BLM

WESTERN

Proposed Southline Transmission Line Project

Draft Environmental Impact Statement and Draft Resource Management Plan Amendment

Volume 4 of 4

Western AREA POWER ADMINISTRATION

National System of Public Lands
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

March 2014

BLM/NM/PL-14-01-1610 · DOE/EIS-0474

BLM MISSION STATEMENT

The Bureau of Land Management is responsible for stewardship of our public lands. The BLM is committed to manage, protect, and improve these lands in a manner to serve the needs of the American people. Management is based upon the principles of multiple use and sustained yield of our Nation's resources within the framework of environmental responsibility and scientific technology. These resources include recreation, rangelands, timber, minerals, watershed, fish and wildlife habitat, wilderness, air, and scenic quality, as well as scientific and cultural values.

WESTERN MISSION STATEMENT

Western Area Power Administration's mission is to market and deliver reliable, renewable, cost-based hydroelectric power and related services.

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Appendix H

PREVIOUS CULTURAL SURVEYS IN THE ANALYSIS AREA

Table H-1. Known Cultural Resource Projects in the Analysis Area

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
New Build Section					
Route group 1	A	544	Siesmic Testing Line for Consolidated Georex Geophysical	WRI-P-2249	146.78
Route group 1	A	38616	4 Seismic Testing Lines near Mt. Riley, NM for Cgg Land Seismic	WRI-P-2204	272.17
Route group 1	A	40005	23 Hectares Along the International Border for US Dept of Defense	WRI-P-2206	65.78
Route group 1	A	48007	An Archaeological Survey of Two Proposed Livestock Pipeline Routes on the JCJ and McKenna Ranches, Doña Ana County, New Mexico	WRI-P-2230	41.28
Route group 1	A	49300	The Columbus to Anapra Project: Survey and Testing Along the Southern New Mexico Border, Doña Ana and Luna Counties	WRI-P-2235	1159.30
Route group 1	A	50486	Archaeological Survey for Two Pieces of Road, Two Helipads and an Observation Post for JTF 6 in the Boothill Region of Southeastern Hidalgo County, New Mexico	WRI-P-2243	2124.33
Route group 1	A	7089	VEVAY PIPELINE & 6 LIVESTOCK WATERING TROUGHS FOR BLM	WRI-P-2272	128.47
Route group 1	A	9843	Archaeological Clearance Report for Grant Geophysical Corporation Line I-5 (presented in 4 segments)	WRI-P-2347	242.96
Route group 1	A	9909	Archaeological Clearance Report for Grant Geophysical Line Q-4 (presented in 2 segments)	WRI-P-2358	117.88
Route group 1	A	9910	Archaeological Clearance Report for Grant Geophysical Line QQ-4 (presented in 2 segments)	WRI-P-2359	108.27
Route group 1	A	9951	Archaeological Clearance Report for Grant Geophysical Line H-5 (presented in three segments)	WRI-P-2364	140.49
Route group 1	A	11177	2 Well Pad Sites for Geothermal Services	WRI-P-1894	2.29
Route group 1	A	11184	Restless Prospect for Geothermal Services, Inc.	WRI-P-1896	99.36
Route group 1	A	11248	39 Geothermal Temperature Gradient Drill Pad Sites for Geothermal Service	WRI-P-1905	8.00
Route group 1	A	11324	15 Drill Hole Sites near Radium Springs for Geothermal Services	WRI-P-1907	9.45
Route group 1	A	11439	38 Geothermal Drilling Locations for Anadarko Production Company	WRI-P-1911	8.00
Route group 1	A	11544	Cultural Resource Survey of Five Proposed Borrow Pits near Anapra, New Mexico Project No. SP-GRO-7513(201)	WRI-P-1917	93.90

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 1	A	15914	Cultural Resource Survey of Three Proposed Borrow Pit Extensions near Anapra, New Mexico, Project No. SP-GRO-7513(201)	WRI-P-1950	13.46
Route group 1	A	20398	An Archaeological Survey of the Proposed Restless Fenceline near Santa Teresa, New Mexico	WRI-P-2152	32.78
Route group 1	A	32217	County Road R/W Aquisitions for Doña Ana County Road Dept	WRI-P-2192	72.75
Route group 1	A	41930	Haul Road near the East Potrillo Mountains for J Hamilton Construction	WRI-P-2211	6.65
Route group 1	A	42184	Extension County Road A008 for Doña Ana County	WRI-P-2213	20.96
Route group 1	A	74250	Archaeological Damage Assessment Report for East Potrillo Village (LA 2287), Doña Ana County, New Mexico	WRI-P-2279	14.35
Route group 1	A	18349	An Archaeological Reconnaissance in West Doña Ana County	WRI-P-1961	552.71
Route group 1	B	35220	An Archaeological Survey of the Proposed Malpais Pipeline near Columbus, New Mexico	WRI-P-2197	6.21
Route group 1	B	40005	23 Hectares along the International Border for US Dept of Defense	WRI-P-2206	65.78
Route group 1	B	49104	Cultural Resource Survey of a Proposed Gravel Quarry and Crusher Plant Locations Luna County, New Mexico	WRI-P-2234	39.15
Route group 1	B	49300	The Columbus to Anapra Project: Survey and Testing Along the Southern New Mexico Border, Doña Ana and Luna Counties	WRI-P-2235	1159.30
Route group 1	B	49612	Cultural Resources Class III Inventory of a Proposed Sand Pit on BLM Land near the West Potrillo Mountains, Doña Ana County, New Mexico	WRI-P-2237	6.65
Route group 1	B	49613	An Archaeological Clearance Survey of a Proposed Haul Road On State Trust Land near the West Potrillo Mountains, Luna County, New Mexico	WRI-P-2238	3.63
Route group 1	B	50486	Archaeological Survey for Two Pieces of Road, Two Helipads and an Observation Post for JTF 6 in the Boothill Region of Southeastern Hidalgo County, New Mexico	WRI-P-2243	2124.33
Route group 1	B	51054	Cultural Resources Class III Inventory of a Proposed Sand Pit on BLM Land near the West Potrillo Mountains, Doña Ana County, New Mexico	WRI-P-2246	45.57

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 1	B	63403	JTF-6 Border Road Improvement Project Columbus, New Mexico Cultural Resources Inventory Draft Report	WRI-P-2257	1022.23
Route group 1	B	11402	An Archaeological Survey of Nine Seismographic Test Lines for Exxon Company in Doña Ana and Luna Counties, New Mexico	WRI-P-1908	1611.20
Route group 1	B	12787	Cultural Resource Survey of Proposed Borrow and Surfacing Pits Along the Columbus-Anapra Route Project No. SP-GRO-7529(200)	WRI-P-1943	11.82
Route group 1	B	13918	An Archeological Survey of Select Borrow Pit F NMSHD Project SP-GRO-7529(200)	WRI-P-1945	13.71
Route group 1	B	15914	Cultural Resource Survey of Three Proposed Borrow Pit Extensions near Anapra, New Mexico, Project No. SP-GRO-7513(201)	WRI-P-1950	13.46
Route group 1	B	18878	200 FT BY 430 FT CALICHE PIT EXPANSION FOR MERRYMAN CONST	WRI-P-1964	0.64
Route group 1	B	27525	An Archaeological Survey of the Proposed Arena Pipeline near Columbus, New Mexico	WRI-P-2183	97.65
Route group 1	B	76587	Cultural Resource Survey of 14.82 Acres for a Proposed Fiber Optic Corridor Along New Mexico State Highway 9, Luna County, New Mexico	WRI-P-2289	12.17
Route group 1	B	110649	Unknown	WRI-P-1883	59.80
Route group 1	B	119063	A Cultural Resources Survey of a Proposed US Customs and Border Protection Communications Tower Site EPT-STN-031 and Access Road in Doña Ana County, NM.	WRI-P-1926	6.53
Route group 1	C	644	Seismograph Services Corp Line 82-915 (Presented In 5 Segments) Report F83-243	WRI-P-2261	107.18
Route group 1	C	662	An Archaeological Clearance Survey of Eleven Seismic Testing Transects in Hidalgo, Grant, Luna and Doña Ana Counties	WRI-P-2263	2365.44
Route group 1	C	6999	Cultural Resources Clearance Investigation Valley Telephone Co-op Archeological Survey-Part 1-1984 Location for Placement of Buried Telephone Cable Along State Highway 9	WRI-P-2269	208.71
Route group 1	C	38415	Part 1 Buried Telephone Cable Along State Hwy 9 for Valley Telephone Co-Op	WRI-P-2203	3.69
Route group 1	C	49894	A Cultural Resource Inventory Along NM 9 Between Victorio and Hermanas	WRI-P-2241	277.15

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 1	C	60016	Cultural Resources Class III Inventory and Significance Evaluation of a Proposed Highway Fencing Project Along NM 9 near Hermanas	WRI-P-2255	123.16
Route group 1	C	11208	6 Seismic Testing Transects for Geophysical Service Incorporated	WRI-P-1898	286.52
Route group 1	C	12786	Cultural Resource Survey of Two Construction and Maintenance Easements (CME's) near Hermanas, New Mexico, District I	WRI-P-1942	0.45
Route group 1	C	42113	Mashed-O Pipeline near Hermanas, NM for Las Cruces BLM-Mimbres Ra	WRI-P-2212	64.03
Route group 1	C	102597	Cultural Resources Survey of Proposed Border Protection Access Roads, Equipment Staging Areas, and Border Improvements in Luna and Hidalgo Counties	WRI-P-1872	489.89
Route group 1	D	11088	Cathodic Protection Line for Southern Pacific Pipelines Inc.	WRI-P-1886	0.93
Route group 1	D	7428	Telephone Cablealong Animas Road for Western New Mexico Phone Co./030-85-15	WRI-P-2281	40.44
Route group 1	D	8682	Cultural Resources Investigations at the Lordsburg Rest Area on I-10, NMSHD Project No. I-010-1(45)20	WRI-P-2320	53.14
Route group 1	D	11234	Microwave Tower Area for El Paso Natural Gas	WRI-P-1902	0.23
Route group 1	D	11590	Lordsburg Road Forks Of El Paso-Yuma Toll Line for Mt Bell	WRI-P-1919	138.65
Route group 1	D	16123	Cultural Resource Survey Along Interstate 10 near Lordsburg, New Mexico Project No. IR-010-1(49)21	WRI-P-1953	312.83
Route group 1	D	17099	An Archaeological Survey of the Proposed Hamilton Construction Co. Borrow Pit Expansion near Lordsburg, New Mexico	WRI-P-1956	29.51
Route group 1	D	18226	Preliminary Cultural Resources Survey Report for the US Telecom Fiber Optic Cable Project from San Timiteo Canyon, California to Socorro, Texas: The New Mexico Segment	WRI-P-1960	1990.51
Route group 1	D	20716	BURIED TELEPHONE CABLE ALONG STATE HWY 494 FOR WNMTC PART 80	WRI-P-2155	46.38
Route group 1	D	25429	LUNT ELECTRIC FENCE LINES NEAR LORDSBURG, NM FOR LAS CRUCES BLM-MIMBRES RA	WRI-P-2181	2.91
Route group 1	D	28038	3 Catchment Ponds & Water Well near Lordsburg, NM for A & S Construction Co	WRI-P-2185	15.98

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 1	D	35150	Cultural Resource Investigations at a Proposed Drainage Easement on the Hidalgo County Road South of I-10 Muir Exchange	WRI-P-2195	1.45
Route group 1	D	35198	An Archaeological Survey of a Proposed County Road near Lordsburg, Hidalgo County, New Mexico	WRI-P-2196	245.22
Route group 1	D	35280	Waldo Mine & Other Mine Areas In Virginia Subdistrict for Abanonded Lands Mine	WRI-P-2198	33.19
Route group 1	D	43908	Along the Butterfield Trail: A Reconnaissance Survey of 40.5 Miles on Public Lands	WRI-P-2218	491.16
Route group 1	D	43937	Cultural Resource Survey in the Virginia Subdistrict of the Lordsburg Mine District Lordsburg Phase	WRI-P-2219	7.74
Route group 1	D	46052	An Archaeological Clearance Survey of a Proposed Transmission Line Easement West of Lordsburg, Hidalgo County, New Mexico	WRI-P-2225	5.05
Route group 1	D	49959	An Archaeological Clearance Survey of Three Segments of a Proposed Waterline ROW for the City of Lordsburg, Hidalgo County, New Mexico	WRI-P-2242	26.27
Route group 1	D	51702	A Cultural Resource Survey of a 29,034 Foot Portion of the El Paso Natural Gas Company Eunice Plant	WRI-P-2247	88.65
Route group 1	D	56217	A Cultural Resource Survey for the Proposed Lordsburg Interstate Highway 10 Port of Entry Project, Hidalgo County, New Mexico	WRI-P-2250	68.09
Route group 1	D	57083	Archaeological Clearance Survey: Main Street (NM 494) from Railroad Avenue to Oak Street in Lordsburg, Hidalgo County, New Mexico	WRI-P-2251	9.56
Route group 1	D	58455	Cultural Resources Class III Inventory and Significance Evaluation of a Proposed Mineral Materials Pit Southwest of Lordsburg, Hidalgo County, New Mexico	WRI-P-2252	80.26
Route group 1	D	58617	A Cultural Resource Survey of 33.6 Kilometers (21 Miles) Along Interstate 10 West of Lordsburg IM-01	WRI-P-2253	582.64
Route group 1	D	59932	Mining Properties in the Virginia Subdistrict, Lordsburg Mining District, Hidalgo County, New Mexico	WRI-P-2254	15.66
Route group 1	D	65987	The El Paso to Los Angeles Fiber Optic Cable Project: A Cultural Resources Survey of the New Mexico	WRI-P-2262	2195.08

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 1	D	67754	An Archaeological Survey of the New Mexico Portion of Link Two of the AT&T Nex/Gen Core Project	WRI-P-2265	2013.49
Route group 1	D	67976	Revised Draft Report The El Paso Natural Gas Line No. 2000 Project: An Archaeological Re-survey of the Former All American Pipeline Across Doña Ana, Luna, Grant, and Hidalgo Counties, New Mexico Report 2	WRI-P-2267	1876.38
Route group 1	D	75650	Cultural Resources Survey of 27.6 Acres for Improvements to the Lordsburg Municipal Airport, Lordsburg, Hidalgo County, New Mexico	WRI-P-2283	14.56
Route group 1	D	81919	Cultural Resource Inventory: Robert Lowery: Southeast of Lordsburg, Hidalgo County, New Mexico	WRI-P-2304	40.13
Route group 1	D	82452	Cultural Resource Survey of Five Parcels for Highway Improvement Along US 70 and NM 90 near Lordsburg, Hidalgo County, New Mexico	WRI-P-2305	68.81
Route group 1	D	84579	An Archaeological Survey of 79.32 HA (196.04 AC) for the Proposed Placement of an Underground Teleco	WRI-P-2311	98.58
Route group 1	D	86173	Summary of Survey of Drilling Ten Sites near the Pyramid Mountains, NM	WRI-P-2315	5.76
Route group 1	D	89668	Unknown	WRI-P-2330	18.62
Route group 1	D	112206	Cultural Resources Survey of Proposed Waterline Improvements along NM 494 near the Town of Lordsburg, Hidalgo County, New Mexico	WRI-P-1900	11.11
Route group 1	D	114080	Archaeological Survey of 73.4 Acres at the Lordburg Municipal Airport in Lordsburg, Hidalgo County, New Mexico	WRI-P-1909	101.14
Route group 1	DN1	627	Archaeological Clearance Report for Teledyne Exploration Line D4 (presented in 3 segments)		
Route group 1	DN1	8636	A Cultural Resources Inventory of the Plains Electric Transmission Line from Elephant Butte to Deming, New Mexico		
Route group 1	DN1	10036	Archaeological Clearance Report for Exxon Line 30-029-0024 (presented in 4 segments)		
Route group 1	DN1	10062	Archaeological Clearance Report for Exxon Corporation Line PH-2 (presented in 5 segments)		
Route group 1	DN1	10113	Archaeological Clearance Report for Teledyne Exploration Line DD-4 Segments 1 and 2		

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 1	DN1	10114	Archaeological Clearance Report for Teledyne Exploration Line E4 Segment 1, Line E4 Segment 2		
Route group 1	DN1	11218	Buried Telephone Cable for Mountain Bell		
Route group 1	DN1	11245	6 Seismographic Test Transects for EXXON CompanY U.S.A.		
Route group 1	DN1	11634	An Archaeological Survey of a Proposed 345 KV Power Transmission Line Corridor From Deming, New Mexico to Greenlee County, Arizona		
Route group 1	DN1	18529	Luna to Central 115 KV Power Line for Public Service Company Of New Mexico		
Route group 1	DN1	20907	Cultural Resource Investigations at Five Soil Test Holes Northeast of Deming, New Mexico		
Route group 1	DN1	23747	A Preliminary Evaluation of Prehistoric Settlement Patterns in Grant and Luna Counties, New Mexico: Results of a Sample Survey on State of New Mexico Lands. 2 volumes		
Route group 1	DN1	23823	Cultural Resource Survey Along State Road 26 near Deming, Luna County, New Mexico, NMSHTD Project #F-015-1(2)		
Route group 1	DN1	24648	Archaeological Clearance Survey of a Buried Telephone Right-of-Way near Florida, Luna County, New Mexico		
Route group 1	DN1	28076	starvation pipe line near deming, NM for Las CruceS BLM-MIMBRES RA		
Route group 1	DN1	28077	Spider Fence Line near Deming, NM for Las Cruces BLM-MIMBRES RA		
Route group 1	DN1	31523	A Cultural Resource Survey of the US 180 Right of Way North of the NM 26 Junction NMSHTD Project SP-OF-013-1(210)		
Route group 1	DN1	31999	4.08 R/W Along Both Sides Of Hidden Valley Ranch Road for Luna Co Roads Dept		
Route group 1	DN1	35102	County Road A-008 R/W for Luna County Road Dept		
Route group 1	DN1	36772	Underground Telephone Cable R/W for US West		
Route group 1	DN1	42473	A Cultural Resource Survey along US 180 North of Deming NH-180-2(25)154		
Route group 1	DN1	44487	Cultural Resources Clearance Investigation Location for Placement of Water & Fence Lines at McClure Ranch near Deming, New Mexico		

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 1	DN1	45979	An Archaeological Clearance Survey of a Proposed Crusher Pit and Haul Road near Mirage, Luna County, New Mexico		
Route group 1	DN1	59896	Section 106 Consultation Form (Cultural Resources) 516 (2 Sites) and 614 (2 Sites) for Bill Hatcher		
Route group 1	DN1	65987	The El Paso to Los Angeles Fiber Optic Cable Project: A Cultural Resources Survey of the New Mexico Segment Across Doña Ana, Luna, Grant, and Hidalgo Counties		
Route group 1	DN1	67976	Revised Draft Report The El Paso Natural Gas Line No. 2000 Project: An Archaeological Re-survey of the Former All American Pipeline Across Doña Ana, Luna, Grant, and Hidalgo Counties, New Mexico Report 2		
Route group 1	DN1	72602	Final Report Archaeological Survey of 17 Miles Along US 180 for a Proposed Fence Replacement Project Luna County. New Mexico		
Route group 1	DN1	99424	Cultural Resources Survey and Architectural Assessment for the Rehabilitation and Reconstruction Project and Bridge Rehabilitation (Numbers 5500 and 5701), NM 26. NMDOT Project Number AC-GRIP-(TPM)-026-1(11)30, CN G3131, District 1, Luna Co		
Route group 1	DN1	106721	A Cultural Resource Inventory for a Proposed Materials Pit for the New Mexico 26 Rehabilitation Project, Luna County, New Mexico		
Route group 1	DN1	110686	Final Cultural Resources Survey Report of a 43 Mile Portion of US 180 between Deming, Luna County and Bayard, Grant County, New Mexico		
		122335	A Class I Literature Review and Class II Cultural Resource Survey of Alternatives under Analysis for the SunZia Southwest Transmission Project in Hidalgo, Grant, Luna, Doña Ana, Sierra, Socorro, and Lincoln Counties, New Mexico, and Pima, Pinal, Cochise,		
Route group 2	E	8615	An Archaeological of a Drill Pad and Access Road in the Southern Playa in the Animas Valley, Hidalgo	WRI-P-2314	44.54
Route group 2	E	9317	Alternative Drill Pad & Access Road In Southern Playa for Pennwalt Corp	WRI-P-2336	8.19
Route group 2	E	11590	Lordsburg Road Forks Of El Paso-Yuma Toll Line for Mt Bell	WRI-P-1919	138.65
Route group 2	E	12299	Midway Well & Access Road Project #4875 for BLM	WRI-P-1935	1.89

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 2	E	14313	Dewatering Locations for All-American Pipeline Company	WRI-P-1946	52.59
Route group 2	E	15687	Archaeological Clearance Investigations for Borrow Pit A, Surfacing Pit 67-40-S, and Associated Hau	WRI-P-1949	24.00
Route group 2	E	18226	Preliminary Cultural Resources Survey Report for the US Telecom Fiber Optic Cable Project from San T	WRI-P-1960	1990.51
Route group 2	E	20588	Box M Electric Fence Line near Lordsburg for Las Cruces BLM-Lordsburg Ra	WRI-P-2153	118.22
Route group 2	E	22796	An Archeological Survey of the Proposed Steins Mountain Pipeline near Steins, New Mexico	WRI-P-2167	6.00
Route group 2	E	41438	An Archaeological Survey of the Last Chance Pipeline near Lordsburg, Hidalgo County, New Mexico	WRI-P-2209	13.58
Route group 2	E	47755	An Archaeological Clearance Survey of a Proposed Film Location on South Alkali Flat Southwest of Lordsburg, Hidalgo County, New Mexico	WRI-P-2229	34.82
Route group 2	E	58617	A Cultural Resource Survey of 33.6 Kilometers (21 Miles) Along Interstate 10 West of Lordsburg IM-01	WRI-P-2253	582.64
Route group 2	E	63637	Western New Mexico Telephone Company Buried Cable Installation Job P-80638 near Gary, Hidalgo County	WRI-P-2259	5.87
Route group 2	E	64374	Cultural Resource Class III Inventory and Significance Evaluation of a Proposed Mineral Materials Pi	WRI-P-2260	45.65
Route group 2	E	67754	An Archaeological Survey of the New Mexico Portion of Link Two of the AT&T Nex/Gen Core Project	WRI-P-2265	2013.49
Route group 2	E	67976	Revised Draft Report The El Paso Natural Gas Line No. 2000 Project: An Archaeological Re-survey of the Former All American Pipeline Across Doña Ana, Luna, Grant, and Hidalgo Counties, New Mexico Report 2	WRI-P-2267	1876.38
Route group 2	E	72030	A Second Addendum to an Archaeological Survey of the New Mexico Portion of Link Two of the AT&T NEXGEN/CORE Project	WRI-P-2275	3.08
Route group 2	E	73823	Cultural Resources Class III Inventory of a Proposed Buried Telephone Cable and Regen Station at the	WRI-P-2277	3.39
Route group 2	E	84579	An Archaeological Survey of 79.32 HA (196.04 AC) for the Proposed Placement of an Underground Teleco	WRI-P-2311	98.58

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 2	E	123111	Steines Allotment EQIP project.	WRI-P-1936	126.81
Route group 2	E	1979-37.ASM	Unknown	WRI-P-3572	532.17
Route group 2	E	1982-206.ASM	Unknown	WRI-P-3573	728.46
Route group 2	E	1985-226.ASM	All American Pipeline Right-of-way	WRI-P-3611	6103.16
Route group 2	E	1985-226.ASM/BLM 1985-48		WRI-P-2000	6103.16
Route group 2	E	1987-222.ASM	U.S. Telecom Buried Fiber Optic Cable	WRI-P-2010	14447.13
Route group 2	E	1995-79.ASM	San Simon	WRI-P-3565	115.28
Route group 2	E	1999-471.ASM	I-10 Box Culverts	WRI-P-3514	67.64
Route group 2	E	1999-587.ASM	PBNS Level 3 Fiber Optic Line	WRI-P-2086	13854.98
Route group 2	E	2000-826.ASM/BLM 02-21/BLM 05-24/BLM 05-09		WRI-P-2103	3311.75
Route group 2	E	2001-821.ASM	I-10 Bowie Survey	WRI-P-3579	1627.97
Route group 2	E	2005-302.ASM		WRI-P-2140	182.62
Route group 2	E	2006-1.ASM	SFPP, LP, El Paso to Phoenix Expansion Project, Arizona Portion: Cochise and Pima Counties	WRI-P-3628	3242.84
Route group 2	E	2006-1.ASM/BLM 06-19		WRI-P-2145	3242.84
Route group 2	E	BLM 01-15		WRI-P-3521	0.37
Route group 2	E	BLM 02-29		WRI-P-3499	284.92
Route group 2	E	BLM 04-34		WRI-P-3457	47.08
Route group 2	E	BLM 06-17		WRI-P-3525	6.90
Route group 2	E	BLM 98-28		WRI-P-3523	66.20
Route group 2	E	BLM S# 701		WRI-P-3501	127.55
Route group 2	E	B 196		WRI-P-3531	124.74
Route group 2	F	1976-3.ASM		WRI-P-1970	1346.93
Route group 2	F	1977-6.ASM	AEPCO II, Dos Condados to Apache	WRI-P-1971	210.91
Route group 2	F	1979-37.ASM	Unknown	WRI-P-3572	532.17
Route group 2	F	1982-206.ASM	Unknown	WRI-P-3573	728.46
Route group 2	F	1985-226.ASM	All American Pipeline Right-of-way	WRI-P-3611	6103.16
Route group 2	F	1985-226.ASM/BLM 1985-48		WRI-P-2000	6103.16
Route group 2	F	1987-222.ASM	U.S. Telecom Buried Fiber Optic Cable	WRI-P-2010	14447.13
Route group 2	F	1988-210.ASM/BLM 89-17		WRI-P-3512	766.88
Route group 2	F	1996-219.ASM	Southern Pacific Railroad Survey	WRI-P-2051	814.07

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 2	F	1998-532.ASM	I-10 Willcox-Luzena	WRI-P-3599	173.83
Route group 2	F	1999-471.ASM	I-10 Box Culverts	WRI-P-3514	67.64
Route group 2	F	1999-587.ASM	PBNS Level 3 Fiber Optic Line	WRI-P-2086	13854.98
Route group 2	F	2000-602.ASM		WRI-P-2096	1.91
Route group 2	F	2000-702.ASM	Valley Telephone Safford Survey	WRI-P-2098	691.83
Route group 2	F	2000-732.ASM	AEPCO Apache to Dos Condados Survey	WRI-P-2100	3199.01
Route group 2	F	2000-826.ASM/BLM 02-21/BLM 05-24/BLM 05-09		WRI-P-2103	3311.75
Route group 2	F	2001-807.ASM	US 191 Safford South	WRI-P-2111	400.39
Route group 2	F	2001-821.ASM	I-10 Bowie Survey	WRI-P-3579	1627.97
Route group 2	F	2004-99.ASM	Line 2105 Survey	WRI-P-3629	714.74
Route group 2	F	2005-302.ASM		WRI-P-2140	182.62
Route group 2	F	B 164/S# 210		WRI-P-3489	310.96
Route group 2	F	B 196		WRI-P-3531	124.74
Route group 2	F	BLM 02-29		WRI-P-3499	284.92
Route group 2	F	BLM 02-48		WRI-P-3491	23.50
Route group 2	F	BLM 03-13		WRI-P-3490	123.26
Route group 2	F	BLM 04-22		WRI-P-3502	27.79
Route group 2	F	BLM 04-34		WRI-P-3457	47.08
Route group 2	F	BLM 99-44		WRI-P-3474	50.85
Route group 2	F	BLM S# 289 (B 207)		WRI-P-3492	84.15
Route group 2	F	BLM S# 461		WRI-P-3507	80.22
Route group 2	F	BLM S# 701		WRI-P-3501	127.55
Route group 2	F	BLM S# 87-52		WRI-P-3500	6.21
Route group 2	F	BLM-040-1985-17	Jackson Mountain Project Fence	WRI-P-2367	73.44
Route group 2	F	BLM-040-1985-18	Horse Mountain Pasture Fence	WRI-P-2368	84.98
Route group 2	F	BLM-040-1985-41	Red Bird Hills Savory Fences	WRI-P-2369	122.20
Route group 2	F	BLM-040-1985-42	Rattlesnake Ridge Pipeline	WRI-P-2370	122.74
Route group 2	F	BLM-040-1985-44	Willis Dirt Tanks and Pipeline I	WRI-P-2371	130.15
Route group 2	F	BLM-040-1986-2	Tollgate Rock Dam	WRI-P-2372	130.65
Route group 2	F	BLM-040-1986-24	Westwell Pipeline	WRI-P-2373	1319.47
Route group 2	F	BLM-040-1986-3	Enclosure Well and Pipeline	WRI-P-2374	141.56
Route group 2	F	BLM-040-1987-17	Bryce Road and Pipeline Improvements	WRI-P-2375	1727.56
Route group 2	F	BLM-040-1987-21	N. Eden Spring Wildlife Exclosure + H2O Pipeline	WRI-P-2376	1801.51
Route group 2	F	BLM-040-1987-32	Gila Box Fencing	WRI-P-2377	1963.10

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 2	F	BLM-040-1987-33	Circle Fence	WRI-P-2378	2130.00
Route group 2	F	BLM-040-1987-34	Dry Camp Range Improvements	WRI-P-2379	2164.04
Route group 2	F	BLM-040-1987-36	Phelps Dodge MNOI and Row	WRI-P-2380	2291.19
Route group 2	F	BLM-040-1987-39	Goatcamp Pipeline Extension	WRI-P-2381	2360.58
Route group 2	F	BLM-040-1987-4	Texas Canyon Roq	WRI-P-2382	1453.32
Route group 2	F	BLM-040-1987-6	Redknolls Boundary Fence	WRI-P-2383	1526.56
Route group 2	F	BLM-040-1988-11	Cedar Dams 1 & 2	WRI-P-2384	1305.76
Route group 2	F	BLM-040-1988-21	Guadalupe Canyon Projects	WRI-P-2385	3244.47
Route group 2	F	BLM-040-1988-24	Alternative A-RABB Tank Enlargement & NW Construction	WRI-P-2386	1441.90
Route group 2	F	BLM-040-1988-25	Fan Allotment Developments	WRI-P-2387	2761.77
Route group 1	F	BLM-040-1988-30	Willis-Claridge Road	WRI-P-2388	2981.79
Route group 2	Ga	BLM 02-21	Unknown	WRI-P-3456	111.92
Route group 2	Ga	1164.01	Unknown	WRI-P-1924	11.27
Route group 2	Ga	1976-3.ASM	AEPCO I	WRI-P-1970	1346.93
Route group 2	Ga	1977-6.ASM	AEPCO II, Dos Condados to Apache	WRI-P-1971	210.91
Route group 2	Ga	1985-226.ASM	All American Pipeline Right-of-way	WRI-P-3611	6103.16
Route group 2	Ga	1985-226.ASM/BLM 1985-48		WRI-P-2000	6103.16
Route group 2	Ga	1987-222.ASM	U.S. Telecom Buried Fiber Optic Cable	WRI-P-2010	14447.13
Route group 2	Ga	1996-219.ASM	Southern Pacific Railroad Survey	WRI-P-2051	814.07
Route group 2	Ga	1998-532.ASM	I-10 Willcox-Luzena	WRI-P-3599	173.83
Route group 2	Ga	1999-587.ASM	PBNS Level 3 Fiber Optic Line	WRI-P-2086	13854.98
Route group 2	Ga	2000-702.ASM	Valley Telephone Safford Survey	WRI-P-2098	691.83
Route group 2	Ga	2000-732.ASM	AEPCO Apache to Dos Condados Survey	WRI-P-2100	3199.01
Route group 2	Ga	2000-826.ASM/BLM 02-21/BLM 05-24/BLM 05-09		WRI-P-2103	3311.75
Route group 2	Ga	2001-817.ASM	I-10 Willcox	WRI-P-3600	1019.67
Route group 2	Ga	2004-99.ASM	Line 2105 Survey	WRI-P-3629	714.74
Route group 2	Ga	2005-302.ASM		WRI-P-2140	182.62
Route group 2	Ga	AMF Unpublished Survey		WRI-P-3532	60768.88
Route group 2	Ga	B 164/S# 210		WRI-P-3489	310.96
Route group 2	Ga	BLM 03-13		WRI-P-3490	123.26
Route group 2	Ga	BLM 04-34		WRI-P-3457	47.08
Route group 2	Gb	1985-126.ASM	The Archaeology of the Willcox Playa	WRI-P-3603	32659.94
Route group 2	Gb	1987-222.ASM	U.S. Telecom Buried Fiber Optic Cable	WRI-P-2010	14447.13

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 2	Gb	2000-826.ASM/BLM 02-21/BLM 05-24/BLM 05-09		WRI-P-2103	3311.75
Route group 2	Gb	2001-817.ASM	I-10 Willcox	WRI-P-3600	1019.67
Route group 2	Gb	AMF Unpublished Survey		WRI-P-3532	60768.88
Route group 2	Gb	BLM 04-34		WRI-P-3457	47.08
Route group 2	Gc	1985-126.ASM	The Archaeology of the Willcox Playa	WRI-P-3603	32659.94
Route group 2	Gc	1999-587.ASM	PBNS Level 3 Fiber Optic Line	WRI-P-2086	13854.98
Route group 2	Gc	2000-732.ASM	AEPCO Apache to Dos Condados Survey	WRI-P-2100	3199.01
Route group 2	Gc	AMF Unpublished Survey		WRI-P-3532	60768.88
Upgrade Section					
Route group 3	H	1955-3.ASM	Southern Pacific Pipeline Survey	WRI-P-1966	6335.84
Route group 3	H	1983-76.ASM	State Land Survey	WRI-P-1990	23.26
Route group 3	H	1984-37.ASM	Unknown	WRI-P-3496	22.63
Route group 3	H	1985-10.ASM	Unknown	WRI-P-1995	23.05
Route group 3	H	1986-4.ASM	State Land Survey	WRI-P-2005	7.08
Route group 3	H	1987-222.ASM	U.S. Telecom Buried Fiber Optic Cable	WRI-P-2010	14447.13
Route group 3	H	1989-107.ASM	Unknown	WRI-P-2016	82.98
Route group 3	H	1989-222.ASM	Unknown	WRI-P-2019	481.95
Route group 3	H	1990-70.ASM	Optic Line Adjacent to SR 90 and US 10	WRI-P-2021	1035.82
Route group 3	H	1991-102	Unknown	WRI-P-2022	260.09
Route group 3	H	1993-283.ASM	SAN PEDRO HIGHWAY SURVEY	WRI-P-2032	973.72
Route group 3	H	1994-98.ASM	Unknown	WRI-P-2039	1.64
Route group 3	H	1996-158.ASM	Unknown	WRI-P-2049	11358.75
Route group 3	H	1996-203.ASM	Unknown	WRI-P-2050	29.78
Route group 3	H	1996-391.ASM	Interstate-10/Cochise County Line	WRI-P-2054	434.96
Route group 3	H	1997-209.ASM	SFPP Arizona Reconditioning Project	WRI-P-2059	1215.24
Route group 3	H	1997-469.ASM	Butterfield to Pantano Survey	WRI-P-2062	473.43
Route group 3	H	1997-501.ASM	AEPCO Survey, Butterfield to Pantano	WRI-P-2063	473.43
Route group 3	H	1998-261.ASM	Pomerene access road 3.10 acre survey (98SVS20)	WRI-P-2064	6.37
Route group 3	H	1999-587.ASM	PBNS Level 3 Fiber Optic Line	WRI-P-2086	13854.98
Route group 3	H	2000-43.ASM	Mescal Utility Right-of-Way Survey	WRI-P-2093	45.45
Route group 3	H	2000-826.ASM/BLM 02-21/BLM 05-24/BLM 05-09		WRI-P-2103	3311.75

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 3	H	2005-1007.ASM		WRI-P-3670	5.97
Route group 3	H	2005-302.ASM		WRI-P-2140	182.62
Route group 3	H	2005-446.ASM	Tucson-Apache 115-kV Transmission Line Project	WRI-P-2141	1510.74
Route group 3	H	2006-1.ASM	SFPP, LP, El Paso to Phoenix Expansion Project, Arizona Portion: Cochise and Pima Counties	WRI-P-3628	3242.84
Route group 3	H	2006-1.ASM/BLM 06-19		WRI-P-2145	3242.84
Route group 3	H	690.BLM		WRI-P-2268	42.07
Route group 3	H	BLM S# 384		WRI-P-3497	52.92
Route group 3	H	SHPO 1955-003		WRI-P-3530	20.72
New Build Section					
Route group 2	I	1987-222.ASM	U.S. Telecom Buried Fiber Optic Cable	WRI-P-2010	14447.13
Route group 2	I	1996-219.ASM	Southern Pacific Railroad Survey	WRI-P-2051	814.07
Route group 2	I	1998-532.ASM	I-10 Willcox-Luzena	WRI-P-3599	173.83
Route group 2	I	1999-587.ASM	PBNS Level 3 Fiber Optic Line	WRI-P-2086	13854.98
Route group 2	I	2000-702.ASM	Valley Telephone Safford Survey	WRI-P-2098	691.83
Route group 2	I	2000-826.ASM/BLM 02-21/BLM 05-24/BLM 05-09		WRI-P-2103	3311.75
Route group 2	I	2004-99.ASM	Line 2105 Survey	WRI-P-3629	714.74
Route group 2	I	BLM 03-13	Unknown	WRI-P-3490	123.26
Route group 2	I	BLM 04-34	Unknown	WRI-P-3457	47.08
Route group 2	J	BLM 02-21	Unknown	WRI-P-3456	111.92
Route group 2	J	1976-3.ASM	AEPCO I	WRI-P-1970	1346.93
Route group 2	J	1977-6.ASM	AEPCO II, Dos Condados to Apache	WRI-P-1971	210.91
Route group 2	J	1985-226.ASM	All American Pipeline Right-of-way	WRI-P-3611	6103.16
Route group 2	J	1985-226.ASM/BLM 1985-48		WRI-P-2000	6103.16
Route group 2	J	1987-222.ASM	U.S. Telecom Buried Fiber Optic Cable	WRI-P-2010	14447.13
Route group 2	J	1996-219.ASM	Southern Pacific Railroad Survey	WRI-P-2051	814.07
Route group 2	J	1998-532.ASM	I-10 Willcox-Luzena	WRI-P-3599	173.83
Route group 2	J	1999-587.ASM	PBNS Level 3 Fiber Optic Line	WRI-P-2086	13854.98
Route group 2	J	2000-702.ASM	Valley Telephone Safford Survey	WRI-P-2098	691.83
Route group 2	J	2000-732.ASM	AEPCO Apache to Dos Condados Survey	WRI-P-2100	3199.01
Route group 2	J	2000-826.ASM/BLM 02-21/BLM 05-24/BLM 05-09		WRI-P-2103	3311.75

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 2	J	2001-294.ASM	Stuart Road	WRI-P-3597	25.17
Route group 2	J	2004-99.ASM	Line 2105 Survey	WRI-P-3629	714.74
Route group 2	J	2005-302.ASM		WRI-P-2140	182.62
Route group 2	J	2006-524.ASM	EPNG Line 1600 Railroad Bore	WRI-P-3634	7.43
Route group 2	J	B 164/S# 210		WRI-P-3489	310.96
Route group 2	J	BLM 03-13		WRI-P-3490	123.26
Route group 2	J	BLM 04-34		WRI-P-3457	47.08
Route group 2	LD1	7591	Clearance Survey Of 4 Trans. Lines for Columbus Electric Cooperative	WRI-P-2285	35.85
Route group 2	LD1	8615	An Archaeological of a Drill Pad and Access Road in the Southern Playa in the Animas Valley, Hidalgo	WRI-P-2314	44.54
Route group 2	LD1	8966	2 Columbus Powerline Corridors for Columbus Electric Coop. Inc.	WRI-P-2329	4.35
Route group 2	LD1	11144	An Archaeological Survey of a Proposed Haul Road in Hidalgo County, New Mexico	WRI-P-3554	3.08
Route group 2	LD1	11241	Power Line for Columbus Electric Co-Op	WRI-P-3556	1.51
Route group 2	LD1	11590	Lordsburg Road Forks Of El Paso-Yuma Toll Line for Mt Bell	WRI-P-1919	138.65
Route group 2	LD1	12296	An Archaeological Clearance Survey of One Fenceline, One Water Well, Two Pipelines, and Three Storage	WRI-P-3533	86.67
Route group 2	LD1	12811	Western New Mexico Telephone Company Archeological Survey - Part 68 - 1986: Locations for Placement	WRI-P-3536	50.56
Route group 2	LD1	13142	Steins Site for Southern Pacific Communication Company BLM/Lcra	WRI-P-3537	5.18
Route group 2	LD1	15687	Archaeological Clearance Investigations for Borrow Pit A, Surfacing Pit 67-40-S, and Associated Hau	WRI-P-1949	24.00
Route group 2	LD1	15721	Archaeological Clearance Investigations of Four Borrow Pits for Use by New Mexico State Highway Dept.	WRI-P-3546	8.84
Route group 2	LD1	17436	Western New Mexico Telephone Co Part 73-1987 Placement Of Buried Cable	WRI-P-3542	0.32
Route group 2	LD1	18226	Preliminary Cultural Resources Survey Report for the US Telecom Fiber Optic Cable Project from San T	WRI-P-1960	1990.51
Route group 2	LD1	23394	An Archaeological Survey of Nine proposed Peloncillo Mountains Wildlife Waters	WRI-P-3534	1.99
Route group 2	LD1	24592	Cultural Resource Survey of Surfacing Pit 67-40-S on I-10 West of Lordsburg District 1	WRI-P-3553	33.42

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 2	LD1	26862	MATERIALS SOURCES SE OF I-10 RD FORKS INTERCHANGE FOR TURNER ROACH CORP	WRI-P-3545	50.43
Route group 2	LD1	32358	An Archaeological Survey of the Proposed New Hidalgo County Road near Steins, New Mexico	WRI-P-3535	94.14
Route group 2	LD1	32690	Mci Fiber Optic Cable Project: Arizona, New Mexico & Texas Segments for Mci	WRI-P-3538	90.24
Route group 2	LD1	41438	An Archaeological Survey of the Last Chance Pipeline near Lordsburg, Hidalgo County, New Mexico	WRI-P-2209	13.58
Route group 2	LD1	43937	Cultural Resource Survey in the Virginia Subdistrict of the Lordsburg Mine District Lordsburg Phase	WRI-P-2219	7.74
Route group 2	LD1	48167	An Archeological Clearance Survey for the Proposed Well and Trough near Lordsburg T. 23S R. 19W Sect	WRI-P-3555	0.02
Route group 2	LD1	51702	A Cultural Resource Survey of a 29,034 Foot Portion of the El Paso Natural Gas Company Eunice Plant	WRI-P-2247	88.65
Route group 2	LD1	53901	Western New Mexico Telephone Company Phone Line Installation Job #P-60716 near Road Forks, New Mexico	WRI-P-3540	4.81
Route group 2	LD1	56217	Proposed Lordsburg Interstate Highway 10 Port of Entry Project	WRI-P-2250	68.09
Route group 2	LD1	58617	A Cultural Resource Survey of 33.6 Kilometers (21 Miles) Along Interstate 10 West of Lordsburg IM-01	WRI-P-2253	582.64
Route group 2	LD1	59932	Mining Properties in the Virginia Subdistrict, Lordsburg Mining District, Hidalgo County, New Mexico	WRI-P-2254	15.66
Route group 2	LD1	60503	A Cultural Resources Survey for the Proposed Cedar Mountain Pipeline, Hidalgo County, NM	WRI-P-3539	2.81
Route group 2	LD1	63637	Western New Mexico Telephone Company Buried Cable Installation Job P-80638 near Gary, Hidalgo County	WRI-P-2259	5.87
Route group 2	LD1	64374	Cultural Resource Class III Inventory and Significance Evaluation of a Proposed Mineral Materials Pi	WRI-P-2260	45.65
Route group 2	LD1	64633	Cultural Resources Class III Inventory of a Proposed Materials Pit Southwest of Lordsburg, Hidalgo C	WRI-P-3548	96.85
Route group 2	LD1	64634	Cultural Resources Class III Inventory of a Proposed Materials Pit Southwest of Lordsburg, Hidalgo C	WRI-P-3550	145.68
Route group 2	LD1	64800	Cultural Resources Class III Inventory of a Proposed Materials Pit near Road Forks, Hidalgo County,	WRI-P-3541	80.64

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 2	LD1	64847	Cultural Resources Class III Inventory of a Proposed Materials Pit Southwest of Lordsburg, Hidalgo C	WRI-P-3549	159.99
Route group 2	LD1	65489	Cultural Resources Class III Inventory of a Borrow Pit near Road Forks, Hidalgo County, New Mexico	WRI-P-3544	6.65
Route group 2	LD1	65591	Cultural Resources Class III Inventory of a Proposed Haul Road Southwest of Lordsburg, Hidalgo Count	WRI-P-3552	3.60
Route group 2	LD1	65987	The El Paso to Los Angeles Fiber Optic Cable Project: A Cultural Resources Survey of the New Mexico	WRI-P-2262	2195.08
Route group 2	LD1	67754	An Archaeological Survey of the New Mexico Portion of Link Two of the AT&T Nex/Gen Core Project	WRI-P-2265	2013.49
Route group 2	LD1	71767	Cultural Resources Survey of the 360Networks Fiber Optics Line From Mesa, Arizona to El Paso, Texas	WRI-P-2274	1681.96
Route group 2	LD1	72030	A Second Addendum to an Archaeological Survey of the New Mexico Portion of Link Two of the AT&T NEXGEN/CORE Project	WRI-P-2275	3.08
Route group 2	LD1	73823	Cultural Resources Class III Inventory of a Proposed Buried Telephone Cable and Regen Station at the	WRI-P-2277	3.39
Route group 2	LD1	76302	Cultural Resources Assessment Surveys of 18 Regeneration Station Locations for the 360Networks Fiber	WRI-P-2288	38.54
Route group 2	LD1	84579	An Archaeological Survey of 79.32 HA (196.04 AC) for the Proposed Placement of an Underground Teleco	WRI-P-2311	98.58
Route group 2	LD1	93024	Cultural Resource Survey for 3 Area, for Maintenance of Existing Kinder Morgan Pipeline	WRI-P-3547	0.66
Route group 2	LD1	94081	Cultural Resources Survey for a Proposed Extra Workspace to Store Spoil at US 80, as Part of the SFP	WRI-P-3543	0.22
Route group 2	LD1	123243	Rudiger Pipe, Tanks, Troughs	WRI-P-3551	80.91
Route group 2	LD1	1955-3.ASM	Southern Pacific Pipeline Survey	WRI-P-1966	6335.84
Route group 2	LD1	1979-37.ASM	Unknown	WRI-P-3572	532.17
Route group 2	LD1	1982-206.ASM	Unknown	WRI-P-3573	728.46
Route group 2	LD1	1985-226.ASM	All American Pipeline Right-of-way	WRI-P-3611	6103.16
Route group 2	LD1	1985-226.ASM/BLM 1985-48		WRI-P-2000	6103.16
Route group 2	LD1	1987-222.ASM	U.S. Telecom Buried Fiber Optic Cable	WRI-P-2010	14447.13
Route group 2	LD1	1992-264.ASM	Vanar Rest Area/I-10	WRI-P-3566	28.78

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 2	LD1	1995-79.ASM	SAN SIMON	WRI-P-3565	115.28
Route group 2	LD1	1997-340.ASM	I-10 San Simon	WRI-P-3568	0.80
Route group 2	LD1	1999-471.ASM	I-10 Box Culverts	WRI-P-3514	67.64
Route group 2	LD1	1999-587.ASM	PBNS Level 3 Fiber Optic Line	WRI-P-2086	13854.98
Route group 2	LD1	2.199.SHPO		WRI-P-3676	66.60
Route group 2	LD1	2.199.SHPO		WRI-P-3681	66.60
Route group 2	LD1	2000-826.ASM/BLM 02-21/BLM 05-24/BLM 05-09		WRI-P-2103	3311.75
Route group 2	LD1	2001-821.ASM	I-10 Bowie Survey	WRI-P-3579	1627.97
Route group 2	LD1	2005-302.ASM		WRI-P-2140	182.62
Route group 2	LD1	2006-1.ASM	SFPP, LP, El Paso to Phoenix Expansion Project, Arizona Portion: Cochise and Pima Counties	WRI-P-3628	3242.84
Route group 2	LD1	2006-1.ASM/BLM 06-19		WRI-P-2145	3242.84
Route group 2	LD1	B 196		WRI-P-3531	124.74
Route group 2	LD1	BLM 01-15		WRI-P-3521	0.37
Route group 2	LD1	BLM 02-29		WRI-P-3499	284.92
Route group 2	LD1	BLM 04-34		WRI-P-3457	47.08
Route group 2	LD1	BLM 98-28		WRI-P-3523	66.20
Route group 2	LD1	BLM S# 701		WRI-P-3501	127.55
Route group 2	LD1	BLM-040-1986-13	Barnes PVT Exchange	WRI-P-3590	13.33
Route group 2	LD1	BLM-040-2004-21	Sulphur Springs Valley Electric AZA 18790	WRI-P-3564	161.12
Route group 2	LD1	BLM-AZ-045-95-5	Southern Pacific Railroad Realignment	WRI-P-3584	7.98
Route group 2	LD2	9317	Alternative Drill Pad & Access Road In Southern Playa for Pennwalt Corp	WRI-P-2336	8.19
Route group 2	LD2	20588	Box M Electric Fence Line near Lordsburg for Las Cruces BLM-Lordsburg Ra	WRI-P-2153	118.22
Route group 2	LD2	38046	Box M Ranch Pipe Line near Lordsburg, NM for Las Cruces BLM-Mimbres Ra	WRI-P-3561	18.34
Route group 2	LD2	43908	Along the Butterfield Trail: A Reconnaissance Survey of 40.5 Miles on Public Lands	WRI-P-2218	491.16
Route group 2	LD2	43945	Lake Pasture Pipeline & Water Storage Area for Las Cruces BLM-Mimbres Ra	WRI-P-2220	7.93
Route group 2	LD3a	7427	Telephone Cable Along SH 70, 90 & 464 for Western Newmexico Phone Co./030-84-111	WRI-P-2280	100.21

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 2	LD3a	11634	An Archaeological Survey of a Proposed 345 KV Power Transmission Line Corridor From Deming, New Mexico	WRI-P-1923	1029.08
Route group 2	LD3a	20588	Box M Electric Fence Line near Lordsburg for Las Cruces BLM-Lordsburg Ra	WRI-P-2153	118.22
Route group 2	LD3a	32720	Cultural Resource Investigations on NM 90 near Lordsburg, Hidalgo County, New Mexico, NMSHTD Project	WRI-P-2194	99.50
Route group 2	LD3a	38788	A Cultural Resource Survey Along NM 90 North of Lordsburg	WRI-P-2205	47.19
Route group 2	LD3a	41430	Golf Club Pipeline near Lordsburg, NM for Las Cruces BLM-Mimbres Ra	WRI-P-3562	8.07
Route group 2	LD3a	43908	Along the Butterfield Trail: A Reconnaissance Survey of 40.5 Miles on Public Lands	WRI-P-2218	491.16
Route group 2	LD3a	45041	Cultural Resources Clearance Investigation: An Archeological Survey of the Proposed Western New Mexico	WRI-P-2221	1065.36
Route group 2	LD3a	47851	Dave Mead - Livestock Control Arizona State Office Cultural Resources Project Record	WRI-P-3557	9.61
Route group 2	LD3a	48913	3 Mills Well Pipeline	WRI-P-3558	13.16
Route group 2	LD3a	48997	Double M Ranch Projects	WRI-P-3559	112.01
Route group 2	LD3a	49446	High Lonesome Sample, New Mexico	WRI-P-3560	871.19
Route group 2	LD3a	71363	Western New Mexico Telephone Company Buried Cable Installation Job P-000411 South of U.S. Highway 70	WRI-P-2273	33.70
Route group 2	LD3a	79797	An Archaeological Survey of 19.3 km (12 mi) Along State Highway 90 Between MP 0 and MP 12, hidalgo C	WRI-P-2298	235.93
Route group 2	LD3a	123111	Steines Allotment EQIP project.	WRI-P-1936	126.81
Route group 2	LD3b	67976	Former All American Pipeline	WRI-P-2267	1876.38
Route group 2	LD3b	123111	Steines Allotment EQIP project.	WRI-P-1936	126.81
Route group 2	LD4	1370-R	No information available		
Route group 2	LD4	1976-3.ASM	AEPCO I		
Route group 2	LD4	1977-6.ASM	AEPCO II, Dos Condados to Apache		
Route group 2	LD4	1979-37.ASM	No information available		
Route group 2	LD4	1980-61.ASM	No information available		
Route group 2	LD4	1982-206.ASM	No information available		
Route group 2	LD4	1989-201.ASM	No information available		
Route group 2	LD4	1993-379.ASM	Hot Well Dunes Archaeological Project		

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 2	LD4	1995-440.ASM	No information available		
Route group 2	LD4	1995-76.ASM	High Lonesome Sample, Arizona		
Route group 2	LD4	1999-36.ASM	US 191 I-10 to Milepost 98.0		
Route group 2	LD4	2000-702.ASM	Valley Telephone Safford Survey		
Route group 2	LD4	2000-720.ASM	Bonita 12” Gas Line Survey		
Route group 2	LD4	2000-732.ASM	AEPCO Apache to Dos Condados Survey		
Route group 2	LD4	2001-474.ASM	Bowie Power Project		
Route group 2	LD4	2001-786.ASM	BLM San Simon Watershed Roads Survey		
Route group 2	LD4	2003-1095.ASM	US 191 (I-10 to SR 266)		
Route group 2	LD4	2004-99.ASM	Line 2105 Survey		
Route group 2	LD4	2007-708.ASM	No information available		
Route group 2	LD4	2010-535.ASM	PGE MetMast Willcox Survey		
Route group 2	LD4	5.117.SHPO	No information available		
Route group 2	LD4	BLM-040-03-41	Ryan Dike		
Route group 2	LD4	BLM-040-1985-10	Masonry Rock Dams		
Route group 2	LD4	BLM-040-1985-17	Jackson Mountain Project Fence		
Route group 2	LD4	BLM-040-1985-18	Horse Mountain Pasture Fence		
Route group 2	LD4	BLM-040-1985-25	Norton NOIS (3809)		
Route group 2	LD4	BLM-040-1985-31	Rabbit Farm Well Modification and Pond Development		
Route group 2	LD4	BLM-040-1985-41	Red Bird Hills Savory Fences		
Route group 2	LD4	BLM-040-1985-42	Rattlesnake Ridge Pipeline		
Route group 2	LD4	BLM-040-1985-44	Willis Dirt Tanks and Pipeline I		
Route group 2	LD4	BLM-040-1985-7	Sheldon Mountain Pasture Fence and Pipeline		
Route group 2	LD4	BLM-040-1985-9	Safford Phelps Dodge		
Route group 2	LD4	BLM-040-1986-17	Gold Gulch 1989		
Route group 2	LD4	BLM-040-1986-2	Tollgate Rock Dam		
Route group 2	LD4	BLM-040-1986-24	Westwell Pipeline		
Route group 2	LD4	BLM-040-1986-3	Enclosure Well and Pipeline		
Route group 2	LD4	BLM-040-1987-17	Bryce Road and Pipeline Improvements		
Route group 2	LD4	BLM-040-1987-21	N. Eden Spring Wildlife Enclosure and Water Pipeline		
Route group 2	LD4	BLM-040-1987-32	Gila Box Fencing		
Route group 2	LD4	BLM-040-1987-33	Circle Fence		
Route group 2	LD4	BLM-040-1987-34	Dry Camp Range Improvements		
Route group 2	LD4	BLM-040-1987-36	Phelps Dodge MNOI and ROW		
Route group 2	LD4	BLM-040-1987-39	Goatcamp Pipeline Extension		

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 2	LD4	BLM-040-1987-4	Texas Canyon Roq		
Route group 2	LD4	BLM-040-1987-6	Redknolls Boundary Fence		
Route group 2	LD4	BLM-040-1988-11	Cedar Dams 1 & 2		
Route group 2	LD4	BLM-040-1988-21	Guadalupe Canyon Projects		
Route group 2	LD4	BLM-040-1988-24	Alternative A-RABB Tank Enlargement and NW Construction		
Route group 2	LD4	BLM-040-1988-25	Fan Allotment Developments		
Route group 2	LD4	BLM-040-1988-30	Willis-Claridge Road		
Route group 2	LD4	BLM-040-1990-25	Bowie Lites		
Route group 2	LD4	BLM-AZ-040-00-9	Antelope Well		
Route group 2	LD4	BLM-AZ-040-01-2	Lazy B Pipelines		
Route group 2	LD4	BLM-AZ-040-05-003	A Class III Cultural Resources Inventory for the Ryans Dyke (2005) Maintenance Project		
Route group 2	LD4	BLM-AZ-040-98-4	J Stars		
Route group 2	LD4	SHPO-2001-1540	Section 106 Review of American Tower Corporation Site Number 41939 “WILLOW SPRING”		
Route group 2	LD4-Option4	1976-3.ASM	AEPCO I		
Route group 2	LD4-Option4	1977-6.ASM	AEPCO II, Dos Condados to Apache		
Route group 2	LD4-Option4	1985-226.ASM	All American Pipeline Right-of-Way		
Route group 2	LD4-Option4	1987-222.ASM	U.S. Telecom Buried Fiber Optic Cable		
Route group 2	LD4-Option4	1996-236.ASM	No information available		
Route group 2	LD4-Option4	1999-587.ASM	PBNS Level 3 Fiber Optic Line		
Route group 2	LD4-Option4	2000-702.ASM	Valley Telephone Safford Survey		
Route group 2	LD4-Option4	2000-732.ASM	AEPCO Apache to Dos Condados Survey		
Route group 2	LD4-Option4	2010-535.ASM	PGE MetMast Willcox Survey		
Route group 2	LD4-Option5	1976-3.ASM	AEPCO I		
Route group 2	LD4-Option5	1977-6.ASM	AEPCO II, Dos Condados to Apache		
Route group 2	LD4-Option5	1985-226.ASM	All American Pipeline Right-of-Way		
Route group 2	LD4-Option5	1987-222.ASM	U.S. Telecom Buried Fiber Optic Cable		
Route group 2	LD4-Option5	1996-236.ASM	No information available		

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 2	LD4-Option5	1999-36.ASM	US 191 I-10 to Milepost 98.0		
Route group 2	LD4-Option5	1999-587.ASM	PBNS Level 3 Fiber Optic Line		
Route group 2	LD4-Option5	2000-702.ASM	Valley Telephone Safford Survey		
Route group 2	LD4-Option5	2000-732.ASM	AEPCO Apache to Dos Condados Survey		
Route group 2	LD4-Option5	2001-474.ASM	Bowie Power Project		
Route group 2	LD4-Option5	2003-1095.ASM	US 191 (I-10 to SR 266)		
Route group 2	LD4-Option5	2004-99.ASM	Line 2105 Survey		
Route group 2	LD4-Option5	2007-708.ASM	No information available		
Route group 2	LD4-Option5	SHPO-2001-1540	Section 106 Review of American Tower Corporation Site Number 41939 “WILLOW SPRING”		
Route group 1	P1	21389	Archaeological Clearance Survey of a BURIED TELEPHONE CABLE Right-of-Way AT AFTON PUMPING STATION, Doña Ana County, New Mexico	WRI-P-2164	3.17
Route group 1	P1	309	Patterns Of Prehistoric Land Use In Dona Ana County New Mexico - Vols I & II	WRI-P-2187	3243.44
Route group 1	P1	7600	3024-KV Static Wire Powerline for El Paso Electric Company	WRI-P-2287	22.58
Route group 1	P1	11154	An Archaeological Survey of Five Geothermal Testing Transects in Southwestern Doña Ana County, New Mexico	WRI-P-1891	4708.41
Route group 1	P1	11166	2 Seismic Transects for Arma Geophysical	WRI-P-1892	389.65
Route group 1	P1	11178	Buried Telephone Cable for Mountain Bell	WRI-P-1895	90.20
Route group 1	P1	11232	Cathodic Protection Station #1379 for El Paso Natural Gas	WRI-P-1901	0.22
Route group 1	P1	11402	An Archaeological Survey of Nine Seismographic Test Lines for Exxon Company in Doña Ana and Luna Counties, New Mexico	WRI-P-1908	1611.20
Route group 1	P1	11443	Cathodic Protection Station #1379 for El Paso Natural Gas Company	WRI-P-1913	0.22
Route group 1	P1	18349	An Archaeological Reconnaissance in West Doña Ana County	WRI-P-1961	552.71
Route group 1	P1	31185	An Archaeological Clearance Survey of Nine Hydrocarbon Testing Transects in Southern Doña Ana County	WRI-P-2188	1769.65

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 1	P1	31425	3.00 Mile Electric Power Line for El Paso Electric Co	WRI-P-2189	34.69
Route group 1	P1	31426	3 Mile Long Buried Telecommunications Cable for Us West Communications	WRI-P-2190	34.53
Route group 1	P1	32217	County Road R/W Aquisitions for Dona Ana County Road Dept	WRI-P-2192	72.75
Route group 1	P1	65987	The El Paso to Los Angeles Fiber Optic Cable Project: A Cultural Resources Survey of the New Mexico Segment Across Doña Ana, Luna, Grant, and Hidalgo Counties	WRI-P-2262	2195.08
Route group 1	P1	67976	Revised Draft Report The El Paso Natural Gas Line No. 2000 Project: An Archaeological Re-survey of the Former All American Pipeline Across Doña Ana, Luna, Grant, and Hidalgo Counties, New Mexico Report 2	WRI-P-2267	1876.38
Route group 1	P1	70023	Cultural Resource Survey for the Proposed Natural Gas Generation and Transmission Afton Project Doña Ana County, New Mexico	WRI-P-2270	183.85
Route group 1	P1	77658	Archaeological Survey of the Afton Power Plant Road Cattle Guard Bypasses, Aden to Afton, New Mexico	WRI-P-2292	2.83
Route group 1	P1	94045	Cultural Resource Survey for a Proposed Access Road Around PNM's Afton Station, as Part of the SFPP East Line Expansion Project, New Mexico Portion	WRI-P-2339	20.39
Route group 1	P2	309	Patterns Of Prehistoric Land Use In Dona Ana County New Mexico - Vols I & II	WRI-P-2187	3243.44
Route group 1	P2	627	Archaeological Clearance Report for Teledyne Exploration Line D4 (presented in 3 segments)	WRI-P-2256	35.72
Route group 1	P2	662	An Archaeological Clearance Survey of Eleven Seismic Testing Transects in Hidalgo, Grant, Luna and Doña Ana Counties	WRI-P-2263	2365.44
Route group 1	P2	895	Archaeological Clearance Report for Grant Geophysical Line O-3 (presented in 3 segments)	WRI-P-2327	154.04
Route group 1	P2	903	Archaeological Clearance Report for Grant Geophysical Line U-3, Segment 1; Line U-3, Segment 2; Line U-3, Access Road	WRI-P-2331	305.96
Route group 1	P2	904	Archaeological Clearance Report for Grant Geophysical Line K-2 (presented in 7 segments)	WRI-P-2332	341.20

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 1	P2	7411	Archeological Survey of a Proposed Right-of-Way Addition, El Paso Electric Company Luna-to-Newman Transmission Line Corridor, Doña Ana County, New Mexico	WRI-P-2278	75.70
Route group 1	P2	7583	7 Microwave Tower Locations for Mirror Imicrowave Communications	WRI-P-2284	67.50
Route group 1	P2	7591	Clearance Survey Of 4 Trans. Lines for Columbus Electric Cooperative	WRI-P-2285	35.85
Route group 1	P2	7600	3024-kV Static Wire Powerline for El Paso Electric Company	WRI-P-2287	22.58
Route group 1	P2	8636	A Cultural Resources Inventory of the Plains Electric Transmission Line from Elephant Butte to Deming, New Mexico	WRI-P-2317	1038.21
Route group 1	P2	8966	2 Columbus Powerline Corridors for Columbus Electric Coop. Inc.	WRI-P-2329	4.35
Route group 1	P2	9759	Archaeological Clearance Report for Grant Geophysical Line J-5, (Presented in 2 Segments)	WRI-P-2343	97.08
Route group 1	P2	9782	Archaeological Clearance Report for Grant Geophysical Line K-5, (Presented in two segments)	WRI-P-2344	96.24
Route group 1	P2	9783	Archaeological Clearance Report for Grant Geophysical Line KK-5	WRI-P-2345	56.77
Route group 1	P2	9893	Archaeological Clearance Report for Grant Geophysical Line G-4 (presented in 3 segments)	WRI-P-2349	152.70
Route group 1	P2	9899	Archaeological Clearance Report for Grant Geophysical Line K-4	WRI-P-2351	57.44
Route group 1	P2	9900	Archaeological Clearance Report for Grant Geophysical Line KK-4 (presented in 2 segments)	WRI-P-2352	107.66
Route group 1	P2	9902	Archaeological Clearance Report for Grant Geophysical	WRI-P-2353	89.46
Route group 1	P2	9903	Archaeological Clearance Report for Grant Geophysical Line I-4	WRI-P-2354	79.91
Route group 1	P2	9904	Archaeological Clearance Report for Grant Geophysical Line II-4 (presented in 3 segments)	WRI-P-2355	186.59
Route group 1	P2	9905	Archaeological Clearance Report for Grant Geophysical Line M-4	WRI-P-2356	114.09
Route group 1	P2	9907	Archaeological Clearance Report for Grant Geophysical Line N-4 (presented in 2 segments)	WRI-P-2357	121.34
Route group 1	P2	9911	Archaeological Clearance Report for Grant Geophysical Line Y-4 (presented in 2 segments)	WRI-P-2360	129.10
Route group 1	P2	9914	Archaeological Clearance Report for Grant Geophysical Line X-4	WRI-P-2361	72.43

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 1	P2	9977	Archaeological Clearance Report for Grant Geophysical Line J-4 (presented in 3 segments)	WRI-P-2365	143.26
Route group 1	P2	9994	Archaeological Clearance Report for Grant Geophysical Line F-3, (presented in 9 segments)	WRI-P-2366	373.16
Route group 1	P2	10007	Archaeological Clearance Report for Grant Geophysical Line E-3 (presented in 6 segments)	WRI-P-1857	289.40
Route group 1	P2	10030	Archaeological Clearance Report for Grant Geophysical Line N-3 (presented in 6 segments)	WRI-P-1858	159.88
Route group 1	P2	10034	Archaeological Clearance Report for Grant Geophysical Line M-3 (presented in 6 segments)	WRI-P-1859	160.21
Route group 1	P2	10052	Archaeological Clearance Report for Grant Geophysical Line J-2 (presented in 6 segments)	WRI-P-1860	232.64
Route group 1	P2	10058	Archaeological Clearance Report for Grant Geophysical Line L-3 (presented in 2 segments)	WRI-P-1862	80.05
Route group 1	P2	10059	Archaeological Clearance Report for Grant Geophysical Line G-3 (presented in 2 segments)	WRI-P-1863	73.74
Route group 1	P2	10060	Archaeological Clearance Report for Grant Geophysical Line H-4 (presented in 4 segments)	WRI-P-1864	176.23
Route group 1	P2	10062	Archaeological Clearance Report for Exxon Corporation Line PH-2 (presented in 5 segments)	WRI-P-1865	90.41
Route group 1	P2	10532	An Archaeological Survey of a Proposed 14.4. KV Distribution Line Right-of-Way, Southeast of Cambray, New Mexico	WRI-P-1874	9.14
Route group 1	P2	11003	An Archaeological Clearance Survey in the Vicinity of Mason Draw in Doña Ana County, New Mexico	WRI-P-1881	114.14
Route group 1	P2	11098	An Archaeological Survey of Six Seismographic Test Lines for Exxon Company in Sierra, Luna, and Doña Ana Counties, New Mexico	WRI-P-1888	392.00
Route group 1	P2	11139	CATHODIC PROTECTION UNIT 18-16 PRONTO FOR SOUTHERN PACIFIC PIPELINES An Archaeological Clearance Survey for Cathodic Protection Unit 18-16 Pronto, Doña Ana County, New Mexico	WRI-P-1889	1.39
Route group 1	P2	11154	An Archaeological Survey of Five Geothermal Testing Transects in Southwestern Doña Ana County, New Mexico	WRI-P-1891	4708.41
Route group 1	P2	11166	2 Seismic Transects for ARMA Geophysical	WRI-P-1892	389.65

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 1	P2	11178	Buried Telephone Cable for Mountain Bell	WRI-P-1895	90.20
Route group 1	P2	11204	Underground Cable R/W #1743a for Mountain States Telephone & Telegraph	WRI-P-1897	6.37
Route group 1	P2	11232	Cathodic Protection Station #1379 for El Paso Natural Gas	WRI-P-1901	0.22
Route group 1	P2	11245	6 Seismographic Test Transects for EXXON Company U.S.A.	WRI-P-1904	439.45
Route group 1	P2	11402	An Archaeological Survey of Nine Seismographic Test Lines for Exxon Company in Doña Ana and Luna Counties, New Mexico	WRI-P-1908	1611.20
Route group 1	P2	11443	Cathodic Protection Station #1379 for El Paso Natural Gas Company	WRI-P-1913	0.22
Route group 1	P2	11450	Reconnaissance 13.8 kV Transmission Line for El Paso Electric	WRI-P-1914	17.32
Route group 1	P2	11595	An Archaeological Survey of a Cathodic Protection Station in Doña Ana County, New Mexico	WRI-P-1921	1.29
Route group 1	P2	11596	An Archaeological Survey of a Proposed 345 KV Powerline from Deming, New Mexico, to El Paso Texas	WRI-P-1922	1253.49
Route group 1	P2	11634	An Archaeological Survey of a Proposed 345 KV Power Transmission Line Corridor From Deming, New Mexico	WRI-P-1923	1029.08
Route group 1	P2	15571	Cathodic Protection Station for El Paso Natural Gas Co	WRI-P-1948	2.65
Route group 1	P2	18209	Cultural Resource Survey of a State Road 549 Fencing Project East of Cambray, New Mexico	WRI-P-1959	80.70
Route group 1	P2	18226	Preliminary Cultural Resources Survey Report for the US Telecom Fiber Optic Cable Project from San T	WRI-P-1960	1990.51
Route group 1	P2	18349	An Archaeological Reconnaissance in West Doña Ana County	WRI-P-1961	552.71
Route group 1	P2	18529	Luna to Central 115 kV Power Line for Public Service Company Of New Mexico	WRI-P-1962	507.78
Route group 1	P2	19521	Cultural Resources Survey of Interstate 10 East of Deming, New Mexico IR-010-2(70)93	WRI-P-1965	330.45
Route group 1	P2	20320	A Cultural Resource Survey of the I-10 Right of Way from Milepost 85.3 to Milepost 93 NMSHTD Project IR-010-2(73)86	WRI-P-2151	413.67
Route group 1	P2	21323	Cultural Resource Survey of a Proposed Borrow Pit East of Deming IR-010-2(73)86	WRI-P-2162	3.86

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 1	P2	21335	Cultural Resource Survey of Proposed Pit 'B' East of Deming, Luna County IR-010-2(73)86	WRI-P-2163	9.27
Route group 1	P2	21389	Archaeological Clearance Survey of a BURIED TELEPHONE CABLE Right-of-Way AT AFTON PUMPING STATION, Doña Ana County, New Mexico	WRI-P-2164	3.17
Route group 1	P2	23747	A Preliminary Evaluation of Prehistoric Settlement Patterns in Grant and Luna Counties, New Mexico: Results of a Sample Survey on State of New Mexico Lands. 2 volumes	WRI-P-2172	1607.02
Route group 1	P2	23753	An Archaeological Clearance Survey of an Underground Telephone Wire Right-of-Way 25 Miles West of Las Cruces, Doña Ana County, New Mexico	WRI-P-2173	9.45
Route group 1	P2	23823	Cultural Resource Survey Along State Road 26 near Deming, Luna County, New Mexico, NMSHTD Project #F-015-1(2)	WRI-P-2174	53.14
Route group 1	P2	23923	Archaeological Clearance Survey of a Segment of a Buried Telephone Cable Right-of-Way near Cambray, Luna County, New Mexico	WRI-P-2175	15.74
Route group 1	P2	23924	Archaeological Inventory and Clearance Survey of a Buried Telephone Cable Right-of-Way Between Deming and Las Cruces, Luna and Doña Ana Counties, New Mexico	WRI-P-2176	43.57
Route group 1	P2	23926	An Archaeological Survey of a Proposed Right-of-Way for a Buried Telephone Cable form State Highway 549 to the Garcia Ranch, Luna County, New Mexico	WRI-P-2177	7.26
Route group 1	P2	24220	A Cultural Resources Survey for the Western States Microwave Tower System in Southern New Mexico Doña Ana, Luna, Grant, and Hidalgo Counties	WRI-P-2178	170.18
Route group 1	P2	24652	Buried Telephone Cable R/W Along Us 180 North of Deming, NM for Network Distrib	WRI-P-2180	96.03
Route group 1	P2	25476	Telephone Service R/W near Separ, NM for Us West Acommunications	WRI-P-2182	20.52
Route group 1	P2	31185	An Archaeological Clearance Survey of Nine Hydrocarbon Testing Transects in Southern Doña Ana County	WRI-P-2188	1769.65
Route group 1	P2	31425	3.00 Mile Electric Power Line for El Paso Electric Co	WRI-P-2189	34.69

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 1	P2	31426	3 Mile Long Buried Telecommunications Cable for Us West Communications	WRI-P-2190	34.53
Route group 1	P2	31523	A Cultural Resource Survey of the US 180 Right of Way North of the NM 26 Junction NMSHTD Project SP-OF-013-1(210)	WRI-P-2191	135.56
Route group 1	P2	32217	County Road R/W Aquisitions for Dona Ana County Road Dept	WRI-P-2192	72.75
Route group 1	P2	32713	Pole Line R/W for Cathodic Protection Station #398 for El Paso Natural Gas	WRI-P-2193	13.68
Route group 1	P2	45248	An Archaeological Survey for a Proposed Cathodic Protection Station and Mud Pit Northeast of Separ, Grant County, New Mexico	WRI-P-2222	0.01
Route group 1	P2	48911	Resurvey Along 18.60 Miles of El Paso Electric Company 345 KV Newman-to-Luna Transmission Line Corridor West of the Rio Grande, Doña Ana County, New Mexico	WRI-P-2232	221.92
Route group 1	P2	49025	A Cultural Resources Survey of Four Segments of the Santa Fe Pipeline, Pima County, Arizona, Luna and Doña Ana Counties, New Mexico	WRI-P-2233	225.86
Route group 1	P2	53221	Archaeological Survey Along Nineteen Southern Pacific Railroad Segments in Grant, Guadalupe, Hidalgo, Lincoln, Luna, Otero, Quay, and Doña Ana Counties, New Mexico	WRI-P-2248	401.30
Route group 1	P2	63599	Cultural Resources Inventory of a Proposed Landfill Site for the City of Deming, Luna County, New Mexico	WRI-P-2258	175.29
Route group 1	P2	65987	The El Paso to Los Angeles Fiber Optic Cable Project: A Cultural Resources Survey of the New Mexico	WRI-P-2262	2195.08
Route group 1	P2	67754	An Archaeological Survey of the New Mexico Portion of Link Two of the AT&T Nex/Gen Core Project	WRI-P-2265	2013.49
Route group 1	P2	67872	Cultural Resource Survey for the Proposed Replacement of Bridge No. 3489 Over the Union Pacific Railroad, Interstate 10, Luna County, New Mexico	WRI-P-2266	0.22
Route group 1	P2	67976	Revised Draft Report The El Paso Natural Gas Line No. 2000 Project: An Archaeological Re-survey of the Former All American Pipeline Across Doña Ana, Luna, Grant, and Hidalgo Counties, New Mexico Report 2	WRI-P-2267	1876.38
Route group 1	P2	70023	Cultural Resource Survey for the Proposed Natural Gas Generation and Transmission Afton Project Doña Ana County, New Mexico	WRI-P-2270	183.85

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 1	P2	70033	An 1808 Acre Archaeological Survey of State of New Mexico Lands near Las Cruces, New Mexico	WRI-P-2271	1947.55
Route group 1	P2	71767	Cultural Resources Survey of the 360Networks Fiber Optics Line From Mesa, Arizona to El Paso, Texas	WRI-P-2274	1681.96
Route group 1	P2	72462	Cultural Resources Report of the Proposed Construction of New and Upgraded Natural Gas and Wastewater Pipelines in and around the City of Deming, Luna County, New Mexico	WRI-P-2276	173.47
Route group 1	P2	74822	Cultural Resources Inventory of a Proposed Materials Pit and Office Location near Akela, Luna County, New Mexico	WRI-P-2282	2.26
Route group 1	P2	76302	Cultural Resources Assessment Surveys of 18 Regeneration Station Locations for the 360Networks Fiber	WRI-P-2288	38.54
Route group 1	P2	76725	An Archaeological Inventory of the Pyramid Generating Station and Associated Transmission Lines, Natural Gas Pipeline, and Miscellaneous Facilities, Hidalgo and Grant Counties, Southwestern New Mexico	WRI-P-2290	1162.80
Route group 1	P2	77318	An Archaeological Survey for a Proposed Water Line Along US 180, between MP 163.1 and MP 164.1, Deming, Luna County, New Mexico	WRI-P-2291	8.24
Route group 1	P2	78031	A Cultural Resource Survey of the Southwestern Railroad Right-of-Way Between Second Street and The Mimbres River: An Addendum to A Cultural Resource Survey of 38 Miles (61.2 km) for a Proposed Water Pipeline System for an Energy Facility in Luna County,	WRI-P-2293	17.97
Route group 1	P2	78864	Unknown	WRI-P-2294	2.26
Route group 1	P2	78984	A Pedestrian Survey of 34.93 Acres of the ML 11KV Transmission Line, North of Deming, Luna County, New Mexico	WRI-P-2295	18.36
Route group 1	P2	79204	Cultural Resources Survey of Dule Energy Gas Transmission's Luna County Lateral Pipeline Luna County, New Mexico	WRI-P-2296	158.74
Route group 1	P2	80307	Separ Survey Report	WRI-P-2301	0.22
Route group 1	P2	80696	A Cultural Resource Inventory of 50 Acres for a Future Power Plant near Cambray, Luna County, New Mexico	WRI-P-2302	64.11

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 1	P2	80736	Cultural Resource Inventory for Proposed Fence Replacement Along Interstate 10 between Deming and Las Cruces, Luna and Doña Ana Counties, New Mexico (NMSHTD Project No. SP-1-03(375), CN 85483	WRI-P-2303	509.37
Route group 1	P2	83286	KT Livestock Pipeline on State Lands West of Deming, NM	WRI-P-2307	9.07
Route group 1	P2	83787	Cultural Resource Inventory of a Proposed Septic Tank Disposal Location near Cambray, Doña Ana County, New Mexico	WRI-P-2310	197.78
Route group 1	P2	85777	Cultural Resource Inventory for a Proposed Land Exchange near Cambray, Luna County, New Mexico	WRI-P-2312	317.89
Route group 1	P2	87265	Cultural Resources Inventory of a Proposed Solid Waste Landfill near Gage, Luna County, New Mexico	WRI-P-2324	311.29
Route group 1	P2	92966	Cultural Resources Survey of the Duke Energy Luna County Lateral Pipeline Reroute in Deming, Luna County, New Mexico	WRI-P-2335	12.35
Route group 1	P2	93794	Cultural Resource Survey Report of Approximately 462 Acres for the Aden Hills Recreation Area, Doña Ana County, New Mexico	WRI-P-2338	304.93
Route group 1	P2	94045	Cultural Resource Survey for a Proposed Access Road Around PNM's Afton Station, as Part of the SFPP East Line Expansion Project, New Mexico Portion	WRI-P-2339	20.39
Route group 1	P2	94082	Cultural Resource Survey for a Proposed Extra Workspace to Store Spoil at I-10, as Part of the SFPP East Line Expansion Project, New Mexico Portion	WRI-P-2340	0.60
Route group 1	P2	94089	Cultural Resource Survey for an Access Road and Extra Work Space for NM 549, as Part of the SFPP East Line Expansion Project, New Mexico Portion	WRI-P-2341	13.51
Route group 1	P2	98147	Cultural Resource Survey for a Proposed Area for Equipment During Nitrogen Purge, as Part of the SFPP East Line Expansion Project, New Mexico Portion	WRI-P-2346	6.35
Route group 1	P2	99424	Cultural Resources Survey and Architectural Assessment for the Rehabilitation and Reconstruction Project and Bridge Rehabilitation (Numbers 5500 and 5701), NM 26. NMDOT Project Number AC-GRIP-(TPM)-026-1(11)30, CN G3131, District 1, Luna Co	WRI-P-2363	347.73
Route group 1	P2	106822	Unknown	WRI-P-1878	309.20

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 1	P2	110686	Final Cultural Resources Survey Report of a 43 Mile Portion of US 180 between Deming, Luna County and Bayard, Grant County, New Mexico	WRI-P-1884	686.88
Route group 1	P2	120571	Parkhill drip irrigation	WRI-P-1931	14.69
Route group 1	P2	122176	A Cultural Resources Survey Of 23.3 Miles for A Proposed Fiber Optics Line West Of Las Cruces, Doña Ana County, New Mexico	WRI-P-1932	279.06
Route group 1	P2	123164	Allen Fence	WRI-P-1937	112.49
Route group 1	P3	38414	Part 2 Buried Telephone Cable near Columbus, NM for Valley Telephone Co-Op	WRI-P-2202	86.71
Route group 1	P3	309	Patterns Of Prehistoric Land Use In Dona Ana County New Mexico - Vols I & II	WRI-P-2187	3243.44
Route group 1	P3	662	An Archaeological Clearance Survey of Eleven Seismic Testing Transects in Hidalgo, Grant, Luna and Doña Ana Counties	WRI-P-2263	2365.44
Route group 1	P3	9893	Archaeological Clearance Report for Grant Geophysical Line G-4 (presented in 3 segments)	WRI-P-2349	152.70
Route group 1	P3	9994	Archaeological Clearance Report for Grant Geophysical Line F-3, (presented in 9 segments)	WRI-P-2366	373.16
Route group 1	P3	10007	Archaeological Clearance Report for Grant Geophysical Line E-3 (presented in 6 segments)	WRI-P-1857	289.40
Route group 1	P3	10057	Archaeological Clearance Report for Grant Geophysical Line GG-3 (presented in 4 segments)	WRI-P-1861	193.17
Route group 1	P3	10058	Archaeological Clearance Report for Grant Geophysical Line L-3 (presented in 2 segments)	WRI-P-1862	80.05
Route group 1	P3	10060	Archaeological Clearance Report for Grant Geophysical Line H-4 (presented in 4 segments)	WRI-P-1864	176.23
Route group 1	P3	10140	LINE 82-904A SEGMENT 1, 2 FOR SEISMOGRAPH SERVICE CORP.	WRI-P-1870	14.55
Route group 1	P3	11245	6 SEISMOGRAPHIC TEST TRANSECTS FOR EXXON COMPANY U.S.A.	WRI-P-1904	439.45
Route group 1	P3	11402	An Archaeological Survey of Nine Seismographic Test Lines for Exxon Company in Doña Ana and Luna Counties, New Mexico	WRI-P-1908	1611.20
Route group 1	P3	13918	An Archeological Survey of Select Borrow Pit F NMSHD Project SP-GRO-7529(200)	WRI-P-1945	13.71
Route group 1	P3	18226	Preliminary Cultural Resources Survey Report for the US Telecom Fiber Optic Cable Project from San T	WRI-P-1960	1990.51

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 1	P3	23923	Archaeological Clearance Survey of a Segment of a Buried Telephone Cable Right-of-Way near Cambray, Luna County, New Mexico	WRI-P-2175	15.74
Route group 1	P3	27525	An Archaeological Survey of the Proposed Arena Pipeline near Columbus, New Mexico	WRI-P-2183	97.65
Route group 1	P3	38414	Part 2 Buried Telephone Cable near Columbus, NM for Valley Telephone Co-Op	WRI-P-2202	86.71
Route group 1	P3	41432	Blanco Tank Well near Columbus, NM for Las Cruces BLM-Mimbres Ra	WRI-P-2208	2.91
Route group 1	P3	42853	10.6 Miles Of Range Pipeline for SCS	WRI-P-2216	102.08
Route group 1	P3	45257	An Archaeological Survey of Blanco Tank Well Access Road near Mesquite Lake	WRI-P-2223	2.03
Route group 1	P3	46669	A Cultural Resource Survey of a Portion of the El Paso Natural Gas Company El Paso-Douglas Line (EPNG Line 1004), in Luna County, New Mexico	WRI-P-2227	47.92
Route group 1	P3	49300	The Columbus to Anapra Project: Survey and Testing Along the Southern New Mexico Border, Doña Ana and Luna Counties	WRI-P-2235	1159.30
Route group 1	P3	53221	Archaeological Survey Along Nineteen Southern Pacific Railroad Segments in Grant, Guadalupe, Hidalgo, Lincoln, Luna, Otero, Quay, and Doña Ana Counties, New Mexico	WRI-P-2248	401.30
Route group 1	P3	63403	JTF-6 Border Road Improvement Project Columbus, New Mexico Cultural Resources Inventory Draft Report	WRI-P-2257	1022.23
Route group 1	P3	65987	The El Paso to Los Angeles Fiber Optic Cable Project: A Cultural Resources Survey of the New Mexico	WRI-P-2262	2195.08
Route group 1	P3	67754	An Archaeological Survey of the New Mexico Portion of Link Two of the AT&T Nex/Gen Core Project	WRI-P-2265	2013.49
Route group 1	P3	67976	Revised Draft Report The El Paso Natural Gas Line No. 2000 Project: An Archaeological Re-survey of the Former All American Pipeline Across Doña Ana, Luna, Grant, and Hidalgo Counties, New Mexico Report 2	WRI-P-2267	1876.38
Route group 1	P3	71767	Cultural Resources Survey of the 360Networks Fiber Optics Line From Mesa, Arizona to El Paso, Texas	WRI-P-2274	1681.96
Route group 1	P3	74822	Cultural Resources Inventory of a Proposed Materials Pit and Office Location near Akela, Luna County, New Mexico	WRI-P-2282	2.26

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 1	P3	76587	Cultural Resource Survey of 14.82 Acres for a Proposed Fiber Optic Corridor Along New Mexico State Highway 9, Luna County, New Mexico	WRI-P-2289	12.17
Route group 1	P3	80211	Cultural Resources Overview and Identification Survey Report for the Florida Compressor Station Project Luna County, New Mexico	WRI-P-2300	8.21
Route group 1	P3	83434	Cultural Resources Overview and Identification Survey Report for the Florida Compressor Station Project Luna County, New Mexico - Addendum	WRI-P-2308	19.07
Route group 1	P3	102597	Cultural Resources Survey of Proposed Border Protection Access Roads, Equipment Staging Areas, and Border Improvements in Luna and Hidalgo Counties	WRI-P-1872	489.89
Route group 1	P4a	8622	Archeological Survey near Lordsburg for Texas-New Mexico Power Co.	WRI-P-2316	19.49
Route group 1	P4a	36583	Javelina Fence Line near Lordsburg, NM for Las Cruces BLM-Mimbres Ra	WRI-P-2200	4.58
Route group 1	P4a	76725	An Archaeological Inventory of the Pyramid Generating Station and Associated Transmission Lines, Natural Gas Pipeline, and Miscellaneous Facilities, Hidalgo and Grant Counties, Southwestern New Mexico	WRI-P-2290	1162.80
Route group 1	P4a, P4b	8847	Reynolds Interior Fence for BLM-LCRA	WRI-P-2325	6.42
Route group 1	P4a, P4b	11634	An Archaeological Survey of a Proposed 345 KV Power Transmission Line Corridor From Deming, New Mexico	WRI-P-1923	1029.08
Route group 1 and 2	P4a, P4b	37871	Existing Powerline R/W Silver City to Lordsburg, NM for Texas-NM Powerline Co	WRI-P-2201	252.71
Route group 2	P4b	7427	Telephone Cable Alongsh 70,90 &464 for Western Newmexico Phone Co./030-84-111	WRI-P-2280	100.21
Route group 2	P4b	17432	An Archaeological Clearance Survey for Two Borrow Pits and Associated Haul Roads near Lordsburg, New Mexico	WRI-P-1958	14.44
Route group 2	P4b	32720	Cultural Resource Investigations on NM 90 near Lordsburg, Hidalgo County, New Mexico, NMSHTD Project	WRI-P-2194	99.50
Route group 2	P4b	38788	A Cultural Resource Survey Along NM 90 North of Lordsburg	WRI-P-2205	47.19

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 2	P4b	45041	Cultural Resources Clearance Investigation: An Archeological Survey of the Proposed Western New Mexico	WRI-P-2221	1065.36
Route group 2	P4b	71363	Western New Mexico Telephone Company Buried Cable Installation Job P-000411 South of U.S. Highway 70	WRI-P-2273	33.70
Route group 2	P4b	79797	An Archaeological Survey of 19.3 km (12 mi) Along State Highway 90 Between MP 0 and MP 12, hidalgo C	WRI-P-2298	235.93
Route group 2	P4b	82452	Cultural Resource Survey of Five Parcels for Highway Improvement Along US 70 and NM 90 near Lordsburg, Hidalgo County, New Mexico	WRI-P-2305	68.81
Route group 2	P4c	25429	LUNT ELECTRIC FENCE LINES NEAR LORDSBURG, NM FOR LAS CRUCES BLM-MIMBRES RA	WRI-P-2181	2.91
Route group 2	P4c	43908	Along the Butterfield Trail: A Reconnaissance Survey of 40.5 Miles on Public Lands	WRI-P-2218	491.16
Route group 2	P4c	56217	A Cultural Resource Survey for the Proposed Lordsburg Interstate Highway 10 Port of Entry Project, Hidalgo County, New Mexico	WRI-P-2250	68.09
Route group 2	P4c, P5a	11590	Lordsburg Road Forks Of El Paso-Yuma Toll Line for Mt Bell	WRI-P-1919	138.65
Route group 2	P4c, P5a	18226	Preliminary Cultural Resources Survey Report for the US Telecom Fiber Optic Cable Project from San T	WRI-P-1960	1990.51
Route group 2	P4c, P5a	58617	A Cultural Resource Survey of 33.6 Kilometers (21 Miles) Along Interstate 10 West of Lordsburg IM-01	WRI-P-2253	582.64
Route group 2	P4c, P5a	67754	An Archaeological Survey of the New Mexico Portion of Link Two of the AT&T Nex/Gen Core Project	WRI-P-2265	2013.49
Route group 2	P4c, P5a	84579	An Archaeological Survey of 79.32 HA (196.04 AC) for the Proposed Placement of an Underground Teleco	WRI-P-2311	98.58
Route group 2	P4c, P5a, P5b	67976	Revised Draft Report The El Paso Natural Gas Line No. 2000 Project: An Archaeological Re-survey of the Former All American Pipeline Across Doña Ana, Luna, Grant, and Hidalgo Counties, New Mexico Report 2	WRI-P-2267	1876.38
Route group 2	P5a	8615	An Archaeological of a Drill Pad and Access Road in the Southern Playa in the Animas Valley, Hidalgo	WRI-P-2314	44.54
Route group 2	P5a	9317	Alternative Drill Pad & Access Road In Southern Playa for Pennwalt Corp	WRI-P-2336	8.19
Route group 2	P5a	14313	Dewatering Locations for All-American Pipeline Company	WRI-P-1946	52.59

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 2	P5a	15687	Archaeological Clearance Investigations for Borrow Pit A, Surfacing Pit 67-40-S, and Associated Haul	WRI-P-1949	24.00
Route group 2	P5a	20588	Box M Electric Fence Line near Lordsburg for Las Cruces BLM-Lordsburg Ra	WRI-P-2153	118.22
Route group 2	P5a	41438	An Archaeological Survey of the Last Chance Pipeline near Lordsburg, Hidalgo County, New Mexico	WRI-P-2209	13.58
Route group 2	P5a	43945	Lake Pasture Pipeline & Water Storage Area for Las Cruces BLM-Mimbres Ra	WRI-P-2220	7.93
Route group 2	P5a	63637	Western New Mexico Telephone Company Buried Cable Installation Job P-80638 near Gary, Hidalgo County	WRI-P-2259	5.87
Route group 2	P5a	64374	Cultural Resource Class III Inventory and Significance Evaluation of a Proposed Mineral Materials Pi	WRI-P-2260	45.65
Route group 2	P5a	72030	A Second Addendum to an Archaeological Survey of the New Mexico Portion of Link Two of the AT&T NEXGEN/CORE Project	WRI-P-2275	3.08
Route group 2	P5a	73823	Cultural Resources Class III Inventory of a Proposed Buried Telephone Cable and Regen Station at the	WRI-P-2277	3.39
Route group 2	P5a, P5b	123111	Steines Allotment EQIP project.	WRI-P-1936	126.81
Route group 2	P5b	10519	3 Drill Pads In Steins Mining District for Las Cruces BLM	WRI-P-1873	2.91
Route group 2	P5b	1979-37.ASM	Unknown	WRI-P-3572	532.17
Route group 2	P5b	1982-206.ASM	Unknown	WRI-P-3573	728.46
Route group 2	P5b	2001-821.ASM	I-10 Bowie Survey	WRI-P-3579	1627.97
Route group 2	P5b	2004-11.ASM/BLM 04-06		WRI-P-3517	0.17
Route group 2	P5b	BLM 01-15		WRI-P-3521	0.37
Route group 2	P5b	BLM 06-17		WRI-P-3525	6.90
Route group 2	P5b	BLM 09-32		WRI-P-3524	1.82
Route group 2	P5b	BLM 98-4		WRI-P-3522	1.09
Route group 2	P5b	BLM S# 348		WRI-P-3508	17.46
Route group 2	P5b	BLM S# 598		WRI-P-3526	2.62
Route group 2	P5b, P6a, P6b	B 196		WRI-P-3531	124.74
Route group 2	P5b, P6a, P6b	BLM 02-29		WRI-P-3499	284.92
Route group 2	P5b, P6a, P6b, P6c, P7	1985-226.ASM	All American Pipeline Right-of-way	WRI-P-3611	6103.16

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 2	P5b, P6a, P6b, P6c, P7	1985-226.ASM/BLM 1985-48		WRI-P-2000	6103.16
Route group 2	P5b, P6a, P6b, P6c, P7	1987-222.ASM	U.S. Telecom Buried Fiber Optic Cable	WRI-P-2010	14447.13
Route group 2	P5b, P6a, P6b, P6c, P7	1999-587.ASM	PBNS Level 3 Fiber Optic Line	WRI-P-2086	13854.98
Route group 2	P5b, P6a, P6b, P6c, P7	2000-826.ASM/BLM 02-21/BLM 05-24/BLM 05-09		WRI-P-2103	3311.75
Route group 2	P5b, P6a, P6b, P6c, P7	BLM 04-34		WRI-P-3457	47.08
Route group 2	P5b, P6b	BLM S# 701		WRI-P-3501	127.55
Route group 2	P6a	1979-37.ASM	Unknown	WRI-P-3572	532.17
Route group 2	P6a	2001-821.ASM	I-10 Bowie Survey	WRI-P-3579	1627.97
Route group 2	P6a, P6b	2005-302.ASM		WRI-P-2140	182.62
Route group 2	P6b	1979-37.ASM	Unknown	WRI-P-3572	532.17
Route group 2	P6b	1982-206.ASM	Unknown	WRI-P-3573	728.46
Route group 2	P6b	1988-210.ASM/BLM 89-17		WRI-P-3512	766.88
Route group 2	P6b	1999-471.ASM	I-10 Box Culverts	WRI-P-3514	67.64
Route group 2	P6b	2001-821.ASM	I-10 Bowie Survey	WRI-P-3579	1627.97
Route group 2	P6b	BLM 1986-25		WRI-P-3506	9.91
Route group 2	P6b	BLM 1987-35/BLM 1998-11		WRI-P-3513	0.17
Route group 2	P6b	BLM-040-1985-17	Jackson Mountain Project Fence	WRI-P-2367	73.44
Route group 2	P6b	BLM-040-1985-18	Horse Mountain Pasture Fence	WRI-P-2368	84.98
Route group 2	P6b	BLM-040-1985-41	Red Bird Hills Savory Fences	WRI-P-2369	122.20
Route group 2	P6b	BLM-040-1985-42	Rattlesnake Ridge Pipeline	WRI-P-2370	122.74
Route group 2	P6b	BLM-040-1985-44	Willis Dirt Tanks and Pipeline I	WRI-P-2371	130.15
Route group 2	P6b	BLM-040-1986-2	Tollgate Rock Dam	WRI-P-2372	130.65
Route group 2	P6b	BLM-040-1986-24	Westwell Pipeline	WRI-P-2373	1319.47
Route group 2	P6b	BLM-040-1986-3	Enclosure Well and Pipeline	WRI-P-2374	141.56
Route group 2	P6b	BLM-040-1987-17	Bryce Road and Pipeline Improvements	WRI-P-2375	1727.56
Route group 2	P6b	BLM-040-1987-21	N. Eden Spring Wildlife Exclosure + H2O Pipeline	WRI-P-2376	1801.51
Route group 2	P6b	BLM-040-1987-32	Gila Box Fencing	WRI-P-2377	1963.10
Route group 2	P6b	BLM-040-1987-33	Circle Fence	WRI-P-2378	2130.00
Route group 2	P6b	BLM-040-1987-34	Dry Camp Range Improvements	WRI-P-2379	2164.04

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 2	P6b	BLM-040-1987-36	Phelps Dodge MNOI and Row	WRI-P-2380	2291.19
Route group 2	P6b	BLM-040-1987-39	Goatcamp Pipeline Extension	WRI-P-2381	2360.58
Route group 2	P6b	BLM-040-1987-4	Texas Canyon Roq	WRI-P-2382	1453.32
Route group 2	P6b	BLM-040-1987-6	Redknolls Boundary Fence	WRI-P-2383	1526.56
Route group 2	P6b	BLM-040-1988-11	Cedar Dams 1 & 2	WRI-P-2384	1305.76
Route group 2	P6b	BLM-040-1988-21	Guadalupe Canyon Projects	WRI-P-2385	3244.47
Route group 2	P6b	BLM-040-1988-24	Alternative A-RABB Tank Enlargement & NW Construction	WRI-P-2386	1441.90
Route group 2	P6b	BLM-040-1988-25	Fan Allotment Developments	WRI-P-2387	2761.77
Route group 2	P6b	BLM-040-1988-30	Willis-Claridge Road	WRI-P-2388	2981.79
Route group 2	P6b, P6c	2006-142.ASM	EPNG Line 1600 Anomaly Digs	WRI-P-3635	2.77
Route group 2	P6c	2000-702.ASM	Valley Telephone Safford Survey	WRI-P-2098	691.83
Route group 2	P6c	BLM 02-21	Unknown	WRI-P-3456	111.92
Route group 2	P6c, P7	1977-6.ASM	AEPCO II, Dos Condados to Apache	WRI-P-1971	210.91
Route group 2	P6c, P7	1996-219.ASM	Southern Pacific Railroad Survey	WRI-P-2051	814.07
Route group 2	P6c, P7	1998-532.ASM	I-10 Willcox-Luzena	WRI-P-3599	173.83
Route group 2	P6c, P7	B 164/S# 210	Unknown	WRI-P-3489	310.96
Route group 2	P6c, P7	BLM 03-13	Unknown	WRI-P-3490	123.26
Route group 2	P6c, P7, P8	1976-3.ASM	AEPCO I	WRI-P-1970	1346.93
Route group 2	P6c, P7, P8	2000-732.ASM	AEPCO Apache to Dos Condados Survey	WRI-P-2100	3199.01
Route group 2	P7	1982-207.ASM	Tucson-Apache 115 kV Transmission Line	WRI-P-1986	960.98
Route group 2	P7	1997-209.ASM	SFPP Arizona Reconditioning Project	WRI-P-2059	1215.24
Route group 2	P7	2000-702.ASM	Valley Telephone Safford Survey	WRI-P-2098	691.83
Route group 2	P7	2001-294.ASM	Stuart Road	WRI-P-3597	25.17
Route group 2	P7	2005-446.ASM	Tucson-Apache 115-kV Transmission Line Project	WRI-P-2141	1510.74
Route group 2	P7	2006-1.ASM	SFPP, LP, El Paso to Phoenix Expansion Project, Arizona Portion: Cochise and Pima Counties	WRI-P-3628	3242.84
Route group 2	P7	2006-1.ASM/BLM 06-19		WRI-P-2145	3242.84
Route group 2	P7	2006-524.ASM	EPNG Line 1600 Railroad Bore	WRI-P-3634	7.43
Route group 2	P7	BLM 00-37		WRI-P-3504	106.75
Route group 2	P7	BLM 02-21		WRI-P-3456	111.92
Route group 2	P7	BLM 03-2		WRI-P-3510	77.82
Route group 2	P7	BLM 03-40		WRI-P-3520	0.29
Route group 2	P7	BLM S# 210		WRI-P-3511	13.95
Route group 2	P7	Tucson to Saguaro Resurvey of last 7 miles		WRI-P-3682	280.73

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 2	P7, P8	1955-3.ASM	Southern Pacific Pipeline Survey	WRI-P-1966	6335.84
Route group 2	P7, P8	1985-126.ASM	The Archaeology of the Willcox Playa	WRI-P-3603	32659.94
Route group 2	P7, P8	1985-213.ASM	AEPCO San Rafael Project	WRI-P-3627	3137.08
Route group 2	P7, P8	1995-447.ASM	Arizona Electric Power Cooperative Apache to Hayden Transmission Line, Southeastern Arizona	WRI-P-2044	1430.41
Route group 2	P7, P8	1999-333.ASM	AEPCO Apache to Butterfield transmission Line	WRI-P-2078	383.70
Route group 2	P7, P8	AMF Unpublished Survey		WRI-P-3532	60768.88
Route group 2	P7, P8	SWCA 2010		WRI-P-3528	190.97
Route group 1	S1	77658	Archaeological Survey of the Afton Power Plant Road Cattle Guard Bypasses, Aden to Afton, New Mexico	WRI-P-2292	2.83
Route group 1	S1	309	Patterns Of Prehistoric Land Use In Dona Ana County New Mexico - VOLS I & II	WRI-P-2187	3243.44
Route group 1	S1	7600	3024-kV Static Wire Powerline for El Paso Electric Company	WRI-P-2287	22.58
Route group 1	S1	11154	An Archaeological Survey of Five Geothermal Testing Transects in Southwestern Doña Ana County, New Mexico	WRI-P-1891	4708.41
Route group 1	S1	11166	2 Seismic Transects for Arma Geophysical	WRI-P-1892	389.65
Route group 1	S1	11178	Buried Telephone Cable for Mountain Bell	WRI-P-1895	90.20
Route group 1	S1	11580	5 Drilling Sites for Phillips Petroleum Company	WRI-P-1918	0.89
Route group 1	S1	19980	An Archeological Clearance Survey of a Proposed Loran-C Radionavigation Facility on Bureau of Land Management, Doña Ana County, New Mexico	WRI-P-2070	150.45
Route group 1	S1	21389	Archaeological Clearance Survey of a Buried Telephone Cable Right-of-Way At Afton Pumping Station, Doña Ana County, New Mexico	WRI-P-2164	3.17
Route group 1	S1	32217	County Road R/W Aquisitions for Dona Ana County Road Dept	WRI-P-2192	72.75
Route group 1	S1	70023	Cultural Resource Survey for the Proposed Natural Gas Generation and Transmission Afton Project Doña Ana County, New Mexico	WRI-P-2270	183.85
Route group 1	S1	87149	Cultural Resources Survey of 7 Acres for Two Proposed Borrow Pits on State Land in Doña Ana County, New Mexico for M. J. Shurigar Construction, Inc.	WRI-P-2323	7.29

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 1	S1	94045	Cultural Resource Survey for a Proposed Access Road Around PNM's Afton Station, as Part of the SFPP East Line Expansion Project, New Mexico Portion	WRI-P-2339	20.39
Route group 1	S1, S2	11439	38 Geothermal Drilling Locations for Anadarko Production Company	WRI-P-1911	8.00
Route group 1	S1, S2	18349	An Archaeological Reconnaissance in West Doña Ana County	WRI-P-1961	552.71
Route group 1	S1, S2	31185	An Archaeological Clearance Survey of Nine Hydrocarbon Testing Transects in Southern Doña Ana County	WRI-P-2188	1769.65
Route group 1	S1, S5	11402	An Archaeological Survey of Nine Seismographic Test Lines for Exxon Company in Doña Ana and Luna Counties, New Mexico	WRI-P-1908	1611.20
Route group 1	S1, S8	65987	The El Paso to Los Angeles Fiber Optic Cable Project: A Cultural Resources Survey of the New Mexico	WRI-P-2262	2195.08
Route group 1	S1, S8	67754	An Archaeological Survey of the New Mexico Portion of Link Two of the AT&T Nex/Gen Core Project	WRI-P-2265	2013.49
Route group 1	S1, S8	67976	Revised Draft Report The El Paso Natural Gas Line No. 2000 Project: An Archaeological Re-survey of the Former All American Pipeline Across Doña Ana, Luna, Grant, and Hidalgo Counties, New Mexico Report 2	WRI-P-2267	1876.38
Route group 1	S2	7089	Vevay Pipeline & 6 Livestock Watering Troughs for BLM	WRI-P-2272	128.47
Route group 1	S2	9843	Archaeological Clearance Report for Grant Geophysical Corporation Line I-5 (presented in 4 segments)	WRI-P-2347	242.96
Route group 1	S2	9910	Archaeological Clearance Report for Grant Geophysical Line QQ-4 (presented in 2 segments)	WRI-P-2359	108.27
Route group 1	S2	9951	Archaeological Clearance Report for Grant Geophysical Line H-5 (presented in three segments)	WRI-P-2364	140.49
Route group 1	S2	11175	2 Drill Sites for Geothermal Services	WRI-P-1893	0.44
Route group 1	S2	11441	Survey near Kilbourne Hole for Geothermex	WRI-P-1912	30.15
Route group 1	S2	38616	4 Seismic Testing Lines near Mt. Riley, NM for CGG Land Seismic	WRI-P-2204	272.17
Route group 1	S2	41537	Gravel Pit, Crusher Site & Haul Road, East Potrillo Mtns for James Hamilton Cons	WRI-P-2210	33.03
Route group 1	S2	42195	San Pit near The East Potrillo Mountains for James Hamilton Construction Co	WRI-P-2214	40.15

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 1	S2	74250	Archaeological Damage Assessment Report for East Potrillo Village (LA 2287), Doña Ana County, New Mexico	WRI-P-2279	14.35
Route group 1	S2, S3	11184	Restless Prospect for Geothermal Services, Inc.	WRI-P-1896	99.36
Route group 1	S2, S3	11248	39 Geothermal Temperature Gradient Drill Pad Sites for Geothermal Service	WRI-P-1905	8.00
Route group 1	S2, S3	11324	15 Drill Hole Sites near Radium Springs for Geothermal Services	WRI-P-1907	9.45
Route group 1	S2, S3, S4, S5	49300	The Columbus to Anapra Project: Survey and Testing Along the Southern New Mexico Border, Doña Ana and Luna Counties	WRI-P-2235	1159.30
Route group 1	S3	9895	Archaeological Clearance Report for Grant Geophysical Line R-4	WRI-P-2350	93.81
Route group 1	S3	11544	Cultural Resource Survey of Five Proposed Borrow Pits near Anapra, New Mexico Project No. SP-GRO-7513(201)	WRI-P-1917	93.90
Route group 1	S3	11592	An Archaeological Reconnaissance Survey of Five Proposed Drilling Locations and One Access Road in Doña Ana County, New Mexico	WRI-P-1920	9.00
Route group 1	S3	16495	Shiloh Well #2 near Mt Riley NM for Johnhansen, LasCruces BLM Office	WRI-P-1954	0.56
Route group 1	S3	38616	4 Seismic Testing Lines near Mt. Riley, NM for CGG Land Seismic	WRI-P-2204	272.17
Route group 1	S3	119062	A Cultural Resources Inventory Of 4.7 Acres for EPT-STN-136, A Proposed U.S. Customs And Border Protection Communication Site In Southwestern Doña Ana County, NM.	WRI-P-1925	4.70
Route group 1	S3, S4	15914	Cultural Resource Survey of Three Proposed Borrow Pit Extensions near Anapra, New Mexico, Project No. SP-GRO-7513(201)	WRI-P-1950	13.46
Route group 1	S3, S4	49612	Cultural Resources Class III Inventory of a Proposed Sand Pit on BLM Land near the West Potrillo Mountains, Doña Ana County, New Mexico	WRI-P-2237	6.65
Route group 1	S3, S4	51054	Cultural Resources Class III Inventory of a Proposed Sand Pit on BLM Land near the West Potrillo Mountains, Doña Ana County, New Mexico	WRI-P-2246	45.57
Route group 1	S3, S4, S5	12787	Cultural Resource Survey of Proposed Borrow and Surfacing Pits Along the Columbus-Anapra Route Project No. SP-GRO-7529(200)	WRI-P-1943	11.82

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 1	S4	76587	Cultural Resource Survey of 14.82 Acres for a Proposed Fiber Optic Corridor Along New Mexico State Highway 9, Luna County, New Mexico	WRI-P-2289	12.17
Route group 1	S4	110649	Unknown	WRI-P-1883	59.80
Route group 1	S4	18878	200 FT BY 430 FT CALICHE PIT EXPANSION FOR MERRYMAN CONST	WRI-P-1964	0.64
Route group 1	S4	35220	An Archaeological Survey of the Proposed Malpais Pipeline near Columbus, New Mexico	WRI-P-2197	6.21
Route group 1	S4	40005	23 Hectares Along The International Border for US Dept Of Defense	WRI-P-2206	65.78
Route group 1	S4	49104	Cultural Resource Survey of a Proposed Gravel Quarry and Crusher Plant Locations Luna County, New Mexico	WRI-P-2234	39.15
Route group 1	S4	50486	Archaeological Survey for Two Pieces of Road, Two Helipads and an Observation Post for JTF 6 in the Boothill Region of Southeastern Hidalgo County, New Mexico	WRI-P-2243	2124.33
Route group 1	S4	119063	A Cultural Resources Survey of a Proposed US Customs and Border Protection Communications Tower Site EPT-STN-031 and Access Road in Doña Ana County, NM	WRI-P-1926	6.53
Route group 1	S4, S5	13918	An Archeological Survey of Select Borrow Pit F NMSHD Project SP-GRO-7529(200)	WRI-P-1945	13.71
Route group 1	S4, S5	27525	An Archaeological Survey of the Proposed Arena Pipeline near Columbus, New Mexico	WRI-P-2183	97.65
Route group 1	S5	10090	Line 82-913 for Seismograph Services Corporation	WRI-P-1868	11.81
Route group 1	S5	17399	New Bush Reid Reservoir near Columbus for Las Cruces BLM - Lordsburg Ra	WRI-P-1957	2.27
Route group 1	S5	18868	Cultural Resource Survey of Proposed Pit 87-5-S near Columbus Pro9ject No. F-01301(21)	WRI-P-1963	26.29
Route group 1	S5	19856	A Cultural Resources Survey of State Road 11 from the International Border through the Columbus Historic District	WRI-P-2003	109.83
Route group 1	S5	19864	A Cultural Resource Survey of Borrow Pit B, near Columbus	WRI-P-2006	4.29
Route group 1	S5	22734	Cultural Resource Survey of a Proposed Borrow Pit near Columbus, Luna County F-013-1(21)	WRI-P-2166	19.76
Route group 1	S5	27852	Cultural Resources Survey Along State Road 9 near Columbus, Luna County NMSHTD District One	WRI-P-2184	81.23

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 1	S5	38414	Part 2 Buried Telephone Cable near Columbus, NM for Valley Telephone Co-Op	WRI-P-2202	86.71
Route group 1	S5	42198	An Archaeological Clearance Survey of a Proposed Sand Pit and Haul Road near Columbus, Luna County, New Mexico	WRI-P-2215	46.37
Route group 1	S5	63403	JTF-6 Border Road Improvement Project Columbus, New Mexico Cultural Resources Inventory Draft Report	WRI-P-2257	1022.23
Route group 1	S5	79289	An Archaeological Survey of the Proposed US Customs Border Inspection Station Expansion Site, Columbus, Luna County, New Mexico	WRI-P-2297	26.06
Route group 1	S5	80031	Cultural Resources Survey of Proposed Wastewater Lines and Lift Stations in Columbus, New Mexico, for Parkhill, Smith, and Cooper, Inc.	WRI-P-2299	143.16
Route group 1	S5	91703	Archaeological Survey Proposed Water System Improvements Columbus, Luna County, New Mexico	WRI-P-2334	84.12
Route group 1	S5	93390	Zachek-Akers, Drip Irrigation System, SE 1/4, Sec 35, T28W, R10W	WRI-P-2337	14.60
Route group 1	S5	98867	Archaeological Survey of 9.1 Acres of a Proposed Alternate Waterline Right-of-Way and Reverse Osmosis Facility in Columbus, Luna County, New Mexico	WRI-P-2348	13.32
Route group 1	S5	113215	Cultural Resource Survey for the Mimbres Due Diligence Project, Luna County, New Mexico	WRI-P-1906	2141.49
Route group 1	S5	114115	A Cultural Resource Survey for an Ancillary Access Road between the Columbus Port-of-Entry and NM Highway 11, Luna County, New Mexico	WRI-P-1910	14.95
Route group 1	S5, S6	6999	Cultural Resources Clearance Investigation Valley Telephone Co-op Archeological Survey-Part 1-1984 Location for Placement of Buried Telephone Cable Along State Highway 9	WRI-P-2269	208.71
Route group 1	S5, S6	60016	Cultural Resources Class III Inventory and Significance Evaluation of a Proposed Highway Fencing Project Along NM 9 near Hermanas	WRI-P-2255	123.16
Route group 1	S5, S6, S7	86095	Cultural Resource Survey for Twelve Proposed Remote Video Surveillance Locations, near Deming, Luna County, New Mexico	WRI-P-2313	2.66

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 1	S5, S6, S7	102597	Cultural Resources Survey of Proposed Border Protection Access Roads, Equipment Staging Areas, and Border Improvements in Luna and Hidalgo Counties	WRI-P-1872	489.89
Route group 1	S6	12786	Cultural Resource Survey of Two Construction and Maintenance Easements (CME's) near Hermanas, New Mexico, District I	WRI-P-1942	0.45
Route group 1	S6	40005	23 Hectares Along The International Border for Us Dept Of Defense	WRI-P-2206	65.78
Route group 1	S6, S7	662	An Archaeological Clearance Survey of Eleven Seismic Testing Transects in Hidalgo, Grant, Luna and Doña Ana Counties	WRI-P-2263	2365.44
Route group 1	S6, S7	49894	A Cultural Resource Inventory Along NM 9 Between Victorio and Hermanas	WRI-P-2241	277.15
Route group 1	S7	7592	3 SEISMIC TRANSECTS FOR DAWSON GEOPHYSICAL COMPANY	WRI-P-2286	121.04
Route group 1	S7	9753	LINE #7 BLACK MT,STATE SEGMENT CEDAR MOUNTAIN RNG SEGMENT FO SEISMOGRAPH SERV.CO	WRI-P-2342	68.64
Route group 1	S7	11081	GRAVEL PIT FOR BURNS CONSTRUCTION COMPANY INC.	WRI-P-1885	11.61
Route group 1	S7	83117	Yucca Grassland Exclosure Study Areas	WRI-P-2306	66.65
Route group 1	S7	112395	A Cultural Resources Survey for the Addendum to the Hachita MDWCA Water Systems Project	WRI-P-1903	3.48
Route group 1	S7	244	Cultural Resource Investigations of NM 9 in Hidalgo and Grant Counties, New Mexico	WRI-P-2179	253.15
Route group 1	S7	644	Seismograph Services Corp Line 82-915 (Presented In 5 Segments) Report F83-243	WRI-P-2261	107.18
Route group 1	S7	2091	Seismograph Services Corp. Line #7 Black Mountain Draw Segment Line #7 Etc. Duplicate	WRI-P-2156	32.48
Route group 1	S7	2109	Seismograph Services Corp. Line #3	WRI-P-2157	37.01
Route group 1	S7	2117	Line #12 for Seismograph Services	WRI-P-2158	29.75
Route group 1	S7	2118	Seismographs Services Corp.- Line # 13	WRI-P-2159	30.48
Route group 1	S7	2127	Seismograph Services Corp. Line #9,Cedar Mt. & Seirra Rica Seg.	WRI-P-2160	86.10
Route group 1	S7	2129	Seismograph Services Corp. Line #6	WRI-P-2161	37.76
Route group 1	S7	2212	Archaeological Clearance Survey for Seismograph Services Corporation Line #8, Rock Hole Canyon Segment Line #8 Apache Hills Segment	WRI-P-2165	173.40

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 1	S7	2309	Seismograph Services Corporation Line #19	WRI-P-2168	38.98
Route group 1	S7	2314	Archaeological Clearance Report for Seismograph Services Corporation Line #11	WRI-P-2169	121.78
Route group 1	S7	2315	Archaeological Clearance Report for Seismograph Services Corporation Line #14 & Line #17	WRI-P-2170	293.85
Route group 1	S7	8653	Cultural Resource Investigations at a Proposed Borrow Pit on SR 9, Luna County, New Mexico	WRI-P-2318	25.79
Route group 1	S7	8686	Archaeological Investigations Along State Road 9, Luna County Line East for 5.5 Miles, NMSHD District I	WRI-P-2321	66.21
Route group 1	S7	8700	Cultural Resource Inventory at a Cattleguard for Access to Victorio Ranch near Hachita, New Mexico	WRI-P-2322	0.22
Route group 1	S7	10088	Line 82-911 Segment 1 & 2 for Seismograph Services Corp.	WRI-P-1866	98.59
Route group 1	S7	10089	Line 82-912 for Seismograph Services Corporation	WRI-P-1867	77.58
Route group 1	S7	10143	Seismic Corridor 82-901 for Seismograph Services	WRI-P-1871	101.77
Route group 1	S7	11050	An Archaeological Clearance Survey of a 14.4 kV Powerline in Luna County	WRI-P-1882	39.52
Route group 1	S7	11140	3 Seismic Lines for Pacific West	WRI-P-1890	168.82
Route group 1	S7	11208	6 Seismic Testing Transects for Geophysical Service Incorporated	WRI-P-1898	286.52
Route group 1	S7	20602	3 Proposed Transmission Line R/W's for Columbus Electric Coop	WRI-P-2154	59.75
Route group 1	S7	23393	Black Mtn Pipe Line near Hachita for Las Cruces BLM-Lordsburg Ra	WRI-P-2171	15.96
Route group 1	S7	28821	Hurt Pipe Line for Las Cruces BLM-Mimbres Ra	WRI-P-2186	1.29
Route group 1	S7	41397	A Cultural Resource Survey on NM 9 East of Hachita MNSHTD Project No. SP-UO-2106(204) CN 2389	WRI-P-2207	64.38
Route group 1	S7	42867	Sand & Gravel Pit BLM Land near Victorio Ranch for James Hamilton Construction	WRI-P-2217	168.25
Route group 1	S7	45893	Archaeological Survey of Portions of a Seismic Line in the Playas Valley and Coyote Hills, Hidalgo and Grants County, New Mexico	WRI-P-2224	140.53
Route group 1	S7	46058	An Archaeological Clearance Survey of a Proposed Valley Telephone Cooperative Underground Telephone Cable Right-of-way Between Animas, Playas and Separ in Hidalgo and Grant Counties, New Mexico	WRI-P-2226	456.82

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 1	S7	50514	An Archaeological Clearance Survey of Two Proposed Yard Areas, Three Haul Roads and a Sand Pit on State and Private Land, Grant County, New Mexico	WRI-P-2244	333.23
Route group 1	S7	50691	Cultural Resource Survey of a Proposed Gravel Quarry Location Along New Mexico Highway 9 Luna County, New Mexico	WRI-P-2245	37.37
Route group 1	S7	83537	A Class III Archaeological Survey of a 7-Mile-Long Fiber Optic Right-of-Way Along New Mexico Highways 9 and 81 in Grant and Luna Counties, near Hachita, New Mexico	WRI-P-2309	42.22
Route group 1	S7	89193	Letter Report: Valley Reroute Through Hachita	WRI-P-2326	5.23
Route group 1	S7	101001	A Cultural Resource Survey of Approximately 10 Acres for the Proposed Construction of Two Border Patrol Forward Operating Bases near Lordsburg and Deming, Luna and Hidalgo Counties, New Mexico	WRI-P-1869	16.64
Route group 1	S7	106674	Cultural Resource Survey of Approximately Five Miles for the Construction and Replacement of Waterline in Hachita, Grant County, New Mexico	WRI-P-1875	26.26
Route group 1	S7	122429	A Cultural Resource Survey for the Ward Ranch Pipe Line, Fence Line, and Road Stabilization Project 2011, Grant County, New Mexico	WRI-P-1933	239.94
Route group 1	S7	122668	A Cultural Resources Survey for the Victorio Ranch Fence Line Replacement Project 2011, Luna County, New Mexico.	WRI-P-1934	55.53
Route group 1	S7, S8	28038	3 Catchment Ponds & Water Well near Lordsburg, NM for A & S Construction Co	WRI-P-2185	15.98
Route group 1	S8	7583	7 Microwave Tower Locations for Mirror Imicrowave Communications	WRI-P-2284	67.50
Route group 1	S8	11634	An Archaeological Survey of a Proposed 345 KV Power Transmission Line Corridor From Deming, New Mexico	WRI-P-1923	1029.08
Route group 1	S8	15427	Cultural Resource Investigations near SR 9 and I-10 Grant County, New Mexico, NMSHD Projects SP-2009(200) and IR-010-1(39)34	WRI-P-1947	111.87
Route group 1	S8	18226	Preliminary Cultural Resources Survey Report for the US Telecom Fiber Optic Cable Project from San T	WRI-P-1960	1990.51
Route group 1	S8	35150	Cultural Resource Investigations at a Proposed Drainage Easement on the Hidalgo County Road South of I-10 Muir Exchange	WRI-P-2195	1.45

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 1	S8	35198	An Archaeological Survey of a Proposed County Road near Lordsburg, Hidalgo County, New Mexico	WRI-P-2196	245.22
Route group 1	S8	35526	WNMTC-PART 107-1991 Buried Optic Cable Along I-10 Lordsburg to Separ for WNMTC	WRI-P-2199	66.59
Route group 1	S8	48769	A Cultural Resource Survey on Eastbound I-10 Through Grant County	WRI-P-2231	223.02
Route group 1	S8	49376	An Archaeological Clearance Survey of Three Proposed Borrow Pits, One Crusher/Hot Plant Site and an Access Road near Muir Ranch, Hidalgo and Grant Counties, New Mexico	WRI-P-2236	77.52
Route group 1	S8	71767	Cultural Resources Survey of the 360Networks Fiber Optics Line From Mesa, Arizona to El Paso, Texas	WRI-P-2274	1681.96
Route group 1	S8	76725	An Archaeological Inventory of the Pyramid Generating Station and Associated Transmission Lines, Natural Gas Pipeline, and Miscellaneous Facilities, Hidalgo and Grant Counties, Southwestern New Mexico	WRI-P-2290	1162.80
Route group 1	S8	86707	Archaeological Survey in Hidalgo and Grant Counties for the New Mexico State Land Office on Leased Land	WRI-P-2319	70.34
Route group 1	S8	90427	Cultural Resource Survey for the Proposed Muir Anode Replacement, Grant County, New Mexico	WRI-P-2333	4.32
Route group 1	S8	99408	Cultural Resource Survey Along I-10 between Mile Posts 34.2 and 44.8 for Pavement Preservation and Reconstruction, Grant County, New Mexico AC-GRIP-(IM)-10-1(80)34, CN G1721 Parametrix Task Order 4688-11 New Mexico Department of Transportation	WRI-P-2362	285.18
Route group 1	S8	115267	A Cultural Resource Survey for the Proposed Tessera Solar Weather Monitoring Station, Grant County, New Mexico	WRI-P-1916	0.90
Upgrade Section					
Route group 4	TH1 Option	1974-4.ASM	Tumamoc Survey	WRI-P-1969	1082.49
Route group 4	TH1 Option	2003-369.ASM	Tumamoc Hill Damage Assessment	WRI-P-2126	870.88
Route group 4	TH1a	11-42-19F.BLM	Unknown	WRI-P-1880	2.59
Route group 4	TH1a	1974-4.ASM	Tumamoc Survey	WRI-P-1969	1082.49
Route group 4	TH1a	1980-18.ASM	Paseo Vista	WRI-P-1977	79.79
Route group 4	TH1a	1982-207.ASM	Tucson-Apache 115 kV Transmission Line	WRI-P-1986	960.98

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 4	TH1a	2000-378.ASM	Starr Pass-Greasewood 145-Acre Survey	WRI-P-2092	138.30
Route group 4	TH1a	2003-1070.ASM	EPNG Tucson Class III Survey	WRI-P-2117	726.72
Route group 4	TH1a	2003-369.ASM	Tumamoc Hill Damage Assessment	WRI-P-2126	870.88
Route group 4	TH1a	2005-446.ASM	Tucson-Apache 115-kV Transmission Line Project	WRI-P-2141	1510.74
Route group 4	TH1a	Tucson to Saguaro Resurvey of last 7 miles		WRI-P-3682	280.73
Route group 4	TH1b	11-42-19F.BLM	Unknown	WRI-P-1880	2.59
Route group 4	TH1b	1974-4.ASM	Tumamoc Survey	WRI-P-1969	1082.49
Route group 4	TH1b	1985-150.ASM	Archaeological Survey of the El Rio - Starr Pass Water Line, Tucson, Arizona	WRI-P-1996	100.21
Route group 4	TH1b	1991-109.ASM	Cultural Resources Inventory for 11 CAP Pressure Regulating Valve Station Sites in Tucson and Pima Counties	WRI-P-3664	4.43
Route group 4	TH1b	1993-159.ASM	La Cholla-Speedway Survey	WRI-P-3653	28.40
Route group 4	TH1b	1993-160.ASM	Speedway Boulevard And Greasewood Road Survey	WRI-P-3574	0.67
Route group 4	TH1b	1998-90.ASM	Left Turn Lane Speedway/Camino Santiago	WRI-P-3656	19.45
Route group 4	TH1b	2003-1070.ASM	EPNG Tucson Class III Survey	WRI-P-2117	726.72
Route group 4	TH1b	2003-369.ASM	Tumamoc Hill Damage Assessment	WRI-P-2126	870.88
Route group 4	TH1c	1982-207.ASM	Tucson-Apache 115 kV Transmission Line	WRI-P-1986	960.98
Route group 4	TH1c	1987-222.ASM	U.S. Telecom Buried Fiber Optic Cable	WRI-P-2010	14447.13
Route group 4	TH1c	1990-162.ASM	Archaeological Survey of Speedway/Pima Widening Project	WRI-P-2020	104.25
Route group 4	TH1c	1991-166.ASM	Silverbell Rd - Grant to Speedway Widening, Plan R	WRI-P-3612	23.91
Route group 4	TH1c	1991-279.ASM	Silvercroft Wash-Speedway to Grant Survey	WRI-P-2026	15.82
Route group 4	TH1c	2005-446.ASM	Tucson-Apache 115-kV Transmission Line Project	WRI-P-2141	1510.74
Route group 4	TH1c	Tucson to Saguaro Resurvey of last 7 miles		WRI-P-3682	280.73
Route group 4	TH3 Option A	2005-446.ASM	Tucson-Apache 115-kV Transmission Line Project	WRI-P-2141	1510.74
Route group 4	TH3 Option A	1122.02		WRI-P-1899	216.29
Route group 4	TH3 Option A	1979-38.ASM	Santa Cruz River Park Survey	WRI-P-1973	5648.21
Route group 4	TH3 Option A	1982-207.ASM	Tucson-Apache 115 kV Transmission Line	WRI-P-1986	960.98

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 4	TH3 Option A	2000-785.ASM	I-19/Irvington SWC	WRI-P-3647	54.74
Route group 4	TH3 Option A	2003-1443.ASM	Irvington-Calle Santa Cruz Survey	WRI-P-3648	0.22
Route group 4	TH3 Option A	2003-230.ASM	CTA51 (South Gravity Main Survey)	WRI-P-2124	28.06
Route group 4	TH3 Option A	2006-653.ASM	Parque de Santa Cruz Data Recovery - East of Calle Santa Cruz	WRI-P-3667	219.63
Route group 4	TH3 Option A	2010-207.ASM	Irvington Road Survey	WRI-P-3665	0.41
Route group 4	TH3 Option B	1979-38.ASM	Santa Cruz River Park Survey	WRI-P-1973	5648.21
Route group 4	TH3 Option B	2009-617.ASM	Irvington/Midvale Survey	WRI-P-3657	1.63
Route group 4	TH3 Option B	2012-120.ASM		WRI-P-3668	1.40
Route group 4	TH3 Option C	10.1291.SHPO		WRI-P-3674	21.74
Route group 4	TH3 Option C	1979-38.ASM	Santa Cruz River Park Survey	WRI-P-1973	5648.21
Route group 4	TH3 Option C	1993-213.ASM	Julian/Rodeo Wash Survey	WRI-P-3616	614.61
Route group 4	TH3 Option C	1994-172.ASM	SR 86	WRI-P-2034	44.46
Route group 4	TH3 Option C	1997-73.ASM	Southside Gravity Main Rehabilitation Project	WRI-P-3651	12.52
Route group 4	TH3 Option C	1999-592.ASM	Tucson Maintenance I-19	WRI-P-2087	1071.96
Route group 4	TH3 Option C	2001-401.ASM	Ajo Way Landscaping Survey	WRI-P-3649	7.79
Route group 4	TH3 Option C	2003-230.ASM	CTA51 (South Gravity Main Survey)	WRI-P-2124	28.06
Route group 4	TH3 Option C	2004-23.ASM	Santa Cruz Sports Park	WRI-P-3624	172.13
Route group 4	TH3a	1122.02		WRI-P-1899	216.29
Route group 4	TH3a	10.1149.SHPO		WRI-P-3672	88.20
Route group 4	TH3a	10.1242.SHPO		WRI-P-3673	422.81
Route group 4	TH3a	1979-38.ASM	Santa Cruz River Park Survey	WRI-P-1973	5648.21
Route group 4	TH3a	1982-207.ASM	Tucson-Apache 115 kV Transmission Line	WRI-P-1986	960.98
Route group 4	TH3a	1983-207.ASM		WRI-P-3679	88.90
Route group 4	TH3a	1985-184.ASM	Archaeological Investigations of Project I-19-1-401, Tucson	WRI-P-1998	5.95
Route group 4	TH3a	1990-76.ASM	Archaeological Survey of City of Tucson TCE Extraction Well and Treatment Facility Sites	WRI-P-3637	72.92

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 4	TH3a	1991-82.ASM	Michigan Street-12th Avenue Main Replacement Plan No. 1-197-161-90	WRI-P-3646	13.99
Route group 4	TH3a	1993-165.ASM	AIRPORT WASH SURVEY	WRI-P-3650	22.58
Route group 4	TH3a	1993-213.ASM	Julian/Rodeo Wash Survey	WRI-P-3616	614.61
Route group 4	TH3a	1997-73.ASM	Southside Gravity Main Rehabilitation Project	WRI-P-3651	12.52
Route group 4	TH3a	1999-362.ASM	Phase I of the Tucson Freeway Management System	WRI-P-2082	77.93
Route group 4	TH3a	1999-592.ASM	Tucson Maintenance I-19	WRI-P-2087	1071.96
Route group 4	TH3a	2000-412.ASM	Closed Landfill Survey	WRI-P-3644	11.77
Route group 4	TH3a	2000-785.ASM	I-19/Irvington SWC	WRI-P-3647	54.74
Route group 4	TH3a	2002-17.ASM	Landfill Monitor Well Survey	WRI-P-3615	0.69
Route group 4	TH3a	2004-23.ASM	Santa Cruz Sports Park	WRI-P-3624	172.13
Route group 4	TH3a	2005-446.ASM	Tucson-Apache 115-kV Transmission Line Project	WRI-P-2141	1510.74
Route group 4	TH3a	2006-653.ASM	Parque de Santa Cruz Data Recovery - East of Calle Santa Cruz	WRI-P-3667	219.63
Route group 4	TH3a	2010-244.ASM	T-Mobile PH20897-D	WRI-P-3663	0.31
Route group 4	TH3a	SHPO-2001-621	Request for Evaluation - Telecommunication Facility - Montana Well #21 PH20897D - 1000 West Drexel	WRI-P-3613	0.05
Route group 4	TH3b	1979-38.ASM	Santa Cruz River Park Survey	WRI-P-1973	5648.21
Route group 4	TH3b	1983-95.ASM	Proposed I-10 -- SR 210 Interchange Area, West of Granada Avenue: the Aviation Corridor Project	WRI-P-3641	51.53
Route group 4	TH3b	1985-150.ASM	Archaeological Survey of the El Rio - Starr Pass Water Line, Tucson, Arizona	WRI-P-1996	100.21
Route group 4	TH3b	1986-214.ASM		WRI-P-3680	1060.90
Route group 4	TH3b	1987-216.ASM	Santa Cruz River: St. Mary's to Speedway, Speedway to Grant, and Grant to Fort Lowell	WRI-P-2008	80.97
Route group 4	TH3b	1987-222.ASM	U.S. Telecom Buried Fiber Optic Cable	WRI-P-2010	14447.13
Route group 4	TH3b	1989-190.ASM	Phase I Evaluation of W. Speedway, Silverbell Road-Santa Cruz River, Improvement Project	WRI-P-2018	17.57
Route group 4	TH3b	1989-192.ASM	City of Tucson Silverlake Road Survey	WRI-P-3614	39.59
Route group 4	TH3b	1990-77.ASM		WRI-P-3660	5.98
Route group 4	TH3b	1993-179.ASM	Enchantment Resort Survey	WRI-P-3659	11.12
Route group 4	TH3b	1993-213.ASM	Julian/Rodeo Wash Survey	WRI-P-3616	614.61
Route group 4	TH3b	1993-361.ASM	Cottonwood Lane Riprap Construction Project	WRI-P-3654	3.65
Route group 4	TH3b	1994-318.ASM	Santa Cruz Bikepath Survey	WRI-P-3586	65.31

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 4	TH3b	1995-443.ASM	Archaeological Investigations of the Early Agricultural Period Settlement at the Base of A-Mountain	WRI-P-3585	10.44
Route group 4	TH3b	1995-84.ASM	A-Mountain Drainage System Testing	WRI-P-3642	55.38
Route group 4	TH3b	1996-480.ASM	Miscellaneous Monitoring for Southwest Gas	WRI-P-3640	600.34
Route group 4	TH3b	1998-135.ASM	Survey and Records Check Rio Nuevo South	WRI-P-3645	53.06
Route group 4	TH3b	1998-271.ASM	Rio Nuevo Center Survey	WRI-P-3638	9.21
Route group 4	TH3b	1998-36.ASM	Silverlake DPI: I-10 to Mission Survey	WRI-P-3655	17.00
Route group 4	TH3b	1998-38.ASM	Broadway Boulevard/6th Avenue Water Main Survey	WRI-P-3658	248.76
Route group 4	TH3b	1998-38.ASM	Broadway Boulevard/6th Avenue Water Main Survey	WRI-P-3661	248.76
Route group 4	TH3b	2000-284.ASM	Moratorium Streets Survey	WRI-P-3662	193.26
Route group 4	TH3b	2000-412.ASM	Closed Landfill Survey	WRI-P-3644	11.77
Route group 4	TH3b	2000-615.ASM	Mission to Starr Pass Monitoring	WRI-P-3643	3.02
Route group 4	TH3b	2001-146.ASM	Lot 19 Assessment	WRI-P-3639	6.62
Route group 4	TH3b	2003-1070.ASM	EPNG Tucson Class III Survey	WRI-P-2117	726.72
Route group 4	TH3b	2004-23.ASM	Santa Cruz Sports Park	WRI-P-3624	172.13
Route group 4	TH3b	2004-324.ASM	Corrosion Prevention Project Assessment and Survey	WRI-P-2133	463.09
Route group 4	TH3b	2004-415.ASM	Line 1007 ACOE Anomalies Survey	WRI-P-3607	18.59
Route group 4	TH3b	2006-712.ASM		WRI-P-2147	50.77
Route group 4	TH3b	2008-606.ASM	Starr Pass and Mission Interchange Survey	WRI-P-3632	16.59
Route group 4	TH3b	SHPO-2004-0008	CSI - Communication Service, Inc. T-Mobile Proposed site PH35202A "TEP Lattice Tower" Proposed	WRI-P-3563	0.25
Route group 3	U1a	1651.02		WRI-P-1955	7.18
Route group 3	U1a	1984-136.ASM		WRI-P-1991	329.77
Route group 3	U1a	1985-213.ASM	AEPCO San Rafael Project	WRI-P-3627	3137.08
Route group 3	U1a	1995-447.ASM	Arizona Electric Power Cooperative Apache to Hayden Transmission Line, Southeastern Arizona	WRI-P-2044	1430.41
Route group 3	U1a	1999-333.ASM	AEPCO Apache to Butterfield transmission Line	WRI-P-2078	383.70
Route group 3	U1a	AMF Unpublished Survey		WRI-P-3532	60768.88
Route group 3	U1a	BLM 03-2		WRI-P-3510	77.82
Route group 3	U1a	BLM 08-17		WRI-P-3488	43.07
Route group 3	U1a	R19840305052		WRI-P-2389	26.56
Route group 3	U1a	R19990305002		WRI-P-2390	25.11
Route group 3	U1a	SWCA 2010		WRI-P-3528	190.97

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 3	U1a, U1b, U2	1997-209.ASM	SFPP Arizona Reconditioning Project	WRI-P-2059	1215.24
Route group 3	U1a, U1b, U2	2001-816.ASM		WRI-P-2112	496.58
Route group 3	U1a, U1b, U2	2006-1.ASM	SFPP, LP, El Paso to Phoenix Expansion Project, Arizona Portion: Cochise and Pima Counties	WRI-P-3628	3242.84
Route group 3	U1a, U1b, U2	2006-1.ASM/BLM 06-19		WRI-P-2145	3242.84
Route group 3	U1a, U1b, U2, U3a	1997-469.ASM	Butterfield to Pantano Survey	WRI-P-2062	473.43
Route group 3	U1a, U1b, U2, U3a	1997-501.ASM	AEPCO Survey, Butterfield to Pantano	WRI-P-2063	473.43
Route group 3 and 4	U1a, U1b, U2, U3a, U3b, U3c, U3d, U3e, U3f, U3g, U3h, U3i	1982-207.ASM	Tucson-Apache 115 kV Transmission Line	WRI-P-1986	960.98
Route group 3 and 4	U1a, U1b, U2, U3a, U3b, U3c, U3d, U3e, U3f, U3g, U3h, U3i	2005-446.ASM	Tucson-Apache 115-kV Transmission Line Project	WRI-P-2141	1510.74
Route group 3 and 4	U1a, U1b, U2, U3a, U3d, U3g, U3i, U3k, U3l, U3m	1987-222.ASM	U.S. Telecom Buried Fiber Optic Cable	WRI-P-2010	14447.13
Route group 3 and 4	U1a, U1b, U2, U3i, U3k, U3l	1955-3.ASM	Southern Pacific Pipeline Survey	WRI-P-1966	6335.84
Route group 3 and 4	U1a, U2, U3a, U3i, U3l, U3m	1999-587.ASM	PBNS Level 3 Fiber Optic Line	WRI-P-2086	13854.98
Route group 3 and 4	U1a, U3d, U3e, U3f, U3g, U3h, U3i	Tucson to Saguaro Resurvey of last 7 miles		WRI-P-3682	280.73
Route group 3	U2	1979-33.ASM		WRI-P-1972	34.85
Route group 3	U2	1989-222.ASM		WRI-P-2019	481.95
Route group 3	U2	1995-337		WRI-P-2042	44.82
Route group 3	U2	1996-391.ASM	Interstate-10/Cochise County Line	WRI-P-2054	434.96
Route group 3	U2	1998-29.BLM		WRI-P-2065	31.17
Route group 3	U2	2000-826.ASM/BLM 02-21/BLM 05-24/BLM 05-09		WRI-P-2103	3311.75
Route group 3	U2	2005-1280.ASM		WRI-P-2138	815.87
Route group 3	U2	469R		WRI-P-2228	66.43

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 3	U2, U3a	1983-76.ASM	State Land Survey	WRI-P-1990	23.26
Route group 3	U2, U3a	2005-302.ASM		WRI-P-2140	182.62
Route group 3	U3a	498.24	Unknown	WRI-P-2239	3205.28
Route group 3	U3a	498.29	Unknown	WRI-P-2240	398.89
Route group 3	U3a	1086.02		WRI-P-1879	439.69
Route group 3	U3a	1108R		WRI-P-1887	329.26
Route group 3	U3a	12-108.BLM		WRI-P-1928	1300.34
Route group 3	U3a	1964-8.ASM	I-19, Tucson to Nogales	WRI-P-1967	3816.90
Route group 3	U3a	1980-151.ASM	Pima County Land Exchange	WRI-P-1975	2133.65
Route group 3	U3a	1980-2.ASM	Unknown	WRI-P-1978	17.57
Route group 3	U3a	1981-73.ASM	Mountain Bell/Siemond Ranch	WRI-P-1984	34.60
Route group 3	U3a	1983-126.ASM	Power Line Survey	WRI-P-1988	31.93
Route group 3	U3a	1984-158.ASM	Southern Tucson Basin Survey	WRI-P-1992	5697.39
Route group 3	U3a	1984-162.ASM	Granite Construction	WRI-P-1993	72.40
Route group 3	U3a	1985-1.ASM/SHPO 1981-073	Unknown	WRI-P-3498	50.36
Route group 3	U3a	1985-84.ASM	Miller Paving	WRI-P-2001	684.61
Route group 3	U3a	1985-86.ASM	Capital Raceways	WRI-P-2002	565.82
Route group 3	U3a	1986-4.ASM	State Land Survey	WRI-P-2005	7.08
Route group 3	U3a	1988-215.ASM	Santa Cruz 115kV Transmission Line Upgrade	WRI-P-2013	721.80
Route group 3	U3a	1988-240.ASM	Preliminary Survey for the Roadway Alignment Alternatives within the Sahuarita Corridor Study	WRI-P-2014	2777.25
Route group 3	U3a	1991-134.ASM	Vail South Exchange	WRI-P-2023	139.16
Route group 3	U3a	1995-148.ASM	Avra Valley - Valencia Road Survey	WRI-P-2040	346.50
Route group 3	U3a	1995-401.ASM	Valencia Road	WRI-P-2043	47.60
Route group 3	U3a	1995-72.ASM	Tucson-Nogales Fiber Optics ROW	WRI-P-2047	1039.29
Route group 3	U3a	1996-315.ASM	Unknown	WRI-P-2052	6.21
Route group 3	U3a	1997-257.ASM	Pantano to Bicknell/Vail to Bicknell	WRI-P-2060	1074.81
Route group 3	U3a	1998-441.ASM	I-10 Mountain View - Pantano	WRI-P-2067	319.91
Route group 3	U3a	1998-481.ASM	Nogales Tap Expansion Project	WRI-P-2068	0.76
Route group 3	U3a	1999-159.ASM	Archaeological Survey South of Tucson International Airport	WRI-P-2072	746.49
Route group 3	U3a	1999-208.ASM	Interstate 19, Pima Mine Road to Valencia Road, Pavement Preservation Project	WRI-P-2075	337.41
Route group 3	U3a	1999-284.ASM	Tucson Prison Expansion II	WRI-P-2076	1336.77
Route group 3	U3a	1999-297.ASM	Wilmot Road Utilities Survey	WRI-P-2077	68.79
Route group 3	U3a	1999-337.ASM	AEPCO Pantano to Kartchner Transmission Line	WRI-P-2079	1798.50

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 3	U3a	1999-450.ASM	Valencia Pit	WRI-P-2083	358.67
Route group 3	U3a	2000-485.ASM	Sahuarita Corridor Survey	WRI-P-2094	280.20
Route group 3	U3a	2000-49.ASM	Old Nogales Highway Colonia WWM Sewerline Cultural Resources Assessment	WRI-P-2095	398.80
Route group 3	U3a	2000-823.ASM	Tucson Maintenance B-19	WRI-P-2102	339.89
Route group 3	U3a	2001-5.ASM	50 Acre Kart Club Survey	WRI-P-2109	53.43
Route group 3	U3a	2001-75.ASM	Pima Motorsports Park Trail Survey in Sections 15, 16, 21, and 22 (T16S, R15E)	WRI-P-2110	73.70
Route group 3	U3a	2001-97.ASM	Davidson Canyon Roadways	WRI-P-2113	50.32
Route group 3	U3a	2002-100.ASM	Martinez Hill North Survey	WRI-P-2114	11.73
Route group 3	U3a	2002-269.ASM	Empirita Ranch Buildings Rehabilitation, Cultural Resources Assessment, Historic Building Inventory	WRI-P-2116	391.65
Route group 3	U3a	2003-1139.ASM	Old Vail Road Area158.18 Acre Survey	WRI-P-2118	165.08
Route group 3	U3a	2005-842.ASM	Houghton and 1-10 Class III Cultural Resources Survey	WRI-P-2143	47.55
Route group 3	U3a	2007-199.ASM	Unknown	WRI-P-2148	168.95
Route group 3	U3a	2007-585.ASM	Sycamore Canyon Offsite Waterline North	WRI-P-2149	73.88
Route group 3 and 4	U3a, U3b	1983-207.ASM		WRI-P-3679	88.90
Route group 3 and 4	U3a, U3b	1985-184.ASM	Archaeological Investigations of Project I-19-1-401, Tucson	WRI-P-1998	5.95
Route group 3 and 4	U3a, U3b	1999-592.ASM	Tucson Maintenance I-19	WRI-P-2087	1071.96
Route group 3 and 4	U3a, U3b, U3c	1122.02		WRI-P-1899	216.29
Route group 3 and 4	U3a, U3b, U3c	2006-653.ASM	Parque de Santa Cruz Data Recovery - East of Calle Santa Cruz	WRI-P-3667	219.63
Route group 3 and 4	U3a, U3b, U3c, U3d, U3h, U3i	1979-38.ASM	Santa Cruz River Park Survey	WRI-P-1973	5648.21
Route group 3 and 4	U3a, U3b, U3i	1999-362.ASM	Phase I of the Tucson Freeway Management System	WRI-P-2082	77.93
Route group 3 and 4	U3a, U3i	1986-214.ASM		WRI-P-3680	1060.90
Route group 3 and 4	U3a, U3l, U3m	2003-910.ASM	Cultural Resources Survey of the 360Networks Fiber Optics Lines	WRI-P-2130	6592.28
Route group 4	U3c	2003-230.ASM	CTA51 (South Gravity Main Survey)	WRI-P-2124	28.06
Route group 4	U3d	1235.01		WRI-P-1940	61.37
Route group 4	U3d	11-42-19F.BLM	Unknown	WRI-P-1880	2.59
Route group 4	U3d	1980-18.ASM	Paseo Vista	WRI-P-1977	79.79
Route group 4	U3d	1981-9.ASM	Pima County Land Exchange	WRI-P-1985	2411.14
Route group 4	U3d	1982-30.ASM	South of Ajo Survey	WRI-P-1987	686.67

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 4	U3d	1985-21.ASM	Archaeological Survey of Kennedy Park Phase III Improvement Areas	WRI-P-1999	17.93
Route group 4	U3d	1988-198.ASM	Archaeological Survey of a 3.5-Mile-Long ROW for CAP East, Phase III	WRI-P-2012	47.59
Route group 4	U3d	1991-109.ASM	Cultural Resources Inventory for 11 CAP Pressure Regulating Valve Station Sites in Tucson and Pima Counties	WRI-P-3664	4.43
Route group 4	U3d	1991-77.ASM	Archaeological Survey of Westover-Cook Ave. Main Replacement Plan No. 1-192-133-90	WRI-P-2028	4.93
Route group 4	U3d	1992-180.ASM	KENNEDY PARK SURVEY	WRI-P-2029	10.20
Route group 4	U3d	1994-172.ASM	SR 86	WRI-P-2034	44.46
Route group 4	U3d	1996-423.ASM	An Archaeological Survey of a 26 Acre Portion of the West Branch Site in Tucson, Arizona	WRI-P-2056	7.64
Route group 4	U3d	1998-555.ASM	La Cholla/36th St. SWC	WRI-P-2069	77.28
Route group 4	U3d	1999-348.ASM	CAP Main Manhole Survey	WRI-P-2080	5.41
Route group 4	U3d	BLM 16-151	Unknown	WRI-P-3495	44.49
Route group 4	U3d, U3e, U3f, U3g	1974-4.ASM	Tumamoc Survey	WRI-P-1969	1082.49
Route group 4	U3d, U3e, U3f, U3g	2003-369.ASM	Tumamoc Hill Damage Assessment	WRI-P-2126	870.88
Route group 4	U3d, U3i	2004-324.ASM	Corrosion Prevention Project Assessment and Survey	WRI-P-2133	463.09
Route group 4	U3e	2002-254.ASM	Tumamoc Landfill Assessment	WRI-P-2115	2.31
Route group 4	U3e	2003-1548.ASM	Arizona Anomaly Repair Project	WRI-P-3671	11.10
Route group 4	U3e, U3f	2000-378.ASM	Starr Pass-Greasewood 145-Acre Survey	WRI-P-2092	138.30
Route group 4	U3f	2004-1778.ASM	St. Mary's Dike Improvement Project	WRI-P-2131	6.77
Route group 4	U3f, U3g	2003-474.ASM	EPNG Line 1007 Survey	WRI-P-2128	7.51
Route group 4	U3f, U3g, U3i, U3k, U3l	2003-1070.ASM	EPNG Tucson Class III Survey	WRI-P-2117	726.72
Route group 4	U3g	1989-190.ASM	Phase I Evaluation of W. Speedway, Silverbell Road-Santa Cruz River, Improvement Project	WRI-P-2018	17.57
Route group 4	U3g	1990-162.ASM	Archaeological Survey of Speedway/Pima Widening Project	WRI-P-2020	104.25
Route group 4	U3g	1999-53.ASM	St. Mary's Lighting Survey	WRI-P-2085	10.84
Route group 4	U3g, U3h	2005-829.ASM	El Rio Acres B2B Survey	WRI-P-2142	21.70
Route group 4	U3g, U3h, U3i	1985-150.ASM	Archaeological Survey of the El Rio - Starr Pass Water Line, Tucson, Arizona	WRI-P-1996	100.21
Route group 4	U3g, U3h, U3i	1991-279.ASM	SILVERCROFT WASH-SPEEDWAY TO GRANT SURVEY	WRI-P-2026	15.82
Route group 4	U3h	2003-26.ASM	TMM del Bac/Huachuca Survey	WRI-P-2125	0.51

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 4	U3h, U3i	1987-216.ASM	Santa Cruz River: St. Mary's to Speedway, Speedway to Grant, and Grant to Fort Lowell	WRI-P-2008	80.97
Route group 4	U3h, U3i	2006-712.ASM		WRI-P-2147	50.77
Route group 4	U3i	1232.04		WRI-P-1938	16.85
Route group 4	U3i	1232.05		WRI-P-1939	3.59
Route group 4	U3i	1264.01		WRI-P-1941	61.31
Route group 4	U3i	1610.27		WRI-P-1952	0.00
Route group 4	U3i	12-145.BLM		WRI-P-1929	468.68
Route group 4	U3i	12-164.BLM		WRI-P-1930	20.12
Route group 4	U3i	1980-155.ASM	Santa Cruz/SW Interceptor Project	WRI-P-1976	295.33
Route group 4	U3i	1980-249.ASM	Tucson Aqueduct Phase A - CAP	WRI-P-1980	4559.87
Route group 4	U3i	1981-174.ASM	The Northern Tucson Basin Survey: Phase I The Nort	WRI-P-1983	46861.44
Route group 4	U3i	1984-183.ASM	Tucson Aqueduct	WRI-P-1994	41.15
Route group 4	U3i	1986-109.ASM	Tucson Aqueduct Project - Phase B	WRI-P-2004	9125.80
Route group 4	U3i	1987-214.ASM	Santa Cruz River Improvement	WRI-P-2007	352.77
Route group 4	U3i	1987-221.ASM	SCR Improvement D.3MLT	WRI-P-2009	136.64
Route group 4	U3i	1988-167.ASM	Tangerine Road West	WRI-P-2011	384.56
Route group 4	U3i	1989-167.ASM	Silverbell Park Survey II	WRI-P-2017	6.86
Route group 4	U3i	1991-164.ASM	Survey Of Silverbell Lake Backup Supply Main	WRI-P-2024	3.74
Route group 4	U3i	1991-40.ASM	Orange Grove Extension Survey	WRI-P-2027	55.16
Route group 4	U3i	1994-200.ASM	Silverbell/Sunset Survey	WRI-P-2035	124.61
Route group 4	U3i	1994-279.ASM	Oracle-Tucson 115 kV Transmission Line	WRI-P-2036	393.56
Route group 4	U3i	1994-288.ASM	Continental Ranch	WRI-P-2037	73.67
Route group 4	U3i	1994-397.ASM	Camino Del Cerro Survey	WRI-P-2038	38.24
Route group 4	U3i	1995-68.ASM	Ina Road Landfill Expansion/Bank Protection Survey	WRI-P-2046	89.82
Route group 4	U3i	1996-13.ASM	Silverbell and Ina Testing and Monitoring	WRI-P-2048	169.16
Route group 4	U3i	1996-421.ASM	Marana 1 Survey	WRI-P-2055	101.62
Route group 4	U3i	1999-154.ASM	Silverbell Survey	WRI-P-2071	20.12
Route group 4	U3i	1999-182.ASM	Cortaro Rd Design Concept	WRI-P-2073	23.62
Route group 4	U3i	1999-357.ASM	Gravel Pits Survey	WRI-P-2081	468.68
Route group 4	U3i	1999-77.ASM	598.7-Acre Pima Farms Road survey (99svs#04)	WRI-P-2088	502.25
Route group 4	U3i	2000-283.ASM	Christopher Columbus Well Survey	WRI-P-2090	0.11
Route group 4	U3i	2000-311.ASM	Continental Reserve testing extra reports and EPNG pipeline documentation (CRTA)	WRI-P-2091	559.43
Route group 4	U3i	2001-244.ASM	Fire Station 4 Survey	WRI-P-2104	2.33

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 4	U3i	2001-325.ASM	Pima County Animal Control Facility Expansion Cultural Resources Assessment	WRI-P-2106	14.19
Route group 4	U3i	2001-403.ASM	Marana Water Plant Survey	WRI-P-2107	1.49
Route group 4	U3i	2003-1262.ASM	KMEP Phase II Pipeline Replacement Project and KMEP Line Section 53/54 Anomaly 1 Repair, Pima County	WRI-P-2119	48.93
Route group 4	U3i	2003-1281.ASM	Grant/Ft. Lowell Survey	WRI-P-2120	69.69
Route group 4	U3i	2003-1335.ASM	Silverbell Land Sale Survey	WRI-P-2121	34.83
Route group 4	U3i	2003-1336.ASM	Silverbell Project Survey	WRI-P-2122	23.47
Route group 4	U3i	2003-37.ASM	Columbus Park Survey	WRI-P-2127	158.98
Route group 4	U3i	2004-538.ASM	Saguaro Spring Survey	WRI-P-2134	26.95
Route group 4	U3i	2008-579.ASM	08-32 COT- El Camino del Cerro Rd Widening	WRI-P-2150	13.13
Route group 4	U3i, U3j, U3k, U3m	1985-167.ASM	Western Area Power Administration's Saguaro to Tucson Reconductoring	WRI-P-1997	422.85
Route group 4	U3i, U3l, U3m	1979-39.ASM	TG+E Northern Tucson Transmission Line Survey	WRI-P-3623	671.87
Route group 4	U3k	1067.02	Unknown	WRI-P-1876	507.04
Route group 4	U3k	1067.03	Unknown	WRI-P-1877	131.30
Route group 4	U3k	1197.02	Unknown	WRI-P-1927	233.14
Route group 4	U3k	1308.01	Unknown	WRI-P-1944	15911.76
Route group 4	U3k	1608.01	Unknown	WRI-P-1951	130.69
Route group 4	U3k	1981-171.ASM	Tucson electric Tortolita - South Relocated Segment	WRI-P-1982	79.38
Route group 4	U3k	1988-249.ASM	Central Arizona Irrigation And Drainage District	WRI-P-2015	654.45
Route group 4	U3k	1991-198.ASM	Pinal Air Park Survey	WRI-P-2025	1215.01
Route group 4	U3k	1996-67.ASM	Los Robles Wash Survey	WRI-P-2057	26.40
Route group 4	U3k	1999-204.ASM	Los Robles/Silverbell Road 1.25-mile cable corridor (SVS#17)	WRI-P-2074	18.82
Route group 4	U3k	2000-621.ASM	Marana Circ. 15 & 16 Rebuild and Avra Valley Tie Line Project	WRI-P-2097	281.28
Route group 4	U3k	2001-293.ASM	Silverbell and Trico Survey	WRI-P-2105	22.30
Route group 4	U3k	2003-544.ASM	Qwest Survey along Trico Road	WRI-P-2129	13.17
Route group 4	U3k	2004-1894.ASM	Pinal Air Park Survey	WRI-P-2132	547.71
Route group 4	U3k	2004-561.ASM	Picacho Peak 142-Acre Survey	WRI-P-2135	159.18
Route group 4	U3k	2004-626.ASM	Add. C: El Paso to Los Angeles Fiber Optic Cable Project: EPGN Ironwood and Farrell-Murphy Reroutes	WRI-P-2137	511.13
Route group 4	U3k	BLM 16-46	Unknown	WRI-P-3494	39.69
Route group 4	U3k	SHPO 85-167	Unknown	WRI-P-3527	609.39

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 4	U3k, U3l	1980-242.ASM	Cultural Resources of the Proposed Tucson Electric Tortolita-South Utility Corridor and Alt. Routes	WRI-P-1979	1089.29
Route group 4	U3k, U3l	1981-154.ASM	TEP Tortolita-South Realignment Survey	WRI-P-1981	182.98
Route group 4	U3k, U3l	1983-198.ASM	Northern Tucson Basin Survey / Marana Phase II	WRI-P-1989	36235.96
Route group 4	U3k, U3l, U3m	7.136.SHPO		WRI-P-3509	24338.54
Route group 4	U3k, U3m	1995-470.ASM	Maricopa-Saguaro 115-kV Transmission Line	WRI-P-2045	940.12
Route group 4	U3l	11.270.SHPO		WRI-P-3675	335.86
Route group 4	U3l	1973-13.ASM	SALT-GILA SURVEY	WRI-P-3631	1408.27
Route group 4	U3l	1979-39.ASM	TG+E Northern Tucson Transmission Line Survey	WRI-P-3678	196.58
Route group 4	U3l	2002-153.ASM	Saguaro-Tortolita 500kV Intertie Project	WRI-P-3609	76.20
Route group 4	U3l	2010-240.ASM	Tortolita Substation Survey	WRI-P-3666	13.68
Route group 4	U3l	SHPO-2002-2395	Tucson Electric Power Company Saguaro-Tortolita 500kV Intertie	WRI-P-3608	34.72
Route group 4	U3l, U3m	1992-289.ASM	Red Rock Loop	WRI-P-2031	317.72
Route group 4	U3l, U3m	2000-723.ASM	AT&T NexGen/Core Project Link 3 Class 3 Survey	WRI-P-2099	4822.60
Route group 4	U3l, U3m	2001-406.ASM	Surveys of Six Proposed Reroutes for a Proposed Fiber Optic Cable ROW	WRI-P-2108	786.88
Route group 4	U3m	1997-184.ASM	Saguaro-Oracle-Coolidge Survey	WRI-P-2058	1174.41
Route group 4	U4	1992-247.ASM	Pima County Landfill Survey	WRI-P-2030	1894.17
New Build Section					
Route group 2	WC1a	1982-118.ASM	ADOT Materials Pit #6175	WRI-P-3594	64.37
Route group 2	WC1a	1984-156.ASM	Unknown	WRI-P-3595	4.44
Route group 2	WC1a	1985-126.ASM	The Archaeology of the Willcox Playa	WRI-P-3603	32659.94
Route group 2	WC1a	1985-226.ASM	All American Pipeline Right-of-way	WRI-P-3611	6103.16
Route group 2	WC1a	1985-226.ASM/BLM 1985-48		WRI-P-2000	6103.16
Route group 2	WC1a	1987-222.ASM	U.S. Telecom Buried Fiber Optic Cable	WRI-P-2010	14447.13
Route group 2	WC1a	1992-110.ASM	Willcox Exchange Survey	WRI-P-3596	15.60
Route group 2	WC1a	1992-111.ASM	Willcox II Exchange	WRI-P-3598	1.20
Route group 2	WC1a	1994-282.ASM	Willcox Survey	WRI-P-3601	57.32
Route group 2	WC1a	1996-219.ASM	Southern Pacific Railroad Survey	WRI-P-2051	814.07
Route group 2	WC1a	1998-532.ASM	I-10 Willcox-Luzena	WRI-P-3599	173.83
Route group 2	WC1a	1999-476.ASM	Wilcox: I-10B	WRI-P-3602	255.20
Route group 2	WC1a	1999-587.ASM	PBNS Level 3 Fiber Optic Line	WRI-P-2086	13854.98

Table H-1. Known Cultural Resource Projects in the Analysis Area (Continued)

Route	Segments Crossed	Agency Number	Project Name	WestLand ID*	Acres*
Route group 2	WC1a	2000-575.ASM	Fort Grant Road Traffic Interchange	WRI-P-3570	81.91
Route group 2	WC1a	2000-60.ASM	Quail Drive Survey	WRI-P-3589	33.93
Route group 2	WC1a	2000-826.ASM/BLM 02-21/BLM 05-24/BLM 05-09		WRI-P-2103	3311.75
Route group 2	WC1a	2001-294.ASM	Stuart Road	WRI-P-3597	25.17
Route group 2	WC1a	2001-771.ASM	Rex Allen Drive	WRI-P-3578	4.77
Route group 2	WC1a	2001-802.ASM	Willcox Border Patrol Station	WRI-P-3576	94.16
Route group 2	WC1a	2001-817.ASM	I-10 Willcox	WRI-P-3600	1019.67
Route group 2	WC1a	2003-1286.ASM	Willcox Wellhead	WRI-P-3592	3.53
Route group 2	WC1a	2004-1838.ASM	Wilcox ED	WRI-P-3636	34.93
Route group 2	WC1a	2004-21.ASM	Stewart Road	WRI-P-3606	15.43
Route group 2	WC1a	2004-631.ASM	Fort Grant Road Traffic Interchange	WRI-P-3633	146.32
Route group 2	WC1a	2004-99.ASM	Line 2105 Survey	WRI-P-3629	714.74
Route group 2	WC1a	2005-302.ASM		WRI-P-2140	182.62
Route group 2	WC1a	2006-1.ASM	SFPP, LP, El Paso to Phoenix Expansion Project, Arizona Portion: Cochise and Pima Counties	WRI-P-3628	3242.84
Route group 2	WC1a	2006-142.ASM	EPNG Line 1600 Anomaly Digs	WRI-P-3635	2.77
Route group 2	WC1a	2006-524.ASM	EPNG Line 1600 Railroad Bore	WRI-P-3634	7.43
Route group 2	WC1a	AMF Unpublished Survey		WRI-P-3532	60768.88
Route group 2	WC1a	BLM 02-21		WRI-P-3456	111.92
Route group 2	WC1a	BLM 03-13		WRI-P-3490	123.26
Route group 2	WC1a	BLM 04-34		WRI-P-3457	47.08
Route group 2	WC1a	SHPO-2000-2050	Line No. 2000 Project, Application Docket No. CP00-422-000 - EPNG Filed an Application with the FER	WRI-P-3610	68.94
Route group 2	WC1b	1987-222.ASM	U.S. Telecom Buried Fiber Optic Cable	WRI-P-2010	14447.13
Route group 2	WC1b	1985-126.ASM	The Archaeology of the Willcox Playa	WRI-P-3603	32659.94
Route group 2	WC1b	2000-826.ASM/BLM 02-21/BLM 05-24/BLM 05-09		WRI-P-2103	3311.75
Route group 2	WC1b	2001-817.ASM	I-10 Willcox	WRI-P-3600	1019.67
Route group 2	WC1b	AMF Unpublished Survey		WRI-P-3532	60768.88
Route group 2	WC1b	BLM 04-34	Unknown	WRI-P-3457	47.08

*Surveys in the analysis area for local alternatives DN1, LD4, LD4-Option 4, and LD5-Option 5 were obtained after the Class I cultural resources report (CH2M Hill 2013i) was compiled. These surveys were not part of the original WestLand Resources, Inc., database and do not have WRI numbers or acreages.

REFERENCES

CH2M Hill. 2013i. Southline Transmission Project Resource Report 02: Cultural Resources (V2 Report). May 28, 2013.

Appendix I

FINAL KEY OBSERVATION POINTS AND VISUAL CONTRAST RATING WORKSHEETS

FINAL KEY OBSERVATION POINTS AND VISUAL CONTRAST RATING WORKSHEETS

The following table provides a listing of all Key Observation Points (KOPs) as they appear along the Southline Transmission Line corridor (starting from the Afton Substation, traversing along the Proponent's Preferred Alternative, Proponent's Alternative Southern line and Agency Alternatives). The table is followed by Visual Contrast Rating Worksheets that were developed subsequent to field investigation(s) that occurred in May through August 2012 with supplemental specific field verifications taking place from May through August 2013. The development of the KOPs listed below, was a compilation of desktop analysis (through the use of digital elevation mapping and GIS to create a broad overview of topographic characteristics of the analysis area), followed by field verification which included landscape photographic cataloging of the entire analysis area including all alternatives, and completion of the technical analysis including BLM worksheets (for Scenic Quality, Sensitivity, and Visual Contrast). The final selection of KOPs included a rigorous evaluation of locations to ensure that the appropriate coverage of the analysis area was performed. The KOPs were ultimately used as representative reference points from which the analysis was conducted and aesthetic conditions and environmental impacts were disclosed in the DEIS.

Table I-1. Key Observation Points Identified

KOP ID	Simulated	Description and Rationale
P1-01	No	View represents the Afton Substation from background. Approximately 6 miles from the San Jose Catholic Church Historical Site and VRI/VRM Class II, High Sensitivity, Class B Scenic Quality. Approximately 8 miles from Aden Lava Flow (VRI/VRM Class III).
P2-01	Yes	2.2 miles from Aden Hills OHV, simulation represents VRI/VRM Class III OHV area.
P2-02	No	View from West Potrillo Mountains directly adjacent to VRI/VRM Class II, High Sensitivity, Class B Scenic Quality lands.
P2-03	No	Located near several private properties outside of BLM lands on the county boundary (between Luna and Dona Ana counties). This view is from NM 549, approximately 0.36 mile from an existing monopole line, and 0.6 mile from existing railroad tracks. Recommend elimination of this KOP as it is similar to P2-04 and represents low sensitivity views.
P2-04	Yes	This view is from within the I-10 transportation corridor approximately 0.85 mile from the proposed line and is located within/adjacent to VRI/VRM Class III landscape.
P2-05	Yes	This is the closest view in the Deming area (approximately 3.7 miles due north). Several potentially sensitive receptors (including local parks, churches, cemetery and residences exist in Deming). Recommend alternative KOP selection point from within community developments just north of I-10 to identify impacts from areas of community concern. Scoping revealed 2 comments in favor of the line, and 2 comments encouraging the line to bypass Deming (and not be a pass through for utility structures). This is also the closest point to the Florida Mountains (identified as a well-used recreation area and VRI/VRM Class II).
P2-06	No	View is from Padre Hill Drive NW and Overhill Drive located directly north of a residential driveway and approximately 0.5 mile from the proposed line.
P2-07	No	GIS provided by CH shows KOP to be within VRI/VRM Class IV landscape and adjacent (within 500 feet of) VRI/VRM Class III landscape. This view is located along an unpaved county road at the foot of Grandmother Mountain. Additional information is needed to understand the sensitivity associated with this mountain. This roadway heads west and north and provides access to a single ranch and largely open/vacant lands. This view is 2 miles east of the CDNST which received many scoping comments of concern. Recommend reorienting KOP from CDNST and include potential sensitivities associated with Grandmother Mountain.
P2-08	No	Located on a small parcel of BLM land (VRI/VRM Class IV). No immediate sensitive receptors, landscape is very rural and largely vacant. Recommend elimination due to lack of sensitivity and common scenic quality.
P3-01	No	Located on non-BLM land with views to the west from Geronimo Road and Ojo Road. Rural residential area with racetrack to the northwest (approximately 0.5 mile).

Table I-1. Key Observation Points Identified (Continued)

KOP ID	Simulated	Description and Rationale
P3-02	No	Florida Mountains lie 6 miles to the west and could afford direct long-distance views of the line. From the east (looking west) at the West Potrillo Mountains between 7 and 12 miles away, direct views of the line would like occur due to "superior" viewing locations and visual impacts from the substation expansion. New simulation should be oriented to the southwest to capture the proposed substation, staging area, and line.
P4-01	No	View is not from BLM land and is located along a portion of the CDNST that parallels NM 90 approximately 0.25 mile northeast of the intersection with NM 70. Very few residents or destinations are located along NM 90. There is no marked trailhead located here, and landscape is characterized by large expanses of open space. Recreators seeking a solitary experience on the CDNST may use this portion of the trail.
P4-02	No	Located at the intersection of Hook and Anchor Road and NM 70 (Duncan Highway). This view is oriented north approximately 0.4 mile from the proposed line. There is 1 rural residence 0.3 mile south of this view. A potential staging area is 0.45 mile northwest of this KOP on NM 70. Few sensitive receptors and common landscape character represent this view; recommend for elimination.
P5-01	Yes	Located on LD-1 (bypass of Lordsburg Playa) within VRI/VRM III, Scenic Quality C, and High Sensitivity. Recommend consideration of agency alternative for this KOP.
P5-02	Yes	Adjacent to VRI/VRM Class II, Scenic Quality B, High sensitivity lands, located in VRI/VRM Class III. View is located in a wash southwest of Peloncillo Mountains. Simulation is rendered 2.3 miles from proposed line, views of Chiracahua Mountains in the background DZ (beyond 20 miles south).
P6-01	No	Located 6 miles from VRI/VRM Class II landscape, and 8 miles from Dos Cabezas. View is from residential community within town of Bowie.
P6-02	No	View is from roadway that accesses Ft. Bowie. Recommend replacing with KOP that includes Ft. Bowie, Dos Cabezas Mountains and other scenic features.
P6-03	Yes	View is oriented 0.5 mile from VRM Class II lands looking north away from Dos Cabezas toward Pinaleo Mountains. Jurisdiction of land needs to be confirmed. Recommend re-orientation of KOP or elimination.
P7-01	No	This view is due west of Willcox Playa, Dos Cabezas Mountains are 180 degrees east from this point. View is 0.5 mile from line, proposed staging area would be in the immediate foreground.
P7-02	Yes	Not on BLM lands. Approximately 2 miles from edge of Willcox Playa and 4 miles north of Butterfield Trail. Surrounded by agricultural fields. Facing NNW
P7-03	No	1.4 miles from BLM Class II VRI/VRM on west side of Willcox Playa. KOP oriented 8 miles from line to the SE and 1 mile from agency route alternative (unstudied). Recommend further study.
S1-01	Yes	No highly sensitive receptors. Unnecessary to simulate. Class IV BLM lands.
S1-02	No	View from foot of Kilbourne Hole. Does not capture the feature.
S2-01	Yes	Largely not supported by public. Unnecessary to simulate
S3-01	Yes	View is located along Hwy 9 and is oriented westward along roadway. Simulation shows structures on south side and parallel to the road along the proponent's alternative. View is located outside of any sensitive locations, or unique landscape.
S4-01	No	View is located approximately 2.2 miles from the proponent's alternative line and 2.5 miles from the US/Mexican Border. Landscape is largely flat and common, few sensitive viewers are located in this area as it is highly monitored by Border Patrol.
S5-01	No	View is located along Hwy 9 oriented southward away from the community of Columbus. This view does not represent a sensitive location.
S5-02	Yes	View is 1.26 miles from the proponent's alternative line and simulation shows a "superior" view from atop a mountain within the Pancho Villa State Park (just southwest of Columbus). Recommend further determination of park users and sensitivity from this location.
S5-03	No	Though located 43 miles to the west, this view is very similar to S5-01 and does not represent a sensitive viewpoint or distinctive lands.
S6-01	No	Also located on Hwy 9, view is representative of a slightly different landscape character than S5-03 but does not represent sensitive viewing conditions.

Table I-1. Key Observation Points Identified (Continued)

KOP ID	Simulated	Description and Rationale
S7-01	No	Very similar view to S5-03
S7-02	Yes	Simulation shows view from Hachita oriented northward within a rural residential community.
S7-03	No	View is over 0.5 mile north of Hachita oriented toward the town. 180 degrees north of the viewpoint is a large proposed staging area. Suggest reorientation of the KOP to include analysis of the staging area.
S7-04	No	View is located immediately adjacent to the CDNST and is 0.5 mile from the proponent's alternative.
S7-05	No	View is located 1.5 miles from proponent's alternative, and is indicative of a slightly more vegetated landscape, however no sensitive viewers are located nearby.
S8-01	Yes	Located along I-10 and simulation depicts proponent's alternative crossing the I-10 at a perpendicular angle.
S8-02	No	Located Muir Road, view is oriented to the south looking toward agricultural fields.
U1-01	Yes	On the edge of Coronado NF but facing N (away from Forest). No public sensitivity. Suggest elimination. Simulation does not included entire structure in the frame, pole appears square, simulation viewpoint appears too close to line.
U2-01	No	Good simulation point. 0.5 mile from line; 3.5 miles from alternative. KOP located on western edge of residential area between Hwy 80 and I-10. Scoping comments revealed concern with re-route along preferred line because of planned improvements, growth, etc.
U2-02	No	Dark Star Rd. recently paved with turn-offs indicating additional future roads/development. Currently 1 ranch, no other sensitive viewers, existing "H" frame in middleground.
U2-03	Yes	Suggest alternative simulation location from Mescal area (residential). This KOP is too close to line
U2-04	No	Located on Navajo Trail Road. Low density residential homesteads with existing views of "H" frames. Same KOP as H-03
U3-03	No	Located along SR 83. Would be a good simulation point
U3-04	Yes	Simulation is too close to line. Spans look too close, parabolic curve is too straight. Keep simulation but revise accordingly.
U3-05	No	Fairgrounds are 0.8 mile from E. Dawn Road, parking lot and raceways are located closest to the line (lowest sensitivity viewers are represented from this viewpoint)
U3-06	Yes	Potential EJ community to the south. This simulation is too close to the line, should be from within Mobile Home park. Lines need sag.
U3-07	No	1.5 miles from line. Line is not visible from this location.
U3-08	No	View is representative of bike users along Santa Cruz Bikeway.
U3-09	No	Too close to line. Representative view from residential area would be more valuable.
U3-10	Yes	Good representation of Kennedy Park. But simulation is very close to line. Need to verify 12k feeder (looks too close to upgrade).
U3-11	Yes	KOP is 0.11 mile from line. Simulated poles look to be over 3 times higher than existing "H" frames, verify accuracy of simulation.
U3-12	No	Sentinel Peak, good point to simulate for route alternatives.
U3-13	Yes	KOP shows historic fence. Scale of poles looks off from this point the line is 700 feet away and would be perpendicular to viewer. Need to check scale and angle of simulation.
U3-14	No	Suggest elimination
U3-15	No	KOP shows multiple T line congestion but does not represent public sensitivity (very few receptors)
U3-16	No	KOP from Silverbell Golf Course links facing west
U3-17	Yes	KOP from Christopher Columbus park, would be better to represent nearby residences.

Table I-1. Key Observation Points Identified (Continued)

KOP ID	Simulated	Description and Rationale
U3-18	No	Few/no rural residences along this road. Residences are located to the southwest. Suggest elimination.
U3-19	No	Good simulation point. The only point that represents Saguaro NP, approximately 2 miles from line.
U3-20	No	Too close to line. KOP should be from within residential area
U3-21	No	View from parking lot.
U3-22	Yes	Good simulation, but represents a very specific point of interest.
U3-23	Yes	Silverbell Rd simulation.
U3-24	No	Would be a good simulation spot to show impacts to new residential area.
A-01	No	View is located along unpaved county road and is oriented to the north. Represents low sensitivity and common landscape. Recommend elimination.
B-01	No	Same as S4-01.
C-01	No	Same as S6-01
D-01	No	Not BLM land. 0.6 mile north of proponent's alternative and BLM Class IV; SQ-C; VRM-IV. Located on Muir Rd adjacent to agricultural fields and rural residential. Public sensitivity is low. Suggest elimination. Similar view as S8-02
D-02	Yes	Pyramid Shadows Rd. Rural Residential on private land. KOP is from roadway. Sensitive receptors not identified.
E-01	Yes	Same as P5-01
E-02	No	Town of San Simon, sensitive residential receptors. VRI/VRM III; SQ-B; SL-High. Major transportation route with scenic areas and provides connection from Las Cruces to Tucson.
F-01	Yes	Located 0.25 mile from alternative route. From intersection of N. Central and E. Arizona St. in the town of Bowie. No public comments came from Bowie during scoping. North of the alternative line is agricultural fields and limited homes. Concentrated residential over 0.25 mile north of I-10 at Apache Pass Rd. exit. Surrounded by agricultural lands. Proponent preferred should be further considered as it avoids the community nearly 2 miles to the south. Simulation should be to the south of the preferred. See P06-01; P06-02
F-02	No	View is 0.5 mile from alternative and 2.7 miles from preferred. KOP faces due south. Limited visual sensitivity in this area due to lack of receptors
G-01	No	Not on BLM lands. Cascabel Road with views of DC in the background. Does not include WC-1, Proponent Alternative, or PP (is beyond 8 miles)
G-02	No	Same as P7-03
G-03	Yes	This KOP is unclear as to where/why/what in the Cochise area, there is somewhat denser residential along the western edge of the Playa surrounded by agricultural lands. KOP is within BE-2a which bypasses Willcox Playa also does not consider Apache Substation upgrade. This is the last KOP to capture the new build.
H-01	Yes	Suggest elimination - view is not in right direction, need to look at alternative line
H-02	No	Butterfield crossing in immediate foreground. 0.15 mile from AA. Very rural residential
H-03	No	Same KOP as U2-04
BE-01	No	Located on the access road to the Empirita Ranch in Pima County just south of Interstate 10.
BE-02	No	View is located along I-10 in the area of Texas Canyon, viewpoint should represent Texas Canyon and the Little Dragoon Foothills as this is likely the most highly scenic segment within the entire analysis area.
BE-03	No	Located in the community of Benson to the north adjacent to ranches, a golf course, and several rural developments.
BE-04	No	Located just south of the reservoir and bird viewing area within Benson.
WC-01	No	View should be oriented from the Wings over Willcox staging area to illustrate what visual impacts the line would have for viewers looking northward.

Table I-1. Key Observation Points Identified (Continued)

KOP ID	Simulated	Description and Rationale
LD-01	No	View from the town of San Simon looking toward the agency route alternative. Should be located outside of representative ROW.
LD-02	No	View of the Butterfield Trail and Peloncillo foothills should be combined to show potential public exposure of agency route alternative within this area.
LD-03	No	Located north of LD-3 viewpoint should illustrate change to landscape character unit that is located just north of Lordsburg Playa.
TH1-01	No	Located at the intersection of Greasewood and Anklam Rd. View would represent changes to the existing neighborhood views with the introduction of TH-1 route alternative.
TH1-02	Yes	Current simulation from Sentinel Peak shows preferred line, simulation should be adjusted to show TH-1a alignment (along Greasewood Road),.
TH1-S1	No	View would be of the proposed line rebuilt (Segment U3) where the existing “H” frame structures are located from the vantage of W. Starr Pass Road. From this viewpoint, the proposed structures would be visible against the sky and would also be visible within the vicinity of Tumamoc Hill.
TH1-S2	Yes	View from Sentinel Peak within the Tumamoc Hill area oriented toward the agency alternative (or TH3 River Route).
TH1-S3	Yes	View located along W. Starr Pass Blvd. transmission structures and lines associated with TH1-A would be visible with Tumamoc Hill in the background.
TH1-S4	Yes	Located just south of the Tolson Elementary School on Greasewood road, providing view of the agency alternative that runs north on Greasewood Road to avoid the Tumamoc Hill area.
TH1-S5	No	View is located within the residential area (West Calle Tonala) just west of Greasewood Road and the proposed agency alternative that avoids Tumamoc Hill (TH1a).
TH1-S6	No	Located north of the Tumamoc Hill area from the residential area on Speedway Road oriented to the south toward the Tumamoc Hill area. From this area the project alternative would be parallel to the viewing angle and would be visible against the open sky within Tumamoc Hill.
AN-04	No	Representative view from within the River Route (TH3) showing existing structures and proposed SLT structures. Additional information regarding the structure type may be required from Western.
AN-12	No	Represents view of Segment U3 from planned recreation trail (N. Aguirre Rd. west of Pinal Airpark).
MA-01	No	Represents the agency route alternative that diverges from the existing line and by-passes Marana Airport.
MA-02	No	Represents view (of Segment U3) from Avra Road (primary access to Saguaro NP).
MA-03	No	Represents view of Segment U3 from Marana Airport and Skyline Restaurant (well visited local/regional attraction).
SA-01	No	View of the proposed alignment (Segment U3) to the north and northeast from use trails in Saguaro NP.

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

Date: 9 September 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township__25S____	5. Location Sketch
2. Key Observation Point **KOP P1-01**	Range___1E_____	32.11095451000 106.84303415300
3. VRM Class **IV**	Section____28_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Land appears relatively flat in foreground and middleground area, though slight undulations are apparent.	Persistent horizontal coverage of landscape by vegetation outside of road way. Larger vegetation appears irregularly shaped.	Vertical electrical substation and associated transmission lines and chain link fencing present in view.
LINE	Valley floor creates strong horizontal edge while roadway creates a dominate line as it transverses the natural landscape.	Edges of vegetation apparent only along the roadway corridor.	The transmission line and electrical substation create vertical line patterning into the view. Perimeter fencing surrounding the substation creates vertical and horizon line patterns.
COLOR	Reddish and tan-colored soils are apparent beneath the vegetation beyond the gray road.	Dark greens dominate.	Dark gray, silver, and white structures evident in middleground.
TEX-TURE	Stippling evident in soils which contrasts the smooth road pavement.	Shrub vegetation appears coarse.	Coarse utility poles cluster primarily near substation.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Additional vertical structures added to the landscape replicated existing forms.

LINE	No change.	No change.	New transmission towers perpetuates the vertical line patterning.
COLOR	No change.	No change.	Dark gray and silver to continue the existing color palette.
TEX-TURE	No change.	No change.	Transmission towers are coarse/rough.

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	
	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
Caitlin McCusker Date: 10/16/2012

SECTION D. (Continued)

Contrast is consistent with VRM Class IV and VRI Class C objectives.

View represents the Afton Substation from background. Approximately 6 miles from the San Jose Catholic Church Historical Site and VRI/VRM Class II, High Sensitivity, Class B Scenic Quality. Approximately 8 miles from Aden Lava Flow (VRI/VRM Class III).

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township__25S____	5. Location Sketch 32.14777611400 -107.15328641800
2. Key Observation Point **P2-02**	Range____3W_____	
3. VRM Class **non BLM land**	Section____9_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Land forms in foreground create amorphous volcanic outcroppings. Middleground is composed of relatively flat desert valley, with a single conical rise at the end of the valley. in foreground area, though slight undulations are apparent. Steep mountain forms visible in middleground. Dirt road cuts creates scar across landscape.	Extremely sparse, irregularly shaped vegetative coverage in foreground; indistinguishable, low growing vegetation occurs in middleground.	Two transmission lines transverse the landscape in a horizontal pattern. Vertical radio towers protrude from the peak of the volcanic cone.
LINE	Distant limits of valley floor and volcanic cone create a strong horizon. Distant mountain range provides a jagged line. Volcanic outcropping in foreground creates inconsistent horizontal line patterning.	Edge of vegetation in foreground created by volcanic soil. Distance limits of vegetation unclear as it blends in with landscape forms.	Vertical radio towers skyline above cone peak. Vertical transmission towers nearly indiscernible at this distance.
COLOR	Volcanic red, tan and charcoal colored exposed soils are present in the foreground. A light brown cone occurs in the middleground. The mountain range in the background appears blue at this distance.	Light greens and browns dominate.	Structure visibility decays with distance; towers appear dark gray.
TEX-TURE	Stippling is evident in the volcanic soils in the foreground. The volcanic cone appears striated at this distance, while the mountain range in the background appears smooth from this distance.	Shrub vegetation appears coarse in foreground and grainy in the middleground.	Utility poles appear striated and coarse at this distance.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Proposed transmission line adds a new set of vertical towers across the horizon.
LINE	No change.	No change.	Additional vertical towers introduced into view are consistent with existing patternings.
COLOR	No change.	No change.	Structure visibility decays with distance; towers appear dark gray, consistent with existing structure coloring.
TEX-TURE	No change.	No change.	Utility poles appear striated and coarse at this distance.

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	
	LINE				x				x			x	
	COLOR				x				x				x
	TEXTURE				x				x			x	

2. Does project design meet visual resource management objectives? __Yes ___No _X_N/A (Explain on reverses side)

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

Evaluator's Names Date: 10/16/2012
Caitlin McCusker

SECTION D. (Continued)

KOP is not located on BLM land; no associated VRM objective to meet.

View from West Potrillo Mountains directly adjacent to VRI/VRM Class II, High Sensitivity, Class B Scenic Quality lands.

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

Date: 9 September 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township__24S_____	5. Location Sketch 32.20989936900 -107.09049302400
2. Key Observation Point **KOP P2-01**	Range____2W_____	
3. VRM Class **III**	Section____19_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Land appears relatively flat in foreground and middleground area, though slight undulations are apparent. Clearly **defined** mountainous forms extend across the majority of the background in the most distant portion of the view.	Consistent coverage of landscape by vegetation outside of gravel parking lot. Occasional clusters of shrubs. Larger vegetation appears irregularly shaped.	Distribution line traverses landscape and appears small in scale compared to overall landscape.
LINE	Smooth angular mountains in middleground rise from flat valley floor, backdropped by distant jagged mountains against skyline.	Edges of vegetation apparent at edge of unpaved parking lot.	Vertical distribution line towers visible in background parallels the mountain range.
COLOR	Reddish-colored soils are apparent in foreground and middleground. Dark blue mountains are visible in the middleground. .	Light greens and tans dominate.	Dark gray structures evident in middleground.
TEX-TURE	Stippling evident in soils in foreground. Smooth and uniform hill and mountains visible in the distance.	Shrub vegetation appears coarse.	Coarse utility poles.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Towers add narrow, vertical forms in the view.

LINE	No change.	No change.	Transmission lines introduce horizontal patterning evident across landscape. Transmission towers perpetuate existing vertical patterning in the view.
COLOR	No change.	No change.	Gray visible in towers and lines.
TEX-TURE	No change.	No change.	Transmission lines appear coarse and striated in this view.

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	
	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 Date: 10/16/2012
Caitlin McCusker

SECTION D. (Continued)

Contrast is consistent with VRM Class III objectives.

2.2 miles from Aden Hills OHV, simulation represents VRI/VRM Class III OHV area.

Additional Mitigating Measures (See item 3)

SIMULATED

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township___24S___	5. Location Sketch 32.22901306200 -107.29850372100
2. Key Observation Point **P2-03**	Range___5W_____	
3. VRM Class at KOP location: **non BLM land**	Section_____12____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Land appears relatively flat in foreground, with slight topographic variations apparent. Steep, jagged mountains form the background.	Sparse, low growing vegetation consistently covers the valley floor. Larger vegetation appears irregularly shaped.	Two transmission lines and one distribution line are visible and recede into the distance as they traverse angularly across the view. Agricultural fencing and a corral appear in this view.
LINE	Edge of valley floor creates a strong horizon. The mountains provide a jagged skyline. Edge of roadbed forms an angled, straight line that recedes into the distance.	Roadbed creates edge of vegetation.	The utility lines introduce vertical patterning into the view, with the tower structures themselves creating a criss-cross lattice pattern. The fence creates a short segment of vertical and horizontal until it is absorbed by the vegetation. The corral creates additional horizontal and vertical linear patterning.
COLOR	Reddish and tan-colored soils are apparent beneath the vegetation and beyond the road shoulders. The roadbed provides gray and white hues, while the mountain range appears blue from this distance.	Greens and grays dominate.	Dark grays and browns evident in the structures; discernible structure color diminishes with distance.
TEX-TURE	Slight stippling evident in the asphalt roadbed and visible soils. The mountains appear smooth from this distance.	Shrub vegetation appears coarse.	Fence posts, corral, and utility poles appear coarse.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	The proposed transmission line parallels the direction of existing lines. The proposed line introduces additional vertical lattice towers.

LINE	No change.	No change.	Proposed towers add additional lattice patterning into view though at a larger scale than existing structures.
COLOR	No change.	No change.	Dark grays and browns evident in the structures; discernible structure color diminishes with distance.
TEX-TURE	No change.	No change.	Additional towers and lines continue the coarse patterning already evident in the view.

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	
	LINE				X				X			X	
	COLOR				X				X			X	
	TEXTURE				x				X			X	

2. Does project design meet visual resource management objectives? __Yes ___No _X_N/A (Explain on reverses side)

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

Evaluator's Names Date: 10/16/2012
Caitlin McCusker

SECTION D. (Continued)

KOP is not located on BLM land; no associated VRM objective to meet.

Located near several private properties outside of BLM lands on the county boundary (between Luna and Dona Ana counties). This view is from NM 549, approximately 0.36 mile from an existing monopole line, and 0.6 mile from existing railroad tracks. KOP is similar to P2-04 and represents low sensitivity views.

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township___24S___	5. Location Sketch 32.23047714900 -107.41868520100
2. Key Observation Point **P3-01**	Range____6W_____	
3. VRM Class **non BLM land**	Section____11_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Land appears relatively flat in foreground and middleground areas. Three slight undulations protrude above the horizon in the background.	Persistent horizontal coverage of landscape by low growing grasses outside of road way. Larger shrubs appear irregularly shaped.	The fence line alongside roadway creates vertical forms occurring horizontal across the view in the foreground. A single vertical traffic sign is visible in the foreground.
LINE	The edge of road and the valley floor form two parallel, horizontal lines.	Vegetation grows in patches. Edges of vegetation apparent along the roadway corridor.	The fence posts and traffic sign are vertical features. The wire fencing creates horizontal patterning.
COLOR	Tan-colored soils are apparent beneath the vegetation along the road shoulders. Gray and tan gravel forms the visible driveway and roadway.	Light yellows and sage green dominate.	Dark grays, browns, and white evident in fence; red, green, and white evident in traffic sign.
TEX-TURE	Stippling evident in gravel and asphalt roadbed. Exposed soils beneath the vegetation appear smooth.	Shrub vegetation appears coarse, grasses appear fine to medium.	Fence posts and traffic sign appear striated and coarse.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	New tall, vertical structures skyline above the strong horizon.

LINE	No change.	No change.	Proposed towers contribute to the existing vertical patterning present in this view.
COLOR	No change.	No change.	Towers appear gray from this viewpoint.
TEX-TURE	No change.	No change.	Towers and lines appear striated and coarse.

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		
	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 Date: 10/30/2012
MariaElena Conserva, Tom Priestley

SECTION D. (Continued)

KOP on private land; no VRM objectives to meet.

Located on non-BLM land with views to the west from Geronimo Road and Ojo Road. Rural residential area with racetrack to the northwest (approximately 0.5 mile).

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township___22S___	5. Location Sketch 32.40857860700 -108.74111969700
2. Key Observation Point P4-02	Range____18W_____	
3. VRM Class **N/A. KOP on private land.**	Section_____7_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Land appears relatively flat in foreground and middleground areas, with a mountain range forming low undulations visible in the background.	Persistent horizontal coverage of landscape by vegetation beyond the road way. Larger vegetation appears irregularly shaped.	Fence line alongside roadway provides vertical forms descending into horizon from viewpoint. Utility poles introduce vertical patterning across the horizon.
LINE	The horizon in the background and the edge of road form two strong, hard lines.	Edges of vegetation apparent only along the roadway corridor and the horizon in the distance.	The visible physical structures – fence line and utility line – are vertical linear features. The fence line creates a regular angular patterning, as it parallels the road.
COLOR	Tan-colored soils are apparent beneath the vegetation along the road shoulders.	Light greens and browns occupy the color palette.	Dark grays and browns evident in foreground; structure visibility decays with distance.
TEX-TURE	Slight stippling from roadway evident. The mountains that appear smooth from this distance.	Grass vegetation appears fine and disordered, while shrubs appear coarse.	Fence posts and utility poles appear ordered and coarse.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Distinct vertical structures add to the existing vertical patterning occurring in the view.

LINE	No change.	No change.	The proposed structures continue the regular, vertical patterning across the horizon in the distance.
COLOR	No change.	No change.	Proposed structures continue the gray color palette.
TEX-TURE	No change.	No change.	Proposed structures appear coarse and striated at this distance.

SECTION D. CONTRAST RATING __SHORT TERM __LONG TERM

1. DEGREE OF CONTRAST		FEATURES												2. Does project design meet visual resource management objectives? ___ Yes ___No _X_N/A (Explain on reverses side) 3. Additional mitigating measures recommended ___Yes _X__ No (Explain on reverses side) Evaluator's Names Date: 10/16/2012 Caitlin McCusker
		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		

SECTION D. (Continued)

KOP on private land; no VRM objectives to meet.

Located at the intersection of Hook and Anchor Road and NM 70 (Duncan Highway). This view is oriented north approximately 0.4 mile from the proposed line. There is 1 rural residence 0.3 mile south of this view. A potential staging area is 0.45 mile northwest of this KOP on NM 70. Few sensitive receptors and common landscape character represent this view.

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township__22S_____	5. Location Sketch 32.38563898000 -108.70551249700
2. Key Observation Point **P4-01**	Range____18W_____	
3. VRM Class **N/A. KOP on private land.**	Section____16_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Land appears relatively flat in foreground area, though slight undulations are apparent. Steep mountain forms create complexity visible in background.	Consistent groundcover of landscape by vegetation outside of road way. Larger vegetation appears irregularly shaped.	Fence line alongside roadway creates regular vertical patterning that recedes into horizon from viewpoint. Vertical trail marker signs create irregular vertical patterning.
LINE	The jagged mountain range forms the dominate line in this view.	Limits of vegetation apparent along the edge of roadway and to the edge of the valley floor in the background.	The fence posts and trail marker signs create vertical lines, while metal fencings providing horizontal and vertical lines.
COLOR	Warms hues of reddish and tan-colored soils are apparent beneath the vegetation. The mountains in the background are dark brown and blue.	Sage green, yellow, brown, and gray dominate.	Dark green, brown, white and silver evident in foreground in the fence and trail markers.
TEX-TURE	Patchy soils appear beneath vegetation. Stippling evident on the articulated mountains from this distance.	Clumped grasses appear fine, while shrub vegetation appears coarse.	Fence posts appear striated. Trail marker signs appear smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	The proposed towers would be vertical structures, though they would not skyline above the horizon at this distance.

LINE	No change.	No change.	The proposed structures create regular vertical line patterning across the width of the valley floor.
COLOR	No change.	No change.	The towers introduce dark gray into the structures color palette.
TEX-TURE	No change.	No change.	Towers would appear striated and coarse from this distance.

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	
	LINE				X				X			X	
	COLOR				X				X			X	
	TEXTURE				X				X			X	

2. Does project design meet visual resource management objectives? __Yes ___No _X_N/A (Explain on reverses side)

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

Evaluator's Names Date: 10/16/2012
Caitlin McCusker

SECTION D. (Continued)

KOP on private land; no VRM objectives to meet.

View is not from BLM land and is located along a portion of the CDNST that parallels NM 90 approximately 0.25 mile northeast of the intersection with NM 70. Very few residents or destinations are located along NM 90. There is no marked trailhead located here, and landscape is characterized by large expanses of open space. Recreators seeking a solitary experience on the CDNST may use this portion of the trail.

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township__23S_____	5. Location Sketch 32.33288761200 -108.38981765400
2. Key Observation Point **P2-08**	Range_____15W_____	
3. VRM Class at KOP location **IV**	Section_____4_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Land appears relatively flat in foreground area, with undulations apparent in middleground on either edge of view. A series of mountain forms visible in background.	Consistent vegetative coverage of valley floor. Low-growing shrubs appear irregularly shaped.	Vertical utility pole skylines above horizon in foreground. Two additional transmission lines slightly visible in background, though remain below horizon.
LINE	Edge of valley floor in background form strong horizontal line, while mountains in background create jagged, undulating line.	Edges of vegetation formed by valley floor in the middleground and background. Vegetation growth patterns do not mimic topographic variations.	The visible physical structures – the utility poles and lines – are linear features.
COLOR	Warm reddish-colored soils are apparent beneath the vegetation. Brown hills and bluish mountains evident in the middleground and background.	Dark and light greens dominate color palette.	Brown evident in utility pole in foreground; structure visibility decays with distance.
TEX-TURE	Slight stippling evident from exposed soils in foreground and hillsides in the middleground. The mountains appear smooth from this distance.	Shrub vegetation appears coarse, but grass vegetation appears fine.	Utility pole appears coarse.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Additional vertical towers added to the view in the distance.

LINE	No change.	No change.	The proposed towers and lines perpetuate the vertical and horizontal patterning that is already present in the view.
COLOR	No change.	No change.	Structure visibility decays with distance; color appears gray.
TEX-TURE	No change.	No change.	Utility poles appear coarse from this distance.

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	
	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 Date: 10/16/2012
Caitlin McCusker

SECTION D. (Continued)

VRM Class at KOP location is IV. Contrast consistent with VRM Class IV objectives.

Located on a small parcel of BLM land (VRI/VRM Class IV). No immediate sensitive receptors, landscape is very rural and largely vacant. Recommend elimination due to lack of sensitivity and common scenic quality.

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township___23S_____	5. Location Sketch 32.29367269100 -108.15930854200
2. Key Observation Point **P2-07**	Range___13W_____	
3. VRM Class **IV**	Section___23_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Land in the valley floor appears flat in the foreground. Jagged mountains are visible in the middleground and background.	Scattered coverage of landscape by grasses across the valley floor. Low-growing shrubs appear irregularly shaped.	Utility poles form vertical patterning across the horizon, skylining occasionally above the mountain range in the background. The fence line alongside roadbed ruts are vertical forms descending into horizon from this viewpoint.
LINE	Edge of valley floor in middleground creates strong horizontal line. Jagged mountains contrast against skyline.	Edges of vegetation apparent only along the roadbed ruts and at distance limit on the valley floor in the background.	The fence and utility line are vertical, linear features.
COLOR	Reddish- tan colored soils are apparent beneath the vegetation and in the roadbed ruts.	Light and dark greens and tans visible.	Dark grays and browns evident in foreground and middleground; structure visibility decays with distance.
TEX-TURE	Soil appears smooth, while mountains in middleground appear fine grain. Mountains in background appear smooth from this distance.	Shrub vegetation appears coarse, while grasses appear fine to medium, growing in a patchy manner across the valley floor.	Fence posts appear striated, and utility poles appear coarse from this distance.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Vertical transmission towers occur at regularly spaced distances across the landscape.

LINE	No change.	No change.	Vertical patterns continue under proposed conditions with additional transmission towers.
COLOR	No change.	No change.	Dark grays remain dominant color palette for structures.
TEX-TURE	No change.	No change.	Towers appear coarse from this distance.

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	
	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 Date: 10/16/2012
Caitlin McCusker

SECTION D. (Continued)

Change consistent with VRM Class IV objectives.

GIS shows KOP to be within VRI/VRM Class IV landscape and adjacent (within 500 feet of) VRI/VRM Class III landscape. This view is located along an unpaved county road at the foot of Grandmother Mountain. Additional information is needed to understand the sensitivity associated with this mountain. This roadway heads west and north and provides access to a single ranch and largely open/vacant lands. This view is 2 miles east of the CDNST which received many scoping comments of concern. Recommend reorienting KOP from CDNST and include potential sensitivities associated with Grandmother Mountain.

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township__27S_____	5. Location Sketch 31.96225474600 -106.89030239600
2. Key Observation Point **S1-01**	Range__1W_____	
3. VRM Class at location of KOP **IV**	Section___13_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Roadbed in foreground appears depressed below the surrounding land. However, vegetation obscures visibility of landforms in foreground and middleground. Low mountain range visible in background.	Persistent horizontal coverage of landscape by vegetation outside of road way. Larger vegetation appears irregularly shaped.	No structures visible from this viewpoint.
LINE	Roadbed forms a dominant curving line, with the edge of road paralleling the curves. The mountain ranges forms a second, lesser, jagged line.	Edges of vegetation apparent only along the roadway corridor.	No structures visible from this viewpoint.
COLOR	The roadbed is composed of reddish and tan-colored sandy soils. Soils are also visible on along the road shoulders.	Greens and tans dominate the vegetation color palette.	No structures visible from this viewpoint.
TEX-TURE	Roadbed creates striation effect. Some stippling evident along the road shoulders. The mountains appear smooth from this distance.	Shrub vegetation appears coarse.	No structures visible from this viewpoint.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	The proposed structure introduces tall, prominent towers, with numerous lines between each tower.

LINE	No change.	No change.	The proposed structure creates strong horizontal line patterning with the transmission lines. The towers create tall vertical lines.
COLOR	No change.	No change.	Gray dominates the color palette.
TEX-TURE	No change.	No change.	The towers lines appear coarse and striated.

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			
	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 Date: 10/16/2012
Caitlin McCusker

SECTION D. (Continued)

The proposed contrast is consistent with the objectives of the VRM Class IV.

No highly sensitive receptors. Class IV BLM lands.

SIMULATION

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township__27S____	5. Location Sketch 31.95857990500 -106.95401187900
2. Key Observation Point **S1-02**	Range____1W____	
3. VRM Class at KOP location **III**, visible representative ROW on **VRM IV**	Section_____16_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Land slopes downward toward the valley floor in the foreground. Dirt roadbed visible in foreground. Tall mountains evident in background, with smaller topographic undulations just in front.	Sporadic growth of vegetation outside of road way. Larger vegetation appears irregularly shaped.	Indistinguishable structures in the far distance. Transmission line towers visible backdropped by the mountain range.
LINE	Edge of valley floor in the distance creates a strong horizon. and mountainous skyline forms a jagged line. The roadbed creates a continuous, angular line across the viewpoint.	Edges of vegetation apparent along the roadway corridor and at far distance edge of valley floor.	Line patterning indistinguishable from this distance.
COLOR	Gray and tan-colored soils are apparent surrounding the vegetation and along the roadbed.	Greens and tans dominate.	Structures appear white and gray. Structure visibility decays with distance.
TEX-TURE	Slight stippling evident in soils. Mountains appear smooth from this distance.	Shrub vegetation appears coarse.	Structures appear coarse from this distance.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Proposed towers introduce additional vertical patterning into view.

LINE	No change.	No change.	Vertical line patterning occurs at regular intervals across the landscape. From this distance, structure visibility decays with distance.
COLOR	No change.	No change.	Structures appear gray.
TEX-TURE	No change.	No change.	Structures appear coarse from this distance.

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	
	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 Date: 10/16/2012
Caitlin McCusker

SECTION D. (Continued)

Contrast consistent with VRM Class III objectives.

View from foot of Kilbourne Hole. Does not capture the feature.

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township__23S_____	5. Location Sketch 32.30771311400 -107.69590563000
2. Key Observation Point **P2-05**	Range_____8W____	
3. VRM Class **KOP and visible representative ROW on non BLM land.**	Section___17_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Land in the foreground appears relatively flat with slight variations in slope apparent. Jagged mountains rise from the valley floor in the distance in half of the view. The roadbed cuts through the center of the view and descends into the distant horizon.	Vegetation creates an amorphous, rolling, low profile shape.	A distribution line parallels the roadway, while two transmission lines traverse the view and recede at an angle into the distance.
LINE	Edge of valley floor creates strong horizon in the distance, and mountainous skyline creates a jagged line. Edge of roadbed forms an angled, straight line.	Edges of vegetation apparent along the roadway corridor and at base of mountain range.	The utility lines comprise the only manmade structures visible in this view.
COLOR	Gray and tan-colored soils are apparent beneath the vegetation and along the road shoulders.	Yellows, light greens, and dark greens dominate.	Dark grays and browns evident in the utility structures.
TEX-TURE	Smooth roadway bisects the stippled gravel shoulders. The mountains that appear relatively smooth from this distance.	Shrub vegetation appears coarse, and grasses appear fine to medium grain.	The utility poles appear coarse against the landscape.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Tall, dominant lattice structure and numerous line horizontal lines quite visible at this distance.

LINE	No change.	No change.	Bold, vertical line patterning from towers and horizontal patterning from line becomes more apparent.
COLOR	No change.	No change.	Lighter gray introduced with proposed structures.
TEX-TURE	No change.	No change.	Striated patterning evident in lattice structure. Lines appear coarse.

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		
	LINE				X				X			X	
	COLOR				X				X			X	
	TEXTURE				X				X			X	

2. Does project design meet visual resource management objectives? __ Yes ___No N/A_X_ (Explain on reverses side)

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

Evaluator's Names Date: 10/16/2012
Caitlin McCusker

SECTION D. (Continued)

KOP has no BLM designated VRM objectives to meet.

This is the closest view in the Deming area (approximately 3.7 miles due north). Several potentially sensitive receptors (including local parks, churches, cemetery and residences exist in Deming). Scoping revealed 2 comments in favor of the line, and 2 comments encouraging the line to bypass Deming (and not be a pass through for utility structures). This is also the closest point to the Florida Mountains (identified as a well-used recreation area and VRI/VRM Class II).

Additional Mitigating Measures (See item 3)

SIMULATION

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township__27S____	5. Location Sketch 31.92390944800 -106.91119823000
2. Key Observation Point **A-01**	Range_____1W____	
3. VRM Class at KOP location **IV**	Section____26_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Land appears relatively flat in foreground and middleground areas, though slight undulations are apparent. Distant mountain range visible through vegetation.	Persistent horizontal coverage of landscape by vegetation outside of road way. Larger vegetation appears irregularly shaped.	Single windmill visible from viewpoint.
LINE	Edge of valley floor creates strong horizontal line. Roadbed creates curving line.	Edges of vegetation apparent along the roadway shoulder.	The windmill introduces a circle line pattern into the view.
COLOR	Reddish and tan-colored soils are apparent surrounding the vegetation and the roadbed and shoulders.	Dark greens and browns dominate.	Dark grays evident in windmill.
TEX-TURE	Slight striation from roadbed soils.	Shrub vegetation appears coarse and clumped.	Windmill appears striated.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Proposed towers add vertical structures into the landscape.

LINE	No change.	No change.	Structures create vertical line patterning at regular intervals across the horizon.
COLOR	No change.	No change.	Structures appear gray from this distance.
TEX-TURE	No change.	No change.	Towers and lines appear coarse and striated.

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			
	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 Date: 10/16/2012
Caitlin McCusker

SECTION D. (Continued)

Contrast consistent with VRM Class IV objectives.

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township___23S____	5. Location Sketch 32.31785247300 -107.76068193500
2. Key Observation Point **P2-06**	Range____9W_____	
3. VRM Class **KOP and visible representative ROW on non BLM land.**	Section_____10____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Land appears relatively flat in foreground area, with manmade mounds of dirt visible. No visible evidence of form in the background.	Sporadic growth patterns of vegetation. Larger vegetation appears irregularly shaped.	Transmission lines, distribution lines, fences, and mailboxes form disorganized vertical patterning across the view. Residences and ancillary structures dot the view, creating mass.
LINE	Edge of roadbed forms an angled, straight line. Edge of the valley floor forms the horizon in the distance.	Edges of vegetation apparent along the edge of roadway shoulder.	Electrical lines, fences, and mail boxes are numerous vertical features. Residential and ancillary structures create horizontal line patterning.
COLOR	Reddish and tan-colored soils are apparent beneath the vegetation, and gray gravels are visible along the road shoulders.	Greens and grays dominate.	Dark grays and browns evident in foreground; structure visibility decays with distance.
TEX-TURE	Stippling evident in the driveway gravel and dirt mounds.	Patchy vegetation appears coarse.	Fence posts and utility poles create striation.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Tall, linear structures added to an existing landscape containing tall vertical structures.

LINE	No change.	No change.	Addition of vertical structures and horizontal lines continue existing vertical and horizontal patterning.
COLOR	No change.	No change.	Dark gray continues to be dominant color palette among structures.
TEX-TURE	No change.	No change.	Uniformity in striated, coarse towers and transmission lines.

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	
	LINE				X				X			X	
	COLOR				X				X			X	
	TEXTURE				X				X			X	

2. Does project design meet visual resource management objectives? __ Yes ___No N /A_X (Explain on reverses side)

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

Evaluator's Names Date: 10/16/2012
Caitlin McCusker

SECTION D. (Continued)

KOP and representative ROW occur on private land. No VRM objectives to meet.

View is from Padre Hill Drive NW and Overhill Drive located directly north of a residential driveway and approximately 0.5 mile from the proposed line.

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township__24S_____	5. Location Sketch 32.24388236700 -107.34235147400
2. Key Observation Point **P2-04**	Range_____5W_____	
3. VRM Class at location of KOP **III**	Section_____3____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Land appears relatively flat in foreground area, though slight undulations are apparent. Low mountain forms rise in background.	Vegetation at the edge of roadway creates one cohesive, amorphous form. Persistent horizontal coverage of landscape by vegetation outside of road way.	Two transmission lines transect the view, receding at an angle into the distance. The towers skyline above the horizon. Right of way wire fencing occurring along the edge of roadway.
LINE	Valley floor creates strong horizon. Mountainous skyline creates rugged line.	Edges of vegetation apparent only along the roadway corridor.	The transmission towers create vertical patterning across the view, with the tower structures themselves creating a criss-cross lattice pattern. The fence creates a short segment of vertical and horizontal until it is absorbed by the vegetation.
COLOR	Dark gray asphalt contrasts against light gray gravel beyond the roadbed, and reddish-tan colored soils are apparent beneath the vegetation.	Light greens and yellows dominate.	Dark browns evident in the towers; dark green and white visible in the wire fencing.
TEX-TURE	Slight stippling evident at edge of road; road surface appears smooth. Mountains appear granular at this distance.	Shrub vegetation appears coarse.	Fence posts and utility poles appear coarse.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Additional towers and lines introduced into view, paralleling the direction of the existing lines.

LINE	No change.	No change.	Introduction of the proposed transmission line brings additional vertical towers and horizontal lines into view.
COLOR	No change.	No change.	Light gray towers and lines.
TEX-TURE	No change.	No change.	Transmission lines appear striated against the mountain range in the distance. Towers are absorbed into mountain range in the backdrop.

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	
	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 Date: 10/16/2012
Caitlin McCusker

SECTION D. (Continued)

Change is consistent with VRM Class III objectives.

This view is from within the I-10 transportation corridor approximately 0.85 mile from the proposed line and is located within/adjacent to VRI/VRM Class III landscape.

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township__28S____	5. Location Sketch 31.85766163900 -106.97810179900
2. Key Observation Point **S2-01**	Range___1W_____	
3. VRM Class **IV**	Section___19_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Land in foreground slopes at an angle. The low undulating hills in the middleground rise from the valley floor.	Patchy shrub growth in foreground, with shrubs blending into one mass in middleground. Vegetation in foreground appears irregularly shaped.	Single radio tower visible on leftmost knob on hills.
LINE	The hills in the middleground create a bold, curvilinear pattern.	Vegetation forms no apparent line in foreground. Edges of vegetation blends into the base on the hills.	The radio tower introduces a vertical line into the view.
COLOR	Gray and tan colors soils are visible.	Greens and browns dominate.	Gray is visible. Structure visibility limited by distance.
TEX-TURE	Stippling evident in soils. Horizontal striation visible on hillside.	Shrub vegetation appears coarse in foreground, and medium in the middleground.	Tower appears striated.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Proposed structures well absorbed by mountain range in background. Structures contrast against sky where they extend above the landform.

LINE	No change.	No change.	Introduce tall, vertical structures into view.
COLOR	No change.	No change.	Structures contain gray hues.
TEX-TURE	No change.	No change.	Structures and lines are coarse.

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		
	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 Date: 10/16/2012
Caitlin McCusker

SECTION D. (Continued)

Contrast consistent with VRM Class IV objectives.

Largely not supported by public.

Additional Mitigating Measures (See item 3)

SIMULATION

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township___29S____	5. Location Sketch 31.81357832800 -107.39220266200
2. Key Observation Point **P3-02**	Range_____5W_____	
3. VRM Class at KOP location **IV**	Section_____6_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Viewpoint from an embankment, though middleground appears relatively flat, with a series of low mountain ranges in the distant background.	Sporadic growth of vegetation outside of road way. Larger vegetation appears irregularly shaped.	None present.
LINE	Edge of valley floor and mountainous skyline are the two dominant lines.	Vegetation grows in a patchy, incongruent manner and creates no defined line.	None present.
COLOR	Reddish and tan-colored soils are visible beyond the vegetation along the road shoulders. Some dark gray gravel is visible along the edge of road. Shades of blue are visible in the distant mountains.	Yellowish-greens and tans are visible.	None present.
TEX-TURE	Slight stippling evident in soils. Mountains appear smooth from this distance.	Shrub vegetation appears coarse and grows in a patchy, incongruent manner.	None present.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Towers introduce tall, vertical structures.

LINE	No change.	No change.	Towers create tall, vertical patterning. Wires create horizontal patterning.
COLOR	No change.	No change.	Gray is visible.
TEX-TURE	No change.	No change.	Structures appear coarse and create striation.

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		
	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 Date: 10/16/2012
Caitlin McCusker

SECTION D. (Continued)

Contrast consistent with VRM Class IV objectives.

Florida Mountains lie 6 miles to the west and could afford direct long-distance views of the line. From the east (looking west) at the West Potrillo Mountains between 7 and 12 miles away, direct views of the line would like occur due to "superior" viewing locations and visual impacts from the substation expansion. New simulation should be oriented to the southwest to capture the proposed substation, staging area, and line.

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township___29S____	5. Location Sketch 31.82100698000 -107.22667280300
2. Key Observation Point **B-01**	Range____4W_____	
3. VRM Class **at location of KOP II. Representative ROW crosses VRM Class IV land**	Section_____2_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Land slopes in the foreground toward the conical formations in the middleground. Several mountain ranges are visible in the background.	Patchy, low growing vegetation grows across landscape.	No structures visible in this view.
LINE	Valley floor creates a prominent horizon. Topographic undulations generate curvilinear lines in middleground and background.	Vegetation grows in patchy pattern.	No structures visible in this view.
COLOR	Reddish and tan-colored soils are apparent beneath the vegetation along the road shoulders. Landforms in middleground appear reddish, while mountain range in background appears blue.	Yellows, browns, grays, and greens dominate.	No structures visible in this view.
TEX-TURE	Slight stippling evident in soils and mountains.	Vegetation growth pattern creates stippled effect.	No structures visible in this view.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Proposed towers bring structures into view.

LINE	No change.	No change.	Towers create vertical line patterning in a regular spacing across the horizon.
COLOR	No change.	No change.	Structure visibility degrades with distance; towers appear to be dark gray at this distance.
TEX-TURE	No change.	No change.	Structure visibility degrades with distance; towers appear coarse.

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	
	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 Date: 10/16/2012
Caitlin McCusker

SECTION D. (Continued)

The KOP is located on VRM Class II land; representative ROW crosses VRM Class IV land. Contrast would be consistent with the VRM Class IV objectives.

Similar to S4-01.

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township___29S____	5. Location Sketch 31.82100698000 -107.22667280300
2. Key Observation Point **S4-01**	Range____4W_____	
3. VRM Class at location of KOP **II. Representative ROW crosses VRM Class IV land**	Section_____2_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Land slopes in the foreground toward the conical formations in the middleground. Several mountain ranges are visible in the background.	Patchy, low growing vegetation grows across landscape.	No structures visible in this view.
LINE	Valley floor creates a prominent horizon. Topographic undulations generate curvilinear lines in middleground and background.	Vegetation grows in patchy pattern.	No structures visible in this view.
COLOR	Reddish and tan-colored soils are apparent beneath the vegetation along the road shoulders. Landforms in middleground appear reddish, while mountain range in background appears blue.	Yellows, browns, grays, and greens dominate.	No structures visible in this view.
TEX-TURE	Slight stippling evident in soils and mountains.	Vegetation growth pattern creates stippled effect.	No structures visible in this view.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Proposed towers bring structures into view.

LINE	No change.	No change.	Towers create vertical line patterning in a regular spacing across the horizon.
COLOR	No change.	No change.	Structure visibility degrades with distance; towers appear to be dark gray at this distance.
TEX-TURE	No change.	No change.	Structure visibility degrades with distance; towers appear coarse.

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	
	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 Date: 10/16/2012
Caitlin McCusker

SECTION D. (Continued)

The KOP is located on VRM Class II land; representative ROW crosses VRM Class IV land. Contrast would be consistent with the VRM Class IV objectives.

View is located approximately 2.2 miles from the proponent's alternative line and 2.5 miles from the US/Mexican Border. Landscape is largely flat and common, few sensitive viewers are located in this area as it is highly monitored by Border Patrol.

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township__29S_____	5. Location Sketch 31.81549816600 -107.07477049900
2. Key Observation Point **S3-01**	Range_____2W___	
3. VRM Class **IV**	Section____5_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Land appears relatively flat in foreground area, though slight undulations are apparent. Rolling mountain forms visible in background.	Consistent horizontal coverage of landscape by vegetation outside of road way. Larger vegetation appears irregularly shaped.	Structures are no visible in this view.
LINE	The road creates a strong, angular line as it recedes into the distance. The mountains create an undulating line across the horizon.	Edges of vegetation apparent only along the roadway corridor.	Structures are no visible in this view.
COLOR	Reddish and tan-colored soils are apparent beneath the vegetation along the road shoulders. The roadbed and mountains appear gray.	Greens and browns dominate.	Structures are no visible in this view.
TEX-TURE	Slight stippling evident in roadbed and roadway shoulder. The mountains appear smooth from this distance.	Shrub vegetation appears coarse.	Structures are no visible in this view.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Tall, prominent structures would be introduced into a landscape absent of manmade structures.

LINE	No change.	No change.	Towers create vertical patterning; lines create strong angular patterning, which mirrors the direction of the roadway.
COLOR	No change.	No change.	Gray dominates the color palette.
TEX-TURE	No change.	No change.	Lines and towers appear coarse and striated.

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		
	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 Date: 10/16/2012
Caitlin McCusker

SECTION D. (Continued)

Contrast consistent with the VRM Class IV objectives.

View is located along Hwy 9 and is oriented westward along roadway. Simulation shows structures on south side and parallel to the road along the proponent's alternative. View is located outside of any sensitive locations, or unique landscape.

Additional Mitigating Measures (See item 3)

SIMULATED

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township___28S____	5. Location Sketch 31.82996968500 -107.61735231600
2. Key Observation Point **S5-01**	Range____8W_____	
3. VRM Class **N/A. KOP on non BLM land.**	Section_____36_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Land appears relatively flat in foreground area, with slight undulations are apparent. Gently slopes mountain forms visible in background.	Patchy, low growing grasses create consistent coverage of landscape. Larger vegetation appears irregularly shaped.	KOP is located in urban setting. Buildings visible in view. Additional vertical structures occur including distribution line, water tower, traffic signage, agricultural fencing.
LINE	Edge of valley floor and undulating mountainous skyline are the two dominant lines.	Edges of vegetation apparent only along the roadway corridor. No apparent line created by vegetation.	The fencing creates regular, angular vertical patterning. Buildings in background create no discernible line patterning.
COLOR	Reddish and tan-colored soils are apparent beneath the vegetation along the road shoulders.	Light greens and tans dominate.	Dark grays, browns, reds, and whites evident in foreground; structure visibility decays with distance.
TEX-TURE	Slight stippling evident in soils, mountains and in roadway asphalt.	Shrub vegetation appears coarse.	Buildings appear clumped. Fence posts and utility poles appear smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Tall, prominent structures would be introduced into the landscape.

LINE	No change.	No change.	Towers create vertical patterning; lines create strong angular patterning, which mirrors the direction of the roadway.
COLOR	No change.	No change.	Gray dominates the color palette.
TEX-TURE	No change.	No change.	Lines and towers appear coarse and striated.

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		
	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 Date: 10/16/2012
Caitlin McCusker

SECTION D. (Continued)

KOP located on private land. No VRM objectives to meet in this location.

View is located along Hwy 9 oriented southward away from the community of Columbus. This view does not represent a sensitive location.

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township___28S____	5. Location Sketch 31.82653852900 -107.64158590200
2. Key Observation Point **S5-02**	Range____8W_____	
3. VRM Class **on state land**	Section___34_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Land appears relatively flat in foreground, with slight undulations are apparent. Low rising mountain forms visible in background.	Sporadic coverage of landscape by vegetation. Vegetation appears irregularly shaped. Multitude of shapes and sizes.	Picnic umbrellas create triangular forms. Wooden fencing creates short, vertical patterning. Mobile homes visible in middleground.
LINE	Edge of valley floor and mountainous skyline create strong horizon.	Tall trees' trunks create vertical patterning. Low growing vegetation creates no discernible line patterning.	Wooden fencing creates short, circular and vertical patterning.
COLOR	Reddish and tan-colored soils are apparent beyond the vegetation growth.	Greens and browns dominate.	White, dark grays and browns evident in foreground; structure visibility decays with distance.
TEX-TURE	Slight stippling evident in visible soils. The mountains appear smooth from this distance.	Vegetation appears coarse.	Structures appear coarse.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Proposed structures remain consistent with existing vertical patterning.

LINE	No change.	No change.	Proposed structures consistent with existing vertical patterning. Towers are visible above horizon.
COLOR	No change.	No change.	Proposed structures contain gray.
TEX-TURE	No change.	No change.	Structures appear coarse from this distance.

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	
	LINE				x				x			x	
	COLOR				x				x			x	
	TEXTURE				x				x			x	

2. Does project design meet visual resource management objectives? ___ Yes ___No _X_ N/A (Explain on reverses side)

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

Evaluator's Names Date: 10/16/2012
Caitlin McCusker

SECTION D. (Continued)

No change to the historic interpretation of the Pancho Villa State Park.

View is 1.26 miles from the proponent's alternative line and simulation shows a "superior" view from atop a mountain within the Pancho Villa State Park (just southwest of Columbus. Park users tend to be sensitive to change from this location, however distance and angle (superior viewing conditions) would result in a lesser visual obstruction from this vantage.

Additional Mitigating Measures (See item 3)

SIMULATED

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township___29S_____	5. Location Sketch 31.81030555800 -107.81537493200
2. Key Observation Point **S5-03**	Range_____10W____	
3. VRM Class **KOP and visible representative ROW are on private land.**	Section_____1_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Land appears relatively flat in foreground, with slight undulations are apparent. Low rising mountains form middleground and background.	Persistent coverage of landscape by vegetation in between two road ways. Larger vegetation appears irregularly shaped and sporadic.	Utility poles alongside roadway are vertical forms descending into horizon from viewpoint. Second distribution line and farm buildings visible in middleground, rural clustered development visible in background.
LINE	Jagged mountainous skyline creates dominant horizon. Two parallel roadways create angular line patterning.	Edges of vegetation occur between edge of pavement and edge of unpaved road.	Utility poles are vertical linear features. Farm buildings and rural clustered development create no coherent line patterning.
COLOR	Reddish and tan-colored soils are visible. Gray asphalt visible in foreground.	Dark and light greens and tans dominate.	Dark grays and browns evident in foreground; farm building appear white. Structure visibility decays with distance.
TEX-TURE	Slight stippling evident in asphalt and mountains. Stippling and striation evident in farmed soils.	Vegetation in foreground appears fine. Larger vegetation in middleground appears coarse.	Utility poles and farm structures appear coarse.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Tall vertical structures add to existing vertical structures.

LINE	No change.	No change.	Structures generate additional vertical line patterning in view.
COLOR	No change.	No change.	Dark grays and browns visible.
TEX-TURE	No change.	No change.	Towers appear coarse and create striation.

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	
	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 Date: 10/16/2012
Caitlin McCusker

SECTION D. (Continued)

KOP has no VRM objectives to meet.

Though located 43 miles to the west, this view is very similar to S5-01 and does not represent a sensitive viewpoint or distinctive lands.

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township__28S____	5. Location Sketch 31.822829161 x -107.995497078
2. Key Observation Point **C-01**	Range____11W____	
3. VRM Class **KOP on VRM IV**	Section____32_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Rolling hills across view; gently sloped foothills frame the left and right sides of the view.	Some rounded shapes in immediate foreground, with less defined, but evenly dispersed, forms extending away from the viewpoint.	Utility poles appear tall and slender, with at least one prominently breaching the skyline formed by most distant foothills.
LINE	Roadways are primary linear features in landscape; paved highway is more prominent than dirt road to south (right). Utility line also visible to right of highway and railroad to the left.	In foreground area, vegetation appears where main linear features (roads) do not.	Utility poles appear in a line. Road signs and guard rails appear within highway corridor, and reinforce the linear land form in that area.
COLOR	Landform is diverse in color from lighter to darker browns and grays.	Primarily green, though bushes without leaves appear dark gray and brown.	Utility poles are wooden and generally match the light tans present in the landscape. Guard rail reflectors and road signs are source of vibrant yellow color.
TEX-TURE	Underlying variation in elevation gives the landscape a gradational texture.	Patchy and coarse.	Relegation of structures to a utility corridor and roadway corridor results in directional, ordered texture.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	A tower associated with Alternative C would likely be visible in the left center of the view, potentially visible above the skyline as the most prominent built form in the view.

LINE	No change.	No change.	Tower components would form vertical, diagonal, and horizontal lines. New conductors would be visible across view, particularly where the only backdrop is sky.
COLOR	No change.	No change.	New tower and lines would appear gray, based on anticipated galvanized steel finish.
TEX-TURE	No change.	No change.	From this distance, the towers would create a line of coarse texture.

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 reverse side)

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

Evaluator's Names Date

Josh Hohn
October 12, 2012

SECTION D. (Continued)

Proposed transmission line meets management objectives for VRM Class IV (to provide for activities that require major modification of the landscape).

Similar to S6-01

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township___24S___	5. Location Sketch
2. Key Observation Point **D-01**	Range_____16W__	32.174955486 x -108.537030271
3. VRM Class **N/A; KOP and portion of ROW visible are on non BLM land**	Section_____31_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat valley framed in distance by mostly rounded (but jagged in spots) hills and mountains.	Rounded and triangular bushes on right side of road, with more indistinct and low vegetation on left side.	Utility poles are vertical structures clearly defined in view on right side of road. Fence posts are similar, but to a lesser degree, along the left side of the road.
LINE	Road extending away from viewpoint is primary linear feature in land, along with evident edge of the valley and skyline along back of view.	Only apparent edge of vegetation is along roadway.	Utility line and fence line are aligned with the roadway.
COLOR	Generally light colored soils offset by darker hues of distant elevated areas.	Varied greens (dark to light) and some grayish grasses.	Most structures (poles, fence posts) are wooden and dark. Roadside marker bright (green) and metallic.
TEX-TURE	Smooth valley floor, skyline consists of land that varies between smooth and rough in outlined appearance.	Patchy and somewhat discontinuous on the right side of the road; more continuous and rough on left side.	Utility line and fence line are relatively uniform structures within landscape.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	New towers would be visible crossing roadway approximately 0.4 mi. away from viewpoint as vertical structures above the skyline, similar to visible existing utility poles.

LINE	No change.	No change.	Transmission line would appear perpendicular to roadway/utility corridor in view. Tower components would form vertical, diagonal, and horizontal lines.
COLOR	No change.	No change.	Tower and conductors would appear light gray from this distance and based on anticipated galvanized steel treatment.
TEX-TURE	No change.	No change.	Towers create a coarse texture.

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? ___Yes ___No _X_NA (Explain on reverse side)

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

Evaluator's Names Date

Josh Hohn
October 12, 2012

SECTION D. (Continued)

Comments from item 2.

Proposed transmission line would result in weak contrast with existing conditions, based on distance from viewpoint and on the presence of an existing utility corridor already visible in view.

Not BLM land. 0.6 mile north of proponent's alternative and BLM Class IV; SQ-C; VRM-IV. Located on Muir Rd adjacent to agricultural fields and rural residential. Public sensitivity is low. Similar view as S8-02

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township___23S___	5. Location Sketch
2. Key Observation Point **D-02**	Range_____18W__	32.294747826 x -108.653356887
3. VRM Class **KOP is on private lands; representative ROW would pass through VRM III**	Section_____24___	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat valley floor, partially framed by conical mountains.	Occasional rounded scrub vegetation outside of collection of relatively tall, conical/cylindrical trees near residence.	Rectilinear residence and associated structures. Tall, slender utility poles extend across view.
LINE	Roadway evident in immediate foreground, and valley edge visible across view, beneath a skyline that is both undulating and jagged.	Trees associated with residence form strong line within a portion of the middle of the view.	Utility poles appear as part of a continuous line.
COLOR	Tans and grays in valley floor appear in contrast with darker color of hills and mountains.	Subtle variation of ground cover in immediate foreground (reds, purples and browns), along with greens of trees and larger bushes.	Residence is mostly white and reddish, as are associated structures. Visible utility poles are wooden and brown.
TEX-TURE	Smooth valley floor appears consistent with smoother, rounded portions of distant hillsides, but in contrast with the more pointed parts of the skyline.	Preponderance of grasses in the immediate foreground gives appearance of medium but uniform texture. Scrub brush appears patchy and trees are ordered.	Consolidation of utility poles and structures associated with residence result in an ordered appearance.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	New transmission tower visible in view would be dominant vertical form in view and would appear above mountain skyline.

LINE	No change.	No change.	Conductors would be noticeable, extending across view within an existing transmission corridor but occupying substantially more space than the existing line does. Tower components would form vertical, diagonal, and horizontal lines.
COLOR	No change.	No change.	Tower and lines would appear gray in color.
TEX-TURE	No change.	No change.	Towers would create nodes of coarse texture.

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 reverse side)

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

Evaluator's Names Date

Josh Hohn
October 12, 2012

SECTION D. (Continued)

Comments from item 2.

Visible tower and conductors would result in moderate contrast with regard to form and line. Proposed transmission line meets management objectives for VRM Class III (to partially retain the existing character of the landscape).

Pyramid Shadows Rd. Rural Residential on private land. KOP is from roadway. Sensitive receptors not identified.

Additional Mitigating Measures (See item 3)

SIMULATED

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township___23S___	5. Location Sketch
2. Key Observation Point **E-01**	Range_____20W__	32.280745088 x -108.880628161
3. VRM Class **III**	Section_____27___	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	With the exception of the raised railroad tracks, the view is primarily occupied by the level South Alkali Flat, which contrasts sharply with the form of the Peloncillo Mountains, visible beyond.	Sparse, rounded clumps.	A series of posts indicating a property line fence are the only structures visible beyond the railroad corridor rails atop the berm in the immediate foreground.
LINE	Raised railroad tracks and defined edge of alkali flat are the most prominent linear features in the view.	Irregular.	The fence and rails are linear structures, visible extending across the view.
COLOR	Salt flat color distinctively light; darker colors of distant mountains and railroad corridor appear in contrast.	Green vegetation prominently visible against salt flat background.	Fence posts and rails appear dark.
TEX-TURE	Salt flat appears smooth, though a bit granular in the immediate foreground. Mountains visible appear to protrude roughly from flat surface. Raised railroad berm is coarse.	Patchy vegetation in foreground.	Rails appear smooth, particularly in contrast with the graveled berm upon which they sit. From this distance, the fence posts appear to punctuate the land in a uniform manner.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Vertical forms visible along middle of view, some visible above the distant mountain skyline.

LINE	No change.	No change.	Towers appear as linear feature across the view, and are distinct enough to appear as individual vertical lines. Relates to railroad corridor and fence posts in foreground.
COLOR	No change.	No change.	Light color of towers noticeable against dark mountain backdrop.
TEX-TURE	No change.	No change.	Towers appear ordered.

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 reverse side)

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

Evaluator's Names Date

Josh Hohn
October 12, 2012

SECTION D. (Continued)

Comments from item 2.

Proposed transmission line meets management objectives for VRM Class III (to partially retain the existing character of the landscape).

Similar to P5-01

Additional Mitigating Measures (See item 3)

SIMULATED

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

Date: 31 August 2012

District/ Field Office: Safford

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**

2. Key Observation Point **E-02**

3. VRM Class **III**

4. Location
Township 13S
Range 31E
Section 30

5. Location Sketch

32.270965673 x -109.22447383

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat valley appears in front of prominent, angular Peloncillo Mountains to the north.	Varied forms apparent in immediate foreground (rounded, triangular, cylindrical), but not apparent in more distant views.	Residence and sheds are rectilinear, while other associated structures are diverse and vary by function. Utility poles and lines are clearly defined in the skyline.
LINE	Edge of valley somewhat discernible. Jagged, lines indicate mountain skyline and tops of ridgelines beneath the skyline.	Mostly irregular, though vegetated area at base of mountains appears as a horizontal band.	Utility lines are one identifiable linear feature. Remaining structures appear collectively more as a cluster.
COLOR	Lighter appearing valley floor contrasts with dark mountains.	Dark to light green trees and scrub brush appear above mostly tan grasses.	Varied – dark residential structure and light sheds, along with dark (wooden) utility poles.
TEX-TURE	Contrasting textures apparent: generally smooth valley floor sits beneath a continuous series of mountains that appear rough as a whole.	Vegetation appears coarse.	Ordered to the extent that all structures visible in this view appear clustered around the rural residence.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	New towers would likely be visible beyond the developed portion of San Simon, across the view in front of the distant mountains. The vertical features would likely extend above the skyline.

LINE	No change.	No change.	New conductors would be visible across the view, in areas where they wouldn't blend in against a mountain backdrop.
COLOR	No change.	No change.	Towers and lines would appear gray based on assumed galvanized steel finish.
TEX-TURE	No change.	No change.	Towers and conductors would appear smooth.

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 reverse side)

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

Evaluator's Names Date

Josh Hohn
October 12, 2012

SECTION D. (Continued)

Comments from item 2.

Proposed transmission line meets management objectives for VRM Class III (to partially retain the existing character of the landscape).

Town of San Simon, sensitive residential receptors. VRI/VRM III, SQ-B; SL-High. Major transportation route with scenic areas and provides connection from Las Cruces to Tucson.

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Safford

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township___13S__	5. Location Sketch
2. Key Observation Point **F-01**	Range_____28E___	32.329841832 x -109.485849107
3. VRM Class **N/A; KOP is on private land and rep ROW visible passes through non BLM lands**	Section_____4___	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Generally flat with some minor topographic variation visible in foreground. Distant mountains visible along part of horizon.	The relatively tall and slender trees visible throughout the left side of the view are the dominant vegetative feature in the view.	Varied angular rooflines of mostly rectilinear residences and other structures. Windmill and rounded shed in center of the view draw the viewer's eye.
LINE	Roadways appear as broad lines cutting through a mildly rugged landscape.	Vertically-oriented trees appear somewhat aligned across the left portion of the view.	Utility lines along and across the roadway in the center of the view are the only linear components within a view that is otherwise lacking in intactness.
COLOR	Gray, brown, and red tones in foreground (dirt and roadways); purplish mountains in the horizon.	Dark to light greens associated with the trees and scrub vegetation along the western side of the road are main source of vegetative color.	Colors of homes and sheds range from bright (metallic and fabric) to dark (wood).
TEX-TURE	Smooth roadways appear within a somewhat coarse terrain.	Vegetation is dense and somewhat rough on left side of road in center of view. On the right side, patchy vegetation (trees and groundcover) are visible within a residential area.	Residences, sheds, and associated structures appear concentrated in right side of view.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Two vertically oriented structures visible in view, along with conductors. Towers relate to other utility poles in view, as do the conductors.

LINE	No change.	No change.	Conductors add visible linear features across the view, beyond other similarly oriented transmission lines. New lines would intensify presence of such lines in view, somewhat.
COLOR	No change.	No change.	Towers appear light to dark gray.
TEX-TURE	No change.	No change.	Towers and lines appear ordered and smooth in view.

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? ___Yes ___No _X_NA (Explain on reverse side)

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

Evaluator's Names Date

Josh Hohn
October 12, 2012

SECTION D. (Continued)

Comments from item 2.

N/A; KOP is on private land and rep ROW visible passes through private and state lands

Located 0.25 mile from alternative route. From intersection of N. Central and E. Arizona St. in the town of Bowie. No public comments came from Bowie during scoping. North of the alternative line is agricultural fields and limited homes. Concentrated residential over 0.25 mile north of I-10 at Apache Pass Rd. exit. Surrounded by agricultural lands. Proponent preferred should be further considered as it avoids the community nearly 2 miles to the south.

Additional Mitigating Measures (See item 3)

SIMULATED

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

Date: 31 August 2012

District/ Field Office: Safford

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____12S__	5. Location Sketch
2. Key Observation Point **F-02**	Range_____26E_	32.365548347 x -109.679696953
3. VRM Class **N/A; KOP is on state land and rep ROW visible passes through state lands**	Section_____27_	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Center of view shows intersection of two roadways (AZ SR 191 and I-10) in a valley setting, with mountains beyond the intersection.	A low patchwork of vegetation is visible along the sides of the roads.	Signage, lights and berms (including stockpile of dirt in right side of view) associated with roads are the most detectable structures.
LINE	Curvilinear form of SR 191 as it approaches intersection with I-10 (which runs across the middle of the frame) is dominant form, along with pronounced geometric form of mountains.	Irregular, broken patchwork.	Lights and signs are dispersed somewhat irregularly along roadway corridor.
COLOR	Mostly tan and brown outside of the grayish roadway corridor.	Grassy roadside scrub vegetation is light green to tan in color.	Yellow and green signs are sources of the view's most vibrant colors.
TEX-TURE	Smooth roadway set amid a relatively ordered valley landscape, which contrasts moderately with subtly striated mountain slopes that appear as backdrop.	Patchy roadside vegetation.	Placement of signs and lights along roadway appears ordered.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Series of new transmission towers and conductors would appear across the middle of the view. Lattice-style towers may be difficult to discern with mountain backdrop.

LINE	No change.	No change.	Proposed towers and lines would appear larger than, but generally aligned with, existing utility corridor which parallels I-10. Conductors, where visible, would reinforce linear presence.
COLOR	No change.	No change.	Would appear gray based on assumption of galvanized steel finish.
TEX-TURE	No change.	No change.	Towers and lines would appear ordered in this view.

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? ___Yes ___No _X_NA (Explain on reverse side)

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

Evaluator's Names Date

Josh Hohn
October 12, 2012

SECTION D. (Continued)

Comments from item 2.

Proposed towers and lines would be visible but not prominent and appear within an existing road/utility line corridor.

View is 0.5 mile from alternative and 2.7 miles from preferred. KOP faces due south. Limited visual sensitivity in this area due to lack of receptors

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Safford

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township___13S___	5. Location Sketch 32.253445488 x -109.920267256
2. Key Observation Point **G-01**	Range_____24E__	
3. VRM Class **N/A. KOP on private land; representative ROW crosses non BLM lands**	Section_____32___	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Land appears relatively flat in foreground area, though slight undulations are apparent. Steep mountain forms visible in middleground.	Persistent horizontal coverage of landscape by vegetation outside of road way. Larger vegetation appears irregularly shaped.	Utility poles and fence line alongside roadway are vertical forms descending into horizon from viewpoint.
LINE	Edge of valley floor and mountainous skyline are the two dominant lines, along with road.	Edges of vegetation apparent only along the roadway corridor.	The two visible physical structures – fence line and utility line – are linear features.
COLOR	Reddish and tan-colored soils are apparent beneath the vegetation along the road shoulders.	Dark greens dominate.	Dark grays and browns evident in foreground; visibility of individual structures decays with distance.
TEX-TURE	Slight stippling evident in otherwise flat valley edge, which is offset from the articulated mountains that appear smooth from this distance.	Scrub vegetation appears coarse.	Mostly smooth roadway, while fence posts and utility poles appear striated.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	New towers would appear in a row across the view, along the valley horizon. In the left side of the view, they would be visible with only the sky as backdrop, and with lower portions screened.

LINE	No change.	No change.	Conductors, likely to be discernible only in the left side of the view (without the mountain backdrop).
COLOR	No change.	No change.	Towers and conductors would be gray, based on anticipated galvanized steel finish.
TEX-TURE	No change.	No change.	Transmission line would appear ordered from this vantage point.

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? ___Yes ___No _X_NA (Explain on reverse side)

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

Evaluator's Names Date

Josh Hohn
October 12, 2012

SECTION D. (Continued)

Comments from item 2.

From this location, and given presence of existing road and utility corridor in view, the presence of the proposed transmission line across the middle of the view would result in a weak degree of contrast.

Not on BLM lands. Cascabel Road with views of DC in the background. Does not include WC-1, Proponent Alternative, or Proponent Preferred (is beyond 8 miles)

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Safford

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township 14S	5. Location Sketch
2. Key Observation Point **G-02**	Range 24 E	32.198738216 x -109.883954029
3. VRM Class **KOP is on state land; rep ROW crosses state & private lands beyond VRM II lands.**	Section 22	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat, western Willcox Playa is visible across foreground. Clearly defined mountainous forms extend across the middleground in the most distant portion of the view.	Rounded and oval forms of scrub brush are prominent among otherwise mostly widespread, low grassland.	Presence of structures in area southwest of playa is visible, but distinct forms are not discernable.
LINE	The line between the edge of the playa area and the base of mountains extends across the view, below the skyline of the mountains.	Edge between vegetated and non-vegetated area partially visible in immediate foreground.	Concentration of visible structures in middleground of view forms short line of human-built elements within wider, mostly natural, landscape.
COLOR	Light soils of playa floor contrast with dark appearance of mountains in middleground.	Mostly yellow grasslands, with dark green scrub vegetation scattered throughout foreground.	Presence of structures made visible by white color.
TEX-TURE	Flat playa sits in contrast with undulating and angular mountain range across back of view.	Clumped texture of grassland in this portion of playa accentuated by patchy presence of scrub vegetation.	Texture of structures in view not discernable from this distance…recedes into a relatively smooth background.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	New transmission line would be over 4 miles away from this viewpoint and thus a barely detectible string of slight vertical forms, if visible at all. It would appear below the mountain skyline.

LINE	No change.	No change.	If visible, row of towers would be barely discernible. Conductors would not be detectible from this viewpoint.
COLOR	No change.	No change.	If visible, towers would appear light in the view and could contrast slightly against dark mountain backdrop.
TEX-TURE	No change.	No change.	Overall texture would be soft and vague at most.

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 reverse side)

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

Evaluator's Names Date

Josh Hohn
October 12, 2012

SECTION D. (Continued)

Comments from item 2.

Transmission facilities would be barely discernible from this viewpoint, if visible at all. Thus, contrast would be weak at most.

Similar to P7-03

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Safford

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township___15S___	5. Location Sketch
2. Key Observation Point **G-03**	Range_____24E__	32.112698976 x -109.919504566
3. VRM Class **KOP is within private land and representative ROW crosses private land**	Section_____20___	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Slight descent in foreground between KOP and edge of playa is evident. Distant mountains visible in background.	Varied forms of vegetation (conical, rounded, solid/transparent), ranging from small to relatively large in size, visible as landscaped features within community in foreground.	Rectilinear home and flat sign for school. Roads are strong forms; relatively tall utility poles are prominent but appear w/in urbanized area.
LINE	Edges of playa distinguishable from this location, beyond the linear roads; distant mountain skyline evident.	Strong band of vegetation visible between populated area and the playa.	Utility lines cross the view in multiple directions.
COLOR	Harmonious layers of green, tan and darker mountain forms visible beyond immediate foreground.	Yellow grasses and green vegetation within urbanized area relate to similar colors in more distant landscape.	Light colored buildings, dark vertical poles, and vividly colored signage.
TEX-TURE	Land visible beyond developed area appears mostly finely textured from this distance.	Within developed area, vegetation appears somewhat uneven, but distant band is ordered within the landscape.	Aggregation of uneven structures within immediate foreground is in contrast with absence of structures beyond developed area.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	New, relatively large transmission tower would be visible in left portion of view.

LINE	No change.	No change.	Tower introduces vertical, horizontal and diagonal lines. Conductors would extend across view, appearing more substantial but lower than nearer utility line that also extends across view.
COLOR	No change.	No change.	Tower and lines would appear gray.
TEX-TURE	No change.	No change.	Tower and lines would appear smooth.

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? ___Yes ___No _X_NA (Explain on reverse side)

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

Evaluator's Names Date

Josh Hohn
October 12, 2012

SECTION D. (Continued)

Comments from item 2.

Proposed transmission tower would result in moderate contrast to view; though relatively large, it would be partially obscured by intervening structures and vegetation within Cochise, and would also appear as one of a few utility pole structures in the view.

This KOP represents somewhat denser residential along the western edge of the Playa surrounded by agricultural lands. KOP is within BE-2a which bypasses Willcox Playa also does not consider Apache Substation upgrade. This is the last KOP to capture the new build.

Additional Mitigating Measures (See item 3)

SIMULATED

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township___23S___	5. Location Sketch
2. Key Observation Point **P5-01**	Range_____20W__	32.280745088 x -108.880628161
3. VRM Class **III**	Section_____27__	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	With the exception of the raised railroad tracks, the view is primarily occupied by the level South Alkali Flat, which contrasts sharply with the form of the Peloncillo Mountains, visible beyond.	Sparse, rounded clumps.	A series of posts indicating a property line fence are the only structures visible beyond the railroad corridor rails atop the berm in the immediate foreground.
LINE	Raised railroad tracks and defined edge of alkali flat are the most prominent linear features in the view.	Irregular.	The fence and rails are linear structures, visible extending across the view.
COLOR	Salt flat color distinctively light; darker colors of distant mountains and railroad corridor appear in contrast.	Green vegetation prominently visible against salt flat background.	Fence posts and rails appear dark.
TEX-TURE	Salt flat appears smooth, though a bit granular in the immediate foreground. Mountains visible appear to protrude roughly from flat surface. Raised railroad berm is coarse.	Patchy vegetation in foreground.	Rails appear smooth, particularly in contrast with the graveled berm upon which they sit. From this distance, the fence posts appear to punctuate the land in a uniform manner.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Vertical structures barely detectable across view.

LINE	No change.	No change.	Series of towers appear oriented as a straight line. Tower components would form vertical, diagonal, and horizontal lines.
COLOR	No change.	No change.	Discernible light color of towers slightly visible against darker backdrop.
TEX-TURE	No change.	No change.	Slightly visible series of towers appears ordered.

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 reverse side)

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

Evaluator's Names Date

Josh Hohn
October 12, 2012

SECTION D. (Continued)

Comments from item 2.

Proposed transmission line meets management objectives for VRM Class III (to partially retain the existing character of the landscape).

Located on LD-1 (bypass of Lordsburg Playa) within VRI/VRM III, Scenic Quality C, and High Sensitivity. Recommend consideration of agency alternative for this KOP.

Additional Mitigating Measures (See item 3)

SIMULATED

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

Date: 31 August 2012

District/ Field Office: Safford

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**

2. Key Observation Point **P5-02**

3. VRM Class **IV**

4. Location
Township 13S
Range 31E
Section 2

5. Location Sketch

32.335819381 x -109.152579758

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Rugged desert land appears between viewpoint and clearly defined mountains within the Coronado National Forest.	Prominent and angular/rounded scrub brush in immediate foreground. More amorphous in distant valley.	Community of San Simon appears in this view as a barely discernible distant patch of structures within the valley.
LINE	Slope in foreground obscures a portion of the valley edge. Mountain skyline is clearly defined; ridgelines within the mountains less so.	In immediate foreground, density of vegetation is such that lines are evident at edge of growth, in the few areas where soil is visible.	Collection of structures forms slight line across a portion of the view, indicating the alignment of the community along the I-10 corridor, which extends across this view.
COLOR	Pale earth tones evident in the immediate foreground contrast with darker hues of distant mountains.	Mostly dark to medium-dark green.	Some structures appear light colored against the mostly dark background.
TEX-TURE	Combination of soil and rocks in the immediate foreground results in a somewhat clumped texture. More distant valley appears smooth from this distance, while mountains are sparse/jagged.	Patchy and coarse.	Faintly visible collection of structures appears ordered and concentrated in view from this distance.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Barely detectable series of vertical structures across middle of view, appearing in front of valley.

LINE	No change.	No change.	Barely detectable towers appear aligned in linear fashion; conductors not visible.
COLOR	No change.	No change.	Where discernible, towers appear light in color.
TEX-TURE	No change.	No change.	Where discernible, towers appear ordered.

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 reverse side)

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

Evaluator's Names Date

Josh Hohn
October 12, 2012

SECTION D. (Continued)

Comments from item 2.

Proposed transmission line meets management objectives for VRM Class IV (to provide for activities that require major modification of the landscape).

Adjacent to VRI/VRM Class II, Scenic Quality B, High sensitivity lands, located in VRI/VRM Class III. View is located in a wash southwest of Peloncillo Mountains. Simulation is rendered 2.3 miles from proposed line, views of Chiracahua Mountains in the background DZ (beyond 20 miles south).

Additional Mitigating Measures (See item 3)

SIMULATED

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

Date: 31 August 2012

District/ Field Office: Safford

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township___13S___	5. Location Sketch 32.323456112 x -109.488100392
2. Key Observation Point **P6-01**	Range_____28E__	
3. VRM Class **N/A; KOP is on private land and rep ROW visible passes through private lands**	Section_____9____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat portion of San Simon Valley apparent in foreground. Portion of Dos Cabezas Mountains appear to rise abruptly from valley floor in middleground.	Within the community of Bowie vegetation is prominent and ranges from rounded to geometric. Agricultural lands beyond developed area appear defined.	Rectilinear buildings and linear/vertical features (roads, utility poles).
LINE	Defined edge between valley floor and mountains visible below clearly defined mountain skyline. Roads are strong linear features.	Vegetated areas w/in Bowie defined by roadways; in distant foreground, areas of different crop types are clearly demarcated.	Weak lines beyond linear appearance of collection of structures within and aligned along roadway.
COLOR	Vivid blues in middleground.	Dark green vegetation of varying types throughout the foreground.	Light colors in terms of buildings and roads; only few minor dark features.
TEX-TURE	Multiple uses of land in foreground relates to patchy appearance of foothills in middleground.	Somewhat disordered trees in foreground yield to uniform appearance of agricultural lands.	Within evident rectilinear street grid in the area, structures appear only slightly scattered.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Transmission towers would be intermittently visible from this location, appearing in segments across far end of the valley floor. They would not extend above the mountain skyline.

LINE	No change.	No change.	While conductors would not likely be visible, multiple towers, aligned in a row, would likely be detectable.
COLOR	No change.	No change.	Light gray would contrast slightly with dark mountain backdrop.
TEX-TURE	No change.	No change.	Where detectible, line would appear slightly striated against mountain backdrop.

SECTION D. CONTRAST RATING __SHORT TERM _X_LONG TERM

1. DEGREE OF CONTRAST		FEATURES												2. Does project design meet visual resource management objectives? ___Yes ___No _X_ NA (Explain on reverse side) 3. Additional mitigating measures recommended ___Yes _X__ No (Explain on reverses side) Evaluator's Names Date Josh Hohn October 12, 2012
		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		

SECTION D. (Continued)

Comments from item 2.

Transmission towers will contrast weakly at most and where visible – only intermittent views of the project would be available from this location.

Located 6 miles from VRI/VRM Class II landscape, and 8 miles from Dos Cabezas. View is from residential community within town of Bowie.

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Safford

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township 13S	5. Location Sketch
2. Key Observation Point **P6-02**	Range 28E	32.288864654 x -109.473145739
3. VRM Class **N/A; KOP is on private land and rep ROW visible passes through private lands**	Section 22	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat foreground and middleground, with some rounded/jagged mountains visible along the horizon, including the western extent of the Peloncillo Mountains in right side of view.	Orchard in left portion of view appears rectangular given uniformity of trees. Single, non-orchard trees along western edge of road are tall features.	Road and utility line appear as intact features of the view.
LINE	Background edge of valley floor appears across view and below a skyline that is not very discernable due to distance from mountains.	Orchard along left side of view and the vineyards visible in the near horizon beyond the immediate foreground are strong bands.	Utility corridor aligned along roadway is a single strong linear component.
COLOR	Dark hues of distant mountains offset the lighter soils of the valley floor evident in immediate foreground.	Dark green crops are clearly distinguished from mostly yellow scrub land, which includes scattered green scrub vegetation.	Grays and browns are typical of road and utility structures/lines.
TEX-TURE	Relatively smooth valley floor is prominent; rugged distant hills are evident.	Smooth and ordered in agricultural areas; coarse and patchy in unmanaged area in near foreground.	Smooth road and striated series of utility poles.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	New transmission line would appear prominently across view as a series of vertical elements, which would appear above the mountain skyline in the right edge of the view.

LINE	No change.	No change.	Would appear as a strong linear element across the view, perpendicular to roadway/utility corridor. Towers would add diagonal lines to landscape. Conductors would be visible, occupying substantial portion of sky above horizon.
COLOR	No change.	No change.	Light gray facilities, based on galvanized steel finish, would differ from other colors in view, with the possible exception of the roadway asphalt.
TEX-TURE	No change.	No change.	Continuous, ordered extension across the middle of the view.

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? ___Yes ___No _X_ NA (Explain on reverse side)

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

Evaluator's Names Date

Josh Hohn
October 12, 2012

SECTION D. (Continued)

Comments from item 2.

Moderate contrast based on proximity to representative ROW, which would result in multiple towers appearing above mountain skyline and add a strong linear component to a portion of the view where one does not currently exist.

View is from roadway that accesses Ft. Bowie. Recommend replacing with KOP that includes Ft. Bowie, Dos Cabezas Mountains and other scenic features.

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Safford

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township___13S___	5. Location Sketch 32.317482913 x -109.73975448
2. Key Observation Point **P6-03**	Range_____25E___	
3. VRM Class **N/A; KOP located on private land; representative ROW would cross state lands in view**	Section_____12___	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Somewhat complex, multi-directional and concave land form in foreground. Rolling hills leading into relatively steep, jagged mountains visible along middleground and background.	Varied forms of vegetation in foreground (jagged, rounded, cylindrical) giving way to mostly flat scrub in far background.	No structures visible in view.
LINE	Topography in foreground appears diagonal, with jagged mountains as distant middleground skyline.	Evident transitional edge between larger vegetation in immediate foreground and more distant, uniform vegetation.	No structures visible in view.
COLOR	Light browns in foreground area, with reddish soils evident within bluish mountains in middleground.	The greens, grays and light browns of the scrub vegetation contrasts with the yellow grassland in the area.	No structures visible in view.
TEX-TURE	Gradational and contrasting.	Coarse and patchy in immediate foreground, with medium, more uniform texture in distant foreground.	No structures visible in view.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Two transmission structures would be primary structures visible in this view, but would not become views primary features.

LINE	No change.	No change.	Where visible above the skyline, new conductors would introduce a new, partially detectible linear form.
COLOR	No change.	No change.	Metal structures would introduce element of gray to view.
TEX-TURE	No change.	No change.	Transmission line would appear ordered across view.

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		
	LINE				X				X		X		
	COLOR				X				X			X	
	TEXTURE				X				X			X	

2. Does project design meet visual resource management objectives? ___Yes ___No _X_ NA (Explain on reverse side)

3. Additional mitigating measures recommended ___Yes _X_No (Explain on reverse side)

Evaluator's Names Date

Josh Hohn
October 12, 2012

SECTION D. (Continued)

Comments from item 2.

Proposed transmission line would result in moderate degree of contrast with regard to form and line. View is oriented 0.5 mile from VRM Class II lands looking north away from Dos Cabezas toward Pinaleo Mountains. Jurisdiction of land needs to be confirmed. Recommend re-orientation of KOP or elimination.

Additional Mitigating Measures (See item 3)

SIMULATED

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

Date: 31 August 2012

District/ Field Office: Safford

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township___14S___	5. Location Sketch 32.195330657 x -109.748980624
2. Key Observation Point **P7-01**	Range_____25E___	
3. VRM Class **KOP and representative ROW are on private land.**	Section_____24___	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat area within and near Willcox Playa occupies the foreground and middleground of the view. The rolling/rugged hills and mountain ranges west of Willcox Playa are visible in the background.	Scrub vegetation appears mostly rounded or asymmetrical across the landscape.	Visible structures in foreground are bold and defined. Additional utility poles visible beyond foreground are somewhat less prominent and defined.
LINE	Highway extending into the near horizon appears as a band perpendicular to the bold line in back of middleground between edge of playa and elevated areas.	In segments separated by band of roadway, edges between scrub vegetation and grasses are either weak or diffuse.	Existing transmission line appears across the foreground.
COLOR	Subtle earth tones (brownish-grayish) beneath vegetation in foreground/middleground. Browns and reds of elevated areas in background are subdued.	Mostly dark greens and browns of scrub vegetation contrast with tans and lighter/brighter greens of grasslands.	Grays and browns.
TEX-TURE	Uniform foreground/middleground in playa area; gradational in background mountainous area.	Scattered and clumped scrub vegetation in foreground, in concert with grassland undergrowth, contributes to patchy, medium/coarse texture.	Built features are relatively smooth and directional.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	New transmission towers would be prominent vertical features in this view, appearing across the middle of the view (near the existing transmission corridor) and extending above the skyline.

LINE	No change.	No change.	Would reinforce smaller, existing linear feature (existing transmission line) visible across view.
COLOR	No change.	No change.	Due to galvanized steel finish, would appear lighter than existing transmission poles and stand out against somewhat darker backdrop.
TEX-TURE	No change.	No change.	Continuous and ordered across the view.

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? ___Yes ___No _X_ NA (Explain on reverse side)

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

Evaluator's Names Date

Josh Hohn
October 12, 2012

SECTION D. (Continued)

Comments from item 2.

Though prominently visible, the proposed transmission towers and conductors would represent a weak contrast with the existing view since they would be aligned with an existing transmission corridor.

This view is due west of Willcox Playa, Dos Cabezas Mountains are 180 degrees east from this point. View is 0.5 mile from line, proposed staging area would be in the immediate foreground.

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Safford

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township 15S	5. Location Sketch
2. Key Observation Point **P7-02**	Range 25E	32.14528065 x -109.759882039
3. VRM Class **KOP is on state land; visible representative ROW crosses BLM VRM III**	Section 11	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	The flat playa occupies the foreground and most of the middleground, while the far middleground and background include the rolling/rugged hills and mountain ranges north of Willcox Playa.	Mostly flat grasslands in foreground, punctuated by scrub vegetation of varying shapes (rounded, triangular).	Visible fence line and existing transmission structure in foreground each appear as a series of aligned vertical structures.
LINE	Near and far edges of playa area are clearly discernable.	Bold edge/border between vegetation in foreground and beginning of the playa area in which vegetation is not visible.	Fence line and transmission line, both in foreground, are linear features in front of and within the near portion of the playa.
COLOR	Luminosity of playa is apparent in contrast with vegetated foreground and the subtle variation in the dark mountains in the background.	Yellowish grasslands contrast with dark and muted greens of vegetation in foreground.	Fence posts and transmission poles are discernable as dark vertical features, though not prominent.
TEX-TURE	Smoothness of the playa influences apparent texture of the foreground and middleground and contrasts with the articulated outline of the mountains in the background.	Foreground characterized by finer texture of grassland, though it is interrupted by coarser scrub vegetation and unvegetated path.	Fence posts and transmission poles appear as subtle striations across landscape.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Vertical transmission structures visible across middle of view. Structures appear larger but similar in form to existing visible transmission poles.

LINE	No change.	No change.	Transmission structures appear collectively as a linear feature, and appear oriented in concert with existing transmission corridor.
COLOR	No change.	No change.	Structures appear dark in visible conditions, which contrasts with the sky where there is no mountain backdrop (for approximately 3 towers).
TEX-TURE	No change.	No change.	Transmission structures appear orderly.

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 reverse side)

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

Evaluator's Names Date

Josh Hohn
October 12, 2012

SECTION D. (Continued)

Comments from item 2.

Proposed transmission line meets management objectives for VRM Class III (to partially retain the existing character of the landscape).

Not on BLM lands. Approximately 2 miles from edge of Willcox Playa, 4 miles north of Butterfield Trail. Surrounded by agricultural fields. Facing NNW

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Safford

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____14S__	5. Location Sketch 32.198738216 x -109.883954029
2. Key Observation Point **P7-03**	Range_____24E__	
3. VRM Class **KOP is on state land; portion of representative ROW in view crosses BLM VRM III**	Section_____22__	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	The flat playa area occupies the foreground and the middleground. In the distant middleground and background, the outline of a series of rugged mountains ascending to the west is visible.	The flat grassland of the eastern playa floor is visible, with intermittent, mostly rounded, scrub vegetation.	Rectilinear outline of Apache Station Power Plant only discernable structure along playa horizon.
LINE	The edge between the playa floor and the mountains and the somewhat jagged outline of the mountain range are the most prominent land-based lines.	Visible edge between clear area and grasslands in immediate foreground; boundary between grasslands and main playa area is not discernable from here.	Straight lines indicating presence of Apache Station Power Plant somewhat discernable in view.
COLOR	Light-colored playa soils visible in immediate foreground.	Yellowish grassland and intermittent brush are predominant sources of vegetative colors.	Dark outline of Apache Station Power Plant is visible.
TEX-TURE	The smooth, flat playa floor in the foreground and middleground appears in ordered contrast with the mountains in the distant middleground and background.	Grassland in the foreground appears clumped but continuous, interrupted only by the sparse coarseness of scrub vegetation.	From this distance, texture of power plant not discernible; appears as a smooth outline.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Proposed alignment would be 9 miles away from this viewpoint and if visible at all, would likely appear as a barely discernible series of specs along the playa horizon.

LINE	No change.	No change.	If visible at all, barely discernible specs would appear in a row along portions of playa horizon.
COLOR	No change.	No change.	If visible at all, barely discernible specs would appear light in color based on galvanized steel finish.
TEX-TURE	No change.	No change.	Row of towers, if visible at all, would appear granular from this location.

SECTION D. CONTRAST RATING __SHORT TERM _X_LONG TERM

1. DEGREE OF CONTRAST		FEATURES												2. Does project design meet visual resource management objectives? _X_Yes ___No (Explain on reverse side) 3. Additional mitigating measures recommended ___Yes _X_No (Explain on reverses side) Evaluator's Names Date Josh Hohn October 12, 2012
		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		

SECTION D. (Continued)

Comments from item 2.

It is highly unlikely that the project would be visible from this distance. To the degree that it could be, any contrast resulting from the project would be weak.

1.4 miles from BLM Class II VRI/VRM on west side of Willcox Playa. KOP oriented 8 miles from line to the SE and 1 mile from agency route alternative.

Additional Mitigating Measures (See item 3)

SIMULATED

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____28S__	5. Location Sketch 31.822829161 x -107.995497078
2. Key Observation Point **S6-01**	Range_____11W_	
3. VRM Class **IV**	Section_____32__	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Undulations are visible in the terrain, with pronounced hills as backdrop.	Mostly rounded and triangular forms in the immediate foreground, reverting to less defined but widely dispersed ground cover in the area beyond.	A segment of a utility line stretches across the view; the poles are tall and slender.
LINE	A dirt road is in the immediate foreground. More prevalent lines are the tops of the undulations and hills/skyline.	No distinct lines associated with vegetation.	Utility poles appear in a line.
COLOR	Light tans, browns and reds in the foreground contrast with the darker hued hillsides visible in the back of this view.	A consistent shade of green is visible throughout the view; some vegetation without leaves appears as brown or grayish. Dried grasses appear tan.	Utility poles are wooden and appear in the view as light to medium brown.
TEX-TURE	Slightly rolling hills with larger, skylined hills in the background give view a gradational texture; undulations in foreground appear as lower extent of more distant hills.	Coarse and generally uniform.	Ordered and continuous.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Strong vertical features (towers), connected by conductors, would be visible across the view, extending in concert with, but appearing beyond, the existing transmission corridor.

LINE	No change.	No change.	The linear aspect of the proposed project would be much more pronounced than the existing transmission ROW.
COLOR	No change.	No change.	Light gray color (based on galvanized steel finish) of proposed project would contrast slightly with mostly natural setting in view and with wooden poles of existing alignment.
TEX-TURE	No change.	No change.	Would appear ordered and continuous, similar to existing row of towers.

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 reverse side)

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

Evaluator's Names Date

Josh Hohn
October 12, 2012

SECTION D. (Continued)

Comments from item 2.

Proposed transmission line meets management objectives for VRM Class IV (to provide for activities that require major modification of the landscape).
Also located on Hwy 9, view is representative of a slightly different landscape character than S5-03 but does not represent sensitive viewing conditions.

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____28S__	5. Location Sketch
2. Key Observation Point **S7-01**	Range_____13W_	31.864542815 x -108.171101986
3. VRM Class **IV**	Section_____16_	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat valley floor, backdropped by mountains that increase in elevation in the right portion of the view.	With the exception of a few larger plants, most vegetation is low and either rounded or of a geometric type typical of ground cover.	Utility poles are tall and slender and extend along the right side of the highway. To the left of the highway is a rural residential / ranch complex consisting of varied structures.
LINE	The highway and parallel dirt road are noticeable lines in the land, as is the edge between valley and mountains and mountain skyline.	No line related to vegetation readily apparent.	Utility poles extend along the highway oriented in a linear fashion.
COLOR	Mostly light reds, browns and tans in the foreground area, in contrast with the distant mountains which appear dark.	Green scrub brush and tan grasslands.	Utility poles are wooden and brown. Structures associated with residence on the left side of the highway appear mostly dark in color.
TEX-TURE	The appearance of the roads as oriented emphasizes a directional valley landscape, framed by a continuous but increasingly angular mountain backdrop.	Coarse and rough.	Utility line is ordered and continuous. Residence and associated structures are difficult to discern, but are concentrated within the landscape.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Towers substantially larger than those in the existing view would be visible about 200 feet further away from the viewpoint, and would extend away from the KOP parallel to the line.

LINE	No change.	No change.	Existing transmission line would be reinforced by appearance of much larger series of towers and conductors appearing just beyond it from the viewpoint and extending in parallel. Towers would introduce diagonal lines to the landscape.
COLOR	No change.	No change.	Towers and conductors will appear light gray, based on galvanized steel finish.
TEX-TURE	No change.	No change.	Towers and conductors would appear smooth.

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 reverse side)

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

Evaluator's Names Date

Josh Hohn
October 12, 2012

SECTION D. (Continued)

Comments from item 2.

Based on proximity, size of towers will appear relatively large and conductors will occupy a relatively large portion of the view. Proposed transmission line meets management objectives for VRM Class IV (to provide for activities that require major modification of the landscape).

Very similar view to S5-03

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____27S__	5. Location Sketch 31.916425851 x -108.323756769
2. Key Observation Point **S7-02**	Range_____15W__	
3. VRM Class **N/A; KOP is on private land and rep ROW visible passes through private lands**	Section_____36__	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Visible land appears relatively flat.	Scrub brush and grasslands appear mostly rounded, while some of the short trees within residential property are more geometric.	Residence in immediate foreground appears mostly rectilinear. Water tower is rounded. Utility poles are tall and slender.
LINE	Roads in immediate foreground appear linear; distant horizon is noticeable.	Edge of groundcover grasses in foreground formed by edge of roads.	Utility lines stretch across view. Pitched roofs of residence and water tower appear angular.
COLOR	Light color of dirt roads is predominant color in view.	Vegetation ranges from dark to light green, with light brown and gray grasses and brush visible near ground level.	Reds and whites are primary colors of residences visible; water tower is dark brown and distinct in the view; utility poles are wooden and appear dark brown in the view.
TEX-TURE	Gravel road and some evident variation in topography in beyond the foreground indicate a medium texture.	Vegetation visible throughout, adding an element of coarseness to the view.	Stucco walls of residence and sides of water tower appear smooth. Utility towers appear ordered and continuous, but multiple direction of lines adds element of scatteredness.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Single transmission tower is new vertically-oriented feature visible in view.

LINE	No change.	No change.	New conductors span across view.
COLOR	No change.	No change.	Both tower and conductors appear metallic in color and lighter than existing utility poles and lines.
TEX-TURE	No change.	No change.	From this distance, texture of new features appears smooth.

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? __Yes ___No _X_ NA (Explain on reverse side)

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

Evaluator's Names Date

Josh Hohn
October 12, 2012

SECTION D. (Continued)

Comments from item 2.

N/A; KOP is on private land and rep ROW visible passes through private land. New features would add to presence of transmission facilities visible across view but would not result in substantial contrast with existing view.

Simulation shows view from Hachita oriented northward within a rural residential community.

Additional Mitigating Measures (See item 3)

SIMULATED

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____27S__	5. Location Sketch
2. Key Observation Point **S7-03**	Range_____15W_	31.925278214 x -108.326493727
3. VRM Class **N/A; KOP is on private land; visible representative ROW crosses private lands.**	Section_____25_	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat valley floor with hills, prominent peak and mountains visible in distance.	Varied geometric shapes in brush visible as individual plants. Collection of vegetation on left side of the road and in distance on right appears more amorphous and horizontal.	Detectible larger buildings appear rectilinear. Roadside signs are vertical features within highway corridor. Cylindrical water tower partially visible. Utility poles extend across view.
LINE	Highway extends from viewpoint into center of view; edge of valley apparent but not visible; intermittent skyline visible.	Vegetation is present on either side of the highway and as the road recedes into the horizon, the vegetation appears to form a nearly continuous concave shape relative to viewpoint.	Location of structures and utility poles oriented in linear manner along near horizon. Roadway signs oriented along highway corridor.
COLOR	Immediate foreground color mostly gray (road) and light brown (soils). Nearby peak appears lighter in color than distant mountain range.	Ranges from dark to light green, with mostly tan grasses visible in the immediate foreground and as undergrowth.	Some color from roadway signs apparent. Colors of buildings and light roofs visible in distance.
TEX-TURE	Relatively smooth valley floor and rolling foothills; distant mountains appear somewhat more varied.	Vegetation appears coarse, and is more dense, on left side of highway.	Structures oriented along roadway and horizon appear ordered.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	The proposed transmission line would cross the roadway approximately 200 feet from the KOP, adding to the view large vertical features that would become the view's dominant element.

LINE	No change.	No change.	The linear collection of towers and lines extending across the entire view would be a large linear feature appearing perpendicular to the linear road and appearing above the distant skyline.
COLOR	No change.	No change.	Gray colors of galvanized steel would be noticeable in views.
TEX-TURE	No change.	No change.	From this distance, towers and lines would appear ordered and continuous.

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? ___Yes ___No_ X_ NA (Explain on reverse side)

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

Evaluator's Names Date

Josh Hohn
October 12, 2012

SECTION D. (Continued)

Comments from item 2.

Towers and lines would appear substantial in size and would be view's largest feature. However, view already contains strong linear feature (roadway corridor) and other structures (buildings, poles, etc.). Contrast would be moderate.

View is over 0.5 mile north of Hachita oriented toward the town. 180 degrees north of the viewpoint is a large proposed staging area. Suggest reorientation of the KOP to include analysis of the staging area.

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**

2. Key Observation Point **S7-04**

3. VRM Class **IV**

4. Location
Township 26S
Range 15W
Section 33

5. Location Sketch

31.9956008 x -108.380003192

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Generally flat valley, though some undulations are apparent. Distant mountains vary from rounded to angular and appear in aggregate as a relatively complex form.	Rounded forms where discernible in the foreground and near the residential clusters; mostly dense and amorphous in other parts of the view.	Residential clusters noticeable across middle of view, but individual structures are difficult to discern.
LINE	Beyond road in extending away from viewpoint, primary lines are within mountain range and the complex form results in mainly curvilinear lines.	The edge of the area covered in scrub brush is clearly delineated. Relatively dense vegetation is apparent beyond the valley floor, as well.	Two areas including structures appear aligned across the middle of the view.
COLOR	Mostly light brown and gray soils, with distant mountains appearing darker in the view.	Mostly dark green with light brown and gray branches intermittently visible.	Color of structures range from light to dark.
TEX-TURE	Relatively smooth valley floor, with gradational, almost fluid appearance of mountains providing contrast.	Coarse in foreground, and smooth in views of distant foothills. Vegetation appears scattered and/or clumped in valley floor beyond residences.	Alignment appears directional.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Series of relatively tall towers would extend across view, in front of structures visible in center of view. The towers would extend above the skyline, as would portions of the conductors.

LINE	No change.	No change.	Conductors would replace divisions between land areas and skyline as predominant linear form in view.
COLOR	No change.	No change.	Light gray towers and conductors, given galvanized steel finish.
TEX-TURE	No change.	No change.	Ordered and continuous.

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 reverse side)

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

Evaluator's Names Date

Josh Hohn
October 12, 2012

SECTION D. (Continued)

Comments from item 2.

Proposed transmission line meets management objectives for VRM Class IV (to provide for activities that require major modification of the landscape).

View is located immediately adjacent to the CDNST and is 0.5 mile from the proponent's alternative.

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township___26S___	5. Location Sketch 32.073294152 x -108.461734375
2. Key Observation Point **S7-05**	Range_____16W__	
3. VRM Class **KOP is w/in state lands, visible rep ROW would cross state & BLM (VRM IV) lands**	Section_____3___	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Three distinct areas are apparent – a minor bluff in the foreground overlooks a long valley, beyond which are a series of mountain peaks.	All detectable vegetation is located within foreground. Individual plants are mostly rounded. Dense collection of vegetation beyond immediate foreground is amorphous.	Short, squat, rounded water tank in left portion of view is only discernible structure.
LINE	Three main lines cut across the view: the edge of the minor bluff, the far edge of the valley floor, and the mountain skyline.	Discernible vegetation ends at the edge of the minor bluff. There is also a somewhat distinct line at the near edge of dense vegetation.	None apparent.
COLOR	Reddish soils in the foreground give way to tannish color in the valley floor. Distant mountains appear darker.	Varying shades of green, with some very light green and tan grasses.	Water tank appears light.
TEX-TURE	With exception of rough outcropping in left of view, mostly gradational from elevated area in foreground, down into valley, then up to mountains.	Coarse, shifting from clumped to continuous in the foreground.	Water tank appears smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	New towers would be visible spaced across the view, approximately 2 miles away from viewpoint.

LINE	No change.	No change.	New linear component would be marked by collective visibility of towers; conductors barely detectible from this distance, if visible at all.
COLOR	No change.	No change.	Light gray color from galvanized steel would likely be faintly apparent against dark backdrop.
TEX-TURE	No change.	No change.	Would appear ordered and continuous in this view.

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 reverse side)

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

Evaluator's Names Date

Josh Hohn
October 12, 2012

SECTION D. (Continued)

Comments from item 2.

Proposed transmission line meets management objectives for VRM Class IV (to provide for activities that require major modification of the landscape).

View is located 1.5 miles from proponent's alternative, and is indicative of a slightly more vegetated landscape, however no sensitive viewers are located nearby.

Additional Mitigating Measures (See item 3)

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township___23W__	5. Location Sketch
2. Key Observation Point **S8-01**	Range_____16W__	32.262930686 x -108.524559733
3. VRM Class **N/A; KOP is located within private lands, rep ROW visible passes through private lands**	Section_____31___	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat, with only variation in terrain raised areas for freeway and rail corridors.	Only a few individual plants – some rounded, some vertically oriented – are noticeable in the areas adjacent to the freeway.	Utility poles stretching across view are clearly defined. Roadside signs are horizontal elements.
LINE	The I-10 corridor is the view's dominant linear feature. The raised railroad corridor is noticeable, running parallel to the freeway.	Vegetation in immediate foreground is limited by linear roadway. Horizon appears to include distant vegetation.	Three separate utility corridors (lines and poles) span the view.
COLOR	Slightly reddish soils subordinate to gray colors of the roadway.	Mostly variants of green (light to dark).	Utility poles are wooden and appear dark in this view. Nearest billboard faces away from the viewpoint and is dark. More distant billboards face viewpoint and appear lighter in color.
TEX-TURE	Smooth and flat.	Soft grasses are contrasted by occasional coarse-looking brush.	Utility poles as a whole appear continuous, while billboards appear scattered.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	New transmission tower is dominant vertical form in view. Greater portion of view is occupied by structures / conductors.

LINE	No change.	No change.	New conductor lines appear consistent in orientation with existing linear features, but substantially raise profile of area, due to higher, larger number of lines.
COLOR	No change.	No change.	Tower and conductors appear gray in color.
TEX-TURE	No change.	No change.	Tower and conductors appear smooth.

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? ___Yes ___No _X_ NA (Explain on reverse side)

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

Evaluator's Names Date

Josh Hohn
October 12, 2012

SECTION D. (Continued)

Comments from item 2.

N/A; KOP is on private land and representative ROW visible passes through private lands. The addition of a transmission tower of this scale and associated conductors would result in a moderate contrast in terms of form and line; however, the additional features would appear mostly aligned in horizontal space with existing transmission corridors.

Located along I-10 and simulation depicts proponent's alternative crossing the I-10 at a perpendicular angle.

Additional Mitigating Measures (See item 3)

SIMULATED

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

Date: 31 August 2012

District/ Field Office: Las Cruces

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____24S__	5. Location Sketch
2. Key Observation Point **S8-02**	Range_____16W_	32.174949949 x -108.53694053
3. VRM Class **N/A; KOP is located within private lands, rep ROW visible passes through private lands**	Section_____31___	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat valley, backdropped by skyline of discrete peaks.	Roadside scrub is multidirectional, while agricultural land in the area beyond the road is flat and uniform.	Utility poles (vertically oriented) and a long agricultural watering machine (horizontally oriented) are the primary features visible beyond the roadside barbed wire fence.
LINE	The horizon is clearly defined in parts of the view.	There is a clear line between land in agricultural cultivation and that which is not.	The series of utility poles appears as a line across the view. The watering machine and property fence are also linear features.
COLOR	Reddish soils in foreground are widely unobservable throughout the rest of the view, which includes agricultural uses. Distant mountains appear relatively dark.	Vibrant green comes from the area currently in production. Greens, grays, purples and tans are found among the roadside vegetation.	All appear relatively dark.
TEX-TURE	Smooth agricultural valley; convex and pyramidal mountains in distance.	Patchy and coarse bushes in immediate foreground give way to smooth and continuous agricultural fields.	Utility lines and fence posts appear ordered within their respective spans.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change.	No change.	Transmission towers would appear as collection of vertical forms extending across view, angling away from KOP, parallel to existing, smaller, line and extending above skyline.

LINE	No change.	No change.	Conductors likely to be visible, occupying relatively large amount of skyline.
COLOR	No change.	No change.	Light gray color due to galvanized steel finish would contrast somewhat with generally vivid agricultural lands.
TEX-TURE	No change.	No change.	New transmission line would appear ordered and continuous from this viewpoint.

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? ___Yes ___No _X_ NA (Explain on reverse side)

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

Evaluator's Names Date

Josh Hohn
October 12, 2012

SECTION D. (Continued)

Comments from item 2.

New transmission towers would alter skyline across view, but would otherwise contrast only weakly with existing features. The ROW would be located within an existing transmission corridor, and would relate to linear features already present in the agricultural landscape (crop boundaries, etc.).

Located Muir Road, view is oriented to the south looking toward agricultural fields.

Additional Mitigating Measures (See item 3)

Form 8400 - 4
(September 1985)
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project

2. Key Observation Point: KOP H-01 – N. Cascabel Rd. – Community of Pomerene

3. VRM Class: KOP is located on private land; representative ROW would pass through non BLM land

4. Location
Township 16S
Range 20E
Section 27

5. Location Sketch
32.016674821x-110.298128337

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Flat, alluvial valley trending southwest toward San Pedro River MG: Flat valley floor rising sharply to large, range of angular mountain forms spanning across entire view BG: Distant mountain form in center of view No water visible	FG: Multiple vegetative layers; low groundcover and few trees dotted along roadway; flat, low agricultural vegetation along valley floor; distinctive line of trees and shrubs along San Pedro River embankment MG: Swaths of vegetation on mountain forms BG: Indistinct	FG: Long transmission lines spanning entire view; curvilinear paved roadway; short, blocky signage; linear and circular irrigation forms MG: Barely visible blocky residential structure in center of view BG: None visible
LINE	FG: Horizontal, linear plane MG: Contrast of flat, valley floor to rise of mountain forms; continuous, undulating mountain forms with pyramidal peaks spanning across entire view BG: Rounded mountain form No water visible	FG: Directional vegetative layer trending along the roadway and river embankment MG: Indistinct vegetative break at transition between alluvial plane and base of mountain forms; patches of vegetation on mountain forms BG: Indistinct	FG: Two parallel linear transmission lines; horizontal and vertical transmission structures; curvilinear flat roadway; vertical signage; long, linear irrigation lines MG: Barely detectable residential structure BG: Not visible
COLOR	FG: Tans, browns, sandy beige MG: Browns, gray, tans BG: Gray No water visible	FG: Greens, yellows, browns MG: Greens, browns, grays BG: Dark shades of gray	FG: Browns, grays, yellows, blacks, whites MG: Whites BG: Not visible
TEX-TURE	FG: Smooth valley floor MG: Smooth valley floor, coarse continuous mountain forms BG: Coarse distant mountain No water visible	FG: Medium to fine textured rounded shrubs and trees; smooth, fine, groundcover MG: Smooth, patchy BG: Smooth, fine; velvety appearance	FG: Coarse to medium transmission structures; smooth roadway; MG: Blocky medium textured residential structure BG: Not visible

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: two new monopole structures replace two H-frame structures
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: adding taller vertical elements; undulating horizontal lines visually similar to the existing line though of different span width
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG: metallic conductors; new galvanized steel gray tower structures
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG: transmission poles contribute to additional coarse element to existing landscape

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		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? ☐ Yes ☐ No X N/A (Explain on reverse side)

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

Evaluator's Names Date
Tom Priestley, MariaElena Conserva, and Angela Wolfe

September 6, 2012

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on private land.

Additional Mitigating Measures (See item 3)

SIMULATED

Form 8400 - 4
(September 1985)
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project

2. Key Observation Point: KOP H-02 - Rural residential north of Mescal

3. VRM Class: KOP is located on private land.; representative ROW would pass through non BLM land

4. Location

Township 17S

Range 19E

Section 6

5. Location Sketch
31.989551053x-110.434864840

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Panoramic view, gentle rising hilly forms of valley floor MG: Steep mountain forms in center of view with rounded peaks BG: Distant undulating mountain forms spanning the center-left side of view No water visible	FG: Patchy, irregular rounded forms of low lying desert vegetation on valley floor; groundcover MG: Irregular, dense swaths of vegetation on mountain forms BG: Swaths of vegetation on distant mountain forms	FG: Linear fencing; paved roadway, two parallel linear transmission lines consisting of corridor; diagonal line of railroad track spanning across entire view MG: None visible BG: None visible
LINE	FG: Horizontal, subtle undulating plane of valley floor MG: Series of undulating mountain forms BG: Jagged, mountains forms with rounded peaks No water visible	FG: Uniform groundcover; patchy; clumps of shrubs MG: Fine vegetative line stippled along transition of valley floor and mountain forms; patches of vegetation on mountains BG: Patches of vegetation on distant mountains	FG: Horizontal and vertical transmission structures; linear lines of fencing; strong diagonal line of railroad MG: None visible BG: None visible
COLOR	FG: Tans, browns, sandy beige MG: Light brown, gray mountains BG: Brown, gray mountains No water visible	FG: Greens, yellows, light brown, tans, whites MG: Greens, yellows, light brown, dark shades of gray BG: Browns, dark shades of gray	FG: Grays, browns, blacks, whites MG: None visible BG: None visible
TEX-TURE	FG: Smooth MG: Valley floor contrasting with rise of jagged mountainous forms BG: Coarse, rough mountainous forms No water visible	FG: Patchy, clumped vegetative forms MG: Fine, patch-like; velvety appearance BG: Patch-like swaths on distant mountain forms; velvety appearance	FG: Coarse to medium transmission lines and fencing; smooth roadway; coarse railroad track MG: None visible BG: None visible

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: series of new proposed 230kV monopole structures replacing line of existing H-frame structures; skylined against backdrop of distant mountain forms
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: adding taller vertical elements than existing structures; undulating horizontal lines visually similar to the existing line spanning across entire view; emphasis of existing corridor
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG: metallic conductors; new galvanized steel gray tower structures; whitish appearance based on angle of the sun
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG: transmission poles contribute to additional coarse element to existing landscape

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		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? ☐ Yes ☐ No X N/A (Explain on reverse side)

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

Evaluator's Names Date
Tom Priestley, MariaElena Conserva, and Angela Wolfe

September 6, 2012

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on private land.

Butterfield crossing in immediate foreground. 0.15 mile from AA. Very rural residential.

Additional Mitigating Measures (See item 3)

Form 8400 - 4
(September 1985)
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project

2. Key Observation Point: KOP H-03 - Mescal rural residential – pasture land

3. VRM Class: KOP is located on private land; representative ROW would pass through non BLM land

4. Location
Township 17S
Range 18E
Section 13

5. Location Sketch
31.961825206x-110.451872358

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Gentle rising, undulating plane of valley floor MG: Steep mountain forms in right-center of view with pyramidal peaks BG: Distant undulating mountain forms spanning the right side of view No water visible	FG: Patchy, rounded forms of low lying desert vegetation on valley floor; few cacti; scattered groundcover MG: Irregular, scattered trees along skyline in left side of view; dense swaths of vegetation on mountain forms BG: Swaths of vegetation on mountain forms	FG: Linear fencing, tall, linear transmission structures; blocky rural residential structures; signage; paved roadway MG: Barely visible vertical transmission structures; barely visible blocky structure s along transition of valley floor to mountainous foothills in right side of view; paved roadway BG: None visible
LINE	FG: Horizontal, subtle undulating plane of valley floor MG: Discontinuous, undulating mountain forms BG: Jagged, mountains forms with rounded peaks No water visible	FG: Broken, patchy, vegetative layer MG: Discontinuous, horizontal vegetative line along skyline in left side of view; patches of vegetation on mountains BG: Patches of vegetation on distant mountains	FG: Horizontal and vertical transmission structures and fencing; blocky structures; weak diagonal line of roadway MG: Weak vertical transmission lines; barely visible blocky structures BG: None visible
COLOR	FG: Tans, browns, sandy beige, oranges MG: Brown, gray mountains BG: Brown, gray mountains No water visible	FG: Greens, yellows, light brown, tans MG: Greens, yellows, light brown, dark shades of gray BG: Light brown, dark shades of gray	FG: Grays, browns, blacks, whites MG: Blacks, browns, whites, grays BG: None visible
TEX-TURE	FG: Smooth valley floor MG: Valley floor contrasting with rise of mountainous forms BG: Coarse, rough mountainous forms No water visible	FG: Patchy, clumped vegetative forms across valley floor MG: Fine, patch-like; velvety appearance BG: Patch-like swaths on mountain forms; velvety appearance	FG: Coarse to medium transmission lines and fencing; blocky structures MG: Fine transmission structures; blocky structures BG: None visible

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: new proposed monopole structures replace existing H-frame structures; skylined against backdrop of distant mountain forms
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: adding taller vertical elements than existing structures; undulating horizontal lines visually similar to the existing line though of different span width
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG: metallic conductors; new galvanized steel gray tower structures
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG: transmission poles contribute to additional coarse element to existing landscape

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		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? ☐ Yes ☐ No X N/A (Explain on reverse side)

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

Evaluator's Names Date
Tom Priestley, MariaElena Conserva, and Angela Wolfe

September 6, 2012

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on private land.

Similar to KOP U2-04

Additional Mitigating Measures (See item 3)

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Form 8400 - 4
(September 1985)
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project

2. Key Observation Point: KOP U1-01 - NW Coronado National Forest

3. VRM Class: KOP is located on private land; representative ROW would pass through non BLM land

4. Location

Township 16S

Range 23E

Section 28

5. Location Sketch
32.01636000000x-110.01371

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Panoramic view; flat horizontal plane gently trending north-northwest MG: Sweeping valley floor rises to undulating mountain forms spanning entire view BG: Distant undulating mountain forms in left side of view No water visible	FG: Uniform, low lying desert vegetation consisting of low shrubs and groundcover MG: Stippled low lying desert vegetation on mountain forms BG: Indistinct	FG: Two sets of parallel transmission lines spanning entire view; single transmission line in far FG; linear roadway in left side of view MG: Barely visible blocky residential structure obscured behind vegetation; curving dirt road along mountain form BG: None visible
LINE	FG: Horizontal, continuous line of valley floor MG: Horizontal, continuous line of valley floor rises to diagonal, jagged, mountains forms with pyramidal peaks BG: Jagged mountainous forms No water visible	FG: Single-story, horizontal vegetative layer on valley floor MG: Diagonal, swath-like patches on mountain forms BG: Indistinct	FG: Horizontal and vertical transmission structures; horizontal, linear roadway MG: Barely visible irregular horizontal line of residential structures; curving dirt road BG: None visible
COLOR	FG: Tans, browns, sandy beige MG: Tans, browns, sandy beige BG: Distant light brown, gray mountains No water visible	FG: Greens, yellows, light brown, tan MG: Greens, yellows, light brown, tan, dark shades of gray BG: Indistinct	FG: Browns, blacks, shade of gray MG: Browns, blacks, shade of gray, whites BG: None visible
TEX-TURE	FG: Smooth valley floor MG: Valley floor contrasting with rise of course mountainous forms BG: Coarse, continuous mountainous forms No water visible	FG: Smooth, continuous vegetative plane blankets valley floor MG: Stippled vegetation rising up mountain form; patch-like swaths BG: Indistinct	FG: Coarse to medium transmission lines, granular, irregular dirt road MG: Fine residential structures and dirt road BG: None visible

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: bold, prominent, taller transmission structure replaces existing structure in landscape
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: prominent vertical structure; new conductor lines are more prominent and add new horizontal element above existing lines
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG: metallic conductors; galvanized steel gray tower structure
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG: transmission structure and conductors form coarse texture on landscape

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		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? ☐ Yes ☐ No X N/A (Explain on reverse side)

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

Evaluator's Names Date
Tom Priestley, MariaElena Conserva, and Angela Wolfe

September 6, 2012

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on non BLM land.
On the edge of Coronado NF but facing N (away from Forest). No public sensitivity identified for this view orientation. Also, Coronado NF plan conformance indicates the scenic quality in this area would permit change to the aesthetic environment.

Additional Mitigating Measures (See item 3)
SIMULATED

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VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project

2. Key Observation Point: KOP U2-01 - Recreational Park in Benson

3. VRM Class: KOP is located on private land; representative ROW would pass through non BLM land

4. Location
Township 17S
Range 20E
Section 9

5. Location Sketch
31.972924836x-110.299218202

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Flat, recreational field trending northeast MG: Indistinct BG: Range of undulating mountain forms with pyramidal peaks and associated foothills No water visible	FG: Uniform, low lying groundcover; strip of shrubs and trees at the edge of recreational field MG: Vegetation in FG blocks MG view BG: Swaths of vegetation on mountain forms	FG: Long, horizontal transmission lines spanning across entire view; tall light poles; linear fencing; surrounding recreational field; blocky residential forms on left side of view; flat paved parking lot; tall, blocky billboard structures MG: None visible BG: None visible
LINE	FG: Horizontal, linear plane MG: Indistinct BG: Indistinct line from valley floor to rise of mountainous forms; undulating, continuous mountain forms with pyramidal peaks spanning entire view No water visible	FG: Two horizontal vegetative layers consisting of groundcover and shrubs and trees MG: Indistinct BG: Patches of vegetation on distant mountains	FG: Horizontal and vertical transmission structures; tall linear light poles; linear, horizontal fencing; blocky vertical signage MG: None visible BG: None visible
COLOR	FG: Tans, browns, sandy beige MG: Indistinct BG: Brown, gray mountains No water visible	FG: Greens, yellows, light brown, tan MG: Indistinct BG: Browns, dark shades of gray	FG: Gray, silver, browns, yellow, whites, black MG: None visible BG: None visible
TEX-TURE	FG: Smooth valley floor MG: Indistinct BG: Coarse, continuous mountainous forms No water visible	FG: Smooth groundcover, medium to fine strip of vegetation MG: Indistinct BG: Patch-like swaths on mountain forms	FG: Coarse to medium continuous transmission lines, coarse light poles; blocky structures; smooth parking lot MG: None visible BG: None visible

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: existing structures replaced with new taller monopole structures; skylined above distant mountain forms
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: new 230kV lines visually similar to existing horizontal, undulating conductors yet with different span width; vertical height of new structures emphasizes vertical lines contrasting against skyline
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG: metallic conductors; galvanized steel gray tower structures
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG, MG, BG: no change

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		FEATURES												2. Does project design meet visual resource management objectives? ☐ Yes ☐ No X N/A (Explain on reverse side)
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				3. Additional mitigating measures recommended? ☐ Yes X 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 Tom Priestley, MariaElena Conserva, and Angela Wolfe September 6, 2012
	Line				X				X			X		
	Color				X				X			X		
	Texture				X				X			X		

SECTION D. (Continued)

Comments from item 2.

Proposed upgrades are located on non BLM land.

0.5 mile from line; 3.5 miles from alternative. KOP located on western edge of residential area between Hwy 80 and I-10. Scoping comments revealed concern with re-route along preferred line because of planned improvements, growth, etc.

Additional Mitigating Measures (See item 3)

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VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project	4. Location	5. Location Sketch
2. Key Observation Point: KOP U2-02 - Future Benson residential development	Township 17S Range 19E Section 12	31.968105312x -110.356656752
3. VRM Class: KOP is located on private land; representative ROW would pass through non BLM land		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Unobstructed panoramic view; flat horizontal plane gently trending north-northeast MG: Sweeping valley floor rises to mountain foothills BG: Distinctive undulating mountain forms spanning the entire view No water visible	FG: Uniform, low lying desert vegetation blankets valley floor MG: Uniform, low lying desert vegetation BG: Swaths of vegetation on mountain forms	FG: Linear fencing; long, linear transmission line spanning across entire view MG: Barely visible vertical transmission structures; barely visible blocky structure s along valley floor in right side of view BG: None visible
LINE	FG: Horizontal, continuous line of valley floor MG: Horizontal, continuous line of valley floor rising to foothills BG: Jagged, mountains forms with conical peaks No water visible	FG: Single-story, horizontal vegetative layer blankets valley floor MG: Continuation horizontal line of low lying desert vegetation blanketing valley floor BG: Patches of vegetation on distant mountains	FG: Horizontal and vertical transmission structures and fencing MG: Weak vertical transmission lines; barely visible blocky structures BG: None visible
COLOR	FG: Tans, browns, sandy beige MG: Tans, browns BG: Brown, gray, sandy beige mountains No water visible	FG: Greens, yellows, light brown, whites MG: Greens, yellows, light brown, whites BG: Light brown, dark shades of gray	FG: Grays, browns, blacks MG: Blacks, browns, whites, BG: None visible
TEX-TURE	FG: Smooth valley floor MG: Continuous, valley floor contrasting with rise of mountainous forms BG: Coarse, continuous mountainous forms No water visible	FG: Smooth, continuous vegetative plane blankets valley floor MG: Smooth, continuous vegetative plane blankets valley floor BG: Patch-like swaths on mountain forms	FG: Medium to fine transmission lines and fencing MG: Fine transmission structures; blocky structures BG: None visible

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: prominent, taller transmission structures replace existing line in largely undeveloped landscape
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: proposed 230kV transmission structures and conductors are more prominent than existing line, creating bolder vertical and horizontal elements in the landscape
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG: metallic conductors; galvanized steel gray tower structures
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG: proposed transmission structures and conductors form coarse texture on landscape compared to existing line

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		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? ☐ Yes ☐ No X N/A (Explain on reverse side)

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

Evaluator's Names Date
Tom Priestley, MariaElena Conserva, and Angela Wolfe

September 6, 2012

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on non BLM land.

Dark Star Rd. recently paved with turn-offs indicating additional future roads/development. Currently 1 ranch, no other sensitive viewers, existing "H" frame in middleground.

Additional Mitigating Measures (See item 3)

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VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project

2. Key Observation Point: KOP U2-03 - N. Mescal Rd - rural residential

3. VRM Class: KOP is located on private land; representative ROW would pass through non BLM land

4. Location
Township 17S
Range 19E
Section 8

5. Location Sketch
31.964829750x-110.434545533

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Flat, horizontal valley floor MG: Expansive, flat, horizontal valley floor rises sharply to mountainous foothills BG: Series of distinctive undulating mountain forms spanning the entire BG view with pyramidal peaks No water visible	FG: Linear strip of vegetation paralleling roadway; dense trees and shrubs in right side of FG obscuring MG view; low lying desert vegetation dotting valley floor MG: Low lying vegetation dotting valley floor BG: Stippled and swaths of vegetation on mountain forms	FG: Prominent, paved linear roadway, roadway signage, linear transmission lines; blocky residential structures within the rural residential area of Mescal MG: Vertical transmission structures; blocky residential structures dotting valley floor BG: None visible
LINE	FG: Horizontal, continuous line of valley floor MG: Horizontal, continuous line of valley floor rising to sharply to rolling foothills BG: Steep, jagged, mountain forms with pyramidal peaks No water visible	FG: Linear vegetative strip of trees along roadway; irregular vegetative layer stippled across valley floor MG: Irregular vegetative layer stippled across valley floor BG: Patches of vegetation on distant mountains	FG: Linear, undulating roadway, perpendicular transmission lines; repeating horizontal and vertical transmission structures paralleling roadway; short vertical signage; clumps of residential development MG: Weak vertical transmission lines; clumps of residential development BG: None visible
COLOR	FG: Tans, browns, sandy beige MG: Tans, browns, sandy beige BG: Brown, gray, sandy beige mountains No water visible	FG: Dark greens, yellows, light brown, tans MG: Dark greens, yellows, light brown, tans BG: Dark greens, light brown, dark shades of gray	FG: Grays, browns, blacks, yellows MG: Blacks, browns, whites, BG: None visible
TEX-TURE	FG: Smooth valley floor MG: Continuous, valley floor contrasting with sharp rise of mountainous forms BG: Coarse, continuous mountainous forms with pyramidal peaks No water visible	FG: Medium to fine MG: Fine, smooth BG: Smooth, patch-like swaths and stippled areas on mountain forms	FG: Coarse to medium transmission lines; smooth paved roadway MG: Fine transmission structures; blocky structures BG: None visible

SECTION C. PROPOSED ACTIVITY DESCRIPTION			
	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: bold new transmission structure creates strong to moderate vertical form; proposed 230 kV line adds new element to existing lines
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: new structures add contrasting perpendicular element to existing lines; conductor lines are relatively prominent since they cross the road
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG: metallic conductors; galvanized steel gray tower structure
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG: new transmission line makes landscape somewhat more coarse

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		FEATURES												2. Does project design meet visual resource management objectives? ☐ Yes ☐ No X N/A (Explain on reverse side)
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	3. Additional mitigating measures recommended? ☐ Yes X No (Explain on reverse side)
ELEMENTS	Form				X				X		X			Evaluator's Names: Mark Greenig, MariaElena Conserva, and Angela Wolfe Date: September 6, 2012
	Line				X				X			X		
	Color				X				X			X		
	Texture				X				X			X		

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on non BLM land.

Suggest alternative simulation location from Mescal area (residential). This KOP is too close to line

Additional Mitigating Measures (See item 3)

SIMULATED

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VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project	4. Location	5. Location Sketch
2. Key Observation Point: KOP U2-04 - Mescal rural residential – pasture land	Township 17S Range 18E Section 13	31.961825206x-110.451872358
3. VRM Class: KOP is located on private land; representative ROW would pass through non BLM land		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Gentle rising, undulating plane of valley floor MG: Steep mountain forms in right-center of view with pyramidal peaks BG: Distant undulating mountain forms spanning the right side of view No water visible	FG: Patchy, rounded forms of low lying desert vegetation on valley floor; few cacti; scattered groundcover MG: Irregular, scattered trees along skyline in left side of view; dense swaths of vegetation on mountain forms BG: Swaths of vegetation on mountain forms	FG: Linear fencing, tall, linear transmission structures; blocky rural residential structures; signage; paved roadway MG: Barely visible vertical transmission structures; barely visible blocky structure s along transition of valley floor to mountainous foothills in right side of view; paved roadway BG: None visible
LINE	FG: Horizontal, subtle undulating plane of valley floor MG: Discontinuous, undulating mountain forms BG: Jagged, mountains forms with rounded peaks No water visible	FG: Broken, patchy, vegetative layer MG: Discontinuous, horizontal vegetative line along skyline in left side of view; patches of vegetation on mountains BG: Patches of vegetation on distant mountains	FG: Horizontal and vertical transmission structures and fencing; blocky structures; weak diagonal line of roadway MG: Weak vertical transmission lines; barely visible blocky structures BG: None visible
COLOR	FG: Tans, browns, sandy beige, oranges MG: Brown, gray mountains BG: Brown, gray mountains No water visible	FG: Greens, yellows, light brown, tans MG: Greens, yellows, light brown, dark shades of gray BG: Light brown, dark shades of gray	FG: Grays, browns, blacks, whites MG: Blacks, browns, whites, grays BG: None visible
TEX-TURE	FG: Smooth valley floor MG: Valley floor contrasting with rise of mountainous forms BG: Coarse, rough mountainous forms No water visible	FG: Patchy, clumped vegetative forms across valley floor MG: Fine, patch-like; velvety appearance BG: Patch-like swaths on mountain forms; velvety appearance	FG: Coarse to medium transmission lines and fencing; blocky structures MG: Fine transmission structures; blocky structures BG: None visible

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: new proposed monopole structures replace existing H-frame structures; skylined against backdrop of distant mountain forms
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: adding taller vertical elements than existing structures; undulating horizontal lines visually similar to the existing line though of different span width
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG: metallic conductors; new galvanized steel gray tower structures
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG: transmission poles contribute to additional coarse element to existing landscape

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		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? ☐ Yes ☐ No X N/A (Explain on reverse side)

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

Evaluator's Names Date
Tom Priestley, MariaElena Conserva, and Angela Wolfe

September 6, 2012

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on non BLM land.

Located on Navajo Trail Road. Low density residential homesteads with existing views of "H" frames. Similar to KOP H-03

Additional Mitigating Measures (See item 3)

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VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project

2. Key Observation Point: KOP U3-03 Transmission Line Crossing at Hwy 83

3. VRM Class: KOP is located on private land; representative ROW would pass through non BLM land

4. Location

Township 16

Range 16

Section 35

5. Location Sketch
32.00103x-110.68832

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Panoramic view, subtle, rolling, directional, plane trending north-northwest MG: Continuation of valley floor, transition to sharp rise of undulating mountain forms and associated foothills BG: Jagged, continuous mountain forms with pyramidal peaks spanning background view No water visible	FG: Clumps of low lying vegetation MG: Dense swaths and patches of vegetation on mountain forms and foothills BG: Dense, dark patches on distant mountains	FG: Linear and diagonal roadways, blocky residential structures; long transmission lines spanning entire view; vertical communication towers, roadway signage; linear fencing MG: Blocky residential structures, linear transmission lines, curvilinear roadways, roadway signage, communication towers; no structures visible on mountain forms BG: None visible
LINE	FG: Continuous line of valley floor MG: Subtle rolling plane rising sharply to undulating mountain forms, diagonal BG: Undulating, continuous mountain forms with pyramidal peaks across skyline of background No water visible	FG: Single, irregular vegetative layer; linear line of vegetation paralleling roadway MG: Indistinct vegetative break at transition between valley floor and mountain forms; patchy swaths on mountains BG: Patch-like swaths	FG: Linear roadway, vertical and horizontal transmission structures, blocky residential forms MG: Blocky residential forms create a line of development across valley floor and mountain foothill; curvilinear roadway BG: None visible
COLOR	FG: Tans, browns, reds MG: Tans, browns BG: Tans, browns, No water visible	FG: Greens, whites, light brown, tan MG: Greens, light brown, tan BG: Dark gray	FG: Range of white to black hues MG: Whites, browns, blacks, greens BG: None visible
TEX-TURE	FG: Smooth valley floor MG: Smooth valley floor, coarse, rough mountain forms BG: Coarse, rough mountain forms with pyramidal peaks No water visible	FG: Fine to medium, discontinuous; non-directional MG: Fine, patchy swaths BG: Fine, patchy swaths	FG: Fine smooth roadway, discontinuous blocky structures, medium to coarse transmission lines MG: Medium to fine line of development BG: None visible

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: proposed linear sequence of transmission poles taller than existing H-frame structures, undulating conductor lines
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: proposed 230kV line adds taller vertical elements; undulating horizontal lines span across entire landscape, distinctive over the roadway; visually similar to the existing line though of different span width
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG: metallic conductors; new galvanized steel gray tower structures
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG: proposed 230kV transmission structures create medium to coarse repeating design that mirrors pattern of existing line

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		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? ☐ Yes ☐ No X N/A (Explain on reverse side)

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

Evaluator's Names Date
Tom Priestley, MariaElena Conserva, and Angela Wolfe

September 6, 2012

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on non BLM land.
Located along SR 83.

Additional Mitigating Measures (See item 3

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VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project	4. Location	5. Location Sketch
2. Key Observation Point: KOP U3-04- Sonoita Ranch Residential	Township 16S Range 16E Section 27	32.005748050 x -110.696156339
3. VRM Class: KOP is located on private land; representative ROW would pass through non BLM land		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Flat horizontal plane gently trending northwest MG: Not visible BG: Not visible No water visible	FG: Low lying sparse vegetative layer consisting of few short shrubs and groundcover MG: Not visible BG: Not visible	FG: Single transmission line in center view; one paved and several unpaved flat driveways transecting view; several single-story building forms and associated vehicles within the rural residential development of Sonoita Ranch; MG: None visible BG: None visible
LINE	FG: Horizontal, continuous line on valley floor MG: Not visible BG: Not visible No water visible	FG: Single irregular horizontal vegetative layer MG: Not visible BG: Not visible	FG: Diagonal driveways; long, linear parallel transmission lines, blocky residential forms MG: None visible BG: None visible
COLOR	FG: Tans, browns MG: Indistinct BG: Indistinct No water visible	FG: Greens, yellows, light brown, tan MG: Not visible BG: Not visible	FG: Soft white to tan road, dark brown transmission lines; tans and browns residential structures MG: None visible BG: None visible
TEX-TURE	FG: Smooth valley floor MG: Indistinct BG: Indistinct No water visible	FG: Fine to medium, discontinuous; non-directional MG: Not visible BG: Not visible	FG: Fine smooth driveways, discontinuous blocky structures, medium to coarse transmission lines MG: None visible BG: None visible

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: linear sequence of transmission structures similar in form as those of the existing line but taller; bold linear conductor lines skylined above residences MG and BG: no change
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: prominent vertical structures; linear sequence of transmission poles MG and BG: no change
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG: metallic conductors; galvanized steel gray tower structures MG and BG: no change
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG: new 230kV transmission structures increase coarse texture than existing line against flat horizontal plane MG and BG: no change

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		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? ☐ Yes ☐ No X N/A (Explain on reverse side)

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

Evaluator's Names Date
Tom Priestley, MariaElena Conserva, and Angela Wolfe

September 6, 2012

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on non BLM land.

Additional Mitigating Measures (See item 3)
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VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project	4. Location Township 16S Range 15E Section 14	5. Location Sketch 32.034240949x -110.790942490
2. Key Observation Point: KOP U3-05 - SW corner of Tucson Raceway Park		
3. VRM Class: KOP is located on private land; representative ROW would pass through non BLM land		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Flat horizontal plane gently trending southeast MG: Continuation of horizontal plane BG: Series of parallel undulating mountain forms with pyramidal peaks spanning entire view No water visible	FG: Uniform, low lying vegetative layer consisting of short shrubs, trees, and groundcover MG: Continuation of uniform vegetative layer across valley floor BG: Dense swaths of vegetation on mountain forms and foothills	FG: Three parallel transmission lines spanning entire view; one paved roadway in center of view; roadway signage; blocky residential structures MG: Strip of blocky residential structures BG: Patch of blocky residential structures on lower mountain foothills on right side of view
LINE	FG: Horizontal, continuous line on valley floor MG: Flat, continuous horizontal plane BG: Jagged, parallel, undulating mountain forms spanning across entire view No water visible	FG: Single, continuous horizontal vegetative layer spanning across valley floor MG: Singular, uniform vegetative layer blankets valley floor BG: Patch-like swaths	FG: Long, vertical and horizontal parallel transmission structures sky lined against mountain forms, discontinuous line of blocky residential forms, curvilinear roadway MG: Barely visible strip of blocky residential structures in far MG BG: Barely visible blocky residential structures
COLOR	FG: Tans, browns MG: Indistinct BG: Browns, gray No water visible	FG: Greens, yellows, tans MG: Greens, yellows, tans BG: Dark patches of gray	FG: Range of black to white hues MG: Whites, browns, tans BG: Browns, tans
TEX-TURE	FG: Uniform, smooth valley floor MG: Smooth valley floor BG: Jagged mountain forms contrasting from smooth valley floor No water visible	FG: Fine to medium, uniform MG: Fine, uniform BG: Fine, patchy swaths	FG: Fine smooth roadway; medium to coarse transmission lines; fine to medium residential structures MG: Fine residential structures BG: Fine residential structures

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: linear sequence of monopole transmission structures similar in form as existing line of H-frame structures but taller; bolder linear conductors
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: taller vertical structures added to landscape; horizontal lines visually similar to existing linear sequence of transmission lines; additional conductors add to existing corridor
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG: metallic conductors; galvanized steel gray tower structures
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG, MG, BG: no change

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		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? ☐ Yes ☐ No X N/A (Explain on reverse side)

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

Evaluator's Names Date
Tom Priestley, MariaElena Conserva, and Angela Wolfe

September 6, 2012

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on non BLM land.

Fairgrounds are 0.8 mile from E. Dawn Road, parking lot and raceways are located closest to the line (lowest sensitivity viewers are represented from this viewpoint)

Additional Mitigating Measures (See item 3)

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VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project

2. Key Observation Point: KOP U3-06 – E Old Vail Hwy /S Broken Cactus Way Residential

3. VRM Class: KOP is located on private land; representative ROW would pass through non BLM land

4. Location
Township 15S
Range 14E
Section 32

5. Location Sketch
32.075773248x-110.937005121

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Flat horizontal plane MG: Not visible BG: Steep mountain form rising from flat valley floor in center-left side of view No water visible	FG: Low lying vegetative layer consisting of shrubs and trees MG: Uniform vegetative layer extending into MG BG: Swaths of vegetation on mountain forms	FG: Several transmission lines extending from FG into MG; one unpaved roadway in center of view; single-story blocky forms and associated vehicles within rural residential development; blocky transformer; linear fencing; signage MG: Long, linear transmission lines; un paved roadway BG: None visible
LINE	FG: Horizontal, continuous line on valley floor MG: Not visible BG: Continuous, undulating mountain forms No water visible	FG: Single, uniform horizontal vegetative layer MG: Single, uniform horizontal vegetative layer BG: Patches of vegetation on distant mountains	FG: Long, linear transmission lines, blocky residential forms; linear roadway MG: Several linear transmission lines; long, linear roadway BG: None visible
COLOR	FG: Tans, browns MG: Indistinct BG: Brown, gray mountains No water visible	FG: Greens, yellows, light brown, tan MG: Greens, browns BG: Browns, dark shades of gray	FG: Tans, browns, orange, greens, gray, blacks MG: Browns, black, gray BG: None visible
TEXTURE	FG: Smooth valley floor MG: Indistinct BG: Course mountain forms No water visible	FG: Round, wispy, medium textured vegetative forms MG: Not visible BG: Not visible	FG: Fine smooth roadway; discontinuous blocky structures, medium to coarse transmission lines MG: Fine transmission structures barely visible in distant MG view BG: None visible

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: new sequence of poles, taller than those of existing transmission line MG: new sequence of poles creates thin vertical forms
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: new transmission poles and lines visually similar to the existing line though taller and more prominent MG: new transmission poles converge in distance, creating singular fine vertical linear form
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG and MG: metallic conductors; galvanized steel gray tower structures with whitish appearance due to angle of sun
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG and MG: new transmission poles create more streamline view, decreasing clutter and coarse texture compared to existing transmission line against landscape

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		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? ☐ Yes ☐ No X N/A (Explain on reverse side)

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

Evaluator's Names Date
Tom Priestley, MariaElena Conserva, and Angela Wolfe

September 6, 2012

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on non BLM land.
Potential EJ community to the south.

Additional Mitigating Measures (See item 3)

SIMULATED

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VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project

2. Key Observation Point: KOP U3-07 –San Xavier

3. VRM Class: KOP is located on private land; representative ROW would pass through non BLM land

4. Location

Township 15S

Range 13E

Section 22

5. Location Sketch
32.106658x-111.0082

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Flat alluvial valley MG: Flat alluvial valley; foothills rising sharply BG: Rounded mountains No water visible	FG: Two distinct vegetative layers consisting of a smooth, uniform, low lying groundcover and continuous line of trees and shrubs spanning the entire view MG: Uniform vegetative layer blankets the valley; dense swaths and patches of vegetative forms on foothills BG: Dense, dark patches on distant mountains	FG: Flat, paved surface-level parking, parking signage, bollards; hardscape landscaping elements; rustic picnic area; waste bins MG: Long transmission line in FG/MG transition BG: None visible
LINE	FG: Flat, horizontal, continuous plane MG: Flat, horizontal plane; continuous mountain formations with pyramidal peaks BG: Soft undulating mountain formations with pyramidal peaks No water visible	FG: Horizontal, simple, continuous, swaths and patches on outcrop MG: Indistinct vegetative break at transition between alluvial plane and base of mountain forms BG: Patch-like swaths	FG: Level parking lot; vertical signage; blocky repeating hardscape elements create distinct linear line; rugged picnic structure; curvilinear walkway; diagonal planter; blocky waste bins MG: Long, continuous, repeating linear transmission lines BG: None visible
COLOR	FG: Tan and brown MG: Brown and gray foothills BG: Brown and gray mountains No water visible	FG: Greens, light brown, tan MG: Greens, blues, gray BG: Blues, gray	FG: Range of white to black hues MG: Brown and black transmission structures BG: None visible
TEX-TURE	FG: Smooth, continuous valley floor MG: Indistinct valley floor transitioning to smooth velvety foothills BG: Coarse, continuous, mountain peaks No water visible	FG: Fine, soft wispy trees and groundcover MG: Fine and uniform BG: Fine and discontinuous	FG: Smooth parking area; granular, dotted, ordered hardscape; coarse signage, coarse picnic area MG: Medium to fine transmission structures BG: None visible

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	MG: fine linear sequence of monopole transmission structures similar in form as existing line but taller; linear conductors slightly more visible against backdrop of distant mountain forms
LINE	FG, MG, BG: no change	FG, MG, BG: no change	MG: taller vertical structures added to landscape, above tree line; horizontal lines visually similar to existing linear sequence of transmission lines creating weak contrast to existing line
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	MG: metallic conductors; galvanized steel gray tower structures
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG, MG, BG: no change

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		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? ☐ Yes ☐ No X N/A (Explain on reverse side)

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

Evaluator's Names Date
Tom Priestley, MariaElena Conserva, and Angela Wolfe

September 6, 2012

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on private land.

1.5 miles from line. Line is not visible from this location.

Additional Mitigating Measures (See item 3)

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VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project

2. Key Observation Point: KOP U3-08 – Santa Cruz River Bikeway
East River Trail

3. VRM Class: KOP located on private land; representative ROW would pass through non BLM land

4. Location
Township 15S
Range 13E
Section 2

5. Location Sketch
32.152231386x-110.991211112

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Descending low lying floodplain with alluvial embankments MG: Low lying alluvial valley rising to prominent plateau formations in center-left view BG: Distant angular mountains in center and right side of view Water visible in FG	FG: Irregular, multi-layered vegetative layer along riverbed and embankment consisting of simple low lying patchy shrubs and trees MG: Medium dense strip of trees transitioning from the FG/MG; swaths of vegetation on mountain forms BG: Swaths of vegetation on mountain forms	FG: Bold transmission structures; signage; trail fencing; roadway infrastructure; blocky warehouse structures in right side of view; light poles MG: Several transmission lines, residential and commercial buildings across valley floor; barely visible residential and communication structures along ridgeline; roadway cut into the side of plateau formation BG: None visible
LINE	FG: Horizontal line of riverbed; water creates curvilinear pattern MG: Flat, horizontal valley; undulating hill forms rise to plateau formations BG: Distant discontinuous mountain formations with pyramidal peaks Water visible in FG	FG: Vegetative layer in floodplain creates curvilinear pattern; soft strip of low lying vegetation along embankment in the right side of the view MG: Horizontal vegetative line at FG/MG transition; swath BG: None	FG: Perpendicular transmission lines; linear and vertical structures, hard blocky commercial structures; vertical structures MG: Horizontal and vertical structures, irregular line of development; diagonal roadway BG: None visible
COLOR	FG: Sandy beige, tan MG: Indistinct valley floor; shades of brown on plateau formations BG: Brown and gray mountains Water visible in FG	FG: Greens, yellows, tan MG: Greens, browns BG: Browns, gray	FG: Range of white to black hues MG: Browns, blacks, white BG: None visible

TEX-TURE	FG: Sandy gradational riverbed and associated embankment; glossy smooth water MG: Smooth, continuous valley floor; coarse to medium plateau formations BG: Coarse, discontinuous mountain peaks Water visible in FG	FG: Smooth, fine to medium MG: Smooth, fine, stippled BG: Indistinct	FG: Coarse transmission and warehouse structures MG: Medium to fine transmission lines; scattered structures BG: None visible

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: prominent new transmission pole structures creates weak vertical forms along river embankment; replaces existing monopole and lattice structures
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: new structures add weak vertical contrast to existing; skylined above distant mountain forms; new 230kV lines emphasize L-shaped turn
COLO R	FG, MG, BG: no change	FG, MG, BG: no change	FG: metallic conductors; galvanized steel gray tower structure; whitish appearance depending on angle of the sun
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG: proposed transmission structures add additional coarse texture to landscape

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		FEATURES												2. Does project design meet visual resource management objectives? ☐ Yes ☐ No X N/A (Explain on reverse side)
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	3. Additional mitigating measures recommended? ☐ Yes X No (Explain on reverse side)
ELEMENTS	Form				X				X			X		Evaluator's Names Date Tom Priestley, MariaElena Conserva, and Angela Wolfe September 6, 2012
	Line				X				X			X		
	Color				X				X			X		
	Texture				X				X			X		

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on non BLM land.

View is representative of bike users along Santa Cruz Bikeway.

Additional Mitigating Measures (See item 3)

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VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project

2. Key Observation Point: KOP U3-09- S. Newcastle Ct. – Residential development

3. VRM Class: KOP located on private land; representative ROW would pass through non BLM land

4. Location
Township 15S
Range 13E
Section 3

5. Location Sketch
32.155422678 x -110.99830510l

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Flat horizontal Santa Cruz valley MG: Pyramidal mountainous peaks in left and right extents of view BG: Not visible No water visible	FG: Strip of tall trees on valley floor MG: None visible BG: Swaths of vegetation on distant mountains	FG: Bold tall transmission lines; blocky residential structures; linear paved roadway; blocky roadway signage; hardscape elements includes blocky sound wall, planters, and rocky groundcover MG: Not visible BG: Not visible
LINE	FG: Flat, horizontal MG: Jagged, rugged pyramidal peaks BG: Not visible No water visible	FG: Single vegetative layer; vertical clump of palm trees in left side of view MG: Indistinct BG: Patches of vegetation on distant mountains	FG: Vertical and horizontal structures; irregular blocky forms; linear horizontal sound wall spanning entire view MG: Not visible BG: Not visible
COLOR	FG: Indistinct MG: Browns, tans BG: Not visible No water visible	FG: Greens and yellow hues MG: Indistinct BG: Browns, dark shades of gray	FG: Tans, range of white to black hues MG: Not visible BG: Not visible
TEX-TURE	FG: Indistinct MG: Coarse rocky mountainous peaks BG: Not visible No water visible	FG: Rounded, medium textured vegetative forms MG: None visible BG: Fine, sparse	FG: Coarse transmission structures; medium blocky structures; granular, uniform hardscape elements MG: Indistinct BG: Indistinct

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: bold new transmission structures replace H-frame structure and clump of three vertical forms in center of view; proposed 230 kV linear form adds prominent vertical and horizontal elements above vegetative layer
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: proposed sequence of prominent transmission poles taller than existing line; conductor lines are undulating horizontal lines; skylined above vegetative layer
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG: metallic conductors; galvanized steel gray tower structure
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG, MG, BG: no change

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		FEATURES												2. Does project design meet visual resource management objectives? ☐ Yes ☐ No X N/A (Explain on reverse side)
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				3. Additional mitigating measures recommended? ☐ Yes X No (Explain on reverse side)
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Evaluator's Names Date Tom Priestley, MariaElena Conserva, and Angela Wolfe September 6, 2012
ELEMENTS	Form				X				X		X			
	Line				X				X			X		
	Color				X				X			X		
	Texture				X				X			X		

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on private land.

Additional Mitigating Measures (See item 3)

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BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project

2. Key Observation Point: KOP U3-10 – Kennedy Park Fiesta Area – Outdoor Amphitheatre

3. VRM Class: KOP is located on non BLM; representative ROW would pass through non BLM land

4. Location
Township 14S
Range 13E
Section 28

5. Location Sketch
32.179196406x-111.013208314

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Simple, ascending smooth hilly forms; regional gradient trending northeast MG: Not visible BG: Not visible No water visible	FG: Two distinct vegetative layers consisting of medium-sized trees and low lying shrubs and groundcover; distinctive saguaros along hillside and ridgeline MG: Not visible BG: Not visible	FG: Blocky amphitheatre structures and associated hardscape; linear fencing; vertical light poles; singular transmission line; curving dirt road in center of view MG: None visible BG: None visible
LINE	FG: Continuous, undulating hilly forms MG: Not visible BG: Not visible No water visible	FG: Two distinctive horizontal vegetative layers transitioning at base of hilly forms; irregular vertical lines from scattered saguaros MG: Indistinct BG: Indistinct	FG: Vertical and horizontal transmission lines; linear, repetitious fencing; curvilinear roadway; vertical light poles MG: Not visible BG: Not visible
COLOR	FG: Browns, tans MG: Indistinct BG: Indistinct No water visible	FG: Greens, yellows MG: Indistinct BG: Indistinct	FG: Range of white to black hues MG: Not visible BG: Not visible
TEXTURE	FG: Smooth, continuous hilly formations MG: Indistinct BG: Indistinct No water visible	FG: Soft to medium; coarse saguaros; transparent low density vegetation on hillside MG: Indistinct BG: Indistinct	FG: Medium textured transmission structures; smooth roadway; blocky, uniform hardscape structures MG: Not visible BG: Not visible

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: three H-frame perpendicular structures have been replaced with three taller monopole structures; taller pole structures are skylined above hill form compared to existing structures
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: taller transmission structures create weak degree of contrast compared to existing; long, horizontal, linear lines created by conductors visually similar to existing lines
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG: metallic conductors; new galvanized steel gray tower structures
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG, MG, BG: no change

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		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? ☐ Yes ☐ No X N/A (Explain on reverse side)

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

Evaluator's Names Date
Mark Greenig, MariaElena Conserva, and Angela Wolfe

September 6, 2012

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on non BLM land.
Good representation of Kennedy Park.

Additional Mitigating Measures (See item 3)

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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project	4. Location Township 14S Range 13E Section 28	5. Location Sketch 32.180589907x-111.016308756
2. Key Observation Point: KOP U3-11 – Explorers Trail – Tucson Mountain Park		
3. VRM Class: KOP is located on non BLM land; representative ROW would pass through non BLM land		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Gravely trail; gentle descending plane trending to the east MG: Expansive, flat, horizontal valley plane BG: Panoramic, elongated pyramidal mountain forms with conical peaks No water visible	FG: Single low lying vegetative layer consisting of short rounded shrubs and trees MG: Fine low vegetation on valley floor BG: Swaths of low vegetative forms on mountain forms	FG: Meandering trails; flat paved roadway; blocky trail signage; linear fencing; linear and vertical transmission lines MG: Distinguishable development of South Tucson BG: Continuation of development of South Tucson; visible industrial structures located in center of far MG/BG view
LINE	FG: Smooth descending horizontal plane MG: Flat valley floor creates horizontal surface BG: Distinguishable transition from horizontal valley floor to rising mountain forms in far MG/BG; continuous, undulating hilly forms No water visible	FG: Uniform, single –story layer MG: Indistinct vegetative break at transition between alluvial plane and base of mountain forms BG: Patch-like swaths on distant mountains	FG: Vertical and horizontal transmission lines; curvilinear trails; flat paved roadway MG: Continuous horizontal line of development BG: Continuous horizontal line of development
COLOR	FG: Beige, tans, brown MG: Indistinct BG: Black and brown hues No water visible	FG: Yellow-greens, whites, orange MG: Greens BG: Browns, dark shades of gray	FG: Beige, browns, black, charcoal, white MG: Whites, tan, grays BG: Range of white to black hues
TEX-TURE	FG: Coarse to medium, granular MG: Smooth valley flood BG: Coarse mountains No water visible	FG: Clumped, soft to medium MG: Fine, sparse BG: Fine and discontinuous	FG: Granular trail, medium textured transmission structures; smooth roadway; MG: Medium to fine buildings BG: Smooth, fine structures; blocky industrial structures along base of mountain forms

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: H-frame structure replaced with single monopole structure; skylined above distant mountain forms; prominent new conductors
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: Moderate to weak degree of contrast created by additional horizontal, linear conductors; vertical height of structures contrasts against skyline
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG: Moderate to weak degree of contrast depending on time of day and angle of sun
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG, MG, BG: no change

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		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? ☐ Yes ☐ No X N/A (Explain on reverse side)

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

Evaluator's Names Date
Mark Greenig, MariaElena Conserva, and Angela Wolfe

September 6, 2012

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on non BLM land.

KOP is 0.11 mile from line.

Additional Mitigating Measures (See item 3)

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VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project

2. Key Observation Point: KOP U3-12 - Sentinel Peak Observation Area

3. VRM Class: KOP located on non BLM land; representative ROW would pass through non BLM land

4. Location

Township 14S

Range 13E

Section 15

5. Location Sketch
32.208960414x-110.997062706

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Elevated panoramic view, large downward sloping mountain hillside transitioning to alluvial valley floor MG: Valley floor rising to multiple pyramidal mountain formations BG: Large, undulating, jagged distant mountain ridgeline across center of view No water visible	FG: Smooth, uniform, low lying vegetative layer blanketing southern facing mountain slope, distinctive saguaros MG: Uniform low vegetation on valley floor; fine, gradational low lying vegetation on mountain forms BG: Swaths of vegetative forms on distant mountains	FG: Meandering trails; flat paved roadway; long transmission lines; blocky commercial structures at base of mountain form in center of view; domed blocky structure at peak of mountain form in right side of view MG: Distinctive linear paved roadway continuing into far MG; distinguishable blocky development in left side of view; blocky structures cushioned between mountain forms BG: None visible
LINE	FG: Smooth diagonal downward trending plane to flat horizontal valley floor MG: Flat valley floor rising sharply to multiple pyramidal mountain formations BG: Undulating, continuous mountain formations with pyramidal peaks No water visible	FG: Simple, continuous low lying vegetative layer; vertical saguaros MG: Directional, horizontal, gradational transition between valley floor and mountain forms BG: Patch-like swaths on distant mountains	FG: Vertical and horizontal transmission lines; curvilinear trails; continuous linear roadway MG: Broken horizontal line of development BG: None visible
COLOR	FG: Tans, browns MG: Tans, browns BG: Black and brown distant mountains No water visible	FG: Greens, light brown, tan MG: Dark green, light brown, tan BG: Browns, dark shades of gray	FG: Beige, whites, browns MG: Beige, whites, browns BG: None visible

TEX-TURE	FG: Smooth, continuous valley floor, clumped outcrop; Coarse, directional mountain, sloping to the south MG: Smooth valley floor; coarse, random pyramidal forms BG: Coarse, continuous, mountain peaks No water visible	FG: Smooth, continuous, directional vegetative plane; coarse saguaros MG: Stippled low lying vegetation on mountain forms BG: Fine and discontinuous	FG: Medium to fine textured transmission structures; fine, granular trails MG: Smooth roadway; medium to fine blocky buildings BG: None visible

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: fine linear sequence of 230kV transmission structures similar in form as existing line but taller; linear conductors slightly more visible along valley floor though creating weak contrast to existing line
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: adds additional element to existing corridor; barely distinguishable taller vertical structures added to landscape, horizontal lines visually similar to existing linear sequence of transmission lines creating weak contrast
COLO R	FG, MG, BG: no change	FG, MG, BG: no change	FG: weak degree of contrast compared to existing line
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG, MG, BG: no change

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		FEATURES												2. Does project design meet visual resource management objectives? ☐ Yes ☐ No X N/A (Explain on reverse side)
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	3. Additional mitigating measures recommended? ☐ Yes X No (Explain on reverse side)
ELEMENTS	Form				X				X			X		Evaluator's Names Date Tom Priestley, MariaElena Conserva, and Angela Wolfe September 6, 2012
	Line				X				X			X		
	Color				X				X			X		
	Texture				X				X			X		

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on non BLM land.

Sentinel Peak,

Additional Mitigating Measures (See item 3)

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VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project	4. Location	5. Location Sketch
2. Key Observation Point: KOP U3-13 –Tumamoc Hill Rd	Township 14S Range 13E Section 10	32.225561140x -111.001020954
3. VRM Class: KOP is located on non BLM land; representative ROW would pass through non BLM land		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Diagonal plane; northern facing slope of Tumamoc hill MG: Indistinct BG: Distant, undulating mountain forms with rounded peaks in center – right side of view No water visible	FG: Uniform, low lying vegetative cover; distinctive saguaros and cacti MG: Not visible BG: Dense, dark patches on distant mountains	FG: Cluttered linear fencing; several linear, parallel transmission lines MG: None visible BG: Barely visible dirt road and residential structures on mountainous forms
LINE	FG: Diagonal, continuous plane MG: Indistinct BG: Soft undulating mountain formations with pyramidal peaks No water visible	FG: Uniform, continuous vegetative cover; distinctive vertical saguaros MG: Not visible BG: Patch-like swaths, stippled on distant mountain formations	FG: Horizontal and vertical transmission structures; horizontal lines of fencing MG: None visible BG: Meandering dirt road; simple residential structures
COLOR	FG: Tan and brown hillside MG: Indistinct BG: Brown and gray mountains No water visible	FG: Greens, yellows, tans MG: Indistinct BG: Dark greens, gray	FG: Brown and black transmission structures MG: None visible BG: Tans, browns
TEX-TURE	FG: Smooth, continuous MG: Indistinct BG: Coarse, undulating, mountainous forms No water visible	FG: Fine to medium textures MG: Indistinct BG: Fine, stippled	FG: Medium to fine transmission structures MG: None visible BG: Soft dirt road; blocky structures

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: One H-frame and three-pole structure grouping are removed and replaced with single monopole structure; taller pole structure is skylined above hills
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: Additional conductors emphasize diagonal lines creating moderate to weak degree of contrast compared to existing lines
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG: Five dark colored vertical structures replaced with two lighter colored elements creating less contrast
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG: transmission structures add small degree of texture to existing pattern against smooth slope

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		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? ☐ Yes ☐ No X N/A (Explain on reverse side)

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

Evaluator's Names Date
Mark Greenig, MariaElena Conserva, and Angela Wolfe

September 6, 2012

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on non BLM land.
KOP shows historic fence.

Additional Mitigating Measures (See item 3)

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VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project	4. Location	5. Location Sketch
2. Key Observation Point: KOP U3-14 – Joaquin Murrieta Northwest Park	Township 14S Range 13E Section 3	32.242397297x-111.003619193
3. VRM Class: KOP is located on non BLM land; representative ROW would pass through non BLM land		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Flat alluvial plane, trending to the northeast MG: Not visible BG: Continuous, distant mountain forms with conical peaks No water visible	FG: Uniform vegetative layer MG: Not visible BG: Dense, dark patches on distant mountains	FG: Tall transmission structures; vertical light poles; blocky residential structures; paved roadway; roadway signage; blocky, short bollards MG: Vertical light poles and transmission lines BG: None visible
LINE	FG: Flat, smooth MG: Not visible BG: Continuous, undulating hilly forms No water visible	FG: Strip of vegetation along alluvial wash in right side of view MG: Indistinct BG: Patch-like swaths, stippled on distant mountain formations	FG: Bold, vertical and horizontal transmission lines; linear, repetitious bollards; curving roadway; vertical light poles and signage; MG: Vertical and horizontal transmission lines and poles BG: None visible
COLOR	FG: Browns, tans MG: Indistinct BG: Brown and gray mountains No water visible	FG: Greens, yellows MG: Indistinct BG: Greens, yellows	FG: Range of white to black hues MG: Browns, gray transmission structures and light poles BG: Indistinct
TEX-TURE	FG: Smooth, MG: Indistinct BG: Smooth, continuous hilly formations No water visible	FG: Fine, wispy textures MG: Indistinct BG: Fine, discontinuous	FG: Coarse to medium textured transmission structures and light poles; smooth roadway; blocky residential structures MG: Medium to fine transmission structures and light poles BG: Indistinct

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: bold new transmission structures replace existing H-frame and monopole vertical forms; proposed 230 kV form adds prominent vertical and horizontal elements above vegetative layer; skylined against distant mountain forms
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: proposed sequence of prominent transmission poles taller than existing line; strong to moderate contrast of proposed conductors to existing lines; undulating horizontal lines skylined above vegetative layer; stronger emphasis on L-shaped turn
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG: metallic conductors; galvanized steel gray tower structure
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG, MG, BG: no change

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		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 reverse side)

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

Evaluator's Names Date
Tom Priestley, MariaElena Conserva, and Angela Wolfe

September 6, 2012

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on non BLM land.

Additional Mitigating Measures (See item 3)

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Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project

2. Key Observation Point: KOP U3-15 – Santa Cruz riverbed crossing from trail near Juhan Park

3. VRM Class: KOP located on non BLM land; representative ROW would pass through non BLM land

4. Location
Township 13S
Range 13E
Section 34

5. Location Sketch
32.256317323x-111.003154915

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Prominent dry riverbed and associated alluvial wash; sloped embankment MG: Not visible BG: Undulating mountain forms with conical peaks No water visible; dry riverbed	FG: Uniform low lying vegetative clumps on riverbed; rounded low lying vegetative layer consisting of shrubs and trees along top of embankment MG: Indistinct BG: Indistinct	FG: Linear transmission lines; tall light poles, stop lights and associated signage; blocky warehouse and residential structures; domed and cylindrical structures; fencing; sound wall MG: None visible BG: None visible
LINE	FG: Flat horizontal riverbed; distinctive horizontal, continuous sedimentary layers along sloped embankment MG: Not visible BG: Undulating, continuous mountain formations with conical peaks along horizon of view No water visible; dry riverbed	FG: Patchy, stippled MG: Indistinct BG: Indistinct	FG: Linear and vertical structures, blocky, irregular building line; linear fencing MG: None visible BG: None visible
COLOR	FG: Tans, muddy browns, beige MG: Not visible BG: Brown and gray mountains No water visible; dry riverbed	FG: Greens, yellows, browns MG: Indistinct BG: Indistinct	FG: Range of black to white hues MG: None visible BG: None visible
TEXTURE	FG: Smooth, continuous riverbed; uniform sedimentary alluvial layers MG: Not visible BG: Coarse, continuous, mountains with jagged peaks No water visible; dry riverbed	FG: Sparse, fine, wispy, soft clumps along riverbed and embankment MG: Indistinct BG: Indistinct	FG: Medium to fine transmission lines; medium textured, blocky structures MG: None visible BG: None visible

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: skylined, tall transmission structure replaces smaller existing H-framed structures; conductors visually similar to existing lines, but taller and different span width
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: adds additional element to existing corridor creating moderate to weak level of contrast; 230kV transmission structure adds additional form to several existing vertical lines
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG: metallic conductors; galvanized steel gray tower structures; weak degree of contrast compared to existing lines within view
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG: proposed transmission structures and conductors slightly increase coarse pattern against sedimentary layers of wash

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		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? ☐ Yes ☐ No X N/A (Explain on reverse side)

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

Evaluator's Names Date
Tom Priestley, MariaElena Conserva, and Angela Wolfe

September 6, 2012

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on non BLM land.

KOP shows multiple T line congestion and represents an area of low public sensitivity (very few receptors)

Additional Mitigating Measures (See item 3)

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VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project

2. Key Observation Point: KOP U3-16 - Silverbell Public Golf Course

3. VRM Class: KOP is located on non BLM land; representative ROW would pass through non BLM land

4. Location
Township 13 S
Range 13E
Section 28

5. Location Sketch
32.274089865x -111.025120095

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Subtle, sloped, smooth golf course transitions to flat valley floor; trending to the northeast MG: Flat alluvial valley floor BG: Distant rounded mountains with pyramidal peaks in center-left side of view No water visible	FG: Two distinct vegetative layers consisting of a smooth, uniform, low lying manicured lawn transitioning to a dense continuous line of trees MG: Dense, uniform vegetative layer blankets the valley floor BG: Velvety patches of vegetative on mountain forms	FG: Tall, vertical transmission structures; parking lot; tall, vertical poles and barely visible netting associated with driving range; blocky irrigation elements; vertical course markers; fencing MG: Vertical transmission lines; blocky residential structures BG: None visible
LINE	FG: Subtle curve; flat, horizontal, continuous plane MG: Flat, horizontal plane BG: Discontinuous mountain formations with pyramidal peaks No water visible	FG: Horizontal, uniform, continuous plane, distinct vegetative break along edge of course MG: Horizontal, continuous BG: Patch-like swaths	FG: Level parking lot; vertical and horizontal transmission structures; long transmission lines; repetitious vertical poles of driving range; irregular blocky irrigation elements MG: Barely visible transmission lines; subtle discontinuous line of residential development BG: None visible
COLOR	FG: Indistinct MG: Indistinct BG: Brown and gray mountains distant mountainous forms No water visible	FG: Light green, yellows, tans MG: Greens, yellows BG: Blues, gray	FG: Range of white to black hues MG: Brown and gray transmission structures; whites, tans residential structures BG: None visible
TEX-TURE	FG: Smooth, continuous MG: Indistinct valley floor transitioning to jagged mountains BG: Coarse, discontinuous, mountain peaks No water visible	FG: Fine, soft cover; fine, rounded wispy trees MG: Fine and uniform BG: Fine and discontinuous	FG: Coarse to medium transmission structures; granular parking lot, MG: Medium to fine transmission structures BG: None visible

SECTION C. PROPOSED ACTIVITY DESCRIPTION			
	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: visible H-frame structures replaced with taller 230kV structures; new conductors create weak degree of contrast
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: long, undulating, linear transmission lines visually similar to existing lines; additional conductors add to existing linear lines within corridor
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG: metallic conductors; galvanized steel gray tower structures
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG, MG, BG: no change

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		FEATURES												2. Does project design meet visual resource management objectives? ☐ Yes ☐ No X N/A (Explain on reverse side)
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	3. Additional mitigating measures recommended? ☐ Yes X No (Explain on reverse side)
ELEMENTS	Form				X				X			X		Evaluator's Names Date Tom Priestley, MariaElena Conserva, and Angela Wolfe September 6, 2012
	Line				X				X			X		
	Color				X				X			X		
	Texture				X				X			X		

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on non BLM land.

KOP from Silverbell Golf Course links facing west

Additional Mitigating Measures (See item 3)

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VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project	4. Location	5. Location Sketch
2. Key Observation Point: KOP U3-17 – Silverbell Lake - Christopher Columbus Park	Township 13S Range 13E Section 20	32.281336721x-111.032775781
3. VRM Class: KOP is located on private land; representative ROW would pass through non BLM land		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Flat, small lake; subtle, sloped, smooth mounds on golf course MG: Flat alluvial valley floor rising gently to mountain foothills in far MG BG: Distant rounded mountains with pyramidal peaks in center-right side of view Water visible in immediate FG view	FG: Patch-like clumps of vegetation; rounded trees; smooth manicured groundcover MG: Linear horizontal strip of vegetation on valley floor BG: Velvety patches of vegetative on mountain forms	FG: Tall, vertical transmission structures contrasting over flat lake form; flat paved parking lots; blocky signage; short, blocky bollards; drainage element; construction equipment; cylindrical trash bin MG: Vertical and horizontal transmission structures; vertical light poles; blocky patches of development BG: None visible
LINE	FG: Water creates linear horizontal plane; transition to soft hilly mounds MG: Flat plane gently ascending to mountain foothills BG: Discontinuous mountain formations with pyramidal peaks Water visible in immediate FG view	FG: Horizontal, distinctive vegetative break along edge of lake MG: Horizontal, discontinuous BG: Patch-like swaths	FG: Level parking lots; vertical and horizontal repetitious transmission elements; vertical signage MG: Barely visible transmission lines and light poles; subtle discontinuous lines of development BG: None visible
COLOR	FG: Indistinct MG: Indistinct BG: Brown and gray distant mountainous forms Water visible in immediate FG view	FG: Light green, yellows, tans MG: Greens, yellows, browns BG: Blues, gray	FG: Range of white to black hues MG: Browns, gray BG: None visible

TEX-TURE	FG: Glossy, smooth, rippled MG: Smooth valley floor BG: Coarse, discontinuous, mountain peaks Water visible in immediate FG view	FG: Fine, soft cover; fine, rounded wispy trees MG: Fine and discontinuous BG: Fine and discontinuous	FG: Coarse to medium transmission structures; smooth parking lot MG: Medium to fine transmission structures and light poles; fine, discontinuous patches of development BG: None visible

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: single visible H-frame structure replaced with two monopole structures; new conductors create weak degree of contrast
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: new long, linear transmission lines visually similar to existing lines; additional conductors add to existing corridor
COLO R	FG, MG, BG: no change	FG, MG, BG: no change	FG: metallic conductors; galvanized steel gray tower structures
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG, MG, BG: no change

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		FEATURES												2. Does project design meet visual resource management objectives? ☐ Yes ☐ No X N/A (Explain on reverse side)
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	3. Additional mitigating measures recommended? ☐ Yes X No (Explain on reverse side)
ELEMENTS	Form				X				X			X		Evaluator's Names Date Mark Greenig, MariaElena Conserva, and Angela Wolfe September 6, 2012
	Line				X				X			X		
	Color				X				X			X		
	Texture				X				X			X		

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on private land.

KOP from Christopher Columbus park.

Additional Mitigating Measures (See item 3)

SIMULATED

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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project

2. Key Observation Point: KOP U3-18 – Rural residential along Cruz River

3. VRM Class: KOP is located on non BLM land; representative ROW would pass through non BLM land

4. Location
Township 13S
Range 12E
Section 2

5. Location Sketch
32.331625 x-111.082353

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Ascending, low lying floodplain with regional gradient trending northeast toward the Cruz River; rounded hillside on right side of view MG: Not visible BG: Not visible No water visible	FG: Dense multi-layered vegetative layer along roadway consisting of simple low lying shrubs and trees transitioning to medium dense vegetative layer with clump of saguaros along top of hillside MG: Not visible BG: Not visible	FG: Blocky residential forms within the rural residential area of Casas Arroyo; several parallel transmission lines spanning the entire view; long gently ascending roadway in center of view, roadway signage; tall communication tower MG: None visible BG: None visible
LINE	FG: Gentle ascending alluvial plane MG: Not visible BG: Not visible No water visible	FG: Directional vegetative layer trending along the roadway; irregular vertical lines from saguaros MG: Indistinct BG: Indistinct	FG: Linear, parallel transmission lines; long linear flat roadway; vertical signage and tower MG: Not visible BG: Not visible
COLOR	FG: Browns, tans MG: Indistinct BG: Indistinct No water visible	FG: Greens, yellows, browns, white MG: Indistinct BG: Indistinct	FG: Range of white to black hues MG: Not visible BG: Not visible
TEXTURE	FG: Smooth, directional MG: Indistinct BG: Indistinct No water visible	FG: Medium to fine textured rounded shrubs and trees; coarse saguaros MG: Indistinct BG: Indistinct	FG: Coarse to medium transmission structures; smooth roadway; blocky medium textured residential structure MG: Not visible BG: Not visible

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: H-frame structures replaced with new 230-kV structures; new sequence of poles taller than those of existing transmission line
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: new transmission poles and lines visually similar to the existing line though taller and more prominent; skylined; additional conductors add to existing corridor
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG: metallic conductors; galvanized steel gray tower structures
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG: new transmission poles slightly increases clutter and coarse texture compared to existing transmission line against landscape

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		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? ☐ Yes ☐ No X N/A (Explain on reverse side)

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

Evaluator's Names Date
Tom Priestley, MariaElena Conserva, and Angela Wolfe

September 6, 2012

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on non BLM land.

Few/no rural residences along this road. Residences are located to the southwest.

Additional Mitigating Measures (See item 3)

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VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project

2. Key Observation Point: KOP U3-19 - W. Picture Rocks Rd – Saguaro Nat'l Park Entrance

3. VRM Class: KOP located on non BLM land; representative ROW would pass through non BLM land

4. Location
Township 13S
Range 12E
Section 4

5. Location Sketch
32.325583x -111.123428

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Panoramic view; northeastern facing descending mountainous slope; rocky outcrop in left side of view MG: Flat valley floor BG: Sharp rise to prominent jagged, angular mountains No water visible	FG: Smooth, uniform, amorphous, low lying vegetative layer blanketing northeastern facing slope, distinctive saguaros MG: Linear lines of vegetation on valley floor BG: Swaths of vegetative forms on distant mountains	FG: Bold paved roadway; blocky roadway signage; residential development trending from FG to MG MG: Linear strip of development encompassing northern Tucson area on valley floor; transmission lines barely visible along valley floor BG: Uniform, horizontal line of development at base of mountain forms
LINE	FG: Continuous, decline MG: Flat, horizontal plane BG: Distinguishable transition of valley floor to rise of mountainous forms; undulating, continuous mountain formations with jagged pyramidal peaks No water visible	FG: Uniform, single-layer; continuous low lying vegetative layer; vertical, scattered saguaros MG: Horizontal, gradational transition indistinct between valley floor and mountain forms BG: Patch-like swaths on distant mountains	FG: Meandering roadway; vertical and horizontal structures MG: Uniform, horizontal line of development BG: Distinguishable horizontal line of development at base of mountains forms in far MG/BG transition
COLOR	FG: Tans, browns MG: Indistinct BG: Brown and gray mountains No water visible	FG: Greens, yellows, white; light brown, tan MG: Greens, yellows BG: Browns, dark shades of gray	FG: Range of white to black hues MG: Soft whites, tans BG: Soft whites, tans
TEX-TURE	FG: Coarse to medium rocky slope; clumped outcrop MG: Smooth, uniform, continuous valley floor BG: Coarse, continuous, mountain peaks No water visible	FG: Smooth, continuous, directional vegetative plane; coarse saguaros MG: Fine, smooth BG: Fine, discontinuous	FG: Smooth, medium to fine MG: Medium to fine, continuous BG: Fine, smooth line of development

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	MG: proposed structures barely visible on valley floor along existing corridor; new 230kV line creates weak contrast against existing landscape
LINE	FG, MG, BG: no change	FG, MG, BG: no change	MG: proposed new transmission poles and lines visually similar to existing line though taller; horizontal line blends into existing line of development creating weak degree of contrast
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG, MG, BG: no change
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG, MG, BG: no change

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		FEATURES												2. Does project design meet visual resource management objectives? ☐ Yes ☐ No X N/A (Explain on reverse side)
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	3. Additional mitigating measures recommended? ☐ Yes X No (Explain on reverse side)
ELEMENTS	Form				X				X			X		Evaluator's Names Date Tom Priestley, MariaElena Conserva, and Angela Wolfe September 6, 2012
	Line				X				X			X		
	Color				X				X				X	
	Texture				X				X				X	

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on non BLM land.

Represents Saguaro NP, approximately 2 miles from line.

Additional Mitigating Measures (See item 3)

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Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project

2. Key Observation Point: KOP U3-20 – Wade Rd - Residential

3. VRM Class: KOP is located on private land; representative ROW would pass through non BLM land

4. Location
Township 12S
Range 12E
Section 27

5. Location Sketch
32.354480433x-111.113992844

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Flat horizontal valley floor MG: Not visible BG: Distant mountain form with pyramidal peak in right side of view No water visible	FG: Simple, uniform, linear vegetative layer consisting of trees and shrubs across entire view MG: None visible BG: Swaths of vegetation on mountain forms	FG: Bold, tall transmission lines; vertical light poles; blocky structures; flat, linear paved roadway; linear fencing; transformer; utility signage MG: Not visible BG: Not visible
LINE	FG: Flat, horizontal MG: Not visible BG: Rugged mountain No water visible	FG: Horizontal, broken line of vegetation MG: Indistinct BG: Patches of vegetation on distant mountains	FG: Several intersecting transmission lines; vertical transmission and light pole structures; irregular blocky forms MG: Not visible BG: Not visible
COLOR	FG: Beige, tans MG: Not visible BG: Brown and gray mountains No water visible	FG: Greens, yellow, white hues MG: Indistinct BG: Browns, dark shades of gray	FG: Range of white to black hues MG: Not visible BG: Not visible
TEX-TURE	FG: Granular MG: Indistinct BG: Coarse mountainous peak No water visible	FG: Rounded, medium to fine textured vegetative forms MG: None visible BG: Fine, velvety	FG: Coarse to medium transmission lines; medium blocky structures; smooth roadway MG: Indistinct BG: Indistinct

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: series of proposed 230 kV structures replaces existing H-frame structures; taller, prominent structures emphasize strong to moderate contrast compared to existing; undulating conductors have different span width
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: proposed sequence of prominent transmission poles taller than existing line; strong to moderate contrast of proposed conductors to existing lines; increase in vertical separation between existing line emphasizes perpendicular intersection
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG: metallic conductors; galvanized steel gray tower structure
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG, MG, BG: no change

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		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? ☐ Yes ☐ No X N/A (Explain on reverse side)

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

Evaluator's Names Date
Tom Priestley, MariaElena Conserva, and Angela Wolfe

September 6, 2012

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on private land.

Additional Mitigating Measures (See item 3)

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VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project	4. Location Township 12S Range 12E Section 20	5. Location Sketch 32.372017564x -111.137464636
2. Key Observation Point: KOP U3-21 – N Silverbell Rd SE of Rattlesnake Ridge		
3. VRM Class: KOP is located on private land; representative ROW would pass through non BLM land		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Flat horizontal valley floor MG: Not visible BG: Distant rounded mountain form with pyramidal peak in center-left side of view No water visible	FG: Simple, linear vegetative layer consisting of rounded trees and shrubs MG: Continuous linear pattern extending from FG to MG BG: Swaths of vegetation on mountain forms	FG: Tall transmission lines; bulky vertical light poles; signage; blocky residential structures; linear sound wall; flat, paved parking lot MG: Not visible BG: Not visible
LINE	FG: Flat, horizontal plane MG: Not visible BG: Undulating mountain forms No water visible	FG: Continuous strip of vegetation along right-of-way; vegetation creates horizontal line MG: Strip of vegetation continuing into the MG view BG: Patches of vegetation on distant mountains	FG: Several repeating parallel vertical and horizontal transmission structure elements; horizontal, linear sound wall; flat, horizontal parking lot; vertical light pole s MG: Vertical and horizontal transmission elements converge from the FG to MG center of view BG: Not visible
COLOR	FG: Beige, tans, browns MG: Not visible BG: Gray mountains No water visible	FG: Greens, yellow, tans, white hues MG: Dark greens, yellows BG: Browns, dark shades of gray	FG: Brown, white, black, red, tans, black MG: Not visible BG: Not visible
TEX-TURE	FG: Smooth, granular valley floor MG: Indistinct BG: Coarse mountainous peak No water visible	FG: Strip, rounded, medium to fine textured vegetative forms; fine groundcover MG: Fine BG: Fine, velvety	FG: Coarse to medium transmission lines; medium blocky structures; smooth parking lot MG: Fine transmission structures BG: Indistinct

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: series of proposed 230 kV structures replaces existing H-frame structures; taller, prominent structures emphasize strong to moderate contrast compared to existing; undulating conductors have different span width
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: proposed new transmission poles and lines visually similar to existing line though taller; series of vertical forms converge into fine singular vertical line; additional conductors add to existing corridor; emphasize s strong parallel lines
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG: metallic conductors; galvanized steel gray tower structure; moderate
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG, MG, BG: no change

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		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? ☐ Yes ☐ No X N/A (Explain on reverse side)

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

Evaluator's Names Date
Tom Priestley, MariaElena Conserva, and Angela Wolfe

September 6, 2012

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on private land.
View from parking lot.

Additional Mitigating Measures (See item 3)

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VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project

2. Key Observation Point: KOP U3-22 – W Twin Peaks Rd

3. VRM Class: KOP is located on non BLM land; representative ROW would pass through non BLM land

4. Location
Township 12S
Range 12E
Section 20

5. Location Sketch
32.377665252 x -111.146635527

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Ascending blocky hilly forms MG: Not visible BG: Not visible No water visible	FG: Medium density multi-layered vegetative layer along roadway transitions to sparse vegetation along hillsides and ridgeline; low-lying desert shrubs; scattered geometric saguaros MG: Not visible BG: Not visible	FG: Two transmission lines, flat road, utility, roadway and residential signage MG: None visible BG: None visible
LINE	FG: Discontinuous ridgeline, gradational, rugged, irregular layers on hilly forms MG: Not visible BG: Not visible No water visible	FG: Two distinctive horizontal vegetative layers; trending to the east; irregular vertical lines from scattered saguaros MG: Indistinct BG: Indistinct	FG: Linear, parallel transmission lines; curvilinear roadway MG: Not visible BG: Not visible
COLOR	FG: Browns, tans MG: Indistinct BG: Indistinct No water visible	FG: Greens, yellows, white MG: Indistinct BG: Indistinct	FG: Brown, gray transmission line structures; gray, white, yellow roadway; range of white to black signage hues MG: Not visible BG: Not visible
TEX-TURE	FG: Coarse, rough, blocky hilly formations MG: Indistinct BG: Indistinct No water visible	FG: Soft to medium textured shrubs; coarse saguaros; transparent low density vegetation on hillsides MG: Indistinct BG: Indistinct	FG: Medium textured transmission structures; smooth roadway; bold signage MG: Not visible BG: Not visible

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: bold, prominent, skylined, tall transmission structure replaces several smaller existing transmission structures
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: prominent vertical structure skylined above ridgeline; new conductor lines are more prominent than existing emphasizing bolder linear lines above mountain forms
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG: metallic conductors; galvanized steel gray tower structure
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG: transmission structure and conductors create coarse pattern against mountain forms

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		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? ☐ Yes ☐ No X N/A (Explain on reverse side)

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

Evaluator's Names Date
Tom Priestley, MariaElena Conserva, and Angela Wolfe

September 6, 2012

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on non BLM land.
Simulation point represents a very specific point of interest.

Additional Mitigating Measures (See item 3)

SIMULATED

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VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project

2. Key Observation Point: KOP U3-23 – Silverbell Rd Historic Auto Route

3. VRM Class: KOP is located on non BLM land.; representative ROW would pass through non BLM land

4. Location
Township 11S
Range 10E
Section 16

5. Location Sketch
32.46699x-111.33266

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Flat alluvial plane trending west toward low lying wash MG: Flat alluvial wash along left side of view transitioning to lower mountain forms BG: Range of weathered rounded mountains spanning left side of view No water visible	FG: Single vegetative layer along roadway consisting of simple low lying shrubs and trees MG: Smooth, uniform, low carpet-like vegetative cover along wash; swaths of vegetation on lower mountain forms BG: Swaths of low vegetative forms on mountain forms	FG: Long transmission line along the right side of view; blocky residential forms and associated vehicle within rural residential area; vertical transmission structures; bold curvilinear roadway in center of view, several roadway signage; distinctive historical auto route marker and pennant MG: Transmission lines BG: None visible
LINE	FG: Gentle descending alluvial plane MG: Horizontal line on riverbed BG: Mountains create flowing continuous line with several peaks No water visible	FG: Directional vegetative layer trending along the roadway MG: Level carpet-like vegetative layer; indistinct vegetative break at transition between alluvial plane and base of mountain forms BG: Indistinct	FG: Linear, parallel transmission lines; long curvilinear flat roadway; vertical signage; blocky residential structure MG: Barely detectable linear transmission line BG: Not visible
COLOR	FG: Sandy beige, tans, light browns MG: Light to dark brown BG: Brown and black mountains No water visible	FG: Greens, yellows, browns MG: Greens, browns BG: Dark shades of gray	FG: Range of white to black hues MG: Brown transmission structures BG: Not visible
TEXTURE	FG: Smooth, sandy MG: Smooth, flat alluvial wash; medium textured mountain forms BG: Medium to coarse continuous forms, trending to the southeast No water visible	FG: Medium to fine textured rounded shrubs and trees MG: Smooth, dense carpet-like vegetative layer BG: Smooth, fine	FG: Coarse to medium transmission structures; smooth roadway; blocky medium textured residential structure MG: Medium to fine transmission structures BG: Not visible

SECTION C. PROPOSED ACTIVITY DESCRIPTION			
	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: linear sequence of monopole transmission structures similar in form as those of the existing line of H-frame structures but taller; bolder linear conductors
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: prominent vertical structures; horizontal lines visually similar to existing linear sequence of transmission lines
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG: metallic conductors; galvanized steel gray tower structures
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG: new 230kV transmission structures increase coarse texture than existing line against flat horizontal plane

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		FEATURES												2. Does project design meet visual resource management objectives? ☐ Yes ☐ No X N/A (Explain on reverse side)
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	3. Additional mitigating measures recommended? ☐ Yes X No (Explain on reverse side)
ELEMENTS	Form				X				X			X		Evaluator's Names Date Tom Priestley, MariaElena Conserva, and Angela Wolfe September 6, 2012
	Line				X				X			X		
	Color				X				X			X		
	Texture				X				X			X		

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on non BLM land.

Silverbell Rd simulation

Additional Mitigating Measures (See item 3)
SIMULATED

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VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project	4. Location Township 10S Range 10E Section 8	5. Location Sketch 32.565428533x-111.337781768
2. Key Observation Point: KOP U3-24 –Red Rock Residential		
3. VRM Class: KOP is located on private land; representative ROW would pass through non BLM land		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Flat alluvial valley transected by cut development pattern as part of the Red Rock planned residential community MG: Subtle transition from valley floor to low plateau of mounded dirt spanning the entire view BG: Distant jagged, angular mountains No water visible	FG: Mostly barren land stripped of vegetation with smooth low lying groundcover scattered, strip of low shrub vegetation at base of mounded forms MG: Strip of vegetation peaking behind plateau of mounded forms BG: Indistinct	FG: Flat linear paved roadways and associated curbs, vertical roadway signage, short blocky transformers MG: Transmission lines; dirt roadway cut through mound of dirt in center of view BG: None visible
LINE	FG: Horizontal, continuous MG: Continuous horizontal line of mounded dirt BG: Undulating, continuous mountain formations with several pyramidal peaks on left side of view; barely visible distant undulating mountain formations on right side of view No water visible	FG: Patches, horizontal strip of shrubs paralleling mounded forms MG: Level, irregular, soft horizontal vegetative line BG: None	FG: Flat, horizontal paved roadways; simple, blocky transformers MG: Subtle parallel horizontal and vertical transmission lines spanning the entire view BG: None visible
COLOR	FG: Tan, brown, reds MG: Tan, brown, reds BG: Gray mountains No water visible	FG: Greens, brown, tan, MG: Greens BG: Indistinct	FG: Range of white to black hues MG: Browns, blacks BG: None visible
TEX-TURE	FG: Smooth, continuous valley floor broken by cut development formation trending to the west-northwest MG: Gradational, smooth BG: Coarse, continuous, mountain peaks No water visible	FG: Smooth patches, medium dense, directional shrub vegetation MG: Smooth, soft, fine BG: Indistinct	FG: Smooth roadway, blocky transformers MG: Fine transmission lines BG: None visible

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	MG: series of new 230kV monopole structures replaces existing H-frame structures creating weak contrast to existing landscape; skylined against backdrop of distant mountain forms
LINE	FG, MG, BG: no change	FG, MG, BG: no change	MG: adding taller vertical elements than existing structures; undulating horizontal lines visually similar to the existing line though of different span width; emphasize s strong parallel lines of existing corridor
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	MG: barely visible metallic conductors; new galvanized steel gray tower structures
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG, MG, BG: no change

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST		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? ☐ Yes ☐ No X N/A (Explain on reverse side)

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

Evaluator's Names Date
Mark Greenig, MariaElena Conserva, and Angela Wolfe

September 6, 2012

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on private land.
KOPs show new residential area.

Additional Mitigating Measures (See item 3)

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

Date: 5/9/2013

District/ Field Office:

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See map
2. Key Observation Point **WC-01**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat, developed lands	Low lying shrubs and grasses, very patchy and irregular.	Flat, recreational fields and community parks.
LINE	Broad flat area developed area.	Shrubs and trees form irregular and patchy lines.	Recreational facilities in the immediate foreground, views of development including I-10 exist to the northwest.
COLOR	Flat, light grey, tans, and greens. Low mountains in the background are dark browns and blacks.	Grasses along trail are greens, tans and browns. Shrubs and trees are a several shades of green and brown.	Urban development ranges from green (recreational fields) to whites, grays, and tans of buildings and structures.
TEX-TURE	The textures of the soils and grasses are medium grained. The mountains appear smooth at this distance and under the late day sun light.	Tree, shrubs, and grasses appear dense and coarse textured.	The urban development is sporadic and dominates the views.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Transmission structures would parallel the existing I-10 and would likely blend into the backdrop at this distance.

LINE	No change	No change	Installing a new line would result in additional vertical and horizontal structures.
COLOR	No change.	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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? __ Yes ___No (Explain on reverse side)
NA

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

Evaluator's Names — Date
Steve Leslie, Pam Cecere — 5/9/2013

SECTION D. (Continued)

The actions do not occur on BLM managed lands and are within the town of Willcox area. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project alternative is located in the background of the KOP which is the Interstate 10. At this distance and from this viewing angle, new transmission structures and the lines associated with the agency alternative would not be visible. The project alternative would parallel the existing highway and the apparent contrast with the surrounding landscape is weak to none due to the highly developed characteristics of the area.

Additional Mitigating Measures (See item 3)

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

Date: 5/9/2013

District/ Field Office:

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See map
2. Key Observation Point **LD-01**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Largely flat desert landscape, with urban development.	Low to moderate height desert scrub vegetation. Patchy and sporadic throughout the landscape	Located adjacent to the Interstate 10 to the north and urban and agricultural development to the south.
LINE	Broad flat, rolling desert landscape with slight undulation in the seldom seen zone as low relief mountains compose the horizon line.	Mostly vacant open space devoid of naturally occurring vegetation. Some agricultural fields may be cultivated seasonally or left vacant.	Urban development forms the line characteristics in this area.
COLOR	Flat, earth tones, ranging from greens to light tans.	Sporadic vegetation is tan and brown. Shrubs and trees are a several shades of green and brown.	No color contrast from structures is visible from this vantage.
TEX-TURE	The textures of the soils are medium grained. The mountains appear smooth at this distance and under the late day sun light.	Tree, shrubs, and grasses appear rarely and are coarse textured.	Texture contrast from structures is visible from this vantage.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Transmission structures would be in the middleground distance zone and would largely blend into the horizon line at this distance, forming a horizontal and lateral structure change in the distance.
LINE	No change	No change	New horizon and lateral structures would be introduced into the landscape at regular intervals.
COLOR	No change.	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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? __ Yes ___No
(Explain on reverse side)
NA

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

Evaluator's Names — Date
Steve Leslie, Pam Cecere — 5/9/2013

SECTION D. (Continued)
The actions do not occur on BLM managed lands. Located just south of the Interstate 10 in the rural and low populated community of San Simon, this KOP represents views from the Interstate 10 south towards the agency alternative (LD-1). Given the developed nature of the community and lack of sensitive viewers in this area it was determined that viewer sensitivity would be low and structure contrast would be low, as the proposed alternative would parallel the existing highway and no residences are located within the foreground of the proposed line.
Additional Mitigating Measures (See item 3)

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

Date: 5/9/2013

District/ Field Office:

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See map
2. Key Observation Point **LD-02**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Largely flat desert landscape, with open panoramic views	Low to moderate height desert scrub vegetation. Patchy and sporadic throughout the landscape	Few structures are visible from this distance. Largely vacant open space.
LINE	Broad flat, rolling desert landscape with jagged high relief mountains forming the horizon line in the background.	Shrubs and trees form irregular and patchy spots within the desert landscape.	No linear structures are visible from this vantage.
COLOR	Flat, earth tones, ranging from greens to light tans.	Grasses along trail are tan and brown. Shrubs and trees are a several shades of green and brown.	No color contrast from structures is visible from this vantage.
TEX-TURE	The textures of the soils are medium grained. The mountains appear smooth at this distance and under the late day sun light.	Tree, shrubs, and grasses appear dense and coarse textured.	No texture contrast from structures is visible from this vantage.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Transmission structures would be in the background distance zone and would largely blend into the horizon line at this distance, forming a horizontal and lateral structure change in the distance.

LINE	No change	No change	New horizon and lateral structures would be introduced into the landscape at regular intervals.
COLOR	No change.	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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? __ Yes ___No (Explain on reverse side)
NA

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

Evaluator's Names — Date
Steve Leslie, Pam Cecere — 5/9/2013

SECTION D. (Continued)

The actions do not occur on BLM managed lands. This area is adjacent to the Butterfield Overland Mail Trail (which is currently being studied by the NPS for designation as a national and scenic trail). This span of the trail is largely undeveloped and has not been cleared or graded as a formal trail. The Butterfield Trail has an historic importance as it represents the route that stagecoach mail service route that spanned the United States from Memphis, Tennessee to Baja, California and north to San Francisco, California. Given the undeveloped and unmarked nature of the trail as it is now, very few recreationists seek out the trail for views and recreational experiences, therefore this area is considered of weak sensitivity, scenic quality, and generally, weak structural contrast.

Additional Mitigating Measures (See item 3)

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

Date: 5/9/2013

District/ Field Office:

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See map
2. Key Observation Point **LD-03**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Largely flat desert landscape, with open panoramic views	Low to moderate height desert scrub vegetation. Patchy and sporadic throughout the landscape	Few structures are visible from this distance. Largely vacant open space.
LINE	Broad flat, rolling desert landscape with slight undulation in the seldom seen zone as low relief mountains compose the horizon line.	Shrubs and trees form irregular and patchy spots within the desert landscape.	No linear structures are visible from this vantage.
COLOR	Flat, earth tones, ranging from greens to light tans.	Grasses along trail are tan and brown. Shrubs and trees are a several shades of green and brown.	No color contrast from structures is visible from this vantage.
TEX-TURE	The textures of the soils are medium grained. The mountains appear smooth at this distance and under the late day sun light.	Tree, shrubs, and grasses appear dense and coarse textured.	No texture contrast from structures is visible from this vantage.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Transmission structures would be in the background distance zone and would largely blend into the horizon line at this distance, forming a horizontal and lateral structure change in the distance.

LINE	No change	No change	New horizon and lateral structures would be introduced into the landscape at regular intervals.
COLOR	No change.	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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? __ Yes ___No (Explain on reverse side)
NA

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

Evaluator's Names — Date
Steve Leslie, Pam Cecere — 5/9/2013

SECTION D. (Continued)

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project is located in the background distance zone for this KOP. At this distance and from this viewing angle, new transmission structures and the lines associated with the agency alternative would be somewhat visible against the sky. Viewer sensitivity from this area is weak to none and the apparent contrast with the surrounding landscape is weak to none due to distance.

Additional Mitigating Measures (See item 3)

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

Date: 5/10/2013

District/ Field Office:

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See map
2. Key Observation Point **BE_01**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Broad open valley generally trending east to west with larger rolling hills and rugged mountains in the background.	Low lying clumpy grass along the dirt roads in the immediate foreground. Low to medium rounded shrubs interspersed with spiky perennial grasses and cactus.	The only visible structures include the dirt road, transmission poles, and an individual lattice tower.
LINE	Irregular mountain ranges to the north and south, the flat valley has a straight horizon line.	Shrubs and trees form a sharp edge along the dirt roads. The shrubs are branched and occur regularly along the valley floor.	Pole and the tower are distinct vertical lines on the landscape. The road edges meander through the shrubs.
COLOR	Reddish tans and browns in the foreground, with darker browns and blacks in the background.	Grasses along the dirt road are tan and brown. Shrubs and cactus are a several shades of green, grey, and brown. Vegetation on the far distant mountains is beige and brown.	The road is a dull reddish tan. The poles are brown wooden structures. The tower is a dull metallic, and the transmission lines appear black to reflective in the morning light.
TEX-TURE	Soils and gravels in the foreground are coarse grained. The distant mountains and hills appear smooth textured.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured. Vegetation extending into the background appears smoother the texture.	The poles and towers are smooth textured. The road surface is coarse grained and appears smoother in the distance.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures and the staging area.	Taller transmission structures would follow an existing single pole transmission line parallel to road.

LINE	No change	No change	Upgrading the line would result in a bolder, more prominent vertical structure.
COLOR	There would be lighter soils exposed where areas are cleared for installation of new structures and for the staging area.	No change	Steel structures would result in lighter, more reflective structures.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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? __ Yes ___No (Explain on reverse side)
Not on BLM land

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

Evaluator's Names — Date
Steve Leslie — 5/10/2013
Pam Cecere

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project upgrade repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project is located in the foreground of the KOP which is the Empirita Road just south of I-10. The KOP has views to the south of proposed upgrade and staging area and views to the east of Alternative H. The KOP represents the views of people traveling to and from Empirita Ranch. At this distance and from this viewing angle, the replacement transmission structures and lines associated with the proposed upgrade would be visible against the sky. The proposed upgrade and the staging area would become more visible as viewers travel south along the road. Because there are currently wooden H-frame structures that would be replaced and steel lattice transmission structures and lines that the project would parallel, the apparent contrast with the surrounding landscape is weak.

Additional Mitigating Measures (See item 3)

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

Date: 5/10/2013

District/ Field Office:

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See map
2. Key Observation Point **BE_02**	Range	
3. VRM Class NA	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat open valley with rugged mountains in the distant background.	Trees and shrubs surround the golf course in the immediate foreground.	Smooth golf course greens, boxy office buildings and storage buildings. Flat paved golf cart trails, access road, and parking.
LINE	Flat valley floor, irregular mountain range in the background.	Shrubs and trees form and irregular rounded edge.	Golf course is rolling hills, geometric buildings, and curving golf cart paths.
COLOR	Light grays and tans in foreground. Mountains are darker browns and shadowed.	Various shades of greens in the foreground. Tans, browns, and grays in the middle ground.	Bright green fairways, grey to black paved paths and parking lot. Green and white outbuildings
TEX-TURE	Medium grained soils and gravels in the foreground. Mountains in the distance appear smooth.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured. Vegetation extending into the background appears smoother the texture.	Golf course fairways and greens medium to fine textured. Paved surfaces appear smooth. Buildings are smooth surfaced.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures and the staging area.	Taller transmission structures would follow an existing single pole transmission line parallel to road.

LINE	No change	No change	Upgrading the line would result in a bolder, more prominent vertical structure.
COLOR	There would be lighter soils exposed where areas are cleared for installation of new structures and for the staging area.	No change	Steel structures would result in lighter, more reflective structures.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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	
	LINE				X				X			X	
	COLOR			X					X			X	
	TEXTURE				X				X				X

2. Does project design meet visual resource management objectives? __ Yes ___No
(Explain on reverse side)
Outside of BLM land

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

Evaluator's Names — Date
Steve Leslie — 5/10/2013
Pam Cecere

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project upgrade repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project Alternative H is located in the foreground, approximately 2.5 miles of the KOP which is the San Pedro Golf Course. Views south to the proposed upgrade. The KOP represents the views that people at the San Pedro Golf Course would experience. At this distance and from this viewing angle, the upgraded transmission structures and lines would be visible against the sky. At this distance, the apparent contrast with the surrounding landscape is weak.

View is located along I-10 in the area of Texas Canyon, viewpoint should represent Texas Canyon and the Little Dragoon Foothills as this is likely the most highly scenic segment within the entire analysis area.

Additional Mitigating Measures (See item 3)

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

Date: 5/10/2013

District/ Field Office:

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch
2. Key Observation Point **BE_03**	Range	See map
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat open valley that looks to slope up away from the KOP gently with rugged mountains in the distant background.	Dense trees and shrubs interspersed with short lawn grass in the immediate foreground.	Wooden monopole transmission structures, single story buildings, distant H-frame structure for upgrade. There is a green building, chain link fence and open pond at the KOP.
LINE	Flat valley floor, irregular mountain range in the background.	Shrubs and trees form an irregular rounded edge.	Transmission poles are a sharp vertical line, with the horizontal transmission lines connecting them. The gravel road is sharp edged with long curving line. Buildings are low and boxy.
COLOR	Light tans and browns in foreground. Mountains are darker browns and shadowed.	Various shades of green, tans, and browns.	Transmission poles are wooden and brown. The transmission lines appear dark in the morning light. The road is flat grey. Buildings are white and tan.
TEX-TURE	Medium grained soils and gravels in the foreground. Mountains in the distance appear smooth.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured.	Paved surfaces appear smooth. Buildings are smooth surfaced. Transmission structures and lines appear smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures and the staging area.	Taller transmission structures would follow an existing single pole transmission line parallel to road.

LINE	No change	No change	Upgrading the line would result in a bolder, more prominent vertical structure.
COLOR	There would be lighter soils exposed where areas are cleared for installation of new structures and for the staging area.	No change	Steel structures would result in lighter, more reflective structures.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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? __ Yes ___No (Explain on reverse side)
?

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

Evaluator's Names — Date
Steve Leslie — 5/10/2013
Pam Cecere

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project upgrade repeats the basic elements of form, line, color, and texture of the existing conditions within the area. This KOP is the waste water treatment pond and bird viewing area in Benson. This KOP has views north to the Alternative H (proponent's alternative bypass of Benson) and views south of the proposed upgrade. Alternative H is 2.8 miles to the north. The proposed upgrade is in the immediate foreground to the south. The KOP represents the views of people at driving to and visiting the waste water treatment facilities and for bird and wildlife viewing. At this distance and from this viewing angle, the replacement transmission structures and lines associated with the proposed upgrade would be visible against the sky. At this distance, the apparent contrast with the surrounding landscape is weak. Views of Alternative H would be somewhat obstructed by distance, the vegetation, and development associated with the ponds and the waste water treatment facility. In addition, the structures would be less visible at this distance from the KOP.

Additional Mitigating Measures (See item 3)

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

Date: 5/10/2013

District/ Field Office:

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See map
2. Key Observation Point **BE_04**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat open valley.	Dense trees and shrubs associated with residences and RV park.	Wooden H-frame transmission structure, white metal horse fence with wooden slats. Flat open dirt surface horse yard.
LINE	Flat valley floor.	Shrubs and trees are tall and branched, forming an irregular rounded edge.	Transmission poles are a sharp vertical line, with the horizontal transmission lines connecting them. The yard is square surrounded by the angular metal fence.
COLOR	Light tans and browns.	Various shades of green.	Transmission poles are wooden and brown. The transmission lines appear dark in the morning light.
TEX-TURE	Medium grained soils and gravels	Tree, shrubs, and grasses in the foreground appear dense and coarse textured.	Transmission structures and lines appear smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Taller transmission structures would follow an existing single pole transmission line parallel to road.

LINE	No change	No change	Upgrading the line would result in a bolder, more prominent vertical structure.
COLOR	No change	No change	Steel structures would result in lighter, more reflective structures.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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	
	LINE				X				X			X	
	COLOR				X				X			X	
	TEXTURE				X				X				X

2. Does project design meet visual resource management objectives? __ Yes ___No (Explain on reverse side)
NA

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

Evaluator's Names — Date
Steve Leslie — 5/10/2013
Pam Cecere

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project upgrade repeats the basic elements of form, line, color, and texture of the existing conditions within the area. This KOP is along Madison Street in Benson near the proposed upgrade and near an RV campground and residential lots. This KOP has views south of the proposed upgrade. Alternative H is 2.8 miles to the north and views are obstructed by vegetation and buildings. The KOP represents the views of residents, people at RV campground, and people driving through. At this distance and from this viewing angle, the replacement transmission structures and lines associated with the proposed upgrade would be visible against the sky. Any ground level activities would be screened by vegetation in the immediate foreground of the KOP. At this distance, the apparent contrast with the surrounding landscape is weak.

Additional Mitigating Measures (See item 3)

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

Date: 5/10/2013

District/ Field Office:

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See map
2. Key Observation Point **AN_04**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat open park area with recreational lake. Jagged mountain range in the distant background.	Low lying shrubs and grasses interspersed with taller trees. Very patchy and irregular. Dense trees in some areas of the parks landscaping.	Flat paved road and parking areas. Vertical steel lattice transmission structures and wooden H-frame structures in the foreground. Square picnic shade structures
LINE	Broad flat area of the park and recreation lake. Irregular mountain range in the distant background.	Shrubs and trees form irregular and patchy lines.	Paved road is a strong horizontal line. The transmission structures are strong vertical lines and several transmission lines intersecting with structures create right angles that that are visible against the midday sky. Park picnic shade structures and tables are boxy.
COLOR	Flat, light grey and tans in the immediate foreground. Mountains are darker reddish browns.	Grasses are tan and brown. Shrubs and trees are a several shades of green and brown.	Asphalt is light faded grey. Transmission structures are grey steel and brown wooden H-frames. The transmission lines are dark to reflective from different angles in the midday sun.
TEX-TURE	The textures of the soils rocky gravels are medium grained. Because of the distance, the rocky outcrops of the distant mountains are smooth.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured.	The paved road and picnic structures appear very smooth. The transmission structures are very fine and uniform. The transmission lines are very smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures.	Replacement transmission structures would follow an existing steel lattice transmission line that follows the Santa Cruz river channel.

LINE	No change	No change	Installing the upgrade would result in an additional strong vertical line in the foreground.
COLOR	There would be lighter soils exposed in the foreground where areas are cleared for installation of new structures.	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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? __ Yes ___No (Explain on reverse side)
NA

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

Evaluator's Names: Steve Leslie, Pam Cecere
Date: 5/10/2013

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project upgrade repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project is located in the immediate foreground of the KOP which is the Trailhead at Christopher Columbus Park, near Historic Turquisin Camp (Recreational Trail, near Historic Corridor, near Alternate Auto Tour Route) and recreational lake. This KOP has views of proposed upgrade in both directions. Other transmission lines are located along the river trail along the opposite shore of the river channel. At this distance and from this viewing angle, replacement transmission structures and lines associated with the proposed upgrade would be clearly visible against the sky. The proposed upgrade would also be visible from the trail as it goes through the park in both directions. Because there are currently wooden H-frame structures that would be replaced and steel lattice transmission structures and lines that the project would parallel, the apparent contrast with the surrounding landscape is weak.

Additional Mitigating Measures (See item 3)

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

Date: Thursday, May 9, 2013

District/ Field Office:

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See map
2. Key Observation Point **TH1-S1**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Rolling terrain below Tumamoc Hill and Sentinel Peak to the East, and other low lying mountains to the west.	Low lying clumpy grass along the roadsides in the immediate foreground. Low to medium rounded shrubs interspersed with spiky perennial grasses, and taller angular trees are visible just past the road.	Flat paved road, simple vertical wooden H-frame transmission structure pat road. Additional wooden H-frame visible to the south.
LINE	Low flat horizon line straight ahead of the alluvial fan coming off the rounded Tumamoc Hill. Rounded but irregular peaks lie to the west.	Shrubs and trees form an irregular line visible below the transmission line. There is a straight line of vegetation that follows parallel to the road and transmission lines.	Paved road in the immediate foreground with metal guard rail on far side of road are strong horizontal, straight lines. The transmission structure and several transmission lines are visible going north to south, and east to west creating right angles that clearly stand out against the midday sky.
COLOR	Flat, light grey and tans in the immediate foreground. Fans, hills, and mountains are darker tans, browns, reds,	Grasses along shoulder are tan and brown. Shrubs and trees are a several shades of green and brown.	Asphalt road is dark grey, guard rails are a flat metallic color. Transmission structures are a dark wooden brown. The transmission lines are dart to reflective from different angles in the midday sun.
TEX-TURE	The textures of the soils are smooth and fine grained. Because of the distance, the rocky outcrops of the surrounding hills and mountains in the middle ground and background are smooth.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured. Vegetation extending into the background appears smoother the texture.	The paved road appears very smooth. The transmission structures are very fine and uniform. The transmission lines are very smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures.	Prominent, taller transmission structures would follow an existing single pole transmission line parallel to road.

LINE	No change	No change	Installing a new line under alternative TH1a and TH2a would result in a bolder, more prominent vertical structure.
COLOR	No change	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM XLONG 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? __ Yes ___No (Explain on reverse side) Not applicable.

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

Evaluator's Names — Date
Steve Leslie, Pam Cecere — 5/9/2013

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project is located in the immediate foreground of the KOP. At this distance, two to three of the new transmission structures and lines associated with the agency alternatives would be clearly visible against the sky. Because there are currently transmission structures and lines that the project would parallel, the apparent contrast with the surrounding landscape is weak.

From this intersection, the project would be in view while traffic waits to turn in addition to as they travel up and down West Starr Pass Blvd for approximately 0.5 mile. Viewers along West Star Pass Blvd traveling at 45 mph would view the project for no more than several minutes.

Additional Mitigating Measures (See item 3)

- Use of non-specular wire
- Use of corten steel structures

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

Date: Thursday, May 9, 2013

District/ Field Office:

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See Map
2. Key Observation Point **TH1_S2**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Tumamoc Hill is a prominent, domed landform.	Low lying clumpy grass along the roadsides in the immediate foreground. Low to medium rounded shrubs interspersed with spiky perennial grasses, and taller angular trees are visible just past the road.	Flat paved road and sidewalk, simple vertical traffic light poles, wooden monopole transmission structure
LINE	Tumamoc Hill rounded and irregular flowing down into a more undulating alluvial fan. Irregular peaks visible to the east west.	Shrubs and trees form an irregular line visible below the transmission line.	Paved road and sidewalk in the immediate foreground are strong horizontal, straight lines. The traffic light structure, transmission structure, and several transmission lines are visible going east to west creating right angles that clearly stand out against the midday sky.
COLOR	Flat, light grey and tans in the immediate foreground. Darker tans, browns, reds further away.	Grasses along shoulder are tan, brown, and green. Shrubs and trees are a several shades of green and brown. Vegetation on Tumamoc Hill is beige and brown, darker green vegetation towards the base of the hill.	Asphalt road is dark grey, sidewalk is a flat white concrete. Transmission structures are a dark wooden brown. The transmission lines are dart to reflective from different angles in the midday sun. The traffic light poles are galvanized metallic.
TEX-TURE	The textures of the soils are smooth and fine grained. The rocky outcrops of the Tumamoc Hill are coarser, and those mountains and hills in the distance become smoother.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured. Vegetation extending into the background appears smoother the texture.	The paved road appears very smooth. The transmission structures and traffic light poles are very fine and uniform. The transmission lines are very smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures.	Prominent, taller transmission structures would follow an existing single pole transmission line parallel to road.

LINE	No change	No change	Installing a new line under alternative TH2a would result in a bolder, more prominent vertical structure.
COLOR	No change	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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	
	LINE				X				X			X	
	COLOR				X				X				X
	TEXTURE				X				X				X

2. Does project design meet visual resource management objectives? __ Yes ___No (Explain on reverse side)
NA

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

Evaluator's Names — Date
Steve Leslie — 5/9/2013
Pam Cecere

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project is located in the immediate foreground of the KOP. At this distance, two of the new transmission structures and lines associated with the agency alternatives would be clearly visible against the sky. Because there are currently transmission structures and lines that the project would parallel, the apparent contrast with the surrounding landscape is weak.

From this intersection, the project would be in view while traffic waits to turn in addition to as they travel up and down West Starr Pass Blvd for approximately 0.5 mile. Viewers along West Star Pass Blvd traveling at 45 mph would view the project for no more than several minutes.

Additional Mitigating Measures (See item 3)

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

Date: 5/9/2013

District/ Field Office:

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See map
2. Key Observation Point **TH1_S3**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Tumamoc Hill is a prominent, domed landform. There is rolling terrain below Tumamoc Hill and the more rugged Sentinel Peak further east.	Low lying clumpy grass along the mixed with low to medium rounded shrubs and taller angular treed.	Flat paved road and dirt road, simple vertical wooden monopole transmission structures.
LINE	Tumamoc Hill rounded and irregular flowing down into a more undulating alluvial fan. Irregular rugged peaks of Sentinel Peak visible further past Tumamoc.	Shrubs and trees form an irregular line. There is a sharp edge where the vegetation stops at the roadside.	Paved road in the immediate foreground is a strong horizontal, straight line. The transmission structures are visible going north to south, and east to west against the backdrop of the landscape.
COLOR	Flat, light grey and tans in the immediate foreground. Fans, hills, and mountains are darker tans, browns, reds,	Grasses along shoulder are tan and brown. Shrubs and trees are a several shades of green and brown. Cactus in the foreground are a very pale green.	Asphalt road is dark grey. Transmission structures are a dark wooden brown.
TEX-TURE	The textures of the soils are smooth and fine grained. Because of the distance, the rocky outcrops of the surrounding hills and mountains in the middle ground and background are medium grained.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured. Vegetation extending into the background appears smoother the texture.	The paved road appears very smooth. The transmission structures are very fine and uniform.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures.	Prominent, taller transmission structures would follow an existing single pole transmission line parallel to road.

LINE	No change	No change	Installing a new line under alternative TH1a would result in a bolder, more prominent vertical structure.
COLOR	No change	No change	Steel tower structures, metallic wires would result in lighter, more reflective structures.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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	
	LINE				X				X			X	
	COLOR				X				X			X	
	TEXTURE				X				X				X

2. Does project design meet visual resource management objectives? __ Yes ___No (Explain on reverse side)
NA

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

Evaluator's Names — Date
Steve Leslie — 5/9/2013
Pam Cecere

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project is located in the foreground of the KOP ¼ mile further east along West Starr Pass Blvd. At this distance, the new transmission structures and lines associated with agency alternative TH1a would be visible with Tumamoc Hill as the backdrop. Because there are currently transmission structures and lines that the project would parallel, the apparent contrast with the surrounding landscape is weak.

From West Starr Pass Blvd, the project would be in view while traffic travels east for approximately one mile. Viewers along West Star Pass Blvd traveling at 45 mph would view the project for several minutes.

Additional Mitigating Measures (See item 3)

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

Date: 5/9/2013

District/ Field Office:

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See map
2. Key Observation Point **TH1_S4**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Tumamoc Hill is a prominent, domed landform. With more rolling terrain below Tumamoc Hill	Low lying clumpy grass along the mixed with low to medium rounded shrubs and taller angular treed.	Flat paved road, simple vertical wooden monopole transmission structures and horizontal transmission lines.
LINE	Tumamoc Hill is rounded and irregular flowing down into a more undulating alluvial fan.	Shrubs and trees form a jagged, irregular line. There is a sharp edge where the vegetation stops at the roadside. Cactus are strong vertical lines interspersed with shrubs and trees.	Paved road in the immediate foreground is a strong horizontal, straight line. The transmission structure and several transmission lines are visible going north to south and clearly stand out against the midday sky. A barbed wire fence is made up of right angles along the edge of the road.
COLOR	Flat, light grey and tans in the immediate foreground. Fans, hills, and mountains are darker tans, browns, reds,	Grasses along shoulder are tan and brown. Shrubs and trees are a several shades of green and brown. Cactus is a very pale green to dark green.	Asphalt road is dark grey. Transmission structures are a dark wooden brown. Transmission lines are dark against the sky.
TEX-TURE	The textures of the soils are smooth and fine grained. Because of the distance, the rocky outcrops of the surrounding hills and mountains in the middle ground and background are medium grained.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured. Vegetation extending into the background appears smoother the texture.	The paved road appears very smooth. The transmission structures are very fine and uniform.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures.	Prominent, taller transmission structures would follow an existing single pole transmission line parallel to road.

LINE	No change	No change	Installing a new line under alternative TH1a would result in a bolder, more prominent vertical structure.
COLOR	There would be lighter soils exposed in the foreground where areas are cleared for installation of new structures.	No change	Steel tower structures, metallic wires would result in lighter, more reflective structures.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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? __ Yes ___No (Explain on reverse side)

NA

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

Evaluator's Names — Date

Steve Leslie — 5/9/2013

Pam Cecere

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project is located in the immediate foreground of the KOP along South Greasewood Road near the Andy Tolson Elementary School. At this distance, the new transmission structures and lines associated with agency alternative TH-1a would be visible with Tumamoc Hill and the open sky as the backdrop. Because there are currently transmission structures and lines that the project would parallel, the apparent contrast with the surrounding landscape is weak.

From the school, the project would be in clear view from the school and school parking lots. Viewers traveling along South Greasewood Road traveling at 45 mph would view the project for 2 miles for approximately several minutes in both directions.

Additional Mitigating Measures (See item 3)

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

Date: 5/9/2013

District/ Field Office:

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See map
2. Key Observation Point **TH1_S5**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Tumamoc Hill is a prominent, domed landform. With more rolling terrain below Tumamoc Hill	Low lying grass mixed with low to medium rounded shrubs and taller angular trees and cactus. Landscaping in front of residences in the foreground.	Flat paved road, driveways. Boxy, square single story homes. Simple vertical wooden monopole transmission structures and horizontal transmission lines.
LINE	Tumamoc Hill is rounded and irregular flowing down into a more undulating alluvial fan.	Shrubs and trees form a jagged, irregular line.	Paved road in the immediate foreground is a strong curving line. The homes are very geometrical. The transmission structures are vertical lines against the surrounding landscape.
COLOR	The immediate foreground is paved with residential development. Fans, hills, and mountains are darker tans, browns, reds,	Shrubs and trees associated with landscaping is bright green. Vegetation on Tumamoc Hill is beige and brown, with darker green vegetation towards the base of the hill.	Asphalt road is dark grey. Homes are red bricks and white roofs. Transmission structures are a dark wooden brown and the lines appear light and reflective.
TEX-TURE	The textures of the soils are in the foreground are not visible. Because of the distance, the rocky outcrops of the surrounding hills and mountains in the middle ground and background are medium grained.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured. Vegetation extending into the background appears smoother the texture.	The paved road appears very smooth. The homes and landscaping are more medium grained. The transmission structures are very fine and uniform.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Prominent, taller transmission structures would follow an existing single pole transmission line parallel to road.

LINE	No change	No change	Installing a new line under alternative TH1a would result in a bolder, more prominent vertical structure.
COLOR	No change	No change	Steel tower structures, metallic wires would result in lighter, more reflective structures.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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? __ Yes ___No (Explain on reverse side)
NA

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

Evaluator's Names — Date
Steve Leslie — 5/9/2013
Pam Cecere

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project is located in the foreground of the KOP in residential neighborhood on West Calle Tonala just west of South Greasewood Road. At this distance, the new transmission structures and lines associated with agency alternative TH1a would be visible with Tumamoc Hill as the backdrop. Much of the view of the project would be screened by the residential structures and landscaping. Because there are currently transmission structures and lines that the project would parallel, the apparent contrast with the surrounding landscape is weak.

From the neighborhood roads outside several of the residences, the project would be visible, repeating the basic elements of the existing transmission line.

Additional Mitigating Measures (See item 3)

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

Date: 5/9/2013

District/ Field Office:

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See map
2. Key Observation Point **TH1_S6**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Tumamoc Hill is a prominent, domed landform. With flat to rolling terrain below Tumamoc Hill in the foreground	Low lying grass mixed with taller thin branched and cactus. Grasses and shrubs in the middle ground appear low and flat interspersed with taller cactus.	Flat paved road, driveways. Simple vertical wooden monopole transmission structures and horizontal transmission lines.
LINE	Tumamoc Hill is rounded and irregular flowing down into a more undulating alluvial fan.	Shrubs in the foreground form a jagged, irregular line. Vegetation further away is flat interspersed with vertical cactus	Paved road in the immediate foreground is a strong straight line. The transmission structures are vertical lines against the surrounding landscape and the transmission lines are strong angular lines against the sky.
COLOR	Fans, hills, and mountains are tans, grays, browns, reds,	Shrubs in the foreground are greens, grays, and yellows. The vegetation on Tumamoc Hill is beige and brown, with darker green vegetation towards the base of the hill.	Asphalt road is dark grey. Transmission structures are a dark wooden brown and the lines appear dark against the midday sky.
TEX-TURE	The textures of the soils are in the foreground are medium grained. Because of the distance, the rocky outcrops of Tumamoc Hill are medium grained.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured. Vegetation extending into the background appears smoother the texture.	The paved road appears very smooth. The transmission structures are very fine and uniform.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures.	Prominent, taller transmission structures would follow an existing single pole transmission line parallel to road.

LINE	No change	No change	Installing a new line under alternative TH1a would result in a bolder, more prominent vertical structure.
COLOR	There would be lighter soils exposed in the foreground where areas are cleared for installation of new structures.	No change	Steel tower structures, metallic wires would result in lighter, more reflective structures.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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? __ Yes ___No (Explain on reverse side)
NA

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

Evaluator's Names — Date
Steve Leslie — 5/9/2013
Pam Cecere

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project is located in the foreground of the KOP which is by apartments at the junction of South Greasewood Road and West Broadway Blvd. The view from the KOP is looking east towards Study Area and Tumamoc Hill. At this distance, the new transmission structures and lines associated with agency alternative TH-1a would be visible with the open sky and Tumamoc Hill as the backdrop. Because there are currently transmission structures and lines that the project would parallel, the apparent contrast with the surrounding landscape is weak.

From the apartment complex and the apartment parking lot, the project would be visible, and would repeat the basic elements of the existing transmission line.

Additional Mitigating Measures (See item 3)

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

Date: 5/9/2013

District/ Field Office:

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See map
2. Key Observation Point **TH1_S7**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat to rolling terrain.	Low lying grass mixed with taller thin branched shrubs and vertical cactus. Grasses and shrubs appear low and rounded interspersed with taller cactus.	Flat gravel pull off and paved road. Simple vertical wooden monopole transmission structures and horizontal transmission lines.
LINE	Flat straight line above KOP.	Shrubs in the foreground form a jagged, irregular line. Vegetation further away is flat interspersed with vertical cactus	Paved road in is a strong straight line. The transmission structures are vertical lines against the surrounding landscape and the transmission lines are horizontal lines against the sky.
COLOR	The immediate foreground sand and gravels are grey extending into light tan and beige.	Shrubs and grasses are browns, greens, grays, and yellows.	Asphalt road is dark grey. Transmission structures are a dark wooden brown and the lines appear dark against the midday sky.
TEX-TURE	The textures of the soils and rocks are medium grained.	Tree, shrubs, and grasses appear dense and coarse textured.	The paved road appears very smooth. The transmission structures are very fine and uniform.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures.	Prominent, taller transmission structures would follow an existing single pole transmission line parallel to road.

LINE	No change	No change	Installing a new line under alternative TH1b would result in a bolder, more prominent vertical structure.
COLOR	There would be lighter soils exposed in the foreground where areas are cleared for installation of new structures.	No change	Steel tower structures, metallic wires would result in lighter, more reflective structures.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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	
	LINE				X				X			X	
	COLOR			X					X			X	
	TEXTURE				X				X				X

2. Does project design meet visual resource management objectives? __ Yes ___No (Explain on reverse side)
NA

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

Evaluator's Names — Date
Steve Leslie — 5/9/2013
Pam Cecere

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project is located in the foreground of the KOP which is at the junction of South Greasewood Road and West Speedway Blvd. The view from the KOP is looking east and south towards Study Area and would capture views of people driving through the intersection in addition to those visiting the small park/picnic area west of South Greasewood Road (the project is not visible from the park itself). At this distance, the new transmission structures and lines associated with agency alternative TH1b would be visible with the open sky as the backdrop. Because there are currently transmission structures and lines that the project would parallel, the apparent contrast with the surrounding landscape is weak.

Additional Mitigating Measures (See item 3)

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

Date: 5/9/2013

District/ Field Office:

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See map
2. Key Observation Point **TH1_S8**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Tumamoc Hill is a prominent, domed landform. With flat to rolling terrain below Tumamoc Hill in the foreground	Low lying grass mixed with rounded shrubs and vertical cactus. Grasses and shrubs in the middle ground appear low and flat interspersed with taller cactus.	Flat paved road, and gravel road and shoulder. Simple vertical wooden monopole transmission structures and horizontal transmission lines. Boxy buildings of the residential developments to the south and east. Irregular boxy skyline of Tucson visible to the east.
LINE	Tumamoc Hill is rounded and irregular flowing down into a flat alluvial fan.	Shrubs in the foreground form a jagged, irregular line. Vegetation further away is flat.	Paved road in the immediate foreground is a strong straight line. The transmission structures are vertical lines against the midday sky and surrounding landscape and the transmission lines are strong angular lines against the sky. Residential development is square and boxy.
COLOR	Fan, hills, and mountains are tans, grays, browns, reds,	Shrubs in the foreground are greens, grays, and yellows. The vegetation on Tumamoc Hill is beige and brown, with darker green vegetation towards the base of the hill.	Asphalt road is dark grey. Transmission structures are a dark wooden brown and the lines appear dark against the midday sky. The gravel roads and shoulders are grey. House roofs are white and reflective. Tucson skyline darker grays.
TEX-TURE	The textures of the soils are in the foreground are medium grained. Because of the distance, the rocky outcrops of Tumamoc Hill are medium grained.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured. Vegetation extending into the background appears smoother the texture.	The paved road appears very smooth. The gravel roads and shoulders are medium grained texture. The transmission structures are very fine and uniform. Buildings are smooth, fine textured.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures.	Prominent, taller transmission structures would follow an existing single pole transmission line parallel to road.
LINE	No change	No change	Installing a new line under alternative TH1a would result in a bolder, more prominent vertical structure.
COLOR	There would be lighter soils exposed in the foreground where areas are cleared for installation of new structures.	No change	Steel tower structures, metallic wires would result in lighter, more reflective structures.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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? __ Yes ___No (Explain on reverse side)
NA

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

Evaluator's Names — Date
Steve Leslie — 5/9/2013
Pam Cecere

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project is located in the foreground of the KOP which is by the Casa De Colinas apartments on West Speedway Blvd. The view from the KOP is looking south towards Study Area and Tumamoc Hill and east and west further along Agency Alternative TH-1b. At this distance, the new transmission structures and lines associated with agency alternative TH-1b would be visible with the open sky and Tumamoc Hill as the backdrop. Because there are currently transmission structures and lines that the project would parallel, the apparent contrast with the surrounding landscape is weak.

From the apartment complex and the apartment parking lot, the project would be visible, and would repeat the basic elements of the existing transmission line.

Additional Mitigating Measures (See item 3)

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

Date: 5/9/2013

District/ Field Office:

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See map
2. Key Observation Point **TH1_S9**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Tumamoc Hill is a prominent, flat topped landform to the south, with flat terrain surrounding the hill	Patchy low lying grass mixed with rounded shrubs and trees. Grasses and shrubs in the middle ground appear low and flat.	Flat paved road, and gravel road and shoulder. Simple vertical steel monopole and wooden H-frame transmission structures and horizontal transmission lines. Vertical light poles interspersed with transmission structures. Boxy buildings of the commercial development to the west and south.
LINE	Tumamoc Hill is flat topped with sloping irregular flowing down into the surrounding flat lands.	Shrubs in the foreground form a jagged, irregular line. Vegetation further away is flat.	Paved road in the immediate foreground is a strong straight line. The transmission structures are vertical lines against the midday sky and surrounding landscape and the transmission lines are strong angular lines against the sky. Commercial buildings to the west are single storied, square and boxy.
COLOR	Surrounding lands are tans, grays, browns, reds,	Shrubs in the foreground are greens, grays, and yellows. The vegetation on Tumamoc Hill is beige and brown, with darker green vegetation towards the base of the hill.	Asphalt road is dark grey. Transmission structures are a dark wooden brown and the lines appear dark against the midday sky. The gravel roads and shoulders are grey. Buildings are tan, beige, and red.
TEX-TURE	The textures of the soils are in the foreground are medium grained. Because of the distance, the rocky outcrops of Tumamoc Hill are fine grained.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured. Vegetation extending into the background appears smoother the texture.	The paved road appears very smooth. The gravel roads and shoulders are medium grained texture. The transmission structures are very fine and uniform. Buildings are smooth, fine textured.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Prominent, taller transmission structures would follow an existing single pole transmission line parallel to road.
LINE	No change	No change	Installing a new line under alternative TH1a would result in a bolder, more prominent vertical structure.
COLOR	There would be lighter soils exposed in the foreground where areas are cleared for installation of new structures.	No change	Steel tower structures, metallic wires would result in lighter, more reflective structures.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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? __ Yes ___No (Explain on reverse side)
NA

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

Evaluator's Names — Date
Steve Leslie — 5/9/2013
Pam Cecere

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The proposed upgrade and Agency Alternative TH-1c are located in the foreground of the KOP which is by the El Rio Golf Course along North El Rio Drive. The view from the KOP is looking west toward Agency Alternative TH-1c, and along the proposed upgrade. At this distance, the new transmission structures and lines associated with the proposed upgrade and agency alternative TH1c would be visible with the open sky as the backdrop. Because there are currently commercial development, tall light pole, and existing transmission structures and lines that the agency alternative TH-1c would intersect with, the apparent contrast with the surrounding landscape is weak.

Additional Mitigating Measures (See item 3)

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

Date: 5/9/2013

District/ Field Office:

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See Map
2. Key Observation Point **TH3_R1**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Meandering channel and flat park area in the foreground. Large jagged mountain range in the background.	Low lying shrubs and grasses interspersed with taller trees. Very patchy and irregular.	Flat paved trail with a square blocky metal fence along the edge. Strong vertical steel monopole transmission structures within the channel and opposite the channel. Additional steel transmission structures visible to the north and south.
LINE	River channel curving line going to north to south. Irregular mountain range. Broad flat area of the park.	Shrubs and trees form irregular and patchy lines.	Paved trail in the immediate foreground with metal blocky fence are strong horizontal, straight lines. The transmission structures and several transmission lines are visible going north to south, and east to west creating right angles that clearly stand out against the midday sky.
COLOR	Flat, light grey and tans in the immediate foreground. Mountains are darker tans, browns, and black,	Grasses along trail and throughout the park are tan and brown. Shrubs and trees are a several shades of green and brown.	Asphalt trail is light faded grey; fence is a flat reddish color. Transmission structures are grey steel. The transmission lines are dart to reflective from different angles in the midday sun.
TEX-TURE	The textures of the soils are medium to coarse grained. Because of the distance, the rocky outcrops of the surrounding hills and mountains in the middle ground and background are smooth.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured. Vegetation on the mountains in the background appears smoother the texture.	The paved trail appears very smooth. The transmission structures are very fine and uniform. The transmission lines are very smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures.	Transmission structures would follow an existing single pole steel transmission line parallel to the Santa Cruz river channel.

LINE	No change	No change	Installing a new line under alternative TH3 would result in additional vertical and horizontal structures.
COLOR	There would be lighter soils exposed in the foreground where areas are cleared for installation of new structures.	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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? __ Yes ___No (Explain on reverse side)
NA

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

Evaluator's Names — Date
Steve Leslie, Pam Cecere — 5/9/2013

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project is located in the immediate foreground of the KOP which is the Santa Cruz River Park along "The Loop" including a paved trail, picnic area, play-ground and disc golf course. Views from the KOP are directly along agency alternative TH-3b in both directions. At this distance and form this viewing angle, new transmission structures and lines associated with the agency alternative TH-3 would be clearly visible against the sky. They would be visible from the park itself, and for the length of the alternative along the paved trail. Because there are currently steel monopole transmission structures and lines that the project would parallel, the apparent contrast with the surrounding landscape is weak.

Additional Mitigating Measures (See item 3)

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

Date: 5/9/2013

District/ Field Office:

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See map
2. Key Observation Point **TH3_R2**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat lands along river channel.	Low lying shrubs and grasses interspersed with taller trees along the river channel. Very patchy and irregular.	Flat paved concrete patio at trail access with tall brick arch structure the trail passes through. Several steel transmission structures including monopole and lattice structures are visible along the river channel as well tall vertical light posts.
LINE	Broad flat area along channel.	Shrubs and trees form irregular and patchy lines. Trees are tall and branched.	Paved trail in the immediate foreground with blocky arched brick façade. The transmission structures and several transmission lines are visible going north to south, and east to west creating strong angles that clearly stand out against the midday sky.
COLOR	Flat, light grey and tans.	Grasses around the access point and along trail are tan and brown. Shrubs and trees are a several shades of green and brown.	Concrete apron at access is white; bricks of the arch entranceway to the trail are red. Transmission structures are grey steel. The transmission lines are dark to reflective from different angles in the midday sun.
TEX-TURE	The textures of the soils are medium grained.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured.	The paved trail appears very smooth. The gateway is coarse textured. The transmission structures are very fine and uniform. The transmission lines are very smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Transmission structures would follow an existing transmission line including steel monopole and lattice structure parallel to the Santa Cruz river channel.

LINE	No change	No change	Installing a new line under alternative TH3 would result in additional vertical and horizontal structures.
COLOR	No change	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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? __ Yes ___No (Explain on reverse side)
NA

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

Evaluator's Names: Steve Leslie, Pam Cecere
Date: 5/9/2013

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project is located in the immediate foreground of the KOP which is an access point to the Santa Cruz River Trail at West Saint Mary's Road and North Riverside Road with views of agency alternative TH-3b. At this distance and from this viewing angle, up to one new transmission structure and the lines associated with the agency alternative TH-3 would be visible against the sky. Some of the view is screened by the brick trailhead structure, trees, and other development. Additional structures would be visible as viewers traveled along the trail from the access point in both directions. Because there are currently both steel monopole transmission structures and large lattice structures as well as horizontal and lines that the project would parallel, the apparent contrast with the surrounding landscape is weak to none.

Additional Mitigating Measures (See item 3)

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

Date: 5/9/2013

District/ Field Office:

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See map
2. Key Observation Point **TH3_R3**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat lands along river channel. No other visible topography or geography.	Park surrounded by mixed landscaping including tall trees, shrubs, palm trees.	Park entrance is made up of paved drive and parking area lined with low brick walls. Park is surrounded with tall stucco walls, iron fencing, and a paved walkway and includes several sculptures. Steel transmission structures including monopole and lattice structures are visible from within the park, the parking lot, and along the river channel as well tall vertical light posts.
LINE	Broad flat area.	Shrubs and trees form irregular and patchy lines. Trees are tall and branched.	Block walls, angular appearance of walls and fencing. Sculpture is all white. The transmission lattice structures, monopoles, and several transmission lines create strong angles that clearly stand out against the midday sky.
COLOR	Flat, light grey and tans of gravel along roadways and around park.	Shrubs and trees are a several shades of green and brown.	Red park walkway, tan stucco walls, black iron fencing, and white sculptures; bricks surrounding the paved parking lot are red. Transmission structures are grey steel and corten steel. The transmission lines are dark to reflective from different angles in the midday sun.
TEX-TURE	The textures of the soils are medium grained.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured.	The park development is smooth to medium textured. The stucco and brick work are coarse textured. The transmission structures are very fine and uniform. The transmission lines are very smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Transmission structures would follow an existing transmission line including steel monopole and lattice structure parallel to the Santa Cruz river channel.
LINE	No change	No change	Installing a new line under alternative TH3 would result in additional vertical and horizontal structures.
COLOR	No change	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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												
	LINE												
	COLOR												
	TEXTURE												

2. Does project design meet visual resource management objectives? __ Yes ___No
(Explain on reverse side)
NA

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

Evaluator's Names — Date
Steve Leslie, Pam Cecere — 5/9/2013

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project is located in the immediate foreground of the KOP which is the Garden of Gethsemane park along the Santa Cruz River trail with narrow views of Agency Alternative TH-3b. At this distance and from this viewing angle, up to one new transmission structure and the lines associated with the agency alternative TH-3 may be visible against the sky. Some of the view is screened by the park structures, surrounding development, and taller vegetation that is part of the park landscaping. Additional structures would be visible as viewers traveled along the trail in both directions of the private park. Because there are currently both corten steel monopole transmission structures and large lattice structures that are seen from the park and the trail outside the park, the apparent contrast with the surrounding landscape is weak to none.

Additional Mitigating Measures (See item 3)

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

Date: 5/9/2013

District/ Field Office:

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See map
2. Key Observation Point **TH3_R4**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat lands along river channel. Low rugged peaks visible to the south west.	Low lying shrubs and grasses interspersed with taller trees along the river channel and the path of the trail. Very patchy and irregular.	Flat paved concrete patio at trail access with tall brick arch structure the trail passes through. Several steel transmission structures including monopole and lattice structures are visible along the river channel as well tall vertical light posts.
LINE	Broad flat area along the curving, meandering line of the channel. Rolling and irregular peaks f to the south and southwest.	Shrubs and trees form irregular and patchy lines along the meandering wash. Trees along trail are tall and branched along the trail.	Paved trail in the immediate foreground is a curving line with a strong edge. Several types of transmission structures (monopole, h-frame, and lattice) and several transmission lines are visible going north to south following the channel and creating strong angles that clearly stand out against the sky.
COLOR	Flat, light grey, tans, and reds. Mountains in the background are dark browns and blacks.	Grasses along trail are tan and brown. Shrubs and trees are a several shades of green and brown.	Paved trail is a flat grey. The Transmission structures are grey steel and light brown wooden monopole. The transmission lines are dark to reflective from different angles in the midday sun.
TEX-TURE	The textures of the soils are medium grained. The mountains appear smooth at this distance and under the late day sun light.	Tree, shrubs, and grasses appear dense and coarse textured.	The paved trail appears very smooth. The transmission structures are very fine and uniform. The transmission lines are very smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures.	Transmission structures would follow an existing transmission line including steel monopole and lattice structure parallel to the Santa Cruz river channel.
LINE	No change	No change	Installing a new line under alternative TH3 would result in additional vertical and horizontal structures.
COLOR	There would be lighter soils exposed in the foreground where areas are cleared for installation of new structures.	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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? __ Yes ___No (Explain on reverse side)
NA

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

Evaluator's Names: Steve Leslie, Pam Cecere
Date: 5/9/2013

SECTION D. (Continued)

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project is located in the immediate foreground of the KOP which is the Santa Cruz River Bikeway with views of Agency Alternative TH-3b in both directions. At this distance and from this viewing angle, new transmission structures and the lines associated with the agency alternative TH-3 would be visible against the sky. Additional structures would be visible as viewers traveled along the trail from the access point in both directions. Because there are currently both steel monopole transmission structures and large lattice structures as well as horizontal and lines that the project would parallel, the apparent contrast with the surrounding landscape is weak to none.

Additional Mitigating Measures (See item 3)

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

Date: 5/9/2013

District/ Field Office:

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See map
2. Key Observation Point **TH1-01**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat lands within developed residential/ranching area.	Flat low, lying grasses, to high profile trees.	Flat agricultural and ranch lands with human made structures associated with agriculture. Existing transmission line is visible in the middleground.
LINE	Evident line along flat ground and vegetation.	Trees form backdrop of flat ranching lands.	Immediate foreground is flat, with irregular skyline from treetops.
COLOR	Flat browns, and earth tones	Trees and large vegetation is vibrant green	Agricultural lands are browns and tans, structures are steel grays to dark browns.
TEX-TURE	Texture of the ground is fine grained.	Tree, shrubs, and grasses appear dense and coarse textured.	Agricultural lands are very smooth. The transmission structures are very fine and uniform. The transmission lines are very smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change.	Transmission structures would follow existing transmission line which is a wood "H" frame structure. The upgraded line would be a steel monopole, creating a form similar, but less visually intrusive than the existing structure.

LINE	No change	No change	Installing a new upgrade line would result in additional vertical and horizontal structures.
COLOR	No change.	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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? __ Yes ___No (Explain on reverse side)
NA

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

Evaluator's Names — Date
Steve Leslie, Pam Cecere — 5/9/2013

SECTION D. (Continued)

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. From this point and viewing angle, the new upgraded structure transmission structures and the lines associated with the agency alternative TH-3 would be visible against the sky. Additional structures would be visible as viewers traveled along the trail from the access point in both directions. Because there are currently both steel monopole transmission structures and large lattice structures as well as horizontal and lines that the project would parallel, the apparent contrast with the surrounding landscape is weak to none.

Additional Mitigating Measures (See item 3)

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

Date: 5/9/2013

District/ Field Office:

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See map
2. Key Observation Point **TH1-02**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat lands along river channel. Low rugged peaks visible to the south west.	Low lying shrubs and grasses interspersed with taller trees along the river channel and the path of the trail. Very patchy and irregular.	Flat paved concrete patio at trail access with tall brick arch structure the trail passes through. Several steel transmission structures including monopole and lattice structures are visible along the river channel as well tall vertical light posts.
LINE	Broad flat area along the curving, meandering line of the channel. Rolling and irregular peaks f to the south and southwest.	Shrubs and trees form irregular and patchy lines along the meandering wash. Trees along trail are tall and branched along the trail.	Paved trail in the immediate foreground is a curving line with a strong edge. Several types of transmission structures (monopole, h-frame, and lattice) and several transmission lines are visible going north to south following the channel and creating strong angles that clearly stand out against the sky.
COLOR	Flat, light grey, tans, and reds. Mountains in the background are dark browns and blacks.	Grasses along trail are tan and brown. Shrubs and trees are a several shades of green and brown.	Paved trail is a flat grey. The Transmission structures are grey steel and light brown wooden monopole. The transmission lines are dark to reflective from different angles in the midday sun.
TEX-TURE	The textures of the soils are medium grained. The mountains appear smooth at this distance and under the late day sun light.	Tree, shrubs, and grasses appear dense and coarse textured.	The paved trail appears very smooth. The transmission structures are very fine and uniform. The transmission lines are very smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures.	Transmission structures would follow an existing transmission line including steel monopole and lattice structure parallel to the Santa Cruz river channel.
LINE	No change	No change	Installing a new line under alternative TH3 would result in additional vertical and horizontal structures.
COLOR	There would be lighter soils exposed in the foreground where areas are cleared for installation of new structures.	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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? __ Yes ___No (Explain on reverse side)
NA

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

Evaluator's Names — Date
Steve Leslie, Pam Cecere — 5/9/2013

SECTION D. (Continued)

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project is located in the immediate foreground of the KOP which is the Santa Cruz River Bikeway with views of Agency Alternative TH-3b in both directions. At this distance and from this viewing angle, new transmission structures and the lines associated with the agency alternative TH-3 would be visible against the sky. Additional structures would be visible as viewers traveled along the trail from the access point in both directions. Because there are currently both steel monopole transmission structures and large lattice structures as well as horizontal and lines that the project would parallel, the apparent contrast with the surrounding landscape is weak to none.

Additional Mitigating Measures (See item 3)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT **VISUAL CONTRAST RATING WORKSHEET**	Date: 5/9/2013
	District/ Field Office:
	Resource Area:
	Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See map
2. Key Observation Point **AN-12**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat lands along the dirt road. Medium to high profile rugged peaks visible in the background.	Medium to high profile shrubs, cactus, and grasses interspersed with taller trees	Unpaved access road. Existing transmission line in the background distance zone.
LINE	Flat, bare road in the immediate foreground, jagged lines created by mountains and coarse vegetation.	Shrubs and trees form irregular and but dense and coarse lines along the meandering unpaved road.	Unpaved road in the immediate foreground is a curving line with a strong edge. Existing transmission structures (monopole, h-frame) are, in part, visible against the skyline.
COLOR	Dominated by greens and browns. Mountains in the background are dark browns and blacks.	Vegetation along the unpaved road/trail ranges from vibrant to dark greens. Exposed soil is bare of vegetation and light tan and brown.	Unpaved road is light tan and brown. Existing transmission structures are browns and non-reflective grays.
TEX-TURE	The texture of the bare road is smooth to fine grained and the vegetation is coarse and jagged. The mountains that form the horizon line are also jagged and rough.	The exposed soil is light tans and browns and vegetation ranges from vibrant green to dull greens and browns. The backdrop mountains are dull grays.	The unpaved road is smooth and reveals tire tracks in multiple directions. The existing transmission lines are both lateral and horizontal thin lines noticeable in the distance.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Transmission structures would follow an existing transmission line including steel monopole within the background distance zone.

LINE	No change	No change	Installing a new line would result in additional vertical and horizontal structures. The line caused by the addition of the structure would be shrouded by vegetation.
COLOR	No change	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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? __ Yes ___No
(Explain on reverse side)
NA

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

Evaluator's Names — Date
Steve Leslie, Pam Cecere — 5/9/2013

SECTION D. (Continued)

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project is located in the background distance zone of the KOP which is directly adjacent to the Anza Trail at the northern end of the project. From this distance and from this viewing angle, new transmission structures and the lines associated with the agency alternative would only partially be visible against the sky. Vegetative and topographic obstruction would not allow direct unadulterated views of the transmission line. Because there are currently transmission structures and the apparent contrast with the surrounding landscape is weak to none.

Additional Mitigating Measures (See item 3)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT **VISUAL CONTRAST RATING WORKSHEET**	Date: 5/9/2013
	District/ Field Office:
	Resource Area:
	Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See map
2. Key Observation Point **MA-02**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat lands with low to high profile rugged mountains in the backdrop.	Low lying shrubs and grasses interspersed with homogenous, flat agricultural fields.	Flat paved, roadway and shoulders dominate the foreground, with agricultural fields in the middleground, and the presence of several transmission line structures (monopole lines).
LINE	Broad, flat panoramic views with jagged mountain backdrop.	Grasses and agricultural land forms a flat, linear groundscape.	Paved roads and existing monopole structures form both horizontal and vertical lines within the landscape.
COLOR	Flat, light grey, tans, and greens. Mountains in the background are dark browns and blacks.	Grasses and agricultural lands are vibrant to dull greens, exposed dirt is browns and grays.	Paved road is a flat grey. The Transmission structures are brown wooden monopoles. The transmission lines are dark to reflective from different angles in the midday sun.
TEX-TURE	The textures of the soils are medium to fine grained. The mountains appear jagged.	Grasses, agriculture and naturally occurring shrubs appear low profile and even or soft.	The pavement/road appears smooth with a coarser gravel shoulder. Existing transmission line structures, traffic signs, and lateral poles appear peppered throughout the landscape.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Transmission structures would follow an existing transmission line including steel monopoles placed within the middleground distance zone.

LINE	No change	No change	Replacing the existing H frame would result in fewer lateral structures.
COLOR	No change	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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? __ Yes ___No (Explain on reverse side)
NA

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

Evaluator's Names — Date
Steve Leslie, Pam Cecere — 5/9/2013

SECTION D. (Continued)

The actions do not occur on BLM managed lands. This KOP is located just west of the Marana Airport at the intersection of W. Avra Valley Road and Sanders Road with views oriented to the south toward the proponent's preferred alignment and the existing Western line. This KOP was selected because it is along a well-travelled access road for local residents as well as visitors to the Saguaro NP. From this vantage, the upgraded line would be visible and largely unobstructed by topography or vegetation. The line would appear as a horizontal line with sporadically placed lateral monopoles. The horizon line formed by the high profile jagged mountains and the proposed transmission line would not obstruct views of the mountain backdrop, but would be placed within the middleground contributing to the existing visual congestion. Additionally, agricultural fields and human-made development (e.g., roads, other transmission lines, and street signs) dominate the landscape in this area. The addition of the transmission line would provide a weak structure contrast within the already naturally and human-made congestion present within the landscape.

Additional Mitigating Measures (See item 3)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT **VISUAL CONTRAST RATING WORKSHEET**	Date: 5/9/2013 District/ Field Office: Resource Area: Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See map
2. Key Observation Point **MA-03**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat lands along the Avra Valley Road with jagged dominant mountain peaks in the background (which form the horizon line)	Varying low to high profile vegetation line the foreground.	Flat paved roadway, and some sporadic buildings and distance development is evident in the middleground and background
LINE	Lines range between straight (along development such as roads) to jagged and curvy along natural vegetation and topography.	Shrubs and trees form irregular and patchy lines along the roadway. Trees along trail are tall and branched along the road.	Paved road in the immediate foreground is a straight line with a strong edge.
COLOR	Flat, greens, light grey, tans, and reds. Mountains in the background are dark browns and blacks.	Bare soil is light brown, vegetation is pale green to vibrant green.	Paved road is dark grey/black with gravel/dirt shoulders ranging from grey/brown to light tans. Green vegetation dominates the foreground and middleground and dark grey/black mountain profiles dominate the horizon line and background. Atmospheric haze causes the mountains to appear dull and under clear conditions the mountains appear vibrant black/grey/brown.
TEX-TURE	The textures of the soils and pavement are fine to medium grained. The mountains appear smooth at this distance with atmospheric haze present.	Tree, shrubs, and grasses appear dense and coarse textured.	The paved road appears very smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Transmission structures would follow an existing transmission line including steel monopole structure which forms a horizontal line through the middleground with lateral (poles) placed regularly.
LINE	No change	No change	Installing a new line would result in additional vertical and horizontal structures.
COLOR	Horizontal lines of non-reflective cable in varying shades of grey.	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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? __ Yes ___No (Explain on reverse side)
NA

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

Evaluator's Names: Steve Leslie, Pam Cecere
Date: 5/9/2013

SECTION D. (Continued)

The actions do not occur on BLM managed lands. This KOP is located just south of the Marana Airport with views oriented to the south toward the proponent's preferred alignment and the existing Western line. This KOP was selected as the Marana Airport is a relatively popular destination for local residents to view planes from the airport restaurant. From this vantage (located at the edge of W. Avra Valley Road) the upgraded line would be visible as a horizontal line bisecting slightly above the vegetation line and below the horizon line formed by the high profile jagged mountains to the south. The proposed transmission line would not obstruct views of aviation activities (as that is mostly oriented northward or 180 degrees away from the proposed line). Additionally, vegetation, development, and topography are all present and dominate the landscape views. The addition of the transmission line would provide a weak structure contrast within the already naturally and human-made congestion present within the landscape.

Additional Mitigating Measures (See item 3)

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

Date: 5/9/2013

District/ Field Office:

Resource Area:

Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See map
2. Key Observation Point **SA-01**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Rugged, undulating landscape, views of jagged high relief mountains in the background/horizon line	Medium to high vegetation in the immediate foreground, background and seldom seen is barren (developed or mountains)	Urban development (City of Tucson) is visible in the middleground and background in the valley floor.
LINE	Distinct horizon line splits the valley floor from the mountainous background.	Shrubs and trees form irregular and patchy lines within the immediate foreground/foreground. Medium to tall cactus and woody desert vegetation dominates the foreground.	Urban development reveals sporadic vegetation (such as street trees, and landscaping) in the distance.
COLOR	Variety of earth tones, and range of greens, browns, and blacks dominate the vegetation in the foreground. The background mountains are faded grey and hazy or dull.	Grasses along trail are tan and brown. Shrubs, trees, and cacti are several shades of green and brown.	Urban development appears patchy shades of brown, tans, and dull grey.
TEX-TURE	The textures of the soils are coarse and harsh. The mountains appear smooth with jagged edges that form the horizon line at this distance and under the late day sun light.	Tree, shrubs, and grasses appear dense and coarse textured.	Urban development within the valley floor appears flat and 2-dimensional due to the distance and angle of view.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Transmission structures would follow an existing transmission line including steel monopole.

LINE	No change	No change	Installing a new line under alternative would result in additional vertical and horizontal structures.
COLOR	No change	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

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? __ Yes ___No (Explain on reverse side)
NA

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

Evaluator's Names — Date
Steve Leslie, Pam Cecere — 5/9/2013

SECTION D. (Continued)

Represents views of the proposed alignment to the north and northeast from use trails in Saguaro NP. At this distance, the proposed transmission line is barely detectible due to distance, atmospheric conditions (haze), and vegetative and topographic obstruction. From this superior (elevated) vantage looking downward towards the City, structures such as monopole transmission lines tend to blend into the visual congestion and become difficult to discern in middleground and background distances. Sensitive viewers (hikers) along this portion of the Saguaro Nation Park may be able to discern the transmission line structures but would be expecting views of development as the view is oriented towards the City. Therefore, weak or low visual contrast is expected from this KOP.

SIMULATED

Additional Mitigating Measures (See item 3)

Appendix J

BLM LAND USE AUTHORIZATIONS

BLM LAND USE AUTHORIZATIONS

Section 302 of the Federal Land Policy and Management Act of 1976 (FLPMA) provides the BLM's authority to issue leases and permits for the use, occupancy, and development of the public lands. Leases and permits (i.e., land use authorizations) are issued for purposes such as a commercial filming, advertising displays, commercial or noncommercial croplands, apiaries, livestock holding or feeding areas not related to grazing permits and leases, harvesting of native or introduced species, temporary or permanent facilities for commercial purposes (does not include mining claims), residential occupancy, ski resorts, construction equipment storage sites, assembly yards, oil rig stacking sites, mining claim occupancy if the residential structures are not incidental to the mining operation, and water pipelines and well pumps related to irrigation and non-irrigation facilities. The regulations establishing procedures for the processing of these leases and permits are found in 43 Code of Federal Regulations (CFR) 2920.

The proposed Project would be categorized under the "temporary or permanent facilities for commercial purposes" and would therefore be subject to Section 302 of the FLPMA.

Table J-1 below is a listing of all of the land use authorizations that would be intersected by the proposed project's land use analysis area. In many cases, the LUA, though inside the analysis area, would not be impacted by the project since it would be located outside of the proposed Project ROW and also beyond the reach of construction disturbances. Please refer to section 4.11.2 for a detailed analysis of the LUAs that would be intersected by the proposed Project ROW.

The geographic scope for the land use analysis area for the New Build Section is a 2-mile corridor around the action alternatives (1-mile buffer on either side of the centerline). The temporal scope for the land use analysis area is the life of the project (50 years).

Table J-1. Existing Land Use Authorizations

BLM District/Field Office	LUA No.	LUA Holder	Type	Route	Segments Crossed
New Build Section – Afton Substation to Hidalgo Substation					
Las Cruces District Office[1]					
New Build Section - Hidalgo Substation to Apache Substation					
Las Cruces District Office[1]					
Safford Field Office	AZPHX-0086573	Union Pacific Railroad Company	Railroad	Route group 2	LD-4
Safford Field Office	AZPHX-0086534	Southern Pacific Transmission	Pipeline	Route group 2	P5b, Alternative E, LD-1
Safford Field Office	AZPHX-0086067	El Paso Natural Gas Corporation	Pipeline	Route group 2	LD-1
Safford Field Office	AZPHX-0083253	El Paso Natural Gas Corporation	Pipeline	Route group 2	LD-1
Safford Field Office	AZPHX-0079294	ADOT	Road	Route group 2	Alternative F, P6a

[1] Las Cruces District Office Land Use Authorizations are ongoing and will be provided in the FEIS.

Table J-1. Existing Land Use Authorizations (Continued)

BLM District/Field Office	LUA No.	LUA Holder	Type	Route	Segments Crossed
Safford Field Office	AZPHX-0078758	ADOT	Road	Route group 2	P5b, Alternative E, LD-1
Safford Field Office	AZPHX-0078757	ADOT	Road	Route group 2	LD-1
Safford Field Office	AZPHX-0060374	Union Pacific Railroad Company	Railroad	Route group 2	LD-1
Safford Field Office	AZPHX-0060373	Union Pacific Railroad Company	Railroad	Route group 2	Alternative F, P6a
Safford Field Office	AZAR-0033277	ADOT	Road	Route group 2	P5b, Alternative E, LD-1
Safford Field Office	AZAR-0031302	Qwest	Fiber Optic Cable	Route group 2	LD-1
Safford Field Office	AZAR-0027420	ADOT	Road	Route group 2	P6a, Alternative F
Safford Field Office	AZAR-0026425	ADOT	Road	Route group 2	P6a, Alternative F
Safford Field Office	AZAR-0025474	ADOT	Road	Route group 2	LD-1
Safford Field Office	AZAR-0013941	ADOT	Road	Route group 2	LD-1
Safford Field Office	AZAR-0008822	Arizona Department of Public Safety	Operations	Route group 2	LD-1
Safford Field Office	AZAR-0008806	Santa Fe Pacific Pipeline	Pipeline	Route group 2	LD-1
Safford Field Office	AZA-0004895	Sulphur Springs Electric	Power line	Route group 2	LD-1
Safford Field Office	AZA-0003847	El Paso Natural Gas Corporation	Pipeline	Route group 2	LD-1
Safford Field Office	AZA--35499	Cochise County	Road	Route group 2	P5b, Alternative E, LD-1
Safford Field Office	AZA-033670	AT&T	Fiber Optic Line	Route group 2	P5b, Alternative E, LD-1
Safford Field Office	AZA-033386	Sulphur Springs Electric	Power line	Route group 2	Alternative F, P6a
Safford Field Office	AZA-031872	Wild Bill Guide Service	Road	Route group 2	LD-4
Safford Field Office	AZA--031803	AT&T	Fiber Optic Line	Route group 2	P6b, Alternative F
Safford Field Office	AZA-031177	AT&T	Fiber Optic Line	Route group 2	LD-1
Safford Field Office	AZA-029033	Union Pacific Railroad	Railroad	Route group 2	LD-1
Safford Field Office	AZA-028599	FHWA	Road	Route group 2	LD-1
Safford Field Office	AZA-028724	Valley Telephone Company	Telephone Line	Route group 2	P6b, Alternative E, LD-1
Safford Field Office	AZA-027835	Valley Telephone Company	Telephone Line	Route group 2	P6b, Alternative E, LD-1
Safford Field Office	AZA-026558	Valley Telephone Company	Telephone Line	Route group 2	P6a, Alternative F
Safford Field Office	AZA-024087	UOP Molecular Sieve	Research	Route group 2	LD-4
Safford Field Office	AZA-02369501	BLM	Road	Route group 2	P6a, Alternative F

Table J-1. Existing Land Use Authorizations (Continued)

BLM District/Field Office	LUA No.	LUA Holder	Type	Route	Segments Crossed
Safford Field Office	AZA-023665	Sulphur Springs Electric	Power line	Route group 2	P6a, Alternative F
Safford Field Office	AZA-023664	Sulphur Springs Electric	Power line	Route group 2	P6a, Alternative F
Safford Field Office	AZA-022287	Sprint Communications	Fiber Optic Cable	Route group 2	P6a, Alternative F
Safford Field Office	AZA-022121	Valley Telephone Company	Telephone Line	Route group 2	LD-1
Safford Field Office	AZA-02197701	BLM	Road	Route group 2	LD-4
Safford Field Office	AZA-021968	El Paso Natural Gas Corporation	Pipeline	Route group 2	Alternative F, P6a
Safford Field Office	AZA-021890	BLM	Road	Route group 2	LD-4
Safford Field Office	AZA-019983	Cochise County	Road	Route group 2	P5b, Alternative E, LD-1
Safford Field Office	AZA-018990	Duncan Valley Electric	Power line	Route group 2	none
Safford Field Office	AZA-018790	Sulphur Springs Electric	Power line	Route group 2	LD-1
Safford Field Office	AZA-018717	Sulphur Springs Electric	Power line	Route group 2	LD-1
Safford Field Office	AZA-017630	Valley Telephone Company	Telephone Line	Route group 2	LD-1
Safford Field Office	AZA-010866	ADOT	Road	Route group 2	LD-1
Safford Field Office	AZA-006508	Sulphur Springs Electric	Power line	Route group 2	LD-1
Safford Field Office	AZA-006058	Qwest	Fiber Optic Cable	Route group 2	Alternative F, P6a
Safford Field Office	AZA-003778	Qwest	Fiber Optic Cable	Route group 2	Alternative F, P6a
Safford Field Office	AZA-003036	BLM	Road	Route group 2	LD4
Safford Field Office	AZA-003032	BLM	Road	Route group 2	LD4
Safford Field Office	AZA-003030	BLM	Road	Route group 2	P5b
Safford Field Office	AZA-002189	Sulphur Springs Electric	Power line	Route group 2	LD-1
Safford Field Office	AZA-001912	El Paso Natural Gas Corporation	Pipeline	Route group 2	P5b, Alternative E, LD-1
Safford Field Office	AZA-001645	ADOT	Road	Route group 2	LD-1
Safford Field Office	AZA-000893	Vanar Flood Control District	Canal and reservoir	Route group2	LD-1
Safford Field Office	AZA-005973	Qwest	Fiber Optic Cable	Route group 2	Alternative J
Safford Field Office	AZA-00460101	Arizona Game and Fish Department	Road	Route group 2	Gc
Safford Field Office	AZA-001912	El Paso Natural Gas Corporation	Pipeline	Route group 2	P6c
Safford Field Office	AZA-035671	Pueblo Lithium	Communication	Route group 2	none
Safford Field Office	AZA-017668	United States Army	Road	Route group 2	none

Table J-1. Existing Land Use Authorizations (Continued)

BLM District/Field Office	LUA No.	LUA Holder	Type	Route	Segments Crossed
Safford Field Office	AZA-019983	Cochise County	Road	Route group 2	Alternative F
Safford Field Office	AZA-035981	Micron Resources	Communication	Route group 2	P6c
Upgrade Section - Apache Substation to Pantano Substation					
Safford Field Office	AZPHX-0086067	El Paso Natural Gas Corporation	Pipeline	Route group 3	U1a
Safford Field Office	AZPHX-0083253	El Paso Natural Gas Corporation	Pipeline	Route group 3	U1a
Safford Field Office	AZAR-0035743	Sulphur Springs Electric	Powerline	Route group 3	U1a
Safford Field Office	AZAR-0032324	Southwest Transmission Cooperative	Transmission line	Route group 3	U1a
Safford Field Office	AZAR-0030532	Santa Fe Pacific Pipeline	Pipeline	Route group 3	U1a
Safford Field Office	AZAR-0017019	Santa Fe Pacific Pipeline	Pipeline	Route group 3	U1a
Safford Field Office	AZAR-0008806	Santa Fe Pacific Pipe	Pipeline	Route group 3	U1a
Safford Field Office	AZAR-0000438	Doe Wtn. Area Power Administration	Power line	Route group 3	U1a
Safford Field Office	AZA-022099	Ammon Enterprises	Canal	Route group 3	none
Safford Field Office	AZA-020283	Sulphur Springs Electric	Powerline	Route group 3	P7
Safford Field Office	AZA-007428	Southwest Transmission Cooperative	Transmission Line	Route group 3	U1a
Safford Field Office	AZA-007272	El Paso Natural Gas Corporation	Pipeline	Route group 3	U1a
Safford Field Office	AZA-002951	El Paso Natural Gas Corporation	Pipeline	Route group 3	Gc
Tucson Field Office	AR-035743	Sulphur Springs Valley Corporation	69 kV powerline	Route group 3	U2, Alternative H
Tucson Field Office	PHX-027227	Union Pacific Railroad	Railroad	Route group 3	U2
Tucson Field Office	PHX-086569	Union Pacific Railroad	Railroad	Route group 3	U2
Tucson Field Office	PHX-061304	Union Pacific Railroad	Railroad	Route group 3	U2
Tucson Field Office	PHX-086067	El Paso Natural Gas Corporation	Pipeline	Route group 3	U2
Tucson Field Office	PHX-086533	New Mexico and Arizona Railroad	Railroad	Route group 3	None
Tucson Field Office	PHX-059620	Union Pacific Railroad	Railroad	Route group 3	None
Tucson Field Office	PHX-038465	Union Pacific Railroad	Railroad	Route group 3	None
Tucson Field Office	PHX-020970	Union Pacific Railroad	Railroad	Route group 3	None
Tucson Field Office	PHX-014180	Union Pacific Railroad	Railroad	Route group 3	None
Tucson Field Office	AZA-21412	BLM	Road	Route group 3	None
Tucson Field Office	AZA-059612	Union Pacific Railroad	Railroad	Route group 3	U1a

Table J-1. Existing Land Use Authorizations (Continued)

BLM District/Field Office	LUA No.	LUA Holder	Type	Route	Segments Crossed
Tucson Field Office	PHX-027226	Union Pacific Railroad	Railroad	Route group 3	U2
Tucson Field Office	PHX-086523	Southern Pacific Railroad	Railroad	Route group 3	U2
Tucson Field Office	AZA-32862	Arizona Game and Fish	Road	Route group 3	U3a
Upgrade Section - Pantano Substation to Saguaro Substation					
Tucson Field Office	PHX-086542	Union Pacific Railroad	Railroad	Route group 4	None
Tucson Field Office	PHX-014756	Union Pacific Railroad	Railroad	Route group 4	None
Tucson Field Office	PHX-086575	Southern Pacific Railroad	Railroad	Route group 4	None
Tucson Field Office	PHX-086536	Union Pacific Railroad	Railroad	Route group 4	None
Tucson Field Office	PHX-073666	El Paso Natural Gas Corporation	Natural gas pipeline	Route group 3 & 4	U3a
Tucson Field Office	AR-012969	Western Area Power Administration	Substation	Route group 4	U3a
Tucson Field Office	AZA-35758	Pima County	Road	Route group 3 & 4	U3a
Tucson Field Office	AZA-33950	Broadwing Communications	Fiber optic line	Route group 3 & 4	U3a
Tucson Field Office	PHX-019619	Tucson Nogales Railroad	Railroad	Route group 4	none
Tucson Field Office	PHX-086836	Pima County	Highway	Route group 4	none
Tucson Field Office	PHX-086725	Pima County	Highway	Route group 4	none
Tucson Field Office	PHX-086680	Frank and Warren Allison	Canal	Route group 4	none
Tucson Field Office	AR-035768	Pima County	Road	Route group 4	none
Tucson Field Office	AR-05978	El Paso Natural Gas Corporation	10.75 inch natural gas pipeline	Route group 4	none
Tucson Field Office	AZA-32581	Tucson Water	Fiber optic line	Route group 4	none
Tucson Field Office	AZA-32454	Trico Electric	14.4 kV powerline	Route group 4	none
Tucson Field Office	AZA-26182	Pima County	Road	Route group 4	none
Tucson Field Office	AZA-7010	Pima County	Road	Route group 4	none
Tucson Field Office	AZA-6043	Century Link	Telephone line	Route group 4	none
Tucson Field Office	PHX-015584	Union Pacific Railroad	Railroad	Route group 4	U3b
Tucson Field Office	AR-031634	Tucson Water	Sewer and utility site	Route group 4	none
Tucson Field Office	AR-031193	ADOT	Road	Route group 4	U3b
Tucson Field Office	AR-030214	ADOT	Road	Route group 4	U3b
Tucson Field Office	AR-08806	Santa Fe Pacific Pipeline	12 inch natural gas pipeline	Route group 4	U3b
Tucson Field Office	AR-0438*	Western Area Power Administration	Transmission line	Route group 4	U3b
Tucson Field Office	AZA-32485	Tucson Electric Power	Power line	Route group 4	none

Table J-1. Existing Land Use Authorizations (Continued)

BLM District/Field Office	LUA No.	LUA Holder	Type	Route	Segments Crossed
Tucson Field Office	AZA-821	City of Tucson	Road	Route group 4	none
Tucson Field Office	PHX-086553	University Canal	Reservoir and canal	Route group 4	none
Tucson Field Office	PHX-072747	El Paso Natural Gas Corporation	10.75 inch natural gas pipeline	Route group 4	none
Tucson Field Office	PHX-060948	Union Pacific Railroad	Railroad	Route group 4	U3l, U3m
Tucson Field Office	PHX-086548	Southern Pacific Railroad	Railroad	Route group 4	U3l, U3m
Tucson Field Office	AZA-32453	Trico Electric	14.4 and 24.9 kV powerline	Route group 4	None
Tucson Field Office	AZA-34659	Century Link	Telephone Line	Route group 4	U3l, U3m
Tucson Field Office	AZA-8979	Century Link	Fiber Optic Line	Route group 4	U3l, U3m
Tucson Field Office	AZA-18286	Pima County	Road	Route group 4	None
Tucson Field Office	AZA-18705	Pima County	Road	Route group 4	None
Tucson Field Office	AZA-22075	Bureau of Reclamation	Central Arizona Project Water Canal	Route group 4	U3i
Tucson Field Office	PHX-086524	Union Pacific Railroad	Railroad	Route group 4	U3h
Tucson Field Office	PHX-086531	Arizona Narrow Gauge	Railroad	Route group 4	None

*AR-0438 is the existing Western transmission line that would be upgraded in Route group 4.

Appendix K

VISUAL SIMULATIONS

KOP P1-01. Existing view toward the representative ROW east of Afton substation along Afton Road.

FIGURE B-1
KOP P1-01. View from Afton Substation
Southline Transmission Project

A. KOP P2-01. Existing view toward the representative ROW from Aden Hills OHV trail.

B. KOP P2-01. Simulated view toward the representative ROW from Aden Hills OHV trail.

FIGURE B-2
KOP P2-01. View from Aden Hills OHV
Southline Transmission Project

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KOP P2-02. Existing view toward the representative ROW from West Potrillo Mountains.

FIGURE B-3
KOP P2-02. View from West Potrillo Mountains
Southline Transmission Project

CH2MHILL

KOP P2-03. Existing view toward the representative ROW traveling west on Highway 549.

FIGURE B-4
KOP P2-03. View from Highway 549 Westbound
Southline Transmission Project

CH2MHILL

A. KOP P2-04. Existing view toward the representative ROW traveling west on I-10.

B. KOP P2-04. Simulated view toward the representative ROW traveling west on I-10.

FIGURE B-5
KOP P2-04. View from Interstate 10 Westbound
Southline Transmission Project

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A. KOP P2-05. Existing view toward the representative ROW traveling northeast on Highway 26.

B. KOP P2-05. Simulated view toward the representative ROW traveling northeast on Highway 26.

FIGURE B-6
KOP P2-05. View from Highway 26
Southline Transmission Project

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KOP P2-06. Existing view toward the representative ROW from the City of Deming.

FIGURE B-7
KOP P2-06. View from City of Deming
Southline Transmission Project

KOP P2-07. Existing view toward the representative ROW from the Grandmother Victoria Mountains.

FIGURE B-8
KOP P2-07. View from Grandmother Victoria Mountains
Southline Transmission Project

CH2MHILL

KOP P2-08. Existing view toward the representative ROW from rural residences near the Langford Mountains.

FIGURE B-9
KOP P2-08. View from Rural Residences near Langford Mountains
Southline Transmission Project

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A. KOP P3-01. Existing view toward the representative ROW from rural residences along Ojo Road.

B. KOP P3-01. Simulated view toward the representative ROW from rural residences along Ojo Road.

FIGURE B-10
KOP P3-01. View from Ojo Road
Southline Transmission Project

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KOP P3-02. Existing view toward the representative ROW from an elevated view along Highway 9 looking west.

FIGURE B-11
KOP P3-02. View from Highway 9
Southline Transmission Project

KOP P4-01. Existing view toward the representative ROW from the Continental Divide Trail along Highway 90.

FIGURE B-12
KOP P4-01. View from Continental Divide Trail
Southline Transmission Project

CH2MHILL

KOP P4-02. Existing view toward the representative ROW turning onto Highway 70, exiting rural residential neighborhood along H&L Road.

FIGURE B-13
KOP P4-02. View from H&L Road
Southline Transmission Project

A. KOP S1-01. Existing view toward the representative ROW from County Road A11.

B. KOP S1-01. Simulated view toward the representative ROW from County Road A11.

FIGURE B-14
KOP S1-01. View from County Road A11
Southline Transmission Project

CH2MHILL

KOP S1-02. Existing view toward the representative ROW looking east from the eastern rim of Kilbourne Hole.

FIGURE B-15
KOP S1-02. View from Kilbourne Hole
Southline Transmission Project

A. KOP S2-01. Existing view toward the representative ROW from County Road A16.

B. KOP S2-01. Simulated view toward the representative ROW from County Road A16.

FIGURE B-16
KOP S2-01. View from County Road A16
Southline Transmission Project

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KOP A-01. Existing view toward the representative ROW crossing from County Road A15, within Phillips Hole.

FIGURE B-17
KOP A-01. View from County Road A15
Southline Transmission Project

CH2MHILL

A. KOP S3-01. Existing view toward the representative ROW paralleling Highway 9, skirting Wilderness Study Area.

B. KOP S3-01. Simulated view toward the representative ROW paralleling Highway 9, skirting Wilderness Study Area.

FIGURE B-18
KOP S3-01. View from Highway 9
Southline Transmission Project

CH2MHILL

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KOP S4-01. Existing view toward the representative ROW from an elevated view along the international border.

FIGURE B-19
KOP S4-01. View from Guzman's Lookout
Southline Transmission Project

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KOP B-01. Existing view toward the representative ROW from an elevated view along the international border.

FIGURE B-20
KOP B-01. View from Guzman's Lookout
Southline Transmission Project

KOP S5-01. Existing view of the representative ROW crossing Highway 9 near Columbus.

FIGURE B-21
KOP S5-01. View from Highway 9 at Columbus
Southline Transmission Project

A. KOP S5-02. Existing view toward the representative ROW from an elevated view within Pancho Villa State Park near Columbus.

B. KOP S5-02. Simulated view toward the representative ROW from an elevated view within Pancho Villa State Park near Columbus.

FIGURE B-22
KOP S5-02. View from Pancho Villa State Park
Southline Transmission Project

CH2MHILL

KOP S5-03. Existing view toward the representative ROW traveling along Highway 9.

FIGURE B-23
KOP S5-03. View from Highway 9
Southline Transmission Project

KOP S6-01. Existing view toward the representative ROW from eastern Hachita Valley toward the southern extent of the Cedar Mountains.

FIGURE B-24
KOP S6-01. View from Hachita Valley
Southline Transmission Project

CH2MHILL

KOP C-01. Existing view toward the representative ROW from eastern Hachita Valley toward the southern extent of the Cedar Mountains.

FIGURE B-25
KOP C-01. View from Hachita Valley
Southline Transmission Project

KOP S7-01. Existing view toward the representative ROW paralleling Highway 9 within Hachita Valley.

FIGURE B-26
KOP S7-01. View from Hachita Valley
Southline Transmission Project

A. KOP S7-02. Existing view toward the representative ROW from within the community of Hachita.

B. KOP S7-02. Simulated view toward the representative ROW from within the community of Hachita.

FIGURE B-27
KOP S7-02. View from Community of Hachita
Southline Transmission Project

KOP S7-03. Existing view toward the representative ROW crossing at State Route 146, north of Hachita.

FIGURE B-28
KOP S7-03. View from North of Community of Hachita
Southline Transmission Project

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KOP S7-04. Existing view toward the representative ROW from rural residential area in Lordsburg Valley near the Continental Divide.

FIGURE B-29
KOP S7-04. View near Continental Divide
Southline Transmission Project

KOP S7-05. Existing view toward the representative ROW and open Lordsburg Valley near Brockman Hills.

FIGURE B-30
KOP S7-05. View near Brockman Hills
Southline Transmission Project

CH2MHILL

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A. KOP S8-01. Existing view toward the representative ROW crossing I-10 within Lordsburg Valley.

B. KOP S8-01. Simulated view toward the representative ROW crossing I-10 within Lordsburg Valley.

FIGURE B-31
KOP S8-01. View toward I-10 Crossing
Southline Transmission Project

CH2MHILL

KOP S8-02. Existing view toward the representative ROW from farmlands within Lordsburg Valley.

FIGURE B-32
KOP S8-02. View from Lordsburg Valley Farmland
Southline Transmission Project

KOP D-01. Existing view toward the representative ROW from NM 113 crossing within Lordsburg Valley.

FIGURE B-33
KOP D-01. View from NM 113
Southline Transmission Project

A. KOP D-02. Existing view toward the representative ROW looking toward Pyramid Mountains from a rural residential area near Lordsburg.

B. KOP D-02. Simulated view toward the representative ROW looking toward Pyramid Mountains from a rural residential area near Lordsburg.

FIGURE B-34
KOP D-02. View from Eastern Outskirts of Lordsburg
Southline Transmission Project

CH2MHILL

A. KOP P5-01. Existing view toward the representative ROW from I-10, across Alkali Flat, toward Peloncillo Mountains.

B. KOP P5-01. Simulated view toward the representative ROW from I-10, across Alkali Flat, toward Peloncillo Mountains.

FIGURE B-35
KOP P5-01. View from I-10 across Alkali Flat
Southline Transmission Project

CH2MHILL

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A. KOP P5-02. Existing view toward the representative ROW from roadway providing access to VRM Class I & II lands.

B. KOP P5-02. Simulated view toward the representative ROW from roadway providing access to VRM Class I & II lands.

FIGURE B-36
KOP P5-02. View from Peloncillo Mountains
Southline Transmission Project

CH2MHILL

A. KOP E-01. Existing view toward the representative ROW from I-10, across Alkali Flat, toward Peloncillo Mountains.

B. KOP E-01. Simulated view toward the representative ROW from I-10, across Alkali Flat, toward Peloncillo Mountains.

FIGURE B-37
KOP E-01. View from I-10 toward Peloncillo Mountains
Southline Transmission Project

CH2MHILL

KOP E-02. Existing view toward the representative ROW from the community of San Simon.

FIGURE B-38
KOP E-02. View from Community of San Simon
Southline Transmission Project

CH2MHILL

KOP P6-01. Existing view toward the representative ROW from the community of Bowie.

FIGURE B-39
KOP P6-01. View from Community of Bowie
Southline Transmission Project

CH2MHILL

KOP P6-02. Existing view toward the representative ROW from the main access road to Ft. Bowie Scenic ACEC and wilderness area.

FIGURE B-40
KOP P6-02. View from South Apache Pass Road
Southline Transmission Project

CH2MHILL

A. KOP P6-03. Existing view toward the representative ROW from representative BLM lands near Dos Cabezas Peak foothills.

B. KOP P6-03. Simulated view toward the representative ROW from representative BLM lands near Dos Cabezas Peak foothills.

FIGURE B-41
KOP P6-03. View from Dos Cabezas Peak Foothills
Southline Transmission Project

CH2MHILL

A. KOP F-01. Existing view toward the representative ROW from the northern part of the community of Bowie.

B. KOP F-01. Simulated view toward the representative ROW from the northern part of the community of Bowie.

FIGURE B-42
KOP F-01. View from Bowie
Southline Transmission Project

CH2MHILL

KOP F-02. Existing view toward the representative ROW from State Route 191, which provides access points north, including to Safford.

FIGURE B-43
KOP F-02. View from Arizona SR 191
Southline Transmission Project

CH2MHILL

KOP P7-01. Existing view toward the representative ROW from State Route 186, which provides primary access into Dos Cabezas Peaks ACEC.

FIGURE B-44
KOP P7-01. View from Arizona SR 186
Southline Transmission Project

CH2MHILL

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A. KOP P7-02. Existing view toward the representative ROW from the edge of Willcox Wildlife Area.

B. KOP P7-02. Simulated view toward the representative ROW from the edge of Willcox Wildlife Area.

FIGURE B-45
KOP P7-02. View from Willcox Playa Wildlife Area
Southline Transmission Project

CH2MHILL

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KOP P7-03. Existing view toward the representative ROW from within Willcox Wildlife Area, at the gathering point for the Wings over Willcox bird-watching festival.

FIGURE B-46
KOP P7-03. View from Willcox Playa
Southline Transmission Project

CH2MHILL

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KOP G-01. Existing view toward the representative ROW from the western boundary of the Willcox developed area.

FIGURE B-47
KOP G-01. View from City of Willcox
Southline Transmission Project

KOP G-02. Existing view toward the representative ROW from within Willcox Wildlife Area, at the gathering area for the Wings over Willcox bird-watching festival.

FIGURE B-48
KOP G-02. View from Willcox Playa
Southline Transmission Project

CH2MHILL

A. KOP G-03. Existing view toward representative ROW from within the community of Cochise.

B. KOP G-03. Simulated view toward representative ROW from within the community of Cochise.

FIGURE B-49
KOP G-03. View from Community of Cochise
Southline Transmission Project

CH2MHILL

A. KOP U1-01. Existing view toward the representative ROW from the northwest corner of Coronado National Forest.

B. KOP U1-01. Simulated view toward the representative ROW from the northwest corner of Coronado National Forest.

FIGURE B-50
KOP U1-01. View from Coronado National Forest
Southline Transmission Project

CH2MHILL

KOP U2-01. Existing view toward the representative ROW from multi-use recreational fields in the City of Benson.

FIGURE B-51
KOP U2-01. View from City of Benson Park
Southline Transmission Project

KOP U2-02. Existing unobstructed view toward the representative ROW from a future residential development, taken from a newly constructed roadway.

FIGURE B-52
KOP U2-02. View from Future City of Benson Residential Development
Southline Transmission Project

A. KOP U2-03. Existing view toward the representative ROW from the community of Mescal along North Mescal Road.

B. KOP U2-03. Simulated view toward the representative ROW from the community of Mescal along North Mescal Road.

FIGURE B-53
KOP U2-03. View from Community of Mescal
Southline Transmission Project

CH2MHILL

KOP U2-04. Existing view toward the representative ROW line within the community of Mescal.

FIGURE B-54
KOP U2-04. View from Rural Residences in Mescal
Southline Transmission Project

A. KOP H-01. Existing view toward the representative ROW from a residential area in the community of Pomerene along North Cascabel Road.

B. KOP H-01. Simulated view toward the representative ROW from a residential area in the community of Pomerene along North Cascabel Road.

FIGURE B-55
KOP H-01. View from Community of Pomerene
Southline Transmission Project

CH2MHILL

KOP H-02. Existing view toward the representative ROW from a rural residential area north of Mescal.

FIGURE B-56
KOP H-02. View from North of Community of Mescal
Southline Transmission Project

KOP H-03. Existing view toward the representative ROW within the community of Mescal.

FIGURE B-57
KOP H-03. View from Rural Residences in Mescal
Southline Transmission Project

CH2MHILL

KOP U3-03. Existing view toward the representative ROW crossing of Scenic Highway 83.

FIGURE B-58
KOP U3-03. View from Highway 83
Southline Transmission Project

CH2MHILL

A. KOP U3-04. Existing view toward the representative ROW from New Tucson area near south Sonoita Ranch Circle residential area.

B. KOP U3-04. Simulated view toward the representative ROW from New Tucson area near south Sonoita Ranch Circle residential area.

FIGURE B-59
KOP U3-04. View from Sonoita Ranch
Southline Transmission Project

CH2MHILL

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KOP U3-05. Existing view toward the representative ROW from the southwest corner of the Pima County Fairground complex.

FIGURE B-60
KOP U3-05. View from Tucson Raceway Park
Southline Transmission Project

CH2MHILL

A. KOP U3-06. Existing view toward the representative ROW from a residential area near the intersection of East Old Vail Highway and South Broken Cactus Way.

B. KOP U3-06. Simulated view toward the representative ROW from a residential area near the intersection of East Old Vail Highway and South Broken Cactus Way.

FIGURE B-61
KOP U3-06. View from East Old Vail Highway
Southline Transmission Project

CH2MHILL

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KOP U3-07. Existing view toward the representative ROW from tribal land near San Xavier Mission.

FIGURE B-62
KOP U3-07. View from Mission San Xavier del Bac
Southline Transmission Project

KOP U3-08. Existing view toward the representative ROW from Santa Cruz River Bikeway East River Trail system.

FIGURE B-63
KOP U3-08. View from Santa Cruz River Bikeway
Southline Transmission Project

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KOP U3-09. Existing view toward the representative ROW from a residential area along South Newcastle Court.

FIGURE B-64
KOP U3-09. View from South Newcastle Court
Southline Transmission Project

CH2MHILL

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A. KOP U3-10. Existing view toward the representative ROW from an outdoor amphitheatre within Kennedy Park Fiesta Area, a Tucson City park.

B. KOP U3-10. Simulated view toward the representative ROW from an outdoor amphitheatre within Kennedy Park Fiesta Area, a Tucson City park.

FIGURE B-65
KOP U3-10. View from Kennedy Park Fiesta Area
Southline Transmission Project

CH2MHILL

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A. KOP U3-11. Existing view toward the representative ROW from Explorers Trail within Tucson Mountain Park, Pima County.

B. KOP U3-11. Simulated view toward the representative ROW from Explorers Trail within Tucson Mountain Park, Pima County.

FIGURE B-66
KOP U3-11. View from Explorers Trail
Southline Transmission Project

KOP U3-12. Existing view toward the representative ROW from Sentinel Peak Observation Area, a Tucson City park.

FIGURE B-67
KOP U3-12. View from Sentinel Peak Observation Area
Southline Transmission Project

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A. KOP U3-13. Existing view toward the representative ROW from Tumamoc Hill Road.

B. KOP U3-13. Simulated view toward the representative ROW from Tumamoc Hill Road.

FIGURE B-68
KOP U3-13. View from Tumamoc Hill Road
Southline Transmission Project

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KOP U3-14. Existing view toward the representative ROW from recreation fields within Joaquin Murrieta Park.

FIGURE B-69
KOP U3-14. View from Joaquin Murrieta Northwest Park
Southline Transmission Project

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KOP U3-15. Existing view toward the representative ROW from the river crossing along the trail near Juhan Park, a Tucson City park.

FIGURE B-70
KOP U3-15. View from Santa Cruz Riverbed
Southline Transmission Project

KOP U3-16. Existing view toward the representative ROW from Silverbell Golf Course, a Tucson City public golf course.

FIGURE B-71
KOP U3-16. View from Silverbell Public Golf Course
Southline Transmission Project

A. KOP U3-17. Existing view toward the representative ROW from Christopher Columbus Park, a Tucson City park.

B. KOP U3-17. Simulated view toward the representative ROW from Christopher Columbus Park, a Tucson City park.

FIGURE B-72
KOP U3-17. View from Silverbell Lake
Southline Transmission Project

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KOP U3-18. Existing view toward the representative ROW from a rural residential area along Cruz River near Pima County.

FIGURE B-73
KOP U3-18. View from Rural Residential Area along Cruz River
Southline Transmission Project

KOP U3-19. Existing view toward the representative ROW from West Picture Rocks Road, located at entry to Saguaro National Park.

FIGURE B-74
KOP U3-19. View from Saguaro National Park Entrance
Southline Transmission Project

KOP U3-20. Existing view toward the representative ROW from a residential area near the community of Marana.

FIGURE B-75
KOP U3-20. View from Wade Road
Southline Transmission Project

KOP U3-21. Existing view toward the representative ROW looking through a mixed commercial and residential area, southeast of Rattlesnake Ridge.

FIGURE B-76
KOP U3-21. View from North Silverbell Road Southeast of Rattlesnake Ridge
Southline Transmission Project

A. KOP U3-22. Existing sensitive view toward the representative ROW along West Twin Peaks Road, northwest of Rattlesnake Ridge.

B. KOP U3-22. Simulated sensitive view toward the representative ROW along West Twin Peaks Road, northwest of Rattlesnake Ridge.

FIGURE B-77
KOP U3-22. View from West Twin Peaks Road
Southline Transmission Project

A. KOP U3-23. Existing view toward the representative ROW from a rural residential area along Silverbell Road historic auto route.

B. KOP U3-23. Simulated view toward the representative ROW from a rural residential area along Silverbell Road historic auto route.

FIGURE B-78
KOP U3-23. View from Silverbell Road Historic Auto Route
Southline Transmission Project

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KOP U3-24. Existing view toward the representative ROW from Red Rock residential area in Pima County.

FIGURE B-79
KOP U3-24. View from Red Rock
Southline Transmission Project

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A. KOP 3b2. Existing view toward the representative ROW (Segment TH3b) from the bike trail just east of the river bed and west of Interstate 10.

B. KOP 3b2. Simulated view toward the representative ROW from (Segment TH3b) the bike trail just east of the river bed and west of Interstate 10.

FIGURE B-91
KOP 3b2. View from bike trial just east of river bed and west of Interstate 10
Southline Transmission Project

A. KOP AN-04. Existing view toward the representative ROW (Segment U3i) from Christopher Columbus Park.

B. KOP AN-04. Simulated view toward the representative ROW (Segment U3i) from Christopher Columbus Park.

FIGURE B-84
KOP AN-04. View from Christopher Columbus Park
Southline Transmission Project

A. KOP AN-12. Existing view toward the representative ROW (Segment U3k) from North Aguirre Road west of Pinal Airpark along a portion of a planned recreational trail.

B. KOP AN-12. Simulated view toward the representative ROW (Segment U3k) from North Aguirre Road west of Pinal Airpark along a portion of a planned recreational trail.

FIGURE B-88
KOP AN-12. View from North Aguirre Road west of Pinal Airpark
Southline Transmission Project

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A. KOP MA-02. Existing view toward the representative ROW (Segment U3j) from the intersection of Sanders Road and West Avra Valley Road.

B. KOP MA-02. Simulated view toward the representative ROW (Segment U3j) from the intersection of Sanders Road and West Avra Valley Road.

FIGURE B-87
KOP MA-02. View from the intersection of Sanders Road and West Avra Valley Road
Southline Transmission Project

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A. KOP MA-03. Existing view toward the representative ROW (Segment U3i) from the Marana Airport entrance located at West Avra Valley Road.

B. KOP MA-03. Simulated view toward the representative ROW (Segment U3i) from the Marana Airport entrance located at West Avra Valley Road.

FIGURE B-89
KOP MA-03. View from Marana Airport entrance
Southline Transmission Project

A. KOP SA-01. Existing view toward the representative ROW (Segment U3i) from the western portion of Saguaro National Park.

B. KOP SA-01. Simulated view toward the representative ROW (Segment U3i) from the western portion of Saguaro National Park.

FIGURE B-90
KOP SA-01. View from Saguaro National Park
Southline Transmission Project

A. KOP TH1-02. Existing view toward the representative ROW from the trail extending off of the parking area formed by Sentinel Peak Road S. looking west.

B. KOP TH1-02. Simulated view toward the representative ROW from the trail extending off of the parking area formed by Sentinel Peak Road S. looking west. Segment U3d is visible south of Starr Pass Boulevard. Segment TH1a is visible north of and along Starr Pass Boulevard.

FIGURE B-83
KOP TH1-02. View from trail located off of South Sentinel Peak Road looking west
Southline Transmission Project

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A. KOP TH1-S1. Existing view facing north toward the representative ROW (Segment U3e) from West Starr Pass Boulevard between South Coati Drive and South Bison Drive.

B. KOP TH1-S1. Simulated view facing north toward the representative ROW (Segment U3e) from West Starr Pass Boulevard between South Coati Drive and South Bison Drive.

FIGURE B-80
KOP TH1-S1. View from West Starr Pass Boulevard between South Coati Drive and South Bison Drive
Southline Transmission Project

A. KOP TH1-S3. Existing view facing east toward the representative ROW from West Starr Pass Boulevard near Park W Lane.

B. KOP TH1-S3. Simulated view facing east toward the representative ROW from West Starr Pass Boulevard near Park W Lane. Segment TH1a is visible north of and along Starr Pass Boulevard. Segment U3d is visible south of Starr Pass Boulevard.

FIGURE B-81
KOP TH1-S3. View from West Starr Pass Boulevard near Park W Lane
Southline Transmission Project

A. KOP TH1-S6. Existing view facing north toward the representative ROW (Segment TH1a) from North Greasewood Boulevard at West Broadway.

B. KOP TH1-S6. Simulated view facing north toward the representative ROW (Segment TH1a) from North Greasewood Boulevard at West Broadway.

FIGURE B-82
KOP TH1-S6. View from North Greasewood Boulevard at West Broadway
Southline Transmission Project

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A. KOP TH3-S1. Existing view toward the representative ROW (Segment TH3b) from South Sentinel Peak Road looking east.

B. KOP TH3-S1. Simulated view toward the representative ROW (Segment TH3b) from South Sentinel Peak Road looking east.

FIGURE B-86
KOP TH3-S1. View from South Sentinel Peak Road looking east
Southline Transmission Project

A. KOP U3-18. Existing view toward the representative ROW (Segment U3i) from Juan Bautista de Anza National Historic Trail along North Silverbell Road near North Abington Road.

B. KOP U3-18. Simulated view toward the representative ROW (Segment U3i) from Juan Bautista de Anza National Historic Trail along North Silverbell Road near North Abington Road.

FIGURE B-85
KOP U3-18. View from Juan Bautista de Anza National Historic Trail
Southline Transmission Project

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Appendix L

DRAFT PROGRAMMATIC AGREEMENT

Programmatic Agreement
Among
The Bureau of Land Management
The Arizona State Historic Preservation Officer
The New Mexico State Historic Preservation Officer
The Advisory Council on Historic Preservation
Tohono O'odham Nation
United States Forest Service, Coronado National Forest
The Bureau of Indian Affairs
The United States Army Corps of Engineers
The New Mexico State Land Office
The Arizona State Land Department
The Arizona State Museum
The University of Arizona
Pima County
Western Area Power Administration
and
Southline Transmission, LLC
Regarding the
Southline Transmission Project

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1. **Whereas,** Southline Transmission, LLC, intends to construct, operate and maintain the Southline Transmission Project (Undertaking) according to general parameters contained in the Project Plan of Development (POD), summarized in the Undertaking description (Attachment 1, in development) and;

2. **Whereas,** Western Area Power Administration (Western), an agency within the Department of Energy, owns and maintains transmission lines on rights-of-way (ROWs) in Arizona that may be upgraded as part of this Undertaking; and

3. **Whereas,** the Bureau of Land Management (BLM) intends to issue a ROW grant to Southline Transmission, LLC, for the construction, operation, and maintenance of the Undertaking, and the ROW grant will reference this Programmatic Agreement (PA); and

4. **Whereas,** this PA and the Historic Properties Treatment Plan (HPTP) that will be developed pursuant to this PA will be incorporated into the POD; and

5. **Whereas,** the Las Cruces District Office of the BLM is a Signatory to this PA and has been designated to serve as the lead Federal agency for the Undertaking and in consultation with other parties has determined that the Undertaking will have an adverse effect upon historic properties as defined in 36 Code of Federal Regulations (CFR) 800.16.l(1); and

6. **Whereas,** the BLM has consulted with the New Mexico State Historic Preservation Officer (SHPO) and the Arizona SHPO, pursuant to Section 800.6 of the regulations (36 CFR part 800) implementing Section 106 of the National Historic Preservation Act (NHPA) (16 U.S.C. § 470f) and they are Signatories to this PA; and

7. **Whereas,** the Undertaking crosses lands under the jurisdiction of the Tohono O'odham Nation, San Xavier District, and the BLM has consulted with the Tohono O'odham Nation, which is a Signatory to this PA; and

8. **Whereas,** the Tohono O'odham Nation has assumed the role of Tribal Historic Preservation Office for lands within the reservation boundaries; and

9. **Whereas**, no provision of this PA will be construed by any of the signatories as abridging or debilitating any sovereign powers of the Tohono O'odham Nation; affecting the trustee-beneficiary relationship between the Secretary of the Interior and Tohono O'odham Nation or individual Indian landowners; or interfering with the government-to-government relationship between the United States and the Tohono O'odham Nation; and

10. **Whereas,** the BLM has notified the Advisory Council on Historic Preservation (ACHP) pursuant to 36 CFR § 800.6(a) (1)(i)(C) that the Undertaking will have adverse effects on historic properties (3-4-13) and the ACHP has agreed to participate to resolve adverse effects and is a Signatory to this PA (3-19-13); and

11. **Whereas**, should Western elect to acquire the land rights for the new build portion of the Undertaking in Arizona and New Mexico as part the Undertaking, Western will obtain temporary access rights as well as later permanent land rights in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970, where land rights across each non-Federal land ownership parcel are appraised pursuant to Federal standards, and BLM invited Western to participate as an Invited Signatory to this PA; and

12. **Whereas,** the undertaking crosses lands under the jurisdiction of the U.S. Forest Service, Coronado National Forest (CNF), and the BLM has consulted with the CNF and has invited them to be an Invited Signatory to this PA; and

13. **Whereas,** the Bureau of Indian Affairs (BIA) is the agency responsible for issuing permits and approving ROWs on tribal and allotted lands of the Tohono O'odham Nation, San Xavier District, and the BLM has consulted with the BIA about the effects of the Undertaking on historic properties and has invited them to be an Invited Signatory to this PA; and

14. **Whereas,** the U.S. Army Corps of Engineers will be responsible for issuing permits under Section 404 of the Clean Water Act for the Undertaking and the BLM has consulted with them about the effects of the Undertaking on historic properties and has invited them to be an Invited Signatory to this PA; and

15. **Whereas,** the Undertaking crosses lands under the jurisdiction of the New Mexico State Land Office (NMSLO) and the Arizona State Land Department (ASLD) and the BLM has consulted with these agencies about the effects of the Undertaking on historic properties and has invited them to be Invited Signatories to this PA; and

16. **Whereas,** the BLM has consulted with the New Mexico Department of Transportation (NMDOT) and the Arizona Department of Transportation (ADOT), which may issue ROWs to the Applicant for access to and construction of certain components of the Undertaking, has

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invited them to be Invited Signatories to this PA, and both NMDOT and ADOT have declined to sign; and

17. **Whereas,** the BLM is responsible for government-to-government consultation with Indian tribes and pursuant to Section 101(d)(6)(B) of the NHPA, 36 CFR § 800.2(c)(2)(ii), the American Indian Religious Freedom Act (42 § U.S.C. 1996), Executive Order 13175, and section 3(c) of the Native American Graves Protection and Repatriation Act (NAGPRA) (25 U.S.C. §§ 3001-13), and has formally invited the 21 Indian tribes listed below to participate in consultations regarding the potential effects of the Undertaking on properties to which they ascribe traditional religious and cultural significance; and

18. **Whereas,** the Gila River Indian Community, the Salt River Pima-Maricopa Indian Community, the Ak-Chin Indian Community, the Hopi Tribe, the Tonto Apache Tribe, the Yavapai-Apache Nation, the Pascua Yaqui Tribe, the San Carlos Apache Tribe, the Mescalero Apache Tribe, the White Mountain Apache Tribe, the Navajo Nation, the Pueblo of Acoma, the Pueblo of Laguna, the Pueblo of Isleta, the Pueblo of Tesuque, the Pueblo of Zuni, the Comanche Indian Tribe, the Fort Sill Apache Tribe of Oklahoma, the Kiowa Tribe of Oklahoma, and the Ysleta del Sur Pueblo have been contacted, invited to engage in consultations, and invited to be Concurring Parties to this PA; and

19. **Whereas,** the Tohono O'odham Nation, the Gila River Indian Community, the Salt River Pima-Maricopa Indian Community, the Ak-Chin Indian Community, the San Carlos Apache, the Fort Sill Apache, the Mescalero Apache, the Pueblo of Isleta, the Pueblo of Zuni, the Hopi Tribe, and the Ysleta del Sur Pueblo have participated in consultations for this Undertaking and the development of this PA; and

20. **Whereas**, the Juan Bautista de Anza National Historic Trail is administered by the National Park Service (NPS), Pacific West Regional Office, and the BLM has determined that the Undertaking will likely affect this trail and the BLM has consulted with the NPS and has invited them to be an Invited Signatory to this PA; and

21. **Whereas,** the Undertaking crosses lands under the jurisdiction of the City of Tucson and Pima County and the BLM has consulted with them about the effects of the Undertaking on historic properties and has invited them to be Invited Signatories to this PA; and

22. **Whereas,** the Department of the Interior, through the NPS, is responsible for National Historic Landmarks (NHLs) under Section 101 of the NHPA and consults with agencies on undertakings adversely affecting those NHLs; and

23. **Whereas,** the Undertaking crosses lands under the jurisdiction of Pima County and the Arizona Board of Regents (University of Arizona) concerning the Desert Botanical Laboratory NHL and the Tumamoc Hill Archaeological National Register District and the BLM has consulted with these entities about the effects of the Undertaking on these historic properties and has invited them to be Invited Signatories to this PA; and

24. **Whereas,** the Undertaking crosses the Desert Botanical Laboratory NHL and the Tumamoc Hill Archaeological National Register District, which are nearly identical in location, and may affect this NHL and National Register District. BLM will follow 36 CFR § 800.10

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(special requirements for protecting NHLs) and/or provisions contained in this PA and the BLM has consulted with the NPS, which administers the NHL Program, and has invited them to be an Invited Signatory to this PA; and

25. **Whereas,** the ASLD and ADOT intend to use provisions of this PA to address the applicable requirements of the Arizona State Historic Preservation Act (ARS § 41-861 et seq.) and the Arizona Antiquities Act (AAA) (ARS § 41-841 et seq.) on lands owned or controlled by the State of Arizona; and the NMSLO and NMDOT intend to use the provisions of this PA to address the applicable requirements of the Cultural Properties Act (§ 18-6-1 et seq. NMSA 1978) and the Cultural Properties Protection Act (§ 18-6A-1 et seq. NMSA 1978); and

26. **Whereas,** the Arizona State Museum (ASM) has been invited to participate pursuant to 36 CFR § 800.6 (c)(2)(iii), as it has defined authority and responsibilities under ARS § 41-841 et seq. that apply to that portion of the Undertaking on state lands in Arizona (state, county, city and municipal lands); and defined authority and responsibilities under ARS § 41-865 that apply to that portion of the Undertaking on private lands and BLM has invited them to be an Invited Signatory to this PA; and

27. **Whereas,** Southline Transmission, LLC (Applicant), has participated in consultations and BLM has invited them to be an Invited Signatory to this PA; and

28. **Whereas,** the following have participated in consultations as Consulting Parties in accordance with 36 CFR §§ 800.2(c)(5) and 800.3(f)(1) and (3): the National Trust for Historic Preservation, Archaeology Southwest, and the Town of Marana and the BLM has invited them to be Concurring Parties to this PA; and

29. **Whereas,** the BLM has provided the public opportunities to comment on the Undertaking and participate in the National Environmental Policy Act (NEPA) process through a Notice of Intent to Prepare an Environmental Impact Statement (EIS) published in the Federal Register on 4/4/2012 for the development of the EIS; held six public scoping meetings in May 2012; published the Draft EIS on ____and held ___ public meetings in ___. Public meeting materials included information about the NHPA and the Section 106 process and the BLM considered comments received through the NEPA and NHPA processes concerning cultural resources in the development of this PA; and

Now, therefore, the parties to this document agree that the Southline Transmission Line Project shall be completed in accordance with the stipulations established in this PA in order to take into account the effects of the Undertaking on historic properties.

UNDERTAKING DESCRIPTION

The Undertaking encompasses the construction phase of the proposed transmission line Project, which would take place after the BLM ROW grant is issued and includes associated Project facilities as well as reclamation of areas used during construction but not necessary for operation and maintenance of the facilities. The Undertaking may include surveys, geotechnical testing, engineering, mitigation planning and design, or other activities initiated prior to construction of Project facilities. The potential effects on historic properties will be the most extensive and substantial during the construction phase. The Undertaking also encompasses those activities

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necessary to operate and maintain the transmission line over the life of the Project. Operation and maintenance activities are approved in the ROW grant and confined to the ROW. Changes to approved operations and maintenance activities, including new actions outside of the approved BLM ROW grant, require BLM approval and may necessitate a separate Section 106 review. This PA stipulates the process necessary to comply with Section 106 obligations for construction and reclamation as well as operation and maintenance of the proposed transmission lines and associated facilities.

If decommissioning takes place in the future, it will be considered a separate undertaking when it occurs.

See **Attachment 1** (in development) for a more detailed description of the Undertaking and **Attachment 2** (in development) for a map of the Undertaking.

DEFINITIONS USED IN THIS AGREEMENT

See **Attachment 3.**

STIPULATIONS

The BLM shall ensure that the Undertaking is carried out in accordance with the following stipulations in order to take into account the effect of the Undertaking on historic properties:

I. Identification, Evaluation, and Determination of Effects

A. The Area of Potential Effects (APE) (see Attachment 2 (in development) and Attachment 3) is defined as:

1. **Direct effects:** The APE for direct effects during construction and reclamation for the new build portion of the Undertaking (from the Afton Substation to the Apache Substation; see Attachment 2, in development) will include all areas likely to be affected by construction and reclamation activities. This APE will be the 200-foot-wide permitted ROW corridor for one 345-kilovolt (kV) transmission line and access roads (within corridor) plus 100 feet on either side of the corridor (400 feet total width). This width will allow for adjustments in transmission line or access road placement to avoid when possible any natural, cultural, or modern features such as outcrops, historic properties, petroglyph sites, and structures. For the upgrade portion of the Undertaking (from Apache Substation to Saguaro Substation; see Attachment 2, in development) from an existing 115-kV to a 230-kV transmission line, the APE will be the 150-foot-wide permanent ROW plus 100 feet on either side of the corridor (350 feet total width).

    a. Proposed new access routes and existing roads requiring improvement outside the transmission line ROW will have a 150-foot wide APE (75 feet from centerline).

    b. The APE for staging areas, borrow areas, substations, and other transmission infrastructure will include the footprint of the facility and a buffer of 250 feet around the footprint of the proposed activity/facility.

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c. The APE for pulling/tensioning sites that fall outside the ROW will be the footprint of the site plus a 250-foot radius around these points.

d. Direct effects from operation and maintenance activities will be confined to the ROW.

2. **Indirect effects**: The APE for indirect effects shall be areas visible and within 5 miles of any project component (including conductors and access roads) or to the visual horizon, whichever is closer, or where consultation identifies a need to expand this APE in certain locations.

a. BLM will use a geographic information system (GIS) viewshed analysis to identify areas in the indirect effects APE from which the Undertaking may be visible.

b. The indirect effects APE may extend beyond the 5-mile convention to encompass properties that have traditional religious and cultural importance, including traditional cultural properties, or other geographically extensive historic properties such as trails, when effects have been determined to extend beyond this distance.

3. **Cumulative effects**: The APE for cumulative effects shall be the same as that for direct and indirect effects combined.

B. The Applicant shall complete a cultural resources inventory to identify historic properties that could be affected by the Undertaking. This inventory will include:

1. A Class I, Existing Data Inventory, of all previously recorded cultural resources within 0.25 mile of the APEs described in Stipulation I.A.1, and the entire APE described in Stipulation I.A.2, which shall include a review of historical maps, including 15-minute topographic maps, General Land Office maps and survey notes, and other archival sources for properties that are more than 45 years old that may be affected by the Undertaking.

2. A Class III, Intensive Field Inventory, of the direct effects APE as defined in Stipulation I.A.1. The Class III inventory will be conducted with sensitivity for non-archaeological locations or other features identified as important through tribal consultation or ethnographic studies.

a. For the direct effects APE as defined in Stipulation I.A.1, all historic linear cultural resources such as canals, roads, trails, and railroads will be identified and recorded where they intersect the APE and will be fully recorded within the APE. For the indirect effects APE as defined in Stipulation I.A.2, all historic linear cultural resources such as canals, roads, trails, and railroads will be identified and evaluated where the Undertaking would be visible to such linear cultural resources.

b. All previously recorded cultural resources within the direct effects APE will be revisited with the associated records updated and revised if appropriate, including National Register of Historic Places (NRHP) eligibility recommendations and determinations. Previously recorded cultural resources and newly recorded

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cultural resources whose boundaries lie partially within the APE will be fully recorded, to the extent practical, regardless of surface ownership.

c. Previously recorded and newly recorded cultural resources will be referenced by permanent site numbers with Universal Transverse Mercator (UTM) coordinates.

d. An assessment of visual impacts will be conducted for historic properties within the direct and indirect effects APEs that could be considered visually sensitive and potentially affected by the Undertaking that meet the following criteria:

1) Viewshed analysis indicates that the Undertaking would be visible from the historic property;

2) The historic property is eligible for the NRHP under criteria listed at 36 CFR 40 "(a), (b), or (c)". Under special circumstances, historic properties eligible only under criterion d may be included (e.g., an archaeological site with standing architecture). Inclusion of such properties will be at the discretion of the BLM in consultation with involved land managing agencies and the SHPO/Tribal Historic Preservation Officer (THPO).

3) Not less than 60 days prior to commencement of the visual analysis, the BLM will provide a proposed methodology for review and comment by Consulting Parties. All comments will be considered in refining the methodology prior to implementation.

C. The Applicant shall prepare a comprehensive Inventory Report incorporating findings from the existing Class I, Existing Data Inventory, and the Class III, Intensive Field Inventory, for each state. This comprehensive Inventory Report shall include NRHP eligibility recommendations and assessments of direct, indirect, and cumulative effects within the APE of the Undertaking as described in Stipulation I.A.

D. The Applicant shall submit drafts of the Inventory Report for each state to the BLM. The BLM will provide the reports to the appropriate land managers, the ASM, and concerned tribes within each state for review, concurrent with BLM review. Written comments will be provided to the BLM within 60 calendar days regarding:

1. The adequacy of the identification effort;
2. The NRHP eligibility of the cultural resources identified;
3. The assessment of effects of the Undertaking on the historic properties identified; and
4. Whether there are any properties of traditional cultural or religious importance to tribes that were not identified in the inventory and that may be affected by the Undertaking.

The BLM shall ensure that comments received within 60 calendar days are considered in development of the revised Inventory Reports. The BLM will submit the revised Inventory Reports to the appropriate SHPO/THPO, tribes, and Consulting Parties for a 60-calendar-day review and will request SHPO/THPO concurrence on determinations of NRHP eligibility and BLM's assessments of effects on each historic property identified. In New Mexico, one appendix to the Inventory Report shall include a data compendium

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with copies of the appropriate New Mexico Cultural Resource Information System (NMCRIS) and archaeological site and historic structures inventory forms.

E. The Inventory Report will accomplish and provide the following:

1. Completion of the Identification of Historic Properties (except properties found during possible future Variances and Discoveries).
2. Determinations of Eligibility (except undetermined cultural resources and properties found during possible future Variances and Discoveries).
3. Determinations of effects on historic properties by the Undertaking (except undetermined cultural resources and properties found during possible future Variances and Discoveries).
4. Recommendations for treatment measures to be applied to historic properties affected by the Undertaking (except undetermined cultural resources and properties found during possible future Variances and Discoveries).

F. As part of its identification efforts, the BLM has consulted with Indian tribes whose aboriginal territories included portions of the Undertaking area or who have previously expressed interest in undertakings within the APE. The BLM shall continue to consult with Indian tribes regarding properties of traditional religious and cultural importance to them that might be affected by the Undertaking and shall provide opportunities for review and comment on draft and final versions of the Inventory Report. The consultation process will remain open for any tribe that expresses a desire to participate.

G. When making determinations of NRHP eligibility, the BLM will consider historic sites, districts, buildings, structures, and objects that are significant and meet the integrity criteria. For properties that have traditional cultural values, the BLM shall take into consideration values expressed by the consulted tribes. The BLM shall make NRHP eligibility determinations and provide copies to appropriate Consulting Parties to provide comment, taking into consideration all comments received from the Consulting Parties. If a SHPO/THPO, land managing agency or any tribe disagrees with the BLM's determinations of eligibility, the BLM shall consult with the SHPO/THPO, the land managing agency, and/or tribe to resolve the objection. If a resolution cannot be agreed upon, the BLM shall forward the required documentation to the Keeper of the National Register for final determinations. The BLM shall ensure that the Applicant prepares a revised Inventory Report incorporating BLM's eligibility determinations, or the Keeper's determination, if requested.

H. Any cultural resources for which eligibility cannot be determined during the inventory phase of the Undertaking shall be identified in the HPTP and treated as eligible until a determination is made. Additional studies such as testing, research, and oral histories will be completed for all such resources that will be affected by the Undertaking to enable the BLM, in consultation with the land manager and the SHPO/THPO, to make an eligibility determination. The BLM's eligibility determinations for such resources will be submitted to the respective SHPO/THPO and land manager with a Summary Report describing the results of the additional studies and a request for concurrence on the determination of eligibility. The SHPO/THPO will review these eligibility determinations and respond to the BLM within 30 calendar days. If the SHPO/THPO does not respond to the BLM

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within 30 calendar days, the BLM will assume concurrence with the determination(s) of NRHP eligibility.

II. Avoiding and Minimizing the Adverse Effects of the Undertaking on Historic Properties

A. The BLM shall, if possible, avoid adverse effects on historic properties, with input from Consulting Parties.

1. Avoidance measures for historic properties may include (but are not limited to) realignment of the transmission line, fencing of sites during construction, monitoring of construction near site areas, or placing towers, maintenance roads, and ancillary facilities outside of site boundaries.

2. The BLM shall develop avoidance measures for any properties of traditional religious and cultural importance in consultation with the SHPO/THPO and affected tribes or Native American groups who ascribe traditional religious and cultural importance to the properties.

3. The BLM shall identify measures to avoid adverse effects from operation and maintenance activities on those historic properties remaining within the ROW, and shall incorporate these measures in the HPTP in accordance with Stipulation III.A.

B. Where avoidance is not possible, the BLM shall minimize or mitigate adverse effects on historic properties to the degree possible with input from Consulting Parties.

C. If any Indian tribe or other Native American groups have expressed concerns about effects on properties to which they ascribe traditional religious and cultural importance, BLM shall consult with them and the appropriate SHPO/THPO about possible measures to resolve the adverse effects and ensure that those measures are properly considered in the development of the HPTP.

D. For state and private land in New Mexico, if the adverse effect is on a property listed in the State Register of Cultural Properties or NRHP, and the property is on land owned, controlled, or operated by a state agency or political subdivision of the state, the agency, or political subdivision shall determine whether NMSA 1978 § 18-8-7 of the Prehistoric and Historic Preservation Act, NMSA 1978, applies. The agency or political subdivision should contact the New Mexico SHPO for assistance in making this determination and satisfying the requirements of 4.10.12 New Mexico Administrative Code (NMAC).

III. Resolution of Adverse Effects: Development of the Historic Properties Treatment Plan

A. The BLM shall ensure that the Applicant prepares an HPTP for each state that will address the effects of the proposed Undertaking on historic properties, including properties of traditional religious and cultural importance, and traditional cultural properties as discussed in National Register Bulletin No. 38. The HPTP shall address potential direct, indirect, and cumulative effects from construction and reclamation as well as from operation and maintenance of the proposed transmission lines and associated facilities. The HPTP will be incorporated into the POD as an appendix and will:

1. Identify the nature of the effects on historic properties and describe the strategies proposed to avoid, minimize, or mitigate those effects.

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2. Identify cultural resources that will be affected by the Undertaking for which NRHP eligibility determinations could not be made, and will specify the strategy for determining eligibility. It will further specify the strategy that will be used in the event that these cultural resources are determined eligible as a result of the testing/study phase. Stipulations I.G and I.H will be followed for determining eligibility.
3. Be consistent with the Secretary of the Interior's Standards and Guidelines (48 CFR 44716-44742); the ACHP's handbook, Section 106 Archaeology Guidance (http://www.achp.gov/archguide); the rules implementing the AAA and 36 CFR § 800.13, Post-Review Discoveries, and in so doing will incorporate provisions for monitoring and inadvertent Discoveries.
4. At a minimum, the HPTP will specify and include:
    a. The historic properties to be affected by the Undertaking and the nature of those effects.
    b. The historic properties to be avoided and applicable avoidance measures, pursuant to Stipulation II.
    c. The historic properties where harm will be minimized and applicable measures to minimize harm.
    d. The properties at which adverse effects will be mitigated through scientific data recovery or other means.
    e. For archaeological resources, research questions and goals that are applicable to the Undertaking area and that can be addressed through data recovery and archival studies, along with an explanation of their relevance and importance. These research questions and goals will incorporate the concept of historic contexts as defined in National Register Bulletin No. 16.
    f. Fieldwork and analytical methods and strategies applicable to the Undertaking area, along with an explanation of their relevance to the research questions when dealing with archaeological resources. Treatment methods will be developed for each class of property identified in the Inventory Report and may include, but are not limited to, excavation, scientific studies outside of the ROW, archival research, off-site interpretation, remote sensing, ethnographic studies, and oral history, as appropriate.
    g. The level of effort to be expended on the treatment of each property. For archaeological resources this will include methods of sampling, i.e., sample size, and rationale for specific sample unit selection.
    h. Data management and dissemination methodologies, including a proposed schedule of reports.
    i. A stand-alone Monitoring and Discovery Plan that will be an appendix to the HPTP. It will contain:
        1) A Monitoring Plan to be used during construction and reclamation.

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2) A Discovery Plan consistent with Stipulation VI to be used during the entire Undertaking.

3) If appropriate, a Monitoring Plan to be used during operations and maintenance monitoring in accordance with Stipulation III.E. This plan will be developed in consultation with the Consulting Parties and will be added after treatment activities are concluded. Any reports resulting from post-construction monitoring will be submitted to the Consulting Parties in accordance with Stipulation X.A.3.

4) All monitoring shall follow clearly stated objectives and methodologies for achieving those objectives, such as to ensure impact avoidance or minimization during construction and reclamation; to measure the effectiveness of avoidance, minimization, and mitigation measures; to assess the effects of operations and maintenance activities, or to provide baseline information to help define treatments for historic properties with long-term concerns.

j. A Project Termination Plan with provisions for the following programs to be implemented in the event that the Undertaking is terminated for any reason:

1) A program outlining the steps to be taken in order to complete any data recovery or other treatment measures that are in progress at the time of Project termination; and

2) A component outlining how analysis, interpretation, reporting, and curation for all historic properties will be completed.

k. A NAGPRA (of 1990 (25 § U.S.C. 3002)) Plan of Action (POA) that includes methods and procedures for the discovery and/or treatment of human remains, associated funerary objects, and sacred objects that reflect any concerns and/or conditions identified as a result of consultations between the BLM and the appropriate tribes. This POA will be consistent with 36 CFR § 800.13, NAGPRA, and:

1) In Arizona on non-Federal and non-tribal land, methods and procedures will be consistent with ARS § 41-844 and ARS § 41-865 and their implementing rules.

2) In Arizona, the Applicant, working through the ASM, shall obtain "burial agreements" with Indian tribes pursuant to ARS § 41-844 and ARS § 41-865, that govern Discoveries of human remains and funerary objects on state and private lands. The ASM shall invite tribes expressing interest in the Undertaking to participate in development of burial agreements. The ASM shall provide participating tribes, the Applicant and the BLM with a draft of the burial agreement for a 30-calendar-day review.

3) In New Mexico on non-Federal and non-tribal land, the methods and procedures will be consistent with the Cultural Properties Act, NMSA 1978, § 18-6-11.2, and 4.10.11 NMAC.

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l. A strategy for cultural resource law and sensitivity training for all Undertaking personnel (including new, added, and replaced personnel) and contractors involved in transmission line construction, construction zone rehabilitation, and operation and maintenance of this transmission line. Instruction will be to a degree commensurate with their involvement in the Undertaking and will include information on the statutes protecting cultural resources, resource sensitivity, and requirements to avoid damage to historic properties and to report Discoveries of cultural resources in accordance with the Monitoring and Discovery Plan. Indian tribes will be provided opportunities to participate in the training program, which could be offered by a variety of means, including training sessions, video programs, or printed materials.

m. A strategy for a public outreach program to disseminate information about the results of the cultural resource work to the general public. This program may include, but is not limited to, the following: a short report written specifically for the public, a brochure, exhibits for use at public outreach venues such as archaeology awareness fairs, slide or PowerPoint presentation, presentations to local historical and archaeological societies, and lesson plans and educational materials for use in schools, podcasts, website, and/or social media content or a traveling museum exhibit.

n. A variance review process to be used during operation and maintenance to address any changes in procedure that could have an adverse effect on historic properties in the ROW.

o. A list of operation and maintenance activities that will not require additional Section 106 review.

p. A list of operation and maintenance activities that will require additional Section 106 review.

B. Process for Developing the Historic Properties Treatment Plan

1. The Applicant shall submit the draft HPTP to the BLM for initial review and comments. The BLM shall provide the SHPO/THPO and other Consulting Parties within each state a copy for review, requesting comments on the adequacy of the proposed treatment measures**.** These parties will have 45 calendar days to review and comment on the plan. If no comments are submitted to the BLM within the 45-calendar-day review period, concurrence with the draft HPTP will be assumed.

a. During this review period, the ASM shall invite tribes expressing interest in the Undertaking to participate in development of burial agreements. The ASM shall provide participating tribes with a draft of the burial agreement for a 30-calendar-day review.

b. The BLM will convene at least one consultation meeting in each state with all interested Consulting Parties during the 45-day period.

2. The BLM shall consolidate the comments from Consulting Parties in each state and advise the Applicant of necessary revisions to the draft HPTP. The BLM shall ensure that all comments are taken into consideration in finalizing the HPTP and that the revised HPTP is distributed to all Consulting Parties for a 21-calendar-day review

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period. The BLM, in consultation with the SHPO/THPO, shall approve the final HPTP. The BLM will notify the Applicant and the Consulting Parties when the final HPTP has been approved.

C. The BLM shall ensure that all measures in the HPTP are carried out, including data recovery, analyses of recovered materials, other treatment measures, and all reporting requirements. The Applicant shall provide the BLM with a Summary Report of treatment completed at each site. The Summary Report will include a brief characterization of site assemblage/contents, the types of analyses yet to be completed, and a brief description of how the provisions of the HPTP were implemented.

D. The BLM shall review the Summary Report of treatment that has occurred at each site and provide a copy to the appropriate SHPO/THPO and other Consulting Parties for review, requesting comments and concurrence with eligibility determinations for previously undetermined cultural resources and Discoveries, within 15 calendar days. The BLM shall consider comments submitted during the review period and shall consult with the appropriate reviewer(s) to resolve differences and/or disagreements. If no comments are received within the 15-calendar-day review period, concurrence with the adequacy of the treatment described in the preliminary summary will be assumed.

E. The BLM shall ensure that the Applicant prepares draft Treatment Reports for each state that incorporate the results of all the site-specific preliminary summaries into a comprehensive regional overview for each state. The final Treatment Reports also will include:

1. Post-treatment eligibility recommendations for historic properties that have been subjected to treatment measures.

2. A listing of historic properties for which post-construction monitoring would be appropriate and the reasons for this (i.e., proximity to Undertaking components with the potential for damage from operation and maintenance, percentage of property remaining in ROW, sensitivity of the property, a property identified as being of particular importance to a tribe(s), etc.).

3. The objectives that monitoring could achieve as part of the effort to avoid, minimize, and/or mitigate adverse effects on those properties.

F. The BLM shall review the draft Treatment Reports and provide a copy to the appropriate SHPO/THPO and other Consulting Parties for a 60-calendar-day review and comment period. The BLM shall consider comments received during the review period and shall consult with the appropriate reviewer(s) to resolve differences and/or disagreements. If no comments are received within 60 calendar days, concurrence with the adequacy of the Treatment Report will be inferred.

G. The BLM shall ensure that the Applicant prepares a revised Treatment Report that considers comments received on the draft Treatment Report. The BLM shall review the revised Treatment Report and provide copies to the appropriate SHPO/THPO and other Consulting Parties for a 30-calendar-day review period. The BLM shall consider comments submitted during the review period and shall consult with the appropriate reviewer(s) to resolve differences and/or disagreements. If no comments are received within 30 calendar days, concurrence with the adequacy of the revised Treatment Report

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will be assumed, and the revised Treatment Report shall be considered the final Treatment Report. The BLM shall notify the Applicant when the final Treatment Report has been accepted and will distribute it to the Consulting Parties, if necessary.

H. During the treatment phase, if deviations to the approved plan are warranted, the Applicant will submit proposed deviations from the HPTP to the BLM for review prior to implementation. The BLM shall provide copies of the proposed deviation to the appropriate SHPO/THPO, the tribes, the ASM, and land manager(s) within the respective state for a 15-calendar-day review. The BLM shall consider comments received within the review period and shall determine the adequacy of the proposed deviation. The BLM will notify the Applicant when the deviation has been approved.

IV. Construction Variance Review Process

A. All construction needs cannot be anticipated in advance and areas required for additional work space, access roads, ancillary facilities, reroutes, etc., may be identified at any time following the acceptance of the Inventory Report(s) by the appropriate SHPO/THPO and land managing agencies. If any newly identified construction needs would result in ground-disturbing activities outside of the surveyed areas identified in the Inventory Report, the Applicant will request a variance review from the BLM.

1. The APEs of all variance areas will be consistent with those defined in Stipulation I.A.

2. A Class I, Existing Data Inventory, review and a Class III, Intensive Field Inventory, will be performed on all variance areas.

3. If the proposed variance will affect more than 10 acres of land or more than 1 mile of road, the BLM will provide the Consulting Parties with a description and map of the variance.

B. The following process for review and approval of construction variances will be used.

1. If no cultural resources or properties of traditional cultural or religious importance to tribes are present within the variance APE, the results of the Class I and Class III inventories will be reported on BLM Form AZ-8110-4, Cultural Resource Project Record (for Arizona), or the NMCRIS Investigation Abstract Form (NIAF) (for New Mexico) prior to any access or use. The BLM will provide an expedited review of the variance request, not to exceed 2 working days following receipt, and will provide the Applicant's Cultural Resources Contractor (CRC) with written approval/disapproval of the variance via electronic mail.

2. If cultural resources or properties of traditional cultural or religious importance to tribes are present within the variance APE, an Inventory Report, as defined in Stipulation I.C, above, will be prepared and submitted to the BLM and the appropriate SHPO/THPO, tribes, and land manager for review. Because variance requests may be necessary in the midst of construction activities, the agencies and tribes will provide an expedited review within 5 working days or less. If no objections to the variance are received, at the end of the 5-day period, the BLM shall provide the Applicant's CRC with written approval of the variance via electronic mail. If objections are received, additional consultation regarding the variance will ensue in accordance with the provisions of this PA.

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a. If historic properties exist in the variance APE and cannot be avoided, a Treatment Plan for those properties will be developed and shall be consistent with the HPTP developed pursuant to Stipulation III of this PA.

b. Review procedures shall follow Stipulation III.D.

c. The supplemental Treatment Plan shall be incorporated into the HPTP, and a preliminary Summary Report will be prepared and distributed in accordance with Stipulation III.D.

d. The BLM shall ensure that the results of such treatment efforts are reported in the final Treatment Report for the Undertaking.

e. Once the BLM determines that the approved treatment has been completed, the BLM shall provide the Applicant's CRC with written approval of the variance via electronic mail.

V. Authorization of Construction

Requests for authorizations of construction will be approved only if such authorizations will not restrict subsequent measures to avoid, minimize, or mitigate the adverse effects on historic properties through rerouting of the corridor or placement of ancillary facilities.

A. **No Historic Properties Present**: Upon the BLM's acceptance of the final Inventory Report for each state, as described in Stipulation I, the BLM, at its discretion and pending compliance with all other applicable laws and regulations, may authorize the Applicant to begin construction on lands under any ownership or jurisdiction, subject to the appropriate jurisdiction's right-of-entry and ROW requirements, where there are no historic properties present.

B. **No Adverse Effect**: Upon the BLM's acceptance of the final HPTP for each state, the BLM, at its discretion and pending compliance with all other applicable laws and regulations, may authorize the Applicant to begin construction on lands under any ownership or jurisdiction, subject to the appropriate jurisdiction's right-of-entry and ROW requirements, where all effects on historic properties and unevaluated cultural resources will be avoided (as described in the approved HPTP) subject to the appropriate jurisdiction's right-of-entry and ROW requirements.

C. **Adverse Effect**: Following acceptance of the Summary Report of treatment that has occurred at each site described in Stipulation III.D, the BLM, at its discretion and pending compliance with all other applicable laws and regulations, may authorize the Applicant to begin construction on lands under any ownership or jurisdiction where provisions of the HPTP have been implemented, subject to the appropriate jurisdiction's right-of-entry and ROW requirements.

VI. Discoveries during the Undertaking

A. If potential historic properties are discovered, or unanticipated effects occur on known historic properties, the BLM will implement the Monitoring and Discovery Plan. This plan will be included as a standalone appendix to the HPTP (see Stipulation III.A.4.i) and will incorporate the following:

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1. The Applicant shall ensure that all surface-disturbing activities within 100 feet of the Discovery immediately cease and that measures are taken to protect the cultural resources. The Applicant shall notify the BLM of the Discovery within 24 hours. The BLM shall immediately notify the appropriate SHPO/THPO, tribe(s), and any other agency having jurisdiction over the land involved.
2. If the discovered cultural resource is subsequently identified by an Indian tribe as a property of traditional religious and cultural importance, the BLM shall consult with the appropriate tribe(s).
3. In Arizona on non-Federal lands, the BLM shall ensure that the Discoveries are treated in accordance with ARS § 41-841 et seq. and 41-865.
4. In New Mexico on non-Federal land, the BLM shall ensure that Discoveries follow the process in 4.10.8.20 NMAC.

B. Treatment of the discovered cultural resources shall be consistent with the HPTP developed pursuant to Stipulation III of this PA and shall consider NRHP eligibility of the resource in accordance with 36 CFR § 800.13(c), which assumes eligibility.

1. A preliminary Summary Report with eligibility recommendations(s) will be prepared and distributed in accordance with Stipulation III.D. The BLM shall ensure that the results of such treatment efforts are reported in the final Treatment Report for the Undertaking.
2. Once the BLM determines that the approved treatment has been completed, the Applicant may resume construction upon receiving written authorization from the BLM.

C. If human remains, funerary objects, or objects of cultural patrimony are discovered, BLM will follow the provisions of applicable Federal, state, and local laws, BA (in Arizona and Tohono O'odham Nation), and the NAGPRA POA for the Undertaking, which will be included as an appendix to the HPTP.

1. In Arizona, the Applicant shall promptly report the discovery of human remains to the BLM, which shall notify the ASM Repatriation Coordinator pursuant to ARS § 41-844 (state lands), and pursuant to ARS § 41-865 (private lands).
2. In New Mexico, the Applicant shall report the discovery of human remains to the BLM and local law enforcement and treat such Discoveries of human remains on non-Federal lands consistent with § 18-6-11.2 of the Cultural Properties Act, NMSA 1978, and 4.10.11 NMAC.
3. On lands of the Tohono O'odham Nation, the Applicant shall report the discovery of human remains to the BLM and the Tohono O'odham Nation THPO.
4. Once the BLM has verified that the requirements of NAGPRA or of state laws governing non-Federal and non-tribal lands have been met, the BLM may authorize the Applicant to proceed with construction.

VII. Standards for Conducting and Reporting Work

A. The BLM shall ensure that all work and reporting performed under this PA meets, at a minimum, the *Secretary of the Interior's Standards and Guidelines for Archaeological*

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and Historic Preservation (48 CFR 44716-44742, September 23, 1983) (the Secretary's Standards) and takes into consideration the ACHP's handbook, Section 106 Archaeology Guidance (http://www.achp.gov/archguide); *Procedures For Performing Cultural Resource Fieldwork On Public Lands in the Area of New Mexico State BLM Responsibilities* (BLM Manual Supplement H-8100-1); *Guidelines for Identifying Cultural Resources* (BLM Manual H-8110); and *Guidelines for Evaluating and Documenting Traditional Cultural Properties* (National Register Bulletin No. 38, 1989).

1. In Arizona, on state land, including municipalities, counties, and other political subdivisions, all activities and documentation shall be consistent with ARS § 41-841, et seq., and the Arizona State Historic Preservation Act ARS § 41-861, et seq., along with rules for implementing the AAA and Arizona SHPO guidance on implementing the Arizona State Historic Preservation Act, and shall conform to specifications and guidelines contained in *Reporting Standards: Part I and Part II, Standards for Conducting and Reporting Cultural Resource Surveys on State Lands and Recommended Standards for Monitoring, Testing and Data Recovery,* available online at:

   http://www.statemuseum.arizona.edu/frame/index.php?doc=/crservices/standards.pdf

   Additionally, *AZ SHPO Standards for Documents Submitted for SHPO Review in Compliance with Historic Preservation Laws* (Revised December 2012) shall guide reports for all work done in Arizona, available online at:

   http://azstateparks.com/SHPO/downloads/SHPO_2012_Report_Standards.pdf

2. In New Mexico, on state land, including municipalities, counties, and other political subdivisions, all activities and documentation shall be consistent with the standards in Title 4, Chapter 10, of the NMAC. All activities and documentation on state land shall be consistent with the appropriate state standards found in 4.10.8 NMAC, Permits to Conduct Archaeological Investigations on State Land; 4.10.15 NMAC, Standards for Survey and Inventory; 4.10.16 NMAC, Standards for Excavation and Test Excavation; and 4.10.17 NMAC, Standards for Monitoring. The rules are available online at:

   http://www.nmcpr.state.nm.us/nmac/parts/title04/04.010.0008.htm

   http://www.nmcpr.state.nm.us/nmac/parts/title04/04.010.0015.htm

   http://www.nmcpr.state.nm.us/nmac/parts/title04/04.010.0016.htm

   http://www.nmcpr.state.nm.us/nmac/parts/title04/04.010.0017.htm

B. In Arizona, the Applicant shall ensure that its CRC obtains an AAA project-specific permit from the ASM prior to excavating sites on state lands pursuant to ARS § 41-841 et seq.

C. In New Mexico, the Applicant shall ensure that its CRC obtains a project-specific excavation permit or other appropriate permit from the Cultural Properties Review Committee prior to excavating sites on state lands owned, operated, or controlled by the State of New Mexico pursuant to § 18-6-5 of the Cultural Properties Act, NMSA 1978. For NMSLO lands, the Applicant shall obtain the appropriate rights-of-entry from the NMSLO concurrently with the permit application. The Applicant shall ensure that its

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CRC obtains a permit prior to excavating unmarked human burials on state or private land pursuant § 18-6-11.2 of the Cultural Properties Act, NMSA 1978, or conducting mechanical excavation of archaeological sites on private land in the state of New Mexico pursuant to § 18-6-11 of the Cultural Properties Act, NMSA 1978.

D. On lands of the Tohono O'odham Nation, the Applicant shall ensure that its CRC obtains a project-specific excavation permit from the Tohono O'odham Nation. This is a permit under the Tohono O'odham Nation Archeological Resources Protection Ordinance. Once secured, the CRC shall approach the BIA for an Archaeological Resources Protection Act (ARPA) permit.

VIII. Confidentiality of Records

A. The BLM will maintain confidentiality of sensitive information regarding historic properties to which a tribe attaches religious or cultural significance to the maximum extent allowed by Federal and state law. However, any documents or records the BLM has in its possession are subject to the Freedom of Information Act (FOIA) (5 U.S.C. § 552 et seq.) and its exemptions, as applicable. In the event that a FOIA request is received for records or documents that relate to a historic property to which an Indian tribe attaches religious or cultural significance and that contain information that BLM is authorized to withhold from disclosure by other statutes, including Section 304 of the NHPA and the ARPA, then the BLM will consult with such tribe prior to making a determination in response to such a FOIA request not to withhold particular records and/or documents from disclosure.

B. All Parties to this PA agree that, to the extent consistent with Section 304 of the NHPA, and the Archaeological Resources Protection Act of 1979 (16 U.S.C. § 470aa-mm), 27 Section 9(a), cultural resource data from this project will be treated as confidential by all Consulting Parties and is not to be released to any person, organization, or agency not a Consulting Party to this PA. Duplication or distribution of cultural resource data from this Undertaking by any Consulting Party requires written authorization from the BLM New Mexico State Director.

IX. Curation

A. On all lands other than those of the Tohono O'odham Nation, the Applicant shall arrange curation agreements with repositories approved by the BLM. The BLM shall ensure that all artifacts and records resulting from the inventory and treatment program are curated in accordance with 36 CFR Part 79, except as determined through consultations with Indian tribes carried out in accordance with Federal and state laws pertaining to the ownership of artifacts and treatment and disposition of Native American human remains and funerary objects.

1. All artifacts recovered from lands owned, controlled, or operated by the State of New Mexico, including associated records and documentation, shall be curated at the Museum of New Mexico, Museum of Indian Arts and Culture.

2. All artifacts recovered from lands owned, controlled, or operated by the State of Arizona, including associated records and documentation, shall be curated at the ASM and in accordance with the standards and guidelines required by ASM.

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3. All artifacts recovered from lands of the Tohono O'odham Nation, including associated records and documentation, shall be curated at the Tohono O'odham Nation Cultural Center.

X. Undertaking Monitoring, Annual Reporting, and Evaluation

A. The BLM will be responsible for monitoring activities associated with this Undertaking on all jurisdictions during construction and reclamation.

1. The BLM will select a 10 percent sample of cultural resources found during the inventory and conduct field inspections while accompanied by the CRC to provide input regarding NRHP eligibility and possible future treatment options.

2. The BLM will select a 10 percent sample of historic properties identified for mitigation of adverse effects, and conduct field inspections at those historic properties to ensure adequate implementation of the HPTP for those historic properties.

3. The lead BLM office shall prepare an annual letter report of cultural resources activities pertaining to this Undertaking for all Consulting Parties by December 31 for the duration of this PA. The annual letter report will include an update on Project schedule, status, and any ongoing relevant cultural resources monitoring or mitigation activities, discovery situations, or outstanding tasks to be completed under this PA or the HPTP. The implementation and operation of this PA shall be evaluated on an annual basis by the Consulting Parties. This evaluation, to be conducted after the receipt of the BLM letter report, may include in-person meetings or conference calls among these parties, and suggestions for possible modifications or amendments to this PA.

4. The BLM shall monitor activities pursuant to this PA. Terms and conditions of monitoring activities are described in the Monitoring and Discovery Plan (Stipulation III.A.4.i). Should the Applicant or its CRC fail to comply with any provision of this PA, the BLM may, at its discretion, counsel the Applicant and/or its CRC regarding performance requirements or suspend the permit under which this PA is executed. Such suspension would result in the issuance of a "stop work" order for the entire Project.

5. The BLM will remain responsible to inspect for compliance with the terms and conditions of the BLM ROW grant pertaining to historic properties for the life of the grant, and will ensure that the appropriate BLM cultural resources specialist participates in these compliance reviews.

XI. Operation and Maintenance of the Transmission Line and Facilities

A. After construction of the transmission lines, the Applicant (ROW grant holder) will be required to follow all of the terms, conditions, and stipulations concerning the operation and maintenance of the lines that are included in the POD and the ROW grants. These terms, conditions, and stipulations will include any provisions identified in the HPTP that resolve potential adverse effects on historic properties identified within the ROW.

1. The BLM will be responsible for ensuring that the stipulations in the BLM ROW grant are enforced.

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2. The ASLD will be responsible for ensuring that the stipulations in their ROW grant are enforced on ASLD administered lands.

3. The NMSLO will be responsible for ensuring that the stipulations in their ROW grant are enforced on NMSLO administered lands.

4. The BIA and Tohono O'odham Nation will be responsible for ensuring that the stipulations in their ROW grant are enforced on the Tohono O'odham Nation.

B. Post-construction evaluation and management of historic properties are described in Stipulation III.E.1–III.E.3.

C. Should any variance be necessary during operation and maintenance, the Applicant will follow the variance procedure in the HPTP, and a BLM cultural resource specialist will review the action and make recommendations regarding potential effects and appropriate actions to avoid, minimize, or mitigate any adverse impacts (e.g., using hand tools if mechanical vegetation treatments are proposed in sensitive areas).

XII. Decommissioning

Should decommissioning of the transmission line and associated facilities be deemed necessary at any point, the ROW grant shall stipulate and the BLM shall ensure that it will be considered a new action for Section 106 review and that historic properties potentially affected by decommissioning will be considered in the BLM-approved Termination and Reclamation Plan in accordance with the pertinent laws, regulations, and policies extant at the time.

XIII. Dispute Resolution

A. Should any Consulting Party to this PA object at any time to any actions proposed or the manner in which the terms of this PA are implemented, that party shall notify BLM in writing expressing its concern with proposed modifications. The BLM shall consult with such party to resolve the objection. If the BLM determines that such objection cannot be resolved, BLM will:

1. Forward all documentation relevant to the dispute, including the BLM's proposed resolution, to the ACHP, asking that office to provide BLM with its advice on the resolution of the objection within 30 days of receiving adequate documentation. Prior to reaching a final decision on the dispute, BLM shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP and Consulting Parties, and provide them with a copy of this written response. The BLM will then proceed according to its final decision.

2. If the ACHP does not provide its advice regarding the dispute within the 30-day period, the BLM may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, the BLM shall prepare a written response that takes into account any timely comments regarding the dispute from the Consulting Parties, and provide them and the ACHP with a copy of such written response.

3. The BLM will be responsible for carrying out all other actions subject to the terms of this PA that are not the subject of the dispute.

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XIV. Amendments and Termination

A. Any Signatory or Invited Signatory to this PA may request that it be amended by informing BLM in writing of the reason for the request and the proposed amendment language, whereupon BLM shall inform the other parties and request their views concerning the proposed amendment. The amended PA shall take effect upon final signature by the ACHP.

B. Pursuant to 36 CFR § 800.6(c) (8), if any Signatory or Invited Signatory to this PA determines that the terms of the PA cannot be or are not being carried out, then such party must provide written notice to the BLM and the other Signatories and Invited Signatories stating the reasons for the determination and requesting consultation to resolve the stated concerns through amendment of the PA or other means. The Signatories and Invited Signatories shall consult regarding potential amendments to the PA to resolve the stated concerns within 30 calendar days of the written request. If the Signatories and Invited Signatories are unable to amend the PA or agree on other actions to resolve the concerns, and it has been determined that the terms of the PA cannot be or are not being carried out, provided that they consult during the 30-calendar-day period, the objecting party may terminate the PA by providing written notice to the Signatories and Invited Signatories.

C. In the event that this PA is terminated, the BLM shall comply with 36 CFR § 800.6 (c) (8) and will take reasonable steps to avoid adverse effects on historic properties until another PA has been executed or will request, take into account, and respond to Council comments, in accordance with 36 CFR § 800.7. The BLM will notify all parties to this PA as to the course of action it will pursue.

XV. Term of the Programmatic Agreement

This PA will expire if the Undertaking has not been initiated within 5 years of the signing of this PA, or the BLM ROW grant expires or is withdrawn. Otherwise, this PA shall take effect from the date of execution and will remain in effect for 15 years or until acceptance of the final Treatment Reports by the Signatories.

XVI. Non-endorsement Clause

Nothing in this PA should be interpreted to imply that any party endorses the Southline Transmission Line Project. The parties will not take any action or make any statement that suggests or implies such an endorsement based on signing this PA.

The Execution and Implementation of this PA evidences that the BLM, as lead Federal agency, has satisfied its Section 106 responsibilities with regard to the construction, operation, and maintenance of the Southline Transmission Line Project.

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ATTACHMENT 1: PROJECT DESCRIPTION

In Development

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ATTACHMENT 2: LOCATION OF UNDERTAKING

In Development

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ATTACHMENT 3: DEFINITIONS FOR TERMS USED IN THIS PROGRAMMATIC AGREEMENT

Adverse Effect – Alteration of the characteristics of a historic property qualifying it for inclusion in or eligibility for the NRHP.

Area of Potential Effects (APE) – The geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking (36 CFR §800.16(d)).

Authorized Officer – The authorized officer for this Undertaking is the BLM Las Cruces District Manager and/or his or her delegated representative.

Consultation – The process of seeking, discussing, and considering the views of other participants, and, where feasible, seeking agreement with them regarding matter that arise in the Section 106 process. The Secretary's "Standards and Guidelines for Federal Agency Preservation Programs pursuant to the National Historic Preservation Act" provide further guidance on consultation.

Consulting Party – Any party that has participated in the development of this PA and has indicated intent to participate in consultations during its implementation either by signing in concurrence or by written notification to the agency official. The refusal of any party invited to sign the PA, other than the Signatories, does not invalidate the PA. Consulting Parties include:

Signatory – Parties who have legal or financial responsibilities for completions of stipulations of the PA. The signatories have sole authority to execute the Agreement, and together with the Invited Signatories, to amend or terminate the PA.

Invited Signatory – The authorized official may invite additional parties to sign the PA and upon signing, they have the same rights with regard to amendments and termination as the signatories. These parties have legal responsibility in terms of the Undertaking, such as the issuance of a permit, license or ROW, and they have a compliance responsibility under the NHPA or a state cultural resource statute.

Concurring Party – A party who signs this PA but is not legally or financially responsible for completion of stipulations set forth in the PA.

Construction – The construction phase begins when BLM has issued a ROW grant to the proponent for the Undertaking. It includes all activities related to construction of the Undertaking, including activities required to be completed in advance of construction, as well as all activities completed in order to reclaim lands disturbed during construction for 2 years after construction is completed or until cost recovery agreements related to construction expire.

Cultural Resource – Any location of human activity, occupation, or use identifiable through field inventory, historical documentation, or oral evidence. The term includes archaeological, historic, or architectural sites, landscapes, buildings, structures, objects, and places that possess

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historic and/or cultural significance as well as places with important public and scientific uses, and may include definite locations (sites or places) of traditional cultural or religious importance to specified social and/or cultural groups. Cultural resources may be but are not necessarily eligible for the NRHP; these properties have not been evaluated for NRHP eligibility.

Cultural Resource Consultant/Contractor (CRC) – A qualified and permitted professional consultant in cultural resources (archaeologist, historian, ethnographer, historic architect, architectural historian, or anthropologist) who is responsible for implementing cultural resource inventories and who prepares cultural resource documents, reports, analysis, records, and professional literature. CRCs must meet the Secretary of the Interior's Professional Qualification Standards and hold appropriate permits from land managing agencies.

Cultural Resource Inventory (from H-8100-1) –

Class I – Existing data inventory: Large-scale review of known cultural resource data.

Class II – Sampling field inventory: Sample oriented field inventory.

Class III – Intensive field survey: A complete surface inventory of a specific area involving a systematic field examination of an area to gather information regarding the number, location, condition, distribution, and significance of cultural resources present, typically requiring a systematic pedestrian review of an area with transect intervals that shall not exceed 50 feet (15 meters).

Decommissioning – The action in which the transmission line(s) and/or related facilities such as substations are taken out of commission (cease to operate) and are physically dismantled.

Discovery – A previously unknown cultural resource identified in the APE during construction, subsequent to the Class III Inventory.

Effects – Alterations to the characteristics of a historic property qualifying it for inclusion in or eligibility for the NRHP –

Direct effects are caused by the Undertaking and occur at the same time and place.

Indirect effects are also caused by the Undertaking and are effects that may be visual, atmospheric, or audible that could diminish the integrity of the properties.

Cumulative effects are the impacts on cultural resources that result from the incremental impact of the Undertaking when added to other past, present, and reasonably foreseeable future actions, regardless which agency (Federal or non-Federal) or person undertakes such other actions (under 40.CFR § 1508.7). Cumulative effects may be direct or indirect and result from incremental effects related to the Undertaking over time (e.g., increased access because of new roads, future transmission lines along the same corridor, new projects feeding into the Undertaking, etc.). Additional roads and visitors to the area (construction personnel, recreationists, etc.) also increase opportunities for effects from pot hunting, vandalism of historic properties, and disruption of spiritually important sites.

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Eligible (for Inclusion in the NRHP) – Includes both properties formally determined as such in accordance with regulations of the Secretary of the Interior and all other properties that meet the National Register criteria as determined by the Federal agency in consultation with the SHPO/THPO and other parties.

Historic Property – Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria.

Historic Properties Treatment Plan (HPTP) – A document that details the procedures and techniques for resolving adverse effects on historic properties within the APE through avoidance, minimization, and/or mitigation.

Indian Tribe – Any Indian tribe, band, nation, or other organized group or community, including a native village, regional corporation, or village corporation, as those terms are defined in section 3 of the Alaska Native Claims Settlement Act (43 U.S.C. 1602), which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

Integrity – Refers to location, design, setting, materials, workmanship, feeling, and association as defined in 36 CFR 60.

Inventory Report – The Inventory Report documents the results of the cultural resources inventory detailing the areas surveyed, the methodologies used, the cultural framework of the project area, and the cultural resources discovered and documented. It includes assessments of direct, indirect, and cumulative effects within the APE of the Undertaking. It also provides recommendations on NRHP eligibility of all of the cultural resources within the inventoried area.

Monitoring and Discovery Plan – The Monitoring and Discovery Plan is a component of the HPTP and (1) provides a detailed plan to monitor compliance with stipulations of the HPTP to avoid, minimize, or mitigate adverse effects of the Undertaking, (2) may include specific plans where monitoring is necessary to help resolve adverse effects on historic properties, (3) establishes procedures to follow in the event that previously undiscovered cultural resources are encountered during the Undertaking, and (4) includes a POA developed specifically to address the handling of human remains pursuant to the NAGPRA and applicable state laws. All monitoring plans shall explicitly state the objectives of the monitoring and provide a methodology for attaining these objectives.

Monitoring Report – A document that summarizes the results of monitoring activities performed as outlined within the HPTP.

NAGPRA Plan of Action (POA) – A document that establishes procedures for ensuring the proper treatment of Native American remains and related grave goods encountered on Federal lands pursuant to 43 CFR § 10.

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National Register of Historic Places (National Register, or NRHP) – The NRHP is the official list of the Nation's prehistoric and historic places worthy of preservation, including districts, cultural resources, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture and is maintained by the Secretary of the Interior.

National Register Criteria – The criteria of significance established by the Secretary of the Interior for use in evaluating the eligibility of properties for inclusion in the National Register (36 CFR Part 60).

Operation and Maintenance – Activities associated with operation and maintenance of the approved ROW grant over the life of the ROW grant. This includes all activities related to the functioning of the Undertaking after construction and reclamation are completed and prior to any activities related to decommissioning of the Undertaking, in accordance with Stipulation XI. Activities during this this time are generally infrequent, predictable, and routine. Any actions not specifically approved in the ROW grant, such as changes in equipment used or actions outside the ROW require approval of the BLM.

Plan of Development (POD) – The final POD is a BLM approved document that will be an enforceable term and condition as part of the BLM approved ROW authorization. Contributors in the development of the final POD prior to construction will include the ASLD and NMSLO. The Arizona and New Mexico surface managing agencies will be responsible for developing and enforcing their respective stipulations as they deem necessary to mitigate natural and cultural resource impacts, on state administered lands. Should the Arizona and New Mexico agencies choose to adopt the terms, conditions, and special stipulations as outlined in the final POD on their respective state authorized ROWs, responsibility to enforce these final POD terms, conditions, and stipulations is strictly their sole responsibility. Enforcement will be between the state agency and the applicant.

Programmatic Agreement (PA) – A document that records the terms and conditions agreed upon to resolve the potential adverse effects of a Federal agency program, complex Project, or other situations in accordance with 36 CFR § 800.14(b).

Right-of-Way (ROW) – The public lands BLM authorizes to use or occupy under a grant. The PA and the HPTP are appended to the POD, which is an essential component of the ROW grant.

Section 106 – Section 106 of the National Historic Preservation Act of 1966 requires Federal agencies to take into account the effects of their undertakings on historic properties and afford the ACHP a reasonable opportunity to comment. The historic preservation review process mandated by Section 106 is outlined in regulations issued by the ACHP. Revised regulations, "Protection of Historic Properties" (36 CFR Part 800), became effective on August 5, 2004.

State Historic Preservation Officer (SHPO) – The official appointed or designated pursuant to section 101(b) (1) of the act to administer the State Historic Preservation Program or a representative designated to act for the SHPO.

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Summary Report – A document that summarizes results of treatment activities undertaken on an individual historic property for the purposes of informing the agency and Consulting Parties for the purposes of gaining approval for the Project to go forward prior to the acceptance of the final Treatment Report.

Termination and Reclamation Plan – A document that addresses the removal of Project facilities from permitted areas and addresses reclamation procedures identified by land management agencies in conjunction with project owners, prior to decommissioning.

Treatment Report – A document that presents the complete results of the treatment activities performed on all historic properties (and any undetermined cultural resources for which additional studies were performed to determine eligibility), addresses the research questions developed in the Treatment Plan, and synthesizes the results into a regional overview of the Project area.

Tribal Historic Preservation Officer (THPO) – The tribal official appointed by the tribe's chief governing authority or designated by a tribal ordinance or preservation program who has assumed the responsibilities of the SHPO for purposes of Section 106 compliance on tribal lands in accordance with Section 101(d) (2) of the NHPA.

Undertaking – A project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of a Federal agency; those carried out with Federal financial assistance; and those requiring a Federal permit, license, or approval. The Undertaking may include surveys, geotechnical testing, engineering, mitigation planning and design, or other activities initiated prior to construction of Project facilities.

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