

Visual Contrast Rating System



Objective

Students will be able to:

- Determine elements of a project that are inconsistent with VRM objectives
- Recommend measures to improve visual quality of a project



What is Contrast Rating?

- Systematic process to analyze potential visual impacts of proposed projects and activities



What is Contrast Rating?

- The degree to which a development adversely affects the visual quality of a landscape is directly related to the amount of visual contrast between it and the existing landscape character



What is Contrast Rating?

- The amount of contrast is measured by separating the landscape into major features
 - Land/Water, Vegetation, Structures
- Then predicting the amount of contrast in the *landscape character elements*
 - Form, Line, Color, Texture



What is Contrast Rating?

- Quickly reveals elements and features that cause the greatest visual impact
- A guide to methods to reduce the visual impact of a proposed project or activity



What is Contrast Rating?



What is Contrast Rating?



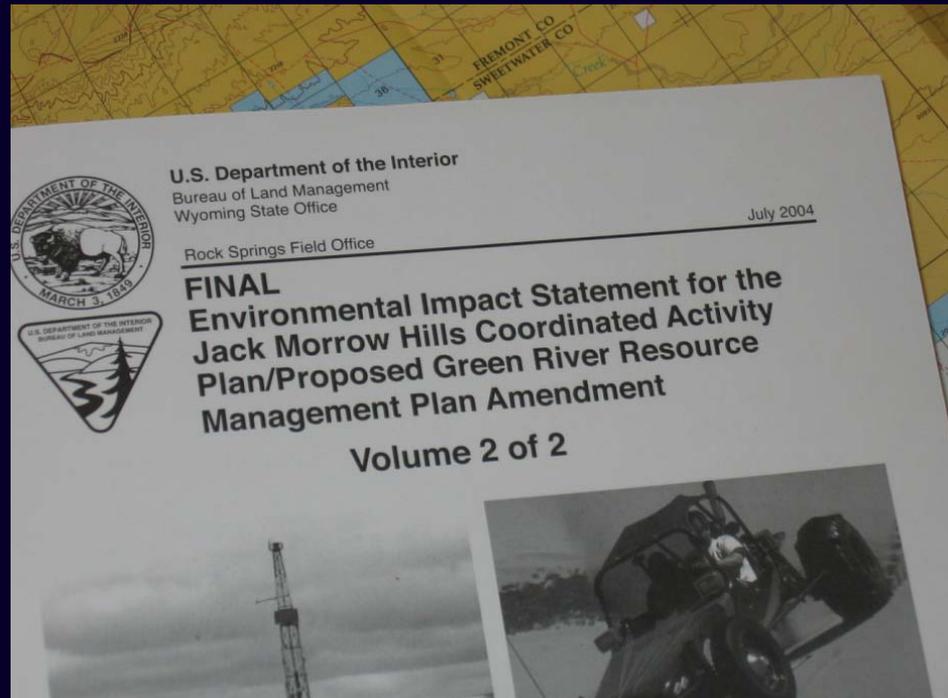
Who Performs Contrast Ratings?

- Primarily intended to assist Bureau personnel not formally trained in the design arts to apply basic principles of design to resolve visual impacts
- Involve field office – not just visual resources
- Everyone!



When are they conducted?

- Emphasize early contact with the project proponent
 - Prior to project design being finalized (if possible)
 - Check RMP direction
 - Tied to NEPA



Where are ratings conducted

- Not by looking at photos or GIS on your computer!
- Emphasis on field evaluation
- Need to experience landscape to accurately perform contrast rating



Why are they conducted?

- Reduce visual impacts even if the proposed project meets VRM Objectives for the area



VRM Classes and Objectives

Class I

- Preserve the existing character of the landscape. Manage for natural ecological changes
- Change Allowed: Very Low
- Activities must not attract attention

Class II

- Retain the existing character of the landscape
- Change allowed: Low
- Activities may be visible but should not attract attention of the casual observer

VRM Classes and Objectives

Class III

- Partially retain the existing character of the landscape
- Change allowed: Moderate
- Activities may attract attention but should not dominate the view of the casual observer

Class IV

- Provide for management activities which require major modification of the existing character of the landscape
- Change allowed: High
- Activities may attract attention, may dominate the view, but are still mitigated

How are They Conducted?

Five steps in process

1. Get a complete project description
2. Identify VRM Objectives from land use plan
3. Select Key Observation Points
4. Prepare Visual Simulations (optional)
5. Complete Visual Contrast Rating Worksheet

Step 1

Get a complete project description

- Emphasize early contact with project proponent
- Coach proponent on project design
- Proposal must be comprehensive

The image shows a topographic map of a forested area with a permit application form overlaid. The map features contour lines, a grid, and labels for 'NATIONAL FOREST'. The form is titled 'APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK' and is issued by the 'UNITED STATES DEPARTMENT OF INTERIOR BUREAU OF LAND MANAGEMENT'. The form includes the following fields and information:

- 1. TYPE OF WORK:** DRILL DEEPEN PLUG BACK
- 2. TYPE OF WELL:** OIL GAS WELL OTHER
- 3. NAME OF OPERATOR:** Blue Hills Exploration
- 4. ADDRESS OF OPERATOR:** 6642 Piedmonte Circle, Madrid, CO, 81770
- 5. LOCATION OF WELL:** At surface
- 6. LEASE DESIGNATION AND SERIAL NO.:** 156-5773-00-00
- 7. UNIT AGREEMENT NAME:** 20000000
- 8. FARM OR LEASE NAME:**
- 9. WELL NO.:** 90-18
- 10. FIELD AND POOL OR WILDCAT:** Wildcat
- 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA:** Section 18, T20N, R58W
- 12. COUNTY OR PARISH (STATE):** COCO
- 13. NO. OF ACRES IN LEASE:** 40
- 14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE:** 16.5
- 15. PROPOSED DEPTH:** 2500
- 16. NO. OF ACRES IN LEASE:** 40
- 17. NO. OF ACRES ASSIGNED TO THIS WELL:**
- 18. DISTANCE FROM PROPOSED WELL TO NEAREST POWER LINE FT. (PLEASE LINE FT. TO NEAREST CROSSING OF CEMENT):**
- 19. APPROX. DATE WORK WILL START:** September 8, 1991

Step 2

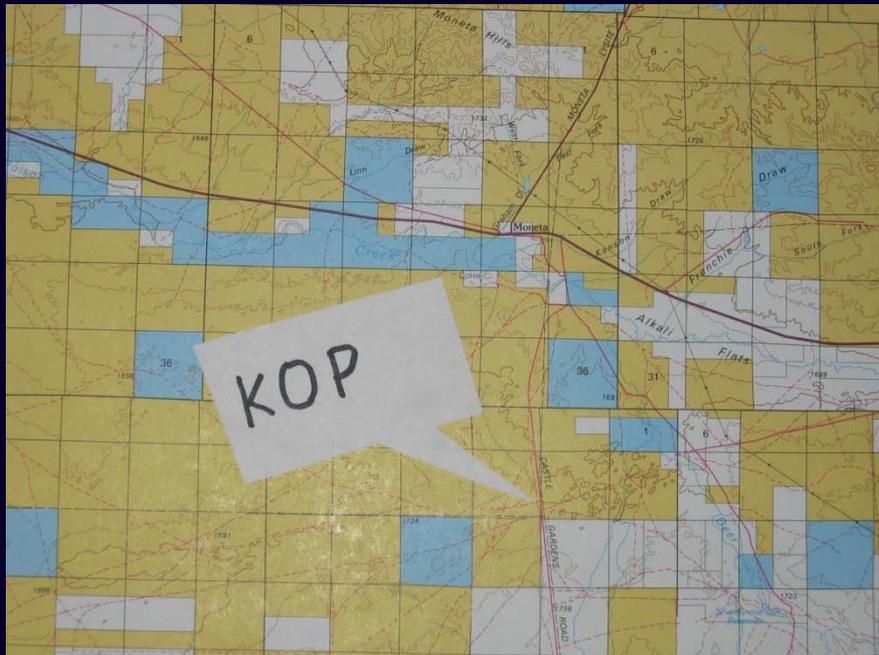
Identify VRM Objectives

- Familiarize yourself with land use plan
- Identify VRM objective
 - What is the existing management class for project location?
 - Does it specify if a contrast rating is required?
 - Do one anyway!
- Involve interdisciplinary team
- Understand what other resource issues are

Step 3

Select Key Observation Point (KOP)

- What is a KOP?
 - A critical viewpoint or place from which we analyze the visual impact of a Proposed Project



Step 3

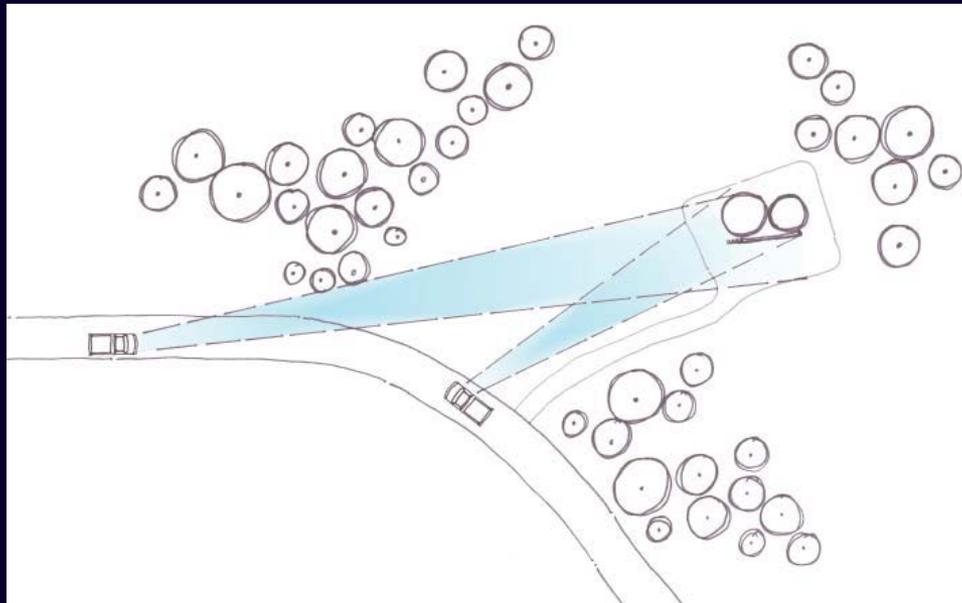
- Types of KOPs

- Single points

- Trailheads, campgrounds, scenic overlook, parking lots, subdivisions

- Linear

- Roads, trails, rivers



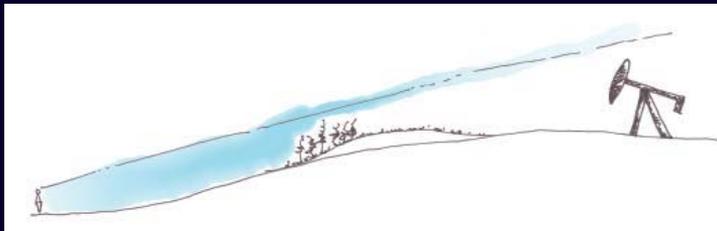
Step 3

- Examples of KOPs
 - Views From Communities or Subdivisions
 - Scenic Overlooks, Rivers & Roads
 - Important Vantage Points
 - Historic Trails
 - Point where view of proposed project is most revealing
 - Places from which a proposed project is seen by large numbers of viewers or critical viewers



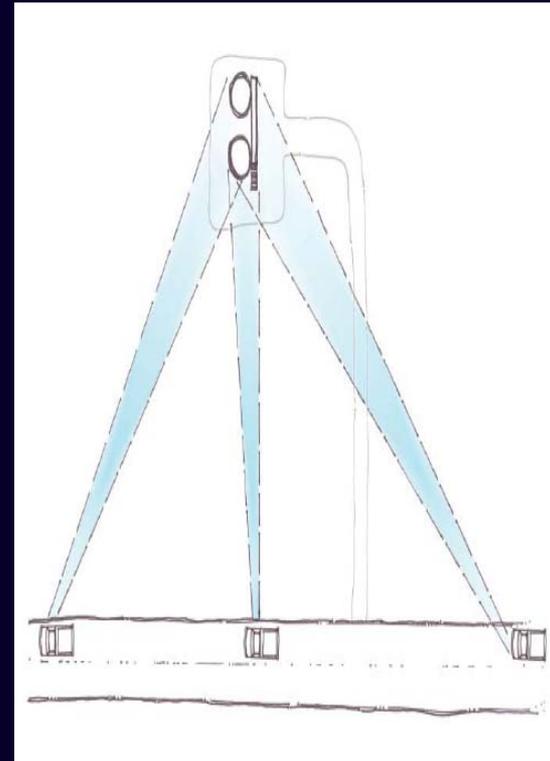
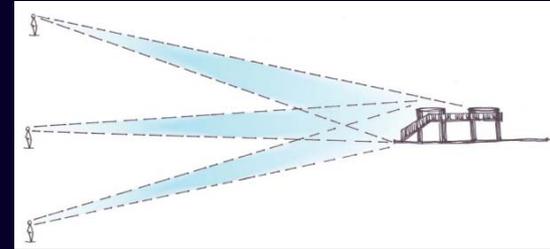
Step 3

- How many are needed?
 - Linear projects should have more than one
 - Dependent on:
 - Size of project
 - Land use plan direction
 - Where it's visible from



Step 3

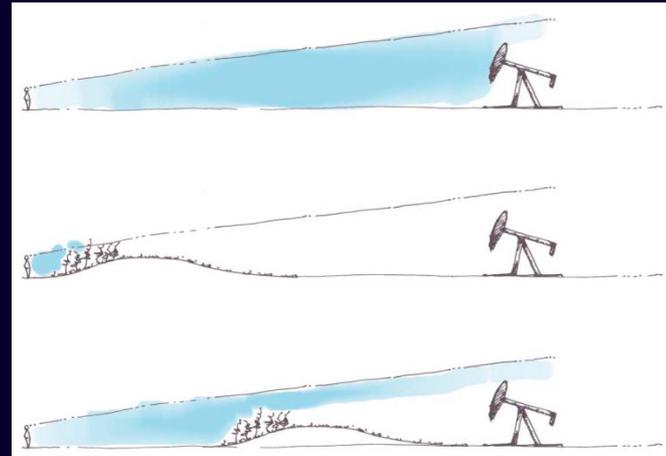
- When are they selected?
 - Early in the process
- Who selects them?
 - Interdisciplinary team
 - Input from proponent
 - Coordination with agencies
- Accuracy is important!
 - Location can sway results



Step 3

■ Factors to consider

- Angle of observation
- Number of viewers
- Length of time the project is in view
- Relative project size or scale
- Season of use
- Light conditions
- Distance of view from project
- Atmospheric conditions
- Recovery time
- Motion
- Spatial relationships
- What your eye can see



Project Area at a Distance



Project Area Close to Viewer



High Angle of Observation



Low Angle of Observation



Large Number of Viewers



Relative Project Size



Relative Project Size



Season of Use



Season of Use



Step 4

Prepare Visual Simulations (optional)

- Complex projects may benefit from visual simulations
- Provides visual picture of before and after
 - Prior to project being built
 - Highlights impacts and potential mitigation measures
 - Great way to illustrate impacts in EA
 - Seeing an image of the project is much more powerful than trying to imagine it
 - Helps eliminate bias
 - Allows all team members to see the project the same

Step 4

Proposed Project Site - Existing



Step 4

Proposed Project Site - Simulated



Step 4

Proposed Project Site - Mitigated



Step 5

Complete Contrast Rating Worksheet

- See Manual Handbook H-8431-1
- Quickly reveals elements and features that cause the greatest visual impact
- Not a pass/fail exercise
- Provides documentation for NEPA or project analysis
- Record for future action
- Specify potential redesign and mitigation measures

Contrast Rating Worksheet

Form 8400-4 (September 1985)		UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT VISUAL CONTRAST RATING WORKSHEET			Date _____ District _____ Resource Area _____ Activity (program) _____							
SECTION A. PROJECT INFORMATION												
1. Project Name		4. Location		5. Location Sketch								
2. Key Observation Point		Township _____										
3. VRM Class		Range _____ Section _____										
SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION												
		1. LAND/WATER		2. VEGETATION		3. STRUCTURES						
FORM												
LINE												
COLOR												
TEXTURE												
SECTION C. PROPOSED ACTIVITY DESCRIPTION												
		1. LAND/WATER		2. VEGETATION		3. STRUCTURES						
FORM												
LINE												
COLOR												
TEXTURE												
SECTION D. CONTRAST RATING <input type="checkbox"/> SHORT TERM <input type="checkbox"/> LONG TERM												
1. DEGREE OF CONTRAST		FEATURES					2. Does project design meet visual resource management objectives? <input type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side)					
		LAND/WATER BODY (1)		VEGETATION (2)		STRUCTURES (3)						
		Strong	Moderate	Weak	None	Strong		Moderate	Weak	None		
ELEMENTS		Form									3. Additional mitigating measures recommended? <input type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side)	
		Line										
		Color										
		Texture										
		Evaluators' Names										
Dates												

Contrast Rating Worksheet

Section A

Form 8400-4 (September 1985)		UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT		Date: Feb 24, 2004
				District: N/A
				Resource Area: Lander
				Activity: Oil & Gas
SECTION A. PROJECT INFORMATION				
1. Project Name: Well No 136	4. Location Township <u>29N</u>		5. Location Sketch	
2. Key Observation Point 29/91 Sec 21: SESE	Range <u>91W</u>			
3. VRM Class VRM Class IV	Section <u>21</u>			

Contrast Rating Worksheet

Section B

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION			
	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Gently rolling terrain, low hills	Low, continuous sagebrush cover, smooth, regular pattern	None noted in view toward the project from the KOP
LINE	Mostly horizontal undulating lines. A horizontal landscape	Weak horizontal lines created by changes in vegetative patterns	None noted in view toward the project from the KOP
COLOR	Light brown to buff where visible	Gray-green of sagebrush is dominant, mostly continuous	None noted in view toward the project from the KOP
TEXTURE	Smooth, continuous	Medium to slightly coarse in immediate foreground to smooth/fine in middleground	None noted in view toward the project from the KOP

Contrast Rating Worksheet

Section C

SECTION C. PROPOSED ACTIVITY DESCRIPTION			
	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat, leveled pad(s), curvilinear road(s), narrow, linear form	Veg removed from pad, road(s), reclaimed veg low, sparce	Cylindrical tanks, rectangular separator unit. A dominant visual element
LINE	Where seen, pad appears as a distinct horizontal line, same with roads	Sharper line(s) where veg removed	Structures have vertical alignment and are visible
COLOR	Light brown to buff-colored pad(s) & road surfaces.	Tan to light buff most of year, light green in spring.	Carlsbad Canyon contrasts with darker gray of sagebrush
TEXTURE	Smooth texture on pad(s) & road(s)	Smooth where re-established (grasses) Sage may re-establish in 20 years	Smooth texture of facilities a dominant feature of project

Contrast Rating Worksheet

Section D

SECTION D. CONTRAST RATING		SHORT TERM				LONG TERM								
ELEMENTS	1. Degree of Contrast	FEATURES												2. Does Project Design meet visual resource management objectives? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (explain on reverse)
		Land/Water Body				Vegetation				Structures				
	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	3. Additional mitigating measures recommended. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (explain on reverse)	
	Form			X				X			X			
	Line		X				X			X				
Color			X				X		X					
Texture			X				X		X					

Degree of Contrast Criteria

None	Contrast no visible or perceived <i>Corresponds to VRM Class I</i>
Weak	Contrast seen but does not attract attention <i>Corresponds to Class II</i>
Moderate	Contrast attracts attention but does not dominate view <i>Corresponds to Class III</i>
Strong	Contrast demands attention and is dominant in the landscape <i>Corresponds to Class IV</i>

Contrast Rating Worksheet

Section D - Description

SECTION D. (Continued)

Comments from Item 2.

The line created by the clearing for the road and drill pad creates a contrast that will attract attention. The installation of storage tanks and the separator unit will introduce vertical-aligned forms that contrast with the characteristic landscape. The structures will have a smooth texture as opposed to the coarse texture of surrounding sagebrush. The facilities introduce vertical lines which will contrast with the predominately horizontal landscape. The color of the tanks as proposed will contrast with the darker color of the dominant sagebrush.

Contrast Rating Worksheet

Section D – Additional Mitigation

Additional Mitigating Measures (See item 3)

1. As per agreement with company representatives, relocate drill pad 250 feet northwest behind/between low stabilized sand dunes.
2. Relocate access road behind/between stabilized dunes
3. Use low profile tanks a maximum of 12 feet high rather than the standard 18 foot tanks
4. Paint facilities a color compatible with sagebrush, the dominant veg species in the area

Visual Contrast Rating System

Conclusion/wrap-up

- Who
- What
- When
- Why
- How
- Where



Class Exercise
