: 44.

This booklet illustrates, using the case study of the Ponderosa Pine Forest Partnership, six key principles that form community capacity building in the context of community stewardship. After an introduction to and history of the Ponderosa Pine Forest Partnership, along with an explanation of the principles of community stewardship and capacity building, the booklet is organized according to the principles (transformational leadership, building relationships, common values, sharing knowledge, constructive action, and adaptive management), citing the people, processes and interactions experienced with the project that illustrate these principles. Key issues encountered by this partnership are discussed, with a summary of actions taken and outcomes. Issues included integrating economics and biodiversity, project scale, economic viability, prescribed fire and monitoring. Challenges to the process — community involvement, need for ongoing scientific analysis, institutional capacities, need for pilot projects, economic sustainability and ongoing monitoring--are also presented.

Pretty, Jules; Ward, Hugh. 2001. Social capital and the environment. World

Development 29(2): 209-227.

This article begins by discussing how, throughout history, people have engaged in collective action to manage resources. Yet, in the past, examining how social and human capital affect environmental outcomes has not been addressed. Given that the past 10 years has seen a vast increase in group formation in sectors as diverse as watershed and catchment management, microfinance, and farmer's groups for research and learning, the links between social and human capital formation in rural communities and improvements in natural capital are examined. By examining existing literature and existing resource management groups, the authors suggest a new way of looking at group formation and evolution. Their "typology" has three stages in which groups might be classified by 15 different criteria in five groupings or themes. The three stages are: reactive-dependence (reaction to an issue, looking for external solutions), realization-independence (acknowledgment of new capabilities, increasing independence), and awareness-interdependence (forward-thinking, high functioning, resilient). The five themes are worldview, norms and trust, networks and linkages, technology and improvements, and length of existence of the group. The authors suggest that agencies and governments would be well-advised to invest in social and human capital as a means of increasing natural capital, and that policy should be changed or enacted that more readily supports the formation and sustainability of social and human capital.

Propst, L. and L. Rosan 1997. National parks and their neighbors: lessons from the field on building partnerships with local communities. Tucson, AZ, Sonoran Institute: 16. [Availabe online: http://www.nps.gov/cgi-bin/intercept?http://nps.sonoran.org/library/nataional_parks_neighbors.pdf]

Following a series of seminars, Partnerships Beyond Park Boundaries, where park managers, planners, local officials and friends organizations met to exchange information and learn from one another's experiences, this report by the Sonoran Institute summarizes the group's emerging ideas for application throughout the National Park Service. The report identifies several guiding principles for partnerships, as well as challenges, and concludes with lessons and recommendations for National Park management practices.

Provan, Keith G.; Milward, H. Brinton. 2001. Do networks really work? a framework for evaluating public-sector organized networks. Public Administration Review 61(4): 414-424.

This article addresses network evaluation as applied to community-based, publicly funded programs. It explores the need for evaluating network efficiency, funding allocations, and network reputation. The issue of what to evaluate is addressed at the community, network, and organizational levels. The article provides insight into specific criteria and indicators that may be applied to evaluation efforts of networks, such as stakeholders', taxpayers', and politicians' satisfaction. The examples provided are not directly related to natural resource management, but the principles for evaluation are easily applied among community-based programs.

Richard, Tim; Burns, Sam. 1998. Beyond "scoping": citizens and San Juan National Forest managers learning together. Journal of Forestry 96(4): 39-43.

Though collaboration is an emerging practice in forest management, many successful partnerships have already been implemented across the nation. This article discusses a partnership between Colorado citizens and Forest Service staff, citing the case as an example of the transition in forest management practices towards collaboration. The goal of the partnership was to come to a consensus over revising the San Juan National Forest land and resource management plan. From April 1996 to May 1997 study groups were formed from the 56 individuals who showed interest in the project. The individuals who participated varied largely in their concerns and values, creating eclectic groups. The study group process, unlike the Forest Service's formal scoping process, sought to fully understand public interests through an inclusive and dynamic strategy. While the Forest Service staff and the Colorado citizens were the primary members of the partnership, the Office of Community Services

(OCS) also took part in the process, providing information needed by both parties and thereby acting as a bridge between the two groups. Following analysis of the partnership, the authors discuss lessons learned from the process, focusing on the characteristics of a successful partnership. Leadership, relationship building, common values, shared knowledge, and constructive action are the five components that the authors view as most important.

Richard, Tim; Burns, Sam. 1999. The Ponderosa Pine Partnership: forging new relationships to restore a forest. Durango, CO, Office of Community Services, Fort Lewis College: 40. [Available online: ocs.fortlewis.edu/Stewardship/Pubns/ppfp.pdf]

Rickenbach, Mark. G.; Reed, A. Scott. 2002. Cross-boundary cooperation in a watershed context: the sentiments of private forest landowners. Environmental Management 30(4): 584-594.

Non-industrial private forest (NIPF) landowners possess 59% of all US land. Cross-boundary cooperation has become increasingly common in natural resource management, yet is slow to gain popularity among NIPF landowners. The authors of this article consider this phenomenon in light of an eight-month study that took place in Oregon from October 1998 to May 1999. Researchers interviewed 50 individuals regarding factors that influence the decision of landowners to participate or bypass involvement in watershed councils. Watershed councils are local, voluntary, collaborative forums that work towards restoration. The interviews were typically 45 minutes in length, and were either tape-recorded or paraphrased in field notes. In analyzing the data the authors developed three themes that continuously emerged in the interviews. Firstly, interviewees expressed having a stewardship ethic that influenced their opinion of watershed councils. The majority of landowners expressed a concern for the welfare of their land, and would participate in watershed councils when they perceived shared beliefs and goals. However, many interviewees expressed distrust in councils who feel they know what is best for the land. Distrust is especially between landowners and watershed councils because councils have not been around long enough to establish trusting relationships. In addition to stewardship ethic, the theme of property rights amid uncertainty emerged from that data. Many landowners felt threatened by watershed councils, and were concerned that new policies could restrict rights to the land. Finally, action orientation was identified as a third theme: the landowners' perceptions of the effectiveness of watershed councils influenced their opinion of the councils. The authors conclude that watershed councils are an important step towards cross-boundary coordination, but that NIPF landowners will only participate when they since that the council's interests coincide with their own.

Rieke, Betsy. 1998. The Federal Advisory Committee Act: impacts on community-based, collaborative groups. Forest Trust Quarterly Report 18: 3.

This article addresses the impacts of the Federal Advisory Committee Act (FACA) upon collaborative groups. Although the specific purpose of FACA is to limit the number of advisory committees associated with the federal government, vague wording in this Act has prevented agencies from associating with collaborative efforts. The author focuses on court rulings addressing the meaning of the word "utilized" within the Act, to illustrate one way past the perceived barriers of FACA.

Rolle, Su. 2002. Measures of progress for collaboration: case study of the applegate partnership. Pacific Northwest Research Station, United States Department of Agriculture Forest Service: 13. [Available online: www.fs.fed.us/pnw/pubs/gtr565.pdf]

By using the Applegate Partnership as a case-study, this report discusses how to measure the progress of a collaborative group. Evaluation is an important component of the collaborative process because it allows the group members to see how their contribution has benefited the organization, it helps refine the efforts of the group, and it allows the group members an opportunity to illustrate how the collaborative efforts have benefited the problem at hand. This report outlines specific ways to measure

the progress of a collaborative group and also discusses specific criteria that will aid in defining the success of the group. Some examples include: sustaining the collaborative effort, understanding the local community, involving the "right mix" of people, and developing educational forums.

Round Tables on the Environment and Economy in Canada 1998. Building Consensus for a Sustainable Future. Ottawa, Ontario, National Round Table on the Environment and the Economy: 15. [Available online: http://www.nrtee-trnee.ca/Publications/HTML/Report_Consensus_Guiding-Principles_e.htm]

Working toward sustainability calls for processes that reconcile competing interests, create collaborative relationships, and generate creative solutions. Interested parties must work together and offer their unique skills and knowledge to bring about a better quality of life for everyone involved. A consensus process is one in which all stakeholders try to reach an agreement on environmental, social, or economic issues. Even though all participants may not agree with every detail of the agreement, the goal of the consensus process is to generate a solution or plan of action that everyone is willing to stand behind. This article offers a definition of consensus processes in terms of their methods and outcomes. The Round Tables' ten principles and four steps of consensus processes are listed and discussed. The authors remark that consensus processes have been successfully implemented in the past. Their ten principles for consensus building are meant to encourage further collaborative problem-solving in response to the challenges of sustainability-based planning.

Ryan, Claire M. 2001. Leadership in collaborative policy-making: an analysis of agency roles in regulatory negotiations. Policy Sciences 34: 221-245.

In an effort to decrease the amount of lawsuits filed disputing federal agency's decisions, the Clinton Administration invited federal agencies to utilize alternative dispute resolution *(ADR). Federal agencies are slowly making a transition to using collaborative groups, consensus agreements, and environmental negotiation to solve conflicts. For this empirical study, three regulatory negotiations, all involving the Environmental Protection Agency (EPA) were examined. Results indicated that the EPA played multiple roles in these negotiations, including the roles of the expert, analyst, stakeholder, facilitator, and leader. Findings of this research also indicated that the public expects the EPA to be active in the negotiations and not just oversee them. Lastly, results indicated that the EPA perceived itself in a narrow capacity- that of the expert- although the public views the agency more broadly.*

Sarason, Seymor B. and Elizabeth M. Lorentz 1998. Crossing Boundaries: Collaboration, Coordination, and the Redefinition of Resources. San Francisco: Jossey-Bass Publishers. 170p.

One of the perks of collaboration is the way it allows organizations to pool human and financial resources, thus cutting overall costs while producing more impressive results. However, the decision to collaborate does not necessarily lead to success. In this book, Sarason and Lorentz explore the promise and the problems inherent in collaboration. They argue that a paradigm shift in how we think about organizational roles and structures is essential for making collaboration live up to its potential. This paradigm shift entails the creation of a new role - the network coordinator - to serve as a liaison between organizations and to facilitate resource exchange. The authors list the traits of an archetypal network coordinator and explain their belief that channeling resources through this figure can create a sense of community among different organizations.

Schindler-Rainman, Eva and Lippit, Ronald 1993. Building collaborative communities. Discovering Common Ground: How Future Search Conferences Bring People Together to Achieve Breakthrough Innovation, Empowerment, Shared Vision and Collaborative Action. Marvin R. Weisbord. San Francisco, CA: Berret-Koehler. 35-43.

Having contributed extensively to helping groups and organizations work together collaboratively through future workshops (search conferences), the authors questioned and examined what was needed to apply their processes to whole communities. The workshop design is presented, along with a

summary of the authors' accomplishments. Key realizations regarding community collaboration and design are noted and include: leadership from different functional sectors of the community (media, public safety, political, etc.); reach out to and include diverse populations; find new ways to include and communicate with those who are polarized; develop ways to incorporate different perspectives and histories, to show that each perspective is valued; find ways to help people learn necessary skills needed for collaboration; encourage professional development that encourages and enables recognizing and taking on collaborative projects and identifying likely citizen collaborators; devise procedures for instituting and maintaining linkages; incorporate follow-up and monitoring into initial planning.

Schuett, Michael A.; Selin, Steve. 2002. Profiling collaborative natural resource initiatives and active participants. Northern Journal of Applied Forestry 19(4): 155-159.

Managers and citizens are becoming more involved in the collaboration management approach to natural resource decision-making. However, a limited amount of research has examined the profile of collaborative natural resource initiatives (CI) and its participants. The purpose of this study was to examine 30 CIs from across the United States and the 'active participant' involved with the CIs. Using a mail survey, 647 stakeholders were queried about the CI including mission, size, membership, duration, motives for participation in the CI, and keys to successful collaboration. Reasons for stakeholder involvement included responsibility, concern over natural resource issues, and developing better partnerships. Keys to successful collaboration included information exchange, organizational support, personal communication, relationship/team building, and accomplishments. [The article provides practical information on motives, agreeing on a mission, communication, and developing support and relationships.] Suggestions are given for future research on measuring success and including numerous perspectives on collaboration (155).

Schuett, Michael A.; Selin, Steve W.; Carr, Deborah S. 2001. making it work: keys to successful collaboration in natural resource management. Environmental Management 27(4): 587-593.

Many similarities emerge among successful collaborative efforts. In this article the authors discuss the results of a study of thirty collaborative initiatives with the Forest Service. The researchers used a mailed questionnaire to gather comments regarding the components of successful collaboration and then developed six categories based on the patterns in the data: development, information exchange, organizational support, personal communication, relationships/team building, and accomplishments. Development refers to having a specific goal in mind for the process, along with clear expectations and ground rules. Information exchange involves learning from each other by sharing experiences and expertise. Organizational support indicates that collaborative efforts should be well structured, including scheduled meetings and dependable funding. Personal communication and relationships/team building both denote the intimacy of collaborative efforts whereby sharing and listening occurs in an atmosphere of trust and respect. The final category, accomplishments, indicates that participants expect that successful collaborative efforts be productive, with observable progress made over time. The authors end the article by discussing the lessons learned from the study and by proposing that research continue on collaboration in natural resource management.

Schusler, Tania M.; Decker, Daniel J.; Pfeffer, Max J. 2003. social learning for collaborative natural resource management. Society and Natural Resources 15: 309-326.

This article investigates the usefulness of deliberative planning processes between agencies and local communities for contributing to and enhancing social learning, thereby encouraging collaborative resource management, or "co-management." Social learning is defined as "learning that occurs when people engage one another, sharing diverse perspectives and experiences to develop a common framework or understanding and basis for joint action" (311). Through a search conference design, the authors engaged stakeholders involved with the Lake Ontario Islands Wildlife Management Area to identify factors that promote and allow social learning, and to determine how social learning can be applied to resource co-management. Eight factors, or attributes, were identified that promote social learning, which the authors suggest should be included in the framework for collaborative planning

and projects. They include: "open communication, diverse participation, unrestrained thinking, constructive conflict, democratic structure, multiple sources of knowledge, extended engagement, and facilitation" (324). Although social learning is necessary for co-management, its development and sustainability require other processes and/or characteristics in addition: capacity, supporting policies, appropriate processes and appropriate structures. Social learning, however, can be a vehicle through which these other processes and characteristics are built and through which they evolve.

Selin, Steve; Chavez, Deborah. 1995. Developing a collaborative model for environmental planning and management. Environmental Management 19(2): 189-195.

This article addresses the need for collaboration within natural resource management. The authors first introduce a theoretical model that explains collaboration as a cyclical and changing process. The dynamism of collaboration is expressed through feedback arrows leading from one step to another within the model. The authors point out that the model assumes an ideal set of circumstances, and so does not apply to all collaborative situations. The model consists of five categories, and generally flows from left to right. The first category, antecedents, explains factors that lead to collaboration including crisis, shared visions, and incentives. The antecedents lead to problem setting, where stakeholders agree that collective action is necessary, and recognize interdependencies among those involved. Problem setting usually leads to direction setting, under which clear goals are defined. Next structuring often occurs, where ground rules are established and clear expectations are made. Finally outcomes occur, often ending the collaborative process. Throughout the explanation of the model the authors include brief examples that apply theory to real situations. A section on obstacles to successful collaboration is included, identifying lack of flexibility and unwillingness to compromise as major hurdles in collaborative processes. Finally the authors discuss four types of collaborative designs, illustrating the various outcomes of collaboration. When the goal is advancing a shared vision, the expected outcomes are exchange of information or joint agreements. When resolving conflict is the motivating factor, dialogues or negotiated settlements result. Overall, the authors continuously emphasize that managers must exercise their own judgment in collaborative efforts, but that models and patterns provide guidance to those interested in the process.

Selin, Steve; Schuett, Michael A.; Carr, Deborah, S. 1997. Has collaborative planning taken root in the national forests? Journal of Forestry 95(5): 25-28.

The Forest Service is implementing collaborative processes now more than ever. This article discusses the results of a study of 115 Forest Service employees, representing the vast majority of national forests in the US. The participants were chosen based on the amount of knowledge or experience they had on collaborative planning, and were interviewed using a five-page questionnaire. The results of the study are discussed at length in the article and are also summarized in data tables. The results suggest that collaborative planning is most often used for resolving conflicts and that support for the process is highest at on-the-ground management, decreasing with higher agency ranking. The study also revealed perceived barriers to collaboration, such as restrictions set by the Federal Advisory Committee Act (FACA). The authors make several suggestions for increasing the success of collaborative planning, recommending that Forest Service employees undergo training to prepare them for the process.

Selin, Steve W.; Schuett, Michael A.; Carr, Debbie. 2000. Modeling stakeholder perceptions of collaborative initiative effectiveness. Society and Natural Resources 13: 735-745.

Collaborative planning and stewardship has emerged on the natural resource landscape as both an ideology and prescriptive tool to build agreement and manage conflict across diverse settings and resource issues. This article reports on a research study examining stakeholder perceptions of the performance of 30 collaborative initiatives from around the United States where the USDA Forest Service was identified as a partner in the initiative. "... Findings from this study support recent evidence that collaborative initiatives are achieving important economic, quality of life, and bio/physical outcomes" (735). The results also illustrate three main characteristics and techniques for

building capacity for collaboration. These are strong leadership and continuity in leaders, a broad representation of stakeholders, and open, inclusive decision-making processes.

Shelly, Steve. 1998. Making a difference on the ground: Colorado's Ponderosa Pine Partnership Shows how it can be done. Chronicle of Community 3(1): 37-39.

This brief article documents the formation of the Ponderosa Pine Partnership, including the context of its formation, what they have accomplished, and challenges they have had to address. Forest managers will find useful information for developing other collaborative processes.

Singleton, Sara. 2002. Collaborative environmental planning in the American West: The good, the bad and the ugly. Environmental Politics 11(3): 54-75.

This article reports a comparison of the claims made for collaborative processes with the outcomes of three collaborative watershed-planning processes in the Pacific Northwest. It begins with a description of collaborative processes, followed by a summary of the arguments supporting it. She then provides brief histories of three case studies - the Dungeness River, the Yakima River, and the Methow River Watershed Planning Processes. She then discusses the obstacles and successes these collaborative processes faced, and the reasons for differences between the efforts, and between the supporting claims and on-the-ground outcomes. One important factor affecting the success of the cases is a lack of non-local participants. Singleton concludes, "Without robust and credible mechanisms for both accountability and burden sharing between local and larger publics, even inspired leadership cannot be expected to make the process work" (72). Forest managers will benefit from this article since it discusses both the opportunities and challenges collaborative processes have faced.

Sirmon, Jeff. 2001. Collaborative stewardship training opportunities: a report to the USDA Forest Service. Washington, D.C., Pinchot Institute. [Available online: http://www.pinchot.org/publications/discussion_papers.htm]

A "how-to" manual of "how-to" programs in collaboration prepared by the Pinchot Institute. The report was commissioned by the Forest Service to assess the following: collaborative training needs of the Agency, current collaboration training programs, fit of courses to needs, a conceptual structure for training and the potential use of technology to deliver required training. The report focuses on the following programs: integrations, U.S. Fish and Wildlife Service, National Conservation Training Center's Collaborative Resource Management (developed with the University of Michigan and reviewed in this document), Pinchot Institute for Conservation, Leadership - Mobilizing People to Act, Bureau of Land Management, Partnership Series, and National Park Service (with Sonoran Institute, also reviewed in this document). The report briefly defines collaboration, its stages and use at various agency levels, and introduces the value of training courses (and is not sanguine about technology enhanced or distance learning as the basis of learning). It comprehensively inventories and evaluates the training listed above, eclectically combining them for a "model workshop."

Smith, Patrick D.; McDonough, Maureen H. 2001. Beyond Public Participation: Fairness in Natural Resource Decision Making. Society and Natural Resources 14: 239-249.

This article reports a case study analyses on participant perceptions of justice applied to natural resource decision making processes. The authors identify the common themes that participants viewed with importance. These are broad representation, multiple methods of involvement, continued communication between the agency and the public, decisions based on logic, and inclusion of desired outcomes in the final decision. The authors recommend natural resource managers should focus greater attention to fair decision-making processes. This article is relevant to the fire planning project because it describes the importance of representation, provides the consequences of unfair representation, and methods for preventing it.

Society of American Foresters, N. A. o. S. Foresters, et al. 2004. Preparing a

community wildfire protection plan: a handbook for wildland-urban interface communities. Washington, D.C.

The risk that wildfires present to residents, firefighters and property is rapidly increasing in the wildland-urban interface. Community involvement in reducing hazardous fuels is needed to achieve a serious wildfire protection plan in accordance with the Healthy Forests Restoration Act of 2003. This step-by-step guidebook was put together to help communities combat the risk of wildfire. Developed and endorsed by a coalition of agencies, the guidebook explains in detail how to generate a plan for protecting communities against wildfires. It includes tips on who should be involved in making the plan, how to bring stakeholders together, how to go about risk assessment and priority making, and how to develop a sound plan.

Society of Professionals in Dispute Resolution 1977. Best practices for government agencies: guidelines for using collaborative agreement-seeking processes. Washington, D.C., Society of Professionals in Dispute Resolution: 18.

Recommendations, developed through a joint effort of the Society of Professionals in Dispute Resolution (Environmental/Public Disputes Sector) and the Consortium on Negotiation and Conflict Resolution, are directed towards federal, state, provincial and territorial government officials to help ensure successful use of collaborative processes. Recommendations range from "an agency should first consider whether a collaborative agreement-seeking approach is appropriate" to "an assessment should precede the ... process" to "the agency and participants should plan for implementation of the agreement from the beginning of the process" to "policies governing these processes should not be overly prescriptive." A brief and easily accessible, nuts and bolts, guide for government agency managers interested in establishing a collaborative process.

Southern Utah Wilderness Alliance. 1994. Why one advocacy group steers clear of consensus efforts. High Country News: 26 (10) [Available online: [http://www.hcn.org/servlets/hcn.Article?article_id=373#]

This article provides seven reasons why the Southern Utah Wilderness Alliance chooses not to participate in most collaborative or consensus efforts. This gives forest managers a better understanding of potential reasons for certain stakeholders to not participate in collaborative processes. By addressing these concerns, the agency may be able to promote the participation of additional individuals or organizations.

Steelman, T. and G. Kunkel 2003. Community responses to wildland fire threats in New Mexico. 2003., Department of Forestry, North Carolina State University. 2003.

A history of unhealthy fire suppression along with a growing number of people living near public lands increases the risk of destructive fire in the western US. This website focuses on New Mexico, but would be useful to anyone interested in how communities are working together to prevent wildfires. Research is presented that analyzes how communities aim to meet four goals: improving fire prevention and suppression, rehabilitating and restoring fire-adapted ecosystems, reducing hazardous fuels, and promoting community assistance. Four areas of New Mexico were examined as case studies, including Silver City, Ruidoso, Red River, and Santa Fe Watershed. The first three were seen as effectively working towards the four goals, while the last was an example of an unsuccessful effort. The website is well organized and straightforward, and includes an overall summary to allow users to quickly review the information presented.

Sturtevant, Victoria and Corson, Corinne. 2003. Applegate communities' collaborative fire protection strategy (Applegate Fire Plan): participants' thoughts about process and outcome. Ashland, OR: Southern Oregon University. 55.

Sturtevant, Victoria; Lange, Jonathan I. 1996. Applegate partnership case study: group dynamics and community context. Ashland, OR: Southern Oregon University. 110.

Sturtevant, Victoria; Lange, Jonathan I. 2003. From them to us: the Applegate Partnership. Forest Communities, Community Forests: Struggles and Successes in Rebuilding Communities and Forests. J. Kusel. Lanham, MD: Rowman and Littlefield. 192.

An updated chapter from Kusel and Adler, 2001. The earlier book was revised and published in August, 2003.

Susskind, Lawrence, S. McKearnan, et al., Eds. 1999. The Consensus Building Handbook. Thousand Oaks, CA: Sage Publications.

This book has been termed the "encyclopedia" of consensus-building. It is not intended to be read from cover to cover, but rather to serve as a reference for anyone who is participating in the consensus-building process. Part One addresses common group dynamics seen in some of today's unproductive collaborative efforts. As the book progresses, new ideas regarding successful consensus building are addressed. Topics include: facilitation, establishing ground-rules, building capacity, and establishing guidelines for the consensus-building process. These topics and many more are addressed in Part Two: A Short Guide to Consensus Building. Part Three includes case studies and specific commentaries for a variety of consensus-building efforts. Those parties involved with natural resource conflicts may benefit from by reading chapters 6 and 9, which address issues related to joint fact finding and the use of technical experts in settling environmental disputes.

Sustainable Northwest, Wallowa Resources, Watershed Research and Training Center. 2002 . Working together to facilitate change. Portland, OR: Sustainable Northwest: 40.

In an effort to define a policy platform for community forestry in the Pacific Northwest, Sustainable Northwest, Wallowa Resources, and the Watershed Research and Training Center convened a meeting of community-based forestry group representatives and federal policymakers to prioritize policy issues an develop a collective message and strategy for addressing these issues. The four top priority issues identified by the workshop participants were 1) the need to increase appropriations and funding; 2) a need to reform and monitor Forest Service contracting and procurement on public lands; 3) a need to improve federal agency and Congressional commitment to communities and collaborative processes, and 4) a need to improve understanding and implementation of NEPA and ESA. More specific issues that fit within these four broad categories include: restoration and fuels reduction, workforce issues, the National Fire plan, implementation of the County Payments Bill, public lands certification, non-timber forest products, and developing a restoration economy. Once it had identified and prioritized issues, the group worked on developing messages for government and for the media.

Takahashi, Lois M.; Smutny, Gayla. 2001. Collaboration among small, community-based organizations: strategies and challenges in turbulent environments. Journal of Planning Education and Research 21: 141-153.

In a case study of three small public-service agencies, the authors explore the assumption that small, community-based organizations can form highly effective partnerships because they are adaptable have informal organizational structures. In the case study, however, an emphasis on informality within and between agencies contributed to conflict and miscommunication, and "led to a lack of sanctioning when particular organizations engaged in behaviors that were deemed unacceptable by the other agencies" (147). The authors conclude that collaboration requires a both informal networks and some formalities, such as clearly assigning tasks among partners.

Tarnow, K., P. Watt, et al. 1996. Collaborative approaches to decision making and conflict resolution for natural resource and land use issues: a handbook for land use planners, resource managers, and resource management councils. Oregon Department of Land Conservation and Development: 116.

Land use questions are significant to people of many different opinions, interests, and backgrounds. Therefore, land use planners and resource managers frequently find themselves caught up in heated debates. This handbook is meant to help planners and managers by teaching them how to deal with such conflicts. The authors discuss how conflicts arise, how they can be managed, and how they can be settled. They recommend the use of collaboration in conflict management and decision making. Because collaboration allows diverse groups to create solutions that everyone agrees on, participants feel responsible for group decisions and are more willing to carry out the plan. When conflict is managed properly following collaborative principles, it can actually benefit the decision making process; a manageable level of conflict strengthens interpersonal relationships and produces longer-lasting solutions. Chapter one of this handbook introduces collaborative approaches to decision-making and conflict resolution. In chapter two, the authors describe the differences between collaboration and more "traditional" approaches to decision making and conflict resolution, i.e. legislative, judicial, and quasi-judicial. Chapters three and four discuss ways that conflicts arise and suggest that careful communication can help avoid unnecessary head-butting. Simple tips on posture, eye contact, and acknowledgement would be useful one-on-one or in large group settings. Chapter five pinpoints situations that call for collaboration and offers guidelines for deciding between negotiation, facilitated negotiation, mediation, and consensus building. Chapters six and seven outline the specific steps entailed in working through negotiated and mediated processes, and in constructing and implementing a consensus-building process.

The Nature Conservancy Fire Learning Network. 2003. Crossing boundaries: improved collaboration advances implementation of fire restoration strategies. Lessons from the Fire Learning Network, The Nature Conservancy. 2003.

The third workshop of the Fire Learning Network took place during March 2003 in Little Rock. The workshop participants learned that improving collaboration, rather than reevaluating the science of fire ecology, is the key to implementing fire regime restoration actions (1). Activities and lectures focused on building collaboration skills, overcoming barriers to restoration plans, encouraging broad participation in the collaboration process, and working toward specific FLN goals. This report presents the workshop's conclusions based on case studies of different fire regime restoration projects from across the US. Participants learned that effective partnerships result in successful projects, that public lands and private lands present different implementation challenges, that most barriers to implementation have more to do with lack of coordination and cooperation between partners than natural resource issues, and that implementation must be continually monitored and supported by good science. Two fact boxes list common traits of successful partnerships and well-funded projects. Another box describes the FLN and emphasizes the network's dedication to innovative and collaborative fire management.

Thomas, Craig W. 1999. Linking public agencies with community-based watershed organizations: lessons from California. Policy Studies Journal 27(3): 544-564.

In a case study of an failed effort to create a collaborative strategy to preserve biodiversity (the Klamath Bioregion Project), the author observed that lack of oversight by the convening agency (the state), the large size of the region, and resistance from most federal agency line managers all contributed to its failure. He also observed, however, that "some agencies were better able than others to work with watershed organizations and subregional groups. BLM line managers and field staff, for example, routinely worked with these organizations, while their counterparts in the more centralized and unresponsive Forest Service did not. Hence, the BLM developed a positive reputation within these organizations, while the Forest Service did not" (p.561). The author notes the irony that historically, the more decentralized BLM has been criticized for being "captured" by local interests, while the Forest Service was praised for maintaining its centralization and remaining aloof from local pressures. The BLM is now being praised for being responsive to local concerns and incorporating them into their decisions, while the Forest Service is "criticized on all sides by local and national environmentalists, the timber industry, local communities, and even its own staff" for failing to participate in local collaborative groups.

U.S. Department of Agriculture and Forest Service. 1993. The power of collaborative planning. Washington, D.C., USDA Forest Service: 12.

This report summarizes the findings of a 1993 workshop entitled "Seeking Common Ground." The workshop brought together federal land managers, community leaders, and private citizens to discuss whether collaborative planning has the potential to promote the well-being and efflorescence of rural communities dealing with the loss of a mill, mine, or other industry. A section called "Changing Scenarios" lists trends that are sweeping rural communities with natural resource based economies. Because of these changes, citizens and organizations must work together to plan for the future. The workshop participants agreed that such communities are already benefiting from strategic planning efforts such as forest plans and county land use plans, but decided that these "spheres of planning" should merge together (4). As for how this merger should take place, the workshop participants discussed three CP models (search conferencing, the Rocky Mountain Institute's economic renewal program, and open decision-making). Finally, the report offers twenty-two tips on how to make CP effective, including how to use the CP models discussed above, how to maximize human and financial resources, and how to educate and empower rural communities. Case studies and suggestions for further reading are found at the end of the report. To summarize the workshop, participants learned that autocratic leadership structures were not compatible with collaborative planning (CP), in which everyone takes part in decision-making. Even the designated leaders of the CP process must see themselves as catalysts, not as head problem-solvers. The result is that CP reduces polarization, so that we can "start meeting in conference rooms instead of courtrooms" (10).

U.S. Department of Agriculture. 1995. Collaborative planning: sustaining forests and communities. Washington, D.C., USDA Forest Service: 8.

This publication begins by describing an age-old tradition that brought together explorers, traders, mountain men and Indians in the foothills of the Wasatch and Henry mountains. In 1994, FS resource managers revived this custom when they gathered in Utah to meet with representatives of communities, forests, rivers, national parks, and tribes. The goal was to develop a vision of resource management that would balance human needs with environmental concerns. This workshop report contains textboxes that summarize the key elements of sustainability-based planning. A computer-generated graphic conveys the idea that collaborative partnerships must balance communities and land management agencies while also considering both economics and natural resources. Another section explains that achieving sustainability requires thinking long-term about the health of people and other living things, being prepared for change, focusing on both local and global issues, and respecting both traditional and academic knowledge. Another section, entitled "Campfire stories," tells about people from all across North America who have made collaborative planning work in their communities. Next, under "Tools and Techniques," the author furnishes a long list of practical advice for collaborative management, exhorting readers to preplan, open the dialog, set ground rules, map goals, and generate solutions. The publication ends with references for further reading and FS contacts. Although this report stitches together success stories, theoretical guidelines, practical advice, and inspirational quotes, the message is clear throughout: collaborative planning brings people together to work toward the long-term vitality of both ecosystems and communities. The participants learned that a single model for collaborative management cannot work in every situation, but they managed to agree on basic principles that can be applied everywhere.

U.S. Department of Agriculture. 1998. Pathways to collaboration: collaborative stewardship. Washington, D.C., USDA Forest Service: 8.

This report summarizes the findings of a workshop held in response to the FS promise to adopt collaborative stewardship (CS) and work closely with all forest users, owners, and interest groups. Much of this report focuses on the role and reputation of the FS, but it also contains a theoretical discussion of collaborative processes. For example, a diagram called the "Progress Triangle" conveys the idea that collaborations must take into consideration the interests and concerns of stakeholders, possible decision-making procedures, and pertinent issues/conflicts. Case studies from across the country demonstrate the importance of promoting community trust, encouraging local initiative and leadership in collaborations with federal agencies, working across agency lines,

collaborating with the public in diverse forums, and taking field trips onto the land in question. Next, in a section entitled "Where to from here," the report lists the workshop's recommendations for when to collaborate and how to collaborate. Many suggestions pertain directly to the FS.

United States Fish and Wildlife Service. 2000. Collaborative resource management: a pilot interagency training course. Shepherdstown, WA, National Conservation Training Center.

A notebook of training materials, including power point presentations and copies of articles, for federal agency personnel involved in land or water resource management issues seeking knowledge and skills to better equip themselves for collaboration. Materials were developed by an interagency working group coordinated by Jim Pipkin (U.S. Department of Interior) and Todd Jones (NCTC). Instructional materials were drafted by Steven Yaffee, Julia Wondolleck, Todd Bryan, Sarah McKearnan and Alex Mas, Ecosystem Management Initiative, School of Natural Resources and Environment, University of Michigan.

United States General Accounting Office. 1991. Designing evaluations, United States General Accounting Office: 94.

This report serves as an excellent how-to guidebook for anyone who is designing an evaluation. The authors explore design and process issues such as asking the right questions, stating the question effectively, and focusing on the group's objectives. The report also presents different data collection methods including sample surveys, case-studies, field experiments, and making use of available data. The pros and cons of each design strategy are addressed. The remainder of the report is devoted to assessing the evaluation to make sure it will effectively meet the needs of those who have requested it.

United States General Accounting Office. 2003. Program evaluation: an evaluation culture and collaborative partnerships help build agency capacity, United States General Accounting Office: 29.

Evaluation capacity and evaluation culture were explored in five federal agencies: ACF, NHTSA, NSF, HUD, and the Coast Guard. All of the agencies shared four main factors that contributed to their successful evaluations. They were all committed to 1) self-examination and learning through experimentation, 2) data quality, 3) analytic expertise, and 4) collaborative partnerships. These factors are important to the evaluation process, to ensure that evaluation results are credible, systematic, and objective. In addition, each agency was creative in leveraging funding to perform the evaluations. Their approaches are outlined as methods that any agency could use to raise funds for evaluation despite constraints on spending and restrictions on federal information collection.

University of Kansas 2003. Community Tool Box 2003. [The Community Tool Box http://ctb.ku.edu/]

This website is designed more for community health workers and project managers, but its plethora of information regarding the theory and realities associated with community projects is potentially useful to practitioners and managers in any field who recognize the value of and need for community projects. The substance of the toolbox is organized into 13 sections, with several chapters under each of these 13 larger headings that describe the concept (e.g., evaluation and monitoring) in-depth. Most concepts are illustrated with a case study in addition. Chapters have checklists for easy and quick reference, and overhead presentations in a ready-to-use format. While theories and models come from public health and may or may not be applicable to natural resource management, sections on promoting community interest in community issues, community building and cultural competence, sustaining the project, and others can be accessed by leaders involved with any community-based project. The website provides links to other resources regarding the competencies outlined in the specific chapters, and has a function where specific questions regarding community projects can be asked of an advisor.

University of Michigan, U.S. Forest Service, et al. 2002. Learning from experience: a

national resource for collaboration and partnerships. 2003. [http://www.snre.umich.edu/ecomgt/cases/background.htm]

This resource is a website still under construction designed for public resource managers on the topic of collaboration. Website content is organized into three primary sections: getting started, common strategies and challenges and FAQs & Resources. "Getting started" has subsections focused on why and when it is useful to collaborate, assessing whether or not collaboration would be useful in specific situations, with an assessment tool designed to help answer this question, and on how to design a collaborative process. "Common strategies and challenges" has subsections that address the challenges of collaboration and links to case studies of collaboration in natural resource management. The last section has information on and links to other resources, a section answering frequently asked questions and a section giving tips on collaboration "at a glance."

USDA Forest Service and North Central Research Station. 2003. social and economic dimensions of ecosystem management: research highlights. 2003.

This website highlights research conducted under the auspices of the USDA Forest Service through the North Central Research Station in regard to the social and economic aspects of ecosystem management. Several documents are available for download in PDF format and include a three page document highlighting the critical factors needed for collaboration for wildfire management: outreach and education, building relationships, civic science and management across boundaries. Eight case studies of communities throughout the US that are engaged in fire preparedness projects are available. Each case study highlights the steps communities have taken to increase wildfire preparedness and the social conditions that have been necessary to take these steps. Introducing the case studies is a document explaining methods and procedures, along with preliminary and revised models for understanding community wildfire preparedness. Through pilot cases, social capital, human capital, cultural capital, agency involvement and landscape were found to be crucial to wildfire preparedness. Further research to test the revised model will be conducted and reported. Additionally, a 39 page annotated bibliography related to human dimensions research and wildland fire is provided.

USDA Forest Service, Pacific Northwest Research Station, et al. 2001. Watershed Restoration: Wyden Amendment Summary and Assessment of Uses. 2003. [Available online: http://www.natlforests.org/pdf/nff_partnership_guidebook_lo.pdf]

USDA Forest Service, C. S. T. 2000. Collaborative stewardship within the forest service: findings and recommendations from the national collaborative stewardship team: 62.

The Collaborative Stewardship Team was created to enhance the Forest Service's capacity to collaborate with other federal agencies and natural resource users. The group has conducted focus groups around the United States and determined successful land stewardship can only be made possible through collaborative efforts. These findings were associated with three factors: 1) Conflicts associated with natural resources are reflective of human values, 2) To change entire landscapes, people must work together, 3) By working together in collaborative groups, agencies can share resources to achieve mutual goals. This report outlines what collaborative stewardship is and what it is not, while illustrating basic principles and key ingredients of successful collaborative efforts. It outlines barriers and incentives for collaborative efforts as well as lessons learned from existing USDA collaborative programs.

W. K. Kellog Foundation and T. H. Forum. 2003. Sustaining community-based initiatives: developing community capacity, W. K. Kellogg Foundation The Healthcare Forum. 2003.

Waage, Sissel. 2003. Collaborative salmon recovery planning: examining decision making and implementation in northeastern Oregon. Society and Natural Resources 16: 295-307.

The author discusses the lessons provided by a case study of collaborative planning in Northeastern Oregon. After years of disagreement, members of the Nez Perce Tribe and residents of Wallowa County formed a partnership in 1992 to develop a plan for protecting Chinook Salmon in the Snake River. The fish had recently been placed on the Endangered Species Act, and the plan provided voluntary guidelines to follow. Though after finishing the plan participants expressed confidence in its success and implementation, the author's research suggests that decision-making in the area usually did not rely on the Salmon Plan in decision-making. Rather, preexisting rules and structures provided the guidelines for action. Though the collaborative effort failed in this regard, the author argues that the partnership did forge new relationships between previously disagreeable parties, while also laying the framework for decision-making that is guided by collaborative planning.

Walker, Gregg B. and Daniels, Steven E. 2001. Natural resource policy and the paradox of public involvement: bringing scientists and citizens together. Journal of Sustainable Forestry 13(1/2): 253-269.

This article discusses the "paradox of public-involvement" resulting from the dual demands for more public involvement in management decision making and for science-based decisions. Both citizens and agency personnel would like to see management make decisions based on the best available science. However, due to the technical nature of the scientific findings, citizens are skeptical of "trusting" the scientific results because they do not generally understand them. Furthermore, it is becoming increasingly important for the voice of the citizens to be heard during natural resource disputes. Agency personnel understand it is important for citizens to become involved in the decision-making process, however, they want the citizens to trust their scientific expertise. This article discusses conflict within natural resource management and outlines three factors that are generally associated with natural resource conflicts: (1) Natural resource conflicts may be manageable, but not resolvable; (2) When a natural resource is viewed as finite, the controversy will be more intense and parties may adopt rigid positions and not be willing for negotiation; (3) Public participation will become intense in cases where citizens demand extreme outcomes or attempt to sway the arbitrator towards their position. The authors provide several suggestions for improving communication between citizens and scientists in an effort to resolve this paradox, and they conclude by stating, "Perhaps the only thing that matters, at the core, is that the process make progress on the paradox of public deliberations: It must generate technically sound decisions while allowing stakeholders a meaningful voice in the process. The scientific burdens of ecosystem-based land management, combined with the range of interests in the mixed public/private lands, appear to require nothing less" (266-267).

Weber, Edward P. 1999. The question of accountability in historical perspective: from Jackson to contemporary grassroots ecosystem management. Administration & Society 31(4): 451-494.

Weber, Edward P. 2000. A new vanguard for the environment: grass-roots ecosystem management as a new environmental movement. Society and Natural Resources 13: 237-259.

A relatively abstract comparison of grass-roots ecosystem management (GREM) with conservationism, preservationism, and contemporary American environmental movements and finds GREM to be a distinctive social movement. May be of interest for the tables comparing different aspects of the four perspectives (e.g., lays out how each movement approaches science and technology).

Weber, E. P. 2003. Bringing society back in: grassroots ecosystem management, accountability, and sustainable communities. Cambridge, MA: MIT Press.

Three case studies of "grassroots ecosystem management" in Western communities, Willapa Bay, Henr's Fork and Applegate Valley, and political theory are employed in this book to argue that these decentralized, collaborative and participatory institutions are accountable to a diversity of interests and can help integrate environmental and economic values.

Webler, Thomas; Tuler, Seth; Shockey, Ingrid; Stern, Paul; Beattie, Robert. 2003. Participation by local government officials in watershed management planning. Society and Natural Resources 16: 105-121.

The authors used Q methodology to determine how local government officials decide whether or not to participate in collaborative planning efforts. Their sample was drawn from the population of New England government officials involved in watershed management and planning. Results showed two primary reasons for participating: the local government official's perception that 1) the process was likely to produce tangible results, and 2) the project is capable of accomplishing its goals. Some officials said the extent to which the project would help their local community was an important factor in their decision, while others cited personal environmental ethics and the opportunity to address environmental problems quickly and effectively. Nonparticipants stated that lack of time, personal interest, or importance of the problem were factors in their decision. The authors note, however, that participants *did not identify time as a factor in their decision, leading them to conclude that, "while time is an important constraint under which [local government officials] typically operate, it is not the primary reason why they decide to participate or not" (p.118). The authors also "found no factors associated with intergovernmental relations, the performance of government institutions, [opinions about] the process, or interpersonal relationships" (p.117); these aspects of collaboration were not of interest to local government officials.*

Western Governors' Association 2002. A collaborative approach to reducing wildland fire risks to communities and the environment: 10-year comprehensive strategy implementation plan: 27.

In response to the catastrophic wildland fires of 2000, Western Governors directed the Western Governors' Association (WGA) to work collaboratively with federal land management agencies, local and tribal governments and stakeholders to develop a new way of dealing with wildfire. The results are this 10-year comprehensive strategy and implementation plan for reducing wildland fire risks to communities and the environment. The plan was generated to address problems associated with development in the wildland urban interface, serious ecosystem health problems, and the failure of traditional approaches to land management, all of which have made forests dangerously vulnerable to the destruction of wildfire. The plan calls for self-evaluated collaboration among governments and a diversity of stakeholders. This document states that the Secretaries of Agriculture and the Interior must encourage the WGA to collaborate with state and local governments to implement a long-term approach to protecting communities and the environment from wildfire (2). It goes on to say that collaboration between governments and citizens is a must at all levels, and that the Governors must engage in a collaborative structure that networks government officials and local citizens for planning, decision-making, and implementation of the ten-year plan. It insists, "Key decisions must be made at local levels" (2). Section II describes the plan's collaboration framework, which includes specific outcomes, performance measures, and tasks for implementation. Close attention is paid to the specific outcomes (e.g. eliminating loss of life and reducing injuries to persons and ecosystems), performance measures, leading collaborators, implementation tasks, and timeframes associated with each goal. Section IV serves as a to-do list for obligatory formal review. Section V furnishes a glossary that includes wildfire terminology and collaboration jargon, while Section VI provides a list of acronyms. Appendices describe the plan's relationship to other federal plans and policies, and finally lists the stakeholders and experts who worked with government officials to generate the plan.

White, Alan T.; Zeitlyn, Hale Lynn; Yves, Renard; Lafcadio, Cortesi. 1994. Collaborative and community-based management of coral reefs: lessons from experience. West Hartford, CT: Kumarian Press. 144p

Williams, Ellen M. and Ellefson, Paul V. 1996. Natural resource partnerships: factors leading to cooperative success in the management of landscape level ecosystems involving mixed ownership. Staff Paper Series Number 113. St. Paul, University of Minnesota: 81.

This paper analyzes natural resource partnerships by presenting the results of a comprehensive study. The study involved two components designed to reinforce each other. Firstly, the researchers created and implemented an extensive questionnaire for partnership. The questionnaire requested basic information about the structure, formation, and motive of the partnership, also providing space for the facilitator to share advice with other facilitators interested in cooperative efforts. In addition to the questionnaire, the researchers considered three case studies: the Clinch Valley Bioreserve group in southwestern Virginia, the Dry Creek Basin Resource Management Group in Norwood, Colorado, and the Eastern Upper Peninsula Partners in Ecosystem Management Group in Newberry Michigan. The partnerships were selected with the intention of representing the full gamut of partnerships with regards to issues considered and geographic location. The researchers gathered their data by conducting loosely structured interviews that were recorded for later analysis. Results of questionnaire and the case studies were considered collectively to derive conclusions about natural resource partnerships. The researchers concluded that successful partnerships usually include all stakeholders, involve the sharing information, and identify common goals. Barriers were also identified, including lack of time, fear of losing control, and resistance to change. The authors end by discussing specific recommendations for future research

Williams, Ellen M. and Ellefson, Paul V. 1997. Going into partnership to manage a landscape. Journal of Forestry 95(5): 29-33.

This article summarizes the result of a study conducted in 1995 of forty partnerships across the United States. The authors derived their data from the chief spokesperson or lead facilitator of each partnership. The partnerships varied largely in size, age, structure, composition, etc. but shared in common an interest in working cooperatively to manage and protect forest ecosystems. Following a brief introduction, the article is divided into four parts: Formation of Partnerships, Barriers to Participation, Organizational Structure, and Factors Leading to Success. Each section discusses generalizations about partnerships based on the data. Four tables are included in the article to allow the reader to quickly view the results of the study. Also included is a one-page textbox displaying some of the most important comments gathered during the study. The article does not attempt to analyze the specifics of each partnership, but rather looks at overall patterns and similarities. One of the most important conclusions the authors derive from their data is that lack of funding serves a primary barrier to successful partnerships. The authors also conclude that the most important condition leading to successful partnerships is recognition of common goals and interests. The authors recommend that additional research of partnerships be conducted, as understanding what makes partnerships work will allow resource managers greater success.

Williams, Jack E.; Wood, Christopher A.; Dombeck, Michael P., Eds. 1997. Watershed Restoration: Principles and Practices. Bethesda, MD: American Fisheries Society. 549p

This book advocates watershed restoration as a solution to the declination of aquatic ecosystems within the US. The book focuses on the idea of working together to reverse environmental degradation, focusing on the power individuals have to make a positive or negative difference. The essays within the book come from a variety of authors, including conservationists, federal and state agency managers, and anglers. Part one of the book provides background information on watershed restoration, exploring ethics, ecological principles, and historical perspectives among other topics. Part two addresses the building of partnerships, and essential aspect of watershed restoration. In Part three and four case studies are presented, ranging across the US from Kissimmee River of Florida to Fish Creek of Oregon. Finally, part five attempts to structure a image of the future of watershed restoration. Several chapters are especially relevant to those interested in collaboration for natural resources. Chapter 9, "Changing Roles and Responsibilities for Federal Land Management Agencies" includes a section on collaborative stewardship, addressing agency/non-agency relationships. Chapter 10, "Building Public and Private Partnerships," explores the components of successful partnerships such as flexibility, fund-raising, equity, and participation. Chapter 16, "Building a Collaborative Process for Restoration: Henrys Fork of Idaho and Wyoming," one of the case studies of the book, is a good example of the benefits of collective efforts. From the final section of the book Chapter 25 is most

useful, providing a summary of what can be learned from case studies about how watershed restoration should take place. As a whole the book provides a comprehensive exploration of watersheds and their restoration, and is a good starting point for those interested in sustainability.

Winer, M. and K. Ray 1996. Collaboration handbook: creating, sustaining, and enjoying the journey. Saint Paul, MN: Amherst H. Wilder Foundation.

Creating social change may be too great a task for a single organization or individual. Fortunately, collaboration helps bring together diverse stakeholders, pool scattered resources, and encourage self-interested parties to start using the first-person plural. Although each member comes to the table with special skills and powers, collaboration results in a synergistic phenomenon in which the total power generated by teamwork exceeds the sum of the stakeholders' abilities. Although cooperation and coordination do allow individuals and organizations to unite in important ways, the strong interpersonal bonds formed in collaboration are essential for creating system-level social changes. Important for anyone interested in launching a joint effort or improving an extant collaboration, this guidebook teaches us that collaboration is a journey. The authors map out the milestones, obstacles, and twists and turns we should expect to encounter along this journey. The book is divided into four parts: Part 1 tells the story of a successful collaboration that is now poised to embark on an even greater collaborative journey, while Part II gives a definition of collaboration. Part III details the four stages of collaboration (working individual-to-individual, individual-to-organization, organization-to-organization, and collaboration-to-community) and their respective challenges. Part IV recommends further reading, outlines nineteen factors that lead to collaborative success, and furnishes reproducible worksheets for documenting and evaluating a collaborative effort. This source is important for its detailed practical advice on creating a fruitful collaboration. For example, readers are exhorted to have an initiator, secure letters of commitment, expect conflict, and rely on evaluation. The handbook also deals with the personal disputes and everyday difficulties that inevitably arise in group settings, and offers suggestions for overcoming these challenges.

Wondelleck, Julia M. and Yaffee, Steven L. 1994. Building bridges across agency boundaries: in search of excellence in the united states forest service. Ann Arbor, Michigan, The University of Michigan School of Environmental Science and Management: uneven pagination. [To request a copy contact Diane Smith at desmith@fs.fed.us or (503) 808-2127.]

This reports addresses the capacity of the USDA Forest Service to bridge with outside agencies and groups in a collaborative manner. Topics within the report include: why it is important to create interagency bridges and what types of bridges are most effective; how success may be defined within collaborative groups; what barriers inhibit collaborative efforts from forming; and what lessons have been learned from past collaborative efforts that can be applied to future endeavors. In addition, the authors make recommendations regarding communication, developing capacity, establishing resources, and enhancing cooperative attitudes. The final section of the report provides summary examples of collaborative groups.

Wondelleck, Julia M. and Yaffee, Steven L. 2000. Making collaboration work: lessons from innovation in natural resource management. Washington, DC: Island Press.

This book serves as one of the most comprehensive and frequently referenced resources on collaboration and natural resource management. Based on ten years of research, the authors aim to provide lessons to those interested in practicing or simply understanding collaboration in environmental arenas and beyond. The authors point out that natural resource management practices are undergoing a transition towards collaboration, and thus argue that understanding this process is essential and will become increasingly important in the future. The book is divided into three parts, each with a separate focus and goal. The first section, the Promise and Challenge of Collaboration in Resource Management, defines collaboration and describes the advantages and shortcomings in its implementation. The benefits of collaboration are extensive and include building understanding, building support for wise decision-making, achieving goals, and developing agencies, organizations, and communities. The first section concludes by discussing barriers that prevent successful

collaboration such as mistrust, conflicting goals, and lack of resources. The second section of the book, Lessons from a Decade of People Working Together, draws from case studies of collaboration. While the authors have completed research on unsuccessful collaborative efforts in the past, the goal of this book is to demonstrate that collaboration can and does work and to describe specific circumstances under which success has taken place. The case studies include a variety of collaborative groups such as the Quincy Library Group in California, the Cameron County Coexistence Committee of South Texas, and the Applegate Partnership of southern Oregon. While details of each case study are addressed, the authors also frequently step back to summarize the lessons offered. The final section of the book, Getting Started, moves beyond descriptions and background information and provides readers with specific advice on implementing collaboration. The authors point out that there is no one recipe for success, but do give general steps that agencies or individuals can take toward collaboration.

Wondolleck, Julia M. and Ryan, Clare M. 1999. What hat do i wear now?: an examination of agency roles in collaborative processes. Negotiation Journal: 117-133.

Federal, state and local officials have historically been trained as regulators. However, in 1990, the Clinton Administration passed the Administrative Dispute Resolution Act (P.L. 101-552) and the Negotiated Rulemaking Act (P.L. 101-648), which give federal agencies the authority to use collaboration, negotiation, mediation, arbitration, and other consensus-building methods to make decisions that once were made in a top-down management style. It was hoped that by inviting collaboration among the governmental, private and public entities, the government would reduce the use of judicial and administrative appeals. The new authorities and societal expectations mean that agencies must learn how to listen, negotiate, and collaborate. This article examines 3 case studies in which natural resource managers and environmental regulators participated in 65 different collaborative processes as leader, partner *and/or* stakeholder. *The first study involved the USDA Forest Service and their use of multi-party negotiations to resolve 20 national forest plan appeals. The second study also involved the USDA Forest Service, as well as the U.S. Fish and Wildlife Service and the U.S. Bureau of Land Management. Here 40 collaborative resource management processes were examined ad hoc and continue today. The final study examines five successful negotiated rulemaking experiences at the U.S. Environmental Protection Agency (EPA) that did not result in litigation because of effective negotiation and collaboration. The authors conclude that the most effective agency officials wore all three hats in the collaborative "wardrobe," and attempted to avoid the role of facilitator.*

Wooley, John T. and McGinnis, Michael Vincent. 1999. The politics of watershed policymaking. Policy Studies Journal 27(3): 578-594.

Members of three watershed groups in the Pacific Northwest were surveyed to identify commonalities and differences among them. During the course of the study, one of the watershed groups failed. An analysis of survey results indicates that the failing group was not more conflicted over issues of science, but failed because of strong value differences and lack of trust among the stakeholders (i.e., property owners thought governmental and environmental interests were dominating the effort).

Yaffee, Steven L. and Wondelleck, Julia M. 1997. Building bridges across agency boundaries. Creating a Forestry for the 21st Century. K. A. Kohm and J. F. Franklin. Washington, DC: Island Press. 381-396.

Though in the past the Forest Service functioned effectively and independently, changes over the last century have complicated forest management and increased stalemate and conflict. The authors of this chapter propose a solution: bridges should be built between agency and non-agency. In the first section of the chapter the authors discuss eight benefits of building bridges. Firstly, collaboration can help agencies attain necessary information by creating networks of knowledge. Building bridges can also provide a way to develop and employ effective ecosystem-level management strategies. Often the boundaries of ecosystems do not match legal boundaries which means that managing an entire ecosystem requires the involvement of multiple parties. Collaborative processes can also improve

decision-making by fostering support for agency ideas and choices. In addition, building bridges can help educate the public and in turn decrease the amount of disagreement and conflict. Collaboration works to overcome impasse and get work done. Building bridges also allows the Forest Service to improve the strength and diversity of its workplace, making it more representative and flexible. Finally, collective efforts allow the Forest Service to further assist communities through social services. In the next section of the chapter, the authors present four examples that illustrate successful instances of collaboration: the Negrito Ecosystem Project, the Alaska Recreation Plan, the Elk Springs Timber Sale, and the Kiowa Grasslands. Each case is unique, demonstrating the variety of forms that collaborative efforts can engender. Lastly, the authors provide recommendations for building successful bridges. They suggest that cases of effective collaboration be made available to learn from and that the workplace be adapted to allow interested staff to pursue building bridges.

Yaffee, Steven L.; A. F. Phillips, et al. 1996. Ecosystem management in the united states: an assessment of current experience. Washington, DC: Island Press.

This book takes provides short case descriptions for 105 ecosystem management projects within the United States. The project sites are classified by location, size, initiating agency, landownership pattern, land use pattern, anthropogenic stresses on the project area, and most significant outcome of the project. For each case, at least one individual (usually the project coordinator) was interviewed to determine: what characterized the project area; why the projects started; what the projects produced; what has helped in the advancement of the projects; what obstacles the projects faced; and how these experiences affect future ecosystem management projects.

Yaffee, Steven L. and Wondolleck, Julia M. 2000. Making collaboration work. Conservation Biology in Practice 1(1): 17-25.

This article is based on the coauthors' book, Making Collaboration Work: Lessons from Innovation in Natural Resource Management*. It highlights some of the most important case studies presented in the book, discussing how each case demonstrates the benefits of collaborative efforts. The authors point out that successful collaboration involves acknowledging interdependence, focusing on the problem, entrepreneurial mindsets, and realizing that partnerships consist of relationships between people. In the conclusion the authors address some of the criticisms of collaboration, ending on the idea that despite its drawbacks, collaboration is a beneficial process that has the potential to improve many situations.*

Yaffee, Steven L. and Wondolleck Julia M. 2003. Collaborative Ecosystem Planning Processes in the United States: Evolution and Challenges. Environments: A Journal of Interdisciplinary Studies 31(2): 59-72.

This article offers case studies of collaboration in natural resource management and discusses the legal, social, and scientific changes that gave rise to collaboration. The authors focus on past and present problems, such as the inability of agency officials to take on required roles, rigid attitudes among leaders and line personnel, and environmentalist skepticism. All stakeholders are expected to contribute to collaborative efforts, but many lack the necessary time, money, and experience to collaborate meaningfully. In view of these hurdles, the authors call for capacity building in agencies and communities, legal incentives for participation, and follow-up assessments that measure results on society and the environment.