STUDY REPORT RR-04
VISUAL QUALITY

ATTACHMENT C

SUMMARY OF BLM VISUAL RESOURCE MANAGEMENT SYSTEM

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1.0 BLM VISUAL RESOURCE MANAGEMENT SYSTEM SUMMARY

The United States Department of Interior, Bureau of Land Management (BLM) homepage for Visual Resources Management overview states that there are two stages to the Visual Resource Management System, Inventory and Analysis. Its summary description provides a clear overview, as follows:

Inventory: The inventory stage involves identifying the visual resources of an area and assigning them to inventory classes using BLM's visual resource inventory process. The process involves rating the visual appeal of a tract of land, measuring public concern for scenic quality, and determining whether the tract of land is visible from travel routes or observation points. The process is described in detail in *BLM Handbook H 8410-1, Visual Resources Inventory*. The results of the visual resource inventory become an important component of BLM's Resource Management Plan (RMP) for the area. The RMP establishes how the public lands will be used and allocated for different purposes; it is developed through public participation and collaboration. Visual values are considered throughout the RMP process, and the area's visual resources are then assigned to management classes with established objectives.

Analysis: The analysis stage involves determining whether the potential visual impacts from proposed surface-disturbing activities or developments will meet the management objectives established for the area, or whether design adjustments will be required. A visual contrast rating process is used for this analysis that involves comparing the project features with the major features in the existing landscape using the basic design elements of form, line, color, and texture. This process is described in *BLM Handbook H-8431-1, Visual Resource Contrast Rating*. The analysis can then be used as a guide for lessening visual impacts. Once every attempt is made to reduce visual impacts, BLM managers can decide whether to accept or deny proposals, or attach additional mitigation stipulations to bring the proposal into compliance.

A more detailed discussion is provided below.

1.1 Inventory System

The Inventory System has three main components:

- Scenic quality evaluation
- Sensitivity level analysis
- Delineation of distance zones

1.2 Scenic Quality Evaluation

Scenic quality evaluation is set up with an A, B, or C rating (A being high scenic quality, B being typical or average scenery, and C being lower scenic quality). When rating landscapes for scenic quality, seven key factors are considered: landform, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications. These factors listed above are ranked on a

comparative basis with similar features within the physiographic provinces. As noted in the BLM Handbook, "An important premise of the evaluation is that all public lands have scenic value, but areas with the most variety and most harmonious compositions have the greatest scenic value." The evaluation is done in relationship to the natural landscape. The Scenic Quality Rating Units are delineated on maps by considering similar physiographic characteristics. Scores will reflect overall impression of the area, including knowledge of the views from the ground. Human development on the ground should not reduce the scores from this evaluation process.

1.3 Sensitivity Level Analysis

Sensitivity Level Analysis is set up with public lands being assigned high, medium, or low sensitivity levels by analyzing the various indicators of public concern.

Factors to consider are:

- Types of users
- Amount of use
- Public interest
- Adjacent land uses
- Special areas (natural areas or wilderness)
- Other factors (research or special studies that may indicate public interest or concern)

An interdisciplinary team should be used, if possible, to delineate Sensitivity Level Rating Units on a map. Distance zones can be used as a factor to drive the shape of a unit.

1.4 Distance Zones

Distance zones are categorized as foreground, middle ground, background, or seldom seen. They are mapped from observation on the ground, as follows:

- **Foreground/middle ground zone**: Map areas less than 3-5 mi away that are seen from roads and use areas.
- **Background zone**: Map areas beyond the 3- to 5-mile zone up to 15 mi away.
- **Seldom seen zone**: Map areas hidden from view and rarely visited.

1.5 Combine Maps

The three maps (Scenic Quality Rating Units, Sensitivity Level Rating Units, and distance zones) are then combined by creating overlays for the sensitivity level map and distance zone map and transferring the information on to the scenic quality map. Combinations of scenic quality, sensitivity levels, and distance zones will result in inventoried Visual Resource Classes. For

example, a scenic quality rating of A and sensitivity level of high combined with a foreground middle ground zone results in a Class II. All the possible combinations, plus the consideration for previous land use designations, such as wilderness(special areas), are displayed below in the matrix (Table 1.5-1) with all the resulting classes.

Basis for Determining Visual Resource Inventory Classes

- **Class I**. Class I is assigned to all special areas where the current management situations require maintaining a natural environment essentially unaltered by man.
- **Classes II, III, and IV**. These classes are assigned based on combinations of scenic quality, sensitivity levels, and distance zones as shown in Table 1.5-1.

Table 1.5-1. Visual Resource Class Matrix.

		High Sensitivity			Medium Sensitivity			Low Sensitivity
Special Areas		I	I	I	I	I	I	I
Scenic Quality	**A**	II	II	II	II	II	II	II
	B	II	III	III* IV*	III	IV	IV	IV
	C	III	IV	IV	IV	IV	IV	IV
		f/m	**b**	**s/s**	**f/m**	**b**	**s/s**	**s/s**
		DISTANCE ZONES						

* If adjacent areas are Class III or lower, assign Class III, if higher assign Class IV.
Distance zone key: f/m=foreground/middle ground. b=background. s/s=seldom seen.

1.6 Visual Resource Classes and Objectives

Visual Resource Classes are used early in the BLM planning process as an inventory tool to portray the relative value of visual resources and describe different levels of visual management emphasis. Classes become Visual Resource Objectives during resource management planning as land use decisions are made for a range of resources on various land management areas. Once land use and visual management decisions are made, Visual Resource Classes become management objectives. The definition of these objectives are:

- **Class I Objective:** The objective of this class is to preserve the existing landscape character. The level of change to the characteristic landscape should be very low and must not attract attention. This is typically assigned to wilderness areas.
- **Class II Objective:** The objective of this class is to retain the existing character of the landscape. Management activities may be seen but should not attract the attention of a casual observer. Any changes must repeat the basic elements of form, line, color, or texture found in the predominant natural features of the characteristic landscape. The level of change to the characteristic landscape should be low.
- **Class III Objective:** The objective of this class is to partially retain the existing character of the landscape. Management activities may attract attention but should not dominate the view of the casual observer. Any changes should repeat the basic elements found in the

predominant natural features of the characteristic landscape. The level of change to the characteristic landscape can be moderate.

- **Class IV Objective:** The objective of this class is to provide for management activities that require major modifications to the existing character of the landscape. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repetition of basic elements. The level of change to the characteristic landscape can be high.

1.7 Visual Contrast Rating System

1.7.1 Basic Philosophy

The basic philosophy of the visual contrast rating system is that the degree to which a management activity affects the visual quality of a landscape depends on the visual contrast created between a project and the existing landscape. The contrast can be measured by comparing the project features with the major features in the existing landscape. The basic design elements of form, line, color, and texture can be used to make the comparison and to describe the visual contrast created by the project. This assessment process provides a means for determining visual impacts and for identifying measures to mitigate these impacts. The key steps are:

(1) Write a Project description
(2) Identify VRM objectives
(3) Select Key Observation Points (KOPs)
(4) Develop visual simulations for proposed projects
(5) Complete the contrast rating

1.7.2 Degree of Contrast Definitions

The visual contrast rating is completed by determining the degree of contrast in terms of strong, moderate, weak, or none, which are defined below.

- **None:** The element contrast is not visible or perceived.
- **Weak:** The element contrast can be seen but does not attract attention.
- **Moderate:** The element contrast begins to attract attention and begins to dominate the characteristic landscape.
- **Strong:** The element contrast demands attention, will not be overlooked, and is dominant in the landscape.

1.7.3 Factors to Consider

In determining the degree of contrast for the visual contrast rating process, the BLM handbook lists the following factors to consider:

- Distance
- Angle of observation
- Length of time viewed
- Relative size or scale
- Seasons of use
- Light conditions
- Recovery time
- Spatial relationships
- Atmospheric conditions
- Motion
- Basic elements of form, line, color, and texture.

1.7.4 Comparison of Degree of Contrast and Visual Resource Management Classes

Although degree of contrast and VRM Classes are not directly correlated, they can be generally lined up as follows:

Degree of Contrast	**VRM Class**
None	I: Preserve existing character
Weak	II: Retain existing character
Moderate	III: Partially retain existing character
Strong	IV: The level of change to the characteristic landscape can be high

Where BLM Visual Resource Management Class Objectives do not match up with the appropriate degree of contrast rating, mitigation could be considered.

2.0 CHARACTERISTIC LANDSCAPE FOR THE PROJECT AREA

For the BLM visual system, in order to rate the visual quality of landscapes, a framework is needed to compare similar landscapes by regions. BLM uses the term "characteristic landscape." The characteristic landscape descriptions were initially used by BLM landscape architects to develop criteria for rating variety class. When rating existing visual condition for project facilities, it is helpful to be aware of the local characteristic landscape. As the characteristic landscape changes, colors, shapes, lines, or textures of facilities that may create visual contrast in one setting may blend well in another setting. For example, what may be considered a strong visual contrast in a natural forest setting may be visually acceptable in a rolling foothill setting. The characteristic landscape for the Project Area described below is part of the information considered when making the existing visual condition ratings that are found in Section 5.1 of this study report.

2.1 Sierra Foothills

The characteristic landscape for the Sierra foothills within the Project Area ranges from dramatic rugged hills to low rolling hills. The rugged hills are accented with steep and deep canyon walls of major rivers such as the Tuolumne. The larger rugged hills found in the eastern part of the Project Area are covered with a patchwork of oak woodlands (blue oak and live oak) with some gray pine, chaparral, and grasslands. These vegetative patterns occur due to a combination of soil types, slope orientation to the sun, and fire history. The oak woodlands vary in density from full canopy forest to clumps of oaks and in other areas scattered individual trees. In the eastern part of the project understory is a mix of chaparral and grasslands. Further to the west the understory is primarily grasslands. The oak woodlands have a dark green color with a hint of gray/blue. The gray pine, as the name implies, has a gray/green color. The grasslands have a yellow/brown or tan color from summer through fall and are light green with a yellowish tint in the winter and spring. The chaparral tends toward dark greens similar to the oak woodlands. The low rolling hills in the western part of the Project are covered primarily with grasslands and scattered blue oaks. This area is characterized by oak woodlands, grasslands, and occasional chaparral covering flat to rolling hills, occasionally accented by a steep canyon wall. In this area, native and wild vegetation quickly transitions to non-native plants and trees in a few isolated residential areas and more extensive ranch lands.