

BLM Visual Resource Management

Visual Resource Management (VRM) is based on human perceptions and expectations in the context of the existing landscape. In order to meet its responsibility to maintain the scenic values of the public lands, BLM has developed a VRM system that addresses the following:

- Different levels of scenic values require different levels of management. For example, management of an area with high scenic value might be focused on preserving the existing character of the landscape, and management of an area with little scenic value might allow for major modifications to the landscape. Determining how an area should be managed first requires an assessment of the area's scenic values.
- Assessing scenic values and determining visual impacts can be a subjective process. Objectivity and consistency can be greatly increased by using the basic design elements of form, line, color, and texture, which have often been used to describe and evaluate landscapes, to also describe proposed projects. Projects that repeat these design elements are usually in harmony with their surroundings; those that don't create contrast. By adjusting project designs so the elements are repeated, visual impacts can be minimized.

While there are BLM guidelines for the visual resource inventory (BLM Manual H-8410-1) and determining visual contrast ratings (BLM Manual 8431), the guidance provided is general in nature in order to enable application to different ecosystems and social climates. Some excerpts of this process is provided below. More information on the VRM process is available at <http://www.blm.gov/nstc/VRM/index.html>.

Objectives for Visual Resource Classes (BLM Manual H-8410-1)

1. *Class I Objective.* The objective of this class is to preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention. It would be very difficult to get a new project approved in this class, unless it is completely shielded from view.
2. *Class II Objective.* The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape. New projects can be approved if they blend in with the existing surroundings and don't attract attention (i.e., small-scale picnic area or primitive campground in valley shielded from view that blends with natural appearance).
3. *Class III Objective.* The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape. New projects can be approved that are not large scale, dominating features (i.e., geothermal powerplant or major mining operation would not be approved).

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4. *Class IV Objective.* The objective of this class is to provide for management activities which require major modifications of the existing character of the landscape. The level of change to the characteristic landscape can be high. 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 repeating the basic elements. Most new projects would likely be approved in regards to a VRM perspective.

Determining Visual Contrast (BLM Manual H-8431)

To properly assess the contrasts between the proposed and existing situation, it is necessary to break each down into the basic features (i.e., landform/water, vegetation, and structures) and basic elements (i.e., form, line, color, and texture) so that the specific features and elements that cause contrast can be accurately identified. It is sometimes difficult to determine which type feature a project fits under. The following table is used as a guide to categorize projects:

Landform/Water Features	Vegetative Features	Structural Features
Roads	Timber Harvests	Transmission Lines
Mining	Grazing Systems	Generation Plants
Gravel Pits	Vegetative Manipulations	Oil and Gas Developments
Landfills		Recreation Facilities
Water Impoundments		Water Tanks
		Microwave Stations
		Buildings

The following general criteria and factors are used when rating the degree of contrast:

Degree of Contrast	Criteria
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.

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The following factors when applying the criteria:

1. *Distance.* The contrast created by a project usually is less as viewing distance increases.
2. *Angle of Observation.* The apparent size of a project is directly related to the angle between the viewer's line-of-sight and the slope upon which the project is to take place. As this angle nears 90 degrees (vertical and horizontal), the maximum area is viewable.
3. *Length of Time the Project Is In View.* If the viewer has only a brief glimpse of the project, the contrast may not be of great concern. If, however, the project is subject to view for along period, as from an overlook, the contrast may be very significant.
4. *Relative Size or Scale.* The contrast created by the project is directly related to its size and scale as compared to the surroundings in which it is place.
5. *Season of Use.* Contrast ratings should consider the physical conditions that exist during the heaviest or most critical visitor use season, such as snow cover and tree defoliation during the winter, leaf color in the fall, and lush vegetation and flowering in the spring.
6. *Light Conditions.* The amount of contrast can be substantially affected by the light conditions. The direction and angle of lighting can affect color intensity, reflection, shadow, from, texture, and many other visual aspects of the landscape. Light conditions during heavy periods must be a consideration in contrast ratings.
7. *Recovery Time.* The amount of time required for successful revegetation should be considered. Few projects meet the VRM management objectives during construction activities. Recovery usually takes several years and goes through several phrases (e.g., bare ground to grasses, to shrubs, to trees, etc.).
8. *Spatial Relationships.* The spatial relationship within a landscape is a major factor in determining the degree of contrast.
9. *Atmospheric Conditions.* The visibility of projects due to atmospheric conditions such as air pollution or natural haze should be considered.
10. *Motion.* Movement such as waterfalls, vehicles, or plumes draw attention to a project.

Determining Whether VRM Objectives are Met (BLM Manual H-8431)

The level of contrast is compared to the objectives for the approved VRM Class. For comparative purposes, the four levels of contrast (i.e., none, weak, moderate, and strong) roughly correspond with VRM Classes I, II, III, and IV, respectively. This means that a "strong" contrast rating may be acceptable in a Class IV area but probably would not meet the VRM objectives for a Class III area. In making these comparisons, the cumulative effect of all the contrast ratings must be considered. Certain combinations of ratings may indicate there is a stronger overall contrast that the individual ratings show. For example, several "moderate" ratings when viewed in combination may warrant an overall "strong" rating. This is a judgment call that is made by resource specialists.

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Mitigation measures are also considered in determining the compatibility of a project in a VRM class. Such mitigation measures include the following:

Landform/Water Features	Vegetative Features	Structural Features
Reduce Size of Cut and Fill Slopes	Retain Existing Vegetation	Minimize the Number of Visible Structures
Reduce Earthwork Contrasts	Enhance Revegetation	Minimize Structure Contrast
Maintain the Integrity of Topographic Units	Minimize Impact on Existing Vegetation	Redesign Structures that do not Blend/Fit
	Maintain the Integrity of Vegetative Units	Minimize Impact of Utility Crossings
		Recognize the Value and Limitations of Color

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date Aug. 15, 1985
District Moab
Resource Area Grand
Activity (program) Oil & Gas

SECTION A. PROJECT INFORMATION

1. Project Name <u>Well Site #136</u>	4. Location Township <u>27S</u> Range <u>21 E</u> Section <u>24</u>	5. Location Sketch
2. Key Observation Point <u>#15 on Hatch Pt. Rd.</u>		
3. VRM Class <u>Class II</u>		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	flat to rolling terrain	simple forms created by vegetative patterns	_____
LINE	horizontal & diagonal	weak & undulating	_____
COLOR	dark tans to orange	light to dark green, mottled	_____
TEXTURE	smooth	smooth to course	_____

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	flat	geometric & linear forms created by clearings	cylindrical, geometric, & angular
LINE	horizontal (pad) curved (road)	strong irregular lines created by edge effect of clearings & roads	vertical, horizontal, & angular
COLOR	tan	light green	tan
TEXTURE	fine to smooth	patchy	course

SECTION D. CONTRAST RATING SHORT TERM LONG TERM

1. DEGREE OF CONTRAST	FEATURES												2. Does project design meet visual resource management objectives? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Explain on reverse side)	
	LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)					
	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	3. Additional mitigating measures recommended <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side)	
ELEMENTS			✓				✓				✓			
		✓				✓					✓		Evaluator's Names Bob Tumwater Russ Grimes Pete Jordan	
			✓				✓				✓			Date Aug. 15, 1985
			✓				✓				✓			

SECTION D. (Continued)

Comments from item 2.

The strong line created by the clearing for the road and the drill pad creates a contrast that will attract attention.

Additional Mitigating Measures (See item 3)

1. Relocate access road off from ridge
2. Revegetate the edge of the drill pad with random clumps of trees and shrubs to break up the flat horizontal line.