APPENDIX D

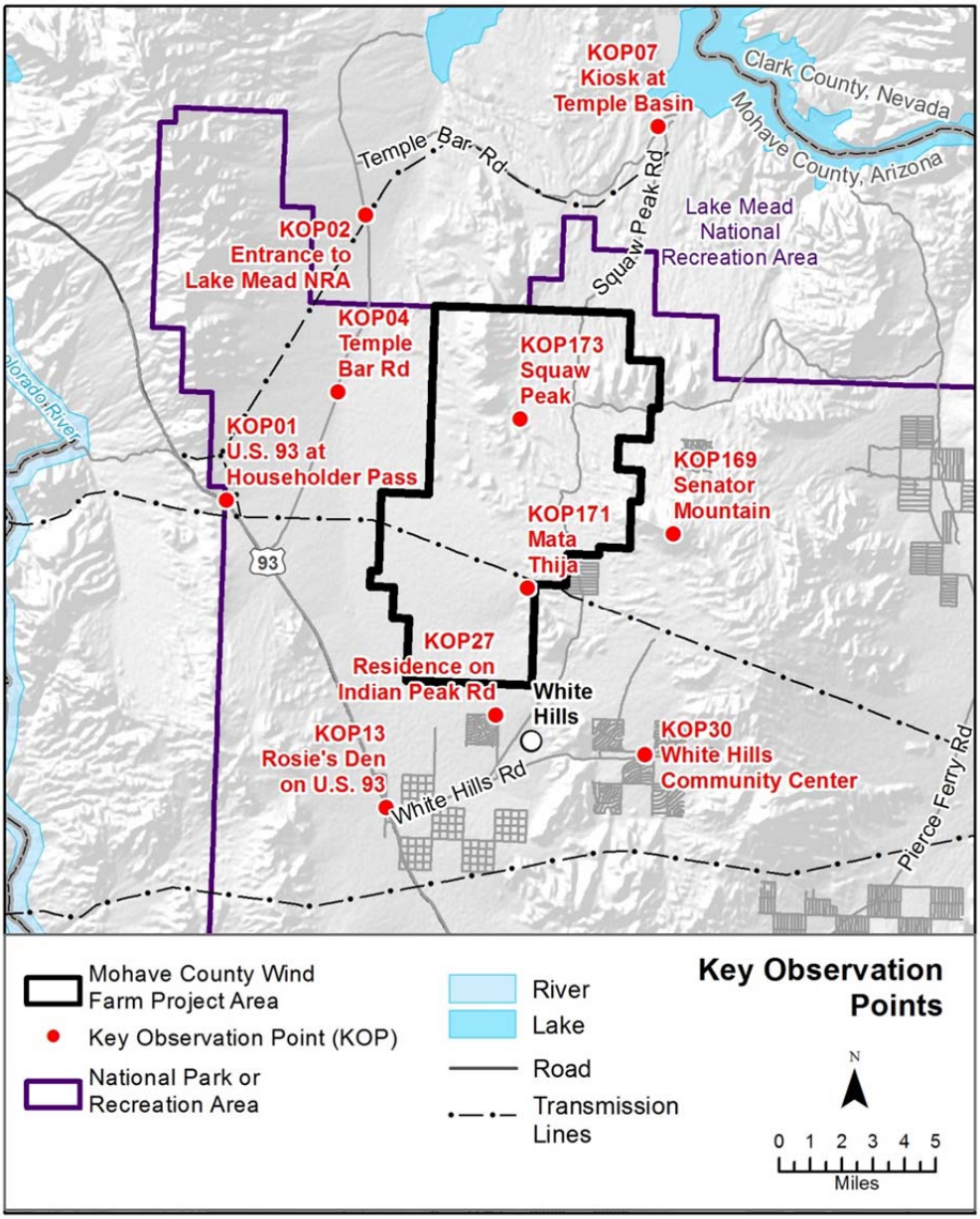
VISUAL SIMULATIONS AND CONTRAST RATING FORMS

Photographic Simulations and Representative Turbine Views

Organization

The photographic simulations are arranged in numerical order by key observation point (KOP). Each set of simulations includes a photograph of the existing condition and the simulation of Alternative A. Some KOPs also have simulations of additional alternatives, and simulations of dark gray turbines and obstruction lighting.

Photographs of an existing five turbine wind farm in Kingman, Arizona are also included. They are arranged by distance of the viewer to the wind farm. Several of the distances are similar to distances from KOPs to the closest turbine in Alternative A, and are noted on the photograph. The photographs are located after the simulations.



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Existing Turbines from 8.9 Miles, Sidelit

Range of Viewing Conditions and Photographic Details

KOP	Simulation Photographs	Date	Time (mst)	Distance (miles) A	B	C	Direction	Lighting Conditions	Solar Azimuth	Longatude	Lattatude	Elevation (m)	Camera	Focal Length (mm)	35mm Equivalent
1	U.S. 93 at Householder Pass	11/23/09	9:27 AM	5.4	5.4	5.4	East	Back	135.81	35º50'40.20"N	114º34'28.44"W	684.6	Canon Rebel EOS XT	32	50
2	Entrance station to Lake Mead NRA	11/23/09	11:08 AM	3.9	x	x	South	Back	159.07	35º58'42.52"N	114º30'4.77"W	514.3	Canon Rebel EOS XT	32	50
2	Entrance station to Lake Mead NRA (Revised Images)	09/07/11	2:40 PM	3.9	7.0	6.7	South	Side	230.84	35º58'42.47"N	114º30'4.80"W	514.3	Nikon D700	50	50
2	Entrance station to Lake Mead NRA (Revised Images)	09/06/11	8:56 PM	3.9	x	x	South	Night	dark	35º58'42.47"N	114º30'4.80"W	514.3	Nikon D700	50	50
4	Temple Bar Road	11/23/09	12:17 PM	3.3	3.8	3.3	East	Side	177.86	35º53'46.96"N	114º30'48.56"W	563.2	Canon Rebel EOS XT	32	50
7	Kiosk in Temple Basin	11/23/09	1:20 PM	6.5	x	6.5	South	Back	195.51	36º1'27.02"N	114º20'12.53"W	447.8	Canon Rebel EOS XT	32	50
13	Rosie's Den on U.S. 93	11/23/09	4:04 PM	4.3	x	5.0	Northeast	Front	231.97	35º42'18.03"N	114º28'40.28"W	740.9	Canon Rebel EOS XT	32	50
13	Rosie's Den on U.S. 93 (Revised Images)	09/07/11	9:59 AM	4.3	x	5.0	Northeast	Back	124.48	35º42'18.03"N	114º28'40.28"W	740.9	Nikon D700	50	50
13	Rosie's Den on U.S. 93 (Revised Images Gray Turbines)	09/07/11	9:59 AM	4.3	x	x	Northeast	Back	124.48	35º42'18.12"N	114º28'40.16"W	740.9	Nikon D700	50	50
13	Rosie's Den on U.S. 93 (Revised Images)	09/06/11	9:30 PM	4.3	x	x	Northeast	night	124.48	35º42'18.12"N	114º28'40.16"W	740.9	Nikon D700	50	50
27	11025 Indian Peak Road	11/24/09	4:20 PM	1.2	x	1.9	North	Side	234.56	35º44'58.04"N	114º25'2.87"W	835.0	Canon Rebel EOS XT	32	50
27	11025 Indian Peak Road (Revised Images)	09/07/11	10:41 AM	1.2	x	1.9	North	Front	131.67	35º44'58.02"N	114º25'2.20"W	835.0	Nikon D700	50	50
27	11025 Indian Peak Road (Revised Images)	09/06/11	10:08 PM	1.2	x	x	North	Night	dark	35º44'58.02"N	114º25'2.20"W	835.0	Nikon D700	50	50
30	White Hills Community Center	04/16/10	4:09 PM	4.6	x	5.3	Northwest	Side / Back	255.71	35º43'53.91"N	114º19'58.51"W	1095.4	Canon Rebel EOS XT	32	50
169	Senator Mountain	04/15/10	10:09 AM	1.7	x	x	West	Front	118.37	35º50'10.90"N	114º19'14.14"W	1512.3	Canon Rebel EOS XT	32	50
171	Mata Thija	04/15/10	11:48 AM	0.9	x	x	Northwest	Front	153.43	35º48'32.85"N	114º24'8.24"W	933.5	Canon Rebel EOS XT	32	50
173	Squaw Peak	04/15/10	4:04 PM	0.2	x	x	Northwest	Side	254.23	35º53'13.35"N	114º24'34.05"W	832.3	Canon Rebel EOS XT	32	50
ID	**Representative Photographs of Existing Turbines near Kingman, Arizona**	**Date**	**Time (mst)**	**Distance (Miles)**			**Direction**	**Lighting Conditions**	**Solar Azimuth**	**Longitude**	**Latitude**	**Elevation (m)**	**Camera**	**Focal Length (mm)**	**35mm equivalent**
1	Representative photograph (Similar to KOP's 1, 30)	09/08/11	1150 AM	4.9			Northeast	Front	158.52	35º9'39.71"N	114º4'31.51"W	936	Nikon D700	50	50
2	Representative photograph (Similar to KOP 2)	09/08/11	9:28 AM	3.1			Southwest	side	113.5	35º9'39.71"N	114º4'31.51"W	936	Nikon D700	50	50
3	Representative photograph (Similar to KOP's 4, 13)	09/07/11	4:54 PM	4.7			Northeast	side/ front	260.03	35º8"29.29"N	114º3'7.49"W	1089	Nikon D700	50	50
4	Representative photograph (Similar to KOP's 7)	09/08/11	11:44 AM	7			Northeast	side	155.83	35º9'58.03"N	114º3'42.97"W	964	Nikon D700	50	50
5	Representative photograph (Similar to KOP's 27, 169)	09/08/11	10:48 AM	1.1			Northeast	back	134.28	35º10'18.23"N	114º3'32.93"W	974	Nikon D700	50	50
6	Representative photograph (Similar to KOP's 27, 169)	09/08/11	9:37 AM	1.6			South	side	115.38	35º7'58.05"N	114º5'12.63"W	919	Nikon D700	50	50
7	Representative photograph (Similar to KOP's 27, 169)	09/07/11	7:28 PM	0.9			Southeast	night	282.15	35º7'43.55"N	114º6'12.34"W	873	Nikon D700	50	50
8	Representative photograph (Similar to KOP's 27, 169)	09/08/11	11:15 AM	1.7			Northeast	side	143.86	35º11'17.04"N	114º2'15.73"W	1054	Nikon D700	50	50
9	Representative photograph (Similar to KOP 173)	09/07/11	5:05 PM	0.9			Southeast	side	261.74	35º5'49.55"N	114º7'5.51"W	812	Nikon D700	50	50
10	Representative photograph at 8 Miles	09/07/11	1150 AM	8.1			Northeast	Front/Side	158.02	35º5'39.84"N	114º7'7.23"W	812	Nikon D700	50	50
11	Representative photograph at 9 Miles	09/08/11	11:15 AM	8.9			Northeast	Front	143.62	35º3'39.13"N	114º7'27.79"W	778	Nikon D700	50	50
12	Representative photograph (Similar to KOP's 27, 169)	09/08/11	11:44 AM	0.9			Northeast	Front/Side	155.63	35º2'41.11"N	114º7'40.58"W	763	Nikon D700	50	50
13	Representative photograph at 2.5 Miles	09/08/11	9:37 AM	2.5			South	Side	115.27	35º2'2.60"N	114º8'1.35"W	740	Nikon D700	50	50

Simulation Methodology

The simulation process can be broken down into five main steps: data collection, modeling, camera viewpoint alignment, rendering, and compositing.

Field data collection is a key component to the simulation process. To ensure a high degree of visual accuracy in the simulations, global positioning systems equipment (GPS) was used to record the date, time, and location of each photograph. The degree of accuracy of the GPS location data is to within 3.3 feet (approximately 1 meter). Digital photographs were taken from KOPs with views toward the location of the proposed facilities. A 10 megapixel camera with a 50 millimeter lens was used consistently for all photographs. Overlapping photographs were taken and then electronically converted into one panoramic view for each KOP.

In addition to the field data collection, information was collected regarding the proposed structures' size, location, height, and color. This information was then used to create a real-world scaled, computer-generated model of the proposed facilities in Autodesk AutoCAD version 2010 and Civil 3D version 2010 computer-aided design (CAD) software. The model was then imported into Autodesk 3ds Max Design version 2010 software where color and texture information were added to resemble the materials that are planned to be used.

To generate a correct view relative to the actual photograph, the electronic camera was placed in the digital environment at a location corresponding to the real-world location provided by GPS records collected during the field visits. The electronic camera lens is set to match the camera lens focal length that was actually used in the field. This allows for viewing of the computer-generated model in the same way that the facilities would be viewed in the field. Each camera was then adjusted to match the photograph taken. Information such as time, date, and aperture were imported from the metadata information the digital camera embeds into each image. These settings allow the digital environment settings for sun angle to be modeled accurately to correctly match the light and shadows on the photographs.

The model of the proposed facilities, the camera and the lighting information was then used in a process called rendering to generate a two-dimensional image of the proposed facility representing the view from each of the KOPs.

The rendered image was then composited with the existing photograph. Any additional filters required for appropriate atmospheric conditions (such as blur, focus, haze) were then applied. Foreground objects were verified at this point; foreground objects are any existing objects such as landscape or buildings that would screen the viewer from seeing the proposed facilities. Areas of the rendering that are blocked, or screened by foreground objects were then masked so they cannot be seen in the final simulation.

The resulting photographic simulations show the white turbines with various shades of white and gray. The color variation was automatically created by the software, and replicates the real life appearance of existing white turbines. The appearance of the proposed project under different seasons or different time of day was simulated for select KOPs, and used to demonstrate the appearance of turbines under varying lighting conditions (front lit, side lit, or back lit).

Contrast Rating Forms and KOP Descriptions

The contrast rating forms are arranged in numerical order by KOP and are located after the photographic simulations in this appendix. Sections C and D of the forms refer to the contrasts as represented in the simulations.

The following table is a detailed description of the existing visual conditions from each KOP, arranged by common and/or sensitive views from five general areas.

Existing Visual Conditions

Key Observation Point Location	KOP Description	Distance from Wind Farm Site Boundary (approx.)
Temple Bar Road (Outside the Lake Mead NRA)		
Temple Bar Road KOP 4	KOP 4 represents views of recreational motorists traveling northeast on Temple Bar Road approximately 11.3 miles from Alkali Cove at Lake Mead. KOP 4 would also represent direct views of the Reclamation land. The open panoramic views across the Detrital Valley toward Squaw Peak in the background distance zone exhibit moderate levels of variation in form, line, color, and texture. There are scattered manmade features in the view, not including the roadway, which are not easily identified from this distance. Views of some distinct landscape features as well as diversely colored vegetation are of moderate scenic quality due to the overall naturalness of the view.	3 miles to all three alternatives
Lake Mead NRA		
Entrance station to Lake Mead NRA KOP 2	KOP 2 represents views of recreationists from the entrance station approximately 3 miles into the Lake Mead NRA on Temple Bar Road looking south. KOP 2 would also represent direct views of the Reclamation land within the Project. From this low elevation vantage point, there are open panoramic and focal views across the valley formed by Detrital Wash toward Senator Mountain and the White Hills in the background. There are few manmade features in the view with the exception of the roadway and a small power line in the immediate foreground of the view. Open panoramic and focal views of rolling hills, dramatic mountainous terrain and silhouettes, and the broad, sweeping valley terrain offer moderate to high scenic quality due to the lack of disturbance and variation of form, line, color, and texture of the natural landscape elements when compared to the surrounding region.	3 miles to the closest alternative (A)
Kiosk at Temple Basin KOP 7	KOP 7 represents recreational views at the kiosk on Temple Bar Road approximately 0.5 mile west from the campgrounds at Temple Bar on Lake Mead. The open panoramic and low elevation views toward Golden Rule Peak and Senator Mountain in the background exhibit moderate levels of variation in form, line, color, and texture. There are few apparent manmade features in the view, not including the roadway and kiosk, and the mottled vegetation creates a uniformity of foliage. Views of some distinct landscape features as well as uniform, undulating vegetation are of moderate scenic quality.	8 miles to all three alternatives

Key Observation Point Location	KOP Description	Distance from Wind Farm Site Boundary (approx.)
Traditional Cultural Areas of the Hualapai Tribe		
Senator Mountain KOP 169	KOP 169 represents viewers on Senator Mountain, an area of cultural importance to the Hualapai Tribe, looking west towards the dramatic terrain surrounding Mount Wilson, Squaw Peak, Pilot Knob, and the Black Mountains. The open panoramic views of the Detrital Valley and surrounding mountains exhibit few discernable man-made features and high levels of variation in form, line, color, and texture. A high elevation view of the undulating and angular landscape features and rugged mountain silhouettes is of high scenic quality.	1.5 miles from the closest alternatives (A and B)
Mata Thija KOP 171	KOP 171 represents viewers at Mata Thija, an area of cultural importance to the Hualapai Tribe, looking north towards the dramatic terrain surrounding Mount Wilson, Squaw Peak, Pilot Knob, and the Black Mountains. The open panoramic views of the Detrital Valley and surrounding mountains exhibit few discernable man-made features and high levels of variation in form, line, color, and texture. The man-made features that are apparent in the view include the two parallel high-voltage transmission lines that cross the foreground of the view. A view of the undulating and angular landscape features, crossed by the transmission lines in the foreground to middleground, and the rugged mountain silhouettes is of moderate scenic quality.	Inside (Alternative A) or at boundary (Alternatives B and C)
Squaw Peak KOP 173	KOP 173 represents recreational and tribal viewers adjacent to Squaw Peak, an area of cultural importance to the Hualapai Tribe, looking north towards the dramatic terrain surrounding Squaw Peak. The focal views of the peak and surrounding hills and mountains exhibit few discernable man-made features and high levels of variation in form, line, color, and texture. The man-made features that are apparent in the view include the meteorological tower in the foreground of the view. A view of the undulating and angular landscape features, with the meteorological tower in the foreground, and the rugged mountain silhouettes is of moderate to high scenic quality.	Inside (Alternative A) or at boundary (Alternatives B and C)
US 93		
US 93 at Householder Pass KOP 1	KOP 1 represents views of motorists traveling south on US 93 toward Dolan Springs. This portion of US 93 is considered a scenic route in the Mohave County General Plan. KOP 1 would also represent direct views of the Reclamation land within the Wind Farm Site. From this high elevation vantage point, there are open panoramic and focal views across the valley formed by Detrital Wash toward Senator Mountain in the background. There are numerous manmade features in the view including the highway, two parallel high-voltage transmission lines, and a fence in the immediate foreground of the view. Although the transmission lines are incongruent with the surrounding landscape elements they do not compete with more natural-appearing features for attention due to the overall scale of the built elements within the overall view. Open panoramic and focal views of rolling hills, mountainous terrain, and the broad, sweeping valley terrain offer low to moderate scenic quality due to the visible level of manmade disturbance in the view and the natural landscape elements that are common in the region.	3 miles to all three alternatives

Key Observation Point Location	KOP Description	Distance from Wind Farm Site Boundary (approx.)
US 93 at Rosie's Den KOP 13	KOP 13 represents views of motorists and recreationists at Rosie's Den on US 93, approximately 11 miles south of KOP 1 on US 93 at Householder Pass, looking east toward the White Hills area. KOP 13 would also represent direct views of both the Reclamation land as well as BLM lands within the Wind Farm Site. The open panoramic views toward the White Hills community exhibit rural residential features and moderate levels of variation in form, line, color, and texture. There are few apparent manmade features in the view, other than the roadway in the foreground. The mottled yet relatively uniform vegetation creates a congruent overall landscape character. Views of some distinct landscape features as well as uniform, undulating vegetation are of moderate scenic quality.	4 miles to the closest alternative (A)
White Hills Area		
Residence on Indian Peak Road KOP 27	KOP 27 represents residents of the White Hills community on Indian Peak Road looking north towards the dramatic terrain surrounding Squaw Peak and the foothills of the White Hills. The open, panoramic views of the mountains exhibit some rural residential features and moderate levels of variation in form, line, color, and texture. There are few manmade features in the view, which are not apparent due to the tall, dense vegetation (Joshua trees), which creates a congruent overall landscape character. Views of undulating and angular landscape features as well as the tall, mottled vegetation are of moderate scenic quality.	0.5 mile to the closest alternative (A)
White Hills Community Center KOP 30	KOP 30 represents residents and guests at the White Hills Community Center on Lunado Drive (approximately 4 miles east of the KOP 27, the residence on Indian PeakRoad), looking north towards the dramatic terrain surrounding Senator Peak, Squaw Peak, and Mount Wilson. The partially screened, focal views of the mountains exhibit little rural residential features and moderate to high levels of variation in form, line, color, and texture. There are few manmade features adjacent to the view, which are not apparent, creating a congruent overall landscape character. A view of undulating and angular landscape features and silhouettes as well as the tall, mottled vegetation is of moderate to high scenic quality.	4 miles from the closest alternative (A)

Form 8400-04
(September 1985)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date	November 23, 2009
District	Colorado River
Resource Area	Kingman Field Office
Activity (program)	Realty

SECTION A. PROJECT INFORMATION

1. Project Name **BP Mojave County Wind Project**	4. Location Township 28N Range 17W Section 29	5. Location Sketch
2. Key Observation Point **KOP 1 – U.S. 93 at Householder Pass – Alt. A**		
3. VRM Class **IV for BLM land and NA for Bureau of Reclamation land**		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Near: Rolling, undulating Far: Bold, prominent, pyramidal	Near: Low, small with some taller interspersed vegetation. Far: Indistinct	Near: Tall, thin, angular Far: Tall, thin, angular
LINE	Near: Horizontal, flowing Far: Diagonal and horizontal with mountainous silhouettes	Near: Not present Far: Not present	Near: Vertical, horizontal, geometric Far: Vertical, horizontal, geometric
COLOR	Near: Brown, light tan Far: Brown, dark gray with bluish hues caused by atmospheric conditions	Near: Olive, green, brown, tan Far: Brown hues, indistinct	Near: Dark gray with light chromas Far: Dark gray with light chromas
TEX-TURE	Near: Smooth to medium Far: Course, random	Near: Stippled, medium Far: Indistinct	Near: Uniform, smooth Far: Uniform, smooth

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Near: No change Far: Possible simple geometric shapes created by cut/fill for pads and roads	Near: No Change Far: Linear	Near: No change Far: Tall, symetrical, geometric, ordered, rotating
LINE	Near: No Change Far: Horizontal, broken to continuous	Near: No Change Far: Possibly bold to weak depending on viewing angle, straight to curving where visible, geometric where visible	Near: No change Far: Vertical, perpendicular, angular, geometric, ordered
COLOR	Near: No Change Far: Beige, tan. Depends upon color of gravel cover and depth of cut	Near: No Change Far: Contrasts created by vegetation clearing for roads and pads where visible	Near: No Change Far: White, contrasting
TEX-TURE	Near: No Change Far: Smooth	Near: No Change Far: Directional, continuous or discontinuous depending on viewing angle	Near: No Change Far: Smooth, indistinct

SECTION D. CONTRAST RATING ☐ SHORT TERM ☒ LONG TERM

1. DEGREE OF CONTRAST		FEATURES												2. Does project design meet visual resource management objectives? ☒ Yes ☐ No (Explain on reverse side) 3. Additional mitigating measures recommended? ☒ Yes ☐ 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	
ELEMENTS	Form			X			X			X				Evaluator's Names Date
	Line		X				X			X				Richard Stuhan November 23, 2009
	Color			X			X			X				David Lawrence May, 18, 2011
	Texture			X				X				X		David Konopka January 3, 2012

SECTION D. (Continued)

Comments from item 2.

BLM land in project area is Class IV.

Structure contrast is very strong due to the extent of the project area, the height, shape, and color of the turbines, and the motion of the rotating blades.

Vegetation contrast depends upon angle of view and success of vegetation restoration. Contrast could be weak to strong.

Land contrast depends upon depth of cuts and fills which are not anticipated to be deep.

Additional Mitigating Measures (See item 3)

Assure that revegetation is successful in the most visible locations. Use gravel on roads and pads that is the same color as surrounding surface soil.

Form 8400-04
(September 1985)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date	January 3, 2012
District	Colorado River
Resource Area	Kingman Field Office
Activity (program)	Realty

SECTION A. PROJECT INFORMATION

1. Project Name
BP Mojave County Wind Project

2. Key Observation Point
KOP 2 – Entrance to Lake Mead NRA – Alt. A

3. VRM Class
NA for Bureau of Reclamation land and Class IV for BLM land

4. Location

Township 30N
Range 21W
Section 23

5. Location Sketch

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Near: Flat to rolling, undulating, triangular Far: Bold, prominent, pyramidal, conical, flat	Near: Low, rounded Far: Indistinct	Near: Tall, vertical, rolling, linear, parallel Far: Tall, vertical, geometric, parallel
LINE	Near: Horizontal, diagonal, parallel Far: Diagonal, horizontal, curvilinear	Near: Horizontal, soft Far: Not present	Near: Vertical, angular Far: Vertical, angular, geometric
COLOR	Near: Light brown, reddish tan, light gray Far: Brown, dark brown, tan with bluish hues caused by atmospheric conditions	Near: Olive, dark and light green, brown, tan Far: Brown hues, indistinct	Near: Dark gray to black, dark brown Far: Gray, brown
TEX-TURE	Near: Course to indistinct, striated Far: Course to smooth, random, striated	Near: Stippled, medium Far: Medium to fine	Near: Smooth Far: Indistinct, smooth

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Near: Flat to rolling linear and curving cuts/fills for pads and roads Far: Simple linear shapes created by cut/fill for pads and roads	Near: Flat to rolling, linear Far: Linear	Near: Tall, vertical, symmetrical, ordered, rotating Far: Tall, vertical, symetrical, ordered, rotating
LINE	Near: Horizontal to diagonal, straight to curving Far: Horizontal to diagonal, straight to curving	Near: Horizontal to diagonal, straight to curving Far: Horizontal to slightly diagonal, straight to slightly curving	Near: Vertical, perpendicular, angular, ordered Far: Vertical, perpendicular, angular, ordered
COLOR	Near: Light tan. Depends upon color of gravel cover and depth of cut Far: Light tan. Depends upon color of gravel cover and depth of cut	Near: Contrast between soil/gravel in cleared areas and vegetation Far: Contrast between soil/gravel in cleared areas and vegetation	Near: White, contrasting Far: White, contrasting
TEX-TURE	Near: Fine to medium Far: Fine	Near: Directional Far: Directional	Near: Smooth Far: Smooth, indistinct

SECTION D. CONTRAST RATING ☐ SHORT TERM ☒ 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			
ELEMENTS: Line	X				X				X			
ELEMENTS: Color			X		X				X			
ELEMENTS: Texture			X			X					X	

2. Does project design meet visual resource management objectives?
☒ Yes ☐ No
(Explain on reverse side)

3. Additional mitigating measures recommended?
☒ Yes ☐ No
(Explain on reverse side)

Evaluator's Names Date
David Konopka January 3, 2012

SECTION D. (Continued)

Comments from item 2.

BLM land in project area is Class IV.

Structure contrast is very strong due to the extent of the project area, the height, shape, and color of the turbines, and the motion of the rotating blades. There are mainly color and form contrasts between the turbines and the existing utility poles and transmission towers.

Vegetation contrast is strong due to distance and viewing angle

Land contrast depends upon depth of cuts and fills which are not anticipated to be deep.

Additional Mitigating Measures (See item 3)

Assure that revegetation is successful in the most visible locations. Use gravel on roads and pads that is the same color as surrounding surface soil.

Eliminating the rows on the north end could slightly lessen the overall contrast, but it would still remain high.

Form 8400-04
(September 1985)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date	November 23, 2009
District	Colorado River
Resource Area	Kingman Field Office
Activity (program)	Realty

SECTION A. PROJECT INFORMATION

1. Project Name **BP Mojave County Wind Project**	4. Location Township 28N Range 17W Section 29	5. Location Sketch
2. Key Observation Point **KOP 4 – Temple Bar Road – Alt.A**		
3. VRM Class **NA for Bureau of Reclamation land and Class IV for BLM land**		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Near: Flat to rolling, undulating Far: Bold, prominent, pyramidal, conical	Near: Low Far: Indistinct	Near: Tall, vertical Far: Tall, vertical
LINE	Near: Not present Far: Diagonal and curvilinear	Near: Horizontal Far: Not present	Near: Vertical, angular, geometric Far: Vertical, angular, geometric
COLOR	Near: Light brown, tan Far: Brown, dark brown, tan with bluish hues caused by atmospheric conditions	Near: Olive, dark and light green, brown Far: Brown hues, indistinct	Near: Dark gray to black Far: Dark gray to black
TEX-TURE	Near: Course to indistinct Far: Course, random, striated	Near: Stippled, medium Far: Patchy	Near: Indistinct, smooth Far: Indistinct, smooth

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Near: No change Far: Simple geometric shapes created by cut/fill for pads and roads	Near: No Change Far: Linear	Near: No change Far: Tall, vertical, symetrical, geometric, ordered, rotating
LINE	Near: No Change Far: Horizontal to diagonal, straight to curving	Near: No Change Far: Horizontal to diagonal, straight to curving	Near: No Change Far: Vertical, perpendicular, angular, geometric, ordered
COLOR	Near: No Change Far: Light tan	Near: No Change Far: Contrast between soil/gravel in cleared areas and vegetation	Near: No Change Far: White, contrasting
TEX-TURE	Near: No Change Far: Smooth	Near: No Change Far: Discontinuous	Near: No Change Far: Smooth, indistinct

SECTION D. CONTRAST RATING ☐ SHORT TERM ☒ LONG TERM

1. DEGREE OF CONTRAST		FEATURES												2. Does project design meet visual resource management objectives? ☒ Yes ☐ No (Explain on reverse side) 3. Additional mitigating measures recommended? ☒ Yes ☐ 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	
ELEMENTS	Form			X			X			X				Evaluator's Names Date
	Line		X				X			X				Richard Stuhan November 23, 2009
	Color			X			X			X				David Konopka January 3, 2012
	Texture			X				X				X		

SECTION D. (Continued)

Comments from item 2.

BLM land in project area is Class IV.

Structure contrast is very strong due to the extent of the project area, the height, shape, and color of the turbines, and the motion of the rotating blades.

Vegetation contrast depends upon angle of view and success of vegetation restoration. Contrast could be weak to strong.

Land contrast depends upon depth of cuts and fills which are not anticipated to be deep.

Additional Mitigating Measures (See item 3)

Assure that revegetation is successful in the most visible locations. Use gravel on roads and pads that is the same color as surrounding surface soil.

The white cliffs to the north are a relatively unique scenic feature in the area and closer to Lake Mead NRA. Eliminating the rows on the north end could slightly lessen the overall contrast, but it would still remain high.

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(September 1985)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date	November 23, 2009
District	Colorado River
Resource Area	Kingman Field Office
Activity (program)	Realty

SECTION A. PROJECT INFORMATION

1. Project Name **BP Mojave County Wind Project**	4. Location	5. Location Sketch
2. Key Observation Point **KOP 7 – Kiosk on Temple Basin – Alt. A**	Township 28N Range 17W Section 29	
3. VRM Class **Looking towards BLM Class IV**		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Near: Rolling, undulating Far: Prominent, rolling	Near: Low, short Far: Indistinct	Near: None in view towards project Far: Linear, thin
LINE	Near: Horizontal, diagonal Far: Curvilinear with mountainous silhouettes	Near: Not present Far: Not present	Near: None Far: Vertical, angular, simple
COLOR	Near: Medium tan, beige Far: Grays and tans with bluish hues caused by atmospheric conditions	Near: Olive, gold, brown Far: Brown hues, indistinct	Near: None Far: Brown
TEX-TURE	Near: Stippled, medium Far: Medium	Near: Stippled, patchy Far: Indistinct	Near: None Far: Indistinct, smooth

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Near: No change Far: Possible linear shapes created by cut/fill for pads and roads	Near: No Change Far: No Change	Near: No change Far: Tall, vertical, symetrical, geometric, angular, ocillating
LINE	Near: No Change Far: possible horizontal lines created by cut/fill for pads and roads	Near: No Change Far: No Change	Near: No Change Far: Vertical, angular, geometric, ordered
COLOR	Near: No Change Far: Light tan and gray	Near: No Change Far: No Change	Near: No Change Far: White, contrasting
TEX-TURE	Near: No Change Far: Smooth	Near: No Change Far: No Change	Near: No Change Far: Smooth, indistinct

SECTION D. CONTRAST RATING ☐ SHORT TERM ☒ LONG TERM

1. DEGREE OF CONTRAST		FEATURES												2. Does project design meet visual resource management objectives? ☒ Yes ☐ No (Explain on reverse side)
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				3. Additional mitigating measures recommended? ☒ Yes ☐ No (Explain on reverse side)
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	
ELEMENTS	Form				X			X			X			Evaluator's Names Date
	Line			X			X			X				Richard Stuhan November 23, 2009
	Color			X			X				X			David Konopka January 3, 2012
	Texture				X			X				X		

SECTION D. (Continued)

Comments from item 2.

BLM land in project area is Class IV.

Structure contrast is moderate because of the distance and the narrower view of the project. Topography hides the lower portions of the turbines.

Vegetation contrasts would only be visible on the hills, and at this distance are expected to be moderate to weak.

Land contrasts would only be visible on the hills and are expected to be weak to none at this distance because the cuts and fills are not anticipated to be deep.

Additional Mitigating Measures (See item 3)

Assure that revegetation is successful in the most visible locations. Use gravel on roads and pads that is the same color as surrounding surface soil.

Removing about ten of the most visible turbines would reduce the structure contrast within the landscape.

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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date	November 23, 2009
District	Colorado River
Resource Area	Kingman Field Office
Activity (program)	Realty

SECTION A. PROJECT INFORMATION

1. Project Name **BP Mojave County Wind Project**	4. Location Township 28N Range 17W Section 29	5. Location Sketch
2. Key Observation Point **KOP 13 – Rosie's Den on U.S. 93 – Alt. A**		
3. VRM Class **Looking into Class IV**		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Near: Rolling, undulating Far: Bold, prominent, pyramidal, angular, numerous silhouettes	Near: Low, small with some taller interspersed vegetation. Far: Indistinct	Near: Tall, thin, angular Far: Angular, not very apparrent
LINE	Near: Horizontal, flowing Far: Diagonal, angular, and horizontal with mountainous silhouettes	Near: Horizontal undulating lines with a digitate edge Far: Not apparent	Near: Vertical, geometric, horizontal, ordered, with divergent bands Far: Geometric and not very apparent
COLOR	Near: Brown, gray, light tan Far: Brown, burnt and raw sienna, dark gray with red hues and bluish hues caused by atmospheric conditions	Near: Olive, green, brown, tan Far: Brown and sienna hues, indistinct	Near: White and green with light chromas Far: Not present
TEX-TURE	Near: Smooth to medium Far: Course, random	Near: Stippled, medium Far: Indistinct to smooth	Near: Uniform, smooth Far: Not apparent

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Near: No change Far: Possible simple geometric shapes created by cut/fill for pads and roads	Near: No change Far: Linear	Near: No change Far: Tall, symetrical, geometric, ordered, rotating
LINE	Near: No change Far: Horizontal lines created by cuts and fills	Near: No change Far: Geometric and possibly linear lines created by vegetative clearing for roads and pads	Near: No change Far: Vertical, perpendicular, angular, geometric, ordered
COLOR	Near: No change Far: Beige, tan. Depends upon color of gravel cover and depth of cut	Near: No Change Far: Contrasts created by vegetation clearing for roads and pads	Near: No change Far: White, contrasting
TEX-TURE	Near: No change Far: Smooth	Near: No change Far: Bare areas are directional at this viewing height, ordered	Near: No change Far: Smooth, indistinct

SECTION D. CONTRAST RATING ☐ SHORT TERM ☒ LONG TERM

1. DEGREE OF CONTRAST		FEATURES												2. Does project design meet visual resource management objectives? ☒ Yes ☐ No (Explain on reverse side)
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				3. Additional mitigating measures recommended? ☒ Yes ☐ No (Explain on reverse side)
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	
ELEMENTS	Form			X			X			X				Evaluator's Names Date Richard Stuhan November 23, 2009 David Konopka January 3, 2012
	Line		X			X				X				
	Color			X			X			X				
	Texture			X			X					X		

SECTION D. (Continued)

Comments from item 2.

BLM land in project area is Class IV.

The road, road signs, and passing traffic are considered part of the “viewer platform” and are not a part of the evaluation.

For structure contrast, although there are light colored structures to each side of the project area, they are relatively horizontal. The turbine contrast is very strong due to the extent of the project area, the height, shape, and color of the turbines, and the motion of the rotating blades.

For vegetation contrast, due to the viewing angle and height relative to the project, the turbine pads may be more visible than the roads due to their width. The pads may appear to be linear.

Land contrast depends upon depth of cuts and fills which are not anticipated to be deep.

Additional Mitigating Measures (See item 3)

Assure that revegetation is successful in the most visible locations. Use gravel on roads and pads that is the same color as surrounding surface soil.

See additional contrast form for this KOP that evaluates the photographic simulation of gray turbines.

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DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date	November 23, 2009
District	Colorado River
Resource Area	Kingman Field Office
Activity (program)	Realty

SECTION A. PROJECT INFORMATION

1. Project Name **BP Mojave County Wind Project**	4. Location Township 28N Range 17W Section 29	5. Location Sketch
2. Key Observation Point **KOP 13 – Rosie's Den on U.S. 93 – Alt. A – Gray turbines**		
3. VRM Class **Looking into Class IV**		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Near: Rolling, undulating Far: Bold, prominent, pyramidal, angular, numerous silhouettes	Near: Low, small with some taller interspersed vegetation. Far: Indistinct	Near: Tall, thin, angular Far: Angular, not very apparrent
LINE	Near: Horizontal, flowing Far: Diagonal, angular, and horizontal with mountainous silhouettes	Near: Horizontal undulating lines with a digitate edge Far: Not apparent	Near: Vertical, geometric, horizontal, ordered, with divergent bands Far: Geometric and not very apparent
COLOR	Near: Brown, gray, light tan Far: Brown, burnt and raw sienna, dark gray with red hues and bluish hues caused by atmospheric conditions	Near: Olive, green, brown, tan Far: Brown and sienna hues, indistinct	Near: White and green with light chromas Far: Not present
TEX-TURE	Near: Smooth to medium Far: Course, random	Near: Stippled, medium Far: Indistinct to smooth	Near: Uniform, smooth Far: Not apparent

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Near: No change Far: Possible simple geometric shapes created by cut/fill for pads and roads	Near: No change Far: Linear	Near: No change Far: Tall, symetrical, geometric, ordered, rotating
LINE	Near: No change Far: Horizontal lines created by cuts and fills	Near: No change Far: Geometric and possibly linear lines created by vegetative clearing for roads and pads	Near: No change Far: Vertical, perpendicular, angular, geometric, ordered
COLOR	Near: No change Far: Beige, tan. Depends upon color of gravel cover and depth of cut	Near: No Change Far: Contrasts created by vegetation clearing for roads and pads	Near: No change Far: BLM Shadow Gray for turbines, flashing white lights during day
TEX-TURE	Near: No change Far: Smooth	Near: No change Far: Bare areas are directional at this viewing height, ordered	Near: No change Far: Smooth, indistinct

SECTION D. CONTRAST RATING ☐ SHORT TERM ☒ LONG TERM

1. DEGREE OF CONTRAST		FEATURES												2. Does project design meet visual resource management objectives? ☒ Yes ☐ No (Explain on reverse side)
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				3. Additional mitigating measures recommended? ☒ Yes ☐ No (Explain on reverse side)
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	
ELEMENTS	Form			X			X			X				Evaluator's Names Date
	Line		X			X				X				David Konopka January 3, 2012
	Color			X		X					X			
	Texture			X			X					X		

SECTION D. (Continued)

Comments from item 2.

BLM land in project area is Class IV.

The road, road signs, and passing traffic are considered part of the “viewer platform” and are not a part of the evaluation.

For structure contrast, the gray turbines would not contrast as much in color with the vegetation and landforms as the white turbines would. The turbine contrast is still very strong due to the extent of the project area, the height and shape of the turbines, and the motion of the rotating blades.

For vegetation contrast, due to the viewing angle and height relative to the project, the turbine pads may be more visible than the roads due to their width. The pads may appear to be linear. The pad for the substation and switchyard would be visible as a long line.

Land contrast depends upon depth of cuts and fills which are not anticipated to be deep.

Additional Mitigating Measures (See item 3)

Assure that revegetation is successful in the most visible locations. Use gravel on roads and pads that is the same color as surrounding surface soil.

The gray turbines would have less of a color contrast compared to the white turbines. However, if the gray turbines are required to have continuously flashing white lights during the daytime, then the lights would attract more attention and provide more of an overall contrast than the white turbines.

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VISUAL CONTRAST RATING WORKSHEET

Date	November 24, 2009
District	Colorado River
Resource Area	Kingman Field Office
Activity (program)	Realty

SECTION A. PROJECT INFORMATION

1. Project Name BP Mojave County Wind Project	4. Location Township 28N Range 17W Section 29	5. Location Sketch
2. Key Observation Point **KOP 27 – 11025 Indian Peak Rd. – Alt. A**		
3. VRM Class Looking into Class IV		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Near: Gentle, undulating Far: Convex, diagonal, angular, bold and prominent	Near: Low, small with some tall interspersed, amorphous Far: Indistinct and stippled	Near: Small scale geometric Far: Indistinct
LINE	Near: Horizontal, undulating Far: Diagonal, pyramidal, angular with mountainous silhouettes	Near: Horizontal with bold diffuse edges Far: Indistinct	Near: Small scale vertical Far: Indistinct
COLOR	Near: Brown, sandy brown, light tan Far: Brown, Gray with raw sienna hues and bluish hues caused by atmospheric conditions	Near: Olive, brown, green and tan Far: Brown hues	Near: Gray Far: Not apparent
TEX-TURE	Near: Medium, directional Far: Medium to smooth	Near: Course and patchy Far: Indistinct, smooth	Near: Smooth Far: Indistinct

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Near: No change, cuts and fills for pads and roads not visible from this viewing angle Far: Simple geometric shapes created by cut/fill for pads and roads that might be visible to the west	Near: No change, vegetation disturbance is not visible from this viewing angle Far: Simple geometric shapes created by vegetative clearings for pads and roads that might be visible to the west	Near: Bold, ordered, vertical, rotating, angular Far: Bold, rotating, angular
LINE	Near: No change Far: Broken, possible horizontal lines created by cut/fill for pads and roads that might be visible to the west	Near: No change Far: Broken, possible horizontal lines created by vegetative clearing for pads and roads	Near: Bold, vertical, perpendicular, ordered, geometric Far: Vertical, perpendicular, ordered, geometric, circular motion
COLOR	Near: No change Far: Tan. Depends upon color of gravel cover and depth of cuts that might be visible to the west	Near: No change Far: Contrasts created by vegetation clearing for roads and pads might be visible to the west	Near: White, contrasting Far: White, contrasting
TEX-TURE	Near: No change Far: Scattered, smooth to fine that might be visible to the west	Near: No change Far: Directional and uniform bare areas might be visible to the west	Near: Smooth Far: Smooth

SECTION D. CONTRAST RATING ☐ SHORT TERM ☒ LONG TERM

1. DEGREE OF CONTRAST		FEATURES												2. Does project design meet visual resource management objectives? ☒ Yes ☐ No (Explain on reverse side)
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				3. Additional mitigating measures recommended? ☒ Yes ☐ No (Explain on reverse side)
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	
ELEMENTS	Form		X				X			X				Evaluator's Names Date Richard Stuhan November 24, 2009 David Konopka January 3, 2012
	Line			X			X			X				
	Color			X				X		X				
	Texture			X				X				X		

SECTION D. (Continued)

Comments from item 2.

BLM land in project area is Class IV.

The structure contrast is very strong due to the extent of the project area, the height, shape, and color of the turbines, and the motion of the rotating blades.

Because of the rise in elevation of the topography in from of the residence, the land and vegetation changes are not visible. The topography decreases in elevation to the west so views from the street in front of the residence might show the ground disturbance of the project. Land contrast depends upon depth of the cuts and fills that are not anticipated to be deep.

Additional Mitigating Measures (See item 3)

Elimination of the closest row of turbines could slightly reduce the structure contrast, but the contrast would still be strong.

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(September 1985)

UNITED STATES
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VISUAL CONTRAST RATING WORKSHEET

Date	April 16, 2010
District	Colorado River
Resource Area	Kingman Field Office
Activity (program)	Realty

SECTION A. PROJECT INFORMATION

1. Project Name **Mohave County Wind Farm Project**	4. Location Township 27N Range 19W Section 17	5. Location Sketch
2. Key Observation Point **KOP 30 – White Hills Community Center – Alt.A**		
3. VRM Class **View is towards Class IV**		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Near: Rolling, undulating, indistinct Far: Bold, prominent, numerous mountain silhouettes	Near: Low with taller interspersed vegetation, rough and scattered Far: Indistinct to stippled	Near: Vertical, horizontal, geometric, and angular Far: Vertical, horizontal, geometric, and angular
LINE	Near: Undulating, flowing Far: Diagonal, angular with mountainous silhouettes and strong horizon line	Near: Undulating lines with vertical clumps of more dominant vegetation and silhouettes Far: Undulating	Near: Vertical, horizontal, angular, and geometric Far: Vertical, horizontal, angular, and geometric
COLOR	Near: Brown, gray, light tan, red Far: Brown, burnt sienna, dark gray with red hues and bluish hues caused by atmospheric conditions	Near: Olive, green, brown, tan, gray Far: Brown and sienna hues, indistinct	Near: White, tan, green, olive Far: pink, tan, gray, white
TEX-TURE	Near: Medium to smooth Far: Smooth	Near: Stippled, course Far: Course to smooth	Near: Smooth Far: Smooth

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Near: No change Far: No change seen from this view	Near: No Change Far: No change seen from this view	Near: No change Far: Tall, symmetrical, geometric, ordered, rotating upper part of the turbines
LINE	Near: No change Far: No change	Near: No change Far: No change	Near: No change Far: Vertical, perpendicular, angular, geometric, ordered upper part of the turbines
COLOR	Near: No change Far: No change	Near: No Change Far: No change	Near: No change Far: White, contrasting upper part of the turbines
TEX-TURE	Near: No Change Far: No change	Near: No Change Far: No change	Near: No change Far: Smooth, indistinct upper part of the turbines

SECTION D. CONTRAST RATING ☐ SHORT TERM ☒ LONG TERM

1. DEGREE OF CONTRAST		FEATURES												2. Does project design meet visual resource management objectives? ☒ Yes ☐ No (Explain on reverse side)
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				3. Additional mitigating measures recommended? ☐ Yes ☒ No (Explain on reverse side)
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	
ELEMENTS	Form				X				X			X		Evaluator's Names Date Robert Evans April 16, 2010 David Konopka January 3, 2012
	Line				X				X			X		
	Color				X				X			X		
	Texture				X				X			X		

SECTION D. (Continued)

Comments from item 2.

BLM land in project area is Class IV.

Due to the topography, vegetation, and structures in the immediate foreground, only the tops of a few turbines could be visible in the distance, depending upon where the viewer stands in the parking lot.

Additional Mitigating Measures (See item 3)

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VISUAL CONTRAST RATING WORKSHEET

Date	April 15, 2010
District	Colorado River
Resource Area	Kingman Field Office
Activity (program)	Realty

SECTION A. PROJECT INFORMATION

1. Project Name **BP Mohave County Wind Project**	4. Location Township 28N Range 19W Section 4	5. Location Sketch
2. Key Observation Point **KOP 169 – Senator Mountain – Alt. A**		
3. VRM Class **VRM IV**		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Near: Rugged with angular forms Far: Undulating with simple geometric forms and silhouettes	Near: Low, rugged and patchy Far: Stippled and undulating	Near: Tall, vertical, geometric, and angular Far: Simple geometric forms
LINE	Near: Undulating and rugged Far: Undulating with mountainous silhouettes	Near: Dominant silhouettes Far: Stippled, evenly distributed	Near: Vertical, angular, geometric Far: Numerous swooping bands (roads)
COLOR	Near: Brown, light tan, gray, raw sienna Far: Brown, tan, red and dark gray with bluish hues caused by atmospheric conditions	Near: Olive, green, brown, tan (seasonally very green) Far: Olive, green, brown, tan (seasonally very green)	Near: Dark gray and metallic with light chromas and white Far: Metallic with light chroma and white
TEX-TURE	Near: Rugged Far: Smooth	Near: Course and rough Far: Smooth and stippled	Near: Smooth Far: Smooth

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Near: Simple geometric shapes and bands created by cut/fill for pads and roads Far: Simple geometric shapes and bands created by cut/fill for pads and roads	Near: Simple geometric forms and rounded and angular clearings Far: Simple geometric forms and rounded and angular clearings	Near: Vertical and angular Far: Tall, vertical, ordered, rotating motion
LINE	Near: Possible edges created by cut/fill Far: Horizontal lines and edges created by cut/fill	Near: Bold straight to curving and oval and rectangular lines created by clearings for roads and pads Far: Straight to curving and oval to horizontal lines created by clearings for roads and pads	Near: Vertical, perpendicular, angular, geometric, ordered Far: Vertical, perpendicular, angular, geometric, ordered, rotating motion
COLOR	Near: Beige to a tan and red hues Far: Beige to a tan and red hues	Near: Bold contrasting color due to the clearing of vegetation for roads and pads Far: Contrasting color due to the clearing of vegetation for roads and pads	Near: White, contrasting Far: White, contrasting
TEX-TURE	Near: Smooth Far: Smooth	Near: Patchy, uniform, ordered Far: Patchy, uniform, ordered	Near: Smooth Far: Smooth, indistinct

SECTION D. CONTRAST RATING ☐ SHORT TERM ☒ 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			
ELEMENTS: Line		X			X				X			
ELEMENTS: Color			X		X				X			
ELEMENTS: Texture			X			X					X	

2. Does project design meet visual resource management objectives?
☒ Yes ☐ No
(Explain on reverse side)

3. Additional mitigating measures recommended?
☒ Yes ☐ No
(Explain on reverse side)

Evaluator's Names	Date
Robert Evans	April 15, 2010
David Konopka	January 3, 2012

SECTION D. (Continued)

Comments from item 2.

BLM land is Class IV.

The communication site is considered a “viewer platform” and is not a part of the evaluation.

The turbine contrast is very strong due to the extent of the project area, the height and shape of the turbines, and the motion of the rotating blades

Because of the height of the viewpoint, the vegetation contrast is very strong and can be seen for long distances. The pads for the switchyard and substations are visible.

Land contrast depends upon depth of cuts and fills which are not anticipated to be deep.

Additional Mitigating Measures (See item 3)

Assure that revegetation is successful especially closer to the viewpoint. Use gravel on roads and pads that is the same color as surrounding surface soil.

Form 8400-04
(September 1985)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date	April 15, 2010
District	Colorado River
Resource Area	Kingman Field Office
Activity (program)	Realty

SECTION A. PROJECT INFORMATION

1. Project Name **BP Mohave County Wind Project**	4. Location Township 28N Range 20W Section 15	5. Location Sketch
2. Key Observation Point **Points 171 – Mata Thija – Alt. A**		
3. VRM Class **VRM IV**		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Near: Rolling, undulating Far: Rugged with mountainous silhouettes	Near: Low, undulating, stippled Far: Stippled and undulating	Near: Tall, vertical, geometric, and angular Far: Angular, vertical, and geometric forms
LINE	Near: Undulating with simple weak edges Far: Undulating with silhouette lines and edges	Near: Undulating with weak edges, curving Far: Simple, weak digitate edges	Near: Vertical, angular, geometric, and swooping Far: Vertical, angular, geometric
COLOR	Near: Brown, light tan, red, raw sienna Far: Brown, tan, burnty and raw sienna with bluish hues caused by atmospheric conditions	Near: Olive, green, brown, tan, red (seasonally very green) Far: Olive, green, brown, tan, red (seasonally very green)	Near: Flat dull metallic Far: Flat metallic
TEX-TURE	Near: Rugged Far: Smooth	Near: Rugged, stippled, discontinuous Far: Smooth, stippled	Near: Smooth, matte Far: Smooth, matte

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Near: Simple geometric shapes and bands created by cut/fill for pads and roads Far: Simple geometric shapes and bands created by cut/fill for pads and roads	Near: Simple geometric forms and linear clearings Far: Simple geometric forms and linear clearings	Near: Vertical and angular, rotating Far: Tall, vertical, ordered, rotating motion
LINE	Near: Possible edges created by cut/fill Far: Horizontal lines created by cut/fill	Near: horizontal lines created by clearings for roads and pads Far: Indistinct but contrasting lines vegetative clearings by cut/fill for roads and pads	Near: Vertical, perpendicular, angular, ordered Far: Vertical, perpendicular, angular, ordered, rotating motion
COLOR	Near: Beige to tan with red hues Far: Beige to tan with red hues	Near: Indistinct but contrasting green color created by vegetation clearing for roads and pads Far: “ “	Near: White, contrasting Far: White, contrasting
TEX-TURE	Near: Smooth Far: Smooth	Near: Patchy Far: Patchy, directional	Near: Smooth Far: Smooth, indistinct

SECTION D. CONTRAST RATING ☐ SHORT TERM ☒ LONG TERM

1. DEGREE OF CONTRAST		FEATURES												2. Does project design meet visual resource management objectives? ☒ Yes ☐ No (Explain on reverse side)
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				3. Additional mitigating measures recommended? ☒ Yes ☐ No (Explain on reverse side)
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	
ELEMENTS	Form			X				X		X				Evaluator’s Names Date Robert Evans April 15, 2010 David Konopka January 3, 2012
	Line			X			X			X				
	Color			X			X			X				
	Texture			X				X				X		

SECTION D. (Continued)

Comments from item 2.

BLM land in project area is Class IV.

For structure contrast, the turbines contrast in form, line, and color with the existing transmission lines. The turbines are a strong contrast ialso due to the extent of the project area, the height and shape of the turbines, and the motion of the rotating blades.

For vegetation contrast, due to the viewing angle the disturbances, including for the substation and switching yard complex appear to be linear.

Land contrast depends upon depth of cuts and fills which are not anticipated to be deep. The viewing angle would make the cuts and fills look linear.

Additional Mitigating Measures (See item 3)

Assure that revegetation is successful in the most visible locations. Use gravel on roads and pads that is the same color as surrounding surface soil.

Form 8400-04
(September 1985)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date	April 15, 2010
District	Colorado River
Resource Area	Kingman Field Office
Activity (program)	Realty

SECTION A. PROJECT INFORMATION

1. Project Name **Mohave County Wind Project**	4. Location Township 29N Range 20W Section 22	5. Location Sketch
2. Key Observation Point **Points 173 – Squaw Peak – Alt. A**		
3. VRM Class **VRM IV**		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Near: Rugged, undulating Far: Rugged with numerous peaks and mountainous silhouettes	Near: Low, undulating, stippled/mottled Far: Stippled, uniform, and undulating	Near: Vertical, angular Far: Not apparent
LINE	Near: Undulating with angular edges Far: Angular and pyramidal with numerous silhouette lines	Near: Mottled and undulating/random Far: Simple, weak digitate edges	Near: Vertical, angular Far: Not apparent
COLOR	Near: Brown, light tan, red, gray/black Far: Brown, tan, burnt sienna with bluish hues caused by atmospheric conditions	Near: Olive, green, brown, tan, red (seasonally very green with purple and yellow) Far: “ “	Near: Dull/flat metallic Far: Not apparent
TEX-TURE	Near: Rough/rugged Far: Smooth	Near: Rough Far: Smooth	Near: Smooth Far: Not apparent

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Near: Simple geometric and linear shapes created by cut/fill for pads and roads Far: Linear shapes created by cut/fill for pads and roads	Near: Simple geometric forms and oval clearings Far: Linear clearings	Near: Vertical and angular, rotating blades Far: Tall, vertical, ordered, rotating motion
LINE	Near: Possible horizontal to diagonal edges created by cut/fill Far: Horizontal lines created by cut/fill	Near: Curving, horizontal to diagonal lines created by clearings for roads and pads Far: Horizontal, broken straight to curving lines	Near: Vertical, angular, geometric, ordered Far: Vertical, perpendicular, angular, geometric, ordered, rotatingr motion
COLOR	Near: Beige to tan with red hues Far: Beige to tan and red hues	Near: vivid contrast between vegetation and soil/gravel surface Far: contrast between vegetation and soil/gravel surface	Near: White, contrasting Far: White, contrasting
TEX-TURE	Near: Smooth Far: Smooth	Near: Patchy, directional, smooth Far: Patchy, smooth	Near: Smooth Far: Smooth, indistinct

SECTION D. CONTRAST RATING ☐ SHORT TERM ☒ LONG TERM

1. DEGREE OF CONTRAST		FEATURES												2. Does project design meet visual resource management objectives? ☒ Yes ☐ No (Explain on reverse side) 3. Additional mitigating measures recommended? ☒ Yes ☐ 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	
ELEMENTS	Form	X				X				X				Evaluator’s Names Date Robert Evans April 15, 2010 David Konopka January 3, 2012
	Line	X				X				X				
	Color		X			X				X				
	Texture		X				X				X			

SECTION D. (Continued)

Comments from item 2.

BLM land is Class IV.

KOP is surrounded by turbines. KOP is on an existing road looking at proposed roads

Structure contrast is very strong due to the distance to the closest turbines, the extent of the project area, the height, shape, and color of the turbines, and the motion of the rotating blades.

Vegetation contrast is very strong close to the viewer. It is weak in the distance due to topography. The roads might be considered “viewer platforms” and not as negative an impact as the turbine pads.

Land contrast depends upon depth of cuts and fills which are not anticipated to be deep; however cuts and fills close to the viewer could be in strong contrast. Cuts and fills in the distance might not be seen due to topography.

Additional Mitigating Measures (See item 3)

Assure that revegetation is successful in the closest locations. Use gravel on roads and pads that is the same color as surrounding surface soil.