ATTACHMENT 4.1-B: BLM VISUAL CONTRAST RATING WORKSHEETS

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Form 8400-4

Attachment 4.1-B: BLM Contrast Rating Forms

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: September 24, 2016

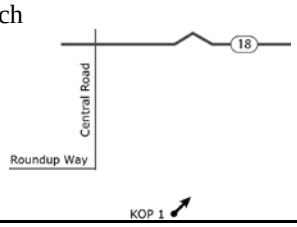
District/ Field Office: Barstow

Resource Area: N/A (Private)

Activity (program): Transmission Line Modification

SECTION A. PROJECT INFORMATION

1. Project Name Eldorado-Lugo-Mohave Series Capacitor Project	4. Location Township 4N	5. Location Sketch
2. Key Observation Point KOP 1 on Bowen Ranch Road	Range 2W	
3. VRM Class Class III	Section 31	



SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Steep, rugged terrain	Low, small, asymmetrical	Tall, regular, transparent
LINE	Curved, undulating	Asymmetrical, jagged, semicircular	Vertical, silhouette
COLOR	Tans, browns, and grays	Soft colors of gold, medium olive green, and gray/brown	Dark gray/black
TEX-TURE	Coarse	Medium, random, patchy	Uniform, directional

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Steep, rugged terrain	Low, small, asymmetrical	Tall, regular, transparent
LINE	Curved, undulating, silhouette	Asymmetrical, jagged, semicircular	Vertical, silhouette
COLOR	Tans, browns, and grays	Soft colors of gold, medium olive green, and gray/brown	Dark gray/black
TEX-TURE	Coarse	Medium, random, patchy	Uniform, directional

SECTION D. CONTRAST RATING __SHORT TERM X LONG TERM

1. DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1) STRONG	MODERATE	WEAK	NONE	VEGETATION (2) STRONG	MODERATE	WEAK	NONE	STRUCTURES (3) STRONG	MODERATE	WEAK	NONE
ELEMENTS	FORM				X				X				X
	LINE				X				X			X	
	COLOR				X				X				X
	TEXTURE				X				X				X

2. Does project design meet visual resource management objectives? __X_Yes ___No
(Explain on reverses side)

3. Additional mitigating measures recommended
___Yes _X__No (Explain on reverses side)

Evaluator's Names: Stephanie Hansen

Date: 9/24/16

SECTION D. (Continued)

Comments from item 2.

The change to the landscape as a result of the modified tower is low, as is the distance of the conductor, which is further from the ground. Because of the presence of existing towers along the right-of-way, the change in height of Tower M14-T1 does not result in a major changed in the character of the area. The repetition of the towers, which is a dominant feature in the landscape, continues with the Proposed Project, thereby resulting in a minor change to the existing character of the area. The Proposed Project is consistent with the VRM Class III objective, which is to partially maintain the character of the landscape and allow management changes that repeat the basic element found in the existing environment.

Additional Mitigating Measures (See item 3)

None required.

Form 8400-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

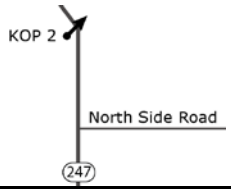
Date: September 23, 2016

District/ Field Office: Barstow

Resource Area: N/A (Private)

Activity (program): Transmission Line Modification

SECTION A. PROJECT INFORMATION

1. Project Name	4. Location	5. Location Sketch
Eldorado-Lugo-Mohave Series Capacitor Project	Township 5N	
2. Key Observation Point KOP 2 on Barstow Road	Range 1W	
3. VRM Class Class III	Section 12	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat with rugged terrain in the background	Low, small, asymmetrical	Simple, solid, low, small; and tall, regular, transparent
LINE	Horizontal and jagged in the background, with a banded edge	Asymmetrical, jagged, semicircular	Vertical and horizontal
COLOR	Tan (foreground); tans, browns, and grays (background)	Soft colors of gold, medium olive green, and gray/brown	Dark browns and dark gray/black
TEX-TURE	Medium in the foreground; coarse in the background	Medium, random, patchy	Sparse, random, clumped; and uniform, directional

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat with rugged terrain in the background	Low, small, asymmetrical	Simple, solid, low, small; and tall, regular, transparent
LINE	Horizontal and jagged in the background, with a banded edge	Asymmetrical, jagged, semicircular	Vertical and horizontal
COLOR	Tan (foreground); tans, browns, and grays (background)	Soft colors of gold, medium olive green, and gray/brown	Light browns and dark gray/black
TEX-TURE	Medium in the foreground; coarse in the background	Medium, random, patchy	Sparse, random, clumped; and uniform, directional

SECTION D. CONTRAST RATING __SHORT TERM X LONG TERM

1. DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE
ELEMENTS	FORM				X				X			X	
	LINE				X				X			X	
	COLOR				X				X			X	
	TEXTURE				X				X			X	

2. Does project design meet visual resource management objectives? X Yes ___No
(Explain on reverses side)

3. Additional mitigating measures recommended
___Yes X No (Explain on reverses side)

Evaluator's Names: Stephanie Hansen
Date: 9/23/16

SECTION D. (Continued)

Comments from item 2.

The change to the landscape as a result of the addition of the Barstow Fiber Optic Repeater is low. The main feature that is visible from KOP 2 is the enclosed equipment building. The form, bulk, and color of the building integrates into the random pattern, size, color, and bulk of the existing buildings that are scattered throughout this area along the same plane. The Proposed Project retains the existing character of the area, and is consistent with the VRM Class III objective, which is to partially maintain the character of the landscape and allow management changes that repeat the basic element found in the existing environment.

Additional Mitigating Measures (See item 3)

None required.

Form 8400-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: January 5, 2017

District/ Field Office: Barstow

Resource Area: Open Access

Activity (program): Transmission Line Modification

SECTION A. PROJECT INFORMATION

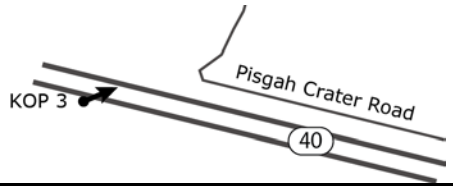
1. Project Name
Eldorado-Lugo-Mohave Series Capacitor Project

2. Key Observation Point
KOP 3 on Interstate 40

3. VRM Class
Class III

4. Location
Township___8N___
Range____6E_____
Section____18_____

5. Location Sketch



SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat with moderately rugged terrain in the background	Low and medium, small, asymmetrical	Tall, regular, transparent (Lattice Steel Towers [LSTs]); square, transparent (substation)
LINE	Horizontal; jagged in the background, with a transitional edge	Asymmetrical, jagged, semicircular	Vertical (LSTs) and horizontal (roadways, railroads)
COLOR	Gray, olive, and tan (foreground); tan and olive (middle ground); tans and grays (background)	Soft colors of gold, medium olive green, and gray/brown	Dark gray and black
TEX-TURE	Coarse in the foreground and middle ground; medium in the background	Medium, random, patchy	Sparse, uniform, directional

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat with moderately rugged terrain in the background	Low and medium, small, asymmetrical	Tall, regular, transparent (LSTs); square, transparent (substation); square and semi-transparent (mid-line capacitor)
LINE	Horizontal; jagged in the background, with a butt edge	Asymmetrical, jagged, semicircular	Vertical (LSTs and midline capacitor) and horizontal (roadways, railroads, and mid-line capacitor)
COLOR	Tan and gray (foreground); greens and grays (middle ground); tans and grays (background)	Soft colors of gold, medium olive green, and gray/brown	Dark gray/black (LSTs and substation); medium and dark gray (mid-line capacitor)
TEX-TURE	Coarse in the foreground; medium in the background	Medium, random, patchy	Sparse, uniform, and directional

SECTION D. CONTRAST RATING __SHORT TERM X LONG TERM

1. DEGREE OF CONTRAST		FEATURES											
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE
ELEMENTS	FORM				X				X		X		
	LINE				X				X			X	
	COLOR				X				X			X	
	TEXTURE				X				X			X	

2. Does project design meet visual resource management objectives? _X_Yes ___No
(Explain on reverses side)

3. Additional mitigating measures recommended
___Yes _X__No (Explain on reverses side)

Evaluator's Names
Stephanie Hansen

Date
1/5/17

SECTION D. (Continued)

Comments from item 2.

The addition of the Newberry Springs Series Capacitor adds a new, semi-transparent, square feature to the landscape. The texture and color are similar to the existing elements in the viewshed, including Pisgah Substation, and the LSTs of the 500 and 220 kilovolt transmission lines. The form of the structure, however, is more solid, bulkier, and less transparent that the existing facilities in the landscape. Because the mid-line series capacitor is located within the transmission right-of-way and in proximity to existing LSTs and a substation, the effect is somewhat incremental. The Proposed Project retains the existing character of the area, and is consistent with the VRM Class III objective, which is to partially maintain the character of the landscape and allow management changes.

Additional Mitigating Measures (See item 3)

None required.

Form 8400-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: January 5, 2017

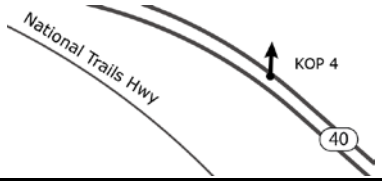
District/ Field Office: Barstow

Resource Area: Open Access

Activity (program): Transmission Line Modification

SECTION A. PROJECT INFORMATION

1. Project Name Eldorado-Lugo-Mohave Series Capacitor Project	4. Location Township___8N___	5. Location Sketch
2. Key Observation Point KOP 4 on Interstate 40	Range____6E_____	
3. VRM Class Class III	Section____21_____	



SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat with moderately rugged terrain in the background	Low and medium, small, asymmetrical	Tall, regular, transparent
LINE	Horizontal; jagged in the background, with a transitional edge	Asymmetrical, jagged, semicircular	Vertical (Lattice Steel Towers [LSTs]) and horizontal (conductor)
COLOR	Tan and gray (foreground); tan and brown (middle ground); browns and grays (background)	Soft colors of gold, medium olive green, and gray/brown	Dark gray and black
TEX-TURE	Coarse in the foreground; medium in the background	Medium, random, patchy	Sparse, uniform, directional

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat with moderately rugged terrain in the background	Low and medium, small, asymmetrical	Tall, regular, transparent (LSTs); semi-transparent square (mid-line capacitor); and low, rectangular (Mechanical Electrical Equipment Room [MEER] building)
LINE	Horizontal; jagged in the background, with a transitional edge	Asymmetrical, jagged, semicircular	Vertical (LST) and horizontal (conductor)
COLOR	Tan and gray (foreground); tan and brown (middle ground); browns and grays (background)	Soft colors of gold, medium olive green, and gray/brown	Dark gray/black, tan
TEX-TURE	Coarse in the foreground; medium in the background	Medium, random, patchy	Sparse, uniform, and directional

SECTION D. CONTRAST RATING __SHORT TERM X LONG TERM

1. DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1) STRONG	MODERATE	WEAK	NONE	VEGETATION (2) STRONG	MODERATE	WEAK	NONE	STRUCTURES (3) STRONG	MODERATE	WEAK	NONE
ELEMENTS	FORM				X				X		X		
	LINE				X				X			X	
	COLOR				X				X			X	
	TEXTURE				X				X			X	

2. Does project design meet visual resource management objectives? _X_Yes ___No (Explain on reverses side)

3. Additional mitigating measures recommended ___Yes _X__No (Explain on reverses side)

Evaluator's Names: Stephanie Hansen

Date: 1/5/17

SECTION D. (Continued)

Comments from item 2.

The addition of the Ludlow Series Capacitor adds a new, semi-transparent, square feature to the landscape. The texture and color are similar to the existing elements in the viewshed, the LSTs of the Lugo-Mohave 500 kilovolt Transmission Line. The form of the structure, however, is lower to the ground and more solid, bulkier, and less transparent that the existing LSTs in the landscape. Also visible is the MEER building associated with the facility. This building is a low, solid, rectangular structure, which is singular in its shape and bulk in the landscape. Because the mid-line series capacitor is located within the transmission right-of-way and in proximity to existing LSTs and conductor, the effect is somewhat incremental. The Proposed Project retains the existing character of the area, and is consistent with the VRM Class III objective, which is to partially maintain the character of the landscape and allow management changes.

Additional Mitigating Measures (See item 3)

None required.

Form 8400-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: October 31, 2016

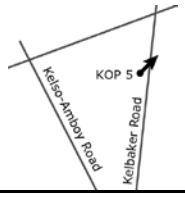
District/ Field Office: Barstow

Resource Area: N/A (Private)

Activity (program): Transmission Line Modification

SECTION A. PROJECT INFORMATION

1. Project Name Eldorado-Lugo-Mohave Series Capacitor Project	4. Location Township 9N	5. Location Sketch
2. Key Observation Point KOP 5 on Kelbaker Road	Range 13E	
3. VRM Class Class III	Section 6	



SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat with rugged terrain in the background	Low, small, asymmetrical	Tall and transparent
LINE	Horizontal; jagged in the background, with a banded edge	Asymmetrical, jagged, semicircular	Vertical (Lattice Steel Tower [LST]); and horizontal (conductor)
COLOR	Tan (foreground); greens (middle ground); grays and reddish grays (background)	Soft colors medium olive green, with some gray/gold in the foreground	Dark and medium grays and black
TEX-TURE	Coarse in the foreground and background; medium in the middle ground	Medium, random, patchy; finer in the middle ground	Sparse, uniform, and directional

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat with rugged terrain in the background	Low, small, asymmetrical	Simple, solid, low, small (repeater building); Tall and transparent (LST)
LINE	Horizontal and jagged in the background, with a banded edge	Asymmetrical, jagged, semicircular	Vertical and horizontal; Horizontal (repeater building)
COLOR	Tan (foreground); tans, browns, and grays (background)	Soft colors of gold, medium olive green, and gray/brown	Dark and medium grays and black (LST); Dark brown (repeater building)
TEX-TURE	Medium in the foreground; coarse in the background	Medium, random, patchy	Sparse, uniform, and directional (LST); Smooth and dense (repeater building)

SECTION D. CONTRAST RATING __SHORT TERM X LONG TERM

1. DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE
ELEMENTS	FORM				X				X		X		
	LINE				X				X		X		
	COLOR				X				X		X		
	TEXTURE				X				X		X		

2. Does project design meet visual resource management objectives? X Yes ___No
(Explain on reverses side)

3. Additional mitigating measures recommended
___Yes X No (Explain on reverses side)

Evaluator's Names
Stephanie Hansen

Date
10/31/16

SECTION D. (Continued)

Comments from item 2.

The addition of the Kelbaker Fiber Optic Repeater facility adds a new, solid, dark feature to the landscape. The main structure that is visible from KOP 5 is the enclosed equipment building. The form, bulk, and color of the building contrasts somewhat with the softer textures of the desert grasses and the transmission tower. It adds a small and low, but solid feature to the landscape. Because the fiber optic repeater is located within the transmission right-of-way and in proximity to an existing LST, the effect is somewhat incremental. The Proposed Project retains the existing character of the area, and is consistent with the VRM Class III objective, which is to partially maintain the character of the landscape and allow management changes.

Additional Mitigating Measures (See item 3)

None required.

Form 8400-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: October 31, 2016

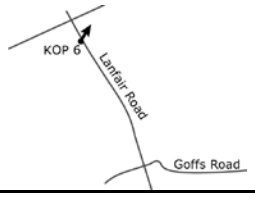
District/ Field Office: Barstow

Resource Area: N/A (Private)

Activity (program): Transmission Line Modification

SECTION A. PROJECT INFORMATION

1. Project Name Eldorado-Lugo-Mohave Series Capacitor Project	4. Location Township___10N___	5. Location Sketch
2. Key Observation Point KOP 6 on Lanfair Road	Range____18E_____	
3. VRM Class Class III	Section____15_____	



SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat with moderately rugged terrain in the background	Low and medium, small, asymmetrical	Tall, regular, transparent
LINE	Horizontal; jagged in the background, with a butt edge	Asymmetrical, jagged, semicircular	Vertical (Lattice Steel Towers [LSTs]) and horizontal (conductor)
COLOR	Tan and gray (foreground); greens and grays (middle ground); tans and grays (background)	Soft colors of gold, medium olive green, and gray/brown	Dark gray and black
TEX-TURE	Coarse in the foreground; medium in the background	Medium, random, patchy	Sparse, uniform, directional

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat with moderately rugged terrain in the background	Low and medium, small, asymmetrical	Tall, regular, transparent (LSTs); simple, solid, low, small (repeater building)
LINE	Horizontal; jagged in the background, with a butt edge	Asymmetrical, jagged, semicircular	Vertical (Lattice Steel Tower [LST]) and horizontal (conductor)
COLOR	Tan and gray (foreground); greens and grays (middle ground); tans and grays (background)	Soft colors of gold, medium olive green, and gray/brown	Dark gray/black (LSTs and conductor) and light brown (repeater building)
TEX-TURE	Coarse in the foreground; medium in the background	Medium, random, patchy	Sparse, uniform, and directional (LSTs); Smooth and dense (repeater building)

SECTION D. CONTRAST RATING __SHORT TERM X LONG TERM

1. DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE
ELEMENTS	FORM				X				X			X	
	LINE				X				X			X	
	COLOR				X				X			X	
	TEXTURE				X				X			X	

2. Does project design meet visual resource management objectives? _X_Yes ___No
(Explain on reverses side)

3. Additional mitigating measures recommended
___Yes _X__No (Explain on reverses side)

Evaluator's Names
Stephanie Hansen

Date
10/31/16

SECTION D. (Continued)

Comments from item 2.

The addition of the Lanfair Fiber Optic Repeater facility adds a new, solid, dark feature to the landscape. The main structure that is visible from KOP 6 is the enclosed equipment building. The form, bulk, and color of the building contrasts somewhat with the softer textures of the desert grasses and the transmission towers. It adds a small and low, but solid feature to the landscape. Because the fiber optic repeater is located within the transmission right-of-way and in proximity to existing LSTs, the effect is somewhat incremental. The Proposed Project retains the existing character of the area, and is consistent with the VRM Class III objective, which is to partially maintain the character of the landscape and allow management changes.

Additional Mitigating Measures (See item 3)

None required.