

Cows, Conflict, and Communication: A Case Study In Southern Colorado

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In recent years, public lands grazing has become an issue of increasing concern to public land managers, ranchers, and the general public (e.g. Turque, 1991, Quinlan, 1992, Frazier, 1992). The commodity value of our public lands for timber, forage, and mining has been recognized since long before the turn of the century, but it has only been in recent decades that other public land values such as recreation have been recognized by public land managers (Macfarlane, 1992). And although policy attempts have been made over the years to regulate the growth and development of commodity resources (e.g. Taylor Grazing Act of 1934, Minerals Leasing Act of 1920), legislation has done little to anticipate the conflicts between wildland values.

Since 1988 there has been apparent disagreement between the Ouray Ranger District of the Uncompahgre National Forest in Southwest Colorado and the livestock permittee of the Big Cimarron Cattle Allotment regarding management objectives. In 1991, at the request of the permittee, a Section 8 Review Team was formed to evaluate the situation (see Note 1). The outcome of this review process was a two-fold recommendation: (1) that data be systematically gathered regarding visitor perceptions about the issue of public land grazing on the Big Cimarron drainage, and (2) that interpretive materials be developed to enhance visitor understanding of grazing.

Today, as more and more citizens seek recreational opportunities, and as industry and private sector businesses seek to maintain existing commodity production on public lands, the assumptions of multiple use are often strained (Macfarlane, 1992). Conflict sometimes results. The problem lies in how to accommodate all public land uses fairly, and at the same time, maintain a healthy sustainable resource base.

Inherent in the problem of fair and equitable distribution of public land benefits, and an important consideration in resolving complex and controversial issues associated with land use conflicts, is the notion of communication and education (often referred to as resource interpretation). If traditional but legitimate public land commodity uses such as livestock grazing increasingly conflict with recreational uses, the role of public agencies to inform and educate the user publics becomes critical. Furthermore, decisions about the wise allocation of scarce resources among competing user groups are best made by an informed public (Hendee,

Stankey, & Lucas, 1990). Educating the public about natural resources and land use issues then is essential to effective land management (Cordell, Bergstrom, Hartmann, & English, 1990).

One goal of providing information to the visiting public is to facilitate a better match between visitor expectation and the visitor experience which in turn contributes to greater visitor satisfaction (Manning, 1986). Seldom however, is adequate time and energy spent on researching and utilizing public perceptions to develop appropriate and quality interpretation. Clearly, there is a need to: (a) develop educational strategies based on a better understanding of visitor perceptions of and tolerance for user conflicts; (b) devote time and attention to developing materials which are relevant to the visitor experience; and (c) evaluate the effectiveness of those materials on visitor perception of conflict.

Methods

These objectives were the focus of a research project conducted under a cooperative agreement between the College of Natural Resources at Colorado State University, the Grand Mesa/Uncompaghre National Forest, and the Rocky Mountain Forest Experiment Station. The first phase of this research was a visitor perception study (primarily descriptive) conducted on the Big Cimarron Allotment in southwest Colorado to determine the nature of public perceptions, misunderstandings, and level of knowledge about public land grazing in general and on that allotment specifically.

An on-sight self-administered survey was systematically distributed between June and October 1992 to visitors in developed campgrounds, dispersed camping areas, at fishing areas and hiking trailheads, in wilderness areas, and along travel corridors. Simultaneously, about 600 head of cattle were grazed by permit throughout the five pastures of the Big Cimarron allotment.

A total of 574 surveys were distributed, of which 508 were used in final data analysis. The survey was designed to capture: (a) general information about visitor interests and activities; (b) without queuing, the degree to which the grazing issue was salient; (c) visitor beliefs about grazing specifically in the Big Cimarron area and in general; (d) preconceived notions about a series of grazing related terms; and (e) basic sociodemographic information. In trying to capture perceptions about grazing in general, a series of 11 sub-issues were identified. Pro and con statements were formulated for each of these 11 sub-issues (22 total statements). Attitudes were measured using five point belief and evaluation Likert scales.

On the questionnaire, a combination of both closed- and open-ended questions was employed. The quantitative data were analyzed using a variety of descriptive statistics and some inferential statistics to determine the

relationships between some of the variables. The qualitative data were analyzed using content analysis.

Results

Overall, visitors to the Big Cimarron area are well-educated (70% have more than a high school education) and have average and above household incomes (80% make over \$20,000 per year). Visitors represent a wide variety of occupations although over 20% (the largest single occupation group) are retired. Visitation to the area is predominantly local citizens (41%) or state residents from the other areas of Colorado (25%), and represents a mix of urban and rural visitors (59% and 41% respectively).

Visitors come to the area primarily because of its scenic beauty and the variety of available recreation opportunities. Over 80% of the visitors come to camp, over 70% come to hike and fish, and about 68% come to view wildlife. Overall, 95% of the respondents reported that they had a good or excellent visit to the Big Cimarron area.

With regard to livestock grazing in the area, most respondents (82%) encountered some type of livestock during their visit. When asked about their initial reaction to livestock grazing in the area, about half as many respondents had a negative initial reaction (18%) as had a positive initial reaction (38%). However, a significant proportion were confused, undecided, or neutral (44%) when asked their reaction. Similarly, when asked to self-select one of four different positions which best represent their ideas about grazing in general, only 26% felt grazing on public lands is acceptable under the current policy, 15% felt that grazing was not an acceptable use of public lands, some needed more information to make a fair judgement (19%), and the largest group felt that grazing would be acceptable with improved management (40%).

Responses to the 22 grazing sub-issue statements revealed a significant number of visitors who wanted more information about grazing fees, grazing in wilderness, beef production on private lands vs beef produced on public lands, and the value of adjacent ranch lands as buffer zones. Conversely, visitors do not seem to need as much information about the beef and health issue or about the cowboy traditions and ranching as a lifestyle.

When asked to define terms related to natural resource management and grazing, most respondents understood and could define terms like "multiple use," "habitat," and "permittee." Some terms however, such as "riparian" and "wilderness" were less understood by many visitors suggesting that perhaps these terms need to be clarified in Forest Service interpretive materials.

Discussion

Results of Phase I research revealed that there is indeed an opportunity for the Forest Service to enhance visitor understanding of grazing in the Big Cimarron—its history, the concepts of multiple use, and steps take by the Forest Service and the permittee to improve grazing practices. Although the initial reactions to grazing in the Big Cimarron were not significantly negative, substantial numbers of visitors are apparently undecided and would like more information about grazing.

Recognizing that an interpretive strategy may help alleviate public perception of land use conflict and may help facilitate a better understanding about visitor learning in non-traditional settings, a set of interpretive materials was developed for the Big Cimarron. These materials were developed based on what was learned about visitor perceptions in Phase I. The interpretive strategy included: (a) an animated orientation map which contains the aspects of multiple use management as it occurs on the Big Cimarron; (b) a interpretive brochure specifically about grazing; and (c) a personal interpretive plan (roving interpretation and campfire programs) to be implemented by a seasonal ranger. Subsequent research, the second phase of this study, will test the effectiveness of this interpretive strategy.

References

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Note

1. Section 8 of Public Law 95-514 (October 15, 1978) articulates the specific requirements of Allotment Management Plans and states that, "allotment management plans shall be tailored to the specific range condition...and shall be reviewed on a periodic basis..."