

A person wearing a blue jacket and a hat is riding a brown horse in a grassy field. The background features a dense forest of tall evergreen trees and a large, forested mountain under a clear sky. Three black circular punch holes are visible on the left side of the page.

Chapter 3 Constituent Information

Chapter 3 explains the importance of constituent information for scenery management, recreation management, and forest planning. A sample constituent survey is included.



Constituent Information

Constituent information—expectations, desires, preferences, acceptable levels of quality, behaviors, and values—is essential to Forest Service managers.



CONSTITUENT INFORMATION: examines the significance of scenic quality and aesthetic experience to people:

- to visitors of a National Forest;
- to people as part of the local setting in which they live;
- to people living a far distance from the Forest;

Purpose

It is important to understand how aesthetic, specifically scenic qualities of a National Forest are significant to people whether they are visitors to the Forest, residents of the local area or nearby communities, or part of a broader constituency who may either occasionally visit the Forest or simply have an interest in the aesthetic qualities of National Forests.

Context:

The importance for understanding and identifying valued landscape attributes, landscape character, and scenic integrity can not be over emphasized especially from a “cultural” landscape perspective. Constituent information is an essential ingredient in all phases of the Scenery Management System. See Chapter 5, Application of the Scenery Management System and the SMS Process Flow Diagram for additional information.

Technical Involvement:

Sociologists, cultural anthropologist, social psychologists, landscape architects, public information officers, and other professionals need to assess the ways in which such significance is expressed through attitudes, values, desires and preferences of individuals; and how it reflects in peoples' behavior both as visitors to the Forest and as participants in other social activities and processes which may impinge on the demands for scenic management and the ability to design and implement scenery management practices.

Constituency Composition

The scenic qualities of National Forests, other public lands and surrounding private lands are important to people in a variety of ways and social contexts. As individuals, people value landscapes in connection to sensory response, and culturally who they are and how they perceive their relationship to the world.

The aesthetic characteristics of landscapes are also an integral part of community life, forming the "sense of place" in which people live and interact with one another. Even those who live at great distances from that landscape (and may have never visited the forest) may take an active interest in scenic management activities from a natural and cultural landscape perspective. In this light, the constituency of scenery management includes:

- **individual visitor constituent**:- Individuals who visit the Forest to experience its "natural appearing" and/or "cultural" landscape qualities. Visitors may be of local, regional, national or international in origin.
- **local constituency**:- People living in the local area and/or surrounding communities who interpret the significance of the Forest and its scenic amenities in terms of defining the "sense of place" where they live and interact with others; these people may include 'average' residents and members of groups to whom the Forest is important in different ways.
- **broader constituency**:- People living a far distance from the Forest who may visit or who may have never visited the Forest but, value the knowledge that it is being managed for scenic and aesthetic qualities as part of their National Forest System. Again such people may include 'average' citizens, members of groups with different orientations to National Forests and public land management, opinion leaders, etc.

Although the scope of the constituency of scenery management varies significantly, for practical purposes constituent assessments will likely have to focus most closely on visitors to the National Forest.

Although, information on the significance of aesthetic experience and scenic management both to people living in the local area and to broader regional, national, international constituencies, as well as information on the broader social processes can not be ignored. Much information on these broader levels of constituency will have to be acquired from existing data sources or by incorporating questions concerned with scenery management within broader social survey instruments.

Content and Form

Two important initial concerns with respect to constituent information include what is the information about -- its *content* -- and how is it expressed or conveyed -- its *form*.

Content- some of the most useful information for scenery management concerns 1) how constituents use an area and 2) what visitors and other constituents feel, value, desire, prefer, and expect to encounter in terms of landscape character and scenic integrity. These latter concerns extend beyond those who actually visit the Forest to include how it and its scenic and other aesthetic attributes are interpreted by those living in the local area and surrounding communities as part of the fabric of social

life in the area. Also, how are the aesthetic experiences interpreted by people living far away from the area who may be more concerned with the provision of scenery and other amenities as part of the mission of the National Forest System.

Form- in which constituent information is obtained, two basic kinds of information are important for understanding each level of constituency for scenery management:

1) *Verbal expressions* of the significance or importance of scenic and other aesthetic qualities of the Forest and/or special places within the Forest. These may include:

- *Feelings* -- Sensory responses such as sight, sound, touch, taste and smell;
- *Values* -- The importance or worth of aesthetic and other outputs of the Forest;
- *Expectations* -- What constituents anticipate encountering in National Forests;
- *Desires* -- What constituents would like to have if they were unconstrained;
- *Preferences* -- What constituents would choose from among a set of available options;
- *Acceptable levels of quality* -- The lowest constituent standards permissible

2) *Actions or behaviors* of people, either as part of directly experiencing the scenic quality of the Forest landscape or as patterns of social behavior which may directly or indirectly affect the provision of opportunities for such experiences via scenic management activities.

Given the diverse constituency for scenery management, it will be necessary to use various strategies and/or techniques for collecting the relevant information, or to seek different kinds of information from various constituent groups. Thus, for example, the kind of information likely to be most immediately applicable to scenic management activities will be that pertaining to the smallest geographic area feasible. Visitors would be the prime source of such information -- both verbal and behavioral -- although some information might also be obtained from studies focusing primarily on the significance of the Forest's scenic and aesthetic resources to the lives of people such as members of their local communities, or elements defining the nature of "sense of place" in which they live.

A great deal of this latter information would pertain more to the overall pattern of scenery management for the Forest as part of a broader scheme in which other resource uses and their management are included. This is also true of much information obtained from broader regional or national constituencies. The latter, in particular, may well have little or no experience or perhaps even knowledge, for example, particular viewsheds, landscape units, and so on; but would rather be concerned with whether the overall emphasis and pattern of scenic management on the Forest contributes to or hinders achieving the appropriate emphasis on the provision of these outputs within the National Forest System as part of an overall management program for which they and all Americans are constituents.

Constituent Assessment

A constituent assessment is a compilation of information about individuals and groups and how they experience the aesthetic and scenic dimensions of the Forest, whether visiting or merely contemplating from afar. Since visitors actively demonstrate their interest via their actions, and are also the most accessible group within the constituency for scenery management, their behaviors and verbal expressions comprise a central focus of a constituent assessment.

As noted above, other important elements of the constituency for scenery management include residents of the local area and surrounding communities, as well as those living a far distance from the Forest to whom it is significant either as a potential place to visit or as part of the nation's natural heritage. Both verbal expressions of how these groups interpret the significance of the Forest and its aesthetic qualities, as well as manifestations of behavior as reflected in broader social processes with implications for scenery management, would form part of the ideal constituent assessment.

A constituent assessment should involve a cooperative effort among social scientists, landscape architects, forest planners, and land managers in determining the kinds of scenery management information to be obtained from or about constituents. Such a partnership also serves to insure that issues perceived important to each cooperating group will be incorporated within the overall effort.

A constituent assessment should yield information useful in developing statements about desired or preferred landscape character and scenic integrity. Ideally, the constituent assessment also produces information useful for delineating important travel routes and use areas, viewsheds, and special places in the scenic inventory.

One or more social scientists should play an important role in the formulation of a plan for the constituent assessment and analysis. Such a plan should specify questions to be answered, methods of data collection, methods of analysis, and desired results from the assessment.

A constituent assessment for landscape aesthetics is a form of public participation in forest planning. As with any form of public participation, multiple methods for data collection and analysis will be most effective at acquiring the broadest range of relevant information. Questions will vary for different types of desired information. Kinds of methods and some sample questions will be considered.

Finding out how constituents envision and value landscape character, the kinds of scenic integrity they prefer, may involve studying user behavior, talking directly with users, conducting a survey or public involvement workshop, utilizing personal observations of Forest Service personnel, and the perusal of other information sources, including information from previous scenic analyses, recreation and broader forest planning activities.

Money, time, and workforce constraints may not permit a complete or ideal constituent analysis. This budgetary fact of life is taken for granted in the following discussion. For many National Forests, existing constituent information is marginal because it has been difficult for the Forest Service to obtain this kind of information in the past. It may even be the case that for some Forests constrained in the above ways, land managers might continue to use personal observations and judgments for constituent data

until the Forest Service performs a more thorough and scientific constituent assessment and analysis.

Combining a constituent assessment for scenery management with other resource inventories should be done when ever possible. At a minimum, constituent assessments for scenery management and recreation management should be combined. This chapter on constituent information is written with a joint assessment for scenery and recreation management in mind.

Assessment Components

An ideal assessment of the constituency for scenery management would involve the set of components found in the table below. As discussed above, management constraints will strongly affect the ability of a National forest to incorporate any or all of these components within an overall assessment effort. The rest of this chapter looks briefly at each component, and also includes several examples of the kinds of questions that might be included in a constituent survey for, in this case, visitors to a National Forest.

----- Constituency for Scenery Management -----

| Assessment Components | Visitors to Forest | Local area residents | Regional and/or Constituents |
|--------------------------------------|--------------------|----------------------|------------------------------|
| 1. Constituent surveys | X | X | X ^{**} |
| 2. Visitor observations | X | | |
| 3. Constituent interviews | X [*] | X | |
| 4. Public participation ¹ | | X | |
| 5. Additional information sources | X | X | X |

¹ Formally organized groups, events or activities -- e.g., workshops, meetings, task forces, etc.

^{*} Interviews likely to occur post-visit, via either telephone or in-person

^{**} Scenic management questions incorporated within surveys of broader purpose and scope

1. *Constituent Surveys*



The survey is an important tool for obtaining constituent information. Any public opinion survey conducted by an agency of the U.S. Government requires approval of the Office of Management and Budget (OMB). Many factors -- including the landscape issue being addressed, the identity of constituents, and the importance of preferences of various constituent groups -- influence the decision of which people to survey. The collaboration of social scientists, area managers, recreation and forest planners, and landscape architects usually offers the best opportunity for linking the issues and concerns at hand with the identification of survey recipients.

In constructing a survey, the population of constituents should be clearly identified. The framework depicted above suggests that, in general, surveys may be designed for visitors to a National Forest, for people living in the local area or surrounding communities, and for people living at some distance from the Forest. The above is also significant as members of a broader economic, social, cultural and political communities -- e.g., state or national residents, members of groups concerned with certain outputs and/or management activities of National Forests in general.

Visitor surveys are concerned with those who visit the Forest from whatever origin (e.g., the local area or some distance away). These surveys seek to obtain information on how visitors experience the scenic and aesthetic aspects of the Forest. When combined with information about visitor behavior, such survey information can sometimes be applied to a specific landscape unit or viewshed.

While it is desirable to obtain survey results that capture visitor experiences of individual viewsheds, in many situations it may not be possible to do so at a detailed geographic level. In these situations, the smallest geographical area that is practical should be utilized. Every effort can then be made to coordinate the survey area with viewshed boundaries. Where specific constituent information cannot be gained for a single viewsh, some assumptions about the applicability of more generalized information may have to be made.

It is also important to obtain information about scenic quality outside of travelways and use area viewsheds. Areas outside viewsheds offer opportunities for recreation experiences reflected in the primitive and semi-primitive end of the ROS. These areas are particularly important because Forest Service activities may create changes in landscape character and scenic integrity and may also affect the quality of recreation settings and peoples' experiences in such settings.

Surveys of **residents in the local area** surrounding a National Forest, including towns and communities in relative proximity to the Forest, provide a means of obtaining information about another important segment of the constituency for scenery management. Of course, many local residents will likely visit the Forest either periodically or on a regular basis; and in so doing they may be 'captured' as part of visitor surveys designed to solicit information on peoples' direct experiences of the Forest's scenic and aesthetic attributes, perhaps with respect to particular viewsheds, travel corridors, and so on.

But many local area residents may value the Forest and its aesthetic qualities as a more or less defining characteristic of "sense of place" where they live and interact with others as members of a local area or community, regardless of whether and how often they actually visit the Forest. They may value such things, not so much with reference to themselves but how such qualities contribute to the setting for community life. Local area residents may belong to various groups to which the aesthetic attributes of the Forest are more or less important -- for example, scouting groups, bird watchers societies, etc. They may spend as much or more time interacting with one another as members of these groups as they do in actually visiting the Forest. Hence the Forest -- and, of particular concern here, its aesthetic characteristics -- is significant to people not merely as a source of immediate aesthetic experience -- a key focus of visitor surveys -- but as a central element contributing to a sense of community and social solidarity of people living in a particular place or natural setting.

Thus while the individual and his/her direct aesthetic experience is the primary frame of reference for visitor surveys, it is the community of people living in an area, and the significance of the aesthetic character of the Forest as a valued setting for such a community, that is the principal focus. Questions related to this aspect of community life might also be included in surveys which address other facets of the Forest in the life of the community as well, or perhaps as part of broader social surveys conducted by academic or research organizations.

This piggyback mode of obtaining information about the constituents of scenery management is even more necessary in obtaining information about the **broader regional, and national, constituency** for scenery management. These surveys may be of specific or general populations in a region or for the nation.

A **specific population survey** could, for example, include members of a variety of regional or national interest groups with particular interests in the management of National Forests -- e.g., environmental groups, industry associations, etc. -- to whom aesthetics and scenery management would be more or less important. These are the groups most likely to have information and opinions relevant to scenery management in a National Forest.

A **general population survey** on a regional or national level may be designed to solicit information about how people in general view the importance of aesthetic qualities and/or scenery management on National Forests, thus providing a sketch of the social climate and a context for the use of more specific information gathering exercises for individual National Forests, specific landscape units, viewsheds, and so on.

Obviously a particular National Forest could not conduct efforts of so large a scope, but the Forest could be a source of specific kinds of questions that could be 'plugged in' to a more comprehensive survey instrument constructed by, for example, the Forest Service (i.e. Eastside Assessment), academic institutions, or public opinion organizations. And even if not a source of input for such surveys, the latter represent one important source of information regarding the broader social climate within which scenery management is conducted (see item 5: Additional Information Sources).

2. *Visitor Observations*



Systematic observations by social scientists, landscape architects, and resource managers of what constituents *do* when they visit a National Forest -- including the extent to which scenic or other aesthetic aspects of the Forest are part of their activities; the kinds of landscapes people especially like; whether they generally observe or also walk across or into the scenic areas; and so on -- may yield a great deal of information useful for scenery management. Such observations can enhance understanding of the context of constituent expectations, values, desires, preferences, etc., for landscape character and scenic integrity. Information from such observations may also provide a basis for inferences about how constituents might respond to changes in any of the scenic or aesthetic variables relevant to scenery management.

Observations need to be made in a systematic fashion and recorded in a uniform manner -- standard response forms are effective here -- to ensure that a true picture of behavior is obtained. Direct observation by agency personnel, participant observation methods, and soliciting evaluations of photography in lieu of (or better, in conjunction with) visitor observations of particular sites, are all useful techniques for obtaining behavioral information. The key is to ensure that observations are systematic, unrestricted, and representative so that any conscious or unconscious biases of the observer are minimized.

Observations of visitor behavior are also useful in delineating travel routes and use areas such as corridors, areas, or features. Such observations shed

light on how visitors use a viewshed, or particular land area as reflected in such variables as mode of transportation, time of use, travel frequency and pattern, and so on. Observational data is frequently acquired in recreation studies, which may be broadened (as assumed in this chapter) to encompass aesthetic qualities and scenic characteristics of the Forest. Finally, understanding how visitors use a landscape is obviously an important asset to accurate estimates of the potential consequences of alternative scenic management activities.

3. Constituent Interviews

The conversation is perhaps the most direct verbal means of understanding the significance -- aesthetic or otherwise -- of the Forest to an individual. While the topic of discussion is guided, the form and manner of expression are free of artificial constraints imposed by scales and categories selected not by the individual but by the data gatherer. The respondent is free to express how he or she experiences the aesthetic aspects of the Forest as it relates to that individual as a person with a life history in which senses and tastes have evolved as part of a narrative of who one is. In this light, the extended conversation or interview should be an important component of constituent assessment for scenery management.

All of the topics discussed above under constituent surveys could be explored in greater depth and within a context of much greater significance to the respondent when interviewed as part of a constituent assessment. The primary instrument here is the **semistructured interview**, in which the bulk of the conversation is guided by a protocol of written questions that are asked aloud. Such questions would be developed with the input of members of the assessment team skilled in the various specialties as described earlier. The questions would encourage paragraph-length rather than word- or sentence-length responses, and respondents would be given leeway to elaborate or even bring up new topics they consider relevant. A social scientist trained in interpretive analysis should conduct the interview.

The obvious drawback of interview techniques is that they are time consuming and impractical for large groups or samples of respondents. While visitors may indeed be willing to participate in an extended interview, it is unrealistic to expect most to do so on site. Interviews are also impractical for broader regional and national constituencies. It is likely that the greatest potential for this technique as an element of a constituent assessment for scenery management lies at the level of residents in the local area surrounding the National Forest.

The selection of residents to be interviewed may proceed along a number of lines. As with surveys, a sample of the general area population could be taken, as could a sample of members from a variety of groups encompassing a wide spectrum of forest uses. A more selective strategy might involve identifying opinion leaders from not only these groups, but also to include civic and political officials, educators, religious leaders, etc., whose views are influential within the community or local area. A set of interview respondents reflecting a combination of the above strategies is another alternative.

Such interviews could of course obtain personal information on whether and how often respondents actually visit the Forest, on how they view its aesthetic and scenic attributes.

An important additional focus would center on the group activities in which respondents are involved and in which the Forest -- and in particular its aesthetic characteristics -- plays a more or less important role. For opinion leaders in particular, another key concern would be how they perceive whether social activities in the community that are centered around the aesthetic aspects of the Forest strengthen (or weaken) bonds among people as members of their community; as well as those factors (including management practices) which they see as affecting these bonds. This will begin to tap the shared sense of the Forest as one of the defining elements of *sense of place* in which people live and relate to one another, and the importance of the scenic and aesthetic characteristics of the Forest to that process.

4. *Public Participation*



In many ways, public participation lies at the heart of effective management of a Forest's aesthetic and scenic resources. If the interdisciplinary team of managers, landscape architects, and resource and social scientists represents the core of specialized expertise for scenery management, it is the public for whom such services are being provided-- a public with diverse values and expectations regarding the role of the Forest in their individual and social lives.

In this light, the team of skilled specialists doesn't just need to 'hear back' from the public as to the acceptability of a particular program for scenic and aesthetic management once it is developed, but to have the public involved throughout the entire process. If mechanisms are established whereby the public may communicate with the interdisciplinary teams, this may facilitate an interactive process in which resource specialists and the public both teach and learn from each other. By contributing to the process which produced the outcomes, the public can be expected to take an active interest in the shape of those outcomes. In this way, an interactive learning-based process may lead to a synthesis of perspectives and knowledge in which both resource professions and the public develop a sense of mutual interest and understanding regarding the nature and significance of aesthetic and other dimensions of forest management.

There are a variety of modes of public participation through which such a shared understanding may be developed. Among these are workshops, meetings, response forms, and task forces in which both the public and resource professionals participate. Although, constituents participating in workshops and meetings are often self-selected and thus not representative of an overall constituent population, they frequently represent the most interested and involved local constituents. Extensive literature exists on methods and techniques of public participation; therefore, details are not included here. Several important references: Blahna & Yonts-Shepard (1989); Utton et al. (1976); and Heberlein (1976); may be found in the following subsection.

5. Additional Information Sources



Information obtained for reasons other than scenery management, and by organizations other than the Forest Service, may be useful not only in identifying characteristics of constituents; but also in providing a better understanding of those social activities and processes in which constituents are involved that may have important implications for landscape aesthetics and scenery management.

The first general kind of potential information sources are those which might provide *information about the actual constituency of scenery management for a National Forest*. As we have seen, this constituency may be viewed at three levels: visitors to the Forest; local area/community residents; and the broader regional and national constituency. Two important sources for information about these segments of a Forest's scenery management constituency include:

- a) Previous or ongoing natural resource-related studies or assessments, including -- but not limited to -- those concerned with recreation and/or scenery management. Statewide Comprehensive Outdoor Recreation Plan (SCORP) surveys exemplify one external source of landscape assessment information. Moreover, information from previous scenery assessments, such as that regarding concern levels, can be used. Thus, it is not always absolutely necessary to collect new constituent information for an analysis.
- b) Studies or assessments of patterns of social activities or processes which, while not directly related to scenery management, either provide additional information on its importance to different constituency groups or may have significant implications for the demand for and the ability of the Forest to provide opportunities for aesthetic and scenic experiences.

The first of the above kinds of information is particularly relevant to assessments of visitor experiences and behaviors; while the second kind of information may be especially helpful in understanding experiences and behaviors relevant to scenery management of people as members of the local area/community and of broader regional and national population(s). With respect to this latter kind of information, studies such as the ones described below may be important information sources.

Social-geographic assessments: National, regional, or local area information on patterns of social behavior with direct implications for management of a National Forest, including the demand for and provision of scenic and aesthetic experiences. Interpretations of data provided by the U.S. Census may be particularly useful here (e.g., Case 1994) For example, with respect to migration patterns: Are people moving closer to or farther away from the Forest? Why? What are they like in terms of social characteristics? In what ways is the Forest significant to them --e.g., as a source of aesthetic experience? Also, what cultural characteristics are shared by people in certain places? How is the significance of scenic aspects of place interpreted by people with such cultural characteristics? Since Census and similar kinds of information (e.g., some community, county and multi-county regional surveys done for planning or economic development) are linked to geographic locality, such data may also be incorporated within with geographic information systems for scenery management and/or additional aspects of forest and ecosystem management. This highlights the aforementioned desirability of linking scenic management

information acquisition with that for more inclusive management practices.

Social dynamics: Other kinds of information-gathering frameworks attempt to account for the dynamics of regional, local area, or community social processes and their relationship to peoples' movements across and relationships to the landscape. The demand for, and consumption (and provision) of, opportunities for aesthetic experience on a National Forest are influenced by these processes, and more specifically through the interrelationships among economic, political, associational, and cultural aspects of these activities over different geographical areas (e.g., Lewis 1994). Sorting out these influences, and looking at how they work interdependently in a regional or local setting may provide important contextual information for scenery management.

At this point in time this latter approach is closer to a second general kind of information source for scenery management -- those which provide *models for constructing constituency assessments*. These include overall frameworks, foci for investigation, methods, types of questions, and so on. Some of these sources may also provide information on (usually) broader regional or national constituencies for scenery management. Most of these studies or assessments will have been conducted in other geographical areas from that of a particular National Forest. But many will suggest potential frameworks for structuring a constituent assessment or parts thereof.

For example, a social assessment of the significance of forest management activities to residents of the Bitterroot Valley in western Montana (Bitterroot Social Research Institute 1994) provides an excellent example of an ethnographic regional assessment -- one in which the principal mode of data collection was via the use of semistructured interviews. In this case, 51 opinion leaders from seven communities in the Bitterroot Valley served as informants. Another exemplary study, conducted by Kempton et al. (1995), used semistructured interviews to solicit peoples' understandings of a wide range of environmental values, and then extracted quotations from interview transcripts in constructing a survey to investigate how widely distributed those individual understandings were. The scope of this work was national, and several items in the survey instrument focused explicitly on aesthetic experiences of forests and natural resources. Studies and assessments of this nature frequently provide valuable information on how to go about constructing an effective constituent assessment for scenery management. They also represent the kinds of efforts to which a National Forest might want to contribute questions relevant to aesthetics and scenery management as part of a broader information-gathering effort.

In summary, information about constituents for scenery management and about how to conduct constituent assessments represent two general kinds of information from sources other than a particular National Forest that may be important for scenery management. They are also important channels for linking the collection of information relevant to scenery management to broader natural resource focused perspectives (and their information-gathering activities) such as ecosystem management.

Sample Items for a Visitor Constituent Survey

Constituent surveys come in all shapes and sizes. They may involve any of the three levels of constituency described earlier. The following focuses on visitors to a National forest and provides a very brief sample of the kinds of questions that might be included within a visitor survey. Any such instrument should have as its goal the acquisition of information that will lead to a better understanding of visitors' aesthetic experiences of the Forest landscape, including, of course, its visual and scenic qualities. And as we shall see, surveys may incorporate items which solicit responses not only on the significance of aesthetic qualities to visitors, but also regarding their behaviors when visiting the Forest as well.

One useful type of survey question -- designed to yield information on the *values, desires, and/or expectations* of visitors with respect to the Forest **landscape character** involves presenting respondents with a set of photographs depicting scenes of different landscape character, and asking them to respond to different questions about the landscapes depicted in those photographs.

For example, visitors could be presented with a row of photographs (a-f) depicting the following types of landscape character:

- a) continuous canopied forest
- b) forest having a mosaic of created openings
- c) farm pastures and coniferous forest intermixed
- d) single species coniferous forest
- e) mixed forest of conifers and hardwoods
- f) (as many options as needed for the area).

A variety of questions -- some with particular kinds of scales for expressing responses -- may then be posed to visitors. Several examples are given below.

1. Please indicate on the scale next to each photograph of the National Forest how much you like or dislike the landscapes depicted in the photograph. A very high rating on the scale (for example, 7) means that you like the landscape very much, while a very low rating (for example, 1) means that you strongly dislike that type of landscape. A middle rating means you don't feel much either way about that particular landscape.

| | | | | | | | |
|-----------|---|---------|---|---|-----------|---|--------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| ----- | | | | | | | [Photograph] |
| Dislike | | Neutral | | | Like | | |
| very much | | | | | very much | | |

One scale (without the words provided in the general example) should be placed next to each photograph.

This kind of question may be modified to solicit visitor responses regarding *acceptable levels of quality* of aesthetic and scenic attributes of the Forest. The 'degrees of quality' --which again would be represented in the set of photographs -- might be of the following kinds:

- a) natural forests with no human activities present

- b) natural-appearing forests with no human alterations evident
- c) managed forests with human alterations evident, but subordinate to the natural or natural-appearing landscape character
- d) managed forests with human alterations evident and somewhat dominating the natural or natural-appearing landscape character
- e) managed forests with human alterations strongly evident and strongly dominating the natural or natural-appearing landscape character
- f) managed forests with human alterations strongly evident and obliterating the natural or natural-appearing landscape character.

A typical survey question exemplifying the above might be phrased as:

2. Please indicate the degree to which you would accept the following kinds of scenic quality on the _____ National Forest?

| | | | | | | | |
|-----------------------|---|---|---------|---|-----------------|---|--------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | [Photograph] |
| | | | | | | | |
| Not at all acceptable | | | Neutral | | Very acceptable | | |

Again a general example of the evaluation scale would be presented, and one scale (without the words provided in the general example) would be placed next to each photograph.

It should also be noted that a less informative, but still useful, way of obtaining the above kind of information would entail having visitors simply identify which photographs they find acceptable from a scenic-aesthetic perspective and which they do not. This would involve a dichotomous (yes/no) response to the following question

2A. Which of the following levels of scenic quality would you be willing to accept when visiting _____ National Forest?

Another important type of question for a constituent survey, which again employs photographs to represent various aesthetic characteristics of the Forest (or a lack thereof), is one in which respondents are asked to evaluate different scenic attributes -- as reflected in separate photographs -- not individually (that is, one-at-a-time), but in relation to one another. The most common of these kinds of questions solicits visitor *preferences* from among a set of possible landscape characters, scenic integrity levels, and so on. Such preferences are expressed by respondents' ranking the set of photographs in order from 'most preferred' to 'least preferred.' With minor alterations, these questions could be modified to more explicitly solicit, values, desires, expectations, or acceptable levels of quality. A typical question soliciting visitor preferences regarding, in this case, landscape character, might be phrased as follows:

3. A variety of landscape characters could be seen when visiting _____ National Forest, depending on the management practices used. Among the possibilities shown in the accompanying photographs, please rank the options in order from that you most prefer to that you least prefer.

Questions similar to the above could be asked about **scenic integrity, travel routes, use areas, viewsheds, landscape units**, or other local landscape management issues.

The kinds of survey questions suggested thus far have all involved the use of photographs as aids to representing particular aspects of aesthetic and/or scenery management to be evaluated by the visitor. Another kind of question involves presenting a thought or 'picture in words' and asks visitors to evaluate it. By using words, moreover, the questions need not refer only to descriptions or concepts of the landscape that are of direct concern to scenic management (e.g., scenic integrity, use areas, travel corridors, etc.). They also may refer to broader, more general ways in which visitors experience the aesthetic qualities of the Forest -- sights, sounds, smells, and so on. These in turn will likely affect their preferences for landscape character, scenic integrity, etc.

For this type of survey item, a statement related to aesthetic experience of the Forest is provided, and visitors are asked to indicate the intensity with which they agree or disagree with that statement. In the example below, a five-point scale encompassing a range of responses from "strongly agree" to "strongly disagree" is provided.

4. Please indicate the extent to which you agree, disagree, or are undecided or uncertain with respect to the following statements.

a) Nature is inherently beautiful. When we see ugliness in the environment, it's usually caused by humans.

| | | | | |
|----------------------|----------------------|-----------|-------------------|-------------------|
| 1 | 2 | 3 | 4 | 5 |
| ----- | ----- | ----- | ----- | ----- |
| Strongly Disagree | Somewhat Disagree | Uncertain | Somewhat Agree | Strongly Agree |

b) There are actual rhythms of the Forest that are more in tune with who I am than the hectic pace of day-to-day life.

| | | | | |
|----------------------|----------------------|-----------|-------------------|-------------------|
| 1 | 2 | 3 | 4 | 5 |
| ----- | ----- | ----- | ----- | ----- |
| Strongly Disagree | Somewhat Disagree | Uncertain | Somewhat Agree | Strongly Agree |

Each of the above items taps subtly different aspects of aesthetic experience which, while not expressed in the form of direct evaluations of scenic (or other aesthetic) attributes of the Forest, are expressions of motivations that may strongly influence visitor preferences for different emphases of scenery management. This also highlights the aforementioned value of constituent interviews as a source of possible items for inclusion within survey instruments. Question 4a, for example, is taken from Kempton et al. (1995:105), who included this statement from one of the respondents in the interview segment of their study as part of their survey to be undertaken with reference to a much broader set of respondents.

Another kind of survey item -- one which has been used extensively in previous studies, but in recent years has come under increasing criticism -- is that in which respondents are asked to provide *monetary estimates of value* for different scenic attributes of the Forest (for example, various kinds of landscape character, scenic integrity, and so on). In this scenario, visitors are asked to indicate how much more or less they would be willing to pay for the availability of, for example, different kinds of landscape character. The latter, as in earlier examples, could be depicted with the aid of a series of photographs.

Questions of this sort should be used with extreme caution as part of constituent surveys. Visitors often react with puzzlement or resentment to being asked to place dollar values on 'opportunities to experience' different aspects of aesthetic or other amenity resources of the Forest. If such questions are used, the following format is probably less intrusive than direct 'willingness-to-pay' kinds of questions.

5. If you had a budget of \$100 which you could allocate to managing the Forest to preserve different kinds of landscapes, how would you distribute that \$100 to managing for the following kinds of landscapes?

- a) _____
- b) _____
- c) _____
- d) _____
- e) _____

[Include photographs of a -- e, representing different kinds of landscape character, scenic integrity, etc.]

Total: \$100

A final focus of visitor surveys to be discussed here is that of the *behaviors* of visitors to a Forest, and particularly with respect to their experiences of aesthetic and scenic aspects of the Forest. Answers to questions on behavior provide information about what visitors do, where they do it, and when they do it. This information will be useful in delineating travel corridors, use areas, and special places. Including a map in the survey will assist visitors in identifying where and when they engage in particular activities.

6a. On the map, please trace the route you usually follow when passing through _____ National Forest.

6b. On the map, please outline areas that you commonly use for recreation when visiting _____ National Forest.

6c. In what season(s) of the year do you see _____ National Forest? For what activities? On the map, please show us where you usually go. Please show us any areas that you consider to be "special places."

Two final points meriting attention pertain to the ordering of items in a visitor survey and to the usefulness of different kinds of responses and response scales for such a survey. With respect to the order of survey items: to keep responses accurate, visitors should first be asked about their unconstrained *desires* for scenic quality and recreation opportunities. To further narrow the choices, the survey can include additional information and then ask respondents for their *preferences* under certain constraints. For example, in the description of each option, production costs, commodity outputs, amenity outputs, or other pertinent information could be provided in the second round of questions. This additional information could then be taken into account as respondents express their desires and then preferences.

With respect to scales, there are a number of techniques for analyzing the results produced by visitors' rating or ranking items in expressing their values, desires, expectations, etc, for aesthetic and scenery management. When scales are used, the nature of the interval between points on the scale -- as reflected in, for example, ordinal, interval, and ratio scales -- determines the degree of precision that can be expected for responses using that scale.

Questions of the nature described above, when designed and applied appropriately, need not be utilized only in visitor surveys, but may also be included in questionnaires, on workshop response forms, or posed in workshops or at public meetings. As with virtually all aspects of constituent information discussed in this chapter, an interdisciplinary team in which the social scientist is a key member, and with whom the public interacts as an informed participant throughout the entire process, will enhance the likelihood of generating results that are accurate, understandable, and accepted by the constituents of aesthetic and scenery management.



