

PEOPLE'S PERCEPTIONS OF MANAGED AND NATURAL LANDSCAPES

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Research was undertaken to identify the opinions of what people saw in slides of managed and unmanaged landscapes. Most people were attracted by natural landscape features. Clearcuts were reported less frequently than roads, but dislike of them was more than 30 percent greater. Natural openings, bare areas, and sparse tree cover also were disliked.

Introduction

Visitors to wildland areas of the United States see an untold variety of natural and manmade features that comprise our National landscape. But, what do they really see, and do they express their feelings about their perceptions in some meaningful way? People reportedly endow meaning to landscapes (Lynch 1960; Lee 1976). Landscape architect Garrett Eckbo (1969) said, "the physical landscape is visual; the social landscape is verbal." Thus, it is through words that people express what landscapes mean to them and their concern for what is seen. Verbal expressions of what people see in landscapes provide not only clues to the meanings they assign to landscapes, but also their concern for management and its influence on visual quality. Thus, verbal expression may offer managers indicators of how the public may react to natural resource management and suggest management alternatives that are sensitive to the desires of the viewing public.

Efforts to assess public perceptions and concerns about the landscape and its management led to the development of sensitivity levels in the Visual Management System used by the Forest Service to plan management within visual constraints. Presumably, sensitivity levels measure viewer interest in the scenic quality of landscapes by determining the frequency of visitor travel along highways. However, counting people cannot be construed as an expression of public interest or concern for what may have been seen in landscapes.

A study, completed in 1989, was designed to provide some measure of public sensitivity or concern for landscapes and their management. One objective was to identify distance thresholds at which objects of a known size could be detected and identified (Magill 1990). In addition, opinions were sought about objects and management actions that people saw as indicators of concern for landscapes or to suggest how to develop such indicators (Magill 1992). This paper describes people's perceptions and opinions about natural and managed landscapes.

Methods

Respondents were shown color slide sets of various landscape components, structures, and management actions from throughout the western United States. Slides were randomly distributed into 8 slide shows of 30 slides each. During shows, respondents completed a questionnaire providing brief descriptions of the two objects, in order of importance to them, that attracted their attention in the slides. Also, they indicated whether they liked, disliked, or were indifferent to the objects seen. Thus, all objects reported by respondents were natural objects, manmade objects, or management actions that included trees, forests, cuttings, clearings, and regeneration of trees.

Results and Discussion

The majority of respondents were long-term suburban residents of primarily California. Forty-one percent of them were professionally trained persons and another 29 percent were retirees. Eighty percent had attended college, and 73 percent had family gross annual incomes of \$25,000 or more. Two-thirds of the respondents were male, and most recreated on wildland areas 3 to 10 times per year.

The 788 respondents reported seeing 154 objects or conditions as being most important to them in the slides of managed and unmanaged areas. Among the objects were 30 vegetative conditions such as brush, forest stands, woodlands, forest groves, tree growth, sick trees, and vegetation.

According to psychologist M.D. Vernon (1968), people tend to focus attention on things having the greatest interest or importance to them while things of lesser interest are seen only peripherally. People also tend to be more interested in and assign more importance to natural landscape elements, such as forest stands and mountain ranges and peaks, in contrast with various management actions like roads and clearcuts (Magill 1990). These conclusions were fortified by analysis of specific terms used by respondents to describe the two most important objects or conditions they saw. Most people, in this study, were attracted by natural landscape objects seen in slides, regardless of management or lack of it. And, 79 percent of the responses were concerned with various combinations of trees, hills, valleys, mountains, vegetation, and other objects descriptive of natural landscape conditions.

Forest Stands and Trees

Foremost among the favored landscape elements were "forest stands," which accounted for nearly 13 percent of the responses for scenes of managed and unmanaged landscapes. Forest stands were reported nearly 40 percent more frequently than any other natural object, and 81 percent of the responses indicated that they were liked. Forest stands contributed 23 percent of the responses associated with viewing scenes of regeneration, and 82 percent of those responses indicated that viewers liked the regenerating forests. For such sites, forest stands likely were reported in lieu of regeneration—probably because the term, "regeneration," may not be meaningful to most respondents. When the terms, "valleys," "hills," "mountains," or "peaks," were modified by forested, the locations that were described were liked more than other locations described by the unmodified terms. Clearly, forests are important visual components of our landscapes.

Bare Areas and Brush Clearings

"Bare areas" rated among the 10 most frequently reported natural landscape elements, and according to a majority of responses (61 pct), they were disliked. As might be expected, "barren valleys," "bare hills," "bare mountains," and "bare peaks" were also disliked. Yet, if any of these features were described as forested, grassy, or green, they were liked. Two vegetative conditions may be related to perceptions of bareness. Landscapes that were reported as having either "no vegetation" or "no trees" also were disliked even more than bare areas. Apparently the respondents preferred seeing landscapes that supported trees or some other type of vegetation. Moreover, they disliked "sparse forests" (42 pct), "sparse vegetation" (53 pct), or "even-sized trees" (72 pct), while they preferred "green vegetation" (86 pct), "green valleys" (81 pct), "green hills" (80 pct), and "green mountains" (85 pct).

People saw brush clearings, done to favor tree growth, as "bare areas" or "clearcuts." In all likelihood, the activities were not identified as "brush clearings," because respondents may have been unfamiliar with that type of land management and with the terminology used to describe it. Similar arguments could be applied to type conversions for livestock or wildlife habitat improvement and to tree regeneration after timber harvesting, brush clearing, or burns. These misinterpretations suggest that better public understanding of natural resource management is needed. Gaining understanding may best be done by listening to people, learning how they want their resources managed, then

adapting management, if possible, for the benefit of the people and the resources. Accomplishing the job may not be easy. Resource managers have been reported to have difficulty with public interactions including a tendency to seek a change in public opinion, but not in their own management practices (Magill 1988).

Tree Regeneration

Tree regeneration after timber harvesting was the subject of several scenes. Regeneration was the last of the 20 objects most frequently reported by respondents. People reported seeing "growth," "new growth," "tree growth," "young trees," "plantations," "farms" or "ranches," and "pastures." Any of these could be descriptive of regeneration, and all were liked. In general, most people looked at scenes of regeneration, but they reported seeing "forest stands."

Many areas that were fully stocked with regeneration were described as "clearcuts," "cuttings," "bare areas," and "logging"--all terms accurately described the sites being viewed. Either the respondents were unable to recognize the regeneration on such areas, or they simply failed to mention it. Regardless, when such scenes were perceived to involve timber harvesting, most were disliked (60 pct).

"Snags" and "dead trees" accounted for 5 percent of the responses of those who viewed scenes of regeneration, but opinions were

equally divided between liking and not liking them. Those that liked the snags and dead trees were among the members of professional societies and various conservation organizations. On the other hand, members of sportsmen's clubs and industrial associations tended to dislike dead trees and snags. Possibly, they associated them with fire prevention messages that identify snags and dead trees as contributors to the spread of wildfires, whereas the other groups saw them as beneficial to wildlife.

Clearcutting and Other Timber Harvesting

Despite the public debate about management versus environmental protection on public lands in the United States, only two management actions were reported among the 22 most frequently reported objects for scenes of managed landscapes (Table 1). On lands where timber harvesting was in progress, "forest stands," "mountain ranges," "dome peaks," "meadows," "hills," and "bare areas" were reported even more frequently than clearcuts. However, in combination, "clearcuts," "cuttings," "clearings," "selection cuts," "partial cuts," "regeneration cuts," and "shelterwood cuts" accounted for a total of 6 percent of all objects reported on timberlands. The frequency of response was negligible for the last four cutting types. "Timber cuttings," unspecified as to type of cutting, were disliked, according to 64 percent of the responses, and "clearings," either tree cuttings or brush clearings, were disliked according to 51 percent.

Table 1--The objects most frequently reported for managed landscape and opinions of them.

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Opinions of Objects Reported						
	Liked		Disliked		Indifferent	
Objects Reported	Percent	(n)	Percent	(n)	Percent	(n)
Forest stands	81.2	(3500)	3.3	(144)	10.0	(431)
Mountain ranges	78.3	(1999)	2.8	(71)	13.7	(349)
Dome peaks	78.8	(1791)	4.0	(90)	12.9	(292)
Roads	21.1	(391)	42.7	(791)	30.8	(570)
Hills	64.9	(927)	7.7	(110)	21.5	(307)
Meadows	72.3	(690)	6.8	(65)	16.4	(157)
Bare areas	11.0	(104)	61.5	(582)	22.0	(208)
Brush	46.9	(409)	17.8	(155)	30.0	(262)
Clearcuts	9.3	(77)	75.7	(630)	12.7	(106)
Color contrasts	68.8	(487)	12.1	(86)	14.1	(100)
Rocks	69.1	(447)	6.8	(44)	19.6	(127)
Lakes	88.6	(544)	1.8	(11)	4.4	(27)

Some managers may be surprised to learn that "clearcuts" were second to "roads" as the most frequently mentioned type of landscape management, especially considering the number of appeals and law suits concerned with timber harvesting. Furthermore, clearcuts were not the management action that was most disliked, though they were more frequently mentioned than the other actions that were disliked more (Table 2). Dislike of "overgrazing" and "poor management" was 10 percent greater

than for clearcutting. Also, respondents reported seeing "cuttings," "logging," and "clearings" after viewing scenes that actually contained clearcuts, but the frequency of responses was much less than for clearcuts as was the percentage that disliked them. Nevertheless, clearcuts accounted for over 3 percent of the responses for areas subject to timber harvesting, and 67 percent of the responses indicated clearcuts were disliked.

Table 2--Opinions of management objects on managed landscapes (ordered from most to least disliked)						
Opinions of Objects Reported						
	Liked		Disliked		Indifferent	
Objects Reported	Percent	(n)	Percent	(n)	Percent	(n)
Overgrazing	2.0	(1)	89.9	(44)	4.1	(2)
Poorly managed	11.4	(5)	86.4	(38)	2.3	(1)
Clearcuts	9.3	(77)	75.7	(630)	12.7	(106)
Powerlines	4.1	(10)	68.9	(166)	20.7	(50)
Cuttings	11.5	(33)	68.3	(196)	16.0	(46)
Smoke or smog	14.5	(22)	67.8	(103)	9.2	(14)
Logging	16.8	(38)	61.9	(140)	11.9	(27)
Microwave towers	7.1	(14)	59.7	(117)	28.6	(56)
Clearings	14.0	(34)	55.4	(134)	26.0	(63)
Mines	14.8	(18)	51.6	(63)	18.0	(22)
Ski areas	25.5	(51)	45.5	(91)	27.0	(54)
Roads	21.1	(391)	42.7	(791)	30.8	(570)

The intensity with which clearcuts were disliked was emphasized by respondents who reported seeing "clearcuts" in natural or unmanaged areas. However, the information collected did not identify specifically what was perceived as clearcuts. The size of whatever was seen possibly was small enough to have prevented accurate discrimination. Also, people may have reported various cuttings and clearings because their attention was attracted to natural openings, bare areas, or sparse tree cover that led them to report what they expected to see rather than what was seen (Vernon 1968). Regardless, reports of disliking clearcuts were 17 percent greater when people saw scenes of natural areas as contrasted with scenes of timber harvesting.

Membership in different social groups provided some insight into who liked or disliked clearcuts. Fifteen percent of the responses for timber harvest areas indicated a liking of clearcuts predominantly associated with people belonging to professional societies, industrial associations, and the unaffiliated. Fifty-three percent of the responses showed that members of industrial associations liked the scenes of clearcuts, while only 20 percent or less indicated that members of professional societies or the unaffiliated liked clearcuts. The strongest disliking, over 80 percent of the responses, was expressed by members of influential conservation groups. Even though a few members of

sportsmen's clubs indicated a liking for clearcuts, most responses (72 pct) showed nearly as much opposition as among conservation groups.

The unfavorable reactions to clearcuts or things perceived as clearcuts are in harmony with numerous appeals of forest plans and injunctions against logging that reflect public disenchantment with clearcutting. One might contend the data are too provincial to merit comparison with a nationwide public issue. However, the dislike associated with clearcutting, in this study, came from persons who viewed numerous scenes of clearcuts located in the States of California, Idaho, Montana, Oregon, and Washington. All are locations within the heart of the present timber controversy. Thus, the findings seem to support warnings that change in forest management is needed in the United States. Change is manifesting now as "ecosystem management," which is suppose to couch forest management in scientifically supported ecological principles at the landscape level. Thus, it is expected to create sustainable forests while providing a full range of tangible and intangible benefits. At this stage, according to Assistant Secretary of Agriculture James R. Lyons, ecosystem management may be "more art than science" (1993). While, it is gaining the support of many people, others view it with skepticism.

This paper described a different approach for evaluating public perceptions and opinions of managed landscapes. It told what a segment of the public saw in color slides of managed and unmanaged landscapes and identified what the respondents liked and disliked about the scenes. Thus, it provides support for some opinions managers may have had about public reaction to the negative influence of various land management actions. Ideally, the approach will provide managers with better understanding of public concerns for the visual impact of resource management practices on wild landscapes and make management more visually sensitive to public desires.

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