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National Forest Landscape Management Volume 2



INFORMATION SERVICES
U.S. FOREST SERVICE



Chapter 1 The Visual Management System

Forest Service • U.S. Department of Agriculture • Agriculture Handbook Number 462

Foreword

Volume 1 National Forest Landscape Management, Volume 1 is a training document distributed throughout the National Forest System in April 1973. It is used as a basic text to illustrate the concepts, elements, and principles of our landscape management program. This program seeks to identify the visual characteristics of the landscape and analyze, in advance, the visual effects of resource management actions. Volume 1 was prepared by landscape architects, land management specialists, and research scientists from throughout the Forest Service over an extended period of time. It is available from the Superintendent of Documents, Washington, D.C. as Agriculture Handbook Number 434.

Volume 2 National Forest Landscape Management, Volume 2 will consist of several chapters (one of which you have before you), each dealing with the application of Volume 1 principles to a specific function or area of concern in the field of resource management. The effort to produce each chapter has been spearheaded by one Forest Service region, chosen for its experience and demonstrated expertise in the field, utilizing some contributions from other regions, research scientists, industry, and universities. These chapters will be published separately, as they are completed, for the purpose of prompt dissemination of what is, hopefully, very useful information.

When all chapters have been published and studied by all regions, and comments from other agencies and interested readers have been evaluated, we intend to revise and combine them into a single document—which will be Volume 2.

We hope you find this chapter thought-provoking and useful. Comments and suggestions are always welcome.



JOHN R. MCGUIRE
Chief

Issued April 1974



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Introduction

The American people are concerned about the quality of their visual environment. Because of this concern, it has become appropriate to establish the "visual landscape" as a basic resource, to be "treated as an essential part of and receive equal consideration with the other basic resources of the land" (FSM 2380).¹ At the same time, public demand has increased for goods and services produced on much of the same land. It has thus become necessary to both inventory the visual resource and provide measurable standards for the management of it.

The Visual Management System provides the framework within which this job can be accomplished.

The objective of this chapter is to provide a system which:

1. Establishes criteria for identification and classification of scenic quality as well as esthetic concern for that quality on National Forest lands.
2. Establishes quality objectives for alteration of the visual resource.
3. Provides all disciplines involved in land management the freedom to explore viable alternatives in order to attain the appropriate visual quality objectives.
4. Inputs the visual resource into the established as well as the proposed land use and multiple use methods of planning and operation.
5. Recognizes the great variation in visual strength of the various types of natural landscapes and their inherent capabilities to accept alteration.

Research has provided many of the premises on which the system is based. Additional premises are drawn from the basic concepts, elements, principles, and variables of visual resource management described in National Forest Landscape Management, Volume I, Agriculture Handbook No. 434, Superintendent of Documents, Washington, D.C. 20402. The premises are presented here to give the reader an insight on how and why the system is structured as it is.

Premises



Expected Images Exist

"The majority of the recreation-oriented people who visit the National Forests have an image of what they expect to see. Such an image or mental picture is generated by available information concerning a particular area and the person's experience with that or similar areas. The image produced represents the knowledgeability, expectedness, romanticism and emotionalism associated with features within the area. Obviously, several images may exist simultaneously, even within a single individual, and yet a particular geographic region tends to have an identifiable image."²

Although studies of people's images of forest areas result in varied responses from one geographic region to another, one factor generally remains constant. People expect to see a naturally appearing character within each general region.

2. Newby, Floyd, Environmental Impact Appraisal of proposed developments in the Harney Peak Area of the Black Hills, Pacific Southwest Forest and Range Experiment Station, USDA Forest Service, Berkeley, California.

¹Forest Service Manual 2380
Landscape Management
U.S. Department of Agriculture



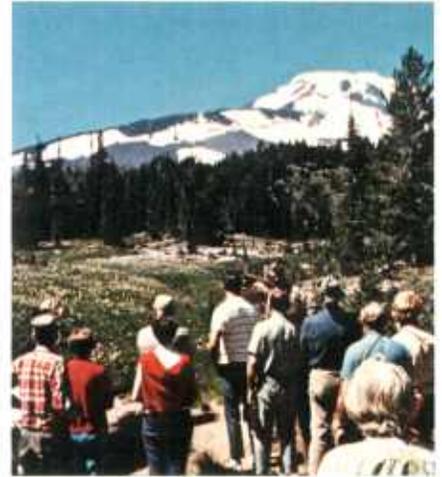
Aesthetic Concern Varies and Types of Viewers are Critical

It is assumed that esthetic concern varies among National Forest users. Those people most concerned about aesthetics are those who are in an area because of, or have a major interest in, the scenic qualities, e.g., recreation area residents and travelers.



View Duration is Critical

The visual impacts of management activities increase as the duration of view increases beyond a quick glance. Examples are those areas seen from vista points, visitor centers, end of road tangents, etc.



Number of Viewers is Critical

The visual impacts of a management activity become more important as the actual or potential number of viewers increases.



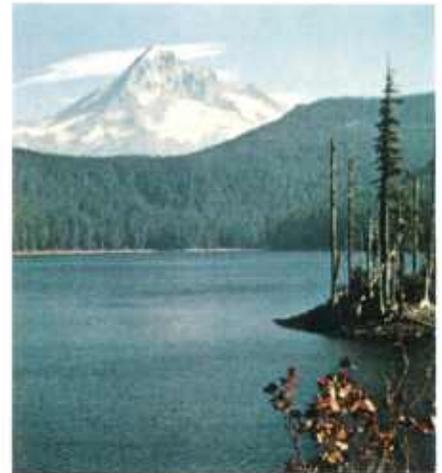
All Lands are Viewed

Because all National Forest lands can be seen from aircraft or high vista points, a minimum visual quality objective should be determined.



Diverse Landscape Character is Important

All landscapes have a definable character and those with the greatest variety or diversity have the greatest potential for high scenic value.



Retention of Character is Desirable

Landscapes with distinctive variety in form, line, color and/or texture should be retained and perpetuated.



The Capacity of Each Landscape to Absorb Alteration Without Losing its Visual Character is Critical

Each landscape unit has its individual capacity to accept alteration without losing its inherent visual character. This may be expressed in the screening ability of the vegetation and landforms, the variety of vegetative cover and rock outcrops and water, and its ability to recover vegetatively after disturbances.



The Visual Impact and Character of Management Activities is Critical

The visual impact of management activities increases as the amount of landscape alteration increases. The visual impact of management activities generally increases as the visual elements in the management activity deviate from the same elements in the natural landscape.



Focus of Viewer Attention is Critical

The dominance and arrangement of elements will focus viewer's attention and subject certain areas to critical scrutiny. Major peaks, water forms, rock outcrops, meadows, edges, enframed views, axial patterns and convergent patterns are typical areas of focalization. The visual impact of management activities increases as the focus of viewer attention increases in such managed areas.



Alteration of Character May be Desired

Landscapes with little or no variety may be enhanced by alteration.



Viewing Distance is Critical

Visibility and clarity of detail is often a function of viewing distance. The visual impact of management activities usually increases as viewing distance decreases.

Viewing Angle is Critical

Visual impact of management activities increases as the viewer's line of sight tends to become perpendicular to the slope upon which the management activity is to take place.

Management is Necessary

Landscapes are dynamic and even those areas of high aesthetic value may require some management activity to retain the valued character.

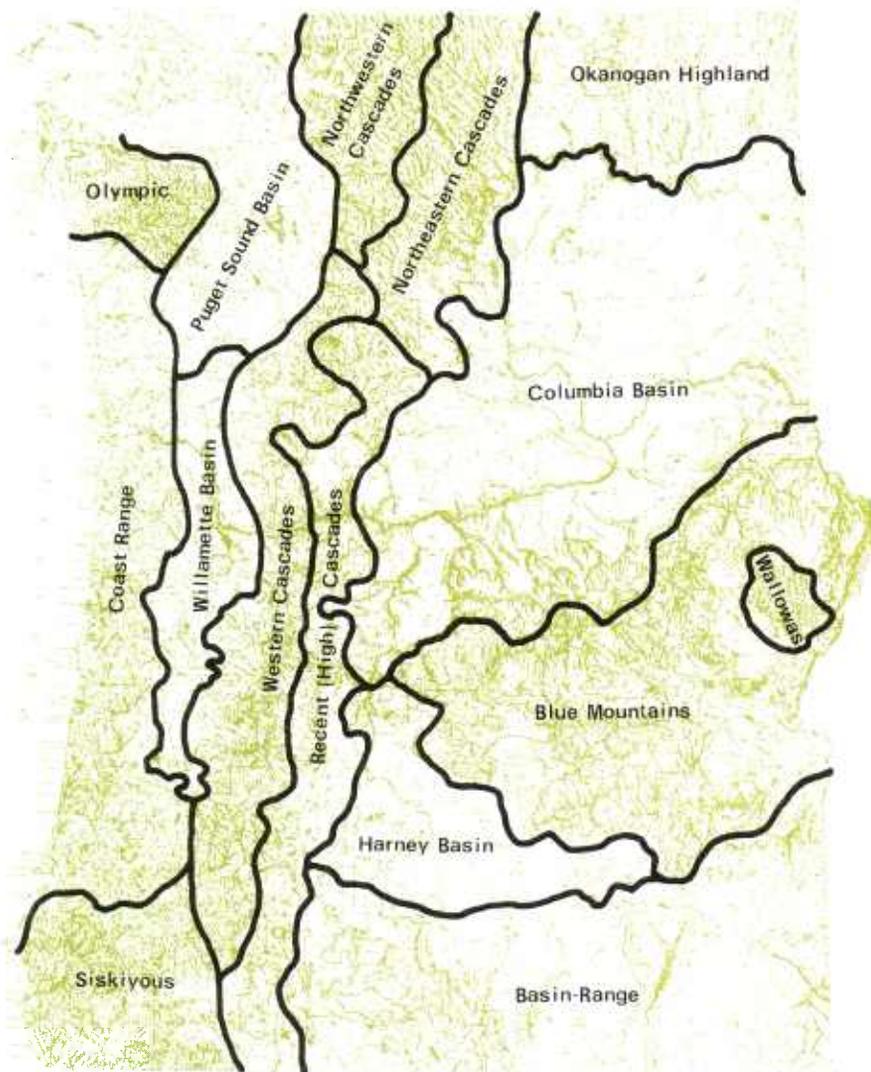
Additional Premises

Other variables which affect the system indirectly are motion of activity, lighting, weather conditions, and season of the year, as described in Volume I.

Important Terms

To effectively use the Visual Management System one must have a working knowledge of the following terms:

- Character Type and Subtype
- Characteristic Landscape
- Distance Zones
- Dominance Elements
- Management Activities



Visual Character Types of the Pacific Northwest

Character Type

An area of land that has common distinguishing visual characteristics of landform, rock formations, water forms, and vegetative patterns is called a character type. Its establishment is based on physiographic sections as defined by Nevin M. Fenneman.³

This map indicates the 16 major visual character types of the Pacific Northwest.

Character types are used as a frame of reference to classify physical features of a given area as to their degree of scenic quality. (See section on Variety Class).

³Fenneman, Nevin M. 1931 Physiography of the Western United States. New York and London: McGraw-Hill Book Company

Character Subtype

In some cases, the major character type will be too broad or great in diversity of character to provide a logical frame of reference to classify physical features. For such situations, each major character type may be further broken into subtypes.

Subtypes are divisions of the major character types which are significantly different in visual characteristics from each other.

Such subtypes should also be based on physiographic subsections defined in Fenneman's book.

Subtypes should be areas of significant size and visual difference within the major character type. These photos and map illustrate the subtype breakdown of the Western Cascades. Though the physiographic subsections contain seven breakdowns, only four have significant visual differences and are used here as character subtypes. These are:

- Gorge Lands
- Steep Mountain Lands
- Foothill Lands
- Rolling Plateau Lands

Subtypes are also used to identify those portions of major character types having distinctive or outstanding common features and may be recognized nationally for their scenic quality. The Gorge (Columbia), subtype of the Western Cascades, is one of these.



1. Gorge Lands



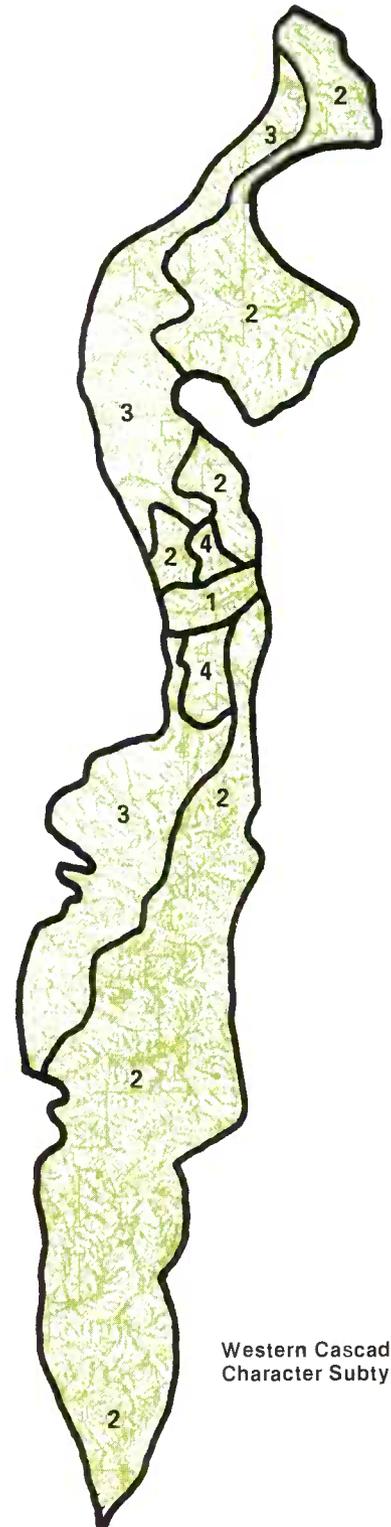
2. Steep Mountain Lands



3. Foothill Lands



4. Rolling Plateau Lands



Western Cascades
Character Subtypes

Characteristic Landscape

The characteristic landscape is the naturally established landscape being viewed. It visually represents the basic vegetative patterns, landforms, rock formations, and water forms which are in view. It usually makes up a small portion of a character subtype depending on how much is viewed.



The landforms of this characteristic landscape are moderately steep to rolling. The strongest element tends to be the openings (form) defined by the vegetative patterns. Additional vegetative clearing could be easily done in this strong landscape without visually subordinating the natural character.



Middleground landforms here are nearly flat. A very fine vegetative texture is the strongest element, making this a very weak landscape in visual strength. In this scene, introduced vegetative openings, strong in form, would most certainly dominate the natural landscape.

Distance Zones

Distance zones are divisions of a particular landscape being viewed. They are used to describe the part of a characteristic landscape that is being inventoried or evaluated. The three distance zones are:



Foreground

The limit of this zone is based upon distances at which details can be perceived. Normally in foreground views, the individual boughs of trees form texture. It will usually be limited to areas within $\frac{1}{4}$ to $\frac{1}{2}$ mile of the observer, but must be determined on a case-by-case basis as should any distance zoning.

Middleground

This zone extends from foreground zone to 3 to 5 miles from the observer. Texture normally is characterized by the masses of trees in stands of uniform tree cover. Individual tree forms are usually only discernible in very open or sparse stands.

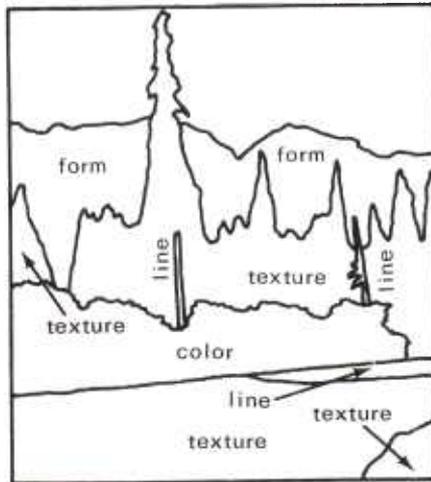
Background

This zone extends from middleground to infinity. Texture in stands of uniform tree cover is generally very weak or non-existent. In very open or sparse timber stands, texture is seen as groups or patterns of trees.

Dominance Elements

The dominance elements are the simplest visual recognition parts which make up the characteristic landscape. An observer sees landscapes in terms of form, line, color, and texture. The potential visual strength of each dominance element over the broad spectrum of landscapes varies. In the Pacific Northwest this relationship between the elements has generally been found to be:

Form Strongest
 Line ↓
 Color Weakest
 Texture

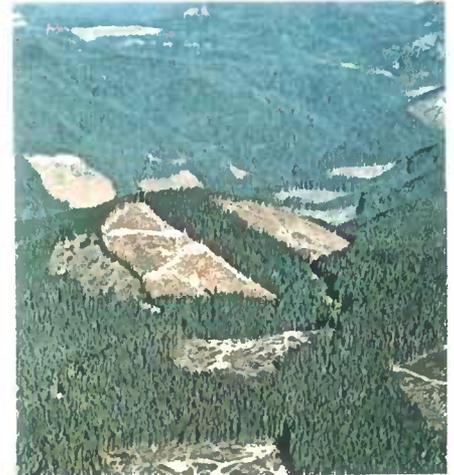


This outline diagram illustrates the strongest dominance elements of each feature in the photo.

As is sometimes the case in specific landscapes at certain times of the day or year, a normally weaker element (color in this landscape) can assume temporary strength occasionally to the point where it dominates the scene.

Management Activities

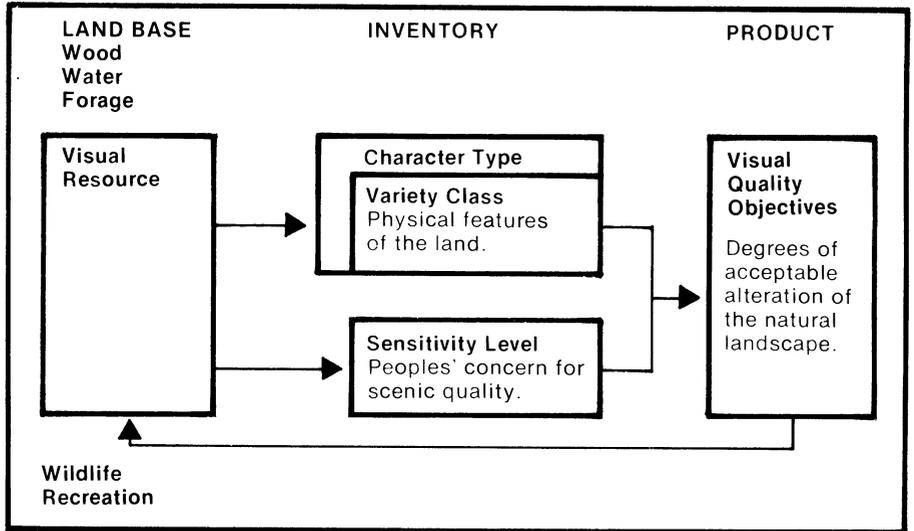
A management activity is any activity of man imposed on a characteristic landscape. It is seen in terms of form, line, color, and texture.



These harvest units would be described as strong form with strong line in the shadowed edges and road system. Much of the form and line strength results from the contrast of soil color and texture against that of surrounding vegetation.

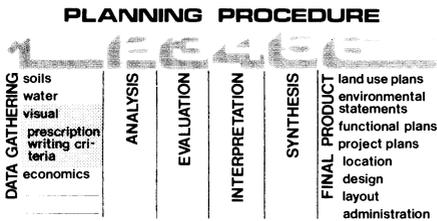
System Process

The basic premises and terminology have been presented to orient the reader to the foundation on which the Visual Management System is developed. The flow chart diagram on this page should help the reader to see the relationship between those premises and the system's process. The diagram should also help keep the reader oriented within the total system as he moves through the various sections of this publication.



Scope

The Visual Management System applies to all management activities on National Forest lands including, but not limited to, timber harvesting, road construction, fuel breaks, utility corridors, winter sports sites, and structures. The system provides input for the Multiple Use Planning and Decision-Making Process.



The visual quality objectives set only visual goals. Management objectives for soils, water, air, wildlife, and fire control may often reinforce the visual objectives, or in some cases, be more stringent and override these visual goals. Occasionally, there will be conflicts that must be resolved by trade-off decisions. The system does not incorporate planning factors such as politics and economics which are critical to land management. While not included in the system, these factors can and will occasionally modify the product.

The Visual Management System is designed to function at any level of the land planning process. To assist this planning, the visual resource may be evaluated at any one of various intensities.

For example, an intensive land use plan that covers a typical drainage requires many types of data gathered and interpreted at a very detailed scale. In contrast, a land use plan that covers one or perhaps parts of two National Forests requires data of the broadest type with data accuracy related to the most easily recognizable land and resource changes.

Though low intensity broad scale inventories should be used where appropriate, the long range goal of National Forest Landscape Management is to inventory and interpret the visual resource on most lands of the National Forests at a detailed, intensive level.

(See appendix for definition of detail & broad inventory levels)

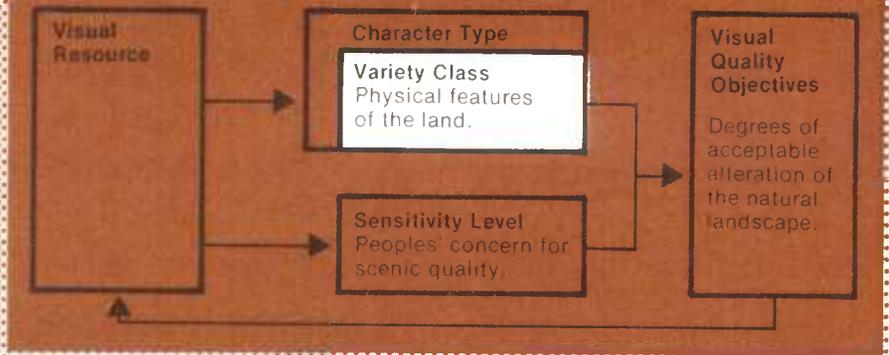
Additional visual resource objectives such as retaining or adding variety, opening up vistas or screening views, should come from detailed, coordinated studies such as found in "Forest Landscape Description and Inventories".⁴ Such studies will provide added objectives to be managed under a visual quality objective.

Overall, the visual quality objectives contained in this chapter incorporate the extreme variability of the lands scenic quality, the visual sensitivity of the land and the ability of various Forest landscapes to undergo alteration.

⁴Litton, R. Burton, Jr. 1968. Forest Landscape Description and Inventories—a basis for land planning and design. USDA Forest Service, Pacific Southwest Forest and Range Experiment Station, Berkeley, California.



Variety Classes



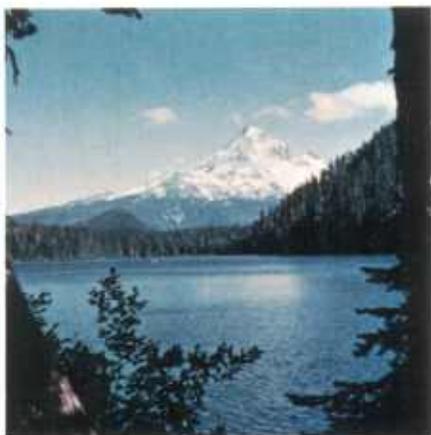
Variety Classes

Variety Classes are obtained by classifying the landscape into different degrees of variety. This determines those landscapes which are most important and those which are of lesser value from the standpoint of scenic quality.

The classification is based on the premise that all landscapes have some value, but those with the most variety or diversity have the greatest potential for high scenic value.

There are three variety classes which identify the scenic quality of the natural landscape:

- Class A - Distinctive**
- Class B - Common**
- Class C - Minimal**



Class A - Distinctive

Refers to those areas where features of landform, vegetative patterns, water forms and rock formations are of unusual or outstanding visual quality. They are usually not common in the character type.



Class B - Common

Refers to those areas where features contain variety in form, line, color, and texture or combinations thereof but which tend to be common throughout the character type and are not outstanding in visual quality.



Class C - Minimal

Refers to those areas whose features have little change in form, line, color, or texture. Includes all areas not found under Classes A and B.

Process

A frame of reference must be developed by which to judge the physical features of an area as distinctive, common, or minimal (Class A, B, or C). This is derived from the character type or subtype. (See pages 5 and 6.) Features such as landforms, water forms, rock formations, and vegetative patterns are compared singularly or in combination with those commonly found in the character type. Through this comparison, an area's overall degree of scenic quality and resultant variety class rating may be determined.

Ranking the Class B features within the area should be done first as a means of establishing a benchmark from which distinctive and minimal can be judged. The exceptions are those subtypes in which the features common to the character type are outstanding in quality and/or known nationally for their scenic importance. These features should be ranked Class A even though they are common to the character type.

Class A is the ranking given to those areas with features more distinctive or unusual than those defined in the Class B benchmark established above. Class A features usually exhibit a great deal of variety in form, line, color, and texture. Landform, rock, water and vegetation stand out as being unusual and/or outstanding in visual quality compared to those found common in the character type.

Class C features have very little variety, if any, in form, line, color, and texture. Water forms, because of their high attractiveness to people, should not generally fall into this category. Exceptions will depend on the character type but might be very small stagnant ponds, intermittent streams, etc. There will be character types which have very little, if any, of the land and its features that fall into Class C.

Map Preparation for Variety Class



Preceding pages have identified variety classes and briefly outlined the procedure for determining them. The classes must now be mapped in order to provide the data base for development of visual quality objectives.

1. Identify the character type and develop a written description of it and the subtype of the area.

This oblique photo illustrates the steep mountain slope subtype within the Western Cascades character type. The written description of this subtype would contain a discussion of the visual aspects of physical geology and plant communities.

	CLASS A	CLASS B	CLASS C
	DISTINCTIVE	COMMON	MINIMAL
Landform	Over 60 percent slopes which are dissected, uneven, sharp exposed ridges or large dominant features.	30-60 percent slopes which are moderately dissected or rolling.	0-30 percent slopes which have little variety. No dissection and no dominant features.
Rock Form	Features stand out on landform. Unusual or outstanding, avalanche chutes, talus slopes, outcrops, etc., in size, shape, and location.	Features obvious but do not stand out. Common but not outstanding avalanche chutes, talus slopes, boulders and rock outcrops.	Small to nonexistent features. No avalanche chutes, talus slopes, boulders and rock outcrops.
Vegetation	High degree of patterns in vegetation. Large old-growth timber. Unusual or outstanding diversity in plant species.	Continuous vegetative cover with interspersed patterns. Mature but not outstanding old-growth. Common diversity in plant species.	Continuous vegetative cover with little or no pattern. No understory, overstory or ground cover.
Water Forms, Lakes	50 acres or larger. Those smaller than 50 acres with one or more of the following: (1) Unusual or outstanding shoreline configuration, (2) reflects major features, (3) islands, (4) Class A shoreline vegetation or rock forms.	5 to 50 acres. Some shoreline irregularity. Minor reflections only. Class B shoreline vegetation.	Less than 5 acres. No irregularity or reflection.
Water Forms, Streams	Drainage with numerous or unusual changing flow characteristics, falls, rapids, pools and meanders or large volume.	Drainage, with common meandering and flow characteristics.	Intermittent streams or small perennial streams with little or no fluctuation in flow or falls, rapids, or meandering.

2. Prepare a chart (or list) of landscape features within the character type or subtype and describe each feature for Variety Class A, B, and C.

This chart represents a variety class breakdown of the steep mountain slope subtype shown in the photo. A chart of this kind should be compared to the written description of the character type to determine what features are distinctive, common or minimal (Class A, B, or C). This chart is appropriate for this subtype only since descriptions for other character types or subtypes may vary according to the characteristics of the land.

3. Rate features for variety

This oblique photo illustrates the broad variety class breakdown defined in the preceding chart for the sample area on the Mt. Hood National Forest. The photos below show both broad and detailed examples of the variety class breakdown within the study area.



Class A - Distinctive



Class B - Common

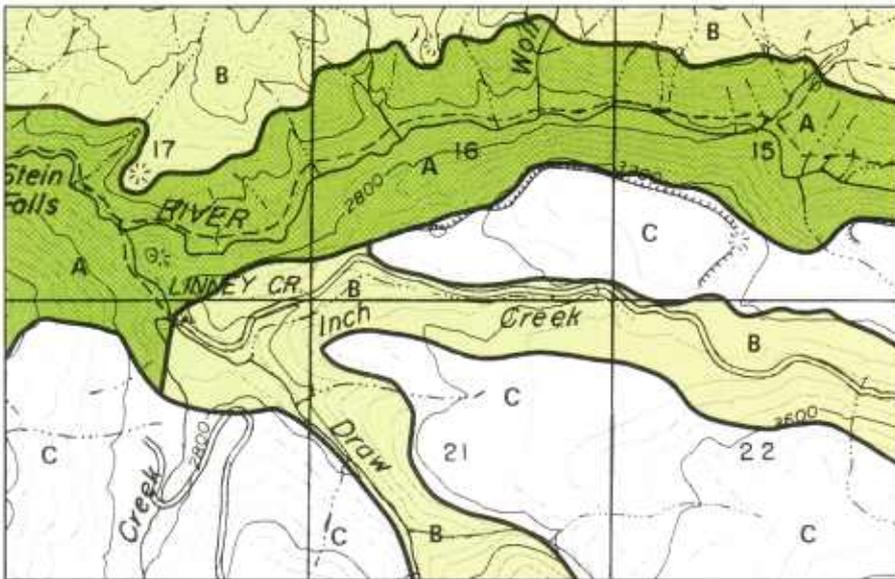


Class C - Minimal





Vertical photos, particularly in stereo pairs, are an excellent tool in judging the broad variety class determination of step No. 3.



4. Prepare a detailed base map at the same scale as those currently being used for Multiple Use planning units.

5. Prepare an overlay as shown at left to illustrate the variety class determination.

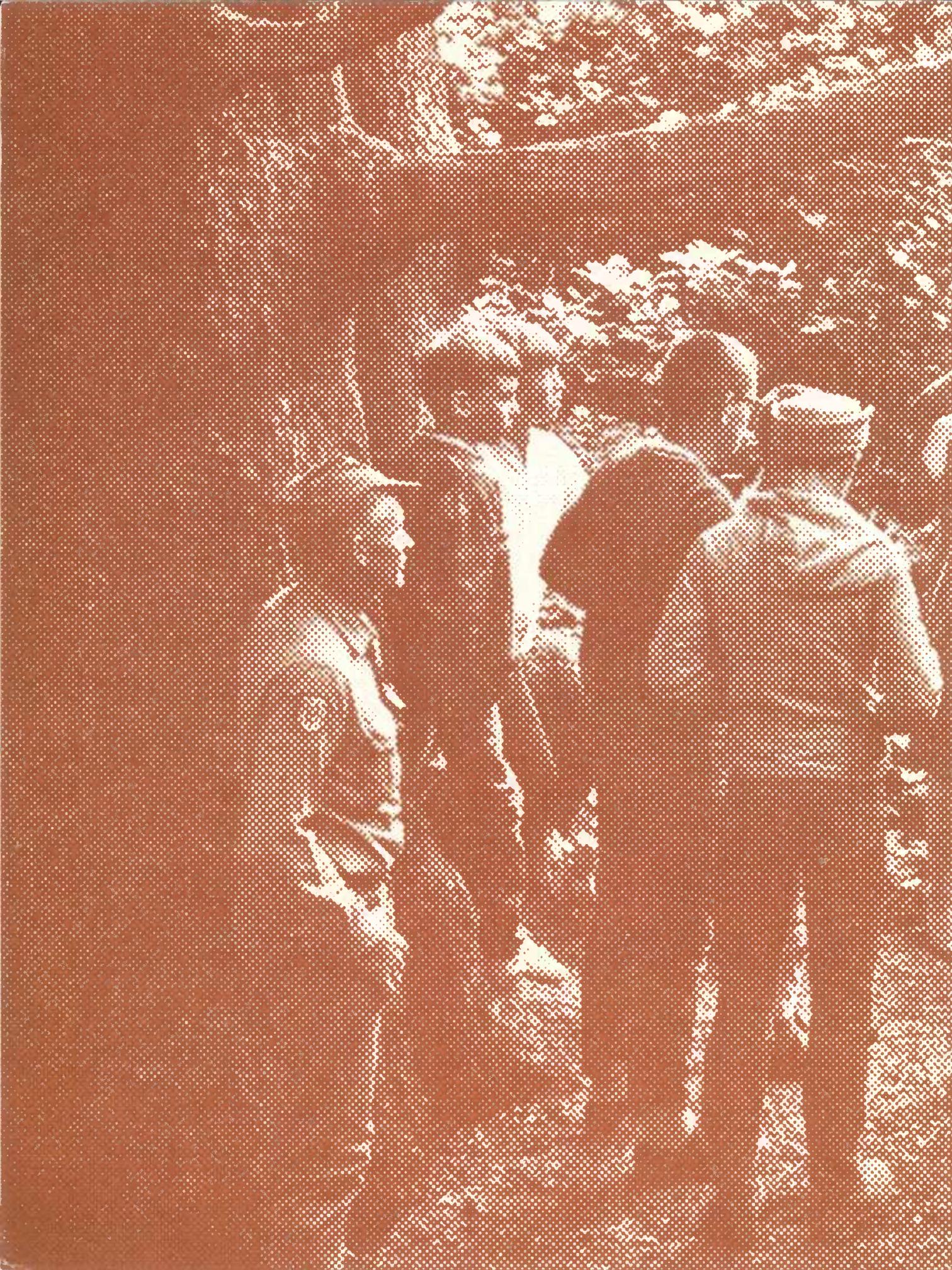
Information on the base map will be used for all aspects of the Visual Management System process and should include but not be limited to:

Topographic data (best available).

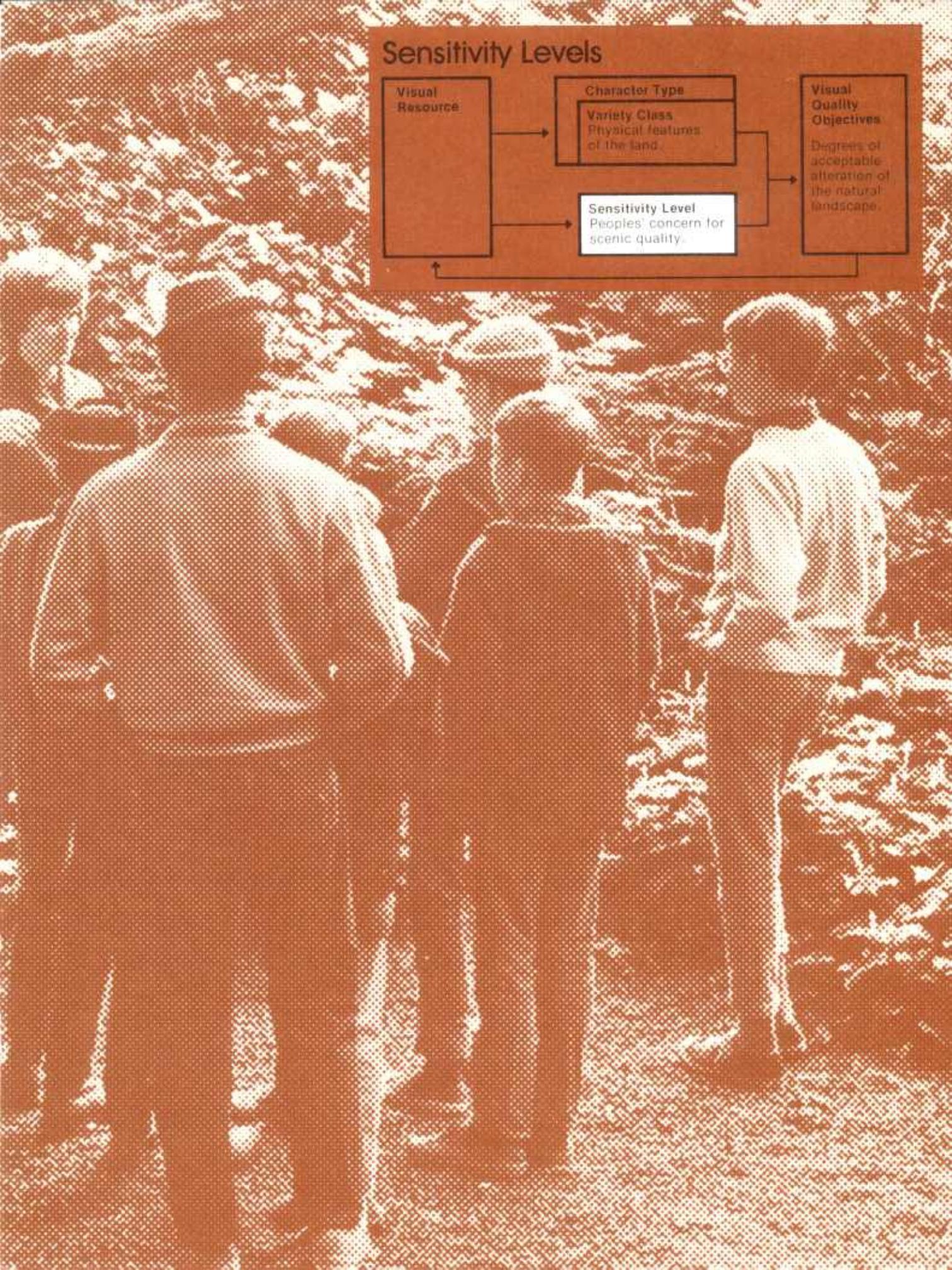
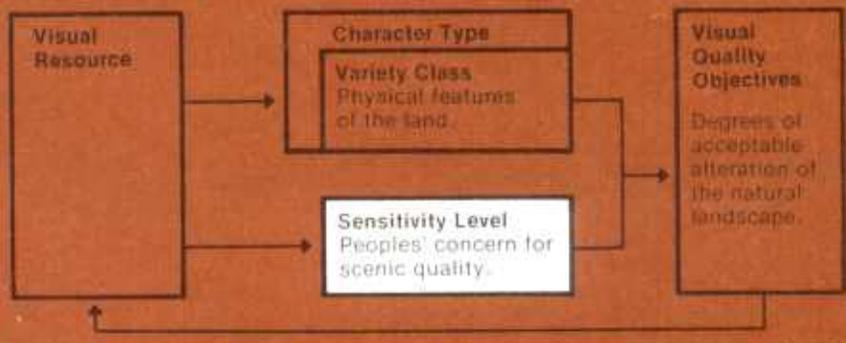
Landownership boundaries.

Existing and proposed (within 10 years) travel routes, including non-Forest Service routes which provide views into Forest Service lands. (Would include but not be limited to roads, trails, low-level commercial air routes, passenger rail routes, etc.) Information can be obtained from Forest Service, local, state and national route studies and transportation plans.

Existing and proposed (within 10 years) use areas and water bodies including those on non-Forest Service land which provide views into Forest Service land. (Would include but not be limited to local, state and national parks, recreation sites, monuments, etc. Information can be obtained from Forest Service, local, state and national recreation studies and plans.)



Sensitivity Levels



Sensitivity Levels

Sensitivity Levels are a measure of people's concern for the scenic quality of the National Forests.

Sensitivity levels are determined for land areas viewed by those who: are traveling through the Forest on developed roads and trails; are using areas such as campgrounds and visitor centers; or are recreating at lakes, streams, and other water bodies. It is recognized that all National Forest land is seen at least by aircraft users. Therefore, some degree of visitor sensitivity will be established for the entire land base.

Three sensitivity levels are employed, each identifying a different level of user concern for the visual environment.

- Level 1 — Highest Sensitivity**
- Level 2 — Average Sensitivity**
- Level 3 — Lowest Sensitivity**

The degree of visitor sensitivity to his visual environment is extremely difficult to quantify. Additional research into the sociological aspects of man's perception of his environment is essential. Various research scientists are investigating this concept in depth and changes will be made in the process as findings are published.

Process

Two steps are involved in establishing sensitivity levels. Both must be coordinated between the Forests involved if the route or area in question crosses Forest boundaries.

Step One— All travel routes, use areas, and water bodies are identified as being of either primary or secondary importance within the area of consideration. The following list provides a general method for determining into which category each facility belongs. Determinants such as national or local importance may not apply to all routes and areas, and additional items may be required for a complete evaluation.

Step Two— The major and minor concern of users for the scenic qualities of the Forest is identified in this step. Major concern for aesthetics is usually expressed by people who are driving for pleasure, hiking scenic trails, camping at primary use areas, using lakes and streams along with other forms of recreational activities. Minor concern for aesthetics is usually expressed by those people involved with daily commuter driving, hauling forest products, employed in the woods and other commercial uses of the Forest.

Identifying users and the major or minor concerns they express for aesthetics will indicate the long range function of each specific travel route, use area, and water body. The combined information will establish sensitivity levels for the total Forest land base.

	primary importance	secondary importance
Travel Route	National importance High use volume Long use duration Forest land access roads	Local importance Low use volume Short use duration Project roads
Use Areas	National importance High use volume Long use duration Large size	Local importance Low use volume Short use duration Small size
Water Bodies	National importance High fishing use High boating use High swimming use	Local importance Low fishing use Low boating use Low swimming use

Level 1

Sensitivity Level 1 includes all seen areas from PRIMARY travel routes, use areas, and water bodies⁵ where, as a minimum, at least one-fourth of the Forest visitors have a MAJOR concern for the scenic qualities. Examples are all areas seen from:

Primary roads, primary trails used by hikers and horsemen, and primary use sites within National Parks, National Recreation Areas, Wilderness and other dedicated Wild Areas.

All public transportation systems of national importance including railways.

Primary areas of fishing, swimming, boating, and other active or passive recreation on or adjacent to water bodies such as streams, lakes, ocean, etc.

Primary recreation areas (vista points, campgrounds, picnic grounds, beaches, visitor centers, trail camps, etc.)

Primary resorts and winter sports areas.

Primary geological areas.

Primary botanical areas.

Primary historical sites.

Areas of primary importance for observation of wildlife.

Primary summer home tracts.

Highly sensitive communities such as one where a large portion of the population is not directly related to performing Forest land management activities.

⁵Includes those travel routes, use areas, and water bodies that are existing and those proposed (within ten years).

Sensitivity Level 1 also includes all seen areas from SECONDARY travel routes, use areas, and water bodies⁵ where at least three fourths of the Forest visitors have a MAJOR concern for the scenic qualities. Examples are areas seen from:

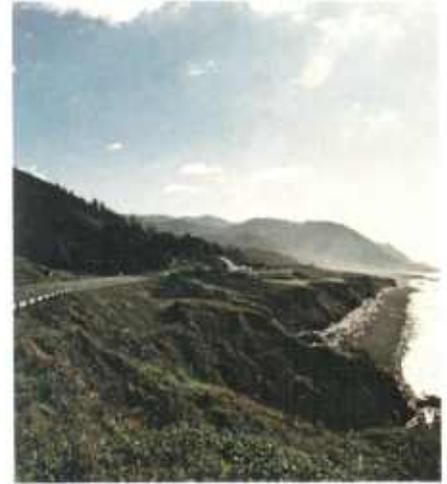
Secondary roads and trails and use areas within as well as to and from National Parks, National Recreation Areas, Wilderness and other dedicated Wild Areas.

Secondary recreation sites that fit the definition above.

Examples of either primary or secondary routes which should always be assigned sensitivity level 1 are:

All roads classified as "scenic highways."

All roads and trails leading directly to major areas of interest; National Parks, Wilderness, major recreation composites, historic sites and areas, botanical sites, etc.



Level 2



Sensitivity Level 2 includes all seen areas from PRIMARY travel routes, use areas, and water bodies⁶ where fewer than one fourth of the Forest visitors have a MAJOR concern for scenic qualities. Examples are all areas seen from:

All Federal, State and primary County or Forest systems not listed under Level 1.

Known low-flying air routes (includes non-commercial leisure flying).

Communities-large portion of the population is directly related to performing Forest land management activities.

Other primary uses not included under Level 1.

Level 2 also includes all seen areas from SECONDARY travel routes, use areas, and water bodies⁶ where at least one-fourth and not more than three-fourths of the Forest visitors have a MAJOR concern for scenic qualities. Examples are all areas seen from:

Secondary County and Forest systems that fit the above definition.

Secondary trail systems.

All roads leading directly to secondary areas of interest and recreation composites.

Secondary recreation areas (vista points, campgrounds, picnic grounds, etc.).

Secondary uses of fishing, swimming, boating, and other active or passive recreation on or adjacent to water bodies such as streams, lakes, etc.

Secondary geological areas.

Secondary botanical areas.

Secondary resorts.

Secondary summer home tracts.

Secondary historic sites.

Areas of secondary importance for observation of wildlife.

Does not include travel routes and use areas of only occasional visitation.

⁶Includes both existing and proposed (within ten years).

Level 3

Level 3 includes all seen areas from SECONDARY travel routes, use areas, and water bodies where less than one-fourth of the Forest visitors have a MAJOR concern for scenic qualities. (Level 3 does not include any areas seen from PRIMARY routes or areas.) Examples are areas seen from:

All county and Forest road systems, not in level 1 or 2, which are either permanent or temporary.

Secondary Forest trail system used primarily for fire protection and other administrative uses.

Recreation sites of little or no consequence (such as an occasional unimproved hunter camps).

Streams with little or no fishing use.

Secondary roads or use areas with only occasional use.

All National Forest land not seen from any travel route, use area, or water body.

Summary Table for all Sensitivity Levels:			
Use	Sensitivity Level		
	1	2	3
Primary Travel Routes, Use Areas, and Water Bodies	At least ¼ of users have MAJOR concern for scenic qualities	Less than ¼ of users have MAJOR concern for scenic qualities	
Secondary Travel Routes, Use Areas, and Water Bodies	At least ¾ of users have MAJOR concern for scenic qualities	At least ¼ and not more than ¾ of users have MAJOR concern for scenic qualities	Less than ¼ of users have MAJOR concern for scenic qualities

The proportion of users (one-fourth and three-fourths figures) identified through the discussion and in this table are provided as a guide only. They indicate the relationship between the types of visitor and their concern for aesthetics on the National Forest. Adjustments in the one-fourth to three-fourths user quantification may be required to meet local situations.

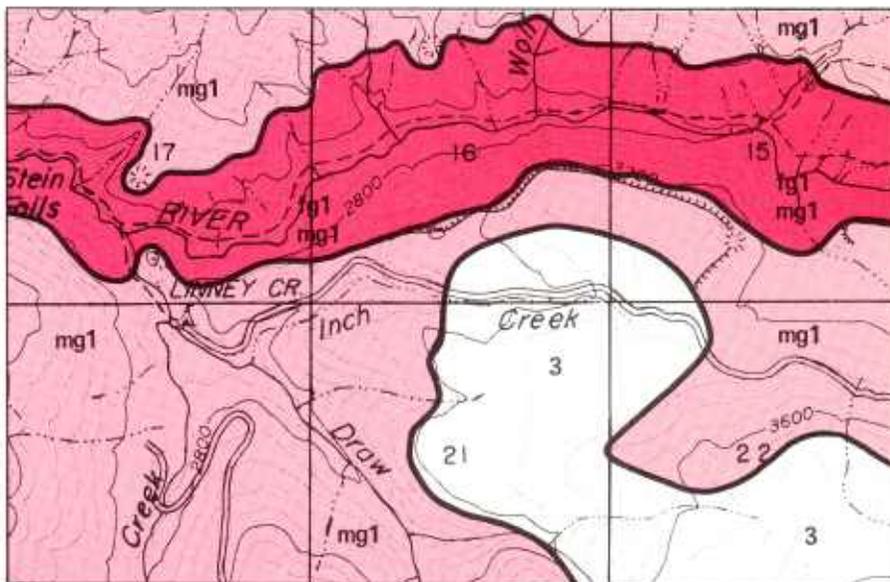
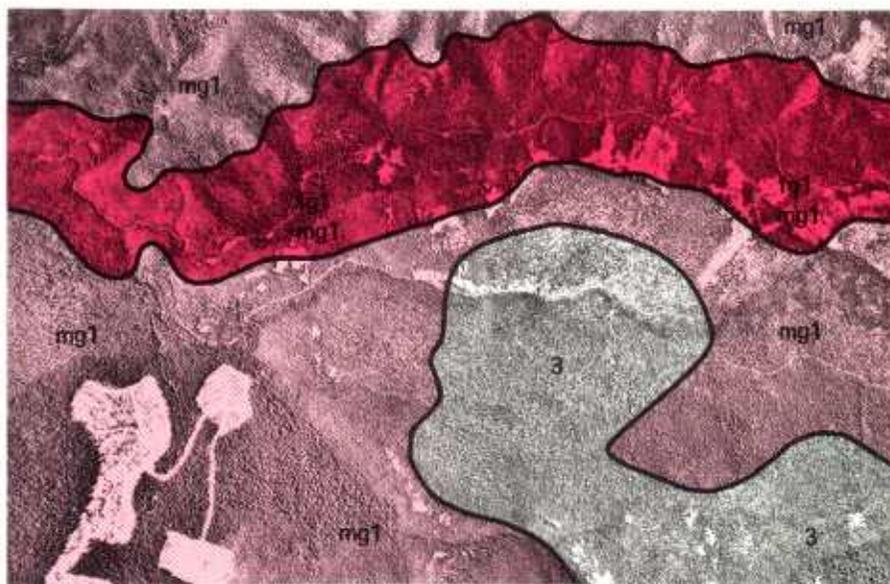
Map Preparation for Sensitivity Levels

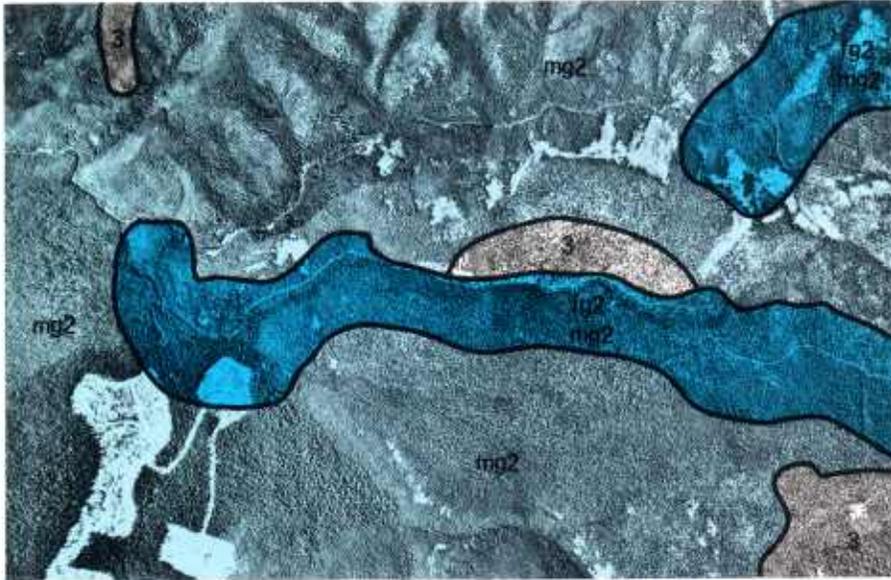
Preceding pages have identified sensitivity levels and discussed examples of each. The levels must now be mapped in order to provide the data base for development of visual quality objectives. The following process is recommended:

1. Utilize the same base map used for variety class determination.
2. Identify all travel routes, specific use areas, and water bodies which meet the preceding Level 1, 2, or 3 determinants.
3. Prepare an overlay of all seen areas from level 1 travel routes, use areas, and water bodies. Vertical photos provide one possible tool for determining seen areas. All plotting should be verified on the ground. Several computer programs for determining seen area are available. (See appendix.)
4. Identify distance zones of foreground, middleground, and background for seen areas established in step 3. Label all distance zones with appropriate symbol and sensitivity level number:

fg 1 - Foreground Level 1
mg 1 - Middleground Level 1
bg 1 - Background Level 1

See page 7 for definition and discussion of distance zones.



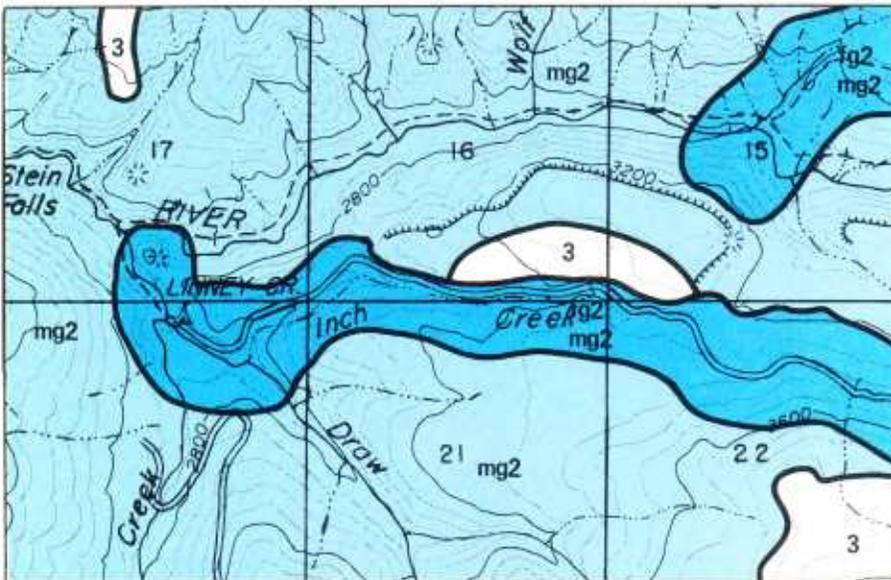


5. Prepare an overlay of all seen areas from level 2 travel routes, use areas and water bodies, as described under step No. 3.

6. Identify distance zones of foreground, middleground, and background for seen areas of Level 2 travel routes, use areas, and water bodies as described under step No. 4. Label all distance zones with appropriate symbol and sensitivity level number.

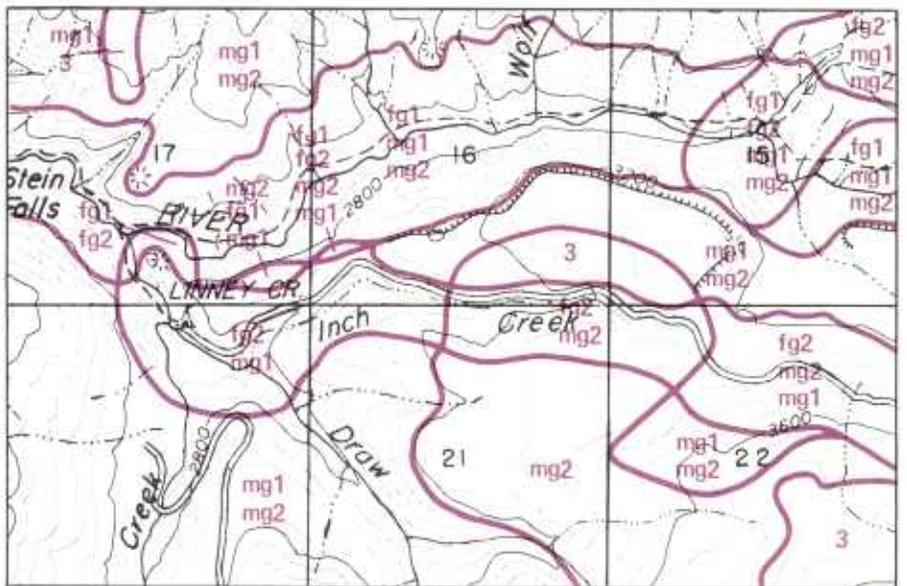
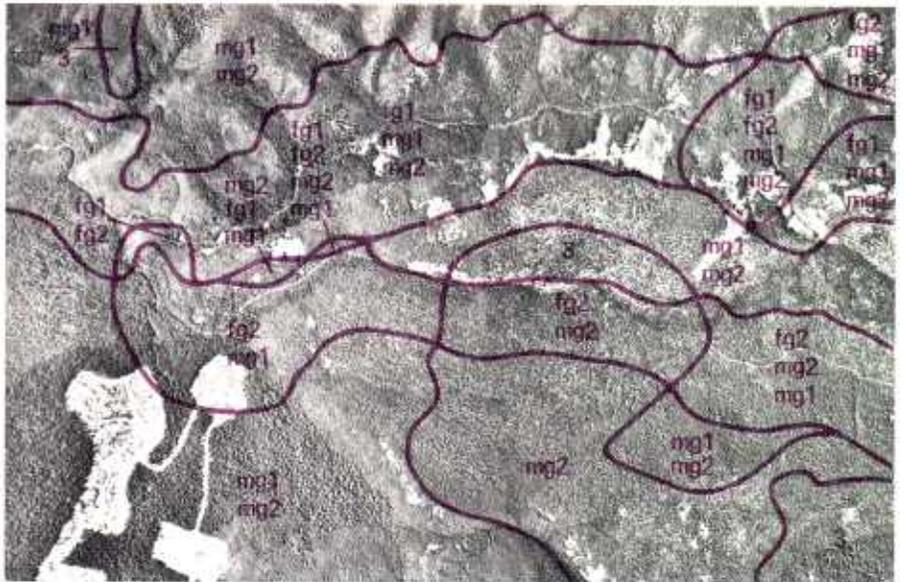
Seen areas should be based primarily on landform screening for both sensitivity levels 1 and 2 since vegetative screening may be altered through planned management or natural causes.

On-the-ground analysis should be made during optimum lighting and weather conditions to verify the distance zones established. (See pages 52, 53, 56 and 57 of volume I.)



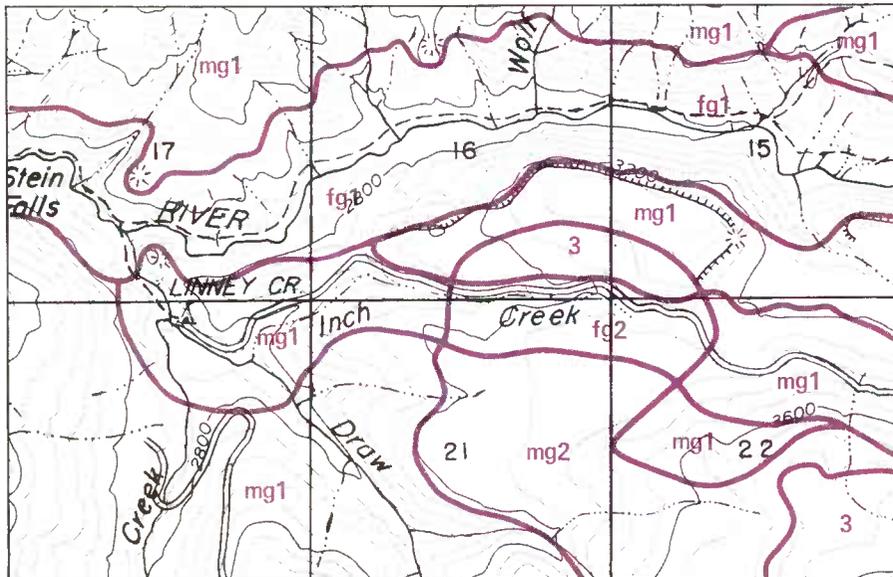
7. Identify level 3 areas as all those land areas which do not meet the criteria for Level 1 and 2. Level 3 determinants are listed on the preceding pages to point out the differences between level 2 and 3. Label all such areas with the figure 3. Identification of distance zones is generally not necessary in level 3 areas.

8. When the overlays developed in steps 3 through 7 are put together, conflict may result from some areas being viewed from more than one distance zone or with a different sensitivity level. In all cases, the more restrictive sensitivity level will be used in the final overlay.



	fg1	mg1	bg1	fg2	mg2	bg2
bg2	fg1	mg1	bg1	fg2	mg2	bg2
mg2	fg1	mg1	mg2	fg2	mg2	
fg2	fg1	mg1	fg2	fg2		
bg1	fg1	mg1	bg1			
mg1	fg1	mg1				
fg1	fg1					

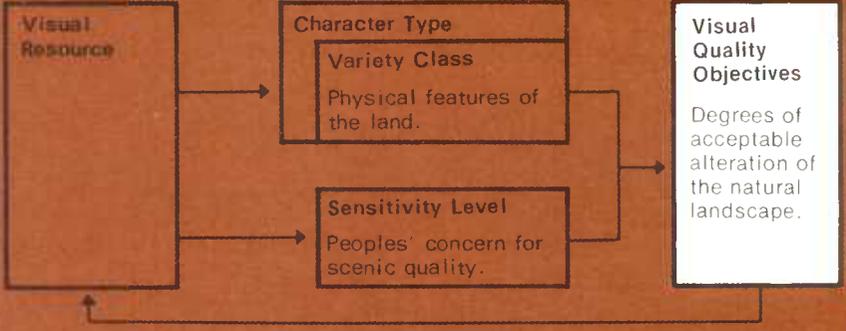
The most restrictive sensitivity level can be easily determined by use of this chart. If an area has been identified as both mg2 and fg2, these can be compared (mg2 in the left column versus fg2 in the top row) to determine that fg2 is the proper (or most restrictive) term for that area.



9. Adjust final seen area boundaries after conflicts involving sensitivity levels and distance zones have been resolved. The final overlay will show the seen area in terms of distance zones with the sensitivity level number accompanying it.



Quality Objectives



Quality Objectives

At this point in the system all lands should have been identified as to the public's concern for scenic quality (sensitivity levels) as well as diversity of natural features (variety classes). Development of measurable standards or objectives for the visual management of these lands now becomes the primary task. The visual quality objectives are designed to accomplish that purpose. They are represented by five terms which can be defined as visual resource management goals. The objectives are:

P	Preservation
R	Retention
PR	Partial Retention
M	Modification
MM	Maximum Modification

These objectives are keyed to the values set forth in the variety classes and sensitivity levels. Except for preservation, each describes a different degree of acceptable alteration of the natural landscape based upon the importance of aesthetics. The degree of alteration is measured in terms of visual contrast with the surrounding natural landscape.

Two additional short-term management goals may be required. The first is used to upgrade landscapes containing visual impacts which do not meet the quality objectives set for that particular area. The second is for landscapes having a potential for greater natural-appearing variety. The short-term management goals are:

reh	Rehabilitation
e	Enhancement

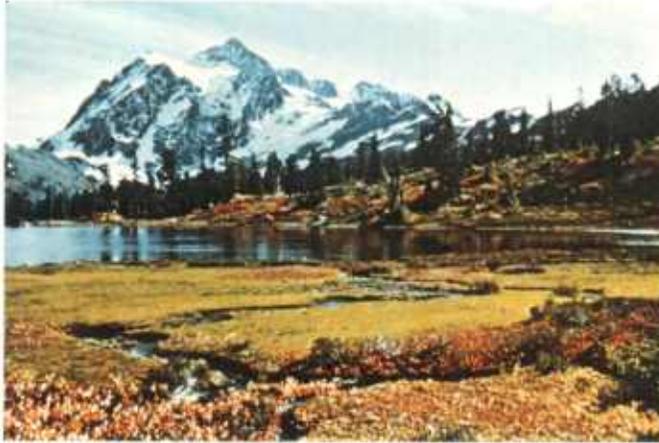
Once the short-term goal is attained, one of the five quality objectives is then applied.

The following are descriptions and illustrations of the five quality objectives and two short-term management goals.

Preservation P

This visual quality objective allows ecological changes only. Management activities, except for very low visual-impact recreation facilities, are prohibited.

This objective applies to Wilderness areas, primitive areas, other special classified areas, areas awaiting classification and some unique management units which do not justify special classification.



Wilderness



Quaking Aspen Swamp Botanical Area



Wheeler Creek Research Natural Area

Retention R

This visual quality objective provides for management activities which 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, pattern, etc., should not be evident.

Duration of Visual Impact

Immediate reduction in form, line, color, and texture contrast in order to meet Retention should be accomplished either during operation or immediately after. It may be done by such means as seeding vegetative clearings and cut-or-fill slopes, hand planting of large stock, painting structures, etc.



The majority of the lineal clearings for log removal in this large tree removal sale are not evident even though located from top to bottom every 200 feet along the ridge. To achieve this quality objective, the clearing for the cable roads was kept to a minimum width of 10 to 12 feet rather than the normal 25 to 30 feet.



The vegetative clearings for the ski runs and lifts above the parking area would not be visually evident to the casual Forest visitor. The clearings repeat form, line, and texture from the surrounding vegetative patterns to achieve the RETENTION quality objective.

Forms resulting from this removal of large mature trees repeat natural openings frequently found in the characteristic landscape so completely that they are *not* evident. The form on the right side of the after photo appears too large compared to adjacent natural occurrences. However, just outside the area photographed are natural openings as large. Meeting RETENTION also includes spur and skid roads which exist physically, but are not evident.



Before



After



The aerial tramway which traverses the middle landform (A) from top to bottom does not introduce any evident form, line, color, or texture.

The detail photo (B) shows several reasons why. Trees were often topped instead of cleared to maintain natural color and texture. Any clearing widths are absolute minimums. Tram profile is low, corresponding to adjacent tree height. Color of cars and towers is well chosen to blend with adjacent vegetation as well as color in the background.

The clearcut in this photo (C), of which only a hint of the tree bole edge can be seen, would not be evident to the forest visitor. It does not introduce any evident form, line, color, or texture. The lower photo (D) shows how some of these harvest units look from the air.



The shelterwood cut in the lower portion of this photo illustrates RETENTION. From the observation point and under these lighting conditions, it does not introduce any evident form, line, color or texture.

Partial Retention PR

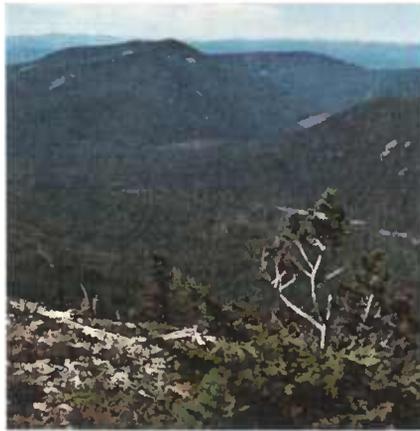
Management activities remain *visually subordinate* to the characteristic landscape when managed according to the partial retention visual quality objective.

Activities may repeat form, line, color, or texture common to the characteristic landscape but changes in their qualities of size, amount, intensity, direction, pattern, etc., remain visually subordinate to the characteristic landscape.

Activities may also introduce form, line, color, or texture which are found infrequently or not at all in the characteristic landscape, but they should remain subordinate to the visual strength of the characteristic landscape.

Duration of Visual Impact

Reduction in form, line, color, and texture to meet partial retention should be accomplished as soon after project completion as possible or at a minimum within the first year.



The irregularly-shaped clearcut at the junction of these two valleys is evident but remains subordinate to the characteristic landscape. Note the contrast with the rectangular unit to the right. Color and texture contrast is reduced by leaving a heavy concentration of whips in the unit. The shape is natural enough to be found in a valley such as this.



The path in this photo is evident but remains subordinate to the characteristic landscape. It was achieved by adding color to the paving material to repeat the darker grays in the rock formations. The path follows the natural rock formation resulting in minimal disruption of the site.



This regeneration partial cut on the right side of the photo remains subordinate to the characteristic landscape. This is because the shape, with the exception of being somewhat out of scale, repeats the form, line, color, and texture of the natural occurrences common to the surrounding area.



Forms resulting from construction of this winter sports site (left center) are evident, but remain visually subordinate to the characteristic landscape to achieve PARTIAL RETENTION. Form and line were repeated at the same scale as the natural openings common to the scene being viewed. Additional borrowing of color and texture by such techniques as established grass cover would have made the activity undiscernible and, thus, achieved the higher visual quality objective of RETENTION.



This microwave facility repeats form and color of the surrounding landforms and vegetation to the point that it remains visually subordinate to the characteristic landscape.



This paved parking lot is evident but remains visually subordinate to the surrounding area to achieve PARTIAL RETENTION. The color of the paving repeats colors found in the existing rock. The line created where the edge of the paving joins the rocks is completely natural, following the outline of the outcrop.



The road in this photo is evident but remains subordinate to the characteristic landscape. The detail photo shows why. "Corten Steel" bin walls were used which repeat the colors in the natural surroundings as well as allowing vegetation to remain close to the toe of the road.



The form introduced by the clearcut on the ridge remains visually subordinate to the characteristic landscape. The exposed soil color repeats enough color of the surrounding dormant vegetation to achieve this subordination. Also, the overall variety in vegetative patterns, texture, and color tends to draw the eye away from the activity.



This fish ladder is evident but remains visually subordinate to the natural stream to achieve PARTIAL RETENTION. The same concrete walls, if constructed to look like stream rock formations, might help achieve a higher Visual Quality Objective. Varying the pool size and their heights in the ladder might have completed this achievement of RETENTION.

Modification M

Under the modification visual quality objective 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. Additional parts of these activities such as structures, roads, slash, root wads, etc., must remain visually subordinate to the proposed composition.

Activities which are predominately introduction of facilities such as buildings, signs, roads, etc., should borrow naturally established form, line, color and texture so completely and at such scale that its visual characteristics are compatible with the natural surroundings.

Duration of Visual Impact

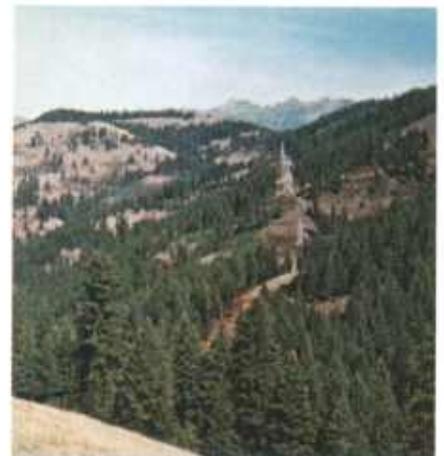
Reduction in form, line, color, and texture should be accomplished in the first year or at a minimum should meet existing regional guidelines.



The road dominates the foreground but borrows enough of the form, line, color and texture from the landform upon which it lies to appear visually compatible. The Quality Objective was achieved by fitting the road alignment to the landforms. Cut banks were rounded back to appear as part of the existing landform. Vegetative clearing lines undulate including vegetation left in some places adjacent to the road's edge. This road seen in middle ground would likely meet RETENTION or PARTIAL RETENTION.



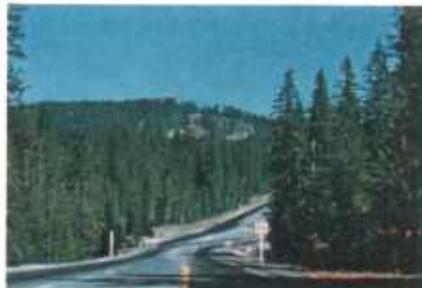
This sign dominates the characteristic landscape but borrows from naturally established form, line, and color so completely and at such scale that its visual characteristics are compatible with the natural surroundings.



This powerline, with the exception of the bright towers exceeds the criteria for MODIFICATION. The design of the clearings has borrowed form and texture from vegetative patterns in the characteristic landscape. If the towers had borrowed color from the surrounding area, the activity would meet a higher quality objective.



The two photos illustrate vegetative alterations which dominate foregrounds. Such elements as skidroads, slash, cull logs, etc., should be subordinate to the opening. The photo on the right illustrates how planting of an annual grass cover plus achieving a natural appearing edge effect can complete the appearance of a natural opening though still dominant.



The clearcut in this photo dominates the characteristic landscape, but appears to be a natural occurrence. It is achieved primarily because of the groupings of the trees left within the form.



The ranger station in this photo dominates the characteristic landscape but repeats much of the line, color, and texture of the timbered site. The structure is well sited among the trees and easily meets the MODIFICATION visual quality objective.



This clearcut dominates the characteristic landscape, but with the exception of color, it appears as a natural occurrence. The quality objective is achieved primarily because of the natural form in scale with natural openings and the very loose, irregular edge effect caused by scattered tree groupings and undulating shape. The road is evident but remains subordinate to the natural appearing form.



This visitor center dominates the characteristic landscape, but repeats enough form and color from the rugged shoreline to appear visually compatible.



The clearcuts dominate the characteristic landscape but appear as natural occurrences primarily because of form and color. The clearcuts have been seeded to grass to achieve an immediate reduction of the visual impact.

The regeneration cut dominates as a natural appearing composition in a characteristic landscape of continuous texture (A). Form is borrowed well from the natural openings infrequently found in the surrounding landscape. The natural-appearing edge (B) is achieved through using small natural openings as part of the edge and by leaving scattered trees just inside the boundary of the sale area. Color and texture appear natural because of scattered grass cover.



Maximum Modification MM

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 middle ground, 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 middle ground.

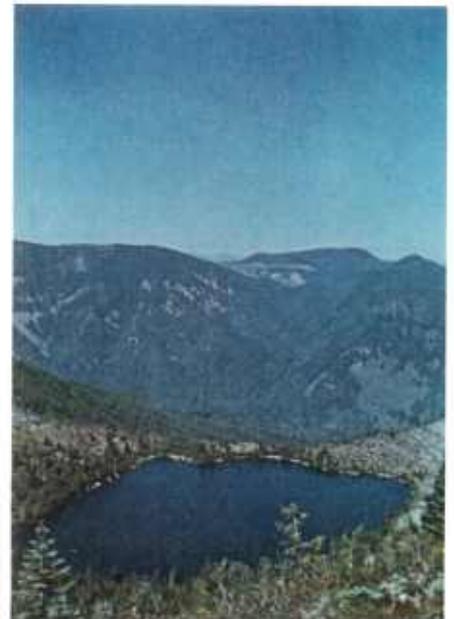
Introduction of additional parts of these activities such as structures, roads, slash, and root wads must remain visually subordinate to the proposed composition as viewed in background.

Duration of Visual Impact

Reduction of contrast should be accomplished within five years.



The middle ground clearcut is one of vertical emphasis in a part of the natural landscape which is primarily horizontal in direction. However, when viewed as background shape and pattern of form, it appears as a natural occurrence.



The clearcut in the background appears as a natural occurrence borrowing primarily form or shape from adjacent landforms. The scale of the unit appears to be larger than natural openings in the area.



Shape and pattern of form are basically those of natural occurrences within the character type. The only exception involves the larger unit that exceeds the scale of the surrounding area.



These clearcuts dominate the characteristic landscape but borrow shape and pattern of form so completely that they appear as natural occurrences as would be seen in background



These clearcut forms dominate but borrow shape and pattern of form completely enough to appear as natural occurrences in this background scene.



The shape and pattern of clearcut form on the ridge top is dominant but appears as a natural occurrence in this background scene.



The combination of clearcuts in this photo meet this objective because of the natural appearing variety in amount, size, shape, and pattern of form as would be judged from a background distance zone.

In background the roads would also tend to be visually subordinate to the pattern of forms. The clearcut pattern exceeds the criteria for MAXIMUM MODIFICATION, because of the green color of the older units.

Unacceptable Modification

This section sets examples of excessive modification or what not to do to any landscape regardless of the distance from which the management activity may be observed.

One or more of these characteristics are indicative of unacceptable modification:

- Size of activities is excessive or poorly related to scale of landform and vegetative patterns in characteristic landscape.
- Overall extent of management activities is excessive.
- Activities or facilities that contrast in form, line, color, or texture are excessive. *All* dominance elements in the management activity are visually unrelated to those in the characteristic landscape.

Duration of Visual Impact

Unacceptable Modification includes those visual impacts which exceed 10 years duration.



The road cut for this intersection is strong in form and visually unrelated to the flat site through which it passes.



This powerline clearing produces a strong line which is visually unrelated to the characteristic landscape. Location on the right side of the river through a landscape strong in form would have resulted in much less impact. Because of right-of-way maintenance, the impact will be visible for more than 10 years.



Most of the clearcuts are visually unrelated in shape and pattern of form to natural occurrences.



The size and extent of this activity is excessive. It is poorly related to shape and scale of landforms or vegetative openings within the characteristic landscape.



The visual impact of this road failure illustrates how attention is brought not only to the effect on the visual resource but also to the mis-management of the soil and water resource. As in many such cases, the impact will be of long duration, well beyond the 10-year period. In this instance, it is because the soil is moving continually, preventing revegetation of the slope.



This winter sports site produces a strong form visually unrelated to those found in natural occurrences.



The alignment of this road, being unrelated to the landform through which it passes, introduces strong contrasts of form, line, and color in the characteristic landscape. The geometrically perfect cut slopes do not borrow from the rounded earthforms or rock outcrops of this area. Often, the steepness of the slope and sterility of the soil will not allow any type of vegetation to grow and reduce the very apparent color contrast that has been created.



Any activity that leaves an excessive amount of slash, cull logs, and root wads is unacceptable regardless of the sensitivity level of the area from which it is seen. This particular practice is also unacceptable from the standpoint of fire management. Slash in these types of areas should meet, at a minimum, the MM fire management standard meaning medium rate of spread and medium resistance to control.



The fish ladder in this photo may meet fisheries objectives and be structurally sound, but it is far too great a visual impact to be acceptable on most any stream. Very little, if any of its form, line, color or texture is borrowed from the natural streamside character.

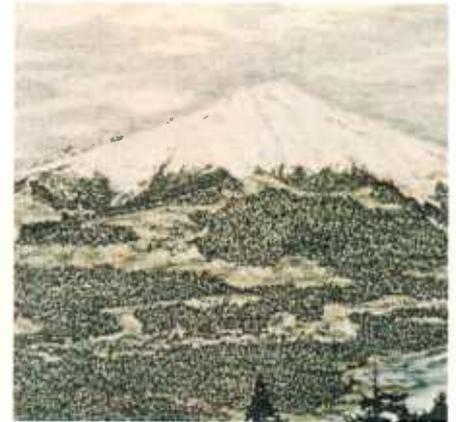
Rehabilitation reh

Landscape rehabilitation is a short term management alternative used to restore landscapes containing undesirable visual impacts to a desired visual quality. It may not always be possible to immediately achieve the prescribed visual quality objective with rehabilitation, but it should provide a more visually desirable landscape in the interim. Rehabilitation may be achieved through alteration, concealment, or removal of obtrusive elements. Such rehabilitation might include:

- Vegetative alternatives to eliminate obtrusive edges, shapes, patterns, colors, etc.
- Terrain alterations to blend better with natural slopes.
- Alteration, concealment, or removal of structures containing obtrusive form, colors, or light reflections.
- Revegetation of cut-and-fill slopes.
- Alteration, concealment, or removal of slash, root wads, or construction debris.
- Identification of landscapes needing rehabilitation should normally be done at the time quality objectives are applied. Further instruction can be found in the back of this section and titled "Quality Objective Mapping"



Before



After

This "before" drawing shows a number of clearcut blocks which do not meet any of the visual quality objectives. This dominant feature would normally be managed under RETENTION or PARTIAL RETENTION.

The "after" drawing shows the clearcuts reshaped to lead the eye back towards the dominant feature. Though the rehabilitation does not yet meet RETENTION or PARTIAL RETENTION, it is a much more acceptable composition while growth takes place.



Color is often one of the most critical elements in reducing the visual impact of road scars. The use of asphalt emulsion as illustrated in the detail photo is one way of effectively reducing the color contrast.



Reduction of visual impact from unacceptable modification to PARTIAL RETENTION is being achieved by painting the high reflective aluminum towers with acid-base paint.

Enhancement e

Enhancement is a short-term management alternative aimed at increasing positive visual variety where little variety now exists. Enhancement may be achieved through addition, subtraction, or alteration of vegetation, water, rock, earthforms, or structures, to create additional variety of forms, edges, colors, textures, patterns, or spaces. Examples of these might include:

- Addition of species to plant community to give unique form, color, or texture to an area.
- Manipulation of vegetation to open up vistas or screen out undesirable views.
- Addition of structures which enhance the natural landscape.
- Identification of landscapes needing enhancement will normally come from landscape management corridor plans such as outlined in PSW 49 by Litton⁷.

⁷Litton, R. Burton, Jr. 1968. Forest Landscape Description and Inventories—a basis for land planning and design. USDA Forest Service, Pacific Southwest Forest and Range Experiment Station, Berkeley California.



Addition of plant species introduces spring color.

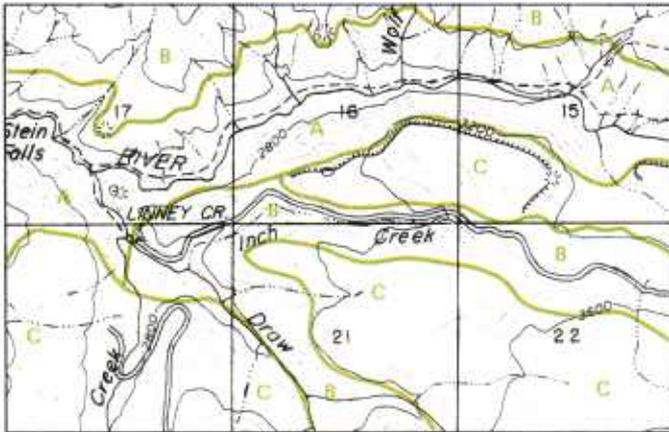


Addition of plant species highlights fall colors.

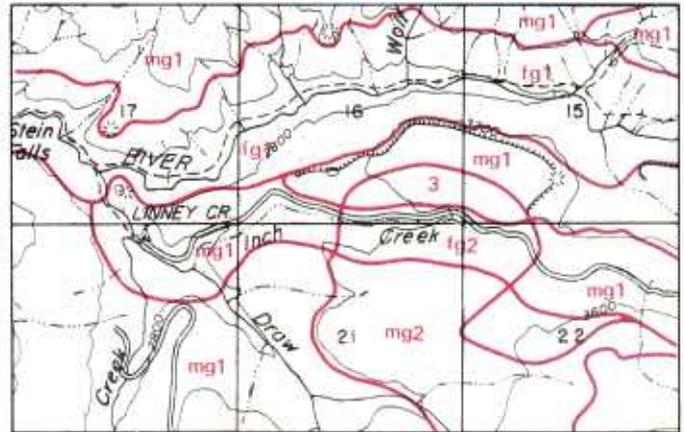


Construction of a fuelbreak creates a desirable view.

Map Preparation for Quality Objectives



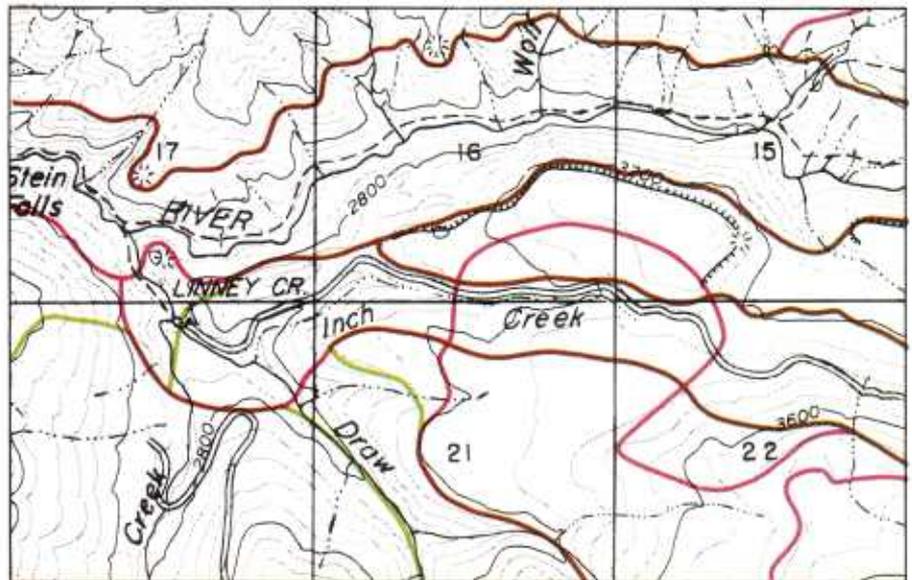
Variety Class Overlay



Sensitivity Level Overlay

Preceding pages have identified Visual quality objectives and short-term management goals as well as providing examples of each. The objectives should now be mapped by combining variety classes and sensitivity levels:

1. Use the previously prepared variety class and sensitivity level overlays to develop a combined overlay.

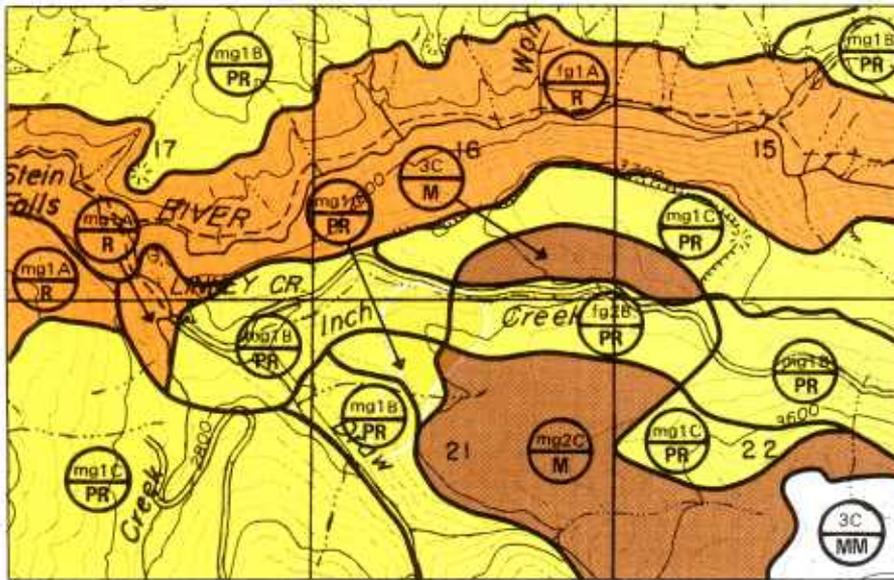


Combined Overlay

		Sensitivity Level						
		fg1	mg1	bg1	fg2	mg2	bg2	3
Variety Class	class A	R	R	R	PR	PR	PR	PR
	class B	R	PR	PR	PR	M	M	M
	class C	PR	PR	M	M	M	MM	MM

2. On the combined overlay indicate the appropriate visual quality objectives. These are determined by comparing, on the chart, the variety class (A, B, or C) with the sensitivity level (fg1, mg2, etc.). By using a split-circle symbol and color codings, an appropriate objective (and the information from which it was determined) can be shown on each area of the map.

*If a 3B area is adjacent to a RETENTION or PARTIAL RETENTION visual quality objective, select the MODIFICATION visual quality objective. If adjacent to MODIFICATION or MAXIMUM MODIFICATION objective areas, select MAXIMUM MODIFICATION.



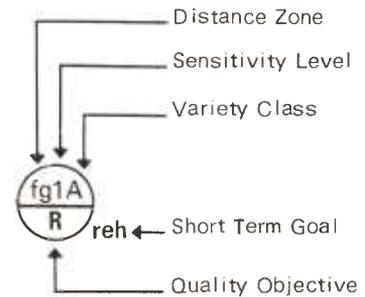
Objective Map

Symbol	Objective	Color Code
R	RETENTION	
PR	PARTIAL RETENTION	
M	MODIFICATION	
MM	MAXIMUM MODIFICATION	

Preservation does not appear on the chart but is indicated by:

P	PRESERVATION	
---	--------------	--

Assign Preservation Objective to all existing and proposed (within 10 years) Special Classified Areas.



Note those areas in need of either rehabilitation or enhancement by the appropriate symbol beside the quality objective, e for Enhancement and reh for Rehabilitation. Rehabilitation should be noted when management activities in a particular area do not conform to an agreed upon quality objective. Enhancement notation should come from a detailed landscape management plan for a particular area.

The Visual Management System thus produces a map of visual quality objectives. This becomes the means by which National Forest landscape management objectives are recommended for consideration in land use planning if done at the broad scale, and project decision making if done at a more detailed level.

Glossary

Area of Visual Influence

That portion of a landscape falling within a person's cone of vision.

Background

The distant part of a landscape, picture, etc.; surroundings, especially those behind something and providing harmony or contrast; surrounding area or surface. Area located from 3-5 miles to infinity from the viewer.

Base Map

That document which graphically records existing and proposed physical and administrative features of a given area.

Characteristic

That which constitutes a character; that which characterizes; a distinguishing trait, feature, or quality; a peculiarity.

Characteristic Landscape

The naturally established landscape within a scene or scenes being viewed.

Character Type

Large physiographic area of land which has common characteristics of landforms, rock formations, water forms, and vegetative patterns.

Character Subtype

A division of a major character type which is significantly different in visual characteristics from the other subtypes.

Co-dominance

Two dominating features of relatively equal visual importance in one scene.

Color

A phenomenon of light (as red, brown, pink, etc.) or visual perception that enables one to differentiate otherwise identical objects. A hue, as contrasted with black, white, or gray.

Common

Refers to prevalent, usual, or widespread landscape variety within a character type. It also refers to ordinary or undistinguished visual variety.

Composition

The putting together and organization of components in a work of art; or the product of such organization.

Contrast

- a. Diversity of adjacent parts, as in color, tone, or emotions.
- b. The closer the juxtaposition of two dissimilar perceptions, in time or space, the more powerful the appeal to the attention.

Distance Zones

Areas of landscapes denoted by specified distances from the observer. Used as a frame of reference in which to discuss landscape characteristics or activities of man.

Distinctive

Refers to unusual and/or outstanding landscape variety that stands out from the common features in the character type.

Diverse

Refers to having variety in landscape character.

Dominance

Dominant position in an order of forcefulness.

Dominance Elements

Form, line, color, and texture. They are the visual recognition parts which make up the characteristic landscape.

Dominant

Ruling; governing; predominant; exercising great influence.

Dynamic

Active or changing.

Edge

The line where an object or area begins or ends; serve as boundaries.

Enhancement

A short-term management alternative which is done with the express purpose of increasing positive visual variety where little variety now exists.

Esthetics (Aesthetics)

- a. Generally, the study, science or philosophy dealing with beauty and with judgments concerning beauty.
- b. Giving visual pleasure.
- c. The theory of perception or of susceptibility.

Evident

That which is apparent to the casual forest visitor.

Expected Image

A mental picture which a person expects to see.

Feature

A visually distinct or outstanding part, quality, or characteristic of something.

Foreground

The detailed landscape found within 0 to 1/4-1/2 mile from the observer.

Form

The shape or structure of something as opposed to the material of which it is composed.

Frame of Reference

An area or framework against which various parts can be measured as to their relationship to one another.
Example: Character type.

Line

- a. An intersection of two planes. A point that has been extended; silhouette of form.
- b. Any of various things that are or may be considered as arranged in a row or sequence.

Management Activity

An activity of man imposed on a landscape for the purpose of harvesting, traversing, transporting, or replenishing natural resources.

Maximum Modification

A Visual Quality Objective meaning man's activity may dominate the characteristic landscape but should appear as a natural occurrence when viewed as background.

Middleground

The space between the foreground and the background in a picture or landscape. The area located from 1/4-1/2 to 3-5 miles from the viewer.

Minimal

Refers to little or no visual variety in the landscape. Monotonous or below average compared to the common features in the character type.

Modification

A Visual Quality Objective meaning man's activity may dominate the characteristic landscape but must, at the same time, utilize naturally established form, line, color, and texture. It should appear as a natural occurrence when viewed in foreground or middleground.

Monotony

Complete repetition; tedious sameness.

Partial Retention

A Visual Quality Objective which in general means man's activities may be evident but must remain subordinate to the characteristic landscape.

Pattern

An arrangement of parts, elements, or details that suggests a design or somewhat orderly distribution.

Perception

- a. Man's impression of an object or space as based on past and/or anticipated experiences.
- b. Making one's self aware of all conditions and applicable factors; comprehension.

Preservation

A Visual Quality Objective that provides for ecological change only.

Rehabilitation

A short term management alternative used to return existing visual impacts in the natural landscape to a desired visual quality.

Retention

A visual quality objective which in general means man's activities are not evident to the casual forest visitor.

<p>Scale Generally a size relationship between an object and its environment or surroundings.</p> <p>Seen Area Total area observed. May be measured in terms of foreground, middleground, and background.</p> <p>Sensitivity Level A particular degree or measure of viewer interest in the scenic qualities of the landscape.</p> <p>Shape Spatial form, often two dimensional.</p> <p>Space A limited extension in one, two, or three dimensions; a volume.</p> <p>Special Classified Area Those areas such as Wilderness, historical, biological, or geological sites which are of such significance that specific management direction is given as part of policy or legislation.</p> <p>Subordinate Inferior to or placed below another in size, brightness, etc; secondary in visual impact.</p>	<p>Texture The visual or tactile surface characteristics of something.</p> <p>Transition A passing from one state, stage, place, or subject to another, especially without abruptness.</p> <p>Variety An intermixture of succession of different things, forms, or qualities.</p> <p>Variety Class A particular level of visual variety or diversity of landscape character.</p> <p>View Something, especially a broad landscape or panorama, that is looked toward or kept in sight. The act of looking toward this object or scene.</p> <p>Visitor Temporary inhabitator of an area. Recreation visitor—one who is in an area temporarily for refreshment in body and/or mind. Usually has a significant conscious or subconscious interest in the scenic qualities of an area.</p>	<p>Vista A confined view, especially one seen through a long passage, as between rows of houses or trees. A vista is often toward, or focuses upon a specific feature in the landscape. Unlike a view, the vista is sometimes man created and, if it is, thereby subject to design.</p> <p>Visual A mental image attained by sight.</p> <p>Visual Quality Objective A desired level of excellence based on physical and sociological characteristics of an area. Refers to degree of acceptable alteration of the characteristic landscape.</p>
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Appendix

Computer Programs for Determining "Seen Area"

Bardoll, Ivan H., III *Computerized visibility calculations maximum sighting range program*, San Diego: Univ. of Calif. 121 p. Jul. 1967.

Ford, Lester R., Jr., Isaacson, H.S., and Pethel, F.C. *Computer terrain simulation for line-of-sight calculations*. Oper. Res. J. 4:478-482, illus. 1959.

Elsner, Gary H., Amidon, Elliot L. *"Viewit" computing visible areas from proposed Recreation Developments*, USDA Forest Service Research Note PSW-246, 1971 and PSW 180, 1968.

Visual Inventory Levels

The ranking of the physical features in the Variety Class section can be done at two different scales or intensities depending on the urgency and intended use of the inventory.

Broad—Ranking of the features which would be seen at standard resource (vertical) photo scale. Usually done for broad scale land use plans and short range or interim resource plans such as 10-year Timber Management Plans.

Detail—Ranking of features which could be seen ¼ mile away on ground plane if no screening existed. This should be done only after broad scale evaluation has been accomplished. Usually done in detail land use planning.

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