

## Manual 8431 - Visual Resource Contrast Rating

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#### I. Introduction.

**A. Overview.** The contrast rating system is a systematic process used by the Bureau of Land Management (BLM) to analyze potential visual impact of proposed projects and activities. It is primarily intended to assist Bureau personnel who are not formally trained in the design arts to apply the basic principles of design in the resolution of visual impacts. It is not intended to be the only means of resolving these impacts. It should be used as a guide, tempered by common sense, to ensure that every attempt is made to minimize potential visual impacts. The basic philosophy underlying the system is: 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 are used to make this 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.

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## **II. Steps in the Contrast Rating Process.**

**A. Obtain Project Description.** To effectively evaluate the visual impacts of a proposed project, a detailed project description is needed. Appendix 1 provides guidance on the type of information needed. The level of detail required in the description should be commensurate with the type of project proposed. This information is usually supplied by the project sponsor for BLM-initiated projects or by the applicant for non-Bureau of Land Management initiated projects.

**B. Identify VRM Objectives.** Use the RMP generated objectives when available. Where there are no RMP approved objectives, interim Visual Resource Management (VRM) classes will be developed using the guidelines in Handbook H-8410-1 except: (1) The inventory will be limited to the area affected by the project; and (2) the VRM classes will reflect the management decision made in existing RMP's. An RMP amendment is not required unless the project that is driving the evaluation requires an amendment.

**C. Select Key Observation Points (KOP's).** The contrast rating is done from the most critical viewpoints. This is usually along commonly traveled routes or at other likely observation points. Factors that should be considered in selecting KOP's are; angle of observation, number of viewers, length of time the project is in view, relative project size, season of use, and light conditions (see Section IIID2b for a more detailed description of these factors). Linear projects such as powerlines should be rated from several viewpoints representing:

- Most critical viewpoints, e.g., views from communities, road crossings
- Typical views encountered in representative landscapes, if not covered by critical viewpoints.
- Any special project or landscape features such as skyline crossings, river crossings, substations, etc.

**D. Prepare Visual Simulations.** Visual simulations are an invaluable tool in effectively evaluating the impacts of a proposed project (see Illustration 1). Simulations are strongly recommended for potentially high impact projects. The level of sophistication should be commensurate with the quality of the visual resource and the severity of the anticipated impact. Simulations are extremely important to portray the relative scale and extent of a project. They also help public groups visualize and respond to development proposals, making public participation in the planning process more effective. The BLM publication [Visual Simulation Techniques](#) should be consulted for the appropriate simulation methods.

**E. Complete the Contrast Rating.** Complete contrast rating from key observation point(s) using Bureau Form 8400-4 - Visual Contrast Rating Worksheet (see Illustration 2).

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### **III. Requirements for Completing the Contrast Rating Worksheet.**

A. **Project Information (Section A)**. Complete the background information requested. It is important to precisely record the location of the KOP. A sketch of the KOP/project location should be shown in the "location" block. If several different key observation points are used for the project evaluation, give each viewpoint a separate number for reference purposes.

B. **Descriptions (Section B and C)**. 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. When describing the project, be sure to include approved mitigating measures. Refer to Illustrations 3, 4, 5, and 6 for the suggested vocabulary for describing characteristic landscapes and the proposed projects.

C. **Categorizing Projects Under Features (Sections B and C)**. It is sometimes difficult to determine which type feature a project fits under. Use the following as a guide to categorize projects:

<b><u>Landform/Water Features</u></b>	<b><u>Vegetative Features</u></b>	<b><u>Structural Features</u></b>
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

D. **Contrast Rating (Section D)**. The actual rating should be completed in the field from the KOP(s). It can be done as a team effort or individually, depending on the sensitivity and impacts of the project and the availability of personnel (see Manual Section 8431.12). If done as a team, it is best to do the ratings individually and then compare ratings. A simulation should be available to show scale, relative placement of disturbing features, and other important information necessary to complete an objective rating.

1. **Selecting the Timeframe**. Projects may be rated on either a short-term or long-term basis. Short-term is through the first 5 years and long-term is through the life of the project. If the project has significantly different short-term and long-term effects, two contrast ratings should be completed using two separate forms. Check the appropriate block under section D on the rating form to indicate the term of the rating.

2. **Rating the Degree of Contrast (Section D1)**. Using the matrix provided in section D of the form, rate the degree of contrast. Be sure to include the proposed mitigating measures and standard stipulations in the rating. The rating is completed by determining the degree of contrast (i.e., strong, moderate, weak, or none) for each element. Use the following general criteria and factors when rating the degree of contrast:

a. **Degree of Contrast Criteria**.

<b><u>Degree of Contrast</u></b>	<b><u>Criteria</u></b>
<b>None</b>	The element contrast is not visible or perceived.

<b>Weak</b>	The element contrast can be seen but does not attract attention.
<b>Moderate</b>	The element contrast begins to attract attention and begins to dominate the characteristic landscape.
<b>Strong</b>	The element contrast demands attention, will not be overlooked, and is dominant in the landscape.

b. Factors to be considered. Consider the following factors when applying the criteria (see also Illustrations 3, 4, 5, and 6):

(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 (see Illustration 7).

(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.). It may be necessary to conduct contrast ratings for each of the phases that extend over long time periods. Those conducting contrast rating should verify the probability and timing of vegetative recovery.

(8) Spatial Relationships. The spacial relationship within a landscape is a major factor in determining the degree of contrast (see Illustration 8).

(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.

c. General Guidance for Accessing Contrast.

(1) Form. Contrast in form results from changes in the shape and mass of landforms or structures. The degree of change depends on how dissimilar the introduced forms are to those continuing to exist in the landscape.

(2) Line. Contrasts in line results from changes in edge types and interruption or introduction of edges, bands, and silhouette lines. New lines may differ in their subelements (boldness, complexity, and orientation) from existing lines.

(3) Color. Changes in value and hue tend to create the greatest contrast. Other factors such as chroma, reflectivity, color temperature, also increase the contrast.

(4) Texture. Noticeable contrast in texture usually stems from differences in the grain, density, and internal contrast. Other factors such as irregularity and directional patterns of texture may affect the rating.

3. Determining Whether VRM Objectives are Met (Section D2). Compare the contrast ratings with the objectives for the approved VRM Class (see Appendix 2 for definitions of VRM classes). For comparative purposes, the four levels of contrast (i.e., none, weak, moderate, and strong) roughly correspond with 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, one must also look at the cumulative effect of all the contrast ratings. Certain combinations of ratings may indicate there is a stronger overall contrast than the individual ratings show. For example, several "moderate" ratings when viewed in combination may warrant an overall "strong" rating. This is a judgmental call that must be documented on the back side of the form. If the rater checks the "no" block on the form, indicating the VRM objectives are not met, the reasons for not meeting the objectives must also be documented on the back of the form.

4. Developing Additional Mitigating Measures (Section D3). Since the overall VRM goal is to minimize visual impacts, mitigating measures should be prepared for all adverse contrasts that can be reduced. This includes reduction of contrast in projects which have met the VRM objectives. Mitigating measures should be written so they can easily be extracted and used as stipulations in leases, permits, contracts, etc. When preparing mitigating measures, keep in mind the concepts of strategic location (in less visible and less sensitive areas), minimizing disturbance, and repetition of the basic elements (form, line, color, and texture). Also make sure that mitigating measures are realistic (i.e., do not propose revegetation where the probability of success is very low). Other suggestions for reducing contrast are shown in Appendix 3. The publications listed in the bibliography of Manual Section 8400 also provide additional guidance on mitigating measures.

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