

United States Department of the Interior Bureau of Land Management  <b>Scenic Quality Field Inventory</b>	Date & Evaluator:	March 14, 2011 RECON (Woods)
	District & Field Office:	California Desert District El Centro Field Office
	Project:	<b>Ocotillo Sol PV</b>
	Scenic Quality Rating Unit:	<b>Creosote Flats SQRU 12a</b>

**Landscape Character:** *(see representative photos)*

	Landform/Water	Vegetation	Structure (General)
Form	Relatively level, slightly hummocky	Open and rounded	Open
Line	Horizontal	Spherical	Substation vertical supports, horizontal supports, horizontal line
Color	Light tan soils	Olive green creosote; Light green/tan/brown ground cover; seasonal with wildflower color	Steel-grey/silver
Texture	Fine (sandy soils)	Medium to coarse	Smooth

**Narrative:** Sparsely vegetated open area with slightly rounded, raised hummocks (low mounds). Vegetation consists primarily of creosote shrubs, with some occasional occurrences of mesquite and acacia. The ground plane is seasonally colorful when wildflowers are in bloom.

**Views North:** Views of Imperial Valley substation and transmission lines dominate the foreground views to the north and screen background and middle-ground views of areas further north.

**Views West:** Foreground and middleground views of creosote flats, and distant background views of the Jacumba Mountains and Wilderness, 11+ miles to the west.

**Views South:** Distant background views to the south of Mount Signal in Mexico (4+ miles), and linear alignment of transmission lines and support structures.

**Views East:** Existing unpaved road and continued creosote flats in foreground, and distant, linear grove of tamarisk trees, which screen middleground and background views of agricultural cultivated lands further east.

**Scenic Quality Score & Classification:**

	High (4-5)	Medium (3)	Low (1-2)	Rationale	<b>Scenic Quality Classification</b> <input type="checkbox"/> A (>18)  <input type="checkbox"/> B (12-18)  <input checked="" type="checkbox"/> C (<12)
Landform			2	Relatively level terrain; only minor variations in topography	
Vegetation			2	Sparse cover of creosote and other small shrubs. Seasonal variations	
Water	-	-	-	No water bodies present	
Color			2	Varying tones and shades of green and tan; seasonal wildflower bloom	
Adjacent Scenery			2	Far distant views of mountains	
Scarcity			1	Common within the Yuha and Lower Colorado Deserts	
Cultural Modification			-	Highly modified adjacent substation, transmission lines and structures, and unpaved roads nearby	
<b>Totals:</b>			9		

<b>Description:</b>	<b>Representative Photographs:</b>
<p>View north, across project site, from location near east boundary of project site.</p> <p>Imperial Valley Substation structures are visible to the north, as are existing power lines and structures outside the project site's eastern boundary.</p>	 A landscape photograph showing a view north from the eastern boundary of the project site. The foreground is a dry, sandy area with sparse, low-lying vegetation. In the middle ground, there are several tall, metal power line towers with multiple cross-arms. The background shows a clear blue sky with a few wispy clouds.
<p>View west, across site.</p> <p>Jacumba Mountains visible in distant background.</p> <p>Note slight variations in topography.</p> <p>Vegetation is relatively sparse, and dominated by creosote shrubs.</p>	 A landscape photograph showing a view west across the project site. The foreground is a dry, sandy area with sparse, low-lying vegetation, including several creosote shrubs. In the distance, the Jacumba Mountains are visible under a clear blue sky with a few wispy clouds.

<b>Description:</b>	<b>Representative Photographs:</b>
<p>View east, off-site, to dense band of tamarisk trees that generally parallel the alignment of an irrigation canal.</p> <p>Canal location is approximately 1 mile east of project site.</p>	 A photograph showing a dense band of green tamarisk trees in the foreground and middle ground. In the background, several utility poles with power lines are visible against a clear blue sky. The ground is dry and sandy.
<p>View south, from northwestern corner of project site.</p> <p>Vegetation grows increasingly sparse in the northern portion of the project site.</p> <p>Transmission line alignment extends south, parallel with project site's east boundary.</p> <p>Signal Mountain (in Mexico) is visible in background, approximately 5-6 miles south of this project site. The International Boundary is 4.5 miles south of the project site's north boundary.</p>	 A wide-angle photograph of an arid landscape. The foreground is a flat, sandy area with sparse, low-lying vegetation. In the distance, a range of mountains is visible under a blue sky with light clouds. The terrain appears to be a transition zone between a desert and a more vegetated area.

### VISUAL RESOURCE INVENTORY CLASSIFICATION MATRIX

		Visual Sensitivity Levels						
		High		Medium		Low		
<b>Special Areas</b>		I	I	I	I	I	I	
<b>Scenic Quality</b>	<b>A</b>	II	II	II	II	II	II	
	<b>B</b>	II	III	III*	III	IV	IV	
				IV*				
	<b>C</b>	III	IV	IV	IV✓	IV✓	IV✓	IV✓
		f/m	b	s/s	f/m	b	s/s	s/s
	<b>Distance Zones</b>							

\* If adjacent areas are Class I, II, or III, assign Class III; if Class IV, assign Class IV.

**Scenic Quality:** C

**Sensitivity Level:** Low to moderately low

**Distance Zone:** Foreground–Middleground, Background, and Seldom Seen

**Inventory Classes:** IV

**Class IV Management Objective:** The objective of this class is to provide for management activities which require **major modifications** of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

**Discussion:** Inventory Class IV is appropriate for the greatest portion of the project site due to its low scenic quality, low sensitivity level, and its distant location relative to areas with potentially sensitive viewers.

**Considerations for assigning Interim Management Class:** VRM Class IV is recommended as the Interim Management Class for the Ocotillo Sol Project site.

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	District & Field Office:	California Desert District El Centro Field Office
	Project:	<b>Ocotillo Sol PV</b>
	Scenic Quality Rating Unit:	<b>Pinto Wash Xeroriparian-Shrub-scrub SQRU 12b</b>

**Landscape Character:** *(see representative photos)*

	Landform/Water	Vegetation	Structure (General)
Form	Relatively level, slightly hummocky	Open and rounded	Open
Line	Horizontal	Spherical	Substation vertical supports, horizontal supports, horizontal line
Color	Light tan soils	Olive green creosote; Light green/tan/brown ground cover; seasonal with wildflower color	Steel-grey/silver
Texture	Fine (sandy soils)	Medium to coarse	Smooth

**Narrative:** This unit is limited to the southeastern area of the site. Visual character and scenic quality are similar to SQRU 12a (i.e., sparsely vegetated with slight variations in predominantly flat terrain), but with somewhat higher degree of vegetative structure and species diversity, due to hydrology (surface flows associated with Pinto Wash) and resulting in several xero-riparian plant species: smoke tree, mesquite, acacia, Mormon tea.

**Views North:** Views of Imperial Valley substation and transmission lines dominate the foreground views to the north and screen background and middle-ground views of areas further north.

**Views West:** Foreground and middleground views of creosote flats xeroriparian shrub-scrub, and distant background views of the Jacumba Mountains and Wilderness, 11+ miles to the west.

**Views South:** Distant background views to the south of Mount Signal in Mexico (4+ miles), and linear alignment of transmission lines and support structures.

**Views East:** Existing unpaved road and continued creosote flats in foreground, and distant, linear grove of tamarisk trees, which screen middleground and background views of agricultural cultivated lands further east.

**Scenic Quality Score & Classification:**

	High (4-5)	Medium (3)	Low (1-2)	Rationale	<b>Scenic Quality Classification</b> <input type="checkbox"/> A (>18) <input checked="" type="checkbox"/> B (12-18) <input type="checkbox"/> C (<12)
Landform			2	Relatively level terrain; only minor variations in topography	
Vegetation		3		Xeri-riparian shrubs and trees associated with nearby Pinto Wash hydrology. Seasonal variations	
Water	-	-	-	No water bodies present	
Color		3		Varying tones and shades of green and tan; seasonal wildflower bloom	
Adjacent Scenery			2	Far distant views of mountains	
Scarcity			2	Representative of washes of the Yuha Desert area which have slightly higher water availability than adjacent areas	
Cultural Modification			-	Highly modified adjacent substation, transmission lines and structures, and unpaved roads nearby	
<b>Totals:</b>		6	6	12	

<b>Description:</b>	<b>Representative Photographs:</b>
<p>View north, across project site, from location near southeast corner of project site.</p> <p>Imperial Valley Substation structures are visible to the north, as are existing power lines and structures outside the project site's eastern boundary.</p>	
<p>Xeri-riparian vegetation associated with Pinto Wash watercourse includes creosote, as elsewhere within project site, but other plant species such as smoke tree, mesquite, acacia, and Mormon tea are also present.</p> <p>Color variation is much greater after spring foliage and wildflowers appear. (Photos taken in early March, as new growth was just starting and only a few wildflowers had blossomed.)</p>	

<b>Description:</b>	<b>Representative Photographs:</b>
<p>View south, from unpaved road along project site's east boundary.</p> <p>Transmission line alignment extends south, parallel with project site's east boundary, and crosses Pinto Wash.</p> <p>Steep, rugged, mountainous terrain of Signal Mountain (in Mexico) is visible in background, approximately 5-6 miles south of this project site. The International Boundary is 4 miles south of the project site's south boundary.</p>	

### VISUAL RESOURCE INVENTORY CLASSIFICATION MATRIX

		Visual Sensitivity Levels					
		High		Medium		Low	
<b>Special Areas</b>		I	I	I	I	I	I
<b>Scenic Quality</b>	<b>A</b>	II	II	II	II	II	II
	<b>B</b>	II	III	III*	III✓	IV✓	IV✓
				IV*			
	<b>C</b>	III	IV	IV	IV	IV	IV
		f/m	b	s/s	f/m	b	s/s
	<b>Distance Zones</b>						

\* If adjacent areas are Class III or lower, assign Class III; if higher, assign Class IV.

**Scenic Quality:** B

**Sensitivity Level:** Low to moderately low

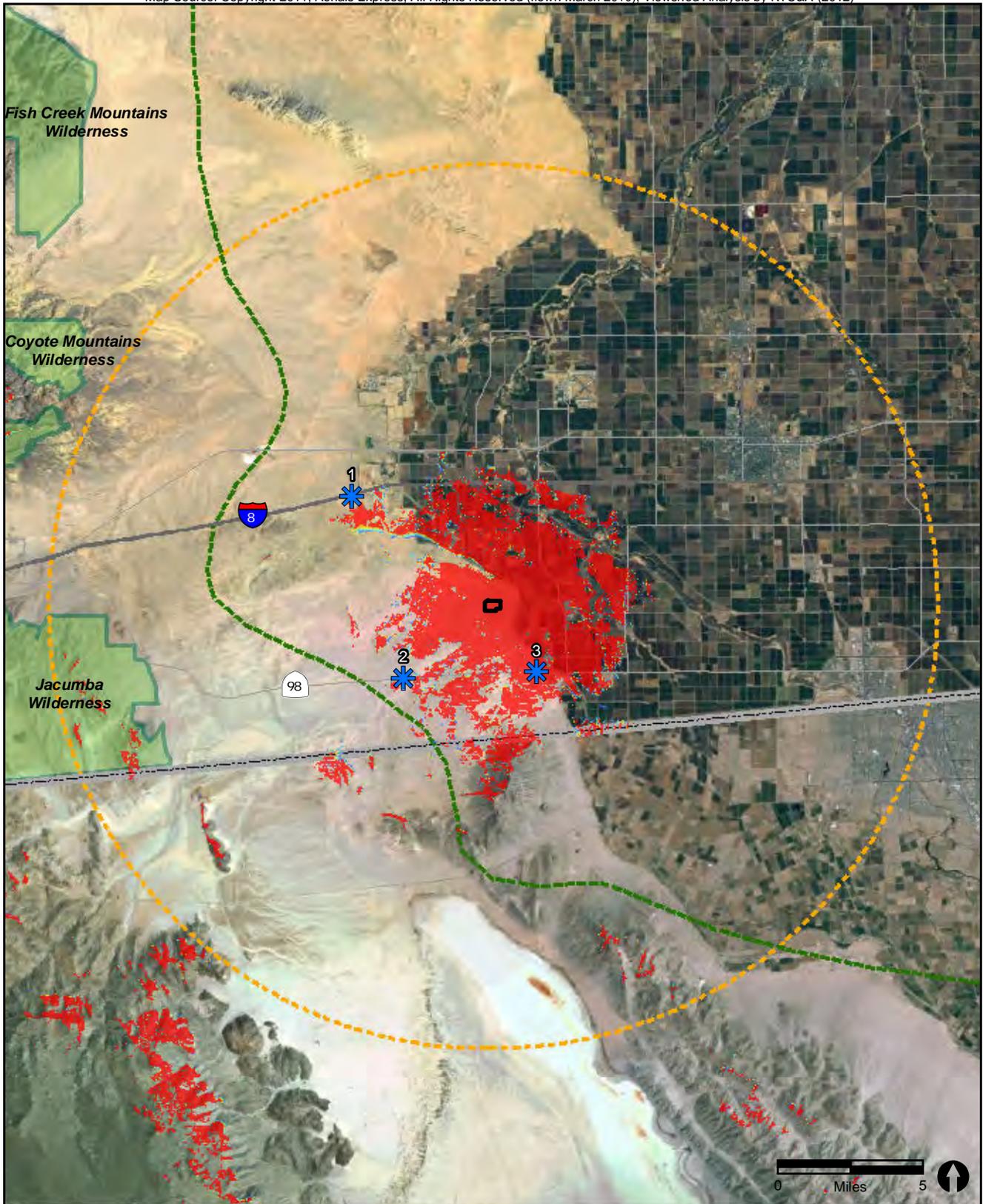
**Distance Zone:** Foreground–Middleground, Background, and Seldom Seen

**Inventory Classes:** III or IV

**Class IV Management Objective:** The objective of this class is to provide for management activities which require **major modifications** of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

**Discussion:** Inventory Class III or IV is appropriate for this SQRU 12b due to its medium-low scenic quality, low to moderately low sensitivity level, and its distant location relative to areas with potentially sensitive viewers.

**Considerations for assigning Interim Management Class:** VRM Class IV is recommended as the Interim Management Class for this SQRU, which is outside of the Ocotillo Sol Project site boundaries.



Project Boundary

BLM Wilderness Areas

**Viewshed \***

15 mile Buffer

Juan Bautista De Anza Trail

High : 20

\*Viewshed analysis based on USGS National Elevation Dataset 1 arc-second (data was projected to stateplane NAD83 Cal Zone 6)

Key Observation Point

Low : 0

Viewshed does not take into account structures or interceding vegetation that may block or obscure project features

(September 1985)

**KOP #1**

United States Department of the Interior Bureau of Land Management  <b>Visual Contrast Rating Worksheet</b>	Evaluators:	RECON (Woods/Morales)
	District & Field Office:	California Desert District El Centro Field Office
	Project:	<b>Ocotillo Sol</b>
	Activity / Program:	<b>Photovoltaic Solar Plant</b>

**Section A. Project Information**

1. Project Name: SDG&E Ocotillo Sol PV Solar Energy Facility	4. Location: Township: 16 South Range: 11 East Section: 23
2. Key Observation Point: <b>KOP 1: 5.6 miles northwest of site, along I-8 @ Dunaway Road Interchange</b>	
3. VRM Interim Management Class: IV	

**Section B. Characteristic Landscape Description**

	Landform/Water	Vegetation	Structure (General)
Form	Even-sloped, relatively level terrain and roads	low rounded forms of shrubs where present	Vertical angular and linear forms of adjacent electrical substation, transmission lines, and support structures
Line	Horizontal and sloped	Rounded and spiky where present	Vertical and horizontal
Color	grays and tans	Light to dark green where present	Grays and tans
Texture	Fine to medium	Smooth to moderately coarse	smooth

**Section C. Proposed Activity Description**

**Narrative:** Proposal is to install photovoltaic solar panels on approximately 100 acres. Creosote scrub vegetation would be removed from the project area. Mass grading is not proposed; existing terrain is relatively level and will require grading for installation of PV panel ground mounting equipment and access roads within the project boundaries.

**Section C. Proposed Activity Description, cont.**

	Landform/Water	Vegetation	Structure (General)
Form	Even-sloped, relatively level terrain and roads	(cleared)	Proposed rows of PV solar panels, ground mounted, and transformer boxes, at heights generally <10' ht.; small utility buildings at heights <18' ht.
Line	Horizontal and sloped	(cleared)	Predominantly horizontal lines of PV solar panels
Color	grays and tans	(cleared)	Metal grays, earthtones
Texture	Fine to medium	(cleared)	Predominantly smooth

**Section D. Contrast Rating: Expansion Area**  Short term  Long term

1. Degree of Contrast		Features												2. Does project design meet visual resource management objectives? YES
		Land				Vegetation				Structures				
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	3. Additional mitigating measures recommended? No
Elements	Form			✓				✓				✓	Evaluators Woods/Morales	
	Line			✓			✓				✓			
	Color			✓			✓				✓			
	Texture			✓			✓				✓			

**Comments from Item D.2.:** Interim VRM Class is IV, which allows for major modifications of the character of the landscape which may dominate the view and be the major focus of viewer attention. The project as proposed meets VRM Class IV management objectives.

This KOP #1 is 5.6 miles northwest of the project area, along I-8. From this distance, views of the Ocotillo Sol Project area are indistinguishable due to the distance, low angle of view, and intervening vegetation, topography, and structures at the existing Imperial Valley Substation. (The Imperial Valley Substation itself is indiscernible at this distance.) The proposed project would not dominate the view or draw the attention of viewers in vehicles traveling along I-8. Visual impacts would be negligible.

**Comments from Item D.3.:** N.A.

**Section E. Photo taken from KOP #1, I-8 @ Dunaway Road Interchange, looking south/southeast towards Ocotillo Sol Project**



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	Project:	<b>Ocotillo Sol</b>
	Activity / Program:	<b>Photovoltaic Solar Plant</b>

**Section A. Project Information**

1. Project Name: SDG&E Ocotillo Sol PV Solar Energy Facility	4. Location: Township: 16 South Range: 12 East Section: 17
2. Key Observation Point: <b>KOP 5: 3.6 mi. Southwest of Project Site, along SR98 @ SDG&amp;E access road</b>	
3. VRM Interim Management Class: IV	

**Section B. Characteristic Landscape Description**

	Landform/Water	Vegetation	Structure (General)
Form	Even-sloped, relatively level terrain and roads	low rounded forms of shrubs where present	Vertical angular and linear forms of adjacent electrical substation, transmission lines, and support structures
Line	Horizontal and sloped	Rounded and spiky where present	Vertical and horizontal
Color	grays and tans	Light to dark green where present	Grays and tans
Texture	Fine to medium	Smooth to moderately coarse	smooth

**Section C. Proposed Activity Description**

**Narrative:** Proposal is to install photovoltaic solar panels on approximately 100 acres. Creosote scrub vegetation would be removed from the project area. Mass grading is not proposed; existing terrain is relatively level and will require grading for installation of PV panel ground mounting equipment and access roads within the project boundaries.

**Section C. Proposed Activity Description, cont.**

	Landform/Water	Vegetation	Structure (General)
Form	Even-sloped, relatively level terrain and roads	(cleared)	Proposed rows of PV solar panels, ground mounted, and transformer boxes, at heights generally <10' ht.; small utility buildings at heights <18' ht.
Line	Horizontal and sloped	(cleared)	Predominantly horizontal lines of PV solar panels
Color	grays and tans	(cleared)	Metal grays, earthtones
Texture	Fine to medium	(cleared)	Predominantly smooth

**Section D. Contrast Rating: Expansion Area**  Short term  Long term

1. Degree of Contrast		Features												2. Does project design meet visual resource management objectives? YES
		Land				Vegetation				Structures				
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	3. Additional mitigating measures recommended? No
Elements	Form			✓			✓				✓		Evaluators Woods/Morales	
	Line			✓			✓				✓			
	Color			✓			✓				✓			
	Texture			✓			✓				✓			

**Comments from Item D.2.:** Interim VRM Class is IV, which allows for major modifications of the character of the landscape which may dominate the view and be the major focus of viewer attention. The project as proposed meets Class IV management objectives.

This KOP #2 is 3.6 mi. southwest of the project area, along SR98, Imperial Highway @ the SDG&E access road, at approximately the same elevation. From this distance, views of the Ocotillo Sol Project area are indistinguishable due to the distance, low angle of view, and intervening vegetation and topography. (The Imperial Valley Substation itself is indiscernible at this distance.) The proposed project would not dominate the view or draw the attention of viewers in vehicles traveling along SR 98. Visual impacts would be negligible.

**Comments from Item D.3.:** N.A.

**Section E. Photo taken from KOP #2, SR98 @ SDG&E access road, looking northeast towards Ocotillo Sol Project Area**



United States Department of the Interior Bureau of Land Management  <b>Visual Contrast Rating Worksheet</b>	Evaluators:	RECON (Woods/Morales)
	District & Field Office:	California Desert District El Centro Field Office
	Project:	<b>Ocotillo Sol</b>
	Activity / Program:	<b>Photovoltaic Solar Plant</b>

**Section A. Project Information**

1. Project Name: SDG&E Ocotillo Sol PV Solar Energy Facility	4. Location: Township: 16 South Range: 12 East Section: 12/13
2. Key Observation Point: <b>KOP 3: 2.5 mi. Southeast of Project Site, along SR98 near Mt. Signal Road</b>	
3. VRM Interim Management Class: IV	

**Section B. Characteristic Landscape Description**

	Landform/Water	Vegetation	Structure (General)
Form	Even-sloped, relatively level terrain and roads	low rounded forms of shrubs where present	Vertical angular and linear forms of adjacent electrical substation, transmission lines, and support structures
Line	Horizontal and sloped	Rounded and spiky where present	Vertical and horizontal
Color	grays and tans	Light to dark green where present	Grays and tans
Texture	Fine to medium	Smooth to moderately coarse	smooth

**Section C. Proposed Activity Description**

**Narrative:** Proposal is to install photovoltaic solar panels on approximately 100 acres. Creosote scrub vegetation would be removed from the project area. Mass grading is not proposed; existing terrain is relatively level and will require grading for installation of PV panel ground mounting equipment and access roads within the project boundaries.

**Section C. Proposed Activity Description, cont.**

	Landform/Water	Vegetation	Structure (General)
Form	Even-sloped, relatively level terrain and roads	(cleared)	Proposed rows of PV solar panels, ground mounted, and transformer boxes, at heights generally <10' ht.; small utility buildings at heights <18' ht.
Line	Horizontal and sloped	(cleared)	Predominantly horizontal lines of PV solar panels
Color	grays and tans	(cleared)	Metal grays, earthtones
Texture	Fine to medium	(cleared)	Predominantly smooth

**Section D. Contrast Rating: Expansion Area**  Short term  Long term

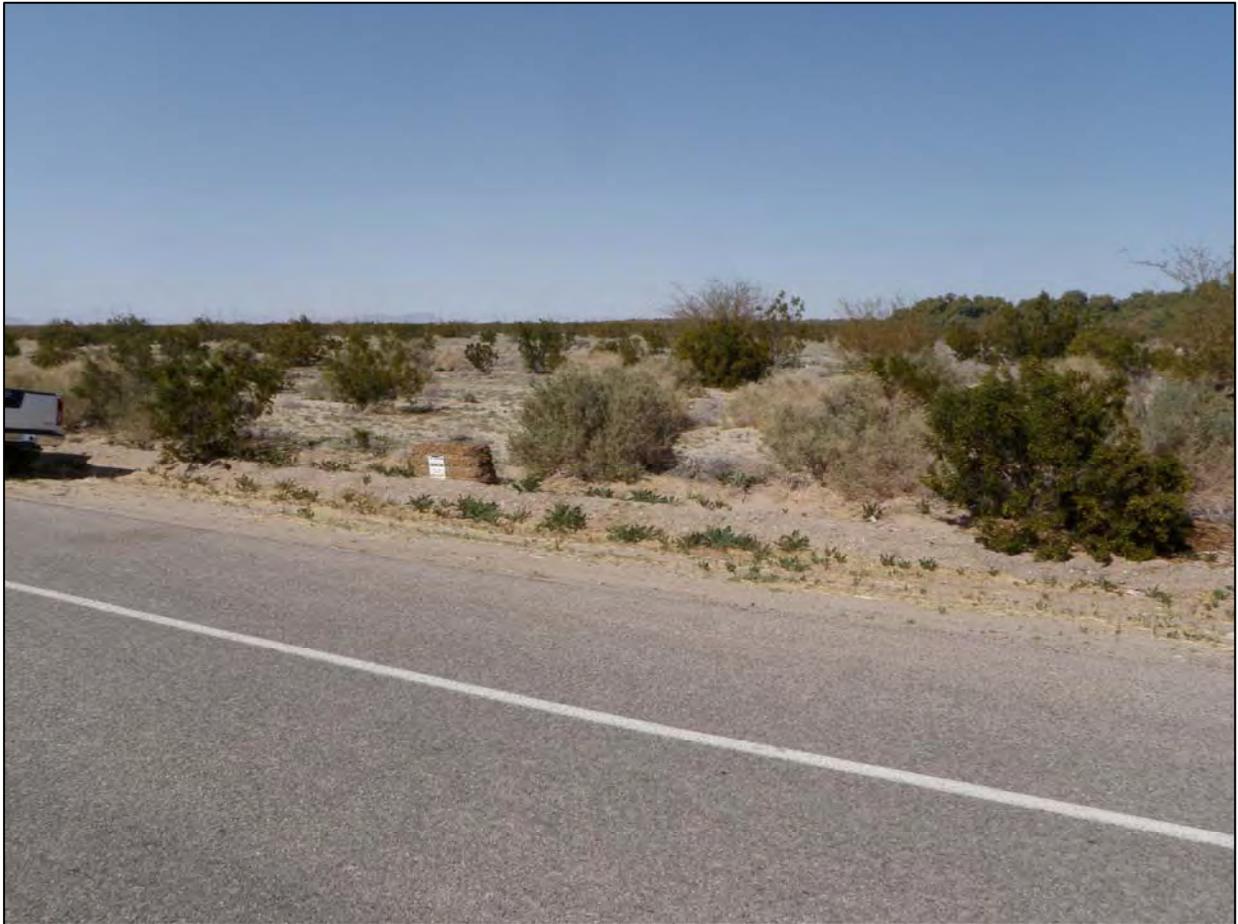
1. Degree of Contrast		Features												2. Does project design meet visual resource management objectives? YES
		Land				Vegetation				Structures				
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	3. Additional mitigating measures recommended? No
Elements	Form			✓			✓				✓		Evaluators Woods/Morales	
	Line			✓			✓				✓			
	Color			✓			✓				✓			
	Texture			✓			✓				✓			

**Comments from Item D.2.:** Interim VRM Class is IV, which allows for major modifications of the character of the landscape that may dominate the view and be the major focus of viewer attention. The project as proposed meets Class IV management objectives.

This KOP #3 is approximately 2.5 mi. southeast of the project area, along SR98, Imperial Highway @ the Mt. Signal Road, at approximately the same elevation. From this distance, views of the Ocotillo Sol Project area are nearly indistinguishable due to the distance and intervening vegetation, and topography. (The Imperial Valley Substation and transmission line towers are barely discernible in the distance.) The proposed project would not dominate the view or draw the attention of viewers in vehicles traveling along SR98. Visual impacts would be negligible.

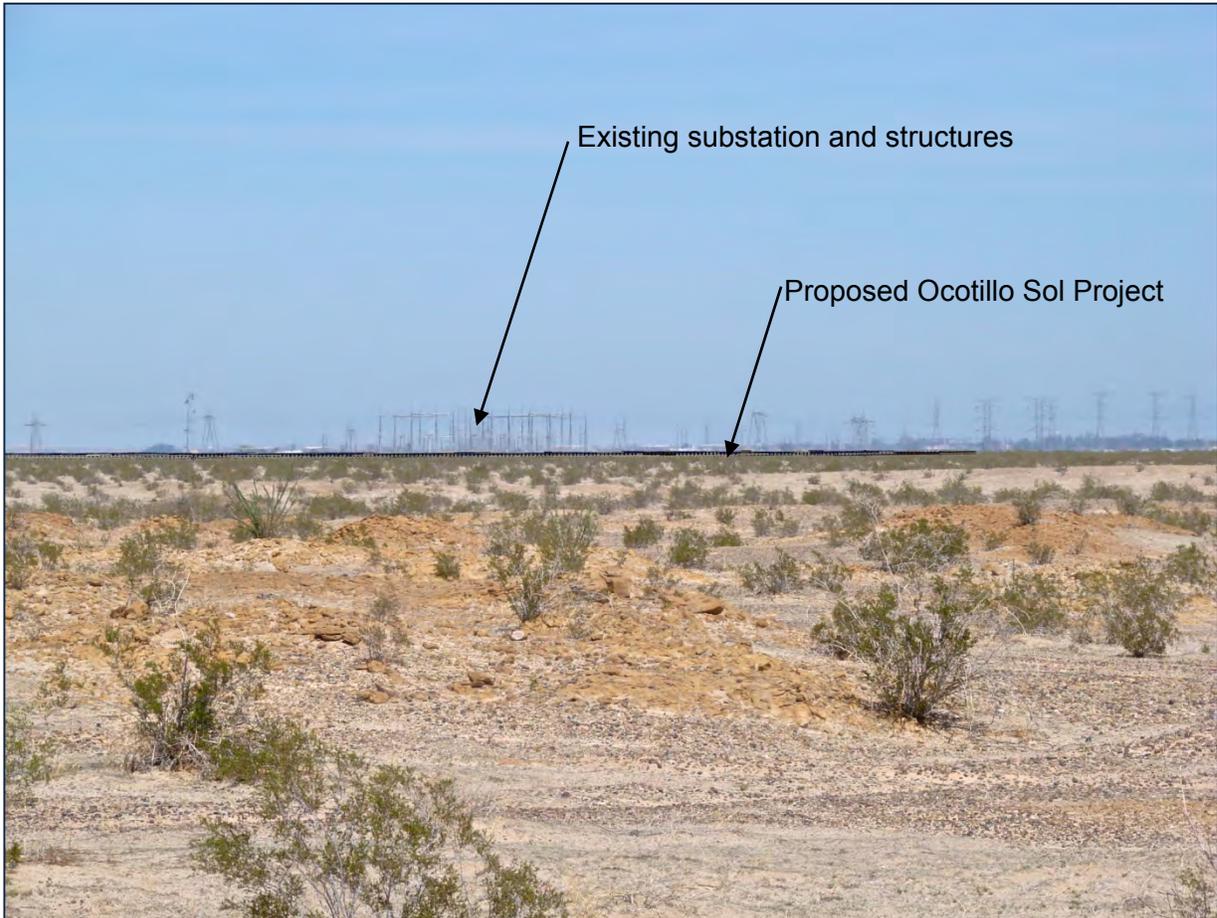
**Comments from Item D.3.:** N.A.

**Section E. Photo taken from KOP #3, SR98 @ Mt. Signal Road, looking northwest towards Ocotillo Sol Project Area**



## Visual Simulation Point #1

### Visual Simulation of post-construction Ocotillo Sol project, as viewed from SR98

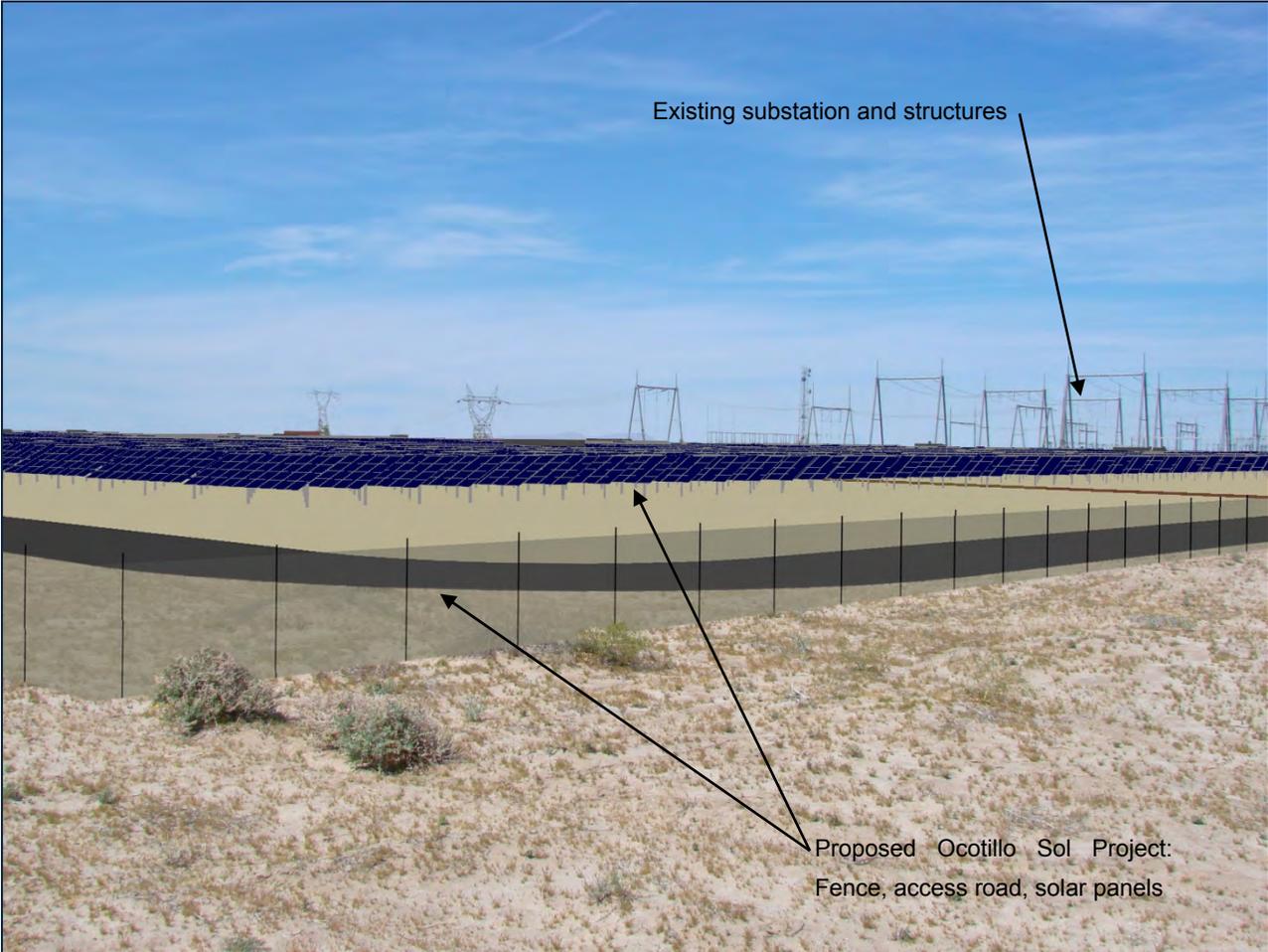


This view of the built project is as it would appear from approximately 2 miles south of the project area, along SR98, Imperial Highway.

From this distance, and at this angle of view, project elements would appear as a horizontal band in the distance- visible, but not highly discernible. It would not be a major focus of viewers in vehicles traveling in either direction along SR 98.

**Visual Simulation Point #2**

**Visual Simulation of post-construction Ocotillo Sol Project, as viewed from location near southeast corner of project area.**



This view of the built project is as it would appear from a location near the southeast corner of the project area, along the unpaved route paralleling an existing transmission line corridor. From this close distance, most project elements would be fully visible, and would attract viewer attention.

**Visual Simulation of post-construction Ocotillo Sol Project,  
as viewed from location near northwest corner of project  
area.**

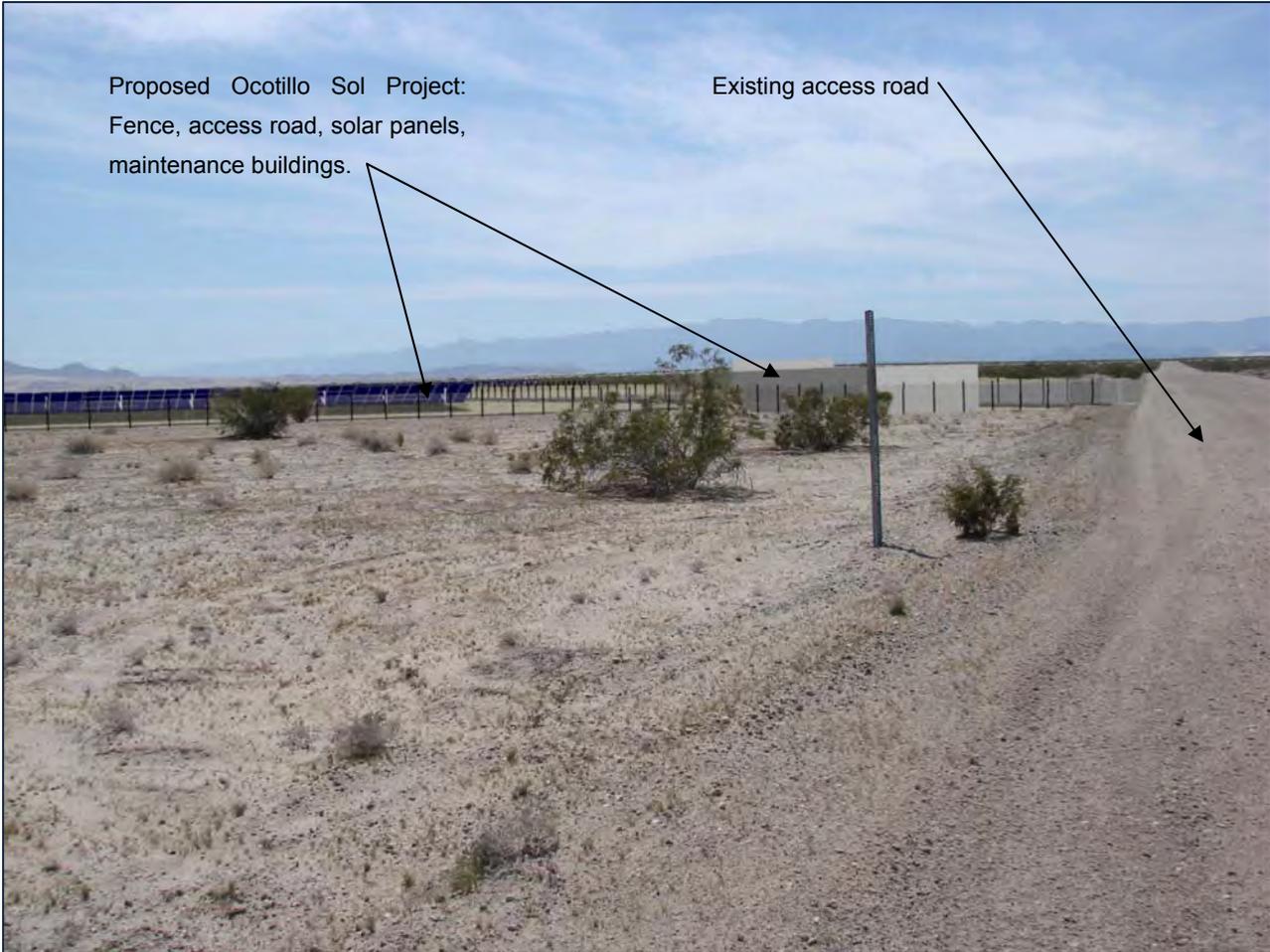
**(View South/Southeast)**



This view of the built project is as it would appear looking south/southeast from a location north of the northwest corner of the project area, along the unpaved SDG&E access route. From this close distance, most project elements would be fully visible, and would attract viewer attention.

**Visual Simulation of post-construction Ocotillo Sol Project,  
as viewed from KOP #3, near northwest corner of project  
area.**

**(View South/Southwest)**



This view of the built project is as it would appear looking south/southwest from a location north of the northwest corner of the project area, along the unpaved SDG&E access route. From this close distance, most project elements would be fully visible, and would attract viewer attention.