Limits of Acceptable Change and Related Planning Processes: a Workshop

David N. Cole Stephen F. McCool

The Limits of Acceptable Change (LAC) planning framework was initially proposed in the early 1980's as a means of improving recreation management of protected areas (Stankey and others 1985). Since then, a number of related planning processes have been developed—Carrying Capacity Assessment Process (CCAP) (Shelby and Heberlein 1986), Visitor Impact Management (VIM) (Graefe and others 1990), and Visitor Experience and Resource Protection (VERP) (National Park Service 1993). These processes are similar conceptually and were developed specifically to deal with the recreation carrying capacity issue in wildernesses and National Parks. Of these processes, LAC and VERP have gained the greatest support and use among land management agencies. Throughout this proceedings we will frequently refer to "the LAC process" in a generic sense that refers to all these processes.

Since 1985, managers and researchers have gained considerable experience in the application of LAC processes to recreation management in protected areas. Evidence shows that some of the innovations contained within LAC and VERP have had a positive influence on the traditional planning efforts of land management agencies. These contributions include greater specificity to future outcomes, as well as more attention to effective public involvement. Considerable enthusiasm exists for applying these frameworks to new and innovative situations. However, problems with these processes have also surfaced, and substantial barriers to their implementation exist.

This publication presents the results of a workshop convened to evaluate and learn from experience in applying LAC processes and to suggest means of increasing the utility of these processes. Specific objectives of the workshop were to (1) document the original intent of the LAC process; (2) examine the experience gained from application of the LAC process, including its successes, its failures, and barriers to its application; (3) describe and evaluate ways that the LAC process has been modified for other purposes and by institutions other than the Forest Service; (4) assess opportunities for and barriers to extension of the LAC process beyond application to recreation issues in wilderness; and (5) suggest ways of overcoming problems with the LAC process—whether through changes in the process itself or the context in which it is applied.

The workshop was jointly organized by the Aldo Leopold Wilderness Research Institute and the School of Forestry at the University of Montana. It was held on May 20-22, 1997, at the University of Montana's Lubrecht Experimental Forest and included 12 invited participants. The number of invitees was kept small to encourage meaningful participation and focused discussion. The workshop was confined to individuals with substantial experience with LAC, VERP, or related processes.

Six months prior to the workshop, attendees were asked to submit a list of issues, questions, or concerns related to these processes. From these lists and their own ideas, David Cole and Steve McCool developed a paper that identified and discussed issues that might usefully be debated at the workshop. These issues were organized into three main topics: what LAC is and the extent to which its scope can be extended; operational issues with LAC; and how LAC fits within broader contexts. This "issues" paper was distributed to all participants about 3 months before the workshop. Attendees were asked to come to the workshop with extensive notes and thoughts about the ideas presented in the paper and how best to resolve some of the issues. At the same time, participants prepared papers on assigned topics. Those papers were distributed to other attendees in April. Again, attendees were asked to come to the workshop with notes and thoughts about the ideas expressed in the papers. At the May workshop, the first day was devoted to brief presentation and in depth discussions of each prepared paper. Particular attention was given to documenting the positive outcomes from LAC processes, problems experienced, means of overcoming these problems, and concepts and terminology that need clarification.

The second day and third morning were devoted to intensive discussion of a few high priority issues and questions. Considerable time was spent discussing Cole's generic model of the LAC process, stated in terminology that is not specific to recreation carrying capacity issues (Cole 1995; Cole and Stankey, this proceedings). Once refined and agreed to, this model proved useful in isolating the critical elements of the LAC process, and made it possible to better describe the range of situations to which the LAC process could be applied. Workshop participants agreed that the conceptual bases of the LAC and VERP processes were identical. They identified one substantial desirable procedural modification and suggested numerous clarifications of concept and terminology. Much of the final morning was devoted to identifying lessons learned from the LAC experience with implications for general land management planning.

This proceedings is organized in three parts. The first section, the bulk of the proceedings, consists of the invited papers prepared by workshop participants before the workshop and subsequently revised on the basis of workshop

In: McCool, Stephen F.; Cole, David N., comps. 1997. Proceedings—Limits of Acceptable Change and related planning processes: progress and future directions; 1997 May 20–22; Missoula, MT. Gen. Tech. Rep. INT-GTR-371. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

David N. Cole is Research Biologist, Rocky Mountain Research Station, USDA Forest Service, P.O. Box 8089, Missoula, MT 59807. Stephen F. McCool is Professor, School of Forestry, University of Montana, Missoula, MT 59812.

discussions. In these papers, authors discuss the original intent behind LAC, evaluate experience with several LAC applications, describe the institutional and public context of LAC implementation, compare differences between LAC-type processes, and assess the possibility of extending LAC beyond the issue of recreation in protected areas. The second section, "synthesis papers," consists of three papers written by David Cole and Steve McCool after the workshop. These papers integrate portions of their original "issues" paper, content of the workshop discussions, and their additional ideas and opinions. The papers deal with (1) the suggested modification of the LAC process, as well as clarifications of concept and terminology; (2) extending LAC beyond recreation issues in protected areas; and (3) lessons learned about and from 15 years of applying LAC. The third section is an annotated bibliography of sources of information that might be useful to someone attempting to use an LAC or related process.

We hope that readers of this volume will gain a greater appreciation of LAC processes, their distinctive strengths, and the range of situations to which they can usefully be applied. We also hope this volume will demonstrate that LAC is not an appropriate planning framework in all situations, and will illustrate the many challenges to successful implementation of LAC. We have tried to identify these challenges and hope that many of our recommendations for

dealing with them will advance the state of knowledge in applying LAC and in planning for the management of all natural resources.

References

Cole, David N. 1995. Defining fire and wilderness objectives: applying limits of acceptable change. In: Brown, James K.; Mutch, Robert W.; Spoon, Charles W.; Wakimoto, Ronald H., tech. coords. Proceedings: symposium on fire in wilderness and park management; 1993 March 30-April 1; Missoula, MT. Gen. Tech. Rep. INT-GTR-320. Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain Research Station: 42-47.

Graefe, Alan R.; Kuss, Fred R.; Vaske, Jerry J. 1990. Visitor impact management: a planning framework. Washington, DC: National Parks and Conservation Association. 105 p.

National Park Service. 1993. Special report—VERP: a process for addressing visitor carrying capacity in the National Park System. Denver, CO: U.S. Department of the Interior, National Park Service, Denver Service Center, unpublished report. 20 p.

Shelby, Bo; Heberlein, Thomas A. 1986. Carrying capacity in recreation settings. Corvallis, OR: Oregon State University Press. 164 n

Stankey, George H.; Cole, David N.; Lucas, Robert C.; Petersen, Margaret E.; Frissell, Sidney S. 1985. The limits of acceptable change (LAC) system for wilderness planning. Gen. Tech. Rep. INT-176. Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain Forest and Range Experiment Station. 37 p.