

CHANGES AND CHALLENGES IN USDA FOREST SERVICE SCENIC RESOURCE MANAGEMENT UNDER THE 2012 FOREST PLANNING RULE

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Abstract.—In 2012, the USDA Forest Service released a new planning rule that called for fundamental changes in how scenic resources are to be addressed during the forest plan revision process. While the original 1982 rule relied on expert-based assessments of scenic resources described in the Forest Service’s 1974 Visual Management System (VMS), the new rule mandates defining valued “scenic character” on the basis of the 1995 replacement for VMS, the Scenery Management System (SMS). In SMS, scenic character is established in part through a constituent analysis that involves assessing stakeholder perceptions of aesthetic quality, landscape values, and an understanding of special places. This paper explores the differences between the two systems and the challenges of integrating expert and stakeholder assessments as forests prepare for plan revision. A process for this change to the new system is outlined based on a 2015 workshop convened in the Forest Service’s Intermountain Region. This process specifies essential activities but provides a forest planning team with flexibility with respect to particular needs, personal style, and available resources.

INTRODUCTION

The Forest Service released a new planning rule in 2012 (National Forest System Land Management Planning 2012). This rule calls for fundamental changes in how scenic resources are addressed compared to the original 1982 rule (National Forest System Land and Resource Management Planning 1982) that shaped the forest plans currently being revised throughout the United States. Forest plans guide the management direction for National Forests for a 15-year period. Each plan identifies forest management areas and priorities for resource restoration and conservation, but all forests are also expected to provide a continuous and sustainable flow of benefits, services, and uses.

The 1982 rule used the 1974 Visual Management System to develop direction for scenic resources (USDA Forest Service 1974). VMS was based on assessments conducted by experts (mostly landscape architects) following a defined mapping and valuation process that identified scenic classes. The experts translated biophysical features of the landscape into formal design parameters (Daniel 2001). A basic premise in VMS was that human modifications in a

natural landscape detract from scenic quality and that managing the degree of change caused by management activities was critical for establishing “Visual Quality Objectives.” After some years of using this system, there was general consensus among professionals and land managers that the focus on degree of change did not adequately address all of the values and features (such as, for example, cultural features) that make individual landscapes special.

The 2012 planning rule instead uses principles from the 1995 SMS to assess and develop management guidance for visual resources (USDA Forest Service 1995). SMS builds on VMS principles but includes fundamental changes to the basic premises and concepts of the earlier system. The 2012 rule mandates defining valued “scenic character” for an area and identifying the desired conditions, objectives, and guidelines for scenic resource management. In order to do this, the system must take into account perceptions and aesthetic judgments by individuals who view and value the landscape (Daniel 2001), including consideration of “special places” (USDA Forest Service 2015). Having to assess and consider special places adds a layer of complexity that involves, for example, the concepts of memories, symbolic meanings, and spiritual values as they apply to the landscape (Daniel 2001).

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This paper explores the change between the two management systems and the challenges of integrating expert assessments with the perceptions and aesthetic judgments of the lay public in making decisions about scenic resource management.

BACKGROUND

Scenic resource management policies for National Forests are based on public reactions to timber harvesting and vegetation management practices dating back to the late 1800s. “Cut and run” practices by early American loggers routinely left large unattractive vistas of tree stumps where forests had stood. Public outcry about this, in part, motivated Federal legislation to designate National Forest Reserves (and later National Forests) to protect the health and beauty of forested landscapes (Ribe et al. 2002).

In the late 1960s and early 1970s, public reaction to extensive clearcutting on the Monongahela National Forest and elsewhere contributed to passage of the National Forest Management Act (NFMA) of

1976. According to Ribe et al. (2002), “The ugliness of clearcutting and claims of what it belies about natural resource damage played a key role” (p. 44). In response to NFMA, the Forest Service initiated forest aesthetics research that led to creation of the VMS and assignment of Visual Quality Objectives (VQOs) to every acre of National Forest. This established a level of scenic protection for all types of management activities, including timber harvests, as a required component of forest plans (Ribe et al. 2002).

Designing and managing timber harvests to reduce scenic impacts is one of the key principles of VMS, and the VQOs define the acceptable degree of change to the visual environment. For example, a “Retention” VQO provides for management activities that are not visually evident to the casual observer. A VQO assignment of “Modification” allows management activities to visually dominate the original characteristic landscape but alterations must still conform to naturally established form, line, color, or texture characteristics of the surrounding area or character type (USDA Forest Service 1974). Table 1 defines the VQOs in VMS.

Table 1.—Visual quality objectives identified in the Visual Management System (VMS) (USDA Forest Service 1974)

Visual quality objective	Definition
Preservation	This visual quality objective allows ecological changes only. Management activities, except for very low visual impact recreation facilities, are prohibited.
Retention	Provides for management activities that are not visually evident. Under retention, activities may only repeat form, line, color, and texture, which are frequently found in the characteristic landscape. Changes in their qualities of size, amount, intensity, direction, and pattern should not be evident.
Partial Retention	Management activities must remain visually subordinate to the characteristic landscape. Associated visual impacts in form, line, color, and texture must be reduced as soon after project completion as possible but within the first year.
Modification	Management activities may visually dominate the original characteristic landscape. However, activities of vegetative and land form alteration must borrow from naturally established form, line, color, or texture so completely and at such a scale that its visual characteristics are those of natural occurrences within the surrounding area or character type.
Maximum Modification	Management activities of vegetative and landform alterations may dominate the characteristic landscape. However, when viewed as background, the visual characteristics must be those of natural occurrences within the surrounding area or character type. When viewed as foreground or middleground, they may not appear to completely borrow from naturally established form, line, color, or texture. Alterations may also be out of scale or contain detail which is incongruent with natural occurrences as seen in foreground or middleground.

The SMS that revised and replaced the VMS increased the role of local stakeholders in the inventory and planning processes and explicitly required the Forest Service to consider forest aesthetics along with social and cultural factors (USDA Forest Service 1995). These changes have been retained in the 2012 Forest Plan rule that requires new or revised plans to address “scenic character.” This term replaced the SMS term “landscape character” to clarify the definition in terms of visual and cultural identity. Under the new rule, scenic character is defined as “a combination of the physical, biological, and cultural images that gives an area its scenic identity and contributes to its sense of place. Scenic character provides a frame of reference from which to determine scenic attractiveness and to measure scenic integrity” (National Forest System Land Management Planning 2012). Table 2 defines the Scenic Integrity Objectives in SMS.

The SMS system retained the basic inventory elements of the VMS with some terminology and process changes. However, including analysis and valuation of user perceptions and experiences of the scenic environment is a fundamental change. The VMS also added a mapping component that focuses on where people view scenery (roads, trails, and recreation areas) and a “sensitivity level” analysis that evaluates the relative importance of scenery to the user experience. SMS had similar inventory and analysis components but carrying the constituent analysis forward into scenic character descriptions to develop goals, objectives, standards, and guides is an important new plan requirement.

Table 2.—Scenic Integrity Objectives identified in the Scenery Management System (SMS) (USDA Forest Service 1995)

Scenic Integrity Objective	Definition
Very High	Unaltered—Valued landscape character “is” intact with only minute if any deviations. The existing landscape character and sense of place is expressed at the highest possible level.
High	Appears unaltered—Landscapes where the valued landscape character “appears” intact. Deviations may be present but must repeat the form, line color, texture, and pattern common to the landscape character so completely and at such scale that they are not evident.
Moderate	Slightly altered—Noticeable deviations must remain visually subordinate to the landscape character being viewed.
Low	Moderately altered—Deviations begin to dominate the valued landscape character being viewed but they borrow valued attributes such as size, shape, edge effect, and pattern of natural openings, vegetative type changes, or architectural styles outside of the landscape being viewed.
Very Low	Heavily altered—Deviations may strongly dominate the valued landscape character. They may not borrow from valued attributes such as size, shape, edge effect and pattern of natural openings, vegetative type changes, or architectural styles within or outside the landscape being viewed. However deviations must be shaped and blended with the natural terrain (landforms) so that elements such as unnatural edges, roads, landings, and structures do not dominate the composition.
Unacceptably Low	Extremely altered—Deviations are extremely dominant and borrow little if any form, line, color, texture, pattern, or scale from the landscape character. Landscapes at this level of integrity need rehabilitation. This level should only be used to inventory existing integrity. It must not be used as a management objective.

ADDRESSING SCENIC RESOURCES UNDER THE 2012 PLANNING RULE

The forest plan revision process under the 2012 rule involves three stages: assessment of forest resource conditions and trends, development of a revised plan, and monitoring the revised plan's implementation and effectiveness. Each phase has a public collaboration component.

To help guide scenic resource and recreation planning for the Intermountain Region under the new planning rule, a workshop was held in December 2015 with forest landscape architects, recreation specialists, and recreation and heritage program managers. The goal was to outline a process for developing and revising forest plans that includes essential activities but allows flexibility in selecting specific approaches and priority issues based on needs, personal style, and available resources. The discussion below presents information and recommendations from the workshop, with an emphasis on the initial assessment stage of forest planning.

Scenic Resource Assessments

As noted above, the assessment stage of forest planning now requires identifying scenic character. This information can be acquired from three basic sources: existing scenic inventory data, literature reviews of the best available scientific information and other key documents, and input gathered from the public.

Scenic Inventory Data

The scenic inventory process usually begins with extracting scenic resource information from existing inventories and forest map databases. Forest landscape architects, recreation staff, and specialists from other disciplines also provide needed information to develop the inventory. Information gathered from public outreach and stakeholder collaboration are usually sifted and evaluated by forest planning professionals and forest managers.

A variety of questions can help to inform this process. How do people relate to the landscape? How do they identify places? What are the values that may change over time? How can descriptions of valued resources be crafted to inform goal development for resource

maintenance and enhancement? How does scenic quality relate to valued character in specific areas? Are there areas or features that have a negative impact on scenic quality? Are there ways to improve scenic quality in those areas?

The following information can help forest planners develop descriptions of landscapes, understand landscape visibility and viewer sensitivity, and establish concern levels that reflect viewers' perceptions of scenic quality.

- Descriptions of landscapes: What are the valued scenic features that will become the basis for scenic character descriptions?
- Definitions of boundaries: What methods are best for defining the boundaries of landscape divisions? Important boundaries might be administrative (e.g., District or forest boundaries), geographic (e.g., vegetation communities, watersheds, mountain ranges, etc.), transportation-related, viewshed-related, or social.
- Identification of important cultural and historic built features: Which features must be considered and what makes them special? This can include agricultural areas like farms, orchards, and rangeland; recreation facilities; transportation resources; and rural communities and residential areas.
- Sense of place: What features, settings, and views contribute to feelings of, for example, naturalness or remoteness?
- Management areas: What are logical "units" of the forest? This may be based on primary recreation activities and attributes (such as motorized recreation compared to non-motorized recreation, or water-based recreation), topography and/or watersheds, or viewsheds.
- Visible and sensitive areas: Where is the landscape commonly viewed from and how important is each view to the public? Related information can be gathered about how people use an area, how they expect specific areas to be managed, how they perceive views of the forest as seen from outside its boundaries, and how people define an area's "sense of place."

Public input and information about visitor usage can be gathered through a variety of direct and indirect methods including historic visitation statistics, research publications, social media reviews, surveys, visitor observations, interviews, and public participation.

Likewise, there are many possible techniques for identifying special places and mapping scenic character. The traditional approach is to make maps available during public meetings and ask attendees to mark special places and comment on scenic characteristics that attract them to those places. More recently, participatory GIS approaches have used Web-based platforms where people share information online about special places. Some GIS systems allow individuals to provide geo-specific data connected with perceptions or reviews of specific places (Smardon 2018).

Special places are usually identifiable locations where people have a concern for scenic quality. This may include iconic landscapes that are adjacent to the forest or important corridors that provide access across the forest. At one workshop, participants developed a list of iconic sites and landscapes that they considered to be of regional, national or international importance that included: roads; trails; recreation facilities and visitor centers; overlooks and other scenic viewpoints; communities, businesses, and residences; water recreation locations; historical or cultural sites; and geological or botanical areas (which may be seasonal).

For each special place or landscape, it is important to determine the relative importance of scenic quality for visitors. In SMS, this is referred to as “concern levels” as described below.

- Concern Level 1 – High concern: Areas of high concern are areas where scenic quality is one of the primary reasons that people visit an area. This category includes routes and places that are officially recognized, designated, and publicized for their scenic resources (such as National Scenic Byways, National Scenic Trails, or Wild and Scenic Rivers) but also nationally or regionally important locations associated with recreation and tourism. Often these areas are a destination for their scenic quality.
- Concern Level 2 – Moderate concern: Areas of moderate concern are usually locally important

and are associated with all types of uses including recreation and tourism. Scenic quality is important in these areas but other features related to the visitor experience (such as the challenge associated with a mountain biking trail or the quality of a fishing stream) are equally important.

- Concern Level 3 – Low concern: Areas not in the first two categories.

LITERATURE REVIEWS

Literature reviews should include social science studies on scenic quality preferences and special place considerations with an emphasis on the best available science related to scenic character. These may include general studies that define common characteristics for place attachment as well as place-based research that provides information on a specific local area when available. This information aids in assessing locations where scenic quality is important, or where management could improve or mitigate undesirable changes to the landscape.

A review of descriptive literature such as travel articles, guidebooks, and community promotional materials, in addition to Web searches and social media sites, may also yield useful information about scenic character. While these resources are not traditional subjects of literature reviews, they can provide information about public attitudes toward scenic resources. Some examples of possible resources include:

- Legislation, designation documents, and management plans for Federal and State Scenic Byways, National and Historic Scenic Trails, and Wild and Scenic Rivers. These may be useful for defining scenic character and important travel corridors. It is also important to identify conflicts between current scenic resource management practices and desired conditions as identified in foundational or management-related documents.
- Scenic resource plans from other agencies in the region such as Bureau of Land Management, National Park Service, and State Parks.
- Social media sites such as Pinterest and Instagram. They can help identify landscape locations and features that have value to members of the public.

Public Outreach and Collaboration

Public outreach and collaboration efforts are excellent opportunities for gathering information to help define scenic character and identify special places. Photos can be used in place of viewing scenery in person. A variety of photos with a list of questions displayed at a public workshop or online with a mechanism for gathering feedback can help gather information on scenic character. Requested feedback can include negative attributes and characteristics as well. Some key prompting questions could be:

- Do you think the Forest Service is doing a good job of protecting scenery on the forest?
- Are there places that you would/would not choose to visit on the forest? Why?
- What are the places that are the most/least attractive on the forest?
- Are there particular places where something adds to/detracts from the scenic quality of the forest?

People often attach significant value and symbolic meanings to special places within a forest. These can be formal or informal places of any size and scale. Defining a sense of place and identifying special places can be challenging. It is necessary to identify both the social connection and the landscape connection. There are a variety of methods for gathering this information including:

- Face-to-face, listening to people describe their special places on the forest. This is often very valuable and can help build relationships for other aspects of planning and partnerships.
- Through oral histories, journals, and related information in university special collections.
- Reviewing social media posts including blogs, Instagram photos, Facebook, and Twitter feeds.
- Travel and newspaper articles about specific locations on the forest.
- Marketing materials from visitors' bureaus, chambers of commerce, and recreation providers. It can be useful to see what places or areas these materials focus on as well as how the places are described.
- Interviews with the forest leadership team and other management staff.
- Interviews with frontliners and field staff.

Development of the Revised Plan and Monitoring

Information about scenic character and special places can be used in planning and monitoring in a variety of ways. Special place descriptions can help define the scenic character of landscapes, which in turn can help define desired conditions for scenic resources. This information can also be used to help prioritize landscapes that are suitable for higher scenic integrity assessments and suggest places that are appropriate for education and interpretation opportunities.

CONCLUSION

The Forest Service is required to manage National Forests for a range of goals and outcomes including forest health, biodiversity, clean water, and ecosystem services – but also to serve people and their needs. In the forest management planning process, the requirement to use perceptions and aesthetic judgments about scenic resources from the public adds a level of complexity when compared to the now-outdated VMS system that relied on experts' assessments. However, the new system has the potential to produce forest management plans that are sensitive and responsive to stakeholder values and concerns. In addition, the process of gathering this information can help build a constituency that feels they have a real stake in forest management.

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