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Visitor Needs And User Impact

by

H. Ken Cordell, Michael H. Legg, and Karen E. Cathey

The intent of Congress in establishing a National Wilderness System was to protect areas of federal land where there were outstanding opportunities for solitude and the imprint of man's presence was essentially unnoticeable. However, as wilderness use has increased the opportunities for solitude in a pristine environment is often threatened by the presence and impact of large numbers of visitors. The papers in this section deal with management issues generated by users that affect the recreational carrying capacity of wilderness areas.

The carrying capacity of a wilderness area can be divided into three major components:

1. The capacity of the resource to bear the impact of recreational activity;
2. The users attitudes and perceptions of wilderness and the manner in which these affect visitor behavior; and
3. The management regulations and activities that affect visitor behavior.

All of the above combine to determine the quality of the wilderness recreation experience received by the visitor.

The impacts users have on the natural resources of a wilderness area vary greatly. Often the attraction of crowds to a popular site within a wilderness area causes damage to the actual experience the area was established to protect. The most common problems involve compaction of soil, alteration of vegetation, and pollution of water. What was once a sloping grassy meadow may become a bare eroded hillside due to overuse by campers or injudicious grazing of livestock. Beyond the vegetative damage from an occasional escaped campfire is the destruction that occurs as users collect firewood. The pollution of wilderness streams and lakes by visitors has led to disease problems such as Giardiasis.

Solutions to user impacts include: dispersion and limitation of use, closure of heavily impacted areas for restoration, and increased maintenance to rejuvenate impacted areas. Other solutions include the manipulation of user behavior through educational programs on minimum impact camping and wilderness courtesy.

The users perceptions and attitudes concerning wilderness are largely influenced by previous experience and education. Those that are familiar with information concerning visitor impact seem to be more perceptive of

the changes that are occurring due to wilderness use and are more conducive to management practices and regulations to control the damage. The effectiveness of management through information depends upon clear definition of desired wilderness conditions. Attitudes formed by visiting one wilderness area may not be appropriate in another. Educational efforts must be tailored to the resources and visitors of each area. Personal contacts with users have been shown repeatedly to be the most valuable form of contact available in accomplishing management goals.

Management practices are perhaps the most important component of wilderness carrying capacity. Managers, through their decisions on factors such as the initial selection, the extent of site maintenance, and the amount of visitor regulations, affect not only the quality of each wilderness recreation experience but the overall quality of experiences available.

The changes that have occurred in Wilderness use over the past several years, not only in number of users, but in the technology affecting wilderness camping supplies have forced managers to become more aware of visitor behavior patterns. The decreasing size of wilderness areas, especially those in the highly populated eastern half of the U.S., will also force reconsideration of management techniques and emphasize the importance of good communications with users.

Perhaps the most important consensus from the papers in this section was that wilderness users have demonstrated an amazing willingness to modify their behavior in order to protect the resource and the quality of their own recreation experience when regulations are clear and well explained.

MANAGEMENT IMPLICATIONS

Our interpretation of the principal implications of the papers presented in this section follow:

1. Permits and rationing measures can successfully reduce resource impacts and such measures will for the most part be acceptable to users.
2. The diversity of physical settings represented by the

National Wilderness Preservation System probably results in a diversity of personal expectations and experiences and thus may create a need for diverse management practices.

3. Impact monitoring and strategies to alleviate impacts are necessary for an integrated, effective wilderness management program.

4. Camping use should be targeted to wilderness sites that have the most resistance to human impact. Impact resistance classification methodology is needed.

5. Information should be used as a management tool to affect dispersal of users. Effectiveness of management with information depends on clear definition of desired wilderness conditions, and potential redistribution of impacts should be considered.

6. Classification of wilderness areas by use density will likely prove more useful for managing and for applying research findings than the previously used east-west dichotomy.

7. Development and other conversions of forest land should consider their impacts on the availability of roadless areas as Wilderness System candidates or as substitute sites for wilderness experiences.



**WILDERNESS AND NATURAL
AREAS IN THE EASTERN
UNITED STATES:
A MANAGEMENT
CHALLENGE**

Edited by:

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