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ATTITUDES OF LANDSCAPE ARCHITECTS IN THE USDA FOREST
SERVICE TOWARD THE VISUAL MANAGEMENT SYSTEM

THE UNIVERSITY OF ARIZONA

M.L.ARCH. 1984

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ATTITUDES OF LANDSCAPE ARCHITECTS
IN THE USDA FOREST SERVICE TOWARD
THE VISUAL MANAGEMENT SYSTEM

by

Nora Alix Laughlin

A Thesis Submitted to the Faculty of the
SCHOOL OF RENEWABLE NATURAL RESOURCES
In Partial Fulfillment of the Requirements
For the Degree of
MASTER OF LANDSCAPE ARCHITECTURE
In the Graduate College
THE UNIVERSITY OF ARIZONA

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STATEMENT BY AUTHOR

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ABSTRACT

The Visual Management System was developed to provide a process whereby the management of the 'seen' aspects of both the land and the activities which occur on it could be carried out. Introduced into the USDA Forest Service in the early 1970s, the Visual Management System has been a large part of the work and responsibility of landscape architects in this Agency for more than a decade. This study assesses the initial success of the Visual Management System in providing for the management of the visual resource by exploring: the landscape architects views of the System as a whole; the landscape architects views of the primary elements that comprise the System; and the landscape architects perceptions of the attitudes of other managers in the Forest Service toward the System. Based on the attitudes expressed, projections are made on the probability that the Visual Management System is providing a firm base from which to manage the visual resource.

CHAPTER 1

THE PROBLEM STATEMENT

For a decade now one of the major thrusts of the work of landscape architects in the USDA Forest Service¹ has been the formal consideration of the visual resource. This work has included the inventory and analysis of the visual resource, determination of visual quality objectives and incorporation of the visual resource into the land use planning (LUP) process. A study done in 1978 found that, "The Forest Service's 250 landscape architects [spent] 1/3 of their time on VRM [Visual Resource Management]. An additional 1/3 [was] spent on land use planning, some of which involves incorporation of visual resource information with other resource material into the overall planning process." (American Society of Landscape Architects, 1978, p.4.)

Managing for scenic qualities and aesthetics is not new for the landscape architects in the Forest Service; but the Visual Management System (VMS), a formal attempt to provide measurable standards for the management of the visual resource, is relatively new. (U.S. Department of Agriculture, 1974, p.2.) With its beginnings in the early 1970s,

1. The Forest Service is an agency in the U.S. Department of Agriculture.

the Visual Management System has been explained by the USDA in a series of handbooks; the Forest Service plans to produce further handbooks, revisions and improvements to the System.

This decade of use provides a base from which to make an initial evaluation of the Visual Management System. All National Forests have completed a visual inventory and analysis and are in various stages of completion of a Forest Plan, the final document of the planning process which contains an assessment of all pertinent resources including the visual resource. Since the landscape architects in the Forest Service have been instrumental in the inception and implementation of the VMS, their attitudes toward, and acceptance or rejection of, the System are important in any assessment of the Visual Management System.

This study is designed to explore the attitudes and opinions of the landscape architects in the Forest Service toward the Visual Management System and to determine their perceptions of the relationship between the Visual Management System and the management of the National Forests. Information gathered in this study will be used to assess the acceptance of the Visual Management System by the landscape architects and other managers in the Forest Service. Based on the attitudes expressed, projections will then be made on the probability that the Visual Management System is providing a firm base from which to manage the visual resource.

CHAPTER 2

VISUAL RESOURCE MANAGEMENT

Visual Resource Management (VRM) is the purposeful "management of the 'seen' aspects of both the land and the activities which occur upon it." (ASLA, 1978, p.3.)

An History

The USDA Forest Service was formally established in 1905 with specific instructions from Congress that the lands were to be used primarily for the production of timber. However, the work and energy that led to the establishment of the Forest Service had gone on for many years and included a concern for preserving and enhancing scenic beauty. As early as 1908, one Region¹ of the Forest Service had developed marking instructions² which included consideration of scenic values.

The early years were characterized by competition between the Forest Service and the Park Service³ concerning

1. The USDA Forest Service is currently made up of nine geographic, administrative units called Regions.

2. Marking refers to the process whereby the Forest Service indicates to timber harvesters which trees they can cut. Marking instructions tell the timber markers what trees to mark, today done with spray paint.

3. National Park Service, U.S. Department of the Interior.

which Agency should manage the public lands and how they should be managed. A primary issue in this competition was a question of which Agency could better supply recreation and scenic beauty to the public. The Park Service hired its first landscape architect the same year the Agency was created, in 1916; some observers have suggested that the hiring of a landscape architect in 1919 by the Forest Service, was a response to the need to develop professionally planned recreation sites in order to compete with the Park Service. (Iverson, 1983.)

Another thought might be, however, that a landscape architect was hired by the Forest Service in response to a small book by Frank Waugh which appeared in 1918, entitled Landscape Engineering in the National Forests. This book encouraged managers to work together to promote utility and beauty in the Forests with the idea that no single use should automatically preclude other considerations such as beauty.

In any case, 1919 marked the beginning of both the hiring of landscape architects and planning for the preservation of aesthetic values in the Forest Service. From that time through today, scenic beauty and aesthetics have been a concern of the landscape architects and a consideration of other Forest Service managers who focused on timber, forage and water production.

But an increasingly aware and demanding public wanted more accountability from federal agencies for scenic values. A series of Acts were passed by Congress in the 1960s with increasing mention of, and emphasis on, aesthetics. In 1960, the Multiple-Use Act mandated balanced use and, while not directly mentioning aesthetics, directed that "consideration [be] given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output." (Public Law 86-517, Sec. 4 (a).)

The National Environmental Policy Act (NEPA) of 1969, recognized "the critical importance of restoring and maintaining environmental quality to the overall welfare and development of man," (Public Law 91-190, Sec. 101 (a).) and declared that "it is the continuing responsibility of the Federal Government to...assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings." (Public Law 91-190, Sec. 101 (b) (2).) NEPA also required "a systematic interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and decisionmaking which may have an impact on man's environment" (Public Law 91-190, Sec. 102 (A).) and directed that "all agencies of the Federal Government...will insure that presently unquantified environmental amenities

and values may be given appropriate consideration in decisionmaking along with economics and technical considerations." (Public Law 91-190, Sec. 102 (B).)

In the 1970s Congress became even more active in writing legislation requiring consideration of the visual resource. Equating environmental quality with benefits, Congress in 1974 directed the Forest Service to "assess the balance between economic factors and environmental quality factors...such as esthetics, public access, wildlife habitat, recreational and wilderness use." (Public Law 93-378, Sec. 7 (d).) In 1976, Congress became even more specific and declared that "it is the policy of the United States that...the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental...values." (Public Law 94-579, Sec. 102 (a)(8).) In the National Forest Management Act of 1976, Congress referred to the "esthetic resource" (Public Law 94-588, Sec. 6 (g)(3)(F)(v).) and directed consideration and protection of this resource equally with the other resources.

As a result of this series of Acts in the 1960s and 1970s, the USDA Forest Service developed the Visual Management System (VMS) as a means of quantifying "the visual resource so that it can be considered on a par with the many

resources whose outputs are so easily measured in cubic yards, acres, gallons, board feet, and visitor days." (ASLA, 1978, p.4.)

The Visual Management System

The Visual Management System (VMS) was developed to provide a process whereby the management of the 'seen' aspects of both the land and the activities which occur on it could be carried out. The process involves inventory, analysis and determination of objectives for the visual resource and provides for input of the visual resource into the multiple-use planning and decisionmaking process.

In the inventory and analysis of a National Forest, all lands are identified and delineated on maps as to both Variety Classes and Sensitivity Levels. The synthesis of this information is used to determine Visual Quality Objectives for the Forest land base.

Variety Classes are determinations of scenic quality based on degrees of variety found in the physical features of the land. The frame of reference for determining variety is provided in the 1931 Physiography of the Western United States by Nevin M. Fenneman in which generally large areas of land called Character Types are delineated and defined by the visual characteristics of landforms, waterforms, rock formations and vegetative patterns. An assumption is made that greater variety provides higher scenic quality and

three Variety Classes are identified and delineated within each Character Type: Class A, Distinctive; Class B, Common; Class C, Minimal. Class A, Distinctive, is of outstanding visual quality generally unusual in the Character Type. Class B, Common, still has a variety of features but they are not outstanding and are common within the Character Type. Class C, Minimal, has little variety or change.

Sensitivity Levels are measurements of people's concern for scenic quality. Travel routes, water bodies and other use areas are identified along with their users and their users' concern for aesthetics. These use areas are each assigned a Sensitivity Level: Level 1, Highest Sensitivity; Level 2, Average Sensitivity; Level 3, Lowest Sensitivity. In order to map Sensitivity Levels, Distance Zones---Foreground, Middleground, Background---are identified and delineated. Foreground is generally the area seen within one quarter to one half mile from the use area. Middleground includes the area seen from Foreground up to three to five miles away. Background extends from Middleground to infinity. Landform is generally used to determine whether or not an area may be seen since vegetative screening may be altered due to management activities or natural causes.

The Variety Classes and Sensitivity Levels are now combined to determine Visual Quality Objectives (VQOs). VQOs, based on the values represented in the Variety Classes and in the Sensitivity Levels, describe different degrees of

acceptable alteration of the natural landscape. These Objectives are considered the measurable standards for the management of the seen aspects of the land. There are five Visual Quality Objectives: Preservation, Retention, Partial Retention, Modification and Maximum Modification. Preservation allows ecological changes only. Retention allows management activities or changes to the landscape which are not visually evident. Partial Retention allows for management activities or changes to the landscape which may be evident but are still visually subordinate to the characteristic landscape. Modification allows for management activities or changes to the landscape which visually dominate the original characteristic landscape; these changes must, however, appear to be natural occurrences within the context of their surroundings. Maximum Modification allows for management activities or changes to the landscape which dominate the characteristic landscape---when viewed as background, however, these changes must appear to be natural occurrences within the surrounding area.

While the above synopsis is considered sufficient for purposes of this study, the Visual Management System is much more complex than represented. For further information on the Visual Management System, the reader is referred to the listing of Agriculture Handbooks in the selected bibliography of this document.

CHAPTER 3

THE STUDY

Issues

This study explores the attitudes of the landscape architects in the Forest Service toward the Visual Management System by examining the System from three basic perspectives: the landscape architects' views of the System as a whole; the landscape architects' views of the primary elements that comprise the System; the landscape architects' perceptions of the attitudes of other managers in the Forest Service toward the System.

Some of the issues suggested by the above perspectives include:

Has the Visual Management System been successful in providing measurable standards for the management of the visual resource?

Is the Visual Management System a usable tool?

Do the landscape architects agree in their interpretation of the System?

Are there any obvious flaws in the System?

Do the landscape architects perceive understanding, acceptance and support of the Visual Management System by other managers in their office?

Does the visual resource have more weight in multiple-use decisionmaking as a result of the Visual Management System?

The landscape architects' responses to these issues provide a base from which to assess the initial acceptance and support the Visual Management System is receiving within the USDA Forest Service.

Scope

The Forest Service is an Agency within the U.S. Department of Agriculture. Administration begins with the Washington DC Office and, in descending order, runs through the Regional Office to the Forest Supervisor's Office to the District Office. Each unit is responsible for the administration of a smaller geographic piece of the National Forest system lands than the one before.

All landscape architects in the Washington, Regional, Forest and District Offices of the Forest Service were addressed for purposes of this study whether or not they are currently working specifically as a landscape architect.

Method

A mail questionnaire was considered the most cost efficient and effective means of contacting the potential informants. Phone or personal interviews were cost prohibitive due to the target population's wide geographic distribution and large number.

A list of names and addresses of the landscape architects working at the Washington DC level was obtained by phone from the Chief Landscape Architect. There are nine

geographic, administrative Regions in the Forest Service. A list of the names and addresses of the landscape architects working at the Regional, Forest and District levels was obtained by phone and mail from a Regional Landscape Architect in each Regional Office. Table 1 shows the distribution of landscape architects throughout the Forest Service.

An objective, closed-ended questionnaire was developed, designed to address the issues raised and to facilitate ease of response. A pre-test of the questionnaire was conducted using three landscape architects who had worked both for the Forest Service and with the Visual Management System. The pre-test size was limited due to the necessity of using non-Forest Service landscape architects with a knowledge or familiarity with the Forest Service, the Visual Management System and landscape architecture.

To maximize the response rate, Don Dillman's 'Total Design Method' (Dillman, 1978.) was utilized. The six-page questionnaire was photographically reduced and put into booklet form on colored paper with a cover page and page for comments. A stamped, self-addressed envelope and a cover letter were included with each questionnaire. The cover letter followed the style suggested in Dillman's book complete with an original signature in blue ink. Each addressee's name and address was typed on both the cover letter and the mailing envelope. A colorful, commemorative

Table 1

Distribution of Landscape Architects
Throughout the USDA Forest Service

Total=261
WASHINGTON DC
(4)

<p>REGION 1 NORTHERN Total=14</p> <p><u>Regional Office(1)</u> Clearwater NF(1) Idaho Panhandle NFs(3) Nezperce NF(0) Beaverhead NF(1) Bitterroot NF(1) Custer NF(1) Deerlodge NF(1) Flathead NF(1) Gallatin NF(1) Helena NF(0) Kootenai NF(2) Lewis and Clark NF(0) Lolo NF(1)</p>	<p>REGION 2 ROCKY MOUNTAIN Total=22</p> <p><u>Regional Office(2)</u> Arapaho-Roosevelt NFs(4) Grand Mesa, Uncompahgre, Gunnison NFs(3) Pike-San Isabel NFs(3) Rio Grande NF(1) Routt NF(1) San Juan NF(3) White River NF(1) Samuel R McKelvie NFs(0) Black Hills NF(1) Big Horn NF(1) Medicine Bow NF(1) Shoshone NF(1)</p>	<p>REGION 3 SOUTHWESTERN Total=15</p> <p><u>Regional Office(4)</u> Apache-Sitgreaves NFs(1) Coconino NF(1) Coronado NF(1) Kaibab NF(1) Prescott NF(1) Tonto NF(1) Carson NF(1) Cibola NF(1) Gila NF(1) Lincoln NF(1) Santa Fe NF(1)</p>
<p>REGION 4 INTERMOUNTAIN Total=35</p> <p><u>Regional Office(4)</u> Boise NF(3) Caribou NF(2) Challis NF(1) Payette NF(1) Salmon NF(1) Sawtooth NF(4) Targhee NF(1) Humboldt NF(0) Toiyabe NF(1) Ashley NF(2) Dixie NF(2) Fishlake NF(1) Manti LaSal NF(1) Uinta NF(5) Wasatch-Cache NFs(5) Bridger-Teton NFs(1)</p>	<p>REGION 5 PACIFIC SOUTHWEST Total=52</p> <p><u>Regional Office(1)</u> Angeles NF(6) Cleveland NF(3) Eldorado NF(3) Inyo NF(5) Klamath NF(2) Lassen NF(3) Los Padres NF(5) Mendocino NF(0) Modoc NF(1) Plumas NF(3) San Bernardino NF(3) Sequoia NF(2) Shasta-Trinity NFs(6) Sierra NF(2) Six Rivers NF(1) Stanislaus-Calaveras Big Tree NFs(3) Tahoe NF(3)</p>	<p>REGION 6 PACIFIC NORTHWEST Total=41</p> <p><u>Regional Office(3)</u> Deschutes NF(4) Fremont NF(1) Malheur NF(1) Mt Hood NF(3) Ochoco NF(1) Rogue River NF(2) Siskiyou NF(2) Siuslaw NF(3) Umatilla NF(1) Umpqua NF(2) Wallowa-Whitman NFs(1) Willamette NF(3) Winema NF(1) Colville NF(1) Gifford Pinchot NF(5) Mt Baker-Snoqualmie NFs(3) Okanogan NF(1) Olympic NF(2) Wenatchee NF(1)</p>
<p>REGION 8 SOUTHERN Total=38</p> <p><u>Regional Office(7)</u> NFs in Alabama(2) Ouachita NF(3) Ozark-St Francis NFs(2) NFs in Florida(3) Chattahoochee & Oconee NFs(2) Daniel Boone NF(1) Kisatchie NF(2) NFs in Mississippi(1) NFs in North Carolina(5) Caribbean NF(1) Francis Marion & Sumter NFs(1) Cherokee NF(2) NFs in Texas(2) George Washington NF(1) Jefferson NF(3)</p>	<p>REGION 9 EASTERN Total=27</p> <p><u>Regional Office(4)</u> Shawnee NF(1) Wayne-Hoosier NFs(4) Hiawatha NF(2) Huron-Manistee NFs(1) Ottawa NF(1) Chippewa NF(0) Superior NF(1) Mark Twain NF(1) White Mountain NF(3) Allegheny NF(2) Green Mountain NF(1) Monongahela NF(2) Chequamegon NF(3) Nicolet NF(1)</p>	<p>REGION 10 ALASKA Total=13</p> <p><u>Regional Office(3)</u> Chugach NF(2) Tongass NF-Chatham Area(1) Tongass NF-Ketchikan Area(4) Tongass NF-Stikine Area(3)</p>

postage stamp was used to add a non-institutional look to the professional format.

Three mailings were used according to the schedule set forth by the 'Total Design Method.' The first mailing went to the entire target population of 264 individuals and consisted of the complete package: questionnaire booklet (Appendix I), return envelope, cover letter (Appendix II) and mailing envelope. One week after the first mailing a follow-up postcard (Appendix III) was sent, again to the whole group, both as a reminder and as encouragement to respond.

Each questionnaire was numerically coded to retain individual anonymity while still allowing respondents' names to be removed from the mailing list immediately upon receipt of the returned questionnaire. Three weeks after the initial mailing all non-respondents were sent a complete package identical to the first mailing but with a slightly more insistent cover letter (Appendix IV).

Response

There was an excellent response to the questionnaire. Three weeks after the initial mailing more than seventy percent of the 264 questionnaires had been returned. Three packages came back marked undeliverable. One individual wrote a nice letter which said, "[I have had] no direct involvement in applying the VMS" for the past seven years

and "Hence, I do not think my response would serve any meaningful purpose." This left 260 potential respondents.

A receipt cutoff date of two and one half weeks after the third mailing was set for computer entry and analysis. By this date 236 (91%) had been received.

Eleven questionnaires were received after the deadline for computer entry bringing the total response to 247 of 260 potential respondents, a ninety-five percent response rate.

Sampling Error

Within the framework of this study, sampling error is non-existent because the entire population was surveyed and ninety-five percent responded. Due to the very nature of this study, surveying a small population about a controversial subject with which all or nearly all of them have dealt, there are not likely to be many non-attitude responses.¹

Analysis

Two types of analyses were used in this study

An analysis of the closed-ended questions was made using The Statistical Package for the Social Sciences, better known as SPSS. (Nie, et al., 1970.) This computer

1. A non-attitude response is when an individual responds to a question about which they either know or care very little.

software was used to calculate the frequencies of the responses received and, through an option called crosstabs, to explore relationships between the attitudes expressed and between the attitudes and the backgrounds of the individual respondents.

A content analysis was made of the unsolicited, written comments provided by the respondents. (Weisberg, 1977.)

Study Limitations

This study has looked at the Visual Management System from the perspective of only one small group of individuals, the landscape architects in the Forest Service. This was done based on the assumption that this small group is the representative of the visual resource and, as such, provides the basis from which the remainder of the Forest Service personnel views the visual resource and the Visual Management System. Individual personalities of both landscape architects and other personnel might affect acceptance of the visual resource. An examination of individual personality traits and their effects in bureaucracies is not within the scope of this study.

The individuals surveyed were asked only about the attitudes of the staff personnel in their office. There are landscape architects in the Forest Service Washington DC Office. Each of the nine Forest Service Regional Offices

has at least one landscape architect. More than seventy percent of the landscape architects in the Forest Service work at the Forest Supervisor's Office level. There is no landscape architect in seven of the 119 Forest Supervisor's Offices. Only an estimated thirty-five landscape architects work at one of the hundreds of District Offices of the Forest Service, the administrative level at which project implementation takes place. Unaccounted for are the attitudes of all the staff in offices where there is no landscape architect.

Discarded Questions

Questions 8 and 14 (See Appendix I) were determined from the respondents' comments written in the margins of the questionnaire not to convey the meaning intended. Responses to these two questions were not considered within the context of this study.

In addition, comments written in the margin and the responses to Question 25 both indicated confusion concerning the intent of Question 24. The wording of the question did not elicit the type of responses desired by the study: further information on the concept of equal consideration for the visual resource. Responses to Question 24 were, therefore, eliminated from consideration within the context of

this study.¹ Responses to Question 25, however, while not of value as intended, did illuminate another aspect of the respondents' attitudes and are highlighted in the discussion in Chapter 5.

1. Responses to Question 24 are presented as a matter of curiosity in the raw data in Appendix V.

CHAPTER 4

FINDINGS

This chapter summarizes the findings of the study. A description of the respondents is followed by findings on the attitudes of landscape architects in the Forest Service toward the Visual Management System and findings on the attitudes of the staff toward the System. These first three sections of this chapter are based on information from the 236 questionnaires received before the deadline for computer entry. The last section of this chapter, a synopsis of the written comments, takes into consideration information from all 247 of the returned questionnaires. Some of the implications of the findings and interpretation of results can be found in subsequent chapters of this thesis.

The findings are presented in whole number percentages. Percentages were rounded so that 76.5% will appear as seventy-seven percent and 76.4% will appear as seventy-six percent. The raw survey data is displayed in Appendix V of this document.

The Respondents

Age

The majority of landscape architects in the USDA Forest Service are between the ages of 30 and 50. (Table 2.)

Table 2
Age Distribution

Years of Age	n=	%=
under 30	23	10
30-39	104	44
40-49	85	36
50 or over	24	10
Total	236	100

Education

Eighty-four percent of the respondents have a Bachelor degree in Landscape Architecture. (Table 3.)

Other Bachelor degree fields include Architecture, Business, Economics, Geology, Recreation and Sociology. One individual has three Bachelor degrees and 27 have two Bachelor degrees.

Twenty percent of the respondents have Masters degrees; fifteen percent have Master of Landscape Architecture degrees. Other Masters degrees fields include Fine Arts, Recreation and Architecture. (Table 4.)

Table 3
Bachelor Degrees

Fields	n=	%=
Landscape Architecture	199	84
L.A. related, ie: Environmental Design	11	5
Forestry, Forestry Management	4	2
Horticulture, Ornamental Horticulture	4	2
Fine Arts, Art	3	1
Other	14	6
None	1	-
Total	236	100

Table 4
Master Degrees

Fields	n=	% of Masters
Landscape Architecture	35	76
Planning (Environmental, Regional, Urban)	4	9
Public Administration, Public Affairs	3	7
Other	4	9
Total	46	101

Six percent or fourteen respondents have no degree in landscape architecture. One individual indicated an incomplete degree at the Bachelor level. There are no PhDs among the respondents.

Eight schools supplied approximately fifty percent of the Bachelors degrees for landscape architects in the Forest Service. (Table 5.)

Table 5
Schools Providing Bachelor Degrees

Schools	n=	%=
Utah State University	34	15
University of Wisconsin, Madison	14	6
Iowa State University	14	6
Cal Poly Pomona	13	6
Kansas State University	12	5
Michigan State University	11	5
State University of New York	10	4
University of Oregon	10	4
Other ¹	117	50
Total	235	101

1. For a further breakdown of schools providing Bachelor degrees see the raw data in Appendix V, No.46.

Six schools provided fifty percent of the Masters degrees for landscape architects in the Forest Service.
(Table 6.)

Table 6
Schools Providing Masters Degrees

Schools	n=	% of Masters
Utah State University	8	17
Cal Poly Pomona	3	7
UC @ Berkeley	3	7
University of Oregon	3	7
University of Massachusetts	3	7
University of Georgia	3	7
Other ¹	23	50
Total	46	102

Job History

Sixty percent of the respondents have been a landscape architect more than ten years; forty-eight percent have been a landscape architect for the Forest Service more than ten years.

Fifty-eight percent of the respondents have been with the federal government more than ten years; fifty percent have worked for the Forest Service more than ten years;

1. For a further breakdown of schools providing Masters degrees see the raw data in Appendix V, No.46.

sixteen percent have been on their current Forest more than ten years; thirty-one percent have been in their current Region more than ten years.

Exactly one half the respondents are Grade Level Eleven (GS-11)¹; twenty-one percent are below GS-11 at GS-7 or GS-9; twenty-nine percent are above GS-11. (Table 7.)

Table 7
Grade Level

GS	n=	%=
7	7	3
9	42	18
11	118	50
12	45	19
13	20	8
14	2	1
15	2	1
Total	236	100

All but nine of the respondents indicated they are in the 807 Series² even though they hold a variety of job

1. GS = General Schedule pay scale. The number indicates the pay scale also known as the Grade Level.

2. Each occupation is assigned an occupational Series number in the Federal Position Classification Standards; 807 is the number assigned to the Landscape Architecture professional series.

positions and titles. The majority of those not in the 807 Series cited career goals as the reason; two indicated they were forced to move.

The respondents gave sixty-nine different names when asked for their current job title. Sixty-eight percent of the respondents have the job title Landscape Architect, many with one of the following adjuncts: Regional, Forest, District, Zone, Project, Area, Supervisory. The titles in Table 8, which show the many and diverse career directions being taken by landscape architects in the Forest Service, are grouped according to implied emphasis. Examples of some of the actual titles given by respondents, shown as they were written, appear in parentheses.

Involvement With The Visual Management System

Seven respondents indicated that the landscape architect(s) in their office was(were) first trained in the Visual Management System in the 1960s. The push to teach the Visual Management System began in earnest, however, in the early 1970s: fifty-four percent of the respondents indicated the landscape architect(s) in their office had received initial training by 1973; the respondents indicated all the landscape architects in their offices had received training in the Visual Management System by 1980.

The push to complete initial visual inventories on many Forests did not come until the end of the 1970s and the

Table 8
Current Job Title

Title	n=	%=
Landscape Architect	160	68
Recreation (Recreation & Lands Staff) (Regional Coordinator of Wilderness, Trails, ORV, Dispersed ROS Areas, Volunteers) (Developed Recreation) (Recreation Planning Group Leader)	18	8
Planner (Planning Staff Officer) (ID Team Leader) (Land Use Planning Specialist)	13	6
Recreation & Landscape Architect (Recreation Staff Specialist and Supervisory Landscape Architect) (Landscape Architect & Recreation, Wilderness & Trails Specialist) (Forest L.A. & District R&L & Snow Ranger) (Landscape Arch. & Rec. Planner)	9	4
Planning & Landscape Architect (Forest Planner/L.A.) (Landscape Architect and Land Management Planning Staff)	6	3
Interdisciplinary (Interdisciplinary Staff (Resource Assistant)) (Interdisciplinary (Landscape Architect))	6	3
Other (R.O. Ass't Director PD & B & LMP) (District Ranger) (Deputy Forest Supervisor) (Resource Analysis Specialist)	24	10
Total	236	102

beginning of the 1980s: less than one fourth of the respondents indicated a completed visual inventory by 1976; fifty-four percent of the respondents indicated their office had completed an initial visual inventory by 1979; ninety-seven percent indicated completion by 1982; all the respondents indicated their office had finished an initial visual inventory by 1983.

Forty-two percent of the respondents now spend less than one-fourth of their time on the Visual Management System; only twenty percent indicated they spend more than three-fourths of their time on the Visual Management System. (Table 9.)

Table 9

Time Currently Spent On The
Visual Management System

Time	n=	%=
Less Than 25%	92	41
26-50%	59	26
51-75%	30	13
More Than 75%	44	20
Total	225	100

More than sixty percent of the respondents indicated involvement with all aspects of the Visual Management System with the following exceptions: Computer Entry, thirty-five percent involvement; Computer Coding, forty-five percent

involvement; Computer Graphics, fifty-four percent involvement; Viewshed Corridor Planning, fifty-nine percent involvement. (Table 10.)

The Landscape Architects' Attitudes

Support Of The Visual Management System

There is very strong support among landscape architects in the Forest Service for the Visual Management System as a whole: ninety percent of the respondents agree or agree strongly that the Visual Management System has succeeded in quantifying the visual resource; ninety-six percent disagree or disagree strongly that the Visual Management System is a passing fad; and sixty-eight percent disagree or disagree strongly that the Visual Management System has major flaws.

Usability

On the usability of the Visual Management System there is again very strong agreement: ninety-five percent of the respondents agree or agree strongly that the Visual Management System has changed the way the visual resource is managed on the ground; ninety-five percent of the respondents agree or agree strongly that the Visual Management System has influenced how Forest Service landscape architects treat the visual resource in the field; ninety-six percent of the respondents agree or agree strongly that the

Table 10
Involvement With The
Visual Management System

Visual Management System Tasks	% of Respondents (n=236) Involved
Inventory	91
Analysis	91
Field Check	91
Mapping	90
Computer Coding	45
Computer Entry	35
Viewshed Corridor Planning	59
Absorption Capabilities	66
EIS, EAR Write-ups	89
Site Specific Analysis	93
Forest Planning Team	73
Regional Planning Team	14
Supervision	65
Training Other Employees	78
Computer Graphics	54
Project ID Team	79
Other	17
(COMPEX, SILVEX, Field Implem., Design, Layout)	
(Public Involvement Presentations)	
(Input into RIDS, FORPLAN, Land Use Plan data base)	
(EVC)	
(Vegetative Management Plans)	
(Graphics & Photography)	
(VMS Development)	
(Author)	

visual resource has more weight in multiple-use decision-making as a result of the Visual Management System.

Elements

Landscape architects in the Forest Service are, for the most part, also in agreement regarding the primary elements of the Visual Management System: eighty-four percent of the respondents agree or agree strongly that Variety Classes are accurate indications of the scenic quality of an area; fifty-two percent agree or agree strongly that Sensitivity Levels are accurate measurements of the public's concern for scenic quality; sixty percent disagree or disagree strongly that Visual Quality Objectives are vague quantities---too vague to be considered equally with the other resources.

In support of these findings: sixty-four percent of the respondents agree or agree strongly that the Visual Management System provides an accurate means of assessing what the "people expect to see"; sixty-two percent agree or agree strongly that the landscape architects are in agreement that the Visual Management System provides an accurate measurement of visual quality.

Interpretation

While sixty-five percent of the respondents disagree or disagree strongly that Distance Zones have been interpreted differently by different Forest Service landscape

architects, agreement on the interpretation of the System seems to end on that point. Exactly half the respondents disagree or disagree strongly (and half agree or agree strongly) with the statement that Forest Service landscape architects agree with each other on the interpretation of the Visual Management System; sixty-seven percent agree or agree strongly that Sensitivity Levels have been interpreted differently by different Forest Service landscape architects; eighty-three percent agree or agree strongly that the 'goals' associated with the different Visual Quality Levels have been interpreted differently by different Forest Service landscape architects.

While the respondents agree on the interpretation of Distance Zones, they disagree on the use of the computer to determine seen areas. Only fifty-four percent of the respondents indicated they used the computer to determine seen areas and only fifty-five percent of that number agree or agree strongly that a computer is the most accurate means of determining seen areas.

Staff Attitudes

The landscape architects were asked for their perceptions of the attitudes of the primary staff in their office toward the Visual Management System. The primary staff are the individuals in positions of top authority in each Regional, Supervisor and District Office and in the

Washington DC Office. These positions (ie: Recreation, Lands and Minerals Staff, Engineering Staff or Timber Staff) generally represent the primary resources and functions in each administrative unit. Each staff person is responsible for one or more resources or functions.

The landscape architects' perceptions of the attitudes of the primary staff in their office toward the Visual Management System indicated some lack of understanding on the part of the staff but generally strong acceptance of the Visual Management System. The landscape architects indicated the staff provide good support of the landscape architect as the representative of the visual resource.

More than sixty percent of the respondents indicated a very good or good understanding of the System for every staff person with four exceptions (thirteen staff positions were surveyed): less than sixty percent of the respondents indicated that the Soil, Ranger, Fire and Engineering Staffs have a very good or good understanding of the Visual Management System. Most notable is the Engineering Staff with sixty percent of the respondents rating them as having a poor or very poor understanding of the System. (Table 11.) More than sixty percent of the respondents indicated that all their staff favor or strongly favor the Visual Management System. (Table 12.) More than sixty percent of the respondents indicated that they can expect good or very good support from their primary staff. (Table 13.) These

Table 11
Staff Understanding Of The
Visual Management System

Staff	VERY GOOD/GOOD % Responses	(n)
Recreation Staff	87	(229)
Land Use Planning Staff	84	(218)
Archaeology Staff	76	(210)
Forest Supervisor, Regional Forester or District Ranger	73	(223)
Deputy Forest Supervisor	71	(125)
Lands Staff	66	(221)
Timber Staff	63	(227)
Wildlife Staff	62	(219)
Water Staff	62	(211)
Soil Staff	58	(216)
Range Staff	58	(190)
Fire Staff	51	(218)
Engineering Staff	38	(217)

% Responses = percent of total responses for that particular Staff where Good or Very Good was the selected response.

n = number of total responses for that particular staff position.

Table 12
Staff Acceptance Of The
Visual Management System

Staff	STRONGLY FAVOR/FAVOR % Responses	(n)
Recreation Staff	96	(224)
Archaeology Staff	96	(204)
Wildlife Staff	88	(215)
Water Staff	88	(206)
Land Use Planning Staff	88	(214)
Lands Staff	88	(216)
Soil Staff	87	(211)
Deputy Forest Supervisor	87	(215)
Range Staff	85	(185)
Forest Supervisor, Regional Forester or District Ranger	82	(219)
Fire Staff	76	(211)
Timber Staff	69	(218)
Engineering Staff	68	(217)

% Responses = percent of total responses for that particular Staff where Favor or Strongly Favor was the selected response.

n = number of total responses for that particular staff position.

Table 13
Staff Support Of The
Landscape Architect

Staff	VERY GOOD/GOOD % Responses (n)
Archaeology Staff	93 (205)
Recreation Staff	92 (225)
Lands Staff	86 (217)
Soil Staff	85 (216)
Water Staff	85 (211)
Land Use Planning Staff	85 (217)
Wildlife Staff	84 (217)
Range Staff	82 (188)
Deputy Forest Supervisor	78 (126)
Forest Supervisor, Regional Forester or District Ranger	77 (220)
Fire Staff	69 (215)
Timber Staff	65 (222)
Engineering Staff	65 (219)

% Responses = percent of total responses for that particular Staff where Good or Very Good was the selected response.

n = number of total responses for that particular staff position.

findings are seemingly contradicted, however, by the fact that fifty-two percent of the respondents agree or agree strongly with the statement that the Visual Management System has provided a means whereby the staff can give lip service to scenic beauty.

Written Comments

Of the total 247 returned questionnaires, 132 (53%) included written comments, many of them quite extensive. Eleven individuals had so much to say about the Visual Management System and related matters that they attached extra sheets of paper to their questionnaire in order to include all their feelings and opinions.

The comments ranged from defense of the Visual Management System to criticism of Forest Service management to indications of weakness or needs of the Visual Management System.

Table 14 summarizes the most often repeated concepts. While the numbers are very small, the comments were unsolicited in that they are not responses to questions or statements. Individual comments have been cited in the discussion in Chapter 5.

Table 14
Selected Comments

(The number in parentheses after each statement indicates the number of times the concept was stated in the completed questionnaire. Note: These are unsolicited comments, not given in response to any question or statement.)

The Visual Management System is a good system.(25)

The Visual Management System gets poor support from management.(20)

The Sensitivity Levels are the weakest part of the system and need more research.(14)

The visual resource is a secondary resource, only a part of Recreation.(13)

The Visual Management System is too complex, needs simplification to be usable and to be accepted.(11)

The Visual Management System is a viable management tool.(9)

Management views the Visual Management System as an unnecessary constraint to resource development.(9)

The Visual Management System has focused attention on the importance of the visual resource.(7)

The visual resource is not a commodity and can not compete on an economic basis.(6)

The Visual Management System needs accountability and hard targets.(5)

Some District Rangers have never accepted the Visual Management System.(5)

The Visual Management System has provided a means of discussing the visual resource.(4)

Budget cuts prevent full acceptance and implementation of the Visual Management System.(4)

Management does not support the Visual Management System because of the current administration's push for commodity outputs.(4)

Table 14
(continued)

Some aspects of the Bureau of Land Management's Visual Management System are preferable to that of the Forest Service's. (4)

The Visual Management System began as a simple, understandable system but is in danger of becoming too complex. (4)

The language of the Visual Management System has become a poor substitute for professional judgment. (4)

The Visual Management System needs the support of laws and penalties for non-compliance as opposed to guidelines and vague wording. (3)

The Visual Management System needs to be taught in the schools. (3)

Public support for the Visual Management System is lacking and is needed. (3)

Existing Visual Condition (EVC) should be added as part of System documentation. (3)

The real challenge is to do a better job of implementing the Visual Management System. (3)

CHAPTER 5

DISCUSSION

A very high number of landscape architects in the USDA Forest Service believe that the Visual Management System: has succeeded in quantifying the visual resource (90%); has changed the way the visual resource is managed on the ground (95%); has given the visual resource added weight in multiple-use decisionmaking (96%); and is not a passing fad (96%). The data indicate that the Visual Management System has been accepted by the landscape architects as a means of managing the visual resource, and is making a positive difference in the treatment of the visual resource within the Forest Service.

The support mentioned above should be remembered throughout the discussion in this chapter. Many of the respondents offered comments in a spirit of constructive criticism. Quotations taken from the returned questionnaires often appear to be negative comments when taken out of context. These comments should be seen, however, as tools which may be useful in improving the Visual Management System. As the paragraph above indicates, there is extremely good support for the Visual Management System even though, as the following discussion shows, there are no

illusions as to a perfect System. The respondents are in general agreement that the System is a good start which can and should be improved upon.

Elements

Variety Classes

There is strong agreement that Variety Classes are accurate indications of the scenic quality of an area. Further discussion is not called for with such strong agreement but the following has been included because of the strength of feeling behind the ideas expressed.

Three respondents pointed out that the basic assumptions on which Variety Classes are built do not reflect results gained from preference testing.

Preference testing...has shown over and over that what people say they want to see in the way of scenic beauty does not agree with the assumptions of the VMS, particularly variety. Diversity (variety) is seldom tied to preference. People favor landscapes that are open or ordered or clean or have wildlife or water, but people don't seem to care if the landscape possesses great variety.

Two of these individuals would like to see more research on preferences; one believes the research has been done and must simply be applied.

Sensitivity Levels

There is less support for the Sensitivity Level element of the Visual Management System than for any other

aspect of the System. Almost half the respondents do not feel Sensitivity Levels are accurate measurements of the public concern for scenic quality. Twelve respondents who agree that Sensitivity Levels are accurate, qualified their agreement with comments like the following: "Basically agree but this is the weakness;" "Some research would help;" "need to be refined."

Further analysis of responses to questions concerning Sensitivity Levels shows little pattern. Disagreement on the accuracy of Sensitivity Levels is not confined to any particular group but rather is spread through individuals at all grade levels, ages, education levels, administrative positions and levels, and Regions.

Seventy percent of those who believe the Visual Management System has major flaws¹ also believe that the Sensitivity Levels are not accurate measurements of the people's concern for scenic quality. This may indicate that many individuals perceive the Sensitivity Levels to be a major flaw in the System. This idea is supported by forty-eight written comments of the following nature: "Good System! It should be continued, but the Sensitivity Level portion should be strengthened." And, "Sensitivity Levels are the weak link in the System. They have the most effect on VQOs,

1. Thirty-two percent, or 72, of the respondents believe the Visual Management System has major flaws.

based on the weakest information and knowledge. Much research is needed here."

Two respondents go into more detailed explanations of the weakness of the Sensitivity Levels.

'Sensitivity' is a nebulous concept. It can be determined by numbers of people viewing a scene from a highway or observation point but what can be done with attitudes? The bottom line is education, economics, and 'special interest.' Prove to me that an O.R.V. enthusiast has more or less appreciation for 'the setting' and not 'the experience,' than a hiker on foot or fisherman. More research is needed on attitudes.

And,

The controversy I've experienced with the Visual Management System is related to Sensitivity Levels. It's tough to assume that fishermen are visually sensitive, hunters are less so and logging truck operators don't care. We need better information on how to determine viewer's true sensitivities.

One individual feels Sensitivity Levels are accurate "with the exception of dispersed viewers." Another does not believe Sensitivity Levels are accurate because "This element tends to ignore the local public, who feels he/she has the most ownership in scenery." One respondent states, "In some ways I prefer the BLM¹ approach."

1. BLM. The Bureau of Land Management, U.S. Department of the Interior, developed a Visual Resource Management System between 1967 and 1974. Their System was fully implemented by 1975.

To summarize, many landscape architects in the Forest Service feel that the Sensitivity Level element of the Visual Management System needs some further research and refinement. The portion needing the most work is that dealing with user concern and perception, not the portion dealing with Distance Zones.

Visual Quality Objectives

There is some feeling that the Visual Quality Objectives are vague quantities---too vague to be considered equally with the other resources. Further analysis of responses to questions concerning Visual Quality Objectives show little pattern. Agreement on Visual Quality Objective vagueness is not confined to any particular group but rather is spread through individuals at all grade levels, ages, education levels, administrative positions and levels and Regions.

Visual Quality Objectives are not seen as vague quantities, however, by sixty percent of those individuals who have worked on Forest Planning Teams and sixty-three percent of those who have worked on Project ID Teams.¹ Since the Planning Teams and ID Teams require the actual input and implementation of the Visual Quality Objectives,

1. ID Teams. Project Interdisciplinary Teams are formed to study a proposed project. They are comprised of individuals with expertise in various fields pertinent to or with a possibility of being affected by the proposed project.

this support would seem to indicate the workability of the Objectives.

Written comments supply a few clues as to why some respondents consider the Visual Quality Objectives to be vague quantities. Six respondents indicate the lack of "'hard' targets for visual management"¹ make it easy for the "commodity people...to regard it [VMS] as just something to be signed off on, a hurdle to jump over, and as a requirement, but not a need."

In addition, four respondents indicated a problem with a lack of a legal, written, actual back-up support system, "teeth" as one individual called it, for the Visual Quality Objectives.

In land management planning there are no minimum legal requirements to manage the visual resource. This makes it very difficult to maintain any visual resource management prescriptions in commodity oriented alternatives. The current administration is pushing the Forest Service to select management alternatives that have high commodity outputs, ie: timber and forage. This will greatly reduce the acres managed as visually sensitive below those inventoried as sensitive.

1. Hard targets are quantifiable resource output targets such as board feet of timber or acre feet of water. Targets originate in the U.S. Congress from where they are directed to the U.S. Department of Agriculture and on through the Forest Service Washington DC Office and the other administrative levels to the District Office at the ground level. Line officers (such as the Forest Supervisor and the District Ranger) are evaluated according to their success in meeting these assigned targets.

And, "[There is] great awareness of the system and its importance. But because there are not laws, just guidelines and wording such as 'when possible,' it's very vague. Until more strength, whether in law or wording, is given to visuals it will be easier not to follow the VQOs."

These comments seem to point to a problem, not with the vagueness of Visual Quality Objectives themselves, but rather with the support system or lack thereof. Hard targets were not possible for the visual resource before it was quantified. The Visual Management System, according to the landscape architects in the Forest Service, has succeeded in quantifying the visual resource. Since hard targets, laws and such are handed down from Congress through the Washington Office, these comments indicate a need at the top levels of management for a renewed demonstration of commitment to protection of the visual resource.

One other comment, supported by two similar comments, needs to be noted here. "The major flaw...is the language it [VMS] has created...has become a substitute for our trained professional judgment. Too many times our input to projects, EAs, etc., are pat answers: 'Management objectives should achieve a PR VQO' which means nothing...."¹ This comment involves the Visual Quality Objectives but the

1. An 'EA' is an Environmental Assessment. 'PR VQO' is the abbreviation for 'Partial Retention Visual Quality Objective.'

criticism is directed more toward the individual(s) implementing the System, not toward the element. Perceived vagueness may be a failure of a landscape architect: to apply professional judgment in a particular situation; to interpret needs indicated by the Visual Quality Objectives of the area in question; and to communicate those visual needs in a concrete form which can be both understood and given serious consideration by the decisionmakers.

Staff

More than sixty percent of the respondents indicate good acceptance of the Visual Management System by staff. These results are seemingly contradicted by the fact that fifty-two percent of the respondents (fifty-six percent of those with the job title of 'Landscape Architect') agree or agree strongly that 'The Visual Management System has provided a means whereby the staff can give lip service to scenic beauty.' 'Lip service,' according to Webster's Dictionary, is an "avowal of allegiance that goes no further than expression in words; profession without implementation." On the one hand the respondents seem to be indicating that the Visual Management System has been accepted by the staff; and on the other hand, there seems to be some feeling among the respondents that the acceptance is perhaps evident only in words, not action. Information provided by this survey does not explain this anomaly but twenty-six respondents do

expound on the concept of poor management support in their written comments: "The support is not there."; "The difficulty of the VMS is acceptance. More often than not it is viewed as an unnecessary constraint to resource development and is only given lip service..."; "...a poor attitude toward the environment...is often seen in attitudes of the staff or district rangers toward the specialists and their duties, ie: L.A. and VMS."

While individual staff's or landscape architect's personalities may account for some perception of poor support, twenty individuals were specific and proffered reasons which go beyond individual personalities. The following comments are quoted in their entirety as they reflect the majority of the concerns expressed on poor management support. The first respondent quoted has looked at the visual resource for reasons to account for poor support.

Among the commodity people (timber, range, minerals, oil & gas, etc.) I still see relatively little support or commitment to the VMS.

Some of the reasons, I think are:

- *It is not a commodity.
- *It is difficult to quantify, in economic terms.
- *It is difficult to quantify in any terms.
- *There are no 'hard' targets for visual management (like MBF or AUMs).¹

1. 'MBF' means thousand board feet, a timber harvest measurement. One board foot is an amount of timber equivalent to a piece of wood 12" X 12" X 1". 'AUM' means

*Regardless of how hard we try to make it otherwise, the visual resource & visual management are still subjective (beauty is in the eye of the beholder).

My experience is that rarely, if ever, is the visual resource 'treated as an essential part' nor does it 'receive equal consideration with the other basic resources.

Another individual sees the Visual Management System as accountable for lack of support: "Acceptance is hampered most by areas of vagueness and by its [VMS] general complexity."

The following two quotes are from respondents who perceive poor support or lack of acceptance as results of the larger picture, the Forest Service structure or the political arena as represented by the current administration.

Due to budget cuts and reorganization at field levels more and more recreation management responsibilities are being shifted to the landscape architects. This is diminishing the amount of time landscape architects can spend as directors of the VRM program. The responsibility for visual management is shifting to the ranger district level. This is an added burden for the districts. Since these districts are evaluated in terms of their accomplishment of assigned targets, and visual management has no hard targets, the visual resource is often given lip service only or ignored.

And, "Line and staff are being influenced by the current administration's emphasis on market outputs (ie: timber) to

animal unit months, a range measurement. One AUM is the quantity of forage required by one mature (1000 pound) cow with calf (or equivalent) for one month.

the detriment of esthetics. Very disheartening when they readily lower VQOs in the Forest Plan (350,000 acres+) just out of fear that the visual standards and guidelines will constrain timber outputs!"

These comments on staff acceptance or lack or acceptance of the Visual Management System relate back to comments noted earlier in this Chapter. They seem to point to a need for reaffirmation of commitment to protection of aesthetics on the part of the highest levels of government; this reaffirmation needs to be solidified with the creation and assignment of hard targets for the visual resource.

Six respondents, however, offer observations of positive management support---four relating specifically to the positive influence of younger managers: "...the younger folks coming in have had more up-to-date training and are more aware of their environment and the necessity to manage it properly!"

In a final note concerning lip service and acceptance of the Visual Management System by the staff, one individual makes the following observation: "Although some staff members give lip service to visuals, at least they're thinking about it. With some further orientation, education or pressure from superiors, lip service can turn into real action and concern."

The Respondents

No response patterns were found, other than the few already noted, with respect to the individuals' Regions, ages, administrative positions and levels, length of service, length of time as a landscape architect, education or amount of time spent working with the Visual Management System. This was unexpected, particularly the lack of Regional patterns, but can perhaps be explained by the mobility inherent in Forest Service employment; fifty-one percent of the respondents were not educated in the Region in which they currently work. Or perhaps the lack of patterns may be explained by the very nature of the respondents which, as evidenced by the written comments of 123 of the 247, are an out-spoken group of independent, thinking professionals.

Some differences of interpretation of the Visual Management System probably come from this independence combined with the abstract nature of the visual resource and the purposefully vague nature¹ of the Visual Management System when it was first introduced. Some differences will probably lessen with the maturation and refinement of the Visual Management System; some perhaps will increase if refinement focuses on social, cultural, local or Regional distinctions.

1. 'Purposefully vague' in order to allow for variations of interpretation which could lead to creativity, change and improvement of a new system.

An unlooked for and somewhat surprising set of findings indicate differences of perhaps a more serious nature. These differences concern, not the interpretation of the System, but attitudes of some landscape architects toward the visual resource. One respondent outlines these attitudes without pointing at landscape architects or any particular group of professionals: "The visual resource is looked at as a facet of recreation...a lot of people do not perceive the visual resource as a resource. They call it things like 'the visual landscape' and the Forest Service does not manage landscapes, they manage the resources."

Twenty-eight respondents (11%) indicate through their written comments that they have a poor attitude toward or a poor understanding of the value of the visual resource.¹ These respondents are from all age groups, grade levels, education levels, administrative positions and levels and Regions. Some of these individuals see the visual resource as "a support function---not a primary function;" "not that important;" "hasn't proven to be a 'valid' resource." Three respondents indicated they have not accepted the visual resource as equal to the primary resources with very direct references: one lists the "main resources

1. Note: These respondents have been separated from those who indicate "some people feel..." or "a lot of people do not perceive..." rather the comments referred to here are statements which imply the respondents are representing their own feelings or opinions.

the Forest Service manages (wood, water, wildlife, recreation, forage, minerals);" two separate the visual resource from the primary resources with one likening it in importance to "geology" and the other to "social science." Twelve additional respondents indicate opinions that "the visual resource is just a part of the recreation experience" and, as such, is only a "minor" or "secondary" resource.

The Forest Management Act of 1976 called for the consideration and protection of this resource equally with the other resources. The prospect for the strength or protection of the visual resource is not good if landscape architects, the stewards of the visual resource, do not consider the visual resource 'valid' or recognize it as an equal resource.

CHAPTER 6

CONCLUSION

The Visual Management System is a usable tool and, as such, is providing a base from which to manage the visual resource. Ninety-five percent of the landscape architects in the USDA Forest Service believe the Visual Management System has changed the way the visual resource is managed on the ground; ninety-six percent believe the System has given the visual resource added weight in multiple-use decisionmaking. This is an indication that the Visual Management System is making a positive difference in the treatment of the visual resource in the Forest Service.

The landscape architects in the Forest Service not only have widely accepted the System but defend it even as they offer criticism or suggestions for improvement. Sixty-eight percent of the landscape architects do not believe the Visual Management System has major flaws. They see the System as a good start which can and should be improved upon. Sensitivity Levels are seen as a primary weakness of the Visual Management System with further research needed on public attitudes toward and expectations of the forest landscape: what are the similarities and differences in concern for scenic quality between a logging truck operator and a

hunter? between a forest visitor and a resident of the forest community?

The visual resource has not been entirely accepted as being equal to the primary forest resources, not even by all the landscape architects in the Forest Service. A small number of these landscape architects feel that the visual resource can not be equal because it is not an extractive commodity which returns money to the U.S. Treasury. There is also some feeling that the visual resource is only important as it relates to recreation. This is an unfortunate but perhaps natural view since the visual resource is treated as a subsidiary of recreation in the budget process; this, in itself, can prevent the visual resource from being considered as equal to recreation and the other primary resources.

Other managers (such as the primary staff and line officers) in the Forest Service have widely accepted the Visual Management System but do not always evidence this acceptance in practice. A primary reason for this may be the Forest Service structure which requires line officers to meet Congressionally assigned hard targets for commodity resources. There are no hard targets for the visual resource; and the visual resource is not considered a commodity resource.

Since a 'hard target' can be defined as a 'quantifiable resource output target,' the visual resource needed

to be quantified before it could be assigned hard targets. Ninety percent of the landscape architects in the USDA Forest Service believe the Visual Management System has succeeded in quantifying the visual resource. So it would seem to be time for a demonstration of renewed commitment to protection of the visual resource from the higher levels of government (such as Congress and Washington DC) where targets and budgets originate.

The fact is, however, that the Forest Service is a government Agency making it subject to the whims of public interest and politics. One respondent made the observation that the Visual Management System had been almost entirely accepted by Forest Service management until the current administration's push for commodity outputs.

The visual resource is not a commodity in the eyes of the Forest Service nor in the sense stated by Webster's Dictionary: "everything movable that is bought and sold." The visual resource is a commodity, nonetheless and however intangible, in the sense that beauty "affords...profit" albeit sometimes indirectly; and much has been written of the benefits of beauty on the human psyche with references even found in the laws of the Nation. NEPA (1969) stated that "The Congress [recognizes]....the critical importance of restoring and maintaining environmental quality to the overall welfare and development of man." (Public Law 91-190, Sec. 101 (a).) But NEPA was written and the Visual

Management System was developed under administrations other than the current. The task of re-educating the current administration and the Congress to the psychological and intangible benefits of beauty is not very feasible nor could such an effort accomplish more than a transient goal given the changing nature of politics. More to the point, more tangible and perhaps more permanent would be the translation of the visual resource into the language spoken by all Congresses---dollars. Research is needed in this area---the development of a system of assigning a monetary value of economic worth to the visual resource.

While the Visual Management System has provided a base from which to manage the visual resource, this base may be seen as only an initial toehold. Further strengthening of the System is called for to make this a truly firm foundation from which to manage the visual resource within the Forest Service structure. In order to receive the full credibility and protection called for by NEPA, The Forest Management Act of 1976 and other laws, hard targets need to be assigned for the visual resource and these hard targets need not wait for a dollar value to be placed on the visual resource. Since the Visual Management System has succeeded in quantifying the visual resource, the assignment of hard targets should now be possible. These hard targets must represent the visual resource as a separate and equal entity; or they must be incorporated into and made an integral part

of, not only recreation, but all the Forest Service's assigned targets. As long as the visual resource remains 'under' recreation, its secondary status may continue; and the Visual Management System can be expected to work, can be considered a success, until such situations where managers are forced to chose between the visual resource and those resources with budgets and targets.

The assignment of hard targets for the visual resource may not happen under the current administration. And the assignment by the Congress of one administration of hard targets for the visual resource, may not insure future hard target assignments. Such a step should, however, be a goal to further progress toward equal consideration and protection for the visual resource.

APPENDIX I
The Questionnaire

CONFIDENTIAL

THE VISUAL MANAGEMENT SYSTEM

THE VIEW of THE LANDSCAPE ARCHITECT IN THE FIELD

DIVISION OF LANDSCAPE RESOURCES
SCHOOL OF RENEWABLE NATURAL RESOURCES
COLLEGE OF AGRICULTURE
UNIVERSITY OF ARIZONA
TUCSON, AZ 85721

THE SYSTEM...

This survey is being conducted to determine Forest Service Landscape Architects' perceptions of the Visual Management System. Your cooperation in filling out and returning this questionnaire is greatly appreciated. Please provide the information requested but feel free at any point to add additional comments.

1. The Visual Management System has succeeded in quantifying the visual resource. (Please circle one.)
 AGREE STRONGLY AGREE DISAGREE DISAGREE STRONGLY
2. The Visual Management System has changed the way the scenic resource is managed on the ground. (Please circle one.)
 AGREE STRONGLY AGREE DISAGREE DISAGREE STRONGLY
3. The Visual Management System provides an accurate means of assessing what the "people expect to see." (Please circle one.)
 AGREE STRONGLY AGREE DISAGREE DISAGREE STRONGLY
4. The Visual Management System is a passing fad. (Please circle one.)
 AGREE STRONGLY AGREE DISAGREE DISAGREE STRONGLY
5. The Visual Management System has major flaws. (Please circle one.)
 AGREE STRONGLY AGREE DISAGREE DISAGREE STRONGLY
6. The Visual Management System has influenced how Forest Service Landscape Architects treat the visual resource in the field, ie: in siting powerlines, laying out road alignments. (Please circle one.)
 AGREE STRONGLY AGREE DISAGREE DISAGREE STRONGLY
7. The Forest Service Landscape Architects agree with each other that the Visual Management System provides an accurate measurement of visual quality. (Please circle one.)
 AGREE STRONGLY AGREE DISAGREE DISAGREE STRONGLY
8. Forest Service Landscape Architects are more sensitive to changes in a scene than is the public. (Please circle one.)
 AGREE STRONGLY AGREE DISAGREE DISAGREE STRONGLY
9. The Forest Service Landscape Architects agree with each other on the interpretation of the Visual Management System. (Please circle one.)
 AGREE STRONGLY AGREE DISAGREE DISAGREE STRONGLY

... AND ITS ELEMENTS

10. Visual Quality Objectives are vague quantities---too vague to be considered equally with the other resource quantities, ie: gallons, board feet. (Please circle one.)

AGREE STRONGLY AGREE DISAGREE DISAGREE STRONGLY

11. A computer program is the most accurate means of determining seen areas. (If your Forest did not use a computer program to determine seen areas, please indicate by putting a line through this question; otherwise, circle one.)

AGREE STRONGLY AGREE DISAGREE DISAGREE STRONGLY

12. Sensitivity Levels are accurate measurements of the public's concern for scenic quality. (Please circle one.)

AGREE STRONGLY AGREE DISAGREE DISAGREE STRONGLY

13. Variety Classes are accurate indications of the scenic quality of an area. (Please circle one.)

AGREE STRONGLY AGREE DISAGREE DISAGREE STRONGLY

14. Topography alone determines Distance Zones. (Please circle one.)

AGREE STRONGLY AGREE DISAGREE DISAGREE STRONGLY

15. The "goals" associated with the different Visual Quality Levels have been interpreted differently by different Forest Service Landscape Architects. (Please circle one.)

AGREE STRONGLY AGREE DISAGREE DISAGREE STRONGLY

16. Sensitivity Levels have been interpreted differently by different Forest Service Landscape Architects; what are Sensitivity Levels I and II to one landscape architect may be Sensitivity Levels II and III to another landscape architect. (Please circle one.)

AGREE STRONGLY AGREE DISAGREE DISAGREE STRONGLY

17. Distance Zones have been interpreted differently by different Forest Service Landscape Architects; what is Foreground to one landscape architect may be Middleground to another landscape architect. (Please circle one.)

AGREE STRONGLY AGREE DISAGREE DISAGREE STRONGLY

18. The visual resource has more weight in multiple-use decisionmaking as a result of the Visual Management System. (Please circle one.)

AGREE STRONGLY AGREE DISAGREE DISAGREE STRONGLY

THE STAFF AND THE SYSTEM...

The attitude of the Primary Staff toward the Visual Management System (VMS) can affect the success of the System. Please indicate your perception of the extent of understanding/knowledge of the VMS and acceptance/support of the VMS of each of the Primary Staff in your office. (Indicate the responsibilities of each Staff person with letters, ie: if you have a Recreation and Lands Staff person who has a soil substaff or is responsible for the soil resource, put 'A' next to 'Recreation Staff,' 'Lands Staff' and 'Soil Staff'; if you have a Range Staff also responsible for fire, put 'B' next to 'Range Staff' and 'B' next to 'Fire Staff' and so on. Place a line through a resource/function which is not assigned to a Primary Staff person. Mark only one set of responses for each person for each question.)

19.

(use letters to indicate position responsibilities)

UNDERSTANDING OF THE VMS

(Please circle one for each Staff member.)

___ Recreation Staff.....	VERY GOOD	GOOD	POOR	VERY POOR
___ Lands Staff.....	VERY GOOD	GOOD	POOR	VERY POOR
___ Archaeology Staff.....	VERY GOOD	GOOD	POOR	VERY POOR
___ Range Staff.....	VERY GOOD	GOOD	POOR	VERY POOR
___ Wildlife Staff.....	VERY GOOD	GOOD	POOR	VERY POOR
___ Soil Staff.....	VERY GOOD	GOOD	POOR	VERY POOR
___ Water Staff.....	VERY GOOD	GOOD	POOR	VERY POOR
___ Fire Staff.....	VERY GOOD	GOOD	POOR	VERY POOR
___ Timber Staff.....	VERY GOOD	GOOD	POOR	VERY POOR
___ Land Use Planning Staff.....	VERY GOOD	GOOD	POOR	VERY POOR
___ Engineering Staff.....	VERY GOOD	GOOD	POOR	VERY POOR
___ Forest Supervisor, Regional Forester or District Ranger..	VERY GOOD	GOOD	POOR	VERY POOR
___ Deputy Forest Supervisor.....	VERY GOOD	GOOD	POOR	VERY POOR

20.

(use letters to indicate position responsibilities)

ACCEPTANCE OF THE VMS

(Please circle one for each Staff member.)

	STRONGLY FAVOR	FAVOR	OPPOSE	STRONGLY OPPOSE
___ Recreation Staff.....	SF	F	O	SO
___ Lands Staff.....	SF	F	O	SO
___ Archaeology Staff.....	SF	F	O	SO
___ Range Staff.....	SF	F	O	SO
___ Wildlife Staff.....	SF	F	O	SO
___ Soil Staff.....	SF	F	O	SO
___ Water Staff.....	SF	F	O	SO
___ Fire Staff.....	SF	F	O	SO
___ Timber Staff.....	SF	F	O	SO
___ Land Use Planning Staff.....	SF	F	O	SO
___ Engineering Staff.....	SF	F	O	SO
___ Forest Supervisor, Regional Forester or District Ranger..	SF	F	O	SO
___ Deputy Forest Supervisor.....	SF	F	O	SO

THE STAFF AND THE L.A...

In addition, the attitude of the Primary Staff toward the landscape architect, as the representative of the visual resource, can have an effect on the success of the System. Speaking strictly for yourself, please indicate your perception of the support you can expect from each of the Primary Staff in your office. (Indicate the responsibilities of each Staff person with letters, ie: if you have a Recreation and Lands Staff person who has a soil substaff or is responsible for the soil resource, put 'A' next to 'Recreation Staff,' 'Lands Staff' and 'Soil Staff'; if you have a Range Staff also responsible for fire, put 'B' next to 'Range Staff' and 'B' next to 'Fire Staff' and so on. Place a line through a resource/function which is not assigned to a Primary Staff person. Mark only one set of responses for each person.)

21.

(use letters to indicate position responsibilities)

SUPPORT OF L.A.

(Please circle one for each Staff member.)

___ Recreation Staff.....	VERY GOOD	GOOD	POOR	VERY POOR
___ Lands Staff.....	VERY GOOD	GOOD	POOR	VERY POOR
___ Archaeology Staff.....	VERY GOOD	GOOD	POOR	VERY POOR
___ Range Staff.....	VERY GOOD	GOOD	POOR	VERY POOR
___ Wildlife Staff.....	VERY GOOD	GOOD	POOR	VERY POOR
___ Soil Staff.....	VERY GOOD	GOOD	POOR	VERY POOR
___ Water Staff.....	VERY GOOD	GOOD	POOR	VERY POOR
___ Fire Staff.....	VERY GOOD	GOOD	POOR	VERY POOR
___ Timber Staff.....	VERY GOOD	GOOD	POOR	VERY POOR
___ Land Use Planning Staff.....	VERY GOOD	GOOD	POOR	VERY POOR
___ Engineering Staff.....	VERY GOOD	GOOD	POOR	VERY POOR
___ Forest Supervisor, Regional				
___ Forester or District Ranger..	VERY GOOD	GOOD	POOR	VERY POOR
___ Deputy Forest Supervisor.....	VERY GOOD	GOOD	POOR	VERY POOR

22. The Visual Management System has provided a means whereby the Staff can give lip service to scenic beauty. (Please circle one.)

AGREE STRONGLY

AGREE

DISAGREE

DISAGREE STRONGLY

23. Who is your supervisor? (Please give a position title, not a name.)

24. There should be a Staff position responsible, in name, for the "visual landscape." (Please circle one.)

YES

NO

The title of such a position would be _____

25. Why, in your opinion, is there no Staff position responsible, in name, for the "visual landscape?" (Please use the back of the questionnaire if you need more room.)

FINALLY...

FINALLY, we would like to ask a few questions about yourself to help with analysis of the results.

26. What is your current job title? _____

27. What, if any, was your immediately previous Forest Service job title? _____

28. What is your GS level? _____

29. Are you in the 807 Series?
(Please circle one.)

1. YES
2. NO

30. If you are in a Series other than the 807 Series, is it because of:
(Please circle one.)

1. CAREER GOALS
 2. SPECIAL INTERESTS
 3. FORCED MOVE
 4. OTHER (Please specify.)
- _____
- _____

Please indicate how long you have.....

HOW LONG HAVE YOU.... (Please circle one for each item.)						
	LESS THAN 1 YEAR	1 BUT LESS THAN 3 YEARS	3 BUT LESS THAN 5 YEARS	5 BUT LESS THAN 10 YEARS	10 TO 20 YEARS	MORE THAN 20 YEARS
31. ...had your current job title?	-1	1-3	3-5	5-10	10-20	+20
32. ...worked for the Federal Government?	-1	1-3	3-5	5-10	10-20	+20
33. ...worked for the Forest Service?	-1	1-3	3-5	5-10	10-20	+20
34. ...been a landscape architect?	-1	1-3	3-5	5-10	10-20	+20
35. ...been a landscape architect for the Forest Service?	-1	1-3	3-5	5-10	10-20	+20
36. ...been on your current Forest?	-1	1-3	3-5	5-10	10-20	+20
37. ...been in your current Region?	-1	1-3	3-5	5-10	10-20	+20

38. With what aspect(s) of the Visual Management System have you been involved? (Please circle all that apply.)

1. INVENTORY	11. FOREST PLANNING TEAM
2. ANALYSIS	12. REGIONAL PLANNING TEAM
3. FIELD CHECK	13. SUPERVISION
4. MAPPING	14. TRAINING OTHER EMPLOYEES
5. COMPUTER CODING	15. COMPUTER GRAPHICS
6. COMPUTER ENTRY	16. PROJECT ID TEAM MEMBER
7. VIEWSHED CORRIDOR PLANNING	17. OTHER (Please specify.)
8. ABSORPTION CAPABILITIES	_____
9. EIS, EAR WRITE-UPS	_____
10. SITE SPECIFIC ANALYSIS	

39. Approximately what percent of your time do you now devote directly (items 1-8 above) to the Visual Management System? _____

40. Approximately what percent of your time do you now devote indirectly (items 9-17 above) to the Visual Management System? _____

41. In what year was/were the landscape architect(s) in your office first trained in the Visual Management System? (Please indicate if you do not know.) _____

42. In what year did your office finish its initial visual inventory? (Please indicate if you don't know.) _____

43. In what year did your Forest finalize its Forest Plan? (Please indicate if you don't know or your Plan is not yet final.) _____

44. Does your office have any completed viewshed corridor plans? (Please circle one.) 1. YES
2. NO

45. What is your age? _____

46. What is your educational background?

	MAJOR FIELD OF STUDY	NAME OF SCHOOL
ASSOCIATE DEGREE		
BACHELOR DEGREE		
MASTER DEGREE		
DOCTORATE DEGREE		

COMMENTS...

Is there anything you would like to add? Please use this space for any additional comments you would like to make about the Visual Management System.

Your contribution to this effort is very greatly appreciated. If you would like a summary of results, please enclose a self-addressed, stamped envelope when you return your questionnaire. We will see that you receive it.

APPENDIX II

Cover Letter: The First Mailing

THE UNIVERSITY OF ARIZONA
TUCSON, ARIZONA 85721

COLLEGE OF AGRICULTURE
SCHOOL OF RENEWABLE NATURAL RESOURCES
325 BIOLOGICAL SCIENCES EAST BUILDING

More than a decade has passed since National Forest Landscape Management, Volume 1, was published and FSM #2380 stated: "the visual landscape (will be) treated as an essential part of and receive equal consideration with the other basic resources of the land." The Visual Management System has now been implemented throughout the Forest Service and incorporated into many Forest Plans. We would like to know if the System has been successful in providing a means whereby the visual resource can be managed as well as input into planning and multiple-use decisionmaking.

As a Forest Service Landscape Architect (whether or not you are currently working as a landscape architect), your views of the Visual Management System, its validity, its elements, its acceptance, are of primary importance. You better than anyone else can provide the information necessary to assess the value and effectiveness of the System.

You may be assured of complete confidentiality. The questionnaire has an identification number for mailing purposes only. This is so that we may check your name off the mailing list when you return your questionnaire. Your name will never be placed on the questionnaire or associated in any way with the information you provide. The questionnaire has been designed to take as little of your time as possible; additional comments are, however, very welcome.

The results of this study will be made available to the respondents. If you would like a summary, please enclose a self-addressed, stamped envelope when you return your questionnaire.

We would be most happy to answer any questions you might have. Please write or call us at (602) 325-4675. Thank you very much.

Cordially,

Nora A. Laughlin
Project Director

Enclosure

APPENDIX III

Postcard: The Second Mailing

October 31, 1983

Last week a questionnaire was mailed to you seeking your opinion about the Visual Management System. You were selected because the landscape architect in the Forest Service, whether or not he/she is currently working as a landscape architect, has training and experience which is particularly appropriate to an assessment of the System.

If you have already completed and returned it to us please accept our sincere thanks. If not, please do so today. Because of the relatively small number of persons involved in this study it is extremely important that your ideas also be included if the results are to accurately represent the opinions of landscape architects in the Forest Service.

If by some chance, you did not receive the questionnaire, or it got misplaced, please call us right now, collect, (602-325-4675) and we will get another one in the mail to you today.

Sincerely,

Nora Laughlin
Project Director

APPENDIX IV

Cover Letter: The Third Mailing

THE UNIVERSITY OF ARIZONA

TUCSON, ARIZONA 85721

COLLEGE OF AGRICULTURE

SCHOOL OF RENEWABLE NATURAL RESOURCES
325 BIOLOGICAL SCIENCES EAST BUILDING

About three weeks ago we wrote to you seeking your opinion on the Visual Management System. As of today we have not received your completed questionnaire.

Our research unit has undertaken this study because of our perceived need for a compilation and comparison of the landscape architects' views on the Visual Management System.

The substantial number of questionnaires returned is very encouraging. Some are even accompanied by long narratives expanding on opinions and feelings about the System. This is very exciting. But whether we will be able to accurately describe how landscape architects in the Forest Service feel about this important subject depends upon you and the others who have not yet responded. The diversity of opinion expressed in these initial responses suggest that your ideas may be significantly different.

There is a total of 264 landscape architects in the Forest Service. This small survey population along with the above reasons make it essential that each person in the study return their questionnaire.

In the event that your questionnaire has been misplaced, a replacement is enclosed. Please take the time today to complete and return it in the envelope provided.

We'll be happy to send you a copy of the results if you want one. Simply return a self-addressed, stamped envelope with your questionnaire. We expect to have the results ready to send early next year.

Your contribution to the success of this study will be appreciated.

Most sincerely,

Nora Laughlin
Project Director

Enclosure

APPENDIX V

RAW SURVEY DATA

THE SYSTEM..... AND ITS ELEMENTS	AGREE STRONGLY	AGREE	DISAGREE	DISAGREE STRONGLY
1. The Visual Management System has succeeded in quantifying the visual resource.	18% (39)	73% (162)	8% (18)	2% (4)
2. The Visual Management System has changed the way the scenic resource is managed on the ground.	26% (60)	69% (156)	4% (10)	-- (1)
3. The Visual Management System provides an accurate means of assessing what the "people expect to see."	5% (10)	60% (133)	32% (71)	3% (7)
4. The Visual Management System is a passing fad.	-- (1)	4% (8)	55% (126)	42% (96)
5. The Visual Management System has major flaws.	3% (7)	29% (65)	64% (145)	4% (8)
6. The Visual Management System has influenced how Forest Service landscape architects treat the visual resource in the field, ie: in siting powerlines, laying out road alignments.	38% (87)	56% (128)	7% (15)	-- --
7. The Forest Service landscape architects agree with each other that the Visual Management System provides an accurate measurement of visual quality.	4% (8)	58% (128)	37% (82)	2% (4)
8. Forest Service landscape architects are more sensitive to changes in a scene than is the public.	--discarded--			
9. Forest Service landscape architects agree with each other on the interpretation of the Visual Management System.	-- (1)	49% (112)	45% (103)	5% (11)
10. Visual Quality Objectives are vague quantities---too vague to be considered equally with the other resource quantities, ie: gallons, board feet.	8% (17)	33% (73)	50% (111)	10% (23)
11. A computer program is the most accurate means of determining seen areas.	15% (18)	41% (50)	37% (46)	7% (9)
12. Sensitivity Levels are accurate measurements of the public's concern for scenic quality.	1% (2)	51% (116)	43% (97)	5% (11)
13. Variety Classes are accurate indications of the scenic quality of an area.	13% (29)	71% (158)	14% (31)	2% (5)
14. Topography alone determines Distance Zones.	--discarded--			
15. The "goals" associated with the different Visual Quality Levels have been interpreted differently by different Forest Service landscape architects.	10% (22)	73% (164)	17% (39)	-- --
16. Sensitivity Levels have been interpreted differently by different Forest Service landscape architects.	7% (15)	60% (137)	32% (72)	2% (4)
17. Distance Zones have been interpreted differently by different Forest Service landscape architects.	2% (5)	33% (73)	59% (131)	7% (15)
18. The visual resource has more weight in multiple-use decisionmaking as a result of the Visual Management System.	41% (96)	55% (128)	3% (8)	-- (1)

19. STAFF UNDERSTANDING OF THE VMS	VERY GOOD	GOOD	POOR	VERY POOR
Recreation Staff.....	37%(83)	51%(115)	11%(25)	2%(4)
Lands Staff.....	16%(34)	51%(111)	31%(67)	3%(7)
Archaeology Staff.....	25%(51)	52%(108)	19%(40)	4%(8)
Range Staff.....	6%(11)	53%(100)	38%(72)	3%(5)
Wildlife Staff.....	7%(16)	55%(120)	35%(76)	2%(5)
Soil Staff.....	7%(16)	51%(109)	38%(81)	3%(6)
Water Staff.....	7%(15)	56%(115)	34%(70)	3%(7)
Fire Staff.....	7%(14)	46%(98)	40%(86)	7%(16)
Timber Staff.....	13%(29)	51%(114)	31%(69)	4%(10)
Land Use Planning Staff.....	30%(65)	55%(118)	13%(28)	2%(4)
Engineering Staff.....	2%(5)	36%(78)	52%(111)	9%(20)
Forest Supervisor, Regional				
Forester or District Ranger....	11%(23)	64%(139)	23%(50)	3%(6)
Deputy Forest Supervisor.....	14%(17)	59%(72)	24%(30)	3%(4)
20. STAFF ACCEPTANCE OF THE VMS	STRONGLY FAVOR	FAVOR	OPPOSE	STRONGLY OPPOSE
Recreation Staff.....	53%(118)	44%(98)	2%(5)	1%(2)
Lands Staff.....	25%(54)	64%(136)	11%(24)	----
Archaeology Staff.....	39%(79)	57%(116)	3%(6)	--(1)
Range Staff.....	12%(22)	76%(136)	10%(18)	2%(4)
Wildlife Staff.....	15%(32)	75%(157)	9%(18)	1%(2)
Soil Staff.....	12%(24)	78%(160)	10%(20)	1%(2)
Water Staff.....	11%(23)	79%(158)	9%(17)	2%(3)
Fire Staff.....	10%(21)	68%(140)	18%(36)	4%(8)
Timber Staff.....	10%(22)	61%(128)	24%(51)	5%(10)
Land Use Planning Staff.....	32%(68)	57%(120)	8%(16)	3%(6)
Engineering Staff.....	5%(10)	67%(138)	26%(54)	2%(5)
Forest Supervisor, Regional				
Forester or District Ranger....	19%(40)	67%(140)	12%(26)	2%(4)
Deputy Forest Supervisor.....	26%(31)	65%(78)	8%(10)	2%(2)
21. STAFF SUPPORT OF THE LANDSCAPE ARCHITECT	VERY GOOD	GOOD	POOR	VERY POOR
Recreation Staff.....	64%(144)	28%(63)	7%(15)	1%(3)
Lands Staff.....	39%(84)	48%(103)	11%(24)	2%(4)
Archaeology Staff.....	52%(105)	42%(85)	6%(12)	1%(2)
Range Staff.....	20%(37)	63%(118)	16%(29)	1%(2)
Wildlife Staff.....	22%(47)	63%(136)	13%(29)	1%(3)
Soil Staff.....	23%(50)	63%(134)	13%(27)	1%(3)
Water Staff.....	23%(48)	63%(132)	12%(26)	1%(3)
Fire Staff.....	18%(38)	52%(110)	24%(50)	7%(14)
Timber Staff.....	19%(42)	47%(102)	27%(59)	7%(15)
Land Use Planning Staff.....	41%(87)	46%(97)	9%(20)	4%(9)
Engineering Staff.....	11%(24)	54%(114)	28%(59)	8%(16)
Forest Supervisor, Regional				
Forester or District Ranger....	24%(52)	55%(117)	16%(33)	5%(11)
Deputy Forest Supervisor.....	32%(39)	48%(59)	15%(18)	5%(6)
22. The Visual Management System has provided a means whereby the Staff can give lip service to scenic beauty.	AGREE STRONGLY	AGREE	DISAGREE	DISAGREE STRONGLY
	10% (20)	44% (92)	40% (83)	7% (15)

23. Who is your supervisor?

Fifty-two different titles were given. The title most commonly given is followed by some of the related titles in parentheses.

Recreation Staff(Recreation; Rec, Lands & Minerals Staff; Rec Staff & Landscape Architect).....	50%(116)
Forest Landscape Architect(Supervisory Landscape Architect; Zone LA; Regional Landscape Architect).....	14%(33)
Forest Supervisor.....	9%(20)
LUP Staff(Group Leader, LMP; Forest Planner).....	9%(20)
District Ranger.....	6%(14)
Resource Staff(Resource Coordinator; Resource Assistant).....	4%(9)
Other(Forester; Minerals Staff; Timber Staff; Lands Staff; Engineer; Staff Officer).....	8%(19)

24. There should be a Staff position responsible, in name, for the "visual landscape."	YES 53%(109)	NO 47%(97)
--	-----------------	---------------

The title of such a position would be (the most commonly given title is shown with related titles given in parentheses):

Landscape Architect(Landscape Management Staff; Landscape Architecture Staff; Visual Landscape Architect).....	42%(55)
Recreation Staff(R/L; Recreation, Lands, Minerals).....	29%(38)
Visual Resource Staff(Visual Quality Coordinator; Visual Management Staff; Rec & Visual Resources Staff).....	21%(28)
Other(Social & Design Arts; Whole Earth Doctor; Chief Nature Fakur).....	8%(11)

The position titles in Questions 26 and 27 have been grouped according to implied emphasis with some actual titles given by respondents shown in parentheses.

26. What is your current job title?

Sixty-nine different titles were given.

Landscape Architect(Regional LA; Forest LA; Supervisory LA; Project LA; Zone LA; District LA; Area LA).....	68%(160)
Recreation (Recreation Planning Group Leader; Regional Coordinator of Wilderness, Trails, ORV, Dispersed ROS Areas, Volunteers; Recreation & Lands Staff).....	8%(18)
Planning(ID Team Leader; Planning Staff Officer).....	6%(13)
Recreation & Landscape Architect(Landscape Architect & Recreation, Wilderness & Trails Specialist; Forest LA & District R&L & Snow Ranger; Landscape Arch & Rec Planner).....	4%(9)
Planning & Landscape Architect(Forest Planner/L.A.; Landscape Architect and Planning Team).....	3%(6)
Interdisciplinary(Interdisciplinary Staff(Resource Assistant); Interdisciplinary(Landscape Architect)).....	3%(6)
Other(Deputy Forest Supervisor; R.O.Ass't Director PD&B & LMP; District Ranger; Resource Analysis Specialist).....	10%(23)

27. What, if any, was your immediately previous Forest Service job title?

Thirty-nine different titles were given.

Landscape Architect(Forest LA; Special Projects L.A.).....	80%(160)
Technician(Forestry Tech; Eng Tech).....	7%(14)
Recreation(Recreation Staff; Rec & Lands Staff Officer).....	5%(9)
Planning(ID Team Leader; LUP Staff).....	3%(5)
Other(District Ranger; Public Involvement Specialist; Visual Resource Specialist; Deputy Forest Supervisor).....	5%(12)

28. What is your GS level?

GS-7 3%(7)	GS-9 18%(42)	GS-11 50%(118)	GS-12 19%(45)	GS-13 9%(20)	GS-14 1%(2)	GS-15 1%(2)
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29. Are you in the 807 Series?

YES 96%(227)	NO 4%(9)
-----------------	-------------

30. If you are in a Series other than the 807 Series, is it because of:

Career Goals 78%(7)	Forced Move 22%(2)
------------------------	-----------------------

HOW LONG HAVE YOU...	LESS THAN 1 YEAR	1 BUT LESS THAN 3 YEARS	3 BUT LESS THAN 5 YEARS	5 BUT LESS THAN 10 YEARS	10 TO 20 YEARS	MORE THAN 20 YEARS
	1 YEAR	3 YEARS	5 YEARS	10 YEARS	20 YEARS	20 YEARS
31. ...had your current job title?	9% (20)	21% (50)	28% (65)	21% (50)	20% (47)	2% (4)
32. ...worked for the federal government?	--	2% (4)	12% (28)	29% (67)	42% (98)	16% (37)
33. ...worked for the Forest Service?	--	3% (8)	14% (33)	33% (76)	37% (86)	13% (31)
34. ...been a landscape architect?	--	3% (1)	12% (8)	25% (27)	41% (95)	19% (45)
35. ...been a landscape architect for the Forest Service?	--	5% (1)	16% (12)	31% (38)	36% (83)	12% (28)
36. ...been on your current Forest?	4% (10)	14% (31)	31% (69)	35% (79)	15% (34)	1% (2)
37. ...been in your current Region?	-- (1)	9% (21)	26% (61)	34% (79)	26% (61)	4% (10)

38. With what aspect(s) of the Visual Management System have you been involved?

Inventory.....	91%(214)	Forest Planning Team.....	73%(173)
Analysis.....	91%(215)	Regional Planning Team....	14%(32)
Field Check.....	91%(214)	Supervision.....	65%(153)
Mapping.....	90%(212)	Training Other Employees..	78%(185)
Computer Coding.....	45%(105)	Computer Graphics.....	54%(128)
Computer Entry.....	35%(83)	Project ID Team Member....	79%(186)
Viewshed Corridor Planning..	59%(140)	Other(ie: EVC; author; COMPEX, SILVEX; vegetative management plans; public involvement presentations; input into RIDS, FOREPLAN)	17%(41)
Absorption Capabilities.....	66%(155)		
EIS, EAR Write-ups.....	89%(210)		
Site Specific Analysis.....	93%(219)		

39. Approximately what percent of your time do you now devote to the Visual Management System?

Less than 25% 41%(92)	26-50% 26%(59)	51-75% 13%(30)	More than 75% 20%(44)
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41. In what year was/were the landscape architect(s) in your office first trained in the Visual Management System?

1970 or earlier 16%(23)	1971-1975 59%(86)	1976-1980 25%(37)
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42. In what year did your office finish its initial visual inventory?

1970-1974 16%(29)	1975-1979 38%(68)	1980-1983 46%(82)
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43. In what year did your Forest finalize its Forest Plan?

1976-1978	1979-1981	1982-1983
23%(7)	20%(6)	57%(17)

44. Does your office have any completed
viewshed corridor plans?

YES	NO
27%(59)	73%(158)

45. What is your age? LESS THAN 30 30-39 40-49 FIFTY AND ABOVE

10%(23)	44%(104)	36%(85)	10%(24)
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46. EDUCATIONAL BACKGROUND

Associate Degree
22 different fields from 25 different schools.....11%(25)

Bachelor Degree

99.6%(235)

Fields

Landscape Architecture.....	84%(199)
L.A. related (ie: Environmental Design, Landscape Design).....	5%(11)
Forestry, Forestry Management.....	2%(4)
Horticulture, Ornamental Horticulture.....	2%(4)
Fine Arts, Art.....	1%(3)
Other.....	6%(14)
None.....	--(1)

Schools

Utah State U.....	15%(34)	U. of Arizona.....	2%(5)
U. of Wisconsin.....	6%(14)	U. of Washington.....	2%(5)
Iowa State U.....	6%(14)	Ohio State U.....	2%(4)
Cal Poly Pomona.....	6%(13)	U. of Massachusetts.....	2%(4)
Kansas State U.....	5%(12)	Texas A&M.....	1%(3)
Michigan State U.....	5%(11)	U. of Illinois.....	1%(3)
State U. of New York.....	4%(10)	Colorado State U.....	1%(3)
U. of Oregon.....	4%(10)	U. of Kentucky.....	1%(3)
Louisiana State U.....	3%(8)	Purdue.....	1%(3)
U. of Georgia.....	3%(7)	Cal Poly San Luis Obispo..	1%(2)
Penn State.....	3%(6)	West Virginia U.....	1%(2)
Washington State U.....	3%(6)	U. of Colorado.....	1%(2)
Oregon State U.....	3%(6)	U. of Idaho.....	1%(2)
UC @ Berkeley.....	3%(6)	Virginia Poly.....	1%(2)
Rutgers U.....	3%(6)	Other.....	11%(27)

Master Degree

20%(46)

Fields

Landscape Architecture.....	76%(35)
Planning (Environmental, Regional, Urban).....	9%(4)
Public Administration, Public Affairs.....	7%(3)
Other (Recreation, Fine Arts, Architecture).....	9%(4)

Schools

Utah State U.....	17%(8)	Louisiana State U.....	4%(2)
UC @ Berkeley.....	7%(3)	U. of Illinois.....	4%(2)
U. of Oregon.....	7%(3)	U. of Colorado.....	4%(2)
U. of Massachusetts.....	7%(3)	U. of Arizona.....	4%(2)
U. of Georgia.....	7%(3)	U. of Pennsylvania.....	4%(2)
Cal Poly Pomona.....	4%(2)	North Carolina State.....	4%(2)
U. of Wisconsin.....	4%(2)	Other (10 schools).....	22%(10)

None of the respondents have PhDs.

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