

ECOLOGICAL STEWARDSHIP WORKSHOP

The National Park Service takes a step toward ecosystem management

By CRAIG L. SHAFER

LAST DECEMBER, 400 PARTICIPANTS from numerous federal agencies and nongovernmental organizations took part in a bold workshop entitled, "Toward a Scientific and Social Framework for Ecologically Based Stewardship of Federal Lands and Waters." The groundbreaking gathering, held on the outskirts of Tucson, Arizona, sought to develop a framework for implementing an ecosystem approach to managing federal lands and waters. Hosted by the University of Arizona, the U.S. Forest Service explained that the meeting aimed at shortening the 10-15 year development time historically needed to make routine use of scientific information in the management of federal lands. The product will be a compendium that outlines the options and alternatives and documents the scientific foundation for ecosystem management. According to the Forest Service, the framework is not intended to provide prescriptive solutions for individual sites or places, but will provide the foundation for the development of agency implementation plans and strategies.

PLANNING THE WORKSHOP

The workshop was a logical step in the progression toward ecologically based land and resource management. In 1994, the Congressional Research Service, the President's Commission on Sustainable Development, and the Interagency Ecosystem Management Task Force each added to the development of ecosystem management approaches on federal lands. This gathering built upon these earlier efforts.

This event was the brainchild of the U.S. Forest Service Chief Jack Ward Thomas, with planning and logistics carried out by Robert Szaro and William Sexton, also of the agency. Many agencies participated in planning sessions around the country to devise how the conference should be organized and what it should cover. This included the National Park

Service, which fully endorsed the event. The NPS involvement was coordinated by Natural Systems Management Office biologist John Dennis and Agate Fossil Beds Superintendent Ruthann Knudson; additionally, the National Park Service held periodic meetings at the conference to assess its involvement. Many sponsors also contributed to the success of the conference. They included the National Fish and Wildlife Foundation, Kendall Foundation, Pinchot Institute for Conservation, and Pew Charitable Trusts, to name a few.

PRODUCTS

The 10-day workshop centered on synthesizing existing scientific knowledge (including social sciences, economics, and legal considerations) and corresponding practical management experience on 30 key topics related to ecosystem stewardship. Each morning, selected *science team* authors delivered summaries of key points in the development of their papers. In the afternoon, *management team* authors focused on the successes, promising options, and failures related to the corresponding science topics. Participants contributed ideas in the afternoon management breakout sessions for the benefit of the management team authors. The result will be two parallel papers on each topic: a synthesis of existing scientific knowledge of the topic and a practical treatment of management experience in implementing these concepts on federal lands. The book containing these papers is being written and is expected to be published by a major university press.

EXPERIENCED PARTICIPATION

A diverse group including the U.S. Fish and Wildlife Service, U.S. Geological Survey, National Biological Service, Boise Cascade, Weyerhaeuser, Woods Hole Oceanographic Institution, Oak Ridge National Laboratories, and the Conservation Fund, and many others, participated in the workshop in hopes that they could make a difference in furthering ecosystem management. The science team

authors included many luminary figures from academia, government, conservation organizations, and industry. The management team authors came mostly from the U.S. Forest Service, Bureau of Land Management, and National Park Service. As the lists in tables 1 and 2 on page 14 attest, the National Park Service is participating in more than two-thirds of the 30 writing teams by providing both management and science team authors.

Agency heads also attended portions of the workshop. For example, the NPS Director and Deputy Director addressed participants, and ten top managers, including members of the NPS National Leadership Council, attended the end of the gathering. Near the close of the workshop, many agency heads, including those from the Bureau of Land Management, U.S. Geological Survey, National Biological Service, U.S. Forest Service, and National Park Service, signed a joint agency statement reflecting common ground. Deputy Director John Reynolds in a talk and subsequent memorandum to the National Leadership Council outlined immediate NPS follow-up to the agreement. More specific recommendations derived from the meeting will continue to be adopted.

CONCLUSION

Miraculously, this all happened within 8 months of the first major workshop planning session. Those involved in its planning thought it could never happen in such a short time—but somehow, it did! Why? Probably because it had to. The Forest Service said that this was the only timetable available to them. We also feared the possibility of political interference. Fortunately, no problems of this nature occurred.

The event helped demonstrate how natural and social science, history, and law are all components of ecosystem management. Such insights and integration will

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be provided on paper and although much work lies ahead to produce the final volume, the process is in motion. Managers will be able to use the detailed reference of over 60 scientific, management, and case study papers. However, the real test of the conference will come later as federal agencies and other land holders begin to implement some of the ideas discussed in Tucson.

GETTING INVOLVED

The process being used to exchange ideas and compile the written reports is provided on the Tucson workshop home page on the World Wide Web. The page may be accessed through the U.S. Forest Service home page or directly at <http://www.fs.fed.us/eco/workshop>. It includes a summary of the process, list of science and management topics, operating plan (including author team members), and both the science and management chapter outlines developed in Tucson. Many sci-

ence topic papers were already in draft at Tucson and are available for review and comment.

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TABLE 1. NPS MANAGEMENT TEAM AUTHORS

Author	Affiliation	Topic
William Anderson	National Capital Field Area Office (202-342-1443)	Cultural values/resource use
Jennifer Bjork	Cumberland Island National Seashore (912-882-4336)	Decision support
Steve Cinnamon	Great Plains SSO (402-221-3437)	Shifting human use
Brien Culhane	Everglades National Park (305-242-7700)	Regional cooperation
Muriel Crespi	Archeology and Ethnography Program, WASO (202-343-8156)	Cultural values/resource use
Joan Darnell	Alaska SSO (907-257-2648)	Legal perspectives
John Dennis	Natural Systems Management Office, WASO (202-208-5193)	Ecological functions; Scale phenomena
Mary Foley	New England SSO (e-mail—"mary_foley@nps.gov")	Land condition over time
Rick Harris	Curecanti National Recreation Area (970-641-2337)	Ecological classification
Ron Hiebert	Midwest Field Area Office (402-221-3461)	Population viability; Uncertainty & risk assessment
Anne Hitchcock	Museum Management Division, WASO (202-343-8138)	Data management, collection, and inventory
Dan Huff	Intermountain Field Area Office (303-969-2651)	Human role
A. Trinkle Jones	Western Archeological and Conservation Center (520-670-6501)	Heritage management
Donna Kostka	National Center for Recreation and Conservation, WASO (202-343-3669)	Social system functions
Ruthann Knudson	Agate Fossil Beds National Monument (308-668-2211)	Human role; Ecological economics
Jean McKendry	University of Idaho CPSU (208-885-7129)	Case study—Columbia River
Susan Mills	Alaska SSO (907-257-2573)	Stewardship, consensus processes
Earl Neller	Kalaupapa National Historical Park (808-567-6802)	Cultural values/resource use
Kathleen Picarelli	Chesapeake & Allegheny SSO (215-597-1628)	Regional cooperation
Richard Ring	Everglades National Park (305-242-7700)	Restoration & maintenance; Case study—South Florida
Dave Ruppert	Rocky Mountain SSO (303-969-2879)	Heritage management
Ray Sauvajot	Santa Monica Mountains National Recreation Area (818-597-1036)	Ecosystem and landscape diversity
Craig Shafer	Natural Systems Management Office, WASO (202-219-8934)	Ecosystem and landscape diversity
Page Spencer	Alaska SSO (907-257-2625)	Disturbance and temporal dynamics
Howie Thompson	Denver Service Center (303-969-2461)	Public expectations/shifting values
Gary Williams	Natural Resource Information Division, NRPC (970-225-3539)	Monitoring and evaluation

TABLE 2. NPS SCIENCE TEAM AUTHORS

Author	Affiliation	Topic
Don Calloway	Alaska SSO (907-257-2408)	Social/cultural classification
Steve Cinnamon	Great Plains SSO (402-221-3437)	Shifting human use
Muriel Crespi	Archeology and Ethnography Program, WASO (202-343-8156)	Cultural values/resource use
Dan Huff	Intermountain Field Area Office (303-969-2651)	Land condition over time
Rebecca Joseph	New England SSO (617-223-5056)	Social/cultural classification
Ruthann Knudson	Agate Fossil Beds National Monument (308-668-2211)	Human role
Gary Machlis	University of Idaho CPSU (208-885-7129)	Human ecosystems introductory book chapter; workshop summary